

Oil Market Report

19 January 2016

HIGHLIGHTS

- **Markets were routed in December as persistent oversupply, bloated inventories and a slew of negative economic news pressured prices so that by mid-January crude oil touched twelve-year lows.** At the time of writing, both ICE Brent and NYMEX WTI had sunk below \$30/bbl. ICE Brent was last trading at \$28.86/bbl with NYMEX WTI forty cents higher at \$29.26/bbl.
- **Exceptionally mild temperatures in the early part of the winter** in Japan, Europe and the US, alongside **weak economic sentiment** in China, Brazil, Russia and other commodity-dependent economies, saw global oil demand growth flip from a near five-year high in 3Q15 (2.1 mb/d) to a one-year low in 4Q15 (1.0 mb/d). The outlook for 2016 has demand growth moderating to 1.2 mb/d.
- **Global oil supplies expanded by 2.6 mb/d in 2015, following hefty gains of 2.4 mb/d in 2014.** By December, however, growth had eased to 0.6 mb/d, with lower non-OPEC production pegged below year-earlier levels for the first time since September 2012.
- **OPEC crude output eased by 90 kb/d in December to a still-lofty 32.28 mb/d, including newly-rejoined Indonesia.** Iran, now relieved of sanctions, insists it will boost output by an immediate 500 kb/d. Our assessment is that around 300 kb/d of additional crude could be flowing to world markets by the end of 1Q16.
- **Global inventories rose by a notional 1 billion barrels in 2014–15 with the fundamentals suggesting a further build of 285 mb over the course of 2016.** Despite significant capacity expansions over 2016, this stock build will put storage infrastructure under pressure and could see floating storage become profitable.
- **Global refinery runs averaged 79.5 mb/d in 4Q15, down 0.3 mb/d on last month's estimate** due to lower-than-expected throughputs in Other Asia and a very high maintenance schedule in October. Global refinery margins weakened in December as middle distillate cracks fell and overwhelmed the resilience of gasoline and naphtha.

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Can it go any lower?

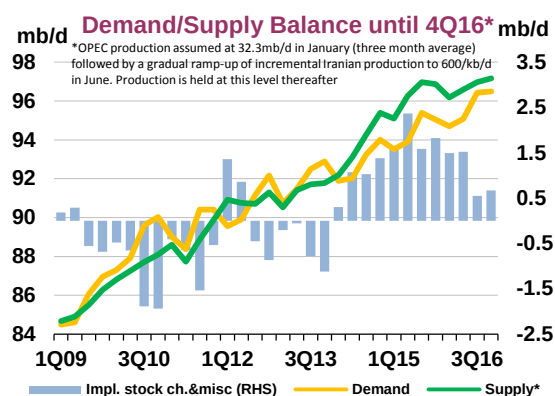
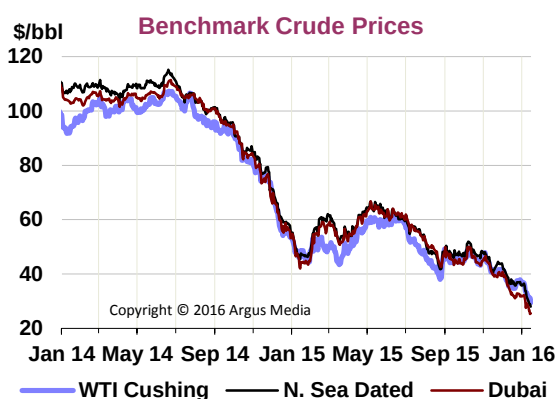
Iran's return to the oil market confirms what has been inevitable for six months since the P5+1 deal was signed in Vienna last July. Now the suspense is over, attention switches to the impact on oil market balances and the likelihood of further declines in oil prices following a torrid start to 2016. In the first two weeks of the year, both WTI and Brent settled below \$30/bbl and a procession of investment banks has warned that oil prices "could" fall to \$25/bbl, \$20/bbl or, in one case, \$10/bbl. From the world of Big Oil, BP eliminated another 4,000 jobs and Petrobras slashed its five-year investment programme by 25%, clear signs – and there are many other examples – of expectations for a long period of lower prices.

Some analysts argue that the easing of sanctions on Iran is already "priced in" to the market. There are considerable uncertainties around the quality and quantity of oil that Iran can offer to the market in the short term and the not inconsiderable challenge of finding buyers willing to take more oil into an already glutted market. However, if Iran can move quickly to offer its oil under attractive terms, there may be more "pricing in" to come. Time will tell. (See *'Iran is back'*.)

In publishing our first OMR of 2016 we conclude that the oil market faces the prospect of a third successive year when supply will exceed demand by 1.0 mb/d and there will be enormous strain on the ability of the oil system to absorb it efficiently (see *'Global oil storage capacity to surge in 2016 and beyond'*). On what we must struggle to call the bullish side, non-OPEC oil production is projected to fall by 600 kb/d; but this will inevitably be largely offset by higher production from Iran. Nor can we expect other Middle East producers to stay on the sidelines; their regularly stated policy is to protect market share and allow the price to find its level. Saudi Arabia's sharp increase in domestic fuel prices is a sign that OPEC's top producer is preparing for a long period of lower prices.

Although 2015 saw one of the highest volume increases in global oil demand this century, we have long believed that this could not be repeated in 2016. But, with crude oil prices plunging below \$30/bbl, must we expect some boost to the rate of growth in 2016? Unfortunately, the New Year has been awash with pessimism about economic growth. This was starkly illustrated when the World Bank said on 6 January that growth in developing countries in 2015 was the slowest since 2001 and today's varied travails in Brazil, China, and Russia mean that 2016 will see little, if any, improvement. The strength of the dollar will inevitably impact on local currency costs for oil importers and thus exert pressure on oil demand growth. For China, for so long the engine of global demand growth, we expect demand to increase by 350 kb/d, below the recent trend level.

Although we do not formally forecast OPEC oil production, in a scenario whereby Iran adds 600 kb/d to the market by mid-year and other members maintain current output, global oil supply could exceed demand by 1.5 mb/d in the first half of 2016. While the pace of stock building eases in the second half of the year as supply from non-OPEC producers falls, unless something changes, the oil market could drown in over-supply. So the answer to our question is an emphatic yes. It could go lower.



DEMAND

Summary

- After achieving very high growth in the middle of last year, **gains in global oil demand will ease back towards their long-term trend in 2016**. This adjustment commenced in 4Q15 – as anticipated in recent editions of this *Report* – on notable slowdowns in Europe, Japan, the US and China.
- The **exceptionally mild temperatures in December** in Japan, the US and Europe, **alongside weaker economic sentiment** in China, Brazil, Russia and other commodity-dependent economies, saw year-on-year (y-o-y) oil demand growth flip from a near five-year high of 2.2 mb/d in 3Q15 to 1.0 mb/d in 4Q15. Although we had forecast a swing, the 4Q15 slowdown surprised us with its severity, shaving 0.2 mb/d from 4Q15 global demand estimate, to 95.1 mb/d.
- **Subsidy cuts in the Middle East will curb the short-term demand outlook**, with prospective Saudi Arabian oil demand growth more than halving in 2016 on higher product prices and a deteriorating macroeconomic backdrop.
- **The latest demand data from the US confirm the 4Q15 slowdown**. Down by 125 kb/d compared to the corresponding period last year, to 19.4 mb/d, oil demand in the US eased back as industrial oil use weakened alongside slowing gains in gasoline.
- Estimates of **Chinese oil product demand suffered a stark slowdown** in November, as weakening growth in the Chinese economy finally dampened oil demand. Particularly weak performances in gasoil and residual fuel oil led November's correction, more than offsetting the still relatively robust conditions in LPG and naphtha.
- **Recent weakness seen in Brazilian oil demand** continued into November, with even gasoline joining the malaise. Brazil's ailing economy is seriously impacting demand for all products.

Global Oil Demand (2014-2016)

(million barrels per day)

	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Africa	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.1	4.1	4.3	4.2	4.1	4.3	4.2
Americas	30.5	30.5	31.3	31.5	31.0	30.9	30.9	31.6	31.2	31.2	31.0	30.9	31.5	31.6	31.3
Asia/Pacific	31.3	30.4	29.9	31.5	30.8	32.2	31.5	31.3	32.3	31.8	32.8	32.3	32.2	33.2	32.6
Europe	13.7	14.1	14.6	14.2	14.1	14.1	14.2	14.9	14.3	14.4	14.1	14.4	14.7	14.3	14.4
FSU	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.7	4.8	5.0	4.9	4.9
Middle East	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.4	8.8	8.2	8.3
World	91.9	92.0	93.2	94.0	92.8	93.5	93.9	95.4	95.1	94.5	94.7	95.1	96.4	96.5	95.7
Annual Chg (%)	1.3	0.6	0.8	1.2	1.0	1.8	2.0	2.3	1.1	1.8	1.3	1.3	1.1	1.5	1.3
Annual Chg (mb/d)	1.2	0.6	0.7	1.1	0.9	1.6	1.9	2.2	1.0	1.7	1.2	1.2	1.0	1.4	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.1	0.0	0.0	-0.2	-0.1

Global Overview

To regular readers of this *Report* the 4Q15 slowdown is not a surprise but its pace certainly is. Peaking at a near five-year high of 2.2 mb/d y-o-y in 3Q15, global oil product demand growth dramatically eased to 1.0 mb/d in 4Q15, 0.2 mb/d below the forecast in last month's *Report*. Warmer early-winter northern hemisphere temperatures, compared to the year earlier, provided some of the impetus for growth decelerating, as did weakening macroeconomic conditions in China, Brazil, Russia and other commodity-dependent economies.

In 2016 we expect a continuation of the recent weakening in demand growth, albeit minus the warm-weather handicap. Growth should accordingly average around 1.2 mb/d in 2016, taking deliveries up to 95.7 mb/d for the year as a whole. As in 2015 gasoline is projected to represent the largest part of the growth – at 37% – with gasoil well behind – at 19% – as industrial growth lags the consumer and service sectors.

Warmer early-winter weather suppresses OECD oil demand

With northern hemisphere temperatures in 4Q15 notably above normal, the traditional fourth quarter demand boost was absent. A normally reliable trend in the fourth quarter of each year is higher deliveries over the third quarter, arising from additional northern hemisphere space heating. Reversing the previous six-year pattern, 4Q15 global oil product demand fell compared to 3Q15 on this anaemic early-winter heating stimulus.

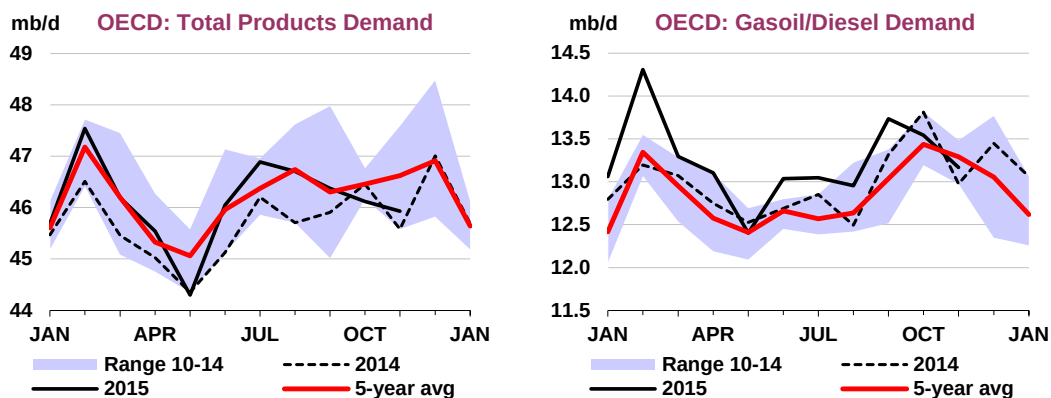
OECD countries, with a bias to the northern hemisphere, habitually carry the largest 4Q premium, but OECD demand data suggests a complete turnaround. Having averaged quarter-on-quarter (q-o-q) growth of +190 kb/d over the previous five years, 4Q15 saw OECD demand contract by 375 kb/d. Gasoil was heaviest hit – it is the space heating liquid fuel of choice in most OECD economies – with 4Q15 q-o-q demand up by only 60 kb/d. This is 455 kb/d below the five-year average.

In the major OECD heating oil markets (US, Germany, France and the UK) space heating requirements eased as the number of heating-degree days fell by 18.7%, 6.0%, 4.3% and 17.5% respectively. These countries accordingly saw their combined q-o-q gasoil demand growth ease back by around 0.3 mb/d versus the previous five-year average, although other sectors of the economy will have influenced gasoil demand. Japan, where kerosene is the prominent space heating oil product, saw a further 35 kb/d demand discrepancy, versus the five-year average, and a 21.8% drop in the number of heating-degree days.

With tentative projections of colder winter weather conditions in 1Q16 the traditional first quarter slide (previous five year average down 0.4 mb/d q-o-q) may ease as the heating requirement rises.

OECD

A combination of warm weather (see *Warmer early-winter weather suppresses OECD oil demand*) and stuttering macroeconomic conditions ended the previous three-quarter rally in OECD oil demand. Falling by 75 kb/d in 4Q15, compared to the year earlier, after respective gains of 645 kb/d, 455 kb/d and 720 kb/d in the previous three quarters, overall OECD momentum was stalled by dramatically deteriorating gasoil/diesel demand. Indeed, for 2016 little prospect of growth is seen with total deliveries expected to maintain the status-quo around 46.2 mb/d. In 2016 demand will be flat for gasoline, jet/kerosene and gasoil, while absolute gains in LPG (including ethane) – attributable to additional petrochemical demand – are offset by forecast declines in residual fuel oil use.



OECD Demand based on Adjusted Preliminary Submissions - November 2015

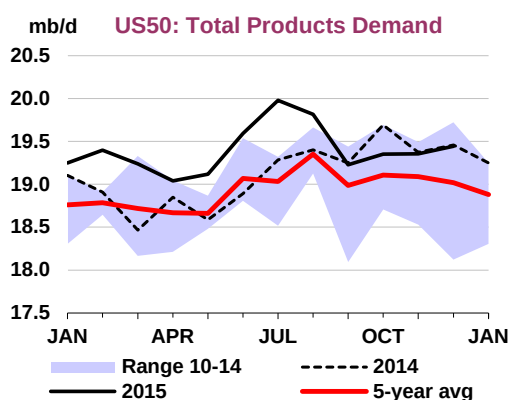
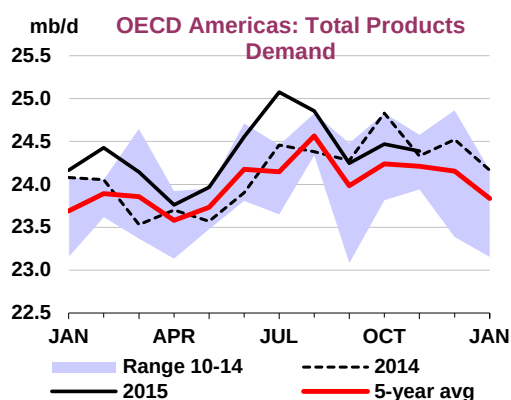
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	10.73	1.2	1.84	6.3	4.66	-0.3	0.49	-0.3	0.53	-17.1	6.13	-0.77	24.39	0.2
US50	9.01	1.0	1.56	5.4	3.77	-0.7	0.14	13.9	0.23	-31.7	4.64	-1.43	19.35	-0.1
Canada	0.83	0.1	0.14	16.4	0.33	7.6	0.27	-5.5	0.04	-38.3	0.82	6.26	2.42	2.3
Mexico	0.76	4.2	0.07	10.0	0.35	-7.8	0.05	-6.9	0.16	22.3	0.57	-5.29	1.96	0.0
OECD Europe	1.86	2.6	1.26	10.3	4.71	3.1	1.48	4.3	0.82	-12.5	3.38	6.24	13.51	3.4
Germany	0.41	-3.5	0.17	-5.5	0.77	2.3	0.36	-2.4	0.12	-10.1	0.59	10.02	2.41	1.0
United Kingdom	0.30	-1.1	0.35	24.9	0.52	0.4	0.14	-0.2	0.02	-22.8	0.26	2.18	1.59	4.4
France	0.15	6.1	0.14	4.0	0.67	4.0	0.19	-15.2	0.04	-21.3	0.27	-1.49	1.47	-0.6
Italy	0.21	13.0	0.08	-1.3	0.46	-5.8	0.10	148.0	0.07	15.3	0.37	16.76	1.28	10.0
Spain	0.10	4.9	0.10	-3.7	0.44	6.9	0.18	5.8	0.13	-12.6	0.26	-5.34	1.21	0.4
OECD Asia & Oceania	1.53	-0.6	0.88	-4.1	1.29	0.8	0.54	-0.3	0.60	-3.6	3.19	-2.89	8.03	-1.9
Japan	0.90	-1.4	0.50	-9.8	0.39	-3.1	0.38	-3.2	0.27	-26.9	1.57	-8.77	4.01	-7.9
Korea	0.21	5.5	0.20	3.7	0.37	6.5	0.12	8.0	0.28	37.8	1.36	4.45	2.55	7.9
Australia	0.30	-3.0	0.14	6.1	0.44	0.7	0.00	100.0	0.03	4.0	0.18	-2.40	1.08	-0.1
OECD Total	14.12	1.2	3.98	5.0	10.66	1.3	2.51	2.4	1.95	-11.3	12.71	0.44	45.93	0.8

* Including US territories

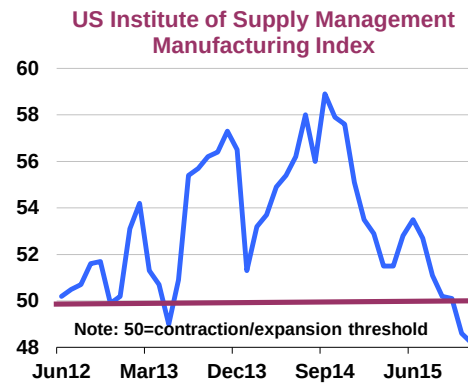
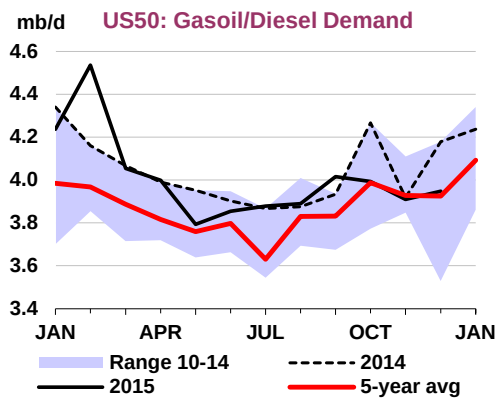
Americas

Total oil deliveries across the OECD Americas flattened in November at 24.4 mb/d, as the US lost momentum. Rising by a tiny 0.2% y-o-y in November it is clear that growth in the final third of 2015 turned negative. Sharply declining gasoil demand was the key catalyst due to warm weather and stuttering industrial activity. Falling gasoil demand was accompanied by sharply decelerating gasoline demand growth.

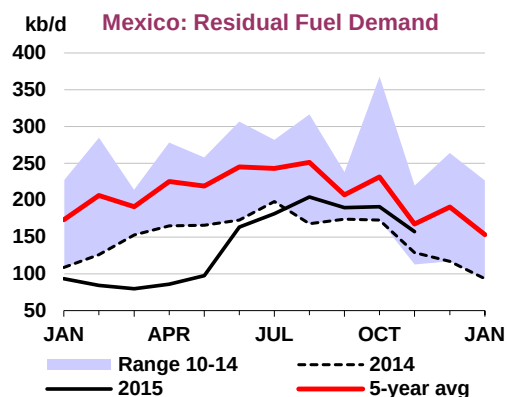
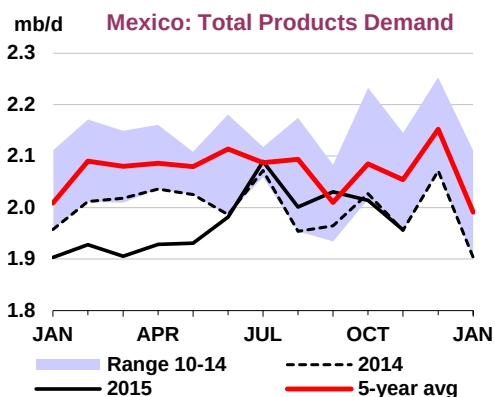


Having risen by an average of 2.3% y-o-y through the first nine months of 2015, the latest official data for the US shows a 1.7% y-o-y decline in October. Preliminary estimates for November and December suggest that growth is disappearing (-0.1% average, y-o-y) through the final two months of the year. Gasoline and jet fuel have been the two most sizeable contributors to US demand growth, but even here support has started to wane recently. Gasoline and jet/kerosene demand rose by 1.0% and 4.2%, respectively, in 4Q15 compared to the average gains of 3.0% and 4.5% posted 1Q15-3Q15.

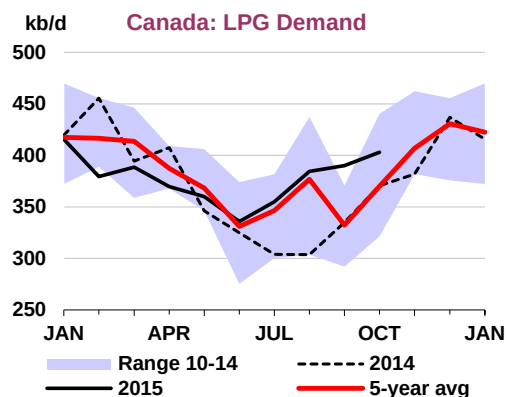
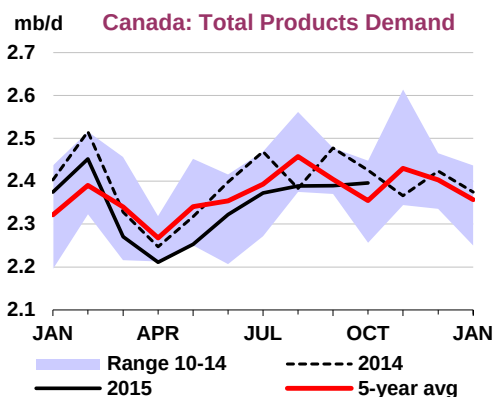
In the US, the Institute of Supply Management's Manufacturing Purchasing Managers' Index (PMI) fell into negative territory in November and December, reflecting the continuing deterioration in US manufacturing sentiment that started late in 2014. Poorer industrial sentiment is immune to persistently lower oil prices, with US gasoil demand down sharply in 4Q15, -175 kb/d y-o-y to 4.0 mb/d. Alongside the deteriorating PMI numbers, the latest industrial output numbers from the US Federal Reserve showed a 1.2% contraction in November, the first such y-o-y slide since the Great Recession.



Pulled down by some very weak diesel demand numbers, **Mexican** oil deliveries averaged 2.0 mb/d in November, roughly unchanged on the year earlier. Down by 35 kb/d y-o-y in November, Mexican gasoil/diesel demand stuttered but residual fuel oil demand rose by 30 kb/d, to 155 kb/d as power sector usage rose strongly. The Mexican Secretaria de Energia reported that notoriously volatile power sector oil use rose by roughly one-quarter compared to a year ago, reflecting sharp decelerations in coal use. Strong gains in the transport sector, largely gasoline, also provided a substantial offset to weak diesel demand. Looking ahead to 2016, deliveries should flatten at around 2.0 mb/d, as persistently lower oil prices dampen crude export revenues and activity in the domestic oil industry.

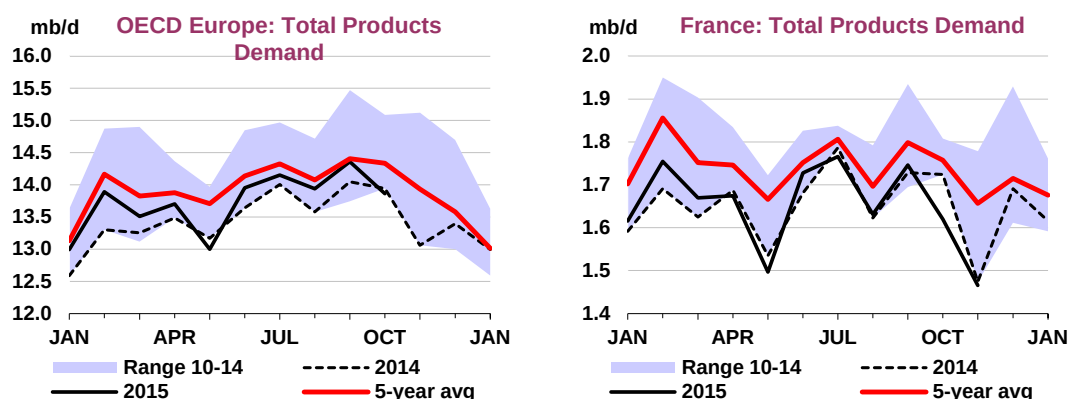


The latest **Canadian** demand numbers reflect the recently declining OECD American demand trend, albeit with October's 2.4 mb/d number a 40 kb/d upgrade from our number published last month. Picking up somewhat on rising demand from the petrochemical industry, gains in LPG and jet fuel demand eased the full scale of October's contraction, with dramatic declines seen in gasoil, residual fuel oil and gasoline.

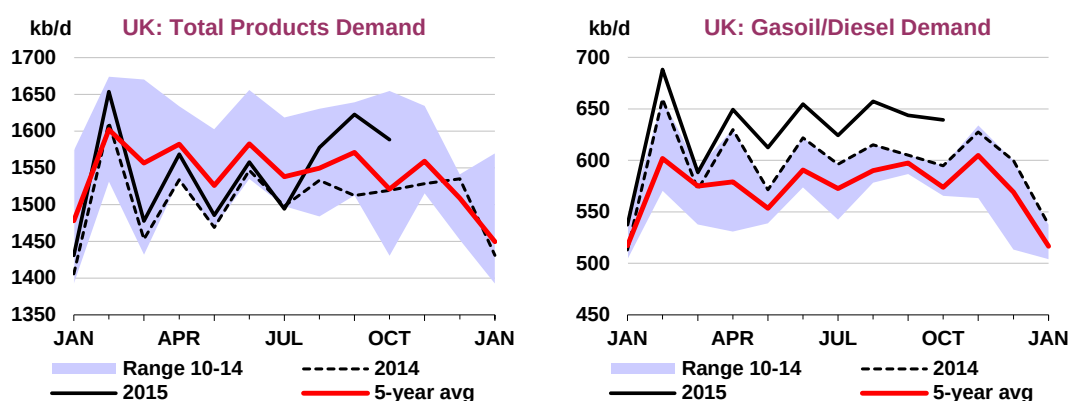


Europe

We have seen a change to the 2014 baseline data with a modest change of 70 kb/d to a revised total European demand level of 13.5 mb/d. The revision was chiefly attributable to the **Turkish** authorities releasing a more accurate jet fuel demand estimate. Data for 2015 was not affected by the revision. In 4Q15 we saw demand falls in France (-4.9% y-o-y), Germany (-0.9%) and Poland (-0.3%) that more than offset the strength seen in Italy (+4.7%), the UK (+2.2%) and the Netherlands (+3.3%). Overall European oil deliveries eased to an estimated 13.6 mb/d in 4Q15, 585 kb/d below 3Q15's four-year peak but still 95 kb/d up on the corresponding period a year ago. The most dramatic European laggard in 4Q15 was **France** with a near 80 kb/d y-o-y decline attributable to weak industrial demand, with declines seen in gasoil, LPG, residual fuel oil and 'other product' demand. Growth is unlikely to resurface, any more than intermittently, in either France or OECD Europe in general in 2016.



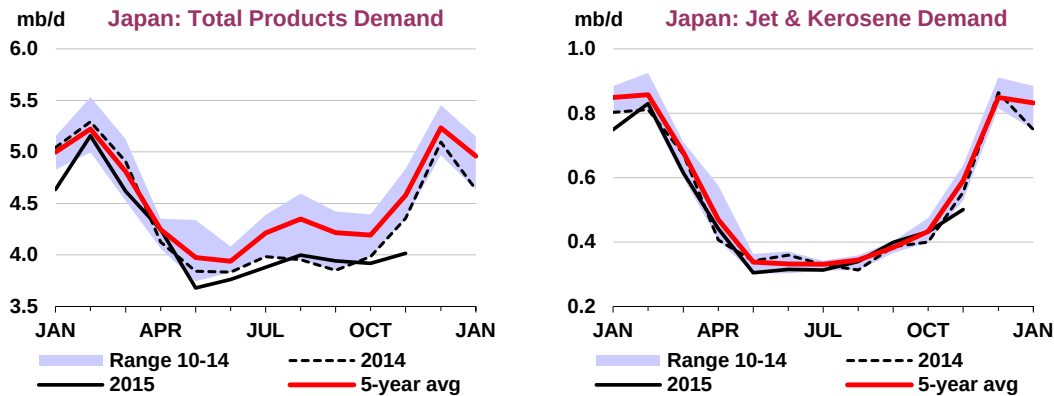
Lifted by the recent strength demonstrated by the **UK** economy, oil deliveries posted their second successive gain of more than 60 kb/d taking demand up to 1.6 mb/d in October. Rising by 1.7% y-o-y in the same month, according to the Office for National Statistics, industrial output across the wider UK economy continues to rise at a reasonably strong rate, stimulating robust gains in gasoil and LPG. Deliveries look to have risen by around 25 kb/d in 2015, to 1.5 mb/d, supported by sharply falling prices and relatively strong economic growth. Demand will be flat in 2016 as the impetus from previously falling oil prices wanes and economic growth moderates.



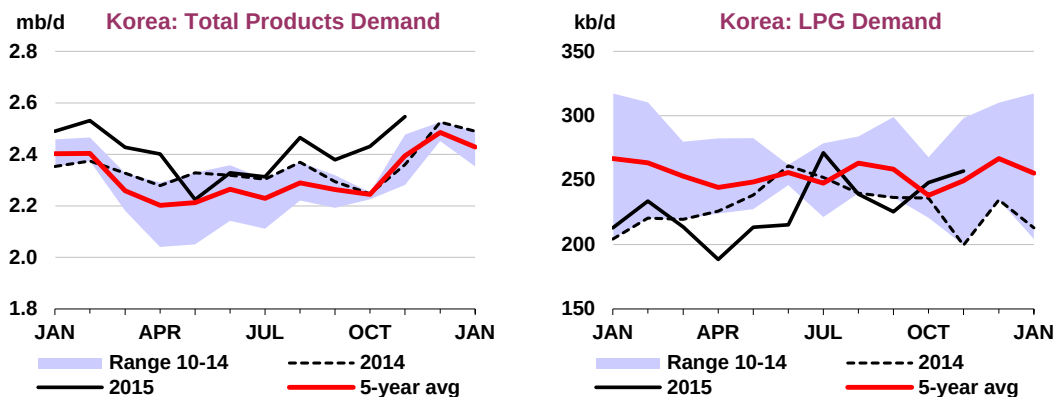
Asia Oceania

A continuation of the declining OECD Asia Oceania demand trend was seen in 4Q15, as deliveries averaged 8.3 mb/d, 60 kb/d down on the year earlier. The main factor was declines in Japanese residual fuel oil, 'other products' and jet/kerosene demand. In **Japan** the recent weakening in the economy, coupled with milder winter weather conditions (see *Warmer early-winter weather suppresses OECD oil demand*), encouraged the dramatic 340 kb/d y-o-y contraction in the preliminary demand numbers for

November, to 4.0 mb/d. This is the sharpest decline in ten months as kerosene consumption in particular fell in line with the milder November-December weather. Power sector oil use continued to decline in November, dampening residual fuel oil and 'other product' demand, both due to warm weather and the reopening of some of Japan's nuclear capacity. Naphtha demand has also edged lower recently as a number of crackers have closed, such as some of those owned by Sumitomo Chemicals. The outlook for 2016 is for further declines of around 0.1 mb/d in oil demand.



Rising at a rapid clip since August, **Korean** oil product demand rose to an all-time high of 2.5 mb/d in November. Equivalent to a y-o-y gain of 185 kb/d (or 7.9%) November's growth was the sharpest since 2012, fuelled by rampant LPG, residual fuel oil, naphtha and gasoil/diesel. Demand for these industrially important fuels have expanded as prices have edged further south, while the economy shows tentative signs of picking up momentum. Looking ahead to 2016, overall Korean oil deliveries will average 2.5 mb/d, a gain of 50 kb/d attributable largely to additional economic activity.



The historical **Australian** demand series has been revised down, as national source statistics revealed some intra-company flows were previously being wrongly cited as final gasoline demand. Approximately 25 kb/d has been trimmed from 2011-15 data. For 2015 we now have a revised estimate for oil demand of 1.1 mb/d. The latest official data, for November, showed deliveries roughly flat versus last year at 1.1 mb/d, with sharp declines in gasoline and 'other product' demand, offsetting gains in jet/kerosene and gasoil.

Non-OECD

Despite reaching an all-time high of 48.8 mb/d in 4Q15, the pace of non-OECD oil product demand growth moderated considerably – rising by 2.3% y-o-y, compared to mid-2015's 3% gain. There were particularly sharp decelerations in non-OECD gasoline and diesel demand, notably in China and Brazil. The economic problems experienced in China and Brazil, and many of the big commodity-dependent

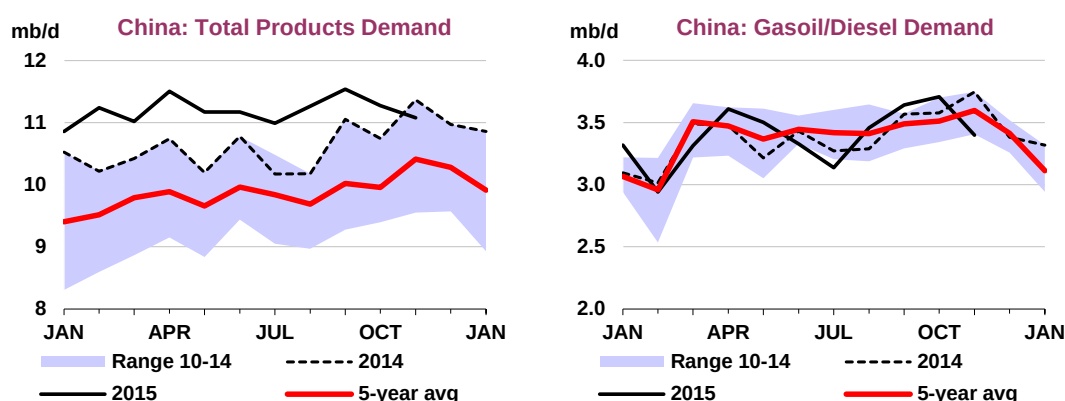
economies, such as Russia and Saudi Arabia, will likely ensure the continuation of muted non-OECD oil demand growth in 2016. Demand for the group is forecast to rise to 49.5 mb/d, a gain of 1.2 mb/d (or 2.4%).

Non-OECD: Demand by Product

	(thousand barrels per day)						
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q15	3Q15	4Q15	3Q15	4Q15	3Q15	4Q15
LPG & Ethane	5,278	5,378	5,468	261	240	5.1	4.6
Naphtha	3,109	3,199	3,219	137	123	4.5	4.0
Motor Gasoline	10,339	10,507	10,565	591	391	6.0	3.8
Jet Fuel & Kerosene	3,076	3,104	3,154	110	126	3.7	4.2
Gas/Diesel Oil	14,667	14,460	14,645	289	223	2.0	1.5
Residual Fuel Oil	5,341	5,128	5,157	-235	-168	-4.4	-3.1
Other Products	6,804	6,956	6,564	284	170	4.3	2.7
Total Products	48,615	48,734	48,773	1,437	1,106	3.0	2.3

China

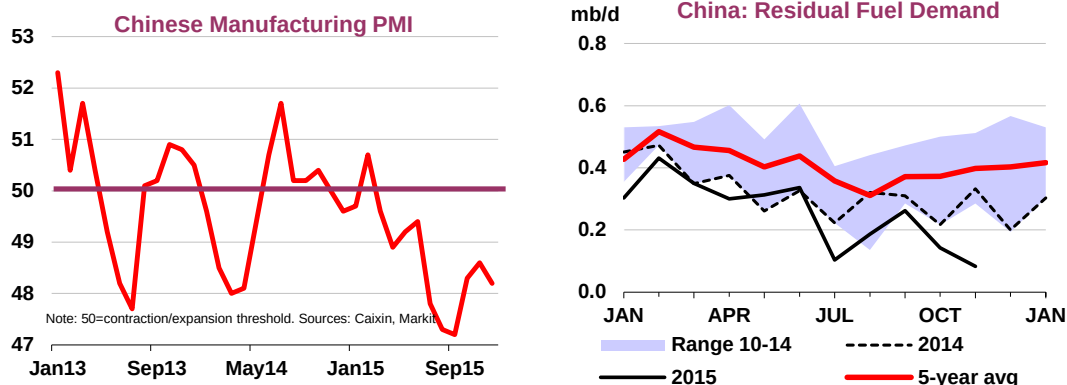
At a revised level of 11.1 mb/d in November, the latest apparent demand estimate – calculated as refinery throughputs plus net product imports minus product stock-builds – not only came in below last year's demand but also well under the estimate carried in last month's *Report*. Amongst the individual product categories that saw the sharpest declines, compared to year earlier levels, were gasoil/diesel and residual fuel oil, offsetting persistent gains in LPG (including ethane) and naphtha. The main factors were the weakening industrial backdrop and a recently large gasoline stock-build.



Chinese gasoil/diesel demand plummeted as industrial usage contracted. This is mainly due to the generally deteriorating macroeconomic backdrop. The latest snapshot of Chinese manufacturing sentiment – the Caixin/Markit Manufacturing PMI – has largely suggested ‘contracting’ activity all year, with a pronounced slowdown from mid-year onwards. Both residual fuel oil and diesel deliveries have accordingly lagged; diesel gaining additional downside momentum as Chinese coal demand contracts, the movement of which previously provided a large support through additional railroad movements. A factor that is growing in importance is China's evolving economic structure with a growing switch towards domestic consumption away from heavy manufacturing and exports.

The deceleration that took hold towards the end of 2015 is not a surprise as such. What was unexpected is the pace of the adjustment. Chinese demand growth eased back to an estimated 0.2 mb/d y-o-y in 4Q15, versus the 0.8 mb/d addition seen in 3Q15 and 0.7 mb/d for the 1Q15-2Q15 period. All of the main product categories contributed led by gasoil/diesel. For 2016, Chinese oil product demand growth of 0.3 mb/d is projected, as weakness in gasoil/diesel and residual fuel oil are forecast, offset to a degree

by persistent gains in gasoline and jet/kerosene – two products that continue to thrive due to the structural changes that are occurring in China – and LPG, as additional petrochemical demand filters through.



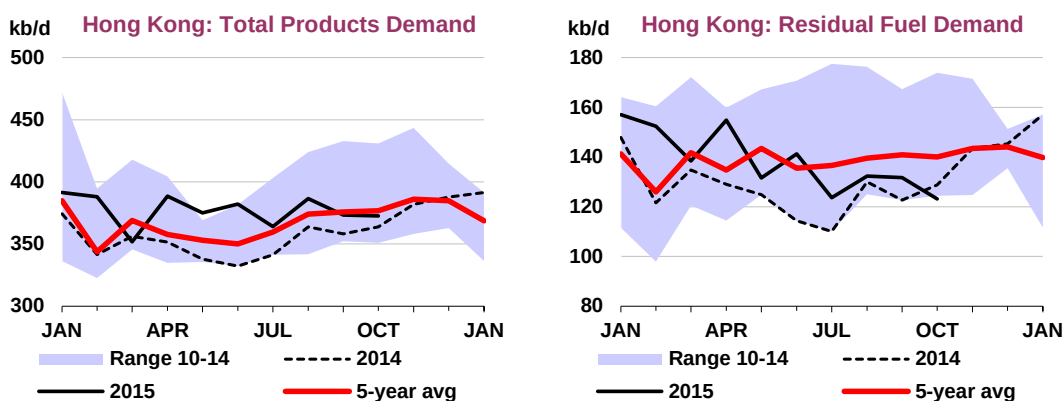
China: Demand by Product

(thousand barrels per day)

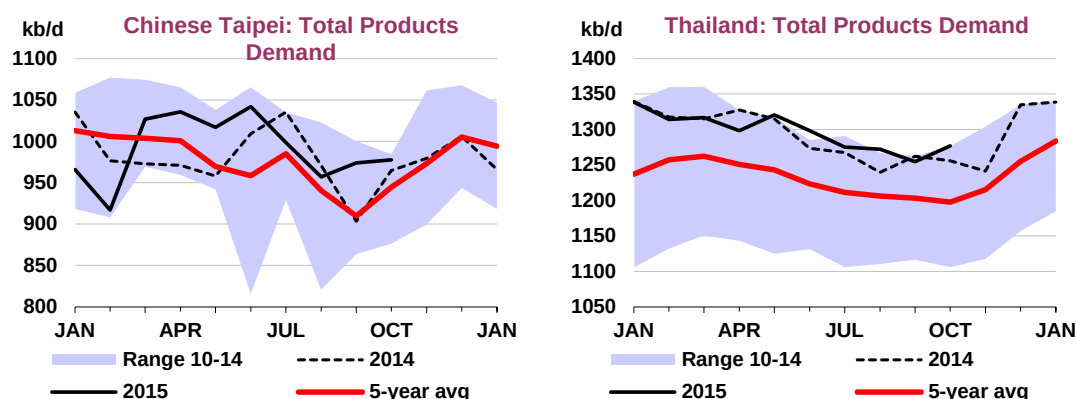
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2014	2015	2016	2015	2016	2015	2016
LPG & Ethane	884	1,080	1,170	196	90	22.2	8.3
Naphtha	1,168	1,185	1,213	17	28	1.5	2.4
Motor Gasoline	2,252	2,447	2,644	195	196	8.7	8.0
Jet Fuel & Kerosene	540	617	665	78	48	14.4	7.8
Gas/Diesel Oil	3,381	3,400	3,383	19	-16	0.6	-0.5
Residual Fuel Oil	318	253	192	-66	-61	-20.6	-24.3
Other Products	2,070	2,224	2,289	155	65	7.5	2.9
Total Products	10,612	11,206	11,556	594	350	5.6	3.1

Other Non-OECD

The recent demand strength in **Hong Kong** has lost momentum. Growth decelerated to a seven-month low of +2.4% y-o-y in October pulled down by sharp deteriorations in LPG and residual fuel oil. Residual fuel oil demand fell sharply, although some of this lost bunkering demand may have been displaced by marine diesel (total gasoil/diesel demand in Hong Kong continued to rise strongly). Weak exports also played a role, as the Census and Statistics Department of Hong Kong reported a 3.5% y-o-y reduction in Hong Kong exports in November, with Germany and the US two destinations to see particularly sharp contractions, respectively lower by 7.3% y-o-y and 5.5%. In 2015 oil demand increased by approximately 6%, to 380 kb/d. Momentum is likely to ease to around 3% in 2016 as the underlying economic backdrop remains precarious.



Weak industrial output numbers constrained oil consumption in **Chinese Taipei**, as September's strong gain now looks to have been an aberration. Having seen sub-2% y-o-y growth in ten of the past fifteen months, October's 1.3% gain is essentially on trend, with momentum restrained by absolute, albeit small, contractions in naphtha, gasoline, gasoil/diesel and 'other products'. The industrial output numbers across the economy as a whole, as reported by the Ministry of Economic Affairs, posted their sixth consecutive y-o-y decline in October, down by 6.2% compared to the year earlier. For 2015, deliveries are expected to average 1.0 mb/d, roughly 2% up on the year earlier, with only a modest acceleration foreseen for 2016 as economic growth is forecast to solidify.

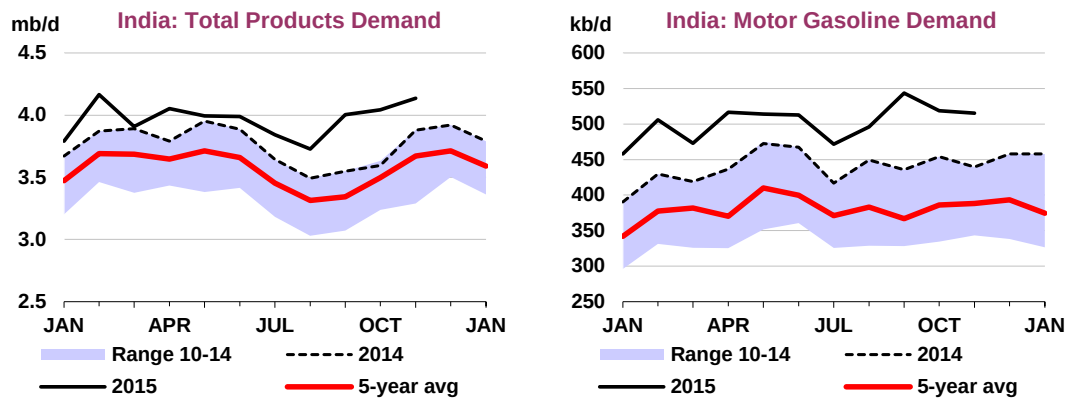


Strong gains in the transport sector saw oil deliveries in **Thailand** rise to a four-month high of 1.3 mb/d in October, as gains in gasoline, jet fuel and diesel demand offset weaknesses in LPG and naphtha. Low/falling product prices helped offset the poor industrial backdrop. The Office of Industrial Economics cited a 4.2% y-o-y contraction in Thai industrial output in October, despite economic growth approaching 3% y-o-y in 3Q15.

Non-OECD: Demand by Region

	(thousand barrels per day)						
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q15	3Q15	4Q15	3Q15	4Q15	3Q15	4Q15
Africa	4,061	3,953	4,126	82	168	2.1	4.2
Asia	23,834	23,567	24,038	1,341	848	6.0	3.7
FSU	4,897	5,045	4,959	-99	-88	-1.9	-1.7
Latin America	6,783	6,875	6,797	-82	-140	-1.2	-2.0
Middle East	8,339	8,588	8,144	179	296	2.1	3.8
Non-OECD Europe	700	705	708	17	23	2.5	3.4
Total Products	48,615	48,734	48,773	1,437	1,106	3.0	2.3

Despite plans to ration road use coupled with a temporary ban on new diesel car registrations in Delhi, the forecast for oil demand in **India** in 2016 remains strong, rising by approximately 5.7% to 4.2 mb/d. This is supported by robust increases in gasoline, diesel, LPG and 'other product' demand in India. Delhi's near four-week ban on new diesel registrations, which ended on 6 January, dampened sentiment in the car industry rather than Indian oil product demand growth per se. Efforts to limit road use to odd-and-even registration plates on alternate days in the Indian capital, starting January, are likely to have a more pronounced effect, depending on the success of implementation and compliance. Meanwhile, preliminary estimates of November demand showed Indian momentum easing back to +6.4%, compared to the double digit percentage growth seen in September and October. Weak gasoil/diesel and residual fuel oil demand curbed the strong upside momentum otherwise provided by gasoline, naphtha and LPG.



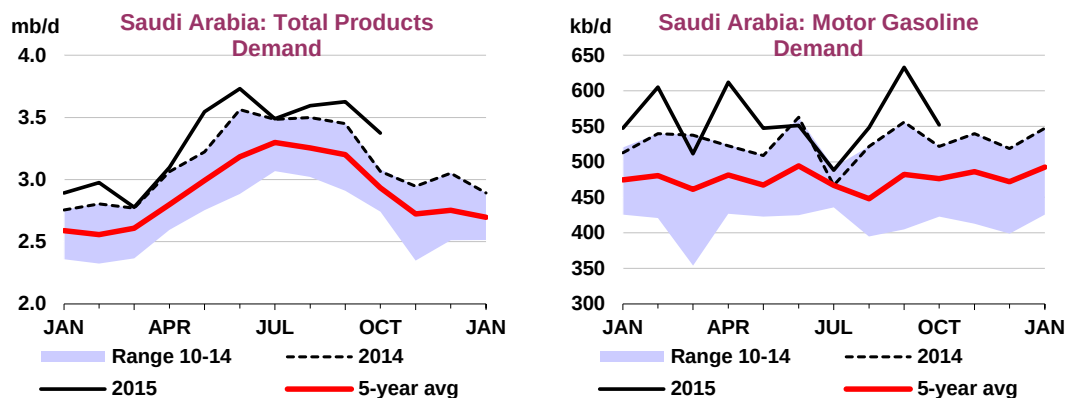
Subsidy cuts dampen already weaker Saudi Arabian demand outlook

From a demand perspective, the key point in the 2016 Saudi Arabian budget was the dramatic curtailment in gasoline subsidies. Hitherto gasoline was priced at 0.45 riyals per litre (or \$0.12) for 91 octane and 0.6 riyals (\$0.16) for 95 octane. Effective 11 January, prices were respectively hiked to 0.75 (\$0.2) and 0.9 riyals (\$0.24). Already forecast to see decelerating demand growth in 2016, higher prices will inevitably further dent the Saudi Arabian oil demand outlook.

The government's plans do not end there. Natural gas, ethane, diesel, kerosene, electricity and water prices are all subject to price hikes as part of a five-year plan to curb subsidies. For fuel, ethane prices will rise by 133%, transport diesel +79%, industrial diesel +55% and kerosene +12%. Saudi Arabian oil demand is forecast to rise by just 45 kb/d in 2016, to 3.3 mb/d, sharply lower than the 125 kb/d expansion seen in 2015.

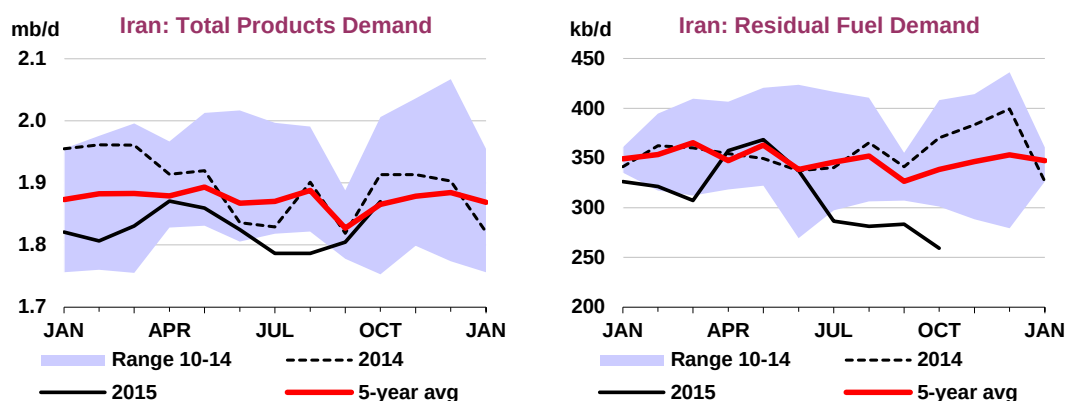
Similar moves by Bahrain, UAE and Oman will further curb Middle Eastern demand. Our forecast for 2016 shows regional oil demand growing by only 0.1 mb/d to 8.3 mb/d. Higher oil product prices potentially curb already precarious economic growth as costs for industry increase. Saudi Arabia Basic Industries Corporation (SABIC), for example, stated that its cost of doing business would rise by more than 5% due to the 2016 Saudi budget. Yanbu National Petrochemical Company and Saudi Arabia Fertilizers Company envisage costs rising by, respectively, 6.5% and 8%. The net long-term impact for Saudi Arabia is likely to be positive as government balances improve and resource allocations become less distorted.

Putting the latest Saudi Arabian prices in perspective, still sub-1.0 riyal per litre (\$0.27) Saudi Arabian gasoline remains exceptionally cheap in international terms at roughly one-sixth of the comparable price for the UK, one-quarter that of China or one-half of Iran. When Egypt sharply increased diesel prices in mid-2014 demand barely altered. It fell for two successive months but quickly returned to trend – roughly in line with the adjustment seen in 2012 when Nigeria cut gasoline subsidies.



Ahead of the price reform measures, in October we saw very strong oil demand growth in **Saudi Arabia**, according to the latest data from the Joint Organisations Data Initiative (JODI). Year-on-year growth was

close to a three-year high. Big gains in 'other product' demand (which includes the direct crude oil burn in the power sector), residual fuel oil and gasoline led the way, as persistently low prices and still supportive economic sentiment boosted demand. Business sentiment, as tracked by Markit's Manufacturing PMI, remains strongly 'optimistic' at 56 in October, whereas any reading below 50 signifies 'pessimism'. As subsidies are cut (see *Subsidy cuts dampen already weaker Saudi Arabian demand outlook*) and government spending is curbed, our oil demand forecast for 2016 has accordingly been downgraded – with the estimate more than halving to 1.4% in 2016.

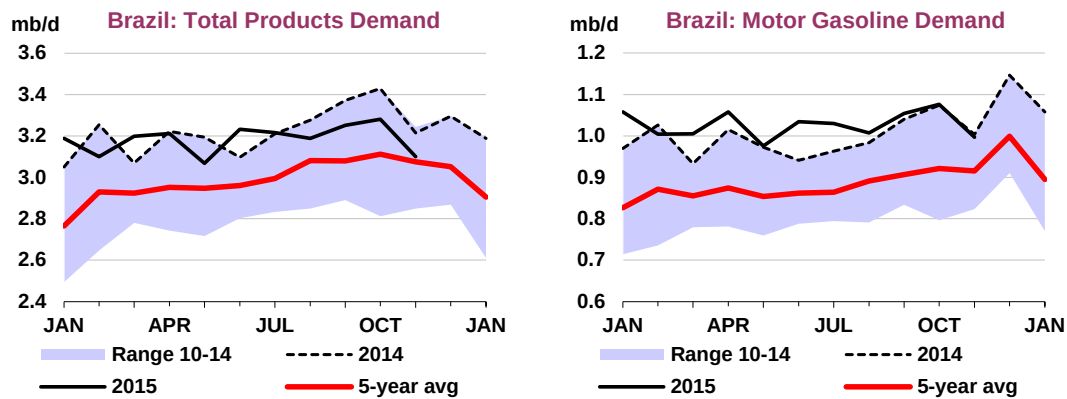


Sustained by solid road transport demand, oil product deliveries in **Iran** edged higher in October, rising by just over 65 kb/d versus September to 1.9 mb/d. Despite this increase, the y-o-y statistics remain negative – falling by 45 kb/d – as dramatic declines in residual fuel oil use and LPG, outweigh robust gains in gasoline and gasoil/diesel. Fuel oil demand fell – in both y-o-y and month-on-month terms – as power sector usage eased. Deliveries across 2015 averaged close to 1.8 mb/d, 60 kb/d down on 2014, as economic concerns related to sanctions restrained momentum; renewed growth – both economically and in terms of oil demand – is expected in 2016, as the economy benefits from the removal of sanctions.

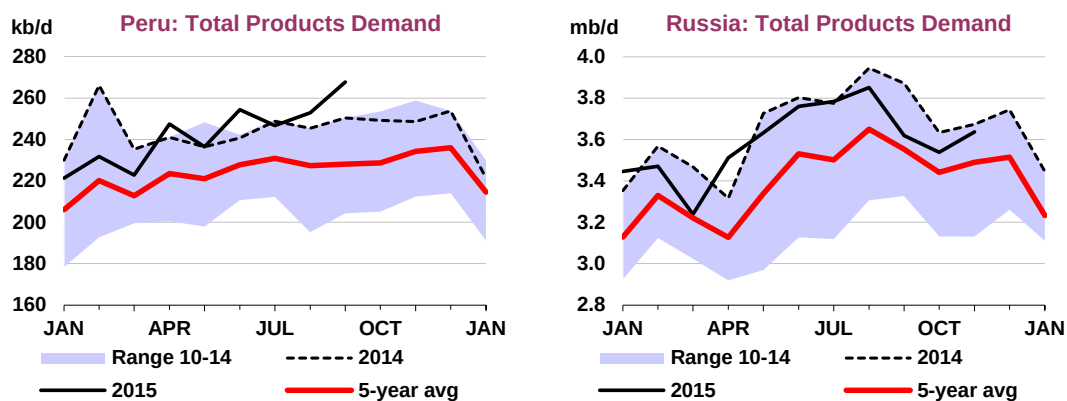
Brazil: Demand by Product

	(thousand barrels per day)			Annual Chg (kb/d)		Annual Chg (%)	
	2014	2015	2016	2015	2016	2015	2016
LPG & Ethane	234	231	233	-3	2	-1.4	0.7
Naphtha	164	163	161	-1	-2	-0.5	-1.3
Motor Gasoline	1,006	1,033	1,045	27	13	2.7	1.2
Jet Fuel & Kerosene	131	128	128	-2	-1	-1.8	-0.4
Gas/Diesel Oil	1,073	1,024	999	-49	-24	-4.6	-2.4
Residual Fuel Oil	195	173	159	-23	-14	-11.7	-8.0
Other Products	421	431	426	10	-5	2.5	-1.2
Total Products	3,223	3,182	3,150	-41	-32	-1.3	-1.0

In **Brazil** the weakening of the economy, not helped by political uncertainty, is the background to the declining y-o-y trend that has taken hold since mid-2015. Recent months have even seen the most resilient component of Brazilian oil demand – gasoline – falling into lower y-o-y territory. In November gasoline demand was down 0.6% whereas the previous 10-month trend was +4.0%. Other product categories – such as gasoil and residual fuel oil – have been on longer downtrends and saw sharp contractions in November, according to the latest data from the Agencia Nacional do Petroleo. Industrial oil product demand is falling heavily too as output slumped by 12.4% y-o-y in November, according to the latest data from the Instituto Brasileiro de Geografia e Estatistica. Oil demand averaged 3.2 mb/d in 2015, 1.3% down on 2014 and in 2016 we forecast a further fall of 1%.



Rising sharply in September, according to the latest data submitted to JODI, oil demand in **Peru**, at 270 kb/d, posted a near 7% y-o-y gain supported by recent price contractions and the strengthening economic backdrop. The latest economic growth numbers, from the Instituto de Estadística e Informática, show a 3.0% y-o-y gain in 2Q15. Consumer spending data, from the Central Reserve Bank, show growth of 3.3% in 2Q15 accelerating to 3.4% in 3Q15; this at a time of sharply falling prices. Gasoil/diesel saw the greatest upside in September, up by around 15 kb/d compared to the year earlier to 130 kb/d. For the year as a whole, deliveries should average around 250 kb/d, rising to 260 kb/d in 2016, as economic momentum accelerates. The International Monetary Fund, in the October 2015 edition of its *World Economic Outlook*, forecast for Peru GDP growth of 3.3% in 2016 following a gain of 2.4% in 2015.

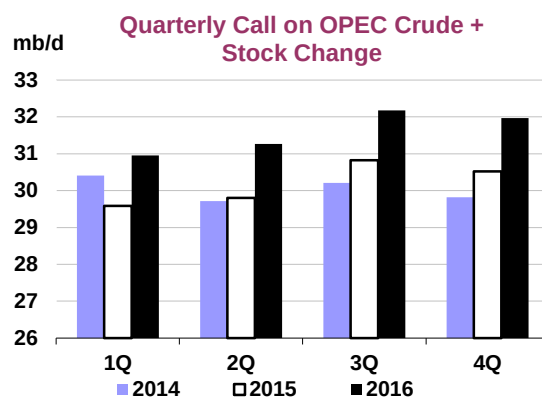
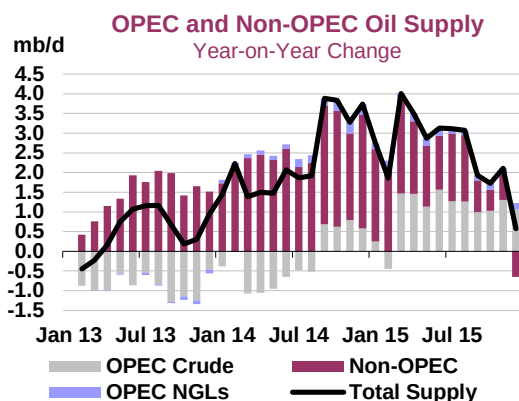


In **Russia**, oil demand in November fell by 1.0% y-o-y with deliveries averaging 3.6 mb/d. Although still down on the year earlier, the drop is substantially lower than previously foreseen attributable to higher estimates of demand for gasoil/diesel, naphtha and LPG. Having averaged 3.6 mb/d in 2015, down by 1.7% on 2014, the forecast for oil demand in 2016 is 15 kb/d higher than previously foreseen as some sectors of the economy – notably industry – have become more competitive internationally as their exports, priced in dollars, have become relatively cheaper. A further, albeit reduced, oil demand decline of 0.9% is forecast for 2016, as the economic backdrop, although still precarious, is possibly less savage than in 2015.

SUPPLY

Summary

- **Global oil supplies expanded by 2.6 mb/d in 2015, following hefty gains of 2.4 mb/d in 2014.** In contrast with 2014, when non-OPEC producers made up almost the entire gain, in 2015 growth was evenly divided between OPEC and non-OPEC producers. By December, however, growth had eased to 0.6 mb/d, with non-OPEC production pegged below year-earlier levels for the first time since September 2012.
- **OPEC crude oil output eased by 90 kb/d in December to a still-lofty 32.28 mb/d, including newly-rejoined Indonesia.** Supplies dipped from Saudi Arabia and Iraq, the group's largest producers, while Iranian output rose by 40 kb/d to 2.91 mb/d – the highest level since June 2012. Overall OPEC production stood 1.06 mb/d above a year ago, which helped push oil prices towards 12-year lows.
- **Iran, relieved of sanctions on 16 January, insists it will boost output by an immediate 500 kb/d. Our assessment suggests that by the end of 1Q16, around 300 kb/d of additional crude oil could be flowing to world markets.** Even this must be treated with great care. Depending on the volumes that do emerge, Iran may be OPEC's only source of significant production growth in 2016.
- **The 2016 'call on OPEC crude and stock change', including Indonesia, is revised down by 300 kb/d to 31.7 mb/d following adjustments to our expected rate of decline in non-OPEC supply and slightly weaker demand growth.** The 'call' in 2016 rises by 1.6 mb/d year-on-year (y-o-y). In the last six months of 2016, the 'call' is due to rise by 1.18 mb/d from 1H16 to reach 32.32 mb/d – roughly what the group is currently producing.
- **Non-OPEC oil production is proving resilient in the face of plunging oil prices, with 4Q15 output revised up by 280 kb/d since last month's Report.** Lower prices and spending cuts have nevertheless put the brakes on non-OPEC supply growth, projected at less than 0.2 mb/d in 4Q15, compared with 2.7 mb/d a year earlier. Output is projected to decline by 0.6 mb/d in 2016, following gains of 1.4 mb/d in 2015 and 2.4 mb/d in 2014.
- **Non-OPEC supplies in December dropped sharply by 650 kb/d to 57.4 mb/d, falling below the year earlier level for the first time since September 2012.** A seasonal decline in biofuel production, of nearly 0.4 mb/d was the largest contributor to December's drop. Output from Vietnam, Kazakhstan, Azerbaijan and the US was also seen easing from the previous month and a year earlier, while persistently weak output from Yemen and Mexico also contributed to the year-on-year decline.



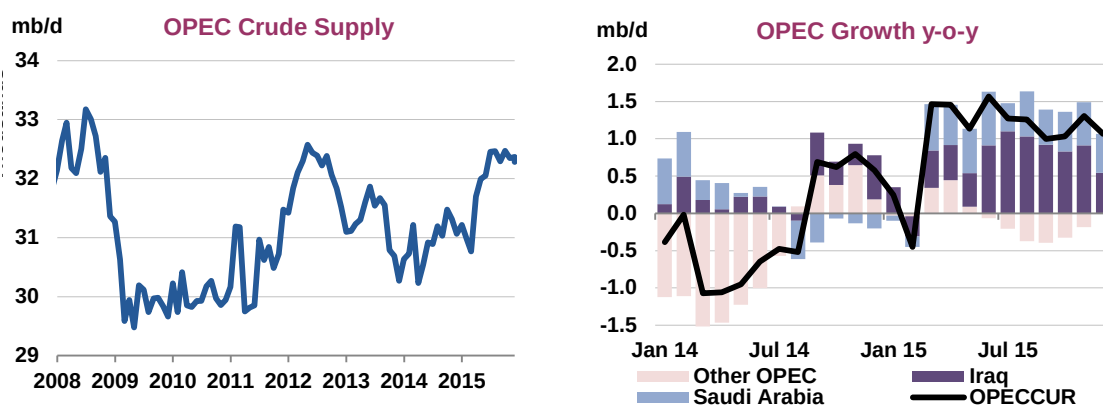
All world oil supply data for December discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary December supply data.

OPEC crude oil supply

OPEC crude oil output edged down by 90 kb/d in December to a still-robust 32.28 mb/d - including Indonesia, whose membership was re-activated at the group's 4 December meeting. Supplies slipped from OPEC's largest producers, Saudi Arabia and Iraq, with Nigeria and Venezuela also posting marginal declines. Ahead of an imminent easing of international sanctions, Iranian output in December rose by 40 kb/d to reach its highest level since June 2012. Overall OPEC output stood 1.06 mb/d above a year ago, helping to knock down oil prices to below \$30/bbl.

OPEC has effectively been pumping at will since late 2014, when the group agreed to maintain production in defence of market share. This year is likely to see output well beyond 32 mb/d from the 13-member group as Iran ramps up production following sanctions relief and fellow low-cost Middle East producers continue to maximise oil sales.

Post-sanctions Iran is in fact likely to emerge as OPEC's only source of significant growth in 2016 as output rises from oil fields released from sanctions. Tehran insists it will boost production by an immediate 500 kb/d. Our assessment suggests that around 300 kb/d of additional crude oil could be flowing to world markets by the end of 1Q16, although this is still highly speculative. Libya also has upside potential, but a sustained production comeback is unlikely given the direct targeting of its vital energy infrastructure by Islamic militants.



Despite rising political tension between Saudi Arabia and Iran following Riyadh's execution in early January of a Shiite cleric, oil operations of a combined 13 mb/d are continuing as normal and the prospect of outright conflict appears remote. Little, if any, impact is seen on near-term OPEC strategy. Relations between Saudi Arabia and Iran, respectively the leading Sunni and Shiite powers of the Middle East, have been tense for some time. Their strained ties did not, however, stand in the way of eventual agreement to OPEC's hands-off strategy at its December meeting in Vienna. During its history, OPEC has seen far more serious spats amongst its members, including the Iran-Iraq war in 1980-1988 and Iraq's invasion of Kuwait in 1990.

A year without production restraint raised OPEC's 2015 average output by 1 mb/d to 32 mb/d, the highest in seven years (see *OPEC Crude Production* table below). The group's top three producers in 2015 - Saudi Arabia, Iraq and the UAE - churned out record annual production and seem determined to sustain the brisk pace. In global terms, Iraq's y-o-y gain of 650 kb/d ranked it as the second largest source of growth behind the US where output increased by around 700 kb/d. Output from Saudi Arabia rose 450 kb/d y-o-y.

The 2016 'call on OPEC crude and stock change', including Indonesia, is revised down by 300 kb/d to 31.7 mb/d due to changes in our expectations for non-OPEC supply and slightly weaker demand growth. The 'call' in 2016 rises 1.6 mb/d y-o-y. In the last six months of 2016, the 'call' is due to rise by 1.18 mb/d

from 1H16 to reach 32.32 mb/d – roughly what OPEC is currently producing. The group's 'effective' spare capacity stood at 2.38 mb/d in December, with Saudi Arabia accounting for nearly 90% of the surplus.

OPEC Crude Production

	(million barrels per day)						
	Oct 2015 Supply	Nov 2015 Supply	Dec 2015 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Dec 2015 Supply	2015 Crude Supply	OPEC Supply 2015 vs 2014
Algeria	1.11	1.11	1.11	1.15	0.04	1.11	-0.01
Angola	1.78	1.74	1.76	1.80	0.04	1.76	0.10
Ecuador	0.53	0.54	0.54	0.56	0.02	0.54	-0.01
Indonesia	0.67	0.67	0.67	0.67	0.00	0.67	-0.03
Iran	2.88	2.87	2.91	3.60	0.69	2.86	0.04
Iraq ⁴	4.17	4.29	4.26	4.25	-	3.98	0.65
Kuwait ²	2.73	2.80	2.81	2.81	0.00	2.78	-0.02
Libya	0.43	0.39	0.38	0.43	0.05	0.40	-0.06
Nigeria	1.90	1.80	1.76	1.87	0.11	1.80	-0.10
Qatar	0.67	0.68	0.68	0.69	0.01	0.66	-0.04
Saudi Arabia ²	10.21	10.19	10.14	12.26	2.12	10.17	0.45
UAE	2.89	2.89	2.89	2.95	0.06	2.88	0.12
Venezuela ³	2.38	2.40	2.37	2.46	0.09	2.40	-0.06
Total OPEC	32.35	32.37	32.28	35.50	3.23	32.02	1.04
<i>(excluding Iraq, Nigeria, Libya and Iran)</i>					2.38		

1 Capacity levels can be reached within 90 days and sustained for an extended period.

2 Includes half of Neutral Zone production.

3 Includes upgraded Orinoco extra-heavy oil assumed at 500 kb/d in December.

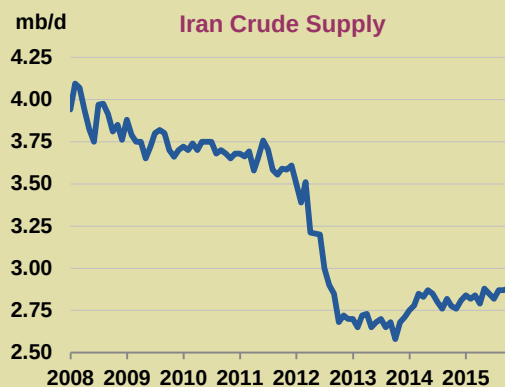
4 Iraqi production during December exceeded our assessment of sustainable production capacity.

Iran is back

The suspension on 16 January of nuclear sanctions on Iran opens the world oil market to fresh supplies - the volume and pace of which will be crucial to 1Q16 balances. Tehran insists it will boost output by an immediate 500 kb/d now that sanctions are relieved and by a further 500 kb/d in the following six months to regain the ground it lost after sanctions were tightened in mid-2012. Our assessment is that considerable progress has been made in readying its oil network and identifying prospective buyers. On this basis, around 300 kb/d of additional crude could be flowing by the end of 1Q16 although this volume must remain, in these early days, necessarily speculative.

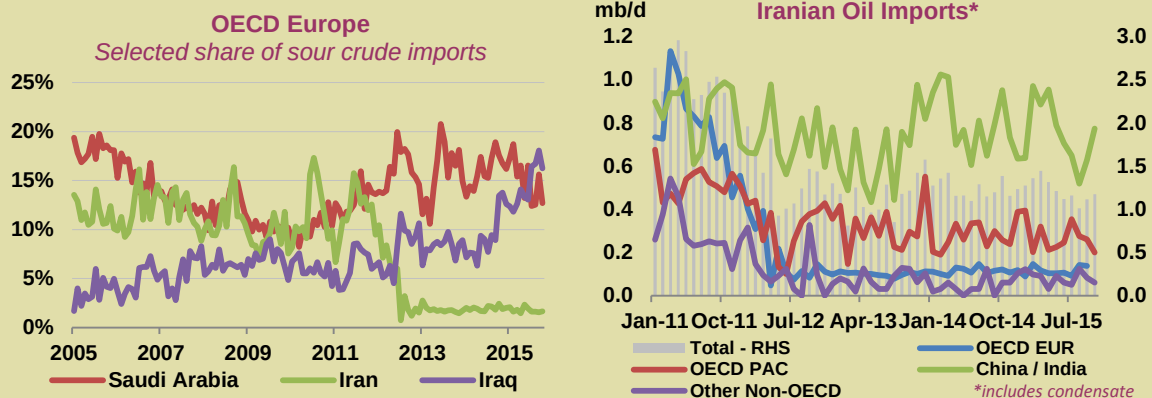
Production already edged up 40 kb/d during December to 2.91 mb/d, the highest since June 2012, to help fill storage tanks at the Kharg Island loading terminal ahead of the easing of sanctions. We expect flows from Iranian oil fields, now free of any restrictions, to rise towards a pre-sanctions capacity of 3.6 mb/d within six months, with potential y-o-y growth of around 400 kb/d. Tehran has done its utmost to ensure the country's oil sector is prepared for higher output and, if anything, some of the country's core oil fields – such as Ahwaz, Marun and Gachsaran - may have been revived under sanctions. Shutting down large volumes of oil may have allowed pressure to rise – leaving the fields capable of a swift production boost.

As for Iran's post-sanctions marketing effort - it will no doubt be challenging given the world's current oversupply. To speed the process, the National Iranian Oil Co (NIOC) will continue to offer competitive pricing and may be open to crude-for-product swaps as well as deferred payment. NIOC may also show flexibility on quality and timing. Iran's first 500 kb/d burst of additional crude oil sales – if this is the volume that is actually exported - could break down as follows: Iranian Heavy 60%, Iranian Light 30% and new, heavy West of Karun crude – due to make its debut in 2Q16 - the remainder.



Iran is back (continued)

As soon as NIOC's top brass gives the go-ahead, Iran is expected to aim around 200 kb/d of additional crude towards existing customers in Asia such as India, South Korea, China and Japan – all regular buyers while sanctions were in place. Tehran will also strive to recapture market share in Europe, which imported around 1 mb/d until sanctions were tightened. To that end, NIOC is believed to be targeting around 250 kb/d towards European refineries – especially in the Mediterranean – that were especially fond of Iran's sour crude. A drawback could be that it will take time to secure access to banking channels and get logistics in place. Iranian barrels are likely to back out similar quality sour crude from Saudi Arabia, Iraq and Russia – so producers are likely to become ever more competitive on the pricing front. OPEC's top two producers Saudi Arabia and Iraq recently locked in additional supply to Europe before sanctions on Iran were eased.



During December, imports of Iranian crude stabilized at around 1.0 mb/d. India, Japan and China increased purchases, while imports from South Korea and Syria declined, according to preliminary data. Purchases of crude oil in 2015 were 1.09 mb/d versus 1.1 mb/d in 2014 – down from around 2.2 mb/d at the start of 2012 before sanctions were tightened. Condensate imports doubled to 180 kb/d in December. For 2015, imports of the ultra-light oil from Iran's South Pars gas project were 130 kb/d versus 190 kb/d in 2014.

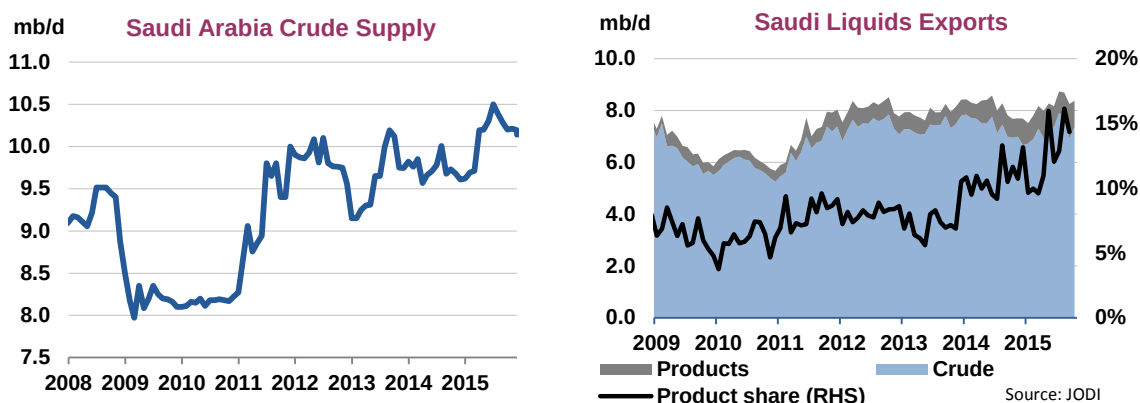
Condensates may, in fact, make Iran's post-sanctions marketing more difficult. NIOC has to clear an overhang of some 34 million barrels of condensates stored at sea on 17 of its ships – and the specialised nature of this ultra-light oil can make it a tough sell. Tehran will want to off-load the floating storage as quickly as possible to free up its tanker fleet to make crude oil deliveries. Until substantial volumes of condensate can be sold, NIOC will concentrate on selling crude oil from Kharg Island on vessels chartered by buyers, industry sources said. Eventually NIOC will seek to reactivate its contract with the SUMED pipeline that carries crude oil from the Red Sea to the Mediterranean.

Looking further ahead, Iran will also strive to reclaim its spot as OPEC's second biggest producer after Saudi Arabia – a post now occupied by neighbouring Iraq. But with Iraq now cranking out more than 4 mb/d, Tehran will have its work cut out. Once it regains full access to capital markets, Iran should be able to bring in more advanced technology and gradually raise production capacity beyond 3.6 mb/d. Capacity limitations now are most probably surface-related – production units, flow lines, trunk pipelines and gas compression facilities. Service companies and equipment suppliers will be needed to help sustain capacity at about 3.6 mb/d and could potentially help boost it towards 3.8 mb/d. With the help of foreign cash and cutting-edge technology, Tehran may be able to push capacity back up to the 4 mb/d mark towards the end of the decade. The country's oil fields last pumped near that level in 2008.

To lure the international oil companies (IOCs), Tehran has hammered out a much-improved version of its former buy-back investment contract that it believes is better than Iraq's. It unveiled the new upstream contract and 50 projects at a conference in Tehran in late November and plans a similar event in London during the last week of February. Major oil companies from Europe and Asia have flocked to Iran to discuss possible post-sanctions supply deals and upstream involvement. The threat of snap-back sanctions should Tehran fail to honour its commitments under the terms of the Joint Comprehensive Plan of Action (JCPOA) may dampen the appetites of foreign investors and much will depend on contractual terms that Iran's oil ministry is fine tuning. US companies, however, might find themselves out of the race while Washington's non-nuclear-related sanctions remain in place.

Production in **Saudi Arabia** dipped by 50 kb/d in December to 10.14 mb/d due to slightly lower shipments to world oil markets. Preliminary tanker tracking data showed a decline in loadings to China and India following relatively hefty purchases in November. Ten consecutive months with production above 10 mb/d pushed Riyadh's average annual output in 2015 to an all-time high of 10.17 mb/d, up 450 kb/d y-o-y. There appears to be slim chance of the Kingdom's production falling below 10 mb/d in the coming months given its determination to defend market share and satisfy internal demand.

Saudi crude oil sales continue to flow around the 7 mb/d mark, with shipments of nearly 7.4 mb/d from January through October 2015 up roughly 300 kb/d on the same period in 2014, according to the latest official figures submitted to the Joint Organisations Data Initiative (JODI). Total Saudi oil exports, excluding condensates and NGLs, averaged around 8.4 mb/d during the first 10 months of 2015, a rise of around 400 kb/d on the same period in 2014.



Riyadh is meanwhile giving consideration to a share offering of state-owned Saudi Aramco, the world's largest oil company, or its subsidiaries. "Listing of downstream assets has been with us for some time, but of course everything in the Kingdom has taken on great urgency," Saudi Aramco Chairman Khalid al-Falih told the *Wall Street Journal* in an interview on 11 January. He said there was no specific timing for any public offering – a landmark move for Riyadh, which has kept its oil sector off limits to foreign investment since nationalisation in the 1970s. Saudi Aramco CEO Amin Nasser said Riyadh would maintain a controlling stake in the state oil giant if it proceeds with the listing. Deputy Crown Prince Mohammed bin Salman is heading the country's newly formed Supreme Economic Council and appears to be the main driver of the Kingdom's reforms.

Production in neighbouring Gulf countries was broadly steady in December. **Kuwaiti** flows inched up to 2.81 mb/d. Production in the **UAE** held at 2.89 mb/d, within sight of record highs. **Qatari** supply was unchanged at 680 kb/d.

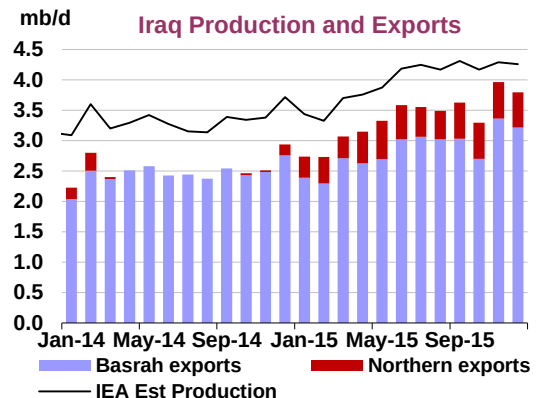
Despite the twin challenge of low oil prices and a costly battle against Islamist militants, **Iraq** made strong y-o-y gains of 650 kb/d in 2015 that pushed average output close to 4 mb/d, an annual record. The production performance from Iraq, including the Kurdistan Regional Government (KRG), was even more impressive during 2H15, when flows ran above 4.2 mb/d. Output in December edged down 30 kb/d month-on-month (m-o-m) to 4.26 mb/d.

Iraq supplied world crude markets with an average 3.3 mb/d in 2015, up roughly 30% on the previous year. But a sharp decline in oil prices is taking a toll on the country's budget. The federal government's revenue dropped by around 40% y-o-y to just under \$50 billion in 2015. Exports during December – including from the KRG – were around 3.8 mb/d, down from November's bumper sales of nearly 4 mb/d.

Shipments of flagship Basra crude from Iraq's southern outlets have risen steadily after Baghdad launched a new export system to separate heavy and light oil and built more storage tanks at the Fao terminal. Basra exports in December slipped to 3.2 mb/d from a record 3.37 mb/d in November. With Iraqi oil fetching less than \$30/bbl, the oil sales earned Baghdad roughly \$3 billion.

Basra export volumes for January are expected to be steady versus December, but February's provisional loading schedule issued by Iraq's State Oil Marketing Organisation (SOMO) shows a record-smashing 3.6 mb/d. Preliminary allocations, however, are subject to revision and often fall short of initial targets.

Shipments of northern crude via Turkey during 2015 ran at more than 500 kb/d – up from only around 65 kb/d in 2014. Exports in December dipped to around 580 kb/d, all of which was sold by the KRG. The semi-autonomous northern region has increased independent oil sales since mid-June and has cut allocations to SOMO in a feud over budget payments and export rights.



The federal government has meanwhile asked international oil companies developing its fields to cut 2015-16 budgets and hold production steady. For its part, the KRG is struggling to make timely payments to foreign contractors tapping its fields. Thus Iraqi output, including from the KRG, is likely to stay broadly steady in 2016 versus a 4Q15 rate of around 4.25 mb/d.

Militant attacks in **Libya** kept output below 400 kb/d during December. Targeting of the oil sector escalated in early January, with strikes on the crucial terminals at Es Sider and Ras Lanuf. Militants clashed with the Petroleum Facilities Guard, setting fire to seven oil storage tanks at the export outlets. The Tripoli-based National Oil Corp (NOC) emptied tanks at Ras Lanuf as a precaution after the attack. Days later, an explosion hit a major oil pipeline south of Ras Lanuf. The pipeline has been shut for more than two years. Es Sider and Ras Lanuf have been closed since December 2014. A lengthy battle between the officially recognised government in the east and the so-called Libya Dawn administration in Tripoli has shut operations at the country's strategic oil terminals and fields that pumped 1.6 mb/d prior to the downfall of Muammar Gaddafi in 2011.

In West Africa, **Nigerian** output eased by 40 kb/d to 1.76 mb/d due to export disruptions in the Bonny and Brass River streams. **Angolan** output was a shade higher than November at 1.76 mb/d.

Crude oil supply in **Indonesia** held steady at 670 kb/d, but output could rise in January following the reported start-up of a production facility at the Exxon-operated Banyu Urip field. OPEC's only Asian member re-joined the group in December. It suspended membership in 2008 when it became a net oil importer.

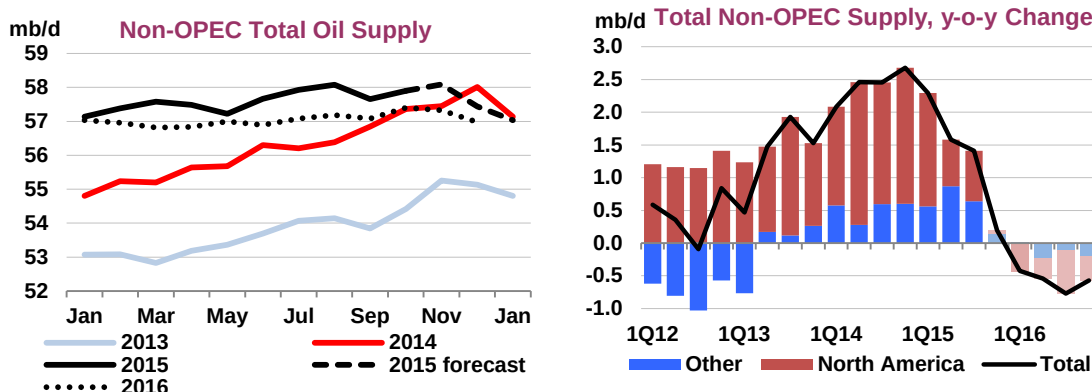
Non-OPEC overview

Non-OPEC oil production is proving resilient in the face of plunging oil prices, with the latest data suggesting November 2015 output levels nearly 0.5 mb/d higher than previously expected. Stubbornly robust US production, revised up by 90 kb/d for the first 9 months of the year, and on track to post annual gains of 0.9 mb/d for 2015 as a whole, comes against a backdrop of a decline of nearly 70% in drilling activity in just over a year. A reduction in the uncompleted well count, or frack-log, as seen in a higher number of completed wells, has supported output, as has continued increases in productivity at most shale plays. New projects also came on stream in the Gulf of Mexico.

North Sea production equally continues to surprise, with Norwegian oil supplies breaching the 2 mb/d mark for the first time in nearly four years in October. UK production has also held up, contributing roughly half the mature region's 140 kb/d annual increase last year. Output could rise further still in the coming months supported by the recent or imminent start-up of the Goliat, Alma-Galia, Solan and Stella projects. Field declines and a return to more normal maintenance and outage levels in 2016, after exceptionally few shutdowns in 2015, are nevertheless expected to limit the upside this year, resulting in a net decline of 120 kb/d.

Yet another month of record-high Russian crude and condensate production in December came on the back of the start-up of the Yarudeiskoye field, which ramped up at a rapid pace. While the field will probably account for the majority of output gains in 2016, further increases are limited as the field already reached peak production levels in early January. Indeed, output from mature fields operated by the country's largest producers, Rosneft and Lukoil, are clearly on a declining trend.

Industrial action in Brazil during November had a smaller impact on output levels than expected. Output continues to ramp up from new production units at pre-salt fields, with the massive Lula field reaching new highs. Petrobras continues to face headwinds, however, and the beleaguered state-producer cut investment and output targets yet again in early January. The impact of such cuts will likely not be immediate, and several new floating, production, offloading and storage vessels are still ramping up production while additional facilities are on track to be commissioned this year. While a slowdown in drilling at mature fields could increase the rate of decline at already producing fields, the new production units will continue to prop up supply this year. Despite its numerous challenges, Brazil remains the largest contributor to non-OPEC supply growth this year, followed by Canada.



Non-OPEC oil supplies are nevertheless seen sharply lower in December. Overall supplies are estimated to have slipped by more than 0.6 mb/d from the month prior, to 57.4 mb/d. A seasonal decline in biofuel production, largely due to the Brazilian sugar cane harvest, of nearly 0.4 mb/d was the largest contributor to December's drop. Production in Vietnam, Kazakhstan, Azerbaijan and the US was also seen easing from both November's level and compared with a year earlier. Persistently low production in Mexico and Yemen were other contributors to the year-on-year decline.

As such, total non-OPEC liquids output slipped below the year earlier level for the first time since September 2012. A production surge in December 2014 inflates the annual decline rate, but the drop is nevertheless significant should these estimates be confirmed by firm data. Already in November, growth in non-OPEC supply had slipped to 640 kb/d, from as much as 2.9 mb/d at the end of 2014, and 2.4 mb/d for 2014 as a whole. For 2015, supplies look likely to post an increase of 1.4 mb/d for the year, before contracting by nearly 0.6 mb/d in 2016. A prolonged period of oil at sub-\$30/bbl puts additional volumes at risk of shut in as realised prices fall close to operating costs for some producers.

Non-OPEC Supply

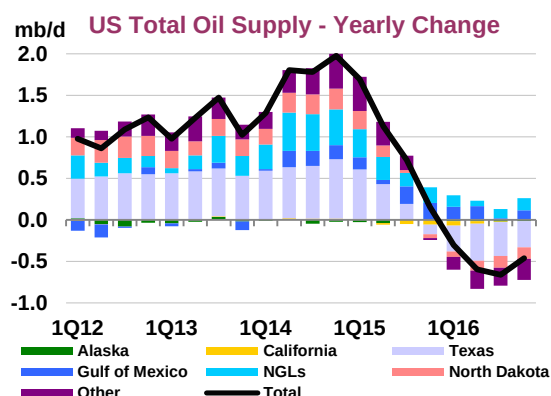
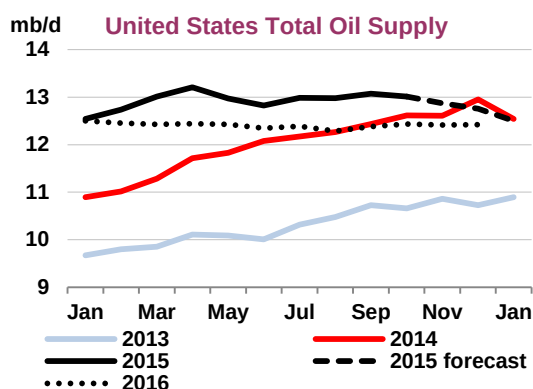
(million barrels per day)

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Americas	19.1	20.0	19.6	20.0	20.0	19.9	19.6	19.3	19.4	19.6	19.5
Europe	3.3	3.4	3.5	3.3	3.5	3.4	3.5	3.3	3.1	3.3	3.3
Asia Oceania	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	22.9	23.8	23.5	23.9	23.9	23.8	23.5	23.1	23.0	23.4	23.2
Former USSR	13.9	14.0	14.0	13.9	14.0	14.0	14.0	13.9	13.9	13.8	13.9
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Other Asia	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.4	4.6	4.5	4.5	4.5	4.6	4.6	4.6	4.7	4.7	4.7
Middle East	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Africa	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.9	29.5	29.3	29.2	29.2	29.3	29.3	29.2	29.1	29.2	29.2
Processing Gains	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC	56.3	57.4	57.5	57.9	57.8	57.6	56.9	56.9	57.1	57.2	57.0
Annual Chg (mb/d)	2.4	2.3	1.6	1.4	0.2	1.4	-0.4	-0.5	-0.8	-0.6	-0.6
Changes from last OMR (mb/d)	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.2	0.1	0.2

OECD

North America

US – October actual, Alaska December actual: US oil production declined by 60 kb/d in October, to 13 mb/d, slightly less than previously expected. In contrast to previous months, the decline stemmed largely from offshore projects in the Gulf of Mexico, slipping 80 kb/d from previously robust rates. Onshore Texas crude output declined by 26 kb/d, California was down by 15 kb/d while Alaskan supplies inched up 25 kb/d, partly recovering from low production since early summer. NGL production meanwhile bounced up by 85 kb/d, to 3.43 mb/d – a new record high.

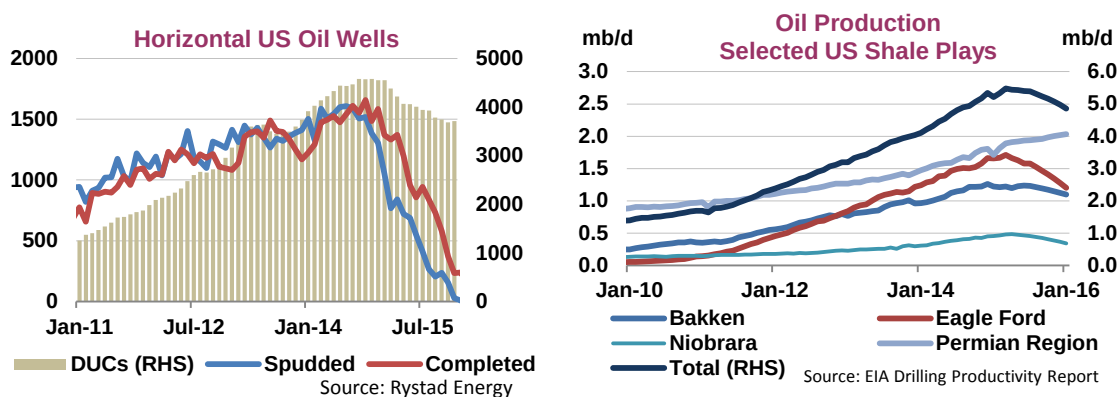


In its latest monthly production data release, the US EIA revised up its production estimates for January through September 2015 by an average of 90 kb/d. The bulk of the adjustments were made to output from Oklahoma, now averaging 440 kb/d for the first nine months of the year, compared with 340 kb/d reported earlier. The revision to Oklahoma production levels from January 2015 follows the EIA's change of methodology to be based on data from its EIA-914 survey. The previous methodology (using lagged state data) "did not adequately capture significant oil production increases during 2015" according to the EIA. The 914 survey is used for production estimates for Arkansas, California, Colorado, Kansas, Louisiana, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, West Virginia, Wyoming, and the Federal Gulf of Mexico, while all other production estimates are based on the previous methodology.

The change in methodology, starting with January 2015, makes evaluating year-on-year changes and the full impact of the drop in prices difficult. For Oklahoma in particular, the significant increase in production from December 2014 to January 2015 appears overstated, surging 23% m-o-m. As such, we have also adjusted the Oklahoma production levels up by about 50 kb/d for 2014, in an attempt to better capture recent trends, while we await EIA's revision to 2014 production estimates later this year.

The latest price slump saw US oil companies once again reduce the number of rigs active. By mid-January, the total number of rigs stood at 515, 26 less than a month earlier and 68% below the peak in October 2014. Over the month, operators pulled nine rigs out of the Permian basin, 11 out of Williston, and 10 out of other plays, while three were added in Eagle Ford. The drop in horizontal oilrigs over the same period was a lesser 62%, suggesting the least productive vertical rigs were removed first.

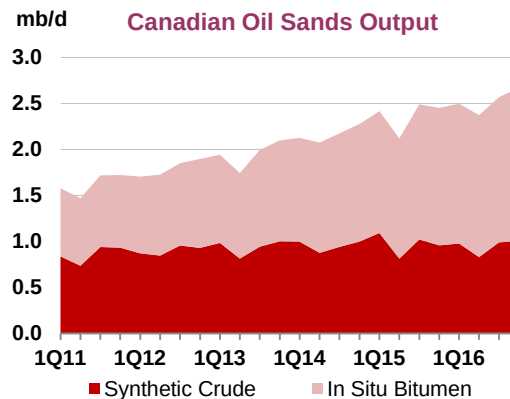
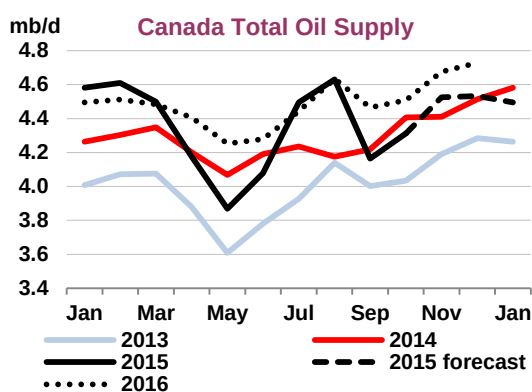
Data from Rystad Energy show the number of completed wells have by far outpaced the number of wells spudded (drilled) since 4Q14. Indeed, the number of well completions per month continued to increase several months after the rig count started to drop off, peaking at more than 1,600 wells in December 2014. The number of completions are still outpacing the number of new wells drilled, and as a result, the number of uncompleted wells, or the frack-log, has been cut down from its peak of around 4,600 wells hit at the end of 2014 to around 3,700 wells currently.



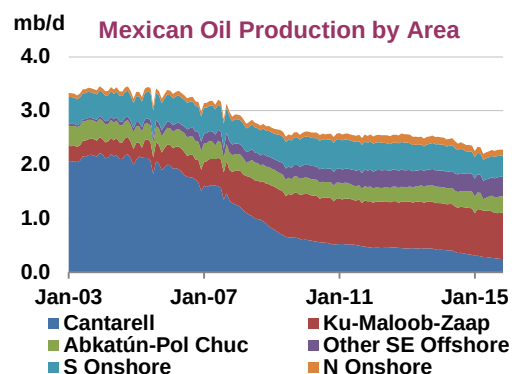
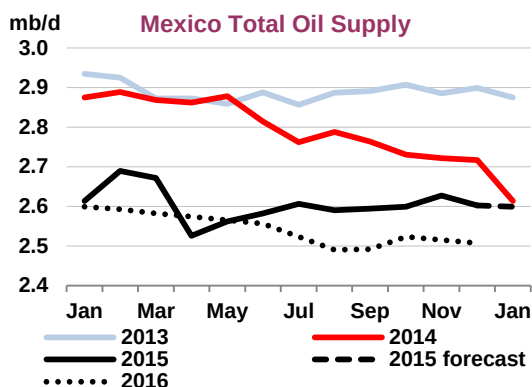
EIA's *Drilling Productivity Report (DPR)* meanwhile estimates that the decline in oil production from the seven most prolific US shale plays has accelerated, dropping 115 kb/d in January from a month earlier, to 4.86 mb/d. January's estimate of total oil production was 350 kb/d less than the previous year. Production from new wells had dropped to less than 240 kb/d, falling short of legacy declines of more than 350 kb/d. The biggest declines from a year earlier in both absolute and percentage terms are stemming from the Eagle Ford basin. Output dropped by 460 kb/d to 1,200 kb/d, or 28% from a year earlier according the EIA *DPR*. Eagle Ford saw the steepest increase in production and productivity over the 2010-2014 period but has also seen the sharpest decline since the start of 2015. Bakken output was 10% lower, at 1,097 kb/d. The only two regions that saw higher output were Permian, up 19% to 2,034 kb/d and Utica, which gained 45% to 80 kb/d.

Canada – Newfoundland November actual, others October actual: Canadian oil supplies saw only a modest improvement in October, recovering by 150 kb/d from September's low, to 4.3 mb/d. Production from Alberta's upgraders inched up to 870 kb/d, from 810 kb/d a month earlier and substantially below the 1.16 mb/d reported in August before a fire curbed output at Syncrude's upgrader near Fort McMurray. Other Albertan oil supplies rose 135 kb/d, to just over 2 mb/d, while offshore output slipped on heavy maintenance at the Hibernia field. Output at the offshore field averaged only 14 kb/d over the month, compared with normal levels of around 100 kb/d.

Output is projected to have risen further in November, as not only did the Hibernia field resume normal operations, synthetic crude output also rose. According to a company report, output at the Syncrude upgrader recovered to around 320 kb/d in November, (from 214 kb/d in October and only 63 kb/d in September) before slipping again in December, when maintenance of the plant's coker 8-2 cut production by 85 kb/d.



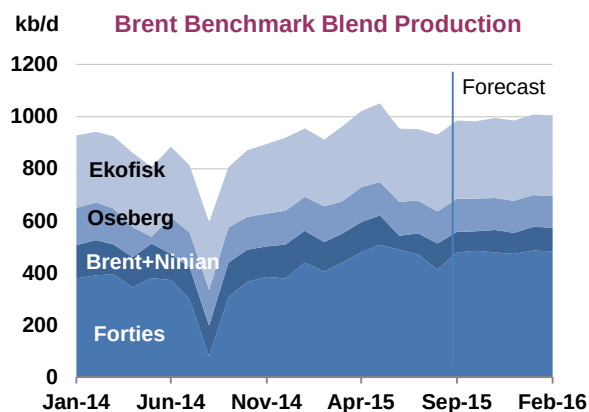
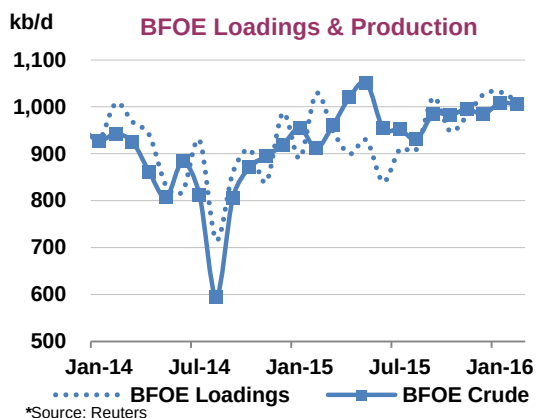
Mexico - November actual, December preliminary: Following a precipitous production decline in most of 2014 and early 2015, Pemex, seems to have - at least for now - been able to stabilise oil production around 2.6 mb/d. Total oil supplies were only marginally lower than a month earlier in December, at 2.6 mb/d. Compared with the previous year, output stood 115 kb/d lower, with the bulk of the decline stemming from the offshore Cantarell development. Cantarell, which peaked at 2.1 mb/d in 2003, saw its production slip to 246 kb/d in November, the latest month for which official monthly data is available.



North Sea

North Sea producers maintained high output levels through end-2015, with the most recent data showing Norwegian output breaching the 2 mb/d mark in October for the first time since May 2012. For the year as a whole, 2015 marked a second consecutive year of rising production in Norway, reversing a decade of falling output levels. Output in the UK continental shelf has also increased: a combination of new field start-ups and lower outage levels has lifted supplies in 2015 by 85 kb/d compared to 2014.

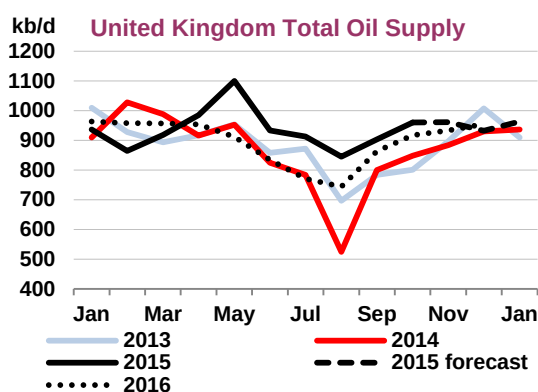
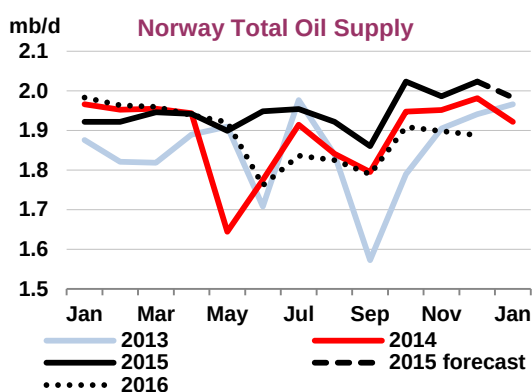
The supply of North Sea crudes that underpin the Brent benchmark are set to fall modestly in February according to Reuters calculations based on loading schedules. Supplies of the four streams, Brent, Forties, Oseberg and Ekofisk (BFOE), were scheduled to average 1.01 mb/d in February, compared with an upwardly revised loading schedule of 1.03 mb/d reported for January. The monthly drop stemmed mostly from Forties cargoes, which were set to slip by nearly 70 kb/d from January's high.



Norway – November actual, December provisional: The latest official production statistics from the Norwegian Petroleum Directorate through November exceeded preliminary production estimates by more than 70 kb/d. Surging to 2.02 mb/d in October, total output stood at its highest since May 2012, and up 75 kb/d on a year earlier. Output eased marginally in November, before breaching the 2.0 mb/d mark again in December, according to preliminary estimates.

October's steep 160 kb/d surge followed increased output from a number of installations, including Troll and Balder, after seasonal maintenance cuts. The ramping up of production at new facilities such as Knarr (producing since March and reaching 42 kb/d in October) and Gudrun (producing since April 2014, and reaching a new high of 69 kb/d) contributed.

In late December, Eni admitted further delays to the start-up of its Goliat oil and gas field in the Barents Sea. Eni said commissioning work at the \$6 billion project was at its final stage, with 15 wells ready for production and connected to the FPSO. Eni is still waiting for consent from the Norwegian Petroleum Safety Authority, which has reportedly refused to sign off on the production start due to a range of technical concerns. Once fully on-stream, the project, which will be the first producing field in the Arctic waters of the Barents Sea, will add 80 kb/d.



UK – October actual: Total UK oil production in October came in at 960 kb/d, in line with preliminary estimates. September supply figures were also confirmed by field-level output data, at around 900 kb/d. Both months recorded annual gains of more than 100 kb/d, with increases stemming mostly from the Forties system, which supplied 475 kb/d in October, up 190 kb/d on the year prior. Forties production has been boosted by several new fields added to the system. Notably, Nexen's Golden Eagle and BP's Kinnoull fields, started up in and November 2014 and January 2015, respectively, produced a combined 90 kb/d in September. Despite an annual drop in output at the system's largest field, Buzzard, from 185 kb/d to 155 kb/d, output was up 25 kb/d from outage-affected levels the previous year.

In October, Enquest started up its Alma field followed by the commissioning of Galia in November. The two fields should add 20 kb/d of output when fully operational. The expected start-up of the Greater Stella Area development off the UK meanwhile has slipped further back due to delivery delays for the floating production unit destined for the field. Ithaca now estimates first production from the Stella field in the third quarter of the year. Premier Oil has postponed first oil from its Solan field project off the UK until this January due to weather-related delays. The British operator had aimed to start production from the field West of Shetland by end-2015.

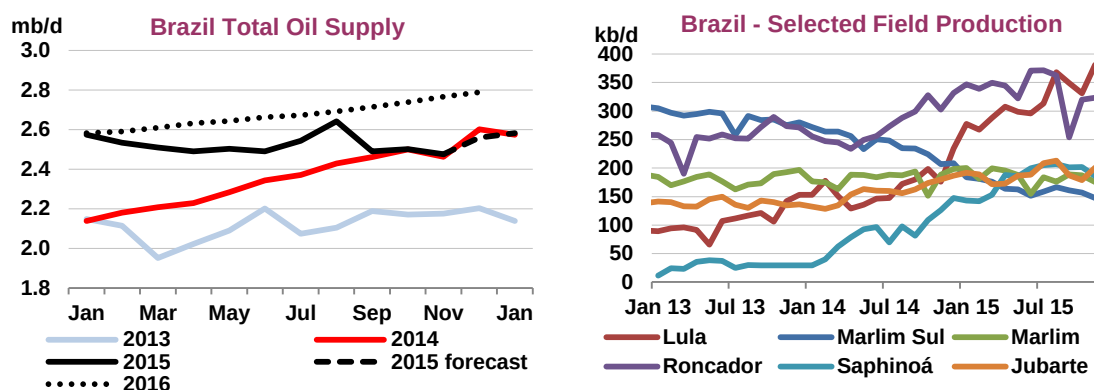
Final data should confirm that the UK is on track to post its first annual output gain since 1999 in 2015, with production increasing by more than 70 kb/d to 940 kb/d. Total oil production is forecast to ease slightly in 2016 to 885 kb/d as new field start-ups are offset by declines at mature fields and the return of a more normal seasonal maintenance programme.

Non-OECD

Latin America

Brazil – November actual: Brazilian crude and condensate output fell by a lesser-than-expected 25 kb/d in November, despite a national workers protest affecting production at a number of facilities. Output averaged 2.38 mb/d, up only 20 kb/d from a year earlier. A 50 kb/d monthly increase in output at the massive Lula provided an offset to declines at Saphinoá, Marlim and a number of smaller fields.

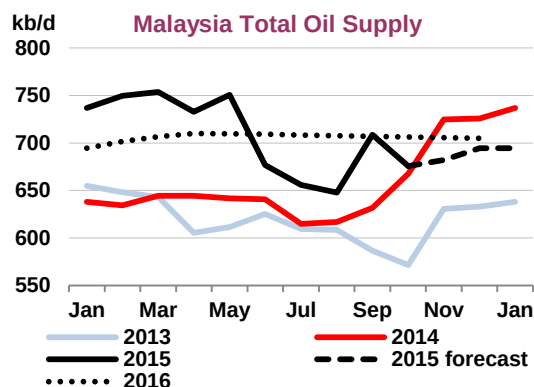
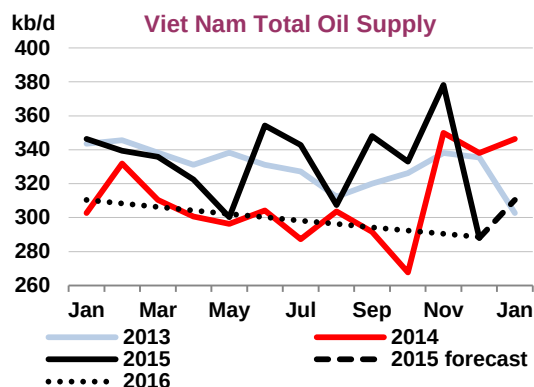
Production at the Lula pre-salt field reached its highest level yet, of 380 kb/d, more than 200 kb/d above a year earlier as output commenced from the Iracema Norte area of the field, thanks to the start-up of the Cidade de Itaguaí floating production, storage and offloading vessel. According to Petrobras, the Cidade de Itaguaí, which has a production capacity of 150 kb/d, produced 62 kb/d in October from just two wells. Since August 2015, Lula overtook Roncador as Brazil's largest field in terms of output.



In early January, Petrobras trimmed capital spending projections by 25 percent for the 2015-2019 period and warned that more declines in oil prices and the nation's currency could lead to further revisions. The company said that missing operational goals led management to lower planned investments to \$98.4 billion. Petrobras has cut spending twice since June, from an original estimate of \$130.3 billion for the period 2015 through 2019.

Asia

Viet Nam – December preliminary: According to preliminary government data, Viet Nam produced an estimated 288 kb/d crude and condensates in December, down 15% from a year earlier. Actual output last month was revised up to 380 kb/d from an initial estimate of 340 kb/d, or an 8% increase from November 2014.

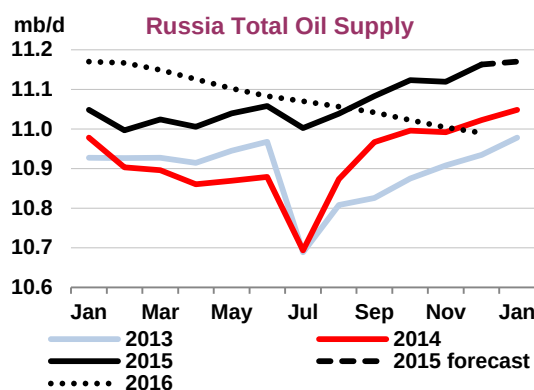


Malaysia – October actual: Malaysian total oil production rebounded in September to above 700 kb/d after maintenance at the Gumusut-Kakap facility to install gas handling and injection systems was carried out over the summer months. After dipping slightly again in October, output should inch up further through year-end, and stay around these levels during 2016. For 2015 as a whole, Malaysia's crude production is estimated to average 650 kb/d, an increase of 50 kb/d from a year earlier. Including NGLs output averaged 705 kb/d. New field start-ups, most notably of the Kimanis grade produced from the Gumusut-Kakap field which started in September 2014, supported the gains. Output at the field is expected to peak at 90 kb/d in 2016, from around 50 kb/d currently.

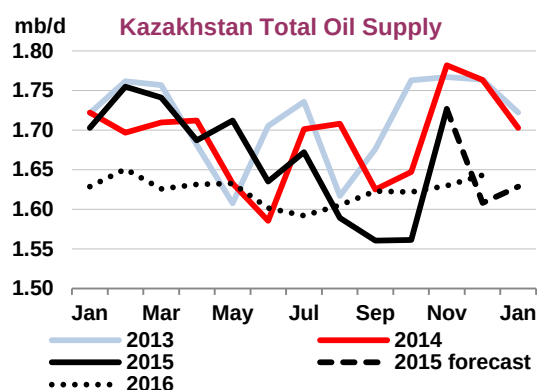
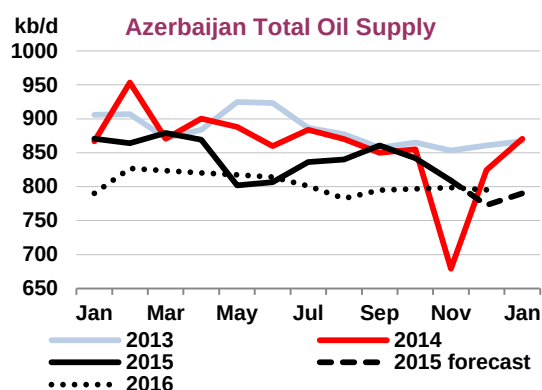
Former Soviet Union

Russia – November actual, December provisional: Russian crude and condensate production inched up yet again in December, to hit another record high of 10.83 mb/d. The start-up of Novatek's first crude field, Yarudeiskoye, supported the rise. The Yarudeiskoye field, which was launched in early December, had reportedly reached peak production capacity of approximately 70 kb/d already by early January, much faster than expected. Yarego, the joint venture developing the field, said 24 production wells are already on line and producing around 4 kb/d each.

Compared with a year ago crude and condensate output recorded gains of 160 kb/d in December, most of which stemmed from SeverEnergiya and Novatek, both up by more than 100 kb/d y-o-y. Russia's largest producer, Rosneft, reported a marginal decline of just 30 kb/d compared with a year earlier, while Lukoil output was down 50 kb/d. For 2015 as a whole, Russian oil production posted gains of 150 kb/d, to 11.1 mb/d on average, including gas liquids from processing plants. While total output is projected to ease from recent highs through 2016, for the year as a whole production is pegged near 2015's level. Growth from Yarudeiskoye, Severenergiya and some further production gains to be expected from Bashneft and Gazpromneft offsetting declines at mature fields.



Azerbaijan – November actual: In line with previous estimates, Azeri oil output dropped by another 30 kb/d in November, following October's 20 kb/d drop, to 810 kb/d. The decline stemmed from the Azeri, Chirag and Guneshli complex, which accounts for roughly 75% of the country's crude production. Supplies are estimated to have dropped further in December when a deadly fire struck a Socar-owned platform in the Caspian Sea. The platform that was working on the Guneshli field, reportedly accounting for 60% of Socar's oil output, or around 75 kb/d, was still burning in early January.



Kazakhstan – November actual: Kazakhstan's total oil production, including natural gas liquids, gained 165 kb/d in November, to 1.73 mb/d. The bulk of the increase stemmed from the country's largest producer, Tengizchevroil, which saw output rebound by 145 kb/d to 595 kb/d, after maintenance had curbed output a month earlier. The country's second largest producer, Karachaganak Petroleum Operating Co., recorded a gain of 20 kb/d, to 262 kb/d. Output was nevertheless 4% below that of a year earlier.

FSU net oil exports:

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2013	2014	4Q2014	1Q2015	2Q2015	3Q2015	Sep 15	Oct 15	Nov 15	Latest month vs. Oct 15	Nov 14
Crude											
Black Sea	1.78	1.62	1.50	1.83	1.56	1.59	1.70	1.54	1.71	0.17	0.09
Baltic	1.57	1.33	1.20	1.47	1.45	1.38	1.57	1.53	1.59	0.06	0.27
Arctic/FarEast	0.81	1.14	1.26	1.36	1.41	1.41	1.44	1.49	1.39	-0.09	0.15
BTC	0.64	0.60	0.55	0.64	0.61	0.61	0.55	0.61	0.57	-0.03	0.12
Crude Seaborne	4.80	4.69	4.51	5.29	5.03	4.98	5.27	5.16	5.26	0.10	0.62
Druzhba Pipeline	1.03	1.01	0.99	1.07	1.08	1.06	1.09	1.15	1.04	-0.11	0.04
Other Routes	0.57	0.40	0.21	0.25	0.24	0.23	0.26	0.23	0.21	-0.02	0.00
Total Crude Exports	6.40	6.14	5.81	6.61	6.35	6.27	6.62	6.53	6.51	-0.02	0.53
Of Which: Transneft ¹	4.08	3.88	3.65	4.27	4.16	4.08	4.29	4.40	4.26	-0.14	0.50
Products											
Fuel oil ²	1.64	1.72	1.71	1.65	1.51	1.31	1.38	1.36	1.50	0.14	-0.25
Gasoil	0.85	0.95	0.88	1.22	1.03	0.82	0.81	0.84	0.82	-0.01	-0.12
Other Products	0.51	0.57	0.50	0.73	0.69	0.58	0.58	0.69	0.59	-0.09	0.16
Total Product	3.00	3.25	3.09	3.61	3.23	2.71	2.76	2.88	2.92	0.04	-0.21
Total Exports	9.40	9.38	8.90	10.22	9.58	8.98	9.39	9.42	9.43	0.02	0.32
Imports	0.08	0.08	0.09	0.05	0.06	0.07	0.07	0.11	0.07	-0.04	-0.02
Net Exports	9.32	9.30	8.81	10.17	9.53	8.91	9.32	9.31	9.36	0.06	0.35

Sources: Argus Media Ltd, IEA estimates

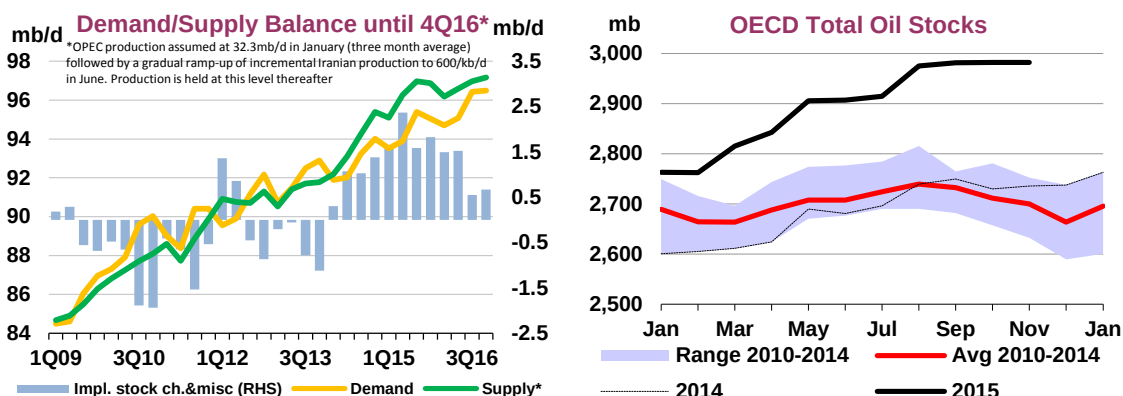
¹Transneft data exclude Russian CPC volumes.

²Includes Vacuum Gas Oil

OECD STOCKS

Summary

- A notional 1 billion barrels of oil was added to global inventories over 2014 – 2015 and our latest supply and demand balances suggest builds will persist with up to 285 mb expected to be added to stocks over the course of 2016. Despite estimations of current spare storage capacity and the outlook for significant capacity expansions over 2016, this stock build will likely put midstream infrastructure under pressure and could see floating storage become profitable.
- OECD commercial inventories stood at 2 982 mb at end-November, almost level with October's upwardly revised total. OECD stocks have built now for nine consecutive months – adding 220 mb over the period.
- Refined products holdings added 7.3 mb over November as refiners in all OECD regions continued to ramp-up throughputs while demand growth eased. Ahead of the arrival of colder weather in the northern hemisphere, middle distillates built by an impressive 10.2 mb to stand 47 mb and 59 mb above average and last year, respectively. At end-month, refined products covered 31.5 days of forward demand, 0.1 day less than at end-October following a forecast uptick in demand.
- Preliminary data for December suggest that OECD stocks rose counter-seasonally by 7.7 mb driven by a steep build in Europe. This suggests that OECD industry inventories will have added a record 252 mb at a rate of 0.7 mb/d over 2015.



Global overview

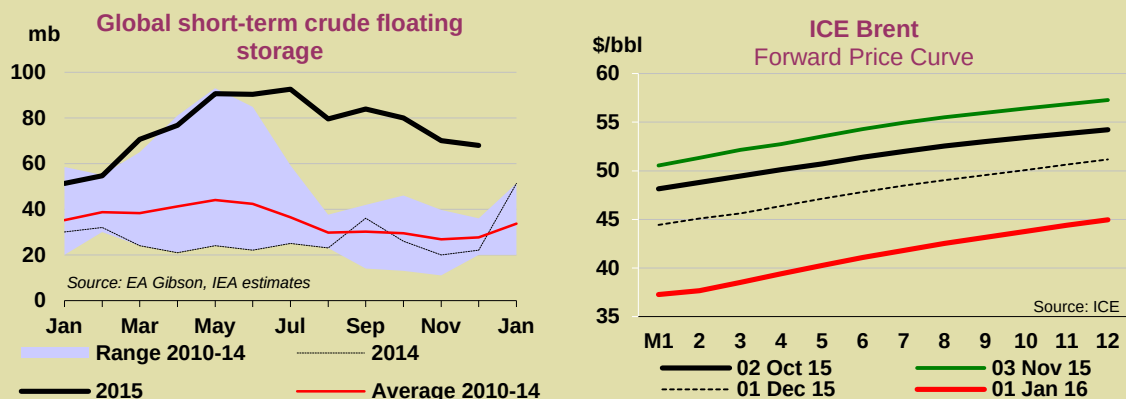
Stocks have stubbornly refused to follow seasonal trends and draw over recent months. In 4Q15 global stocks soared by a notional 1.8 mb/d – a record for the fourth quarter – a period normally characterised by stocks draws (only four builds have been posted in the fourth quarter over the past thirty years), and global supply and demand balances suggest that stocks will continue to build throughout this year.

Following upward revisions to non-OPEC supply and downward revisions to demand in 2016, global supply and demand balances now suggest that stocks will build by a notional 385 mb this year. Despite roughly 100 mb of available capacity in the US and the projected 230 mb of new storage capacity due to be commissioned by the end of the year (see *Global oil storage capacity to surge in 2016 and beyond*), the scale of the build would likely put midstream infrastructure under pressure. Due to the opacity of tank capacity information, especially in producer countries, it is difficult to assess whether there is currently additional spare storage capacity outside of the US. Nonetheless, and with all things being equal, such a build would probably put prompt prices under pressure, thus deepening the contango price structure (where oil for prompt delivery is sold at a discount to oil for delivery later) which in turn would

see volumes of oil stored at sea increase. Moreover, since midstream infrastructure has so far coped with the notional 1 billion barrels of oil added to global inventories over 2014 - 2015, floating storage volumes have largely resulted from logistical and marketing issues (see *floating storage slowly sailing away*).

Floating storage slowly sailing away

Over the past twelve months, volumes of oil held in floating storage have increased notably and in mid-year approached the highs seen in 2009-10. However, while the previous peak in floating storage was driven largely by market participants turning to floating storage as a speculative play – the buying of a physical cargo and storing it on an oil tanker before selling it at a later date for a profit – this time logistical bottlenecks and marketing issues have forced market participants to turn to tankers for storage.



In 2009-10 we saw a 'super-contango' in global oil markets. In the ICE Brent market, the discounts of prompt barrels versus those for delivery three months later and twelve month later reached \$5/bbl and \$16/ bbl, respectively. At its peak, short-term floating storage amounted to 113 mb held on 132 vessels.

Market conditions now are very different as, although crude and product markets are once again in contango, the time spreads of markets are currently insufficient to cover storage costs that include tanker hire, insurance, bunker fuel and port fees. Although information is scarce and costs vary across charters and locations, we understand that floating storage costs in the region of \$1.30/bbl to \$1.50/bbl per month. To cover these costs it is necessary for a contango of over \$4/bbl over three months and \$16/bbl over twelve months.

During most of 2015, forward time spreads in the ICE Brent market remained about \$0.40/bbl – \$0.60/ bbl per month. Nonetheless, early-February saw the contango in the first twelve months of the ICE Brent contract widen to over \$10/bbl. This whetted the appetite of many market participants and saw a number of large vessels booked on time charters with storage options. However, as the contango once again narrowed, speculative storage did not take off. Rather, logistical bottlenecks and marketing difficulties in key regions have driven volumes held at sea.

These include port delays in China that have seen vessels remain anchored at key terminals. In Northwest Europe vessels have had trouble offloading as land-based storage levels in the ARA region have remained at close to full capacity amid difficulties moving product into central Europe. Meanwhile, approximately 36 mb of Iranian oil remains held on NITC tankers as, amid ongoing sanctions, Tehran struggles to offload its less profitable mercaptan-rich condensate that few refineries outside of Asia can process. Now sanctions have been lifted these volumes are expected to be drawn down relatively quickly. Nigeria has also been hit by marketing difficulties that have periodically seen cargoes being loaded onto tankers and then anchored while a buyer is sought. In all, EA Gibson shipbrokers estimate that in early January there was 68 mb of short-term floating storage globally with 74% of this held in the Middle East Gulf with cargoes also being held in Asia Pacific (16 mb) and North West Europe (2 mb). In addition, approximately 60 mb of oil is held in semi-permanent floating storage in Singapore, the Middle East Gulf, the Caspian Sea and the Arctic Ocean where ships are used for the building and breaking of bulk.

OECD inventory position at end-November and revisions to preliminary data

OECD commercial inventories stood at 2 982 mb at end-November, almost level with October's upwardly revised total. Stocks have remained relatively constant since September but have built for nine consecutive months – a period during which they have added 220 mb. The slight 30 kb rise in total inventories was in sharp contrast to the 11.7 mb five-year average draw for the month. Accordingly, stocks' surplus to average levels widened to 282 mb from 270 mb one month earlier. Levels were buttressed by rising refined products holdings that added 7.3 mb over the month as refiners continued to ramp-up throughputs amid slowing demand growth. Middle distillates rose by an impressive 10.2 mb, far steeper than the 2.5 mb five-year average build. As winter in the northern hemisphere gets under way, middle distillates inventories stand 47 mb and 59 mb above average and last year, respectively. Middle distillates inventories in both the Americas and Europe are above average levels while those in Asia Oceania stand at a slight (1.2 mb) deficit.

Preliminary Industry Stock Change in November 2015 and Third Quarter 2015

	November 2015 (preliminary)				Third Quarter 2015			
	(million barrels)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	2.3	-3.0	-7.0	-7.6	0.08	-0.10	-0.23	-0.25
Gasoline	4.3	1.5	0.2	6.0	0.14	0.05	0.01	0.20
Middle Distillates	6.8	2.5	0.9	10.2	0.23	0.08	0.03	0.34
Residual Fuel Oil	0.5	1.4	1.7	3.6	0.02	0.05	0.06	0.12
Other Products	-10.4	-1.0	-1.1	-12.5	-0.35	-0.03	-0.04	-0.42
Total Products	1.2	4.4	1.6	7.3	0.04	0.15	0.05	0.24
Other Oils ¹	1.4	-2.7	1.7	0.4	0.05	-0.09	0.06	0.01
Total Oil	5.0	-1.3	-3.7	0.0	0.17	-0.04	-0.12	0.00

1. Other oils includes NGLs, feedstocks and other hydrocarbons.

The only product category to post a draw during November was 'other products' which fell seasonally as inventories in the US drew by 10.1 mb after space heating demand for propane increased upon the arrival of colder weather. OECD motor gasoline inventories rose by 6.0 mb, meanwhile, while fuel oil increased counter-seasonally by 3.6 mb with all OECD regions posting counter-seasonal builds. All told, refined products covered 31.5 days of forward demand at end-month, 0.1 day less than at end-October following revisions to demand data.

As refinery activity increased, OECD crude oil holdings drew by 7.7 mb, in line with seasonal trends. However, this masked regional disparities; stocks in OECD Americas rose by 2.4 mb to defy seasonal trends as regional crude production remained resilient and as a narrower WTI – Brent spread attracted cargoes from West Africa. On the other hand, stocks in Europe drew seasonally (-3.0 mb) while in Asia Oceania they dropped by a steep 7.0 mb, largely after Korean throughputs outpaced imports.

Revisions versus 11 December 2015 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Sep-15	Oct-15	Sep-15	Oct-15	Sep-15	Oct-15	Sep-15	Oct-15
Crude Oil	1.1	5.6	-0.4	3.4	0.0	4.4	0.6	13.4
Gasoline	0.0	0.3	0.0	-0.9	0.0	-0.3	0.0	-0.9
Middle Distillates	0.0	3.5	-0.2	-6.7	0.0	-0.5	-0.2	-3.7
Residual Fuel Oil	0.0	-0.1	0.4	0.0	0.0	-0.2	0.4	-0.3
Other Products	-0.2	2.2	0.4	1.5	0.0	-0.9	0.1	2.9
Total Products	-0.3	5.9	0.5	-6.2	0.0	-1.8	0.2	-2.0
Other Oils ¹	0.9	-1.2	0.0	0.4	0.0	0.1	0.9	-0.7
Total Oil	1.6	10.3	0.1	-2.4	0.0	2.7	1.7	10.7

1. Other oils includes NGLs, feedstocks and other hydrocarbons.

Upon the receipt of more complete data, OECD total oil holdings were revised 10.7 mb higher in October as a 13.4 mb upward adjustment to crude oil was partly offset by a combined 2.7 mb downward revision to refined products and 'other oils'. Crude stocks in all OECD regions were revised higher with those in the Americas, Europe and Asia Oceania increasing by 5.6 mb, 3.4 mb and 4.4 mb, respectively. On the products side, downward adjustments were made to Europe (-6.2 mb) and Asia Oceania (-1.8 mb) while the Americas were revised upwards by 5.9 mb which saw the region's total oil holdings adjusted up by a significant 10.3 mb. When considering an additional 1.7 mb upward revision to September data, the net effect of the October adjustment is that the 8.2 mb stock draw presented in last month's *Report* is now seen as a slight 0.7 mb stock build.

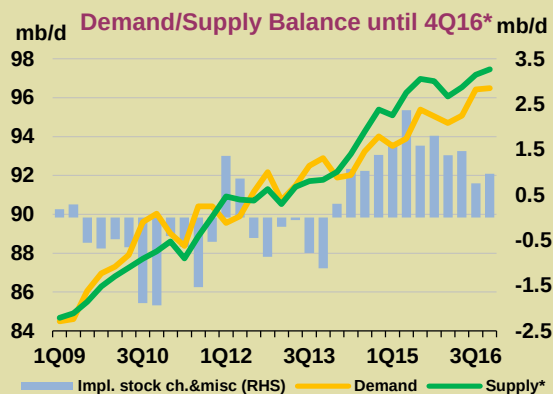
Preliminary data for December suggest that commercial holdings remained stubbornly high and built counter-seasonally by 7.7 mb. The increase was centred in Europe where stocks added 9.5 mb, in sharp contrast to the 4.1 mb average draw for the month after being pressured upwards by a 9.9 mb surge in crude holdings. Elsewhere, US inventories remained stable (+0.1 mb) as counter-seasonal builds in crude, NGLs and other feedstocks more than offset a decrease in refined products. On the other hand, stocks in Asia Oceania drew by 1.9 mb, far shallower than the 16.7 mb average draw for the month. If these data are confirmed by final data, OECD industry inventories will have added a record 252 mb at a rate of 0.7 mb/d over 2015.

Global oil storage capacity to surge in 2016 and beyond

Despite the current oversupply in global oil markets and the fall in oil prices over the past year, the contango structure of crude and products markets has remained relatively flat. This is in sharp contrast to the development of the so-called super-contango over 2009-10 when, as storage capacity in key markets came under pressure, the contango over the first twelve months of the ICE Brent contract widened to over \$16 /bbl that saw oil moved onto tankers (see *floating storage slowly sailing away*).

Storage capacity expected to be completed in 2016

(million barrels)	
Region	Capacity
China	145
of which SPR	110
of which commercial	35
North America	32
Other Asia	35
Middle East	10
Europe	4
Africa	2
Latin America	2
Former Soviet Union	1
Total	231



One reason for this difference is that so far global storage capacity has remained ample to absorb the extra supply. Over the past decade, the oil market has reacted to a number of ongoing and fundamental trends that have necessitated the building out of storage capacity. These include; the shift in oil demand growth towards the non-OECD, the increasing globalisation of oil trade, the movement of refining closer to the wellhead and the surge in North American onshore production. The US EIA is the only body to routinely collect storage capacity data and their most recent survey indicated that tank space grew by 160 mb (6%) between 2010 and 2015. Outside of the US, capacity information is scarce, although Chinese SPR capacity has likely added over 200 mb between 2006 and 2016 while a significant amount of commercial capacity there was also commissioned. Other notable capacity additions came online in the last few years in the Middle East, Singapore, India, Canada and the EU.

According to project lists, the expansion of storage capacity is expected to continue in 2016 and beyond. This year, over 230 mb of new capacity is expected to be completed. New Chinese capacity is likely to account for more than 50% of this with up to 110 mb of SPR capacity slated to be commissioned before 2017 with sites at Jinzhou and Huizhou among the first to be completed. A number of commercial facilities are

Global oil storage capacity to surge in 2016 and beyond (continued)

also expected to be commissioned including Yangpu, Dongying, Yunnan and Shandong. Elsewhere in Asia, India is expected to belatedly fill the latest phase of its SPR, which should amount to nearly 30 mb. Smaller projects are slated to be finished in Singapore (4.5 mb) and the Maldives (0.3 mb).

In the next few years, the Middle East is expected to see a rapid surge in storage capacity as local refining capacity increases and the region's strategic importance in global trade rises. The UAE and Oman will exploit their positions outside of the Straits of Hormuz, to become important global players in the storage business. This year will see the UAE add nearly 10 mb of tankage at Fujairah and in the Hamiyah free trade zone. Going forward, 2017 is expected to see oil stored at Oman's ambitious Ras Markaz project which eventually could hold 200 mb.

Elsewhere, as African oil demand increases, projects in South Africa (0.7 mb) and Mozambique (1 mb) are expected to come online. In Latin America, as Brazil increases domestic oil production, 1 mb of capacity should be added while the Dominican Republic should also construct 1 mb. Also of note is the recent \$370 million sale of the shuttered Hovensa refinery in the Virgin Islands to a group planning to run the site as a storage terminal. This site currently has 30 mb of capacity with more expected to be added. Depending on the state of the tanks, oil could be stored on the site in early 2016.

It is not only developing countries where oil storage terminals are being expanded. As North American infrastructure adapts to surging domestic production, approximately 32 mb of capacity is expected to be completed including projects in Houston, Corpus Christi and Beaumont (all in Texas), at the LOOP terminal, Okarche in Oklahoma and the Canadian terminals of Fort Saskatchewan and Hardisty.

Meanwhile, in Europe, despite strict EU environmental legislation, a number of projects are nearing completion. In Poland, as more crude is imported by sea, a 2.3 mb facility is due to be commissioned in early 2016 at Gdansk. The Netherlands is expected to see a near-1 mb expansion at the Rubis terminal in Rotterdam while a further 1 mb project will also be commissioned in central Germany to aid the distribution of refined products and petrochemicals.

Despite these projects, current spare capacity and the re-opening of previously decommissioned sites, the expectation is that stock builds will persist throughout 2016 and that the scale of these will likely see tank tops come under pressure. However, this pressure could subside somewhat in 2017 upon the opening of several mega projects, notably in Oman. Nonetheless, depending on their completion date, these projects may arrive too late to prevent the return of significant volumes of oil being stored on tankers at sea.

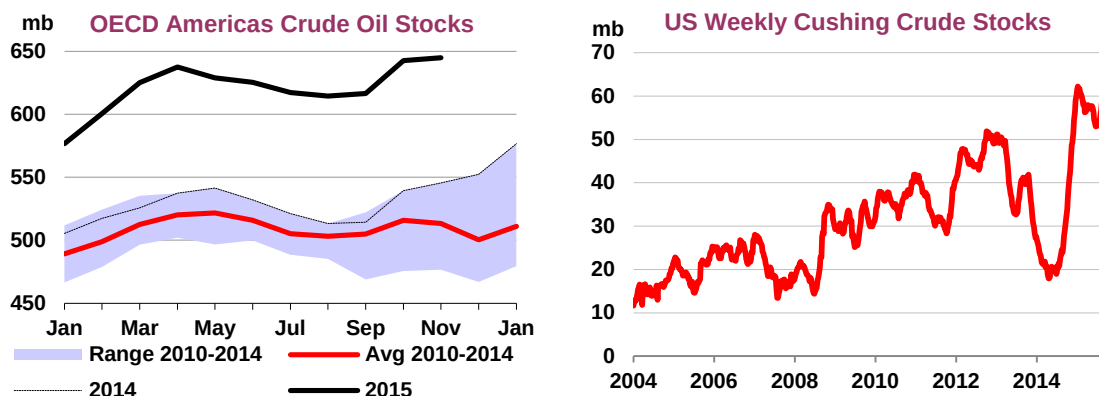
Recent OECD industry stock changes

OECD Americas

Commercial inventories in OECD Americas rose counter-seasonally by 5.0 mb in November as both crude oil (+2.4 mb) and NGLs and other feedstocks (+1.4 mb) built. Consequently, inventories extended their recent record surplus and stood 213 mb above average at end-November. Despite an increase in regional refinery runs, crude oil stocks built after US production remained resilient in the face of falling oil prices while inventories were also pushed higher by increasing seaborne imports as the WTI – Brent spread narrowed.

Refined products largely adhered to seasonal trends and added 1.3 mb over November as a sharp 10.4 mb draw in 'other products' (which largely bypass the refinery system), driven mainly by higher US propane demand for space heating, was more than offset by builds in other refined products which rose as regional refinery activity increased and demand growth eased. Middle distillates holdings rose by 6.8 mb, far steeper than the 1.0 mb five-year average build for the month. Accordingly, the surplus of stocks versus the five-year average more than doubled to 10.6 mb from 4.8 mb one month earlier and stood 22 mb above year-ago levels. Motor gasoline inventories built by 4.3 mb and stood a slim 0.7 mb above average at end-month. In terms of days of forward demand cover, refined product holdings provided 30.5 days of cover at end-November, 0.1 days above the October level and 1.5 days above the year-ago level.

Weekly data from the US Energy Information Administration (EIA) indicate that US commercial inventories continued to build counter-seasonally in December after they inched up by 0.1 mb during a month when they have drawn over the past five years by an average of 13.8 mb. Accordingly, at end-month they stood a record 225 mb above average. Although US crude oil stocks remained at November's level of 502 mb, December saw draws in PADD 3 (-0.8 mb) PADD 4 (-0.2 mb) and PADD 2 (-0.1 mb) while PADD 1 and PADD 5 posted builds of 0.6 mb apiece. Despite the draw in PADD 2 (the midcontinent), stocks at Cushing built by a further 0.5 mb and by early January stood at a record 64 mb (88% of working capacity). This added to the downward pressure on WTI that saw it drop to near-\$30/bbl at the time of writing.

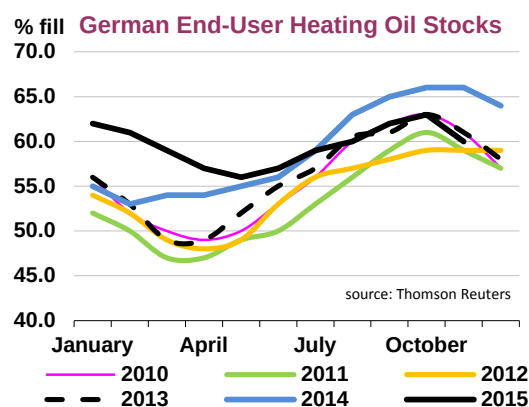
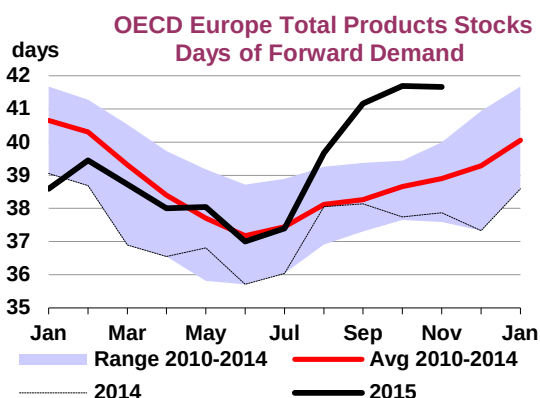


Inventories of refined products inched down by 0.7 mb as 'other products' dropped by 5.6 mb although this was only half of the average draw for the month. During December, weather in many parts of the US remained warmer than usual and this likely saw space heating demand for propane remain lower than in previous years. Although both middle distillates (+3.9 mb) and gasoline (+1.2 mb) posted builds, these were more gentle than normal. By end-month, middle distillates stood at a 9.0 mb surplus to average levels while motor gasoline had slipped to a 7.6 mb deficit.

OECD Europe

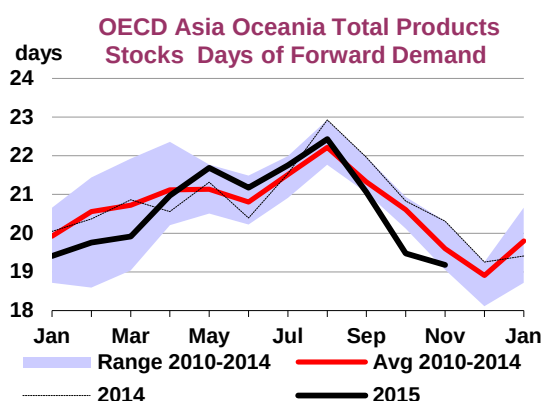
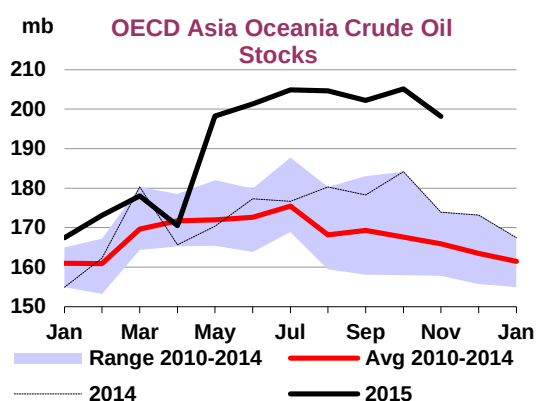
Industry holdings in OECD Europe were pressured 1.3 mb lower in November after crude oil, NGLs and other feedstocks drew by a combined 5.7 mb. Nevertheless, the surplus of regional total oil stocks to average levels remained close to October's level of 50 mb. Despite regional refinery throughputs falling by over 200 kb/d during the month, product stocks rose by 4.4 mb with all product categories building except 'other products' (-0.1 mb). Middle distillates added a broadly seasonal 2.5 mb to end the month 37 mb above average. Following the steep builds in products over the second half of 2015, by end-November, total refined products covered 41.5 days of forward demand, level with one month earlier but 3.7 days above one year earlier.

Preliminary data from Euroilstock suggest that European inventories defied seasonal trends and rebounded by a steep 9.5 mb in December. As refinery throughputs dropped by a further 0.1 mb/d, crude oil accounted for the entirety of the build and added 9.9 mb which more-than-offset a 0.4 mb draw in refined products as motor gasoline (+0.4 mb) and 'other products' (+0.4 mb) posted builds while middle distillates (-1.2 mb) and fuel oil (-0.1 mb) drew. As heating demand ramped up as the weather turned colder and as low water levels hindered the supply of product to central Europe, German heating oil stocks sank by a relatively steep 3% to stand at 60% of capacity in early December. Additionally, the aforementioned logistical supply issues saw stocks of refined products in independent storage in Northwest Europe remain stubbornly high during December.



OECD Asia Oceania

Commercial stocks in OECD Asia Oceania drew seasonally by 3.7 mb in November. Crude oil stocks plummeted by 7.0 mb in line with regional refiners hiking their throughputs by over 200 kb/d during the month and likely outpaced imports. Nonetheless, by end-month, regional stocks stood at a 20 mb surplus to average levels with a 28 mb surplus in crude, NGLs and other feedstocks more-than-offsetting an 8 mb deficit in products. All product categories bar 'other products' (+1.1 mb) posted builds in November. Notably, fuel oil added 1.7 mb amid a weak regional market and limited opportunities to ship product to Singapore as inventories there remained obstinately high. Middle distillates rose by 0.9 mb to end the month 1.2 mb below average. All told, regional refined product inventories covered 19.3 days of forward demand, 0.5 days below end-October and 1.1 days below one year earlier.



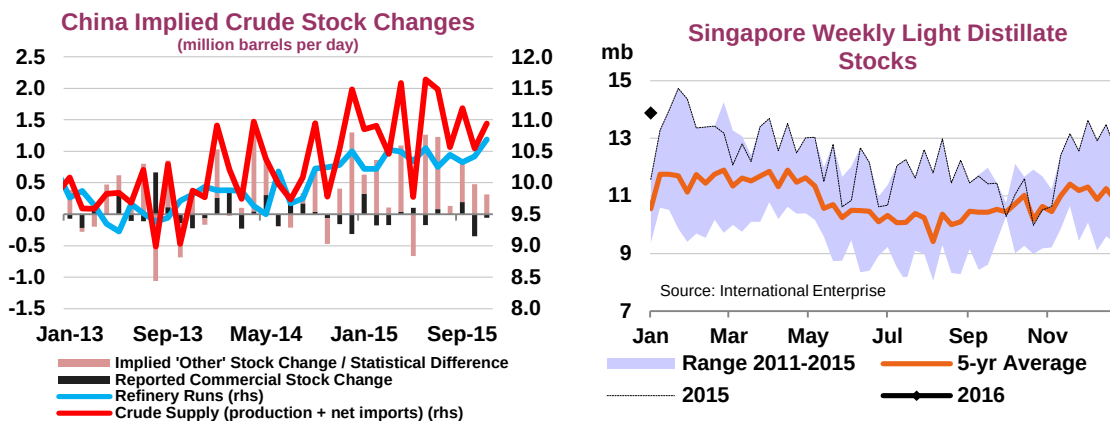
Weekly data from the Petroleum Association of Japan suggest that inventories there drew by 1.9 mb in December as, despite refinery runs surging by nearly 200 kb/d, refined products fell by 1.4 mb. Only 'other products' rose while fuel oil (-2.1 mb) and middle distillates (-0.8 mb) and motor gasoline holdings remained stable. This more-than-offset a 3.9 mb rise in crude oil, likely as imports increased. By month-end, Japanese total oil inventories remained a slim 1.5 mb above average.

Recent developments in Singapore and China stocks

Data from *China Oil, Gas and Petrochemicals (China OGP)* indicate that Chinese commercial oil inventories inched down by an equivalent 1.7 mb in November (data are reported in terms of percentage stock change). However, data suggest that the 'gap' between crude supply (domestic production plus net imports) and refinery throughputs remained positive implying an unreported 9 mb stock build in November leaping to 44 mb in December. Data have now signalled seven consecutive builds through the end of 2015 and while reports suggest that SPR fill has slowed recently, it is understood that independent 'teapot' refineries have begun to build crude stocks following the Chinese administration's decision to permit these refineries to import and run crude oil (see *Chinese independents win crude*

import quotas: still teapots? in 12 August 2015 OMR). Indeed, this factor is the likely driver behind the steep build in December. Furthermore, while the Chinese National Bureau of Statistics recently indicated that by mid-2015 China held strategic reserves of about 190 mb, it has been reported that construction delays have resulted in a number of SPR sites, originally scheduled to be commissioned in 2015, being deferred to 2016.

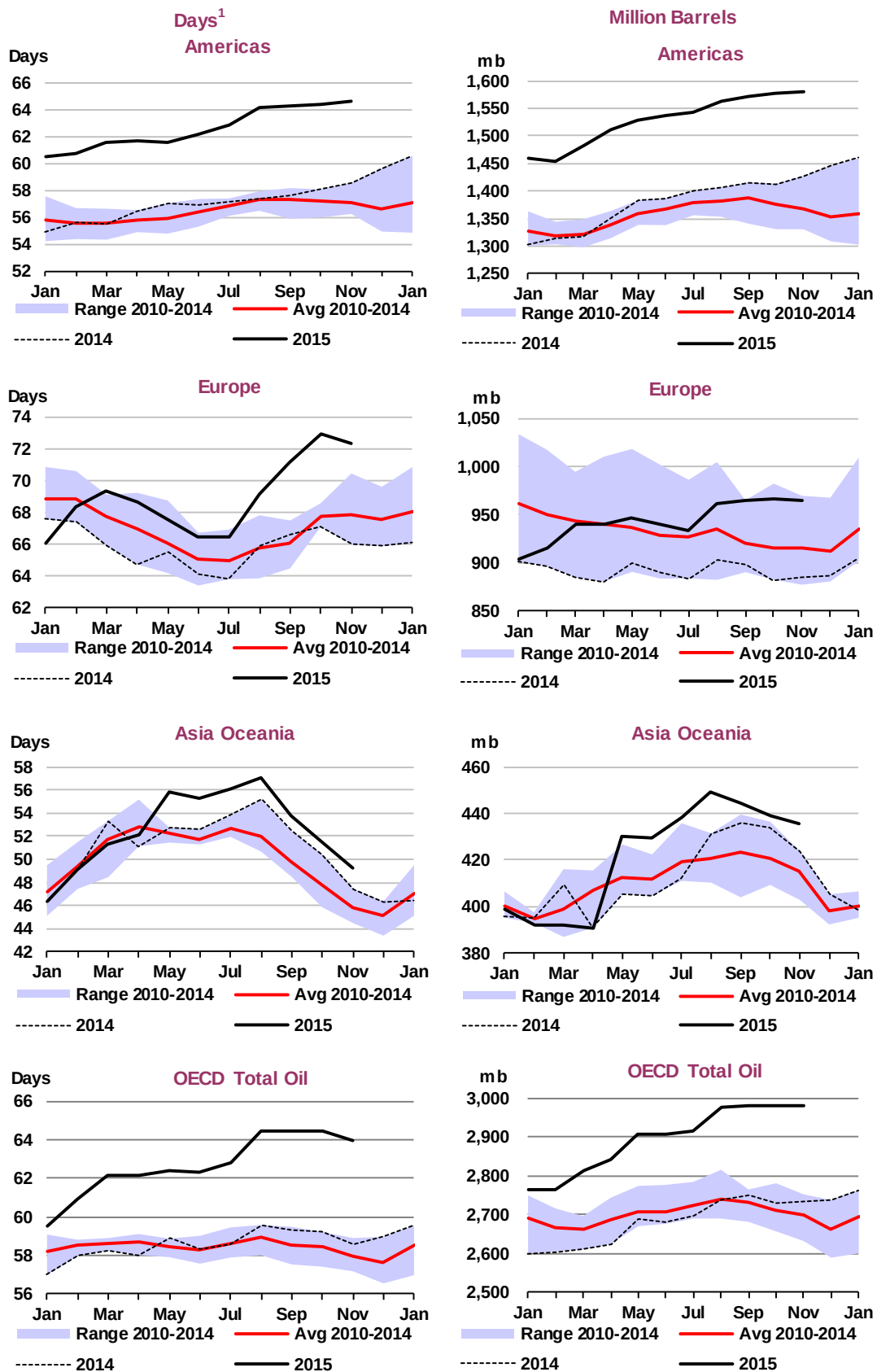
In November, Chinese commercial refined products stocks built in line with increasing refinery throughputs. This increase was driven by gasoline holdings (+4.3 mb) which restocked after relatively robust demand over the second half of the year. Meanwhile, gasoil and kerosene stocks dropped by 0.9 mb apiece with holdings of the former likely pressured lower by exports remaining high as Chinese domestic demand continues to underwhelm.



Despite drawing by 1.1 mb on a monthly basis, land-based refined product inventories in Singapore remained well above both average and year-earlier levels throughout December. Soaring light distillates holdings buttressed stocks and after a steep 1.3 mb build occurred in the first week of January. This was driven by increased inflows from China and the Middle East and saw stocks surge to eleven-month highs. In contrast, fuel oil inventories dropped as bunkering activity picked up as vessels took advantage of the lowest prices since 2003 and as imports from Russia and Europe reportedly fell.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

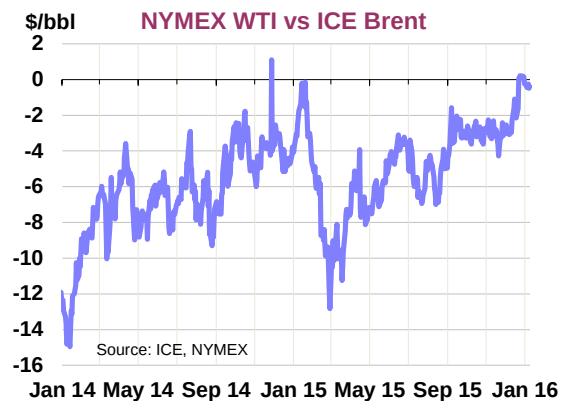
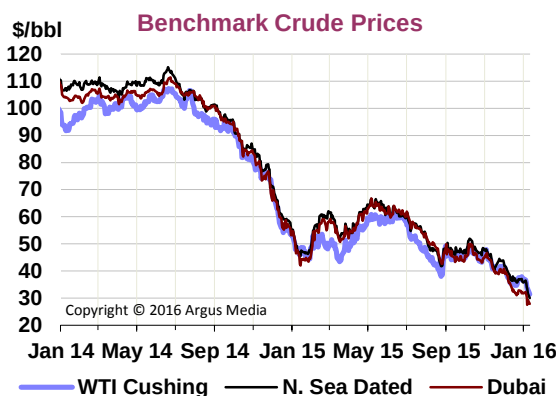


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Markets were routed in December as persistent oversupply, bloated inventories and a slew of negative news pressured prices steadily downwards so that by mid-January crude prices touched twelve-year lows.** At the time of writing, both ICE Brent and NYMEX WTI had sunk below \$30/bbl. ICE Brent was last trading at \$28.86/bbl with NYMEX WTI forty cents higher at \$29.26/bbl.
- **Despite the fall in crude prices, the contango structure of crude and products futures markets remained relatively stable with time spreads remaining at levels that do not support floating storage.**
- **Spot product prices shadowed crude prices and plummeted across the board in December and by mid-January were touching multi-year lows.** Nonetheless, in percentage terms, prices for products at the top of the barrel held up better than those in the middle and bottom of the barrel while Asian cracks remained robust with naphtha cracks hitting multi-year highs after they were boosted by the relative weakness of Dubai crude amid fierce regional competition from competing sour grades.
- **Rates for crude tankers were stable in December, bar very-large-crude-carriers (VLCCs)** which closed 2015 in style as rates on the Middle East Gulf to Asia route hit levels not seen since May 2008. Product tankers, meanwhile, experienced a mixed month with those in the east firming on brisk naphtha trade while transatlantic rates softened as arbitrage windows narrowed.

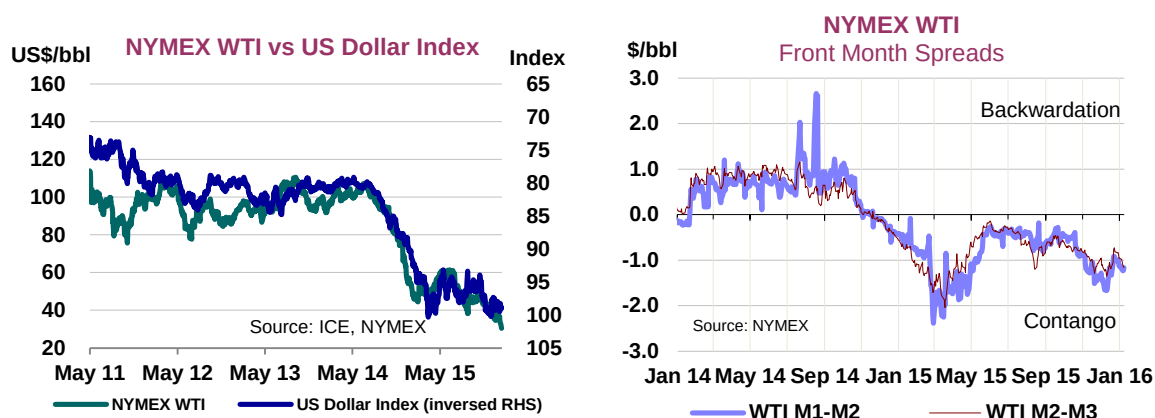


Market overview

Oil prices plummeted in December as persistent oversupply, bloated inventories and a slew of negative news pressured all benchmarks steadily downwards so that by mid-January crude prices touched twelve-year lows. At the time of writing, both ICE Brent and NYMEX WTI had sunk below \$30/bbl. ICE Brent was last trading at \$28.86/bbl with NYMEX WTI forty cents higher at \$29.26/bbl.

Markets remain extremely volatile but they largely shrugged off Middle East tensions as Saudi and Iran engaged in sabre rattling and cut off diplomatic relations, while US crudes gained some strength from the congressional decision to lift the forty-year old ban on exporting US crude oil. Consequently, the ICE Brent – NYMEX WTI spread narrowed steadily so that by early-January WTI was briefly trading at a slight premium to Brent. Despite a narrow spread attracting an uptick in transatlantic imports to the US over recent months, WTI once again moved to a premium versus Bakken crude that may have opened the arbitrage to move Bakken by train to the Atlantic coast. This would theoretically choke off African exports to the region. In the East, Asian markets remained weak as Middle Eastern sour crude producers

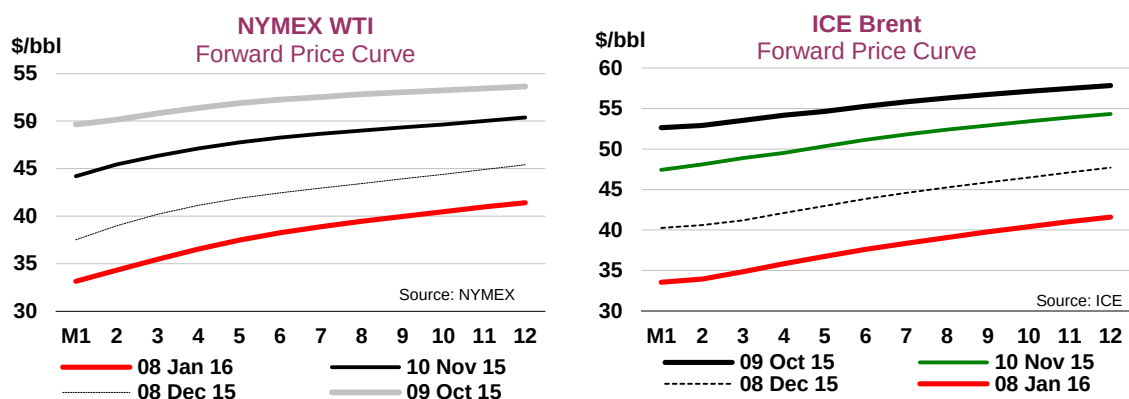
continued to ship high volumes amid prospects for a swift easing of Iranian sanctions and for an increase in refinery maintenance towards the end of the first quarter. Accordingly, the discount of regional benchmark Dubai against Brent increased to over \$6 /bbl in January, the widest since August 2013.



Product markets also remained weak. Notably, middle distillate cracks sank to multi-year lows of under \$10/bbl due to bloated inventories and warmer-than-normal weather that limited space-heating demand. Despite this weakness, the contango in both European and US gasoline markets remained stable and relatively flat as the back of the forward curve dropped in tandem with the front. The bright spot in the market was naphtha, where strong petrochemical and gasoline blending demand saw cracks hit multi-year highs, especially in Asia.

Futures markets

Futures prices plummeted in December on weak market fundamentals, expectations that Iranian sanctions will soon be lifted, a strengthening US Dollar in the wake of the US Federal Reserve's decision to increase interest rates by a quarter of a percent, weak economic numbers and turmoil in financial markets. On a monthly average basis, ICE Brent lost \$7.03/bbl in December and was last trading at \$28.86 /bbl. NYMEX WTI held its value better and slipped by \$5.59/bbl on average in December after some bullish sentiment arose from the decision to immediately lift the US crude export ban. WTI rose to a slim premium over ICE Brent during the last few trading days of the month. Nonetheless, on news from the EIA of another stock build and in the wake of the easing of Iranian sanctions, WTI slipped below \$30 /bbl and was last trading at \$29.26/bbl.



Despite the fall in crude prices, the contango structure of futures markets (where oil for prompt delivery is sold at a discount to oil delivered later) remained relatively stable with time spreads continuing at levels which do not support floating storage. In early January, the spread over the first three months of the ICE Brent contract stood at \$1.32/bbl compared to \$0.95/bbl one month earlier. The spread would

have to reach about \$4.50/bbl to cover storage costs. The contango in the NYMEX WTI market is slightly steeper as inventories at the Cushing Oklahoma storage hub – the contract’s delivery point – hit a record 64 mb in early January, pressuring the front of the forward curve down. Consequently, the spread over the first three months stood at \$2.32/bbl. After the repeal of the US crude export ban, in theory it is now possible to store US oil on the water. However, in order for such a cargo to be delivered to a US terminal, it would be required to be stored on a Jones Act compliant vessel that would increase the cost of storage by a factor of three.

Prompt Month Oil Futures Prices

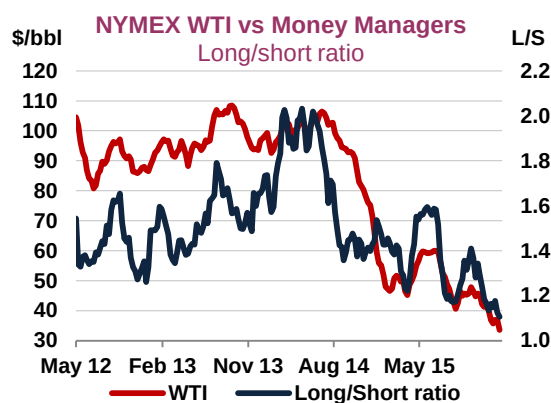
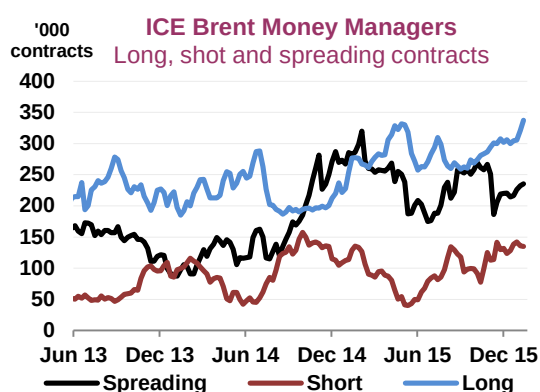
(monthly and weekly averages, \$/bbl)

	Oct	Nov	Dec	Dec-Nov	%	Week Commencing:				
				Avg Chg	Chg	14 Dec	21 Dec	28 Dec	04 Jan	11 Jan
NYMEX										
Light Sweet Crude Oil	46.29	42.92	37.33	-5.59	-13.0	35.77	36.62	37.08	34.63	30.59
RBOB	56.21	56.04	52.68	-3.36	-6.0	52.66	51.35	52.56	50.26	44.86
No.2 Heating Oil	62.97	59.84	49.50	-10.34	-17.3	47.03	46.29	46.20	45.78	41.07
No.2 Heating Oil (\$/mmbtu)	11.11	10.55	8.73	-1.82	-17.3	8.29	8.16	8.15	8.07	7.24
Henry Hub Natural Gas (\$/mmbtu)	2.39	2.28	2.04	-0.24	-10.4	1.81	1.95	2.29	2.36	2.23
ICE										
Brent	49.29	45.93	38.90	-7.03	-15.3	37.50	36.93	37.04	35.03	30.54
Gasoil	61.47	58.45	47.39	-11.07	-18.9	45.48	44.95	44.79	42.54	38.34
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-3.00	-3.01	-1.57	1.44		-1.73	-0.31	0.04	-0.40	0.05
NYMEX No.2 Heating Oil - WTI	16.68	16.92	12.17	-4.75		11.26	9.67	9.12	11.15	10.48
NYMEX RBOB - WTI	9.92	13.12	15.35	2.23		16.89	14.73	15.48	15.63	14.27
NYMEX 3-2-1 Crack (RBOB)	12.18	14.39	14.29	-0.10		15.01	13.04	13.36	14.13	13.01
NYMEX No.2 - Natural Gas (\$/mmbtu)	8.72	8.27	6.69	-1.59		6.49	6.21	5.86	5.72	5.01
ICE Gasoil - ICE Brent	12.18	12.52	8.49	-4.04		7.98	8.02	7.75	7.51	7.80

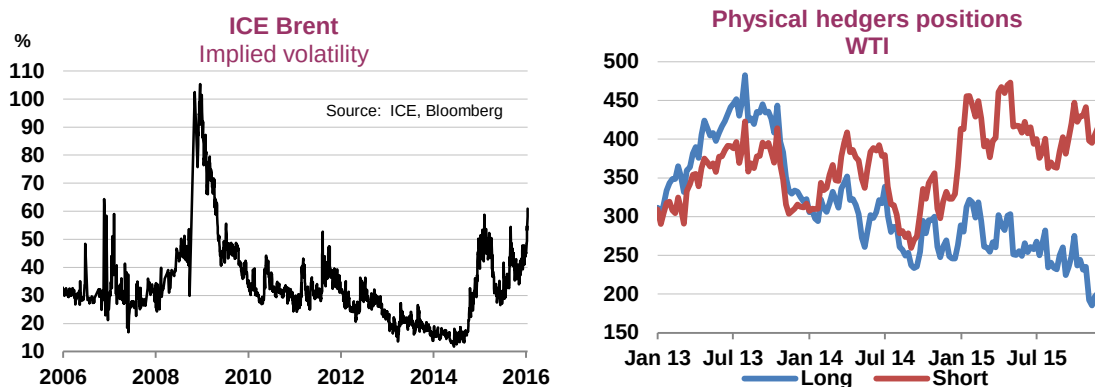
Source: ICE, NYMEX.

The contango in product markets also remained stable. In the European ICE gasoil market, where prices at the front of the curve sank by nearly 20%, the back of the curve moved in tandem so that by early-January, the contango remained in line with early-December and unsupportive of storing products at sea. A similar picture prevailed in the US where the NYMEX heating oil contract remained in contango and saw prices weaken further in early January despite the onset of colder weather.

As prices tumbled further in December, money managers further slashed their net long positions in relation to NYMEX WTI. As of 12 January data, their *long-to-short* ratio, an indicator of fund’s overall positioning, touched its lowest level since 2008. Funds have been less responsive towards ICE Brent, as positioning became more polarized, with both net-shorts and net-longs growing, reflecting more disperse market expectations.



Traders cut their overall long WTI contracts to the lowest in more than eight years, a sign users are ever less willing to lock in a ceiling for their purchase and are expecting further declines.



The latest price drop had an immediate impact on option markets. Implied volatility, a standardized indicator of options prices that typically rises in times of market stress, climbed to over 65% at the time of writing, yet another post-2008 high. Locking in a \$30/bbl floor on the June 2016 Brent contract, trading at just above \$34/bbl in early January, would cost around \$2/bbl. A higher floor, at \$33/bbl, is currently trading at \$3/bbl, almost 10% of the contract value. The floors, with implied volatility at 25%, would cost respectively \$1.2/bbl and \$0.36/bbl.

Spot crude oil prices

Spot crude oil prices weakened across the board in December and by early-January were plumbing twelve-year lows as the persistent oversupply in global crude markets weighed heavy. Nonetheless, light crudes took some strength from robust gasoline and naphtha cracks. In contrast, the weakest performance was posted by sour crudes after ample supplies of competing sour Middle Eastern grades and the prospect of Asian refinery turnarounds at the end of the first quarter forced prices downwards. This saw the discount of Dubai versus North Sea dated briefly increase to \$6.12/bbl in early January, the widest since August 2013. Nonetheless, it dropped back to about \$2/bbl by mid-January.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

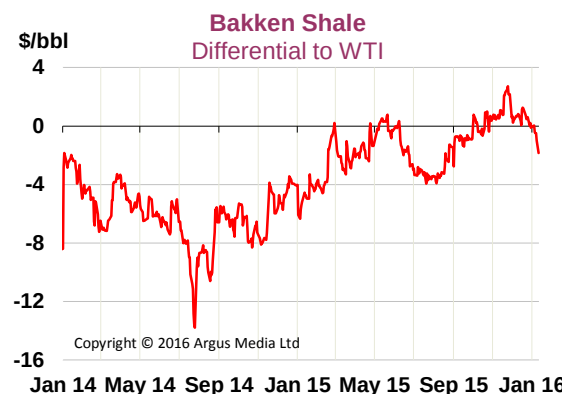
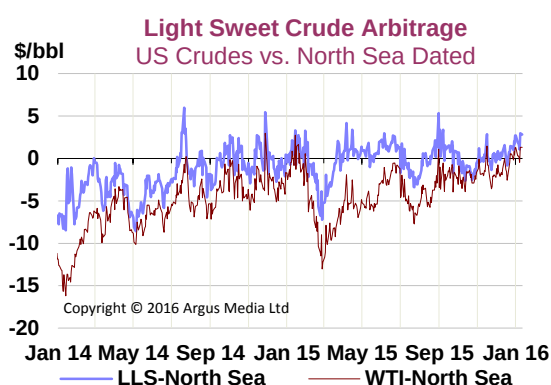
	Oct	Nov	Dec	Dec-Nov		Week Commencing:				
				Avg Chg	%	14 Dec	21 Dec	28 Dec	04 Jan	11 Jan
Crudes										
North Sea Dated	48.51	44.26	38.13	-6.13	-13.9	37.00	36.26	36.34	34.31	29.02
Brent (Asia) Mth 1	48.73	45.28	38.75	-6.53	-14.4	37.15	35.93	36.15	34.93	30.72
WTI (Cushing) Mth 1	46.20	42.75	37.24	-5.50	-12.9	35.77	36.15	37.08	34.63	30.59
Urals (Mediterranean)	47.31	42.37	36.98	-5.39	-12.7	35.75	35.04	35.09	32.84	27.33
Dubai	45.92	41.76	34.55	-7.21	-17.3	32.73	31.86	32.06	30.18	26.41
Tapis (Dated)	47.62	45.03	41.54	-3.49	-7.7	40.60	40.76	40.91	38.57	33.42
Differential to North Sea Dated										
WTI (Cushing)	-2.31	-1.51	-0.89	0.63		-1.23	-0.11	0.74	0.32	1.57
Urals (Mediterranean)	-1.20	-1.89	-1.15	0.74		-1.25	-1.23	-1.25	-1.47	-1.69
Dubai	-2.59	-2.50	-3.58	-1.08		-4.27	-4.40	-4.28	-4.13	-2.62
Tapis (Dated)	-0.90	0.77	3.41	2.64		3.60	4.50	4.58	4.26	4.40
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.59	-0.92	-0.47	0.45		-0.31	-0.62	-0.70	-0.91	-0.43
Forward WTI Cushing Mth1-Mth2	-0.62	-1.21	-1.23	-0.01		-1.27	-0.73	-1.04	-1.20	-1.00
Forward Dubai Mth1-Mth2	-1.19	-1.44	-0.76	0.68		-0.76	-0.61	-0.55	-1.01	-0.94

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North Sea grades continued to weaken in December as the current oversupply in oil markets weighed heavy with further negative sentiment arising from expectations that Iranian sanctions would be eased early in 2016. Northwest Europe is seemingly awash with crude as North Sea loadings remain above year-ago levels while imports from the FSU, Middle East and Africa also compete for market share. Accordingly, regional benchmark North Sea Dated weakened by \$6.13/bbl over December and by early January was trading below \$30/bbl for the first time since February 2004.

Despite all North American crudes weakening in December, some bullish sentiment came from the mid-December decision by the US Congress to lift the decades-old ban on the exportation of US crude oil. Although US crudes immediately firmed in the aftermath of the decision, and added to bullish sentiment coming from forecasts for a slowdown in US domestic production, they soon continued their downward trend. However, this weakening was at a slower pace than for North Sea Dated and by late-December, WTI had risen to a slight premium against the North Sea benchmark. Indeed, until 2010, in the wake of surging US domestic production, WTI had previously held a premium over North Sea dated due to its light, sweet nature and associated favourable light and middle distillate yields. Similar positive sentiment also saw LLS move to a premium of \$2.80/bbl over North Sea Dated in early-January.

So far, the lifting of the export ban has not resulted in large extra volumes of US crude moving to markets outside North America. However, Vitol reportedly shipped one cargo from Enterprise's terminal on the Houston Ship Canal, which, considering the economics of the narrow Brent – WTI spread, appears largely symbolic. This cargo has reportedly been shipped to Italy. Until WTI or LLS falls to a \$2.60 /bbl discount against Brent, a spread sufficient to cover transport costs, the prospects for large-scale transatlantic exports of US crude oil are slim.

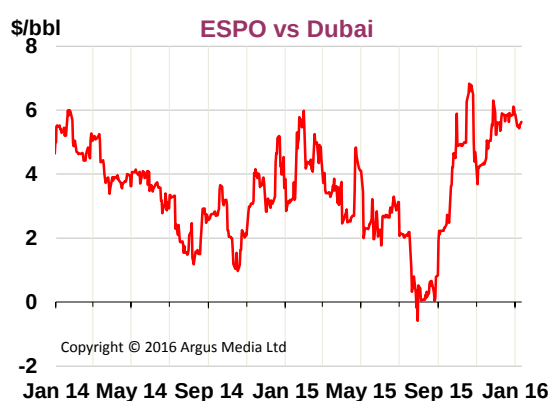
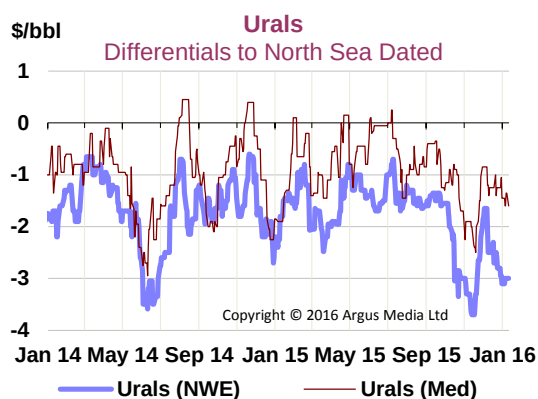


The positive sentiment buttressing WTI did not spread to all US domestic crudes. Bakken saw its premium over WTI eroded during December so that by early-January, the grade had slipped to a discount of nearly \$2.00/bbl for the first time since late-August. Much of the downward momentum came from data suggesting that drilling activity in the formation has been more resilient than first thought. This discount has likely re-opened the rail arbitrage to ship the grade eastwards to refiners in PADD 1 (the Atlantic Coast) which may push out some transatlantic imports which had rebounded over 4Q15.

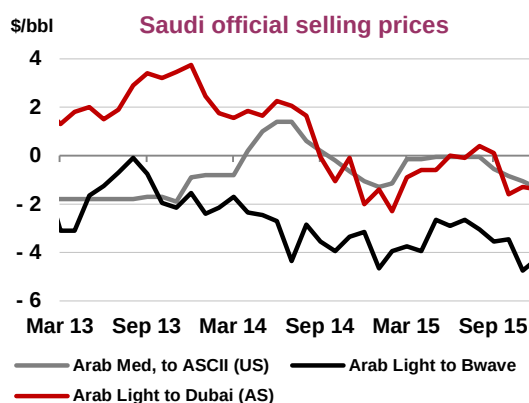
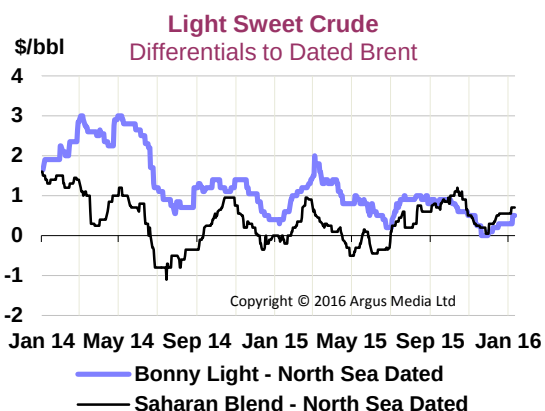
The North American sour crude market has also deteriorated significantly over recent weeks. After cutting OSP's in recent months, Saudi Arabia kept the price formulae unchanged for February loadings. Meanwhile, in order to keep market share, Canadian producers have been forced to slash prices. Accordingly, Western Canadian Select is now trading at under \$18/bbl. This strategy appears to be working with the US importing a near-record level of 2.4 mb/d of Canadian crude in early January.

As competition in Europe remains fierce, Russian Urals saw its premium to North Sea Dated widen over recent weeks. Despite a month-on-month decrease, loading schedules suggest that Russian crude exports remained relatively high in December. Accordingly, by early-January Urals for Northwest

European and Mediterranean customers stood \$3.00/bbl and \$1.60/bbl below Dated Brent, respectively. Further downward pressure may also have come from reports suggesting the quality of Urals has deteriorated recently and that it has become slightly more heavy and sulphurous as more light Western Siberian crude is shipped eastwards where it is exported as part of the ESPO stream. Indeed, as Asian sour crude markets remain extremely weak, ESPO saw its premium to Asian benchmark Dubai remain at nearly \$6/bbl in December before slipping slightly in early January and was last trading at about \$33.60 /bbl, around \$6/bbl higher than Urals.



African crudes fared relatively well in December compared to previous months after soaring Asian naphtha cracks saw buyers step into the market. Accordingly, increased volumes set sail for China and India, which helped to clear the overhang of barrels that had built up over previous months. This saw the premiums for both Saharan Blend and Bonny Light versus Dated Brent rise steadily over the month, although they remain significantly below year-ago levels. African sour crudes did not fare as well amid healthy exports from Middle Eastern producers. Angolan exports to Asia reportedly tailed off in December as shipping costs rose. However, they rebounded in January on demand from Europe and China.



In early January, Saudi Aramco released their official selling prices for February loadings. Despite Asian sour crude markets remaining weak, the price formulae for Asian buyers were raised. However, as the Kingdom prepares for a possible increase in Iranian crude exports, the formulae for European customers were cut. Notably, the formulae for all grades for buyers in Northwest Europe was cut by more than for those in the Mediterranean due to the relative weakness of markets in the North of the continent as they struggle to absorb high volumes of Russian exports and robust North Sea supplies.

Spot product prices

Spot product prices followed crude prices and plummeted across the board in December to touch multi-year lows. Nonetheless, in percentage terms, prices for products at the top of the barrel held up better than those in the middle and bottom of the barrel. Notably, naphtha prices took strength from robust demand from the petrochemical industry, especially in Asia. Meanwhile, middle distillates prices in all markets were pressured by stubbornly high inventories and warmer-than-usual weather in the northern hemisphere. Asian cracks also held their levels better than elsewhere after they were boosted by the relative weakness of Dubai crude amid fierce regional competition from competing sour grades.

Spot Product Prices

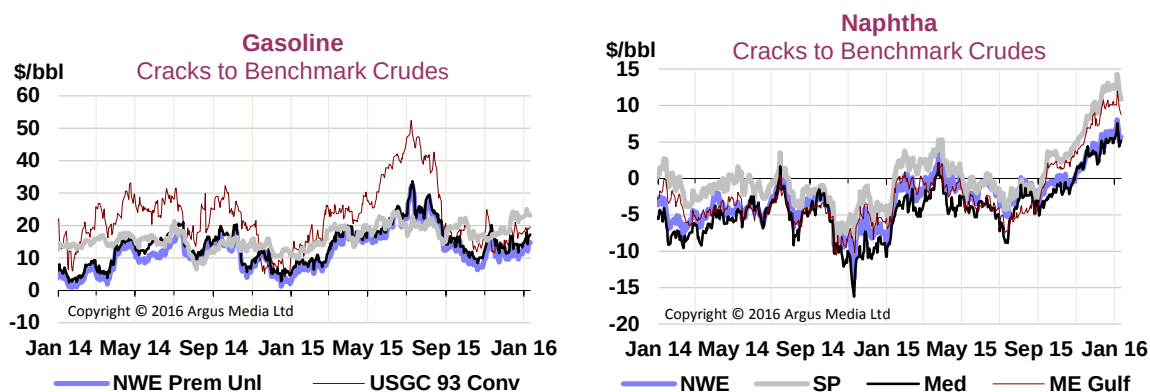
(monthly and weekly averages, \$/bbl)

	Oct	Nov	Dec	Dec-Nov Chg	%	14 Dec	Week Commencing: 21 Dec	28 Dec	04 Jan	11 Jan	Oct	Nov	Dec	Chg
Rotterdam, Barges FOB														
Differential to Dated Brent														
Premium Unl 10 ppm	56.78	56.64	49.73	-6.92	-12.2	49.19	47.59	48.41	48.38	43.59	8.27	12.38	11.60	-0.79
Naphtha	48.21	46.92	43.33	-3.60	-7.7	42.47	42.37	42.40	41.17	34.25	-0.30	2.66	5.20	2.53
Jet/Kerosene	58.81	56.46	47.47	-8.99	-15.9	45.79	45.19	44.86	42.56	37.55	10.30	12.20	9.34	-2.86
ULSD 10ppm	60.21	58.06	46.49	-11.57	-19.9	44.13	44.12	43.78	42.02	37.35	11.70	13.80	8.36	-5.44
Gasoil 0.1%	58.97	55.44	44.98	-10.46	-18.9	42.56	43.00	42.78	40.95	36.29	10.46	11.19	6.86	-4.33
LSFO 1%	34.82	31.63	23.85	-7.78	-24.6	23.29	21.12	21.94	21.56	18.07	-13.69	-12.63	-14.28	-1.65
HSFO 3.5%	32.12	27.75	19.33	-8.41	-30.3	18.05	16.80	17.46	16.26	13.50	-16.39	-16.51	-18.79	-2.28
Mediterranean, FOB Cargoes														
Differential to Urals														
Premium Unl 10 ppm	57.84	57.66	50.56	-7.10	-12.3	50.02	48.37	49.21	49.21	44.49	10.53	15.29	13.58	-1.71
Naphtha	46.27	45.00	41.17	-3.83	-8.5	40.28	40.13	40.14	39.03	32.11	-1.04	2.64	4.19	1.56
Jet Aviation fuel	57.73	55.38	46.05	-9.33	-16.9	44.28	43.63	43.30	41.22	36.28	10.42	13.01	9.07	-3.94
ULSD 10ppm	60.70	57.55	46.07	-11.47	-19.9	43.53	43.65	43.81	41.94	37.15	13.39	15.18	9.10	-6.08
Gasoil 0.1%	58.66	54.79	43.99	-10.79	-19.7	41.27	41.23	41.48	40.42	35.85	11.35	12.42	7.02	-5.40
LSFO 1%	35.50	32.59	25.78	-6.81	-20.9	25.37	22.77	23.48	23.11	19.77	-11.81	-9.78	-11.20	-1.42
HSFO 3.5%	35.08	30.35	22.24	-8.11	-26.7	21.05	19.68	20.32	19.51	17.26	-12.23	-12.02	-14.73	-2.72
US Gulf, FOB Pipeline														
Differential to LLS														
Super Unleaded	62.84	60.76	55.83	-4.94	-8.1	55.31	54.64	56.03	54.52	48.42	15.56	16.38	16.99	0.61
Unleaded	54.57	52.06	49.54	-2.52	-4.8	49.82	48.18	49.24	46.30	41.55	7.29	7.67	10.70	3.03
Jet/Kerosene	58.40	55.75	45.61	-10.15	-18.2	42.60	43.15	43.31	41.94	37.78	11.12	11.37	6.76	-4.60
ULSD 10ppm	59.52	56.85	45.70	-11.15	-19.6	42.04	43.95	44.29	43.19	38.98	12.24	12.47	6.86	-5.61
Heating Oil	56.29	52.40	41.28	-11.12	-21.2	37.06	40.52	40.71	40.06	35.40	9.01	8.01	2.44	-5.57
No. 6 3%*	34.66	31.77	23.08	-8.69	-27.4	21.66	21.69	20.99	20.24	17.75	-12.62	-12.62	-15.76	-3.15
Singapore, FOB Cargoes														
Differential to Dubai														
Premium Unleaded	63.46	58.92	55.60	-3.32	-5.6	55.87	54.20	54.58	54.23	50.37	17.55	17.16	21.04	3.89
Naphtha	49.17	49.18	45.92	-3.25	-6.6	45.00	44.31	44.64	43.25	36.46	3.25	7.41	11.37	3.96
Jet/Kerosene	59.24	57.47	47.70	-9.77	-17.0	45.81	44.86	44.20	41.85	37.83	13.32	15.71	13.15	-2.56
Gasoil 0.05%	59.09	57.41	46.86	-10.55	-18.4	43.95	43.56	43.15	40.99	35.97	13.18	15.65	12.31	-3.34
LSWR Cracked	38.90	36.90	29.24	-7.65	-20.7	27.58	26.33	26.86	26.16	23.16	-7.01	-4.87	-5.31	-0.44
HSFO 180 CST	38.36	36.08	28.12	-7.96	-22.1	26.68	25.23	25.95	25.59	22.55	-7.56	-5.68	-6.43	-0.75
HSFO 380 CST 4%	37.30	35.26	27.38	-7.88	-22.4	25.96	24.54	25.21	25.03	21.95	-8.62	-6.50	-7.17	-0.67

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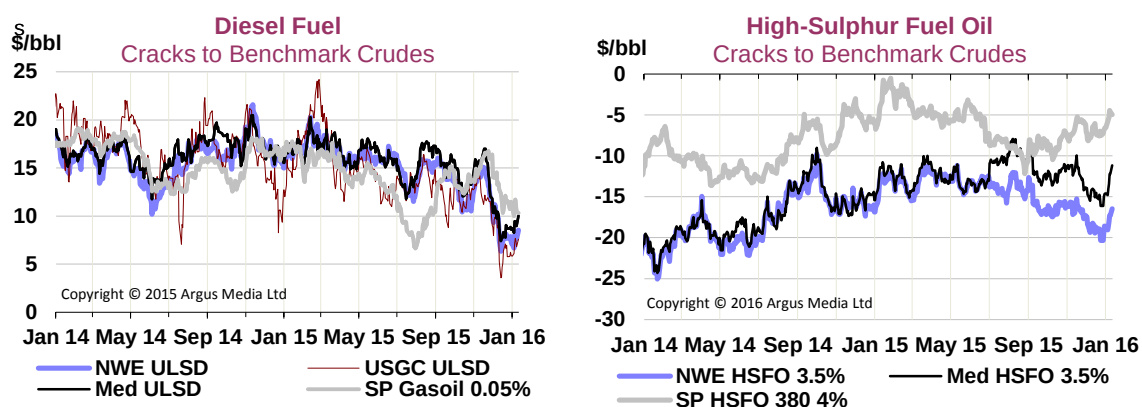
* Waterborne

Gasoline cracks in Singapore firmed by \$3.89/bbl in December on a monthly average basis, far higher than in other markets. This came as Dubai crude sank by more than other benchmark grades, while spot prices also took some strength from high regional demand, offsetting the negative effect of stubbornly high light distillate stocks. In the US, gasoline cracks firmed as spot prices were buttressed by relatively high domestic demand as well as healthy export demand from West Africa and Latin America. On the other hand, as US import demand waned due to end-year 'last in first out' tax accounting constraints, European gasoline cracks declined.



Naphtha cracks surged to multi-year highs in all markets with spot prices strong on petrochemical and gasoline blending demand in Asia and Europe. In Singapore, cracks briefly exceeded \$14/bbl in early-January but fell thereafter on a sharp stock build in light distillates. In Europe, cracks firmed but remained about \$5/bbl lower than in Asia after markets tightened in the wake of a wide arbitrage to ship product to East of Suez markets. A similar trend emerged in the Middle East after refiners there also supplied Asian markets which saw cracks breach \$10/bbl.

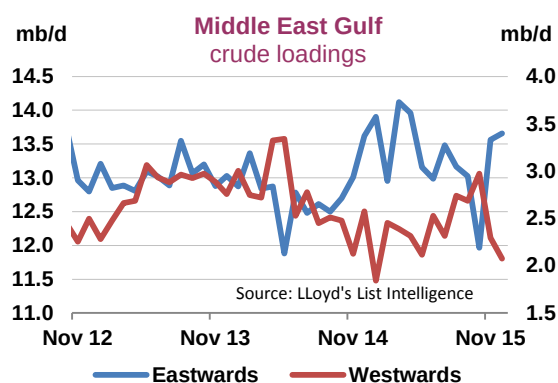
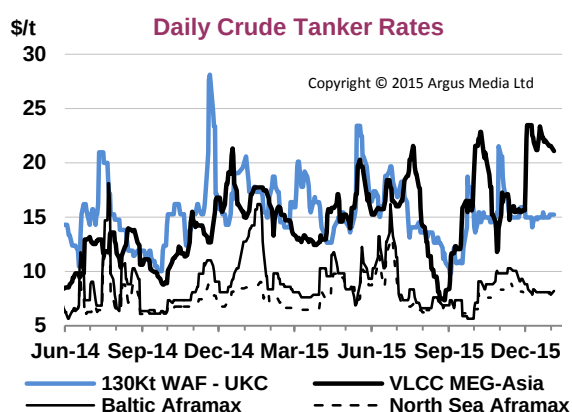
As in recent months, high inventories pressured middle distillates cracks downwards. Unlike end-2014, when diesel cracks remained remarkably resilient in the face of plummeting oil prices, the end of 2015 saw cracks plumb multi-year lows across all markets. In Northwest Europe where imports from Russia remain high and as logistical issues still hinder the movement of products from the ARA region to central Europe, cracks sank to below \$10/bbl in mid-December, about \$6/bbl less than the year earlier. Cracks on the US Gulf Coast declined by a similar amount to those in Europe as stocks remained ample while the arbitrage to ship product eastwards remained stubbornly shut. In Singapore, gasoil cracks posted the sharpest losses among products in December decreasing by \$3.34/bbl on a monthly average basis. Downward pressure came from high inventories while Asian markets reportedly remain awash with product in the face of high Chinese exports.



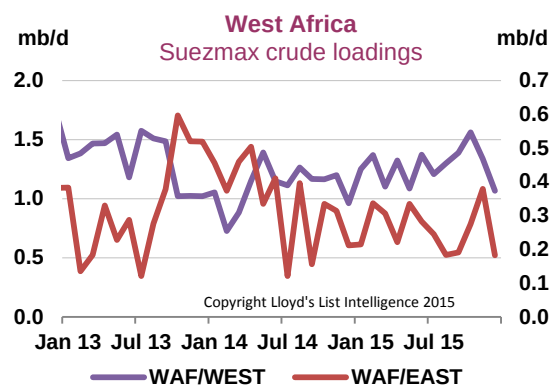
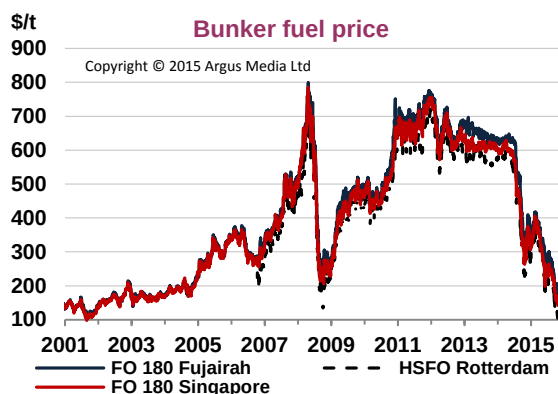
In percentage terms, fuel oil spot prices softened the most amongst products after posting declines of more than 20% on persistent oversupply. Accordingly, bunker prices sank to their lowest levels since 2003 in all main transport hubs. In Europe, the Mediterranean fared better than Northwest Europe as markets reportedly took a degree of strength from North African and Asian export demand. Nonetheless, the arbitrage to move product eastwards was slim due to the high costs of VLCCs which have firmed on the back of increased crude trade. In Singapore, market fundamentals remained loose with imports from Europe and elsewhere in Asia offsetting an increasing in bunker demand as shippers reportedly took advantage of low prices.

Freight

Surveyed crude rates had a stable month overall except for **very-large-crude-carriers (VLCCs)**. The larger vessel class closed 2015 in style on the Middle East Gulf to Asia route where rates reached \$28.12 /t for December, the highest since May 2008. Increased activity ahead of the holiday season added to already strong underlying demand, while the tonnage list was made shorter by weather delays in China and the instalment of a fifth single point mooring (SPM) in Iraq, which reportedly required the suspension of operations at three operational SPMs for two days. Rates eased in early January as temporary factors faded but they are still high. VLCCs owners saw exceptional earnings in 2015: extra volumes from the OPEC Gulf producers provided ample demand, while tanking bunker costs further improved economics. Collapsing crude prices fed through into bunker fuel costs which fell below 2008 levels, even falling to close to \$100/t in Rotterdam.

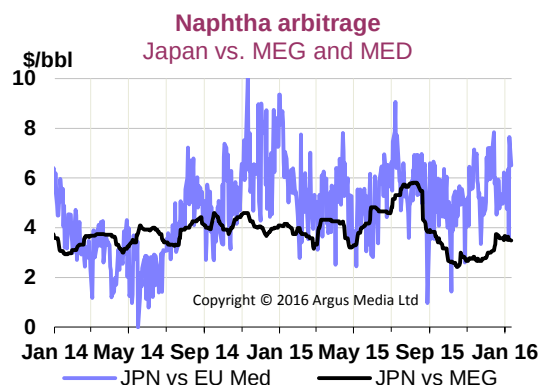
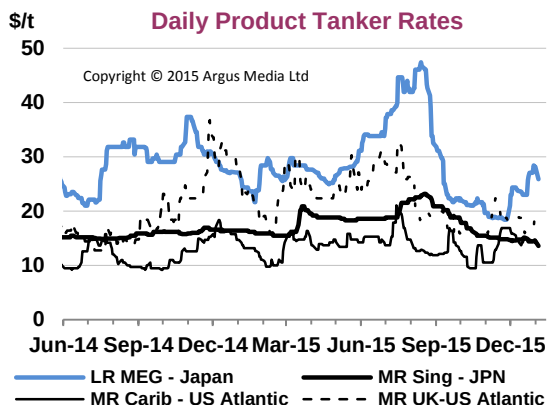


Suezmax loadings in West Africa fell from just above 3 mb/d in November to around 2.1 mb/d in December, as disruptions in Nigeria weighed on supply (see *Supply*). Nevertheless, rates on the benchmark West Africa – UK route held surprisingly steady. A close look at fixtures shows that on a weekly basis activity did not drop much and was heavily concentrated ahead of the holiday season. During the final week of the year, rates remained flat on very thin chartering on the benchmark route.



Aframax rates in the North Sea and Baltic markets began the month inching down from November's stronger rates to around the \$10/mt mark. Ship supply increased in the Baltic, softening rates in November. In January, ice-class restrictions have come into effect earlier than anticipated at Baltic ports, including Primorsk, Ust-Luga and Vysotsk, which might provide some support.

Larger long-range (LR) product tankers on the **MEG – Japan** route saw renewed strength in December. As Middle Eastern refiners came back from maintenance, cargo inquiry began to pick up, lifting the rate by \$10/mt to just shy of \$30/mt (around \$3.20/bbl), supported by a rising naphtha differential to Gulf prices. Abundant fleet supply, following a previously even higher arbitrage from Europe that brought in cargoes from as far as the Baltic, reportedly put a lid on freight rates.



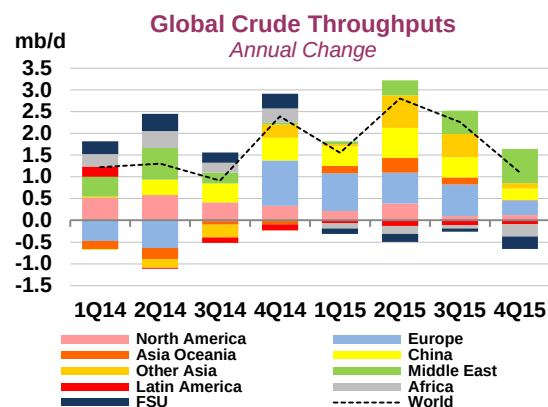
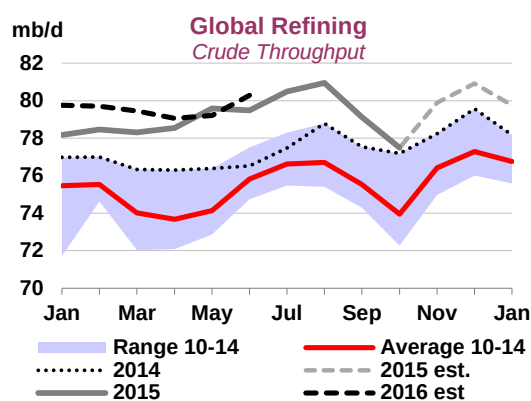
Cross-Atlantic trade saw little excitement in December. The **UK – US Atlantic** route remained subdued as gasoline stocks increased on the US East Coast. The backhaul **US Gulf – UK** remained subdued, as the diesel arbitrage remained firmly shut for most of the month. Demurrage delays due to capacity constraints in the ARA region further backed away incoming tankers.

Medium-range (MR) tankers on the benchmark **Singapore – Japan** route further eased below \$15 /mt in December. Cargo inquiry was slow due to lower kerosene volumes moving to Japan due to mild weather (See *Demand*). Increased Chinese product exports surged on the year, in December at an historical high of \$4.32/mt, up from \$2.82/mt one year ago according to customs data, should put a floor under demand.

REFINING

Summary

- **Global crude runs averaged 79.5 mb/d in 4Q15, down 0.3 mb/d on last month's estimate due to lower-than-expected throughputs mainly in Other Asia.** In line with sharply lower demand growth, annual gains in refinery throughputs eased to 1.2 mb/d in 4Q15, with OECD countries responsible for 40% of the increase.
- **Global refinery runs are expected to remain stable in 1Q16, to 79.5 mb/d.** Annual growth remains relatively high at 1.3 mb/d. Unlike in 4Q15, the non-OECD region is responsible for all of this increase – with, in turn, half of this claimed by the Middle East.
- **October experienced a very high maintenance schedule and runs came down to 77.4 mb/d, 1.6 mb/d below September.** Throughputs are estimated to have recovered rapidly in November and December.
- **Global refining margins weakened across the board in December as middle distillates cracks fell and overwhelmed the resilience of gasoline and naphtha.** As a result, hydroskimming margins turned negative in Europe, putting pressure on marginal runs. However, they remained positive in Singapore.



Global refinery overview

Global refinery activity continued to pick up in December from November and October, supported by a temporary surge in most regional margins in November. In October, the most recent month for which a complete set of data is available, OECD refiners recorded an increase of 0.6 mb/d year-on-year (y-o-y) in aggregate crude throughputs, while non-OECD refinery runs fell by 0.2 mb/d, reversing the previous months' trend. For November, OECD throughput gains remain at a similarly high level, according to preliminary data. US plants accounted for two thirds of this surplus, and OECD Europe for the rest.

Global crude runs have been sustained until now by the resilience of gasoline and naphtha demand, but weakened by the lack of demand for middle distillates. However, the situation may change, as stocks of gasoline are edging up in Europe, and some colder weather and rising water levels on the Rhine, allowing normal transfers to Germany, may support middle distillates. However, middle distillates stocks are not decreasing globally, and gasoline demand in January and February will likely be muted.

Global Refinery Crude Throughput

(million barrels per day)

	Sep 15	3Q2015	Oct 15	Nov 15	Dec 15	4Q2015	Jan 16	Feb 16	Mar 16	1Q2016	Apr 16
Americas	19.0	19.5	18.2	19.4	19.5	19.0	18.8	18.4	18.7	18.6	18.9
Europe	12.5	12.4	12.3	12.1	12.0	12.2	12.1	12.3	12.1	12.1	11.9
Asia Oceania	6.5	6.7	6.4	6.6	6.9	6.6	6.8	6.7	6.5	6.7	6.3
Total OECD	38.0	38.6	36.9	38.1	38.5	37.8	37.6	37.4	37.3	37.4	37.1
FSU	6.8	7.1	6.5	7.1	7.2	6.9	7.0	7.0	6.8	7.0	6.5
Non-OECD Europe	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.3	10.3	10.4	10.7	10.7	10.6	10.5	10.5	10.8	10.6	10.9
Other Asia	9.9	10.0	9.7	10.3	10.3	10.1	10.3	10.3	10.3	10.3	10.3
Latin America	4.6	4.6	4.4	4.3	4.7	4.5	4.6	4.6	4.6	4.6	4.6
Middle East	6.9	6.8	6.8	6.9	7.0	6.9	6.9	7.1	7.0	7.0	7.0
Africa	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2
Total Non-OECD	41.1	41.5	40.5	41.9	42.5	41.6	42.0	42.2	42.1	42.1	41.8
Total	79.1	80.2	77.5	80.0	81.0	79.5	79.6	79.6	79.3	79.5	78.9

On 18 December, the US congress lifted a 40-year old ban on crude oil exports, in a move often quoted as a victory for US producers at the expense of US refiners. Perhaps as a sweetener, US refiners are now allowed to offset 75% of crude transport costs against tax. The Jones Act, which adds to domestic shipping costs by imposing US built and operated ships for domestic shipping, remained untouched.

The tax reform allows producers, should domestic inland prices be very low, to transport their crude to the US Gulf and sell it at a higher netback. But the US remains a large crude importer, and exporting significant quantities of domestic crude requires that WTI FOB US Gulf - including transport and terminal costs- becomes cheaper than its international competitor, plus or minus quality and freight cost differentials. The main direct consequence of the reforms will be to limit the bumper margins obtained, especially in PADD 2, by refiners. Capping the Brent-WTI differential would also probably have an impact on supply to PADD 1, as domestic crudes such as Bakken that are moved by rail would not be as competitive as crudes from the Atlantic Basin, most likely from West Africa. However, right now, with declining domestic US production and narrow Brent/WTI differentials, US crude exports are likely to be very limited, although a light crude cargo was reported to be moving to Europe.

Margins

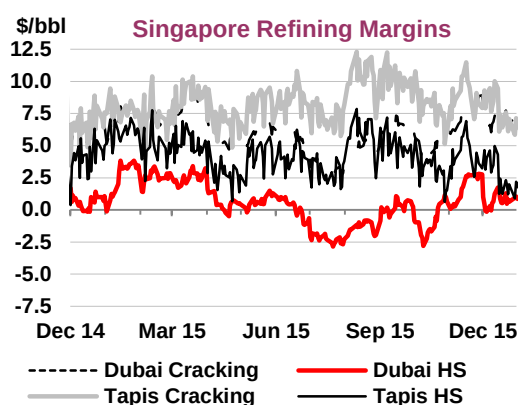
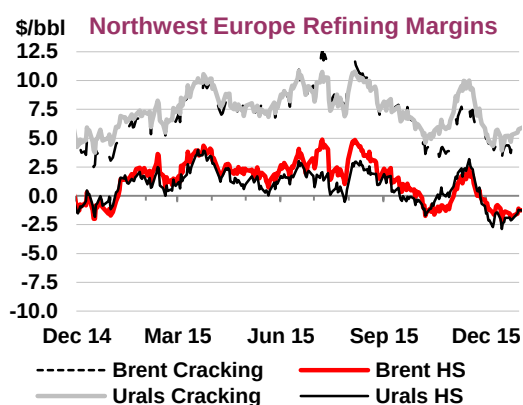
Refinery margins finally weakened across the board in December as middle distillates cracks fell and overwhelmed the resistance of gasoline and naphtha. As a result, hydroskimming margins turned negative in Europe, putting pressure on marginal runs. However, they remained positive in Singapore. In other markets, cracking margins were weaker, but more or less in line with historical values for December. The weaker margins may also be attributed to the fact that little maintenance took place in December and refiners were able to run at full speed. Despite these weaker numbers, 2015 margins were the highest for five years, except in the US Midcontinent. However, there are signs that by mid-January support for gasoline faltered. And naphtha demand for Asia is likely to weaken seasonally on stocks draws. In the next few years, naphtha Asia supply from Saudi Arabia is due to be reduced by the expansion of Rabigh 2 and the planned mid-2016 start-up of the 1.5 mt/y steam cracker Sadara JV.

IEA/KBC Global Indicator Refining Margins¹

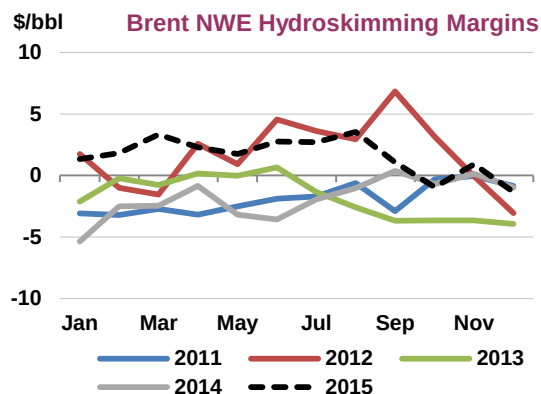
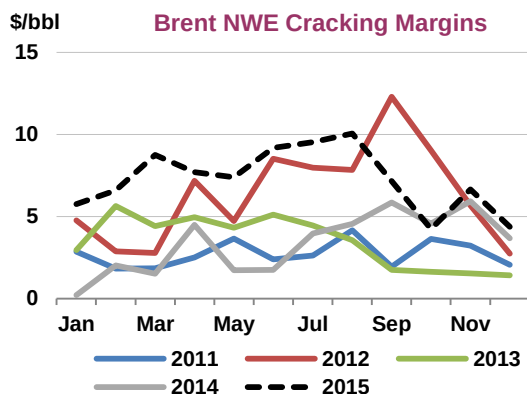
	(\$/bbl)									
	Monthly Average				Change	Average for week ending:				
	Sep 15	Oct 15	Nov 15	Dec 15	Dec 15-Nov 15	18 Dec	25 Dec	01 Jan	08 Jan	15 Jan
NW Europe										
Brent (Cracking)	7.15	4.24	6.65	4.38	↓ -2.27	4.05	4.17	4.46	5.38	6.16
Urals (Cracking)	7.16	5.66	8.37	5.04	↓ -3.33	4.66	5.05	5.69	6.44	7.24
Brent (Hydroskimming)	1.09	-0.95	0.93	-1.35	↓ -2.28	-1.55	-1.68	-1.31	-0.26	0.85
Urals (Hydroskimming)	0.33	-0.46	1.44	-1.91	↓ -3.36	-2.28	-2.00	-1.33	-0.65	0.67
Mediterranean										
Es Sider (Cracking)	8.95	6.01	7.85	5.19	↓ -2.66	4.77	4.73	5.11	6.18	7.17
Urals (Cracking)	7.81	5.81	8.09	4.55	↓ -3.54	4.12	4.28	4.54	5.45	6.76
Es Sider (Hydroskimming)	3.43	1.04	2.77	0.64	↓ -2.13	0.51	0.02	0.51	1.84	3.14
Urals (Hydroskimming)	1.14	-0.31	1.38	-1.80	↓ -3.18	-2.06	-2.15	-1.78	-0.67	1.28
US Gulf Coast										
50/50 HLS/LLS (Cracking)	5.49	5.92	5.84	5.13	↓ -0.71	5.08	5.14	4.30	4.28	4.29
Mars (Cracking)	3.60	4.12	3.60	2.76	↓ -0.84	2.82	2.46	2.82	3.02	4.10
ASCI (Cracking)	3.01	3.58	3.22	2.26	↓ -0.95	2.32	2.02	2.15	2.68	3.80
50/50 HLS/LLS (Coking)	7.50	7.82	7.78	7.44	↓ -0.34	7.33	7.54	6.73	6.63	6.48
50/50 Maya/Mars (Coking)	8.89	8.59	8.87	9.58	↑ 0.71	9.70	9.24	10.10	9.83	9.98
ASCI (Coking)	9.03	9.19	9.04	8.46	↓ -0.57	8.27	8.19	8.72	9.02	9.73
US Midcon										
WTI (Cracking)	17.73	15.28	8.01	7.43	↓ -0.57	8.85	8.34	7.65	6.04	4.00
30/70 WCS/Bakken (Cracking)	16.68	13.74	6.44	6.27	↓ -0.17	7.32	7.10	6.89	6.04	5.49
Bakken (Cracking)	20.00	16.37	7.76	8.00	↑ 0.24	9.18	8.88	8.82	7.61	6.57
WTI (Coking)	20.63	18.22	10.12	9.77	↓ -0.35	11.23	10.84	10.20	8.38	5.99
30/70 WCS/Bakken (Coking)	21.73	19.13	10.39	10.14	↓ -0.25	11.25	10.95	11.18	10.03	8.87
Bakken (Coking)	21.29	17.66	8.61	9.06	↑ 0.46	10.29	10.06	10.02	8.70	7.48
Singapore										
Dubai (Hydroskimming)	0.21	-0.80	1.80	0.72	↓ -1.08	1.03	0.81	0.96	1.68	2.77
Tapis (Hydroskimming)	4.93	3.17	4.34	2.78	↓ -1.56	2.20	1.89	1.67	2.18	3.51
Dubai (Hydrocracking)	6.57	5.28	7.73	6.85	↓ -0.88	7.14	7.03	6.95	7.21	8.01
Tapis (Hydrocracking)	10.01	7.89	8.94	7.70	↓ -1.23	7.23	6.96	6.60	6.77	7.90

1 Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

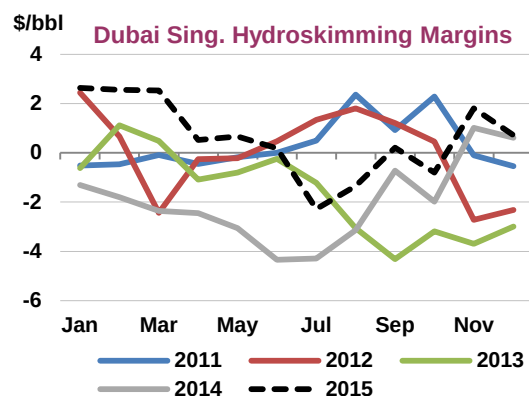
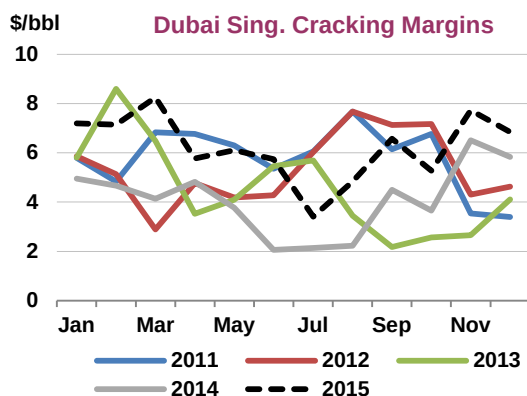
Source: IEA, KBC Advanced Technologies (KBC)



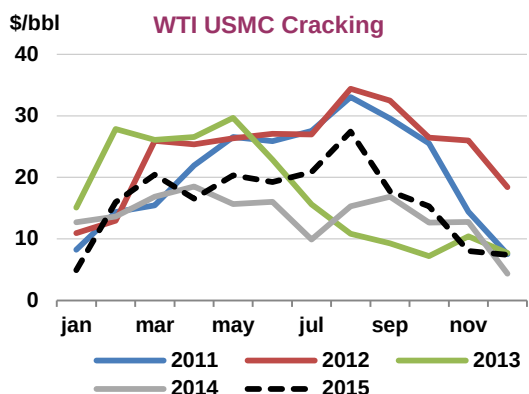
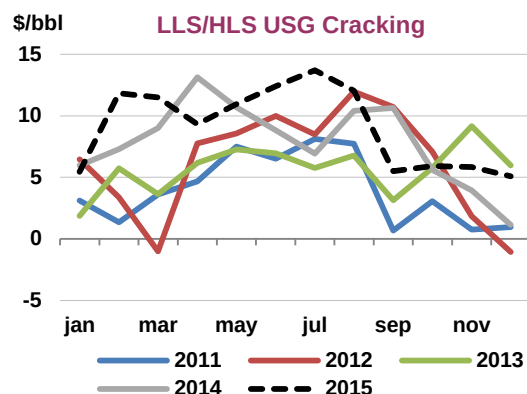
European margins eased by \$2-3/bbl in December after a rebound in November, despite the weak crude prices. Cracks for ULSD plunged from over \$10/bbl to \$6/bbl in mid-December, at one stage below naphtha cracks. Conversely, cracks for gasoline hovered around a very unseasonal \$12/bbl. Urals margins decreased by \$1/bbl more than Brent ones, but margins for hydroskimming refineries were largely negative in both cases.



Refiners in Singapore saw their margins fall by around \$1/bbl: those running sweet crude such as Tapis were more affected than those processing sour crude such as Dubai, as there was a huge oversupply in sour markets. This fall happened despite the gasoline crack reaching \$22/bbl and naphtha \$12/bbl; the gasoil crack falling to \$10/bbl was a partial offset.

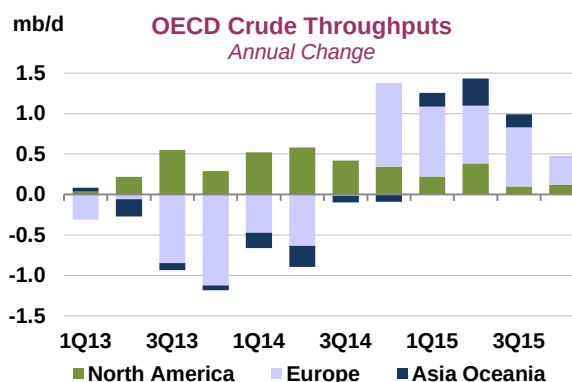
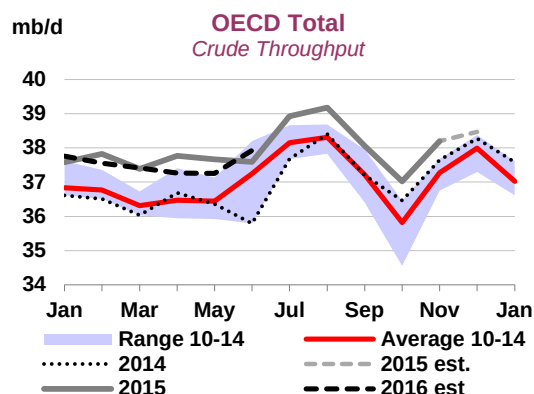


US refiners saw their margins mostly weaken in December but to a lesser extent than in other regions. Coking margins followed the same pattern as cracking margins at \$1-2/bbl higher. This demonstrates rather robust product markets as WTI strengthened relative to other markers. The same pattern applied to product cracks: gasoline cracks edged higher over the month, with a number of incidents in gasoline-producing units, and reached close to \$20/bbl while ULSD cracks collapsed to \$6/bbl, at one stage breaking the \$4/bbl mark.



OECD refinery throughput

OECD refinery intake increased by 1.2 mb/d in November versus October levels, to 38.1 mb/d, as refiners came out of maintenance. Runs remained 0.56 mb/d above year-earlier levels. Throughputs in the OECD Americas rose by 0.8 mb/d m-o-m. Throughputs in Asia were also higher by 0.33 mb/d and in Europe there was a m-o-m fall of 0.22 mb/d. Overall, OECD throughputs are forecast to drop from an average 37.8 mb/d in 4Q15 to 37.4 mb/d in 1Q16, with y-o-y growth of 0.4 mb/d and zero, expected, respectively.



Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	Nov 15	Change from Oct 15	Nov 14	Utilisation rate (1) Nov 15	Nov 14
US (2)	16.69	16.88	16.66	16.17	15.47	16.37	0.91	0.33	0.91	0.91
Canada	1.71	1.71	1.83	1.64	1.55	1.82	0.26	0.10	0.92	0.86
Chile	0.16	0.16	0.14	0.16	0.15	0.16	0.01	0.00	0.69	0.67
Mexico	1.07	1.00	1.06	1.05	1.06	1.05	-0.01	-0.03	0.64	0.65
OECD Americas (3)	19.64	19.76	19.70	19.03	18.22	19.39	1.17	0.41	0.89	0.88
France	1.02	1.11	1.09	1.27	1.27	1.18	-0.09	0.04	0.84	0.81
Germany	1.96	1.90	1.93	1.90	1.83	1.89	0.06	-0.05	0.93	0.96
Italy	1.32	1.39	1.42	1.35	1.34	1.40	0.06	0.13	0.80	0.73
Netherlands	1.08	1.08	1.04	1.10	1.13	0.95	-0.18	-0.08	0.74	0.80
Spain	1.26	1.35	1.41	1.29	1.36	1.22	-0.14	0.02	0.80	0.78
United Kingdom	1.00	1.22	1.21	1.20	1.21	1.17	-0.04	0.03	0.85	0.83
Other OECD Europe	4.02	4.27	4.30	4.33	4.21	4.32	0.11	0.14	0.89	0.86
OECD Europe	11.66	12.31	12.41	12.45	12.35	12.13	-0.22	0.24	0.86	0.84
Japan	2.52	3.05	3.33	3.07	2.95	3.10	0.15	-0.09	0.82	0.80
South Korea	2.93	2.91	2.88	2.70	2.70	2.74	0.04	0.08	0.83	0.80
Other Asia Oceania	0.74	0.79	0.78	0.71	0.72	0.75	0.04	-0.09	0.76	0.77
OECD Asia Oceania	6.19	6.75	6.98	6.48	6.36	6.58	0.23	-0.09	0.81	0.80
OECD Total	37.49	38.82	39.08	37.96	36.93	38.10	1.18	0.56	0.86	0.85

1 Expressed as a percentage, based on crude throughput and current operable refining capacity

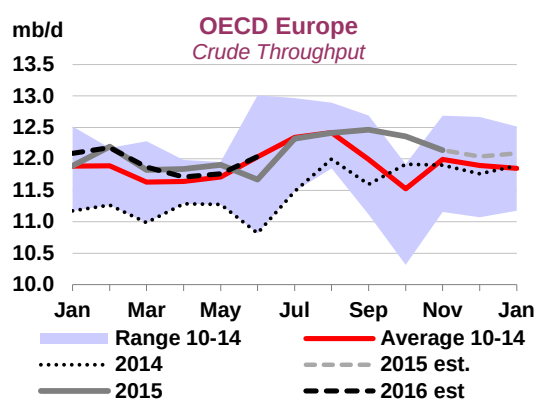
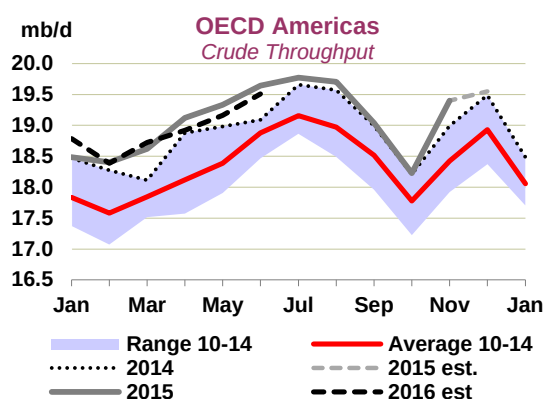
2 US\$0

3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

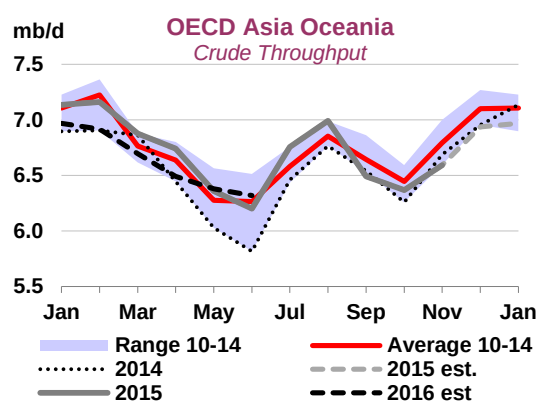
Refinery activity in the **OECD Americas** picked up in November on higher US crude runs. Preliminary weekly figures show that US December levels are expected to rise further by 0.25 mb/d to a seasonal record-high of 16.6 mb/d on the completion of maintenance work and driven by the incentive of

attractive margins. In December, an explosion in the Salina Cruz refinery reduced gasoline production in Mexico, increasing imports and boosting West Coast crack spreads.

OECD Europe crude runs decreased by 0.2 mb/d in November, with very little maintenance, but remained 0.2 mb/d above year-earlier levels. Despite this m-o-m fall, preliminary November data shows Germany and Italy posting monthly growth.

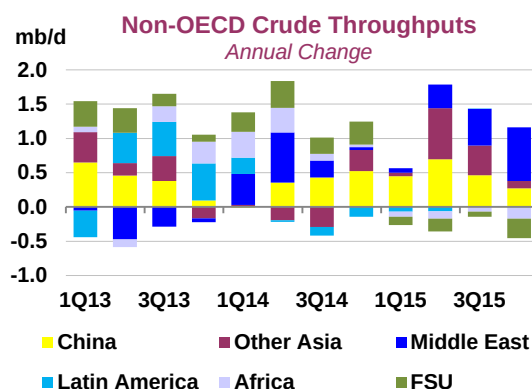
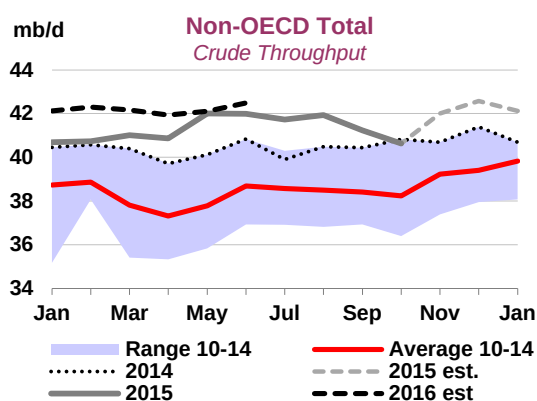


In **OECD Asia Oceania**, total crude throughputs increased by 0.2 mb/d in November from a month earlier, to 6.6 mb/d, marginally below last year. **Japanese** refinery runs increased by 0.2 mb/d in November and preliminary weekly figures indicate that December runs in Japan could be another 0.2 mb/d higher.



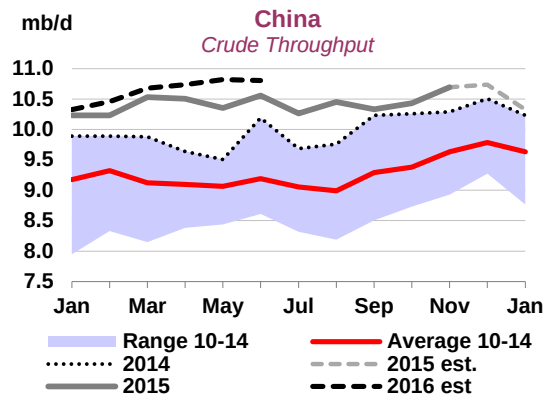
Non-OECD refinery throughput

In October, non-OECD refinery runs decreased by 0.6 mb/d from September, to 40.5 mb/d. Throughputs averaged 0.5 mb/d above a year earlier. 4Q15 is estimated at 41.6 mb/d. Annual gains in 4Q15 were lower and due mainly to the Middle East.



Official **Chinese** refinery data for November shows very high throughputs of 10.7 mb/d, up by 0.27 mb/d from an already high level in October and 0.4 mb/d above a year earlier.

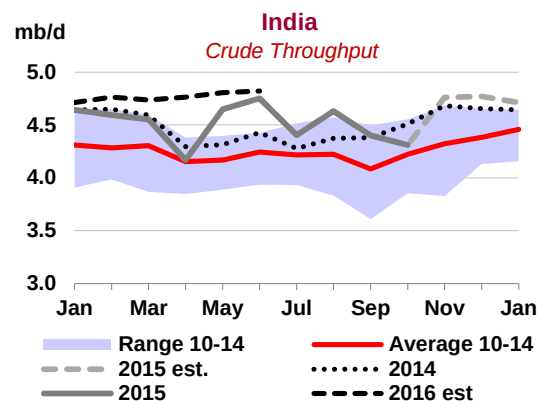
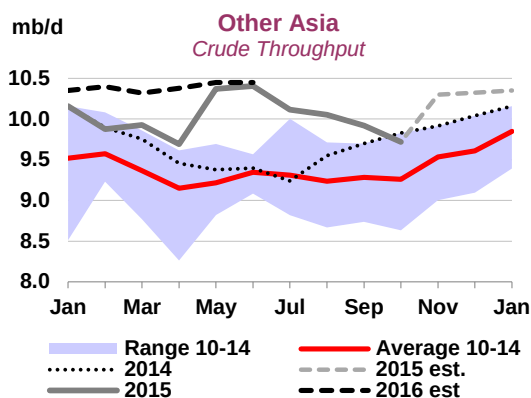
For the second successive occasion in December, the Chinese government decided not to revise oil product prices down as should have been the case using the official adjustment calculation. Not cutting prices in theory curbs the use of cars and limits pollution. Higher product prices will also result in higher domestic margins for refiners. However, on 13 January a downward revision was announced, together with the announcement of a new mechanism that will stop revisions when crude prices fall below \$40 /bbl.



Another development in China is the allocation of the first export quotas for 2016. There are usually four quotas per year, however this one, at 21 million tonnes, is much higher than those of 2015, comprised between 3 and 10 mt each. It is also noticeable that the gasoil figure is the largest at nearly 9 mt or 750 kb/d over one quarter compared to previous quota of 3.3 mt of gasoil when monthly gasoil exports reached 250 kb/d. Finally, as expected, some teapot refineries received limited export quotas, around 0.5 mt for five companies. This opens the door to even greater Chinese exports in a world awash with distillates, although logistical issues make it more difficult for teapot refineries to export products.

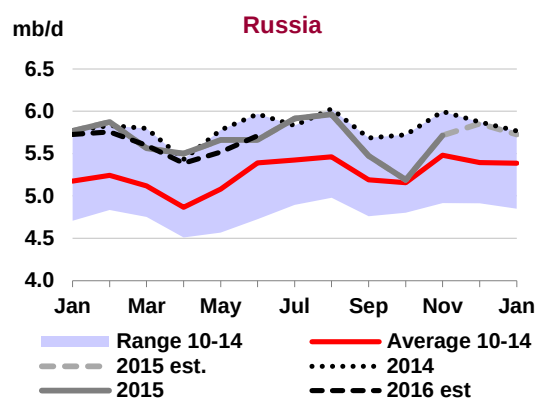
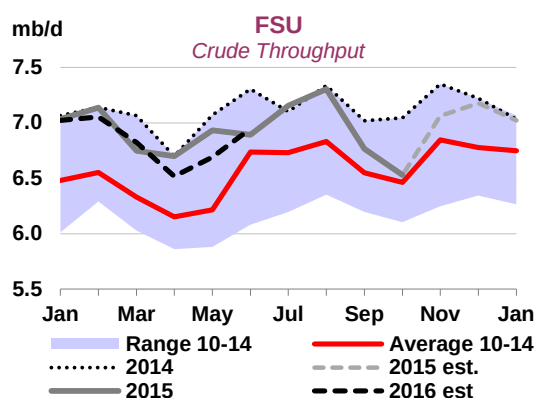
China also introduced a low sulphur emission zone for shipping in the Pearl and Tangtze river deltas plus the Bohai ring (Beijin, Tianjin, Hebei) where fuel burned must contain less than 0.5% sulphur. This will switch very limited quantities of fuel oil to gasoil.

Other Asia experienced slightly lower throughputs in October, at 9.7 mb/d, but the end of the maintenance season should see runs start to rise.

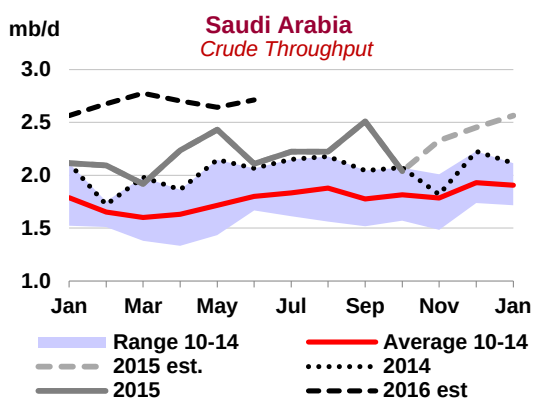
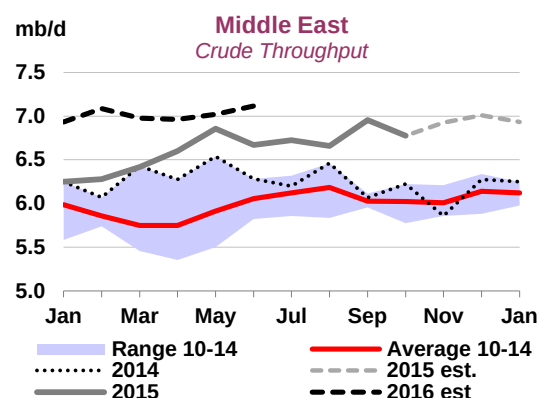


Indian refinery throughputs edged up by 450 kb/d m-o-m in November, to 4.7 mb/d. IOC's Haldia refinery is entering maintenance for one month, cutting runs by 150 kb/d. In India, the Government decided to ban sales of large diesel cars in New Delhi and make it more costly for trucks to enter the city, in an effort to limit pollution. The current fuel and car emissions specification being implemented is Bharat IV. Bharat V was due to take effect in 2020, but the government announced that they will instead move directly to Bharat VI (the equivalent of Euro 6), also in 2020. It remains somehow doubtful that carmakers and refiners can make the necessary adjustments in time. Finally, the government has also scaled up ethanol blending targets in gasoline from 5% to 10%. Commercial production of diesel, kerosene and LPG started at the end of November in the IOC's new 300 kb/d Paradip refinery, which is expected to reach maximum capacity by April 2016.

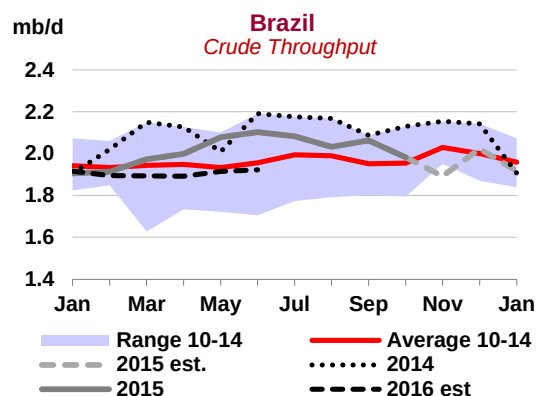
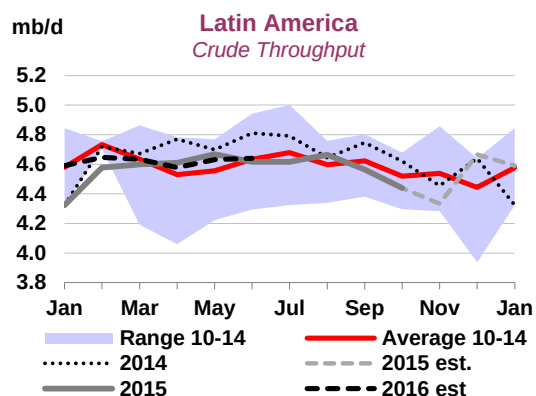
In October, FSU throughput declined by 0.25 mb/d to 6.5 mb/d, due to maintenance. According to preliminary data, **Russian** refinery runs slightly increased in December from November, to 5.8 mb/d, the level of 2014.



Latest data show that total **Middle Eastern** throughputs were slightly lower in October than in September, at 6.8 mb/d. However, this translates into a 0.6 mb/d increase y-o-y. In Saudi Arabia, October saw a large maintenance programme, with Jubail and PetroRabigh shut down. Ras Tanura was also closed in late October.



In **Latin America**, runs continue at unusually low levels, with October throughput estimated at 4.4 mb/d. **Brazilian** refinery runs slid 90 kb/d in November, to 1.9 mb/d, in part because of problems with the re-start of the 178 kb/d Cubatao refinery.



In **Africa**, October throughput was 2.2 mb/d, 0.1 mb/d above last month but still lower y-o-y. NNPC restarted its Warri, Kaduna and Port Harcourt refineries in December, but there is still no indication as to the effective production rates. Fuel subsidies seem to be on the way out in Angola and Nigeria, with Angolan domestic prices increasing by 40% for gasoline and 80% for diesel, while no provision is being made in the 2016 Nigerian budget for subsidies.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	23.6	24.1	23.9	23.7	24.4	24.6	24.1	24.2	24.1	24.7	24.5	24.4	24.4	24.2	24.6	24.7	24.5
Europe	13.8	13.6	13.0	13.4	13.9	13.5	13.5	13.5	13.5	14.1	13.6	13.7	13.4	13.7	13.9	13.6	13.7
Asia Oceania	8.5	8.3	8.9	7.7	7.7	8.3	8.1	8.7	7.6	7.8	8.3	8.1	8.6	7.6	7.8	8.3	8.1
Total OECD	45.9	46.0	45.8	44.8	45.9	46.4	45.7	46.4	45.3	46.7	46.3	46.2	46.4	45.4	46.4	46.5	46.2
NON-OECD DEMAND																	
FSU	4.6	4.7	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.7	4.8	5.0	4.9	4.9
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	9.9	10.3	10.4	10.6	10.5	11.0	10.6	11.0	11.3	11.3	11.2	11.2	11.3	11.7	11.6	11.7	11.6
Other Asia	11.4	11.8	12.1	12.2	11.8	12.2	12.0	12.4	12.6	12.3	12.8	12.5	13.0	13.0	12.8	13.3	13.0
Americas	6.5	6.7	6.6	6.8	7.0	6.9	6.8	6.6	6.8	6.9	6.8	6.8	6.6	6.8	6.9	6.9	6.8
Middle East	7.8	7.9	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.4	8.8	8.2	8.3
Africa	3.8	3.9	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.1	4.1	4.3	4.2	4.1	4.3	4.2
Total Non-OECD	44.8	45.9	46.1	47.2	47.3	47.7	47.1	47.1	48.6	48.7	48.8	48.3	48.3	49.6	50.1	50.0	49.5
Total Demand¹	90.7	91.9	91.9	92.0	93.2	94.0	92.8	93.5	93.9	95.4	95.1	94.5	94.7	95.1	96.4	96.5	95.7
OECD SUPPLY																	
Americas ⁴	15.8	17.2	18.3	18.9	19.3	19.9	19.1	20.0	19.6	20.0	20.0	19.9	19.6	19.3	19.4	19.6	19.5
Europe	3.5	3.3	3.5	3.2	3.1	3.4	3.3	3.4	3.5	3.3	3.5	3.4	3.5	3.3	3.1	3.3	3.3
Asia Oceania	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	19.8	21.0	22.3	22.6	22.9	23.8	22.9	23.8	23.5	23.9	23.9	23.8	23.5	23.1	23.0	23.4	23.2
NON-OECD SUPPLY																	
FSU	13.8	13.9	13.9	13.8	13.8	13.9	13.9	14.0	14.0	13.9	14.0	14.0	14.0	13.9	13.9	13.8	13.9
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.2	4.2	4.2	4.3	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Other Asia ²	2.7	2.7	2.6	2.6	2.6	2.7	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.2	4.2	4.3	4.5	4.6	4.4	4.6	4.5	4.5	4.5	4.6	4.6	4.6	4.7	4.7	4.7
Middle East	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Africa ²	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.7	28.7	28.9	28.7	28.8	29.3	28.9	29.5	29.3	29.2	29.2	29.3	29.3	29.2	29.1	29.2	29.2
Processing gains ³	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	1.9	2.0	1.7	2.3	2.6	2.3	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC Supply ²	52.5	53.8	55.1	55.9	56.5	57.6	56.3	57.4	57.5	57.9	57.8	57.6	56.9	56.9	57.1	57.2	57.0
OPEC																	
Crude	32.1	31.2	30.7	30.8	31.2	31.2	31.0	31.2	32.2	32.4	32.3	32.0					
NGLs	6.4	6.3	6.4	6.4	6.6	6.6	6.5	6.6	6.6	6.7	6.7	6.7	6.8	6.9	6.9	7.0	6.9
Total OPEC ²	38.4	37.5	37.1	37.2	37.8	37.8	37.5	37.7	38.8	39.1	39.1	38.7					
Total Supply⁴	90.9	91.4	92.2	93.1	94.3	95.4	93.7	95.1	96.3	97.0	96.9	96.3					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.2	0.2	0.8	0.7	-0.1	0.4	0.9	1.0	0.8							
Government	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1							
Total	0.2	-0.2	0.2	0.7	0.7	-0.1	0.4	0.9	1.0	0.7							
Floating storage/Oil in transit	0.0	0.1	0.3	-0.3	0.3	-0.1	0.0	-0.1	0.2	0.0							
Miscellaneous to balance ⁵	0.1	-0.5	-0.2	0.7	0.0	1.6	0.5	0.8	1.1	0.8							
Total Stock Ch. & Misc	0.2	-0.5	0.3	1.1	1.0	1.4	0.9	1.6	2.4	1.6	1.8	1.8					

Memo items:

Call on OPEC crude + Stock ch. ⁶	31.8	31.7	30.4	29.7	30.2	29.8	30.0	29.6	29.8	30.8	30.5	30.2	31.0	31.3	32.4	32.3	31.7

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-0.1	-
Europe	-	-	0.1	0.1	0.1	-	0.1	-	-	-	0.1	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-0.1
Total OECD	-	-	-	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-0.1	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.2	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
Middle East	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.1	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	-0.2	-	-	-0.1	-0.1
Total Demand	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-	-	-0.2	-0.1
OECD SUPPLY																	
Americas	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1	-	0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	-	0.1
NON-OECD SUPPLY																	
FSU	-	0.1	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
Americas	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	0.1	0.1	-	-	-	-	-	-	-	-	0.1	-	0.1	0.2	0.2	0.2	0.2
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	0.1	0.1	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.2	0.1	0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	-	-
Total Supply	0.1	0.1	-	-	0.1	0.1	0.1	0.1	-	0.1	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	0.1	0.1	-	-	-	0.1	-	0.1	-	0.1	-	-	-	-	-	-	-
Total Stock Ch. & Misc	0.1	0.1	-	-	-	0.1	-	0.1	-	0.1	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-0.1	-0.1	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.4	-0.2	-0.2	-0.2	-0.1	-0.2	-0.3

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Demand (mb/d)																
Americas	24.07	23.88	23.72	24.37	24.56	24.14	24.24	24.09	24.73	24.45	24.38	24.37	24.15	24.64	24.67	24.46
Europe	13.60	13.04	13.43	13.88	13.47	13.46	13.45	13.55	14.15	13.57	13.68	13.43	13.68	13.94	13.61	13.67
Asia Oceania	8.34	8.87	7.68	7.69	8.32	8.14	8.74	7.65	7.78	8.26	8.10	8.62	7.60	7.79	8.25	8.06
Total OECD	46.01	45.79	44.83	45.93	46.35	45.73	46.43	45.28	46.65	46.28	46.16	46.42	45.43	46.37	46.54	46.19
Asia	22.06	22.47	22.73	22.23	23.19	22.65	23.44	23.83	23.57	24.04	23.72	24.21	24.70	24.44	24.94	24.57
Middle East	7.91	7.72	8.16	8.41	7.85	8.04	7.64	8.34	8.59	8.14	8.18	7.84	8.40	8.85	8.19	8.32
Americas	6.67	6.63	6.79	6.96	6.94	6.83	6.64	6.78	6.88	6.80	6.78	6.61	6.78	6.90	6.90	6.79
FSU	4.72	4.63	4.86	5.14	5.05	4.92	4.58	4.90	5.05	4.96	4.87	4.66	4.82	5.03	4.93	4.86
Africa	3.89	4.00	3.99	3.87	3.96	3.95	4.08	4.06	3.95	4.13	4.06	4.25	4.23	4.12	4.28	4.22
Europe	0.66	0.66	0.67	0.69	0.68	0.68	0.69	0.70	0.71	0.71	0.70	0.71	0.73	0.71	0.73	0.72
Total Non-OECD	45.90	46.10	47.20	47.30	47.67	47.07	47.08	48.61	48.73	48.77	48.31	48.28	49.65	50.06	49.95	49.49
World	91.91	91.89	92.03	93.23	94.02	92.80	93.51	93.90	95.39	95.05	94.47	94.69	95.07	96.43	96.49	95.68
of which: US50	18.96	18.82	18.77	19.31	19.51	19.11	19.29	19.25	19.68	19.38	19.40	19.44	19.28	19.66	19.66	19.51
Europe 5*	8.12	7.87	7.91	8.19	8.04	8.00	8.05	7.99	8.34	8.02	8.10	8.00	8.03	8.17	8.01	8.05
China	10.26	10.39	10.57	10.46	11.02	10.61	11.04	11.28	11.26	11.25	11.21	11.25	11.65	11.65	11.67	11.56
Japan	4.56	5.07	3.93	3.93	4.48	4.35	4.79	3.89	3.94	4.25	4.22	4.58	3.74	3.88	4.28	4.12
India	3.69	3.81	3.88	3.56	3.80	3.76	3.95	4.01	3.86	4.11	3.98	4.22	4.27	4.03	4.31	4.21
Russia	3.46	3.46	3.62	3.86	3.68	3.66	3.38	3.63	3.75	3.60	3.59	3.46	3.53	3.71	3.54	3.56
Brazil	3.11	3.12	3.17	3.28	3.31	3.22	3.16	3.17	3.22	3.18	3.18	3.08	3.11	3.19	3.22	3.15
Saudi Arabia	2.96	2.78	3.28	3.48	3.02	3.14	2.88	3.46	3.58	3.15	3.27	2.91	3.43	3.76	3.14	3.31
Canada	2.37	2.41	2.32	2.44	2.41	2.40	2.36	2.26	2.38	2.41	2.35	2.30	2.26	2.37	2.34	2.32
Korea	2.33	2.35	2.31	2.32	2.38	2.34	2.48	2.32	2.39	2.55	2.43	2.57	2.41	2.45	2.51	2.48
Mexico	2.09	2.00	2.02	2.00	2.02	2.01	1.91	1.95	2.04	2.01	1.98	1.94	1.97	1.96	2.01	1.97
Iran	1.92	1.96	1.89	1.85	1.91	1.90	1.82	1.85	1.79	1.91	1.84	1.87	1.86	1.86	1.92	1.88
Total	63.82	64.04	63.66	64.69	65.58	64.50	65.11	65.06	66.22	65.82	65.56	65.62	65.54	66.70	66.63	66.13
% of World	69.4%	69.7%	69.2%	69.4%	69.8%	69.5%	69.6%	69.3%	69.4%	69.2%	69.4%	69.3%	68.9%	69.2%	69.1%	69.1%
Annual Change (% per annum)																
Americas	1.9	0.4	-0.6	0.2	1.0	0.3	1.5	1.6	1.5	-0.5	1.0	0.5	0.2	-0.3	0.9	0.3
Europe	-1.3	-0.5	-2.8	-0.4	-0.4	-1.1	3.2	0.9	2.0	0.7	1.7	-0.1	1.0	-1.5	0.4	-0.1
Asia Oceania	-2.1	0.3	-2.4	-4.2	-3.6	-2.4	-1.4	-0.4	1.2	-0.7	-0.4	-1.4	-0.6	0.2	-0.1	-0.5
Total OECD	0.2	0.2	-1.6	-0.7	-0.3	-0.6	1.4	1.0	1.6	-0.2	1.0	0.0	0.3	-0.6	0.6	0.1
Asia	3.6	2.2	2.9	2.2	3.4	2.7	4.3	4.9	6.0	3.7	4.7	3.3	3.6	3.7	3.7	3.6
Middle East	0.8	1.7	2.1	0.2	2.6	1.6	-1.0	2.2	2.1	3.8	1.8	2.5	0.7	3.0	0.6	1.7
Americas	2.4	3.3	2.1	2.5	1.8	2.4	0.2	-0.1	-1.2	-2.0	-0.8	-0.5	-0.1	0.3	1.5	0.3
FSU	1.9	5.4	5.9	4.3	2.2	4.4	-1.1	0.7	-1.9	-1.7	-1.0	1.7	-1.6	-0.2	-0.7	-0.2
Africa	2.0	0.0	0.8	4.5	1.8	1.7	2.1	1.7	2.1	4.2	2.5	4.2	4.2	4.4	3.6	4.1
Europe	-4.1	5.5	1.5	3.7	0.8	2.8	5.4	4.8	2.5	3.4	4.0	2.3	3.7	1.3	2.8	2.5
Total Non-OECD	2.5	2.4	2.7	2.3	2.7	2.6	2.1	3.0	3.0	2.3	2.6	2.5	2.1	2.7	2.4	2.4
World	1.3	1.3	0.6	0.8	1.2	1.0	1.8	2.0	2.3	1.1	1.8	1.3	1.3	1.1	1.5	1.3
Annual Change (mb/d)																
Americas	0.44	0.10	-0.13	0.06	0.23	0.07	0.36	0.37	0.36	-0.11	0.24	0.13	0.06	-0.09	0.22	0.08
Europe	-0.18	-0.06	-0.39	-0.06	-0.06	-0.14	0.41	0.12	0.27	0.10	0.22	-0.02	0.13	-0.21	0.05	-0.01
Asia Oceania	-0.17	0.03	-0.18	-0.34	-0.31	-0.20	-0.12	-0.03	0.09	-0.06	-0.03	-0.12	-0.05	0.01	-0.01	-0.04
Total OECD	0.09	0.07	-0.71	-0.34	-0.14	-0.28	0.64	0.46	0.72	-0.07	0.44	-0.02	0.14	-0.28	0.26	0.03
Asia	0.77	0.48	0.65	0.48	0.76	0.59	0.97	1.11	1.34	0.85	1.07	0.77	0.86	0.87	0.90	0.85
Middle East	0.06	0.13	0.17	0.01	0.20	0.13	-0.08	0.18	0.18	0.30	0.14	0.19	0.06	0.26	0.05	0.14
Americas	0.15	0.21	0.14	0.17	0.12	0.16	0.02	-0.01	-0.08	-0.14	-0.05	-0.04	-0.01	0.02	0.10	0.02
FSU	0.09	0.24	0.27	0.21	0.11	0.21	-0.05	0.04	-0.10	-0.09	-0.05	0.08	-0.08	-0.01	-0.03	-0.01
Africa	0.08	0.00	0.03	0.17	0.07	0.07	0.08	0.07	0.08	0.17	0.10	0.17	0.17	0.17	0.15	0.17
Europe	-0.03	0.03	0.01	0.02	0.01	0.02	0.04	0.03	0.02	0.02	0.03	0.02	0.03	0.01	0.02	0.02
Total Non-OECD	1.12	1.09	1.26	1.07	1.26	1.17	0.98	1.41	1.44	1.11	1.24	1.20	1.03	1.32	1.18	1.18
World	1.21	1.16	0.55	0.73	1.12	0.89	1.63	1.87	2.16	1.03	1.67	1.18	1.17	1.04	1.44	1.21
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.02	0.07	0.03	0.05	-0.07	0.02
Europe	0.01	0.07	0.07	0.09	0.04	0.07	0.00	0.01	0.00	0.05	0.02	0.02	0.01	0.00	0.05	0.02
Asia Oceania	-0.02	-0.02	-0.02	-0.02	-0.03	-0.02	-0.03	-0.02	-0.02	-0.08	-0.04	-0.05	-0.04	-0.04	-0.10	-0.05
Total OECD	-0.01	0.05	0.05	0.07	0.01	0.04	-0.02	-0.01	-0.02	0.03	0.00	0.04	0.01	0.01	-0.11	-0.01
Asia	0.00	0.02	0.01	0.01	0.03	0.02	0.04	0.04	0.00	-0.34	-0.07	-0.07	-0.05	-0.04	-0.06	-0.06
Middle East	0.00	-0.02	0.01	-0.03	-0.01	-0.01	-0.03	-0.01	-0.01	0.10	0.01	-0.07	-0.01	0.00	0.00	-0.02
Americas	0.00	-0.01	-0.02	-0.01	-0.01	-0.01	-0.03	-0.03	-0.01	-0.06	-0.03	-0.03	-0.04	-0.04	-0.06	-0.04
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.03	0.02	0.02	0.02
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.01	0.01	0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	-0.01	-0.01	-0.03	0.00	-0.01	-0.02	0.00	-0.03	-0.27	-0.08	-0.16	-0.05	-0.05	-0.10	-0.09
World	-0.02	0.04	0.05	0.04	0.02	0.04	-0.05	-0.01	-0.05	-0.23	-0.08	-0.12	-0.04	-0.04	-0.21	-0.10
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.06	0.07	0.06	0.02	0.05	-0.09	-0.05	-0.09	-0.25	-0.12	-0.07	-0.03	0.01	0.02	-0.02

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2013	2014	4Q14	1Q15	2Q15	3Q15	Aug 15	Sep 15	Oct 15 ²	Sep 15	Oct 14
Americas											
LPG and ethane	3.28	3.22	3.45	3.48	2.98	3.02	3.01	2.91	3.14	0.24	-0.10
Naphtha	0.38	0.35	0.35	0.35	0.31	0.33	0.34	0.34	0.34	0.00	0.00
Motor gasoline	10.55	10.64	10.73	10.49	10.97	11.16	11.23	11.00	11.00	0.00	0.11
Jet and kerosene	1.70	1.74	1.76	1.72	1.81	1.88	1.90	1.80	1.86	0.06	0.11
Gasoil/diesel oil	5.06	5.28	5.39	5.52	5.11	5.16	5.09	5.28	5.25	-0.03	-0.34
Residual fuel oil	0.72	0.58	0.59	0.51	0.44	0.63	0.66	0.59	0.57	-0.02	-0.03
Other products	2.38	2.32	2.29	2.17	2.47	2.56	2.62	2.33	2.31	-0.02	-0.12
Total	24.07	24.14	24.56	24.24	24.09	24.73	24.85	24.24	24.47	0.22	-0.36
Europe											
LPG and ethane	1.06	1.08	1.07	1.21	1.14	1.12	1.15	1.05	1.05	0.00	-0.06
Naphtha	1.13	1.17	1.04	1.25	1.13	1.12	1.12	1.10	1.08	-0.02	0.14
Motor gasoline	1.93	1.91	1.89	1.78	1.98	2.02	2.00	2.00	1.93	-0.06	-0.02
Jet and kerosene	1.23	1.27	1.23	1.19	1.34	1.49	1.51	1.52	1.39	-0.13	0.05
Gasoil/diesel oil	5.97	5.94	6.20	6.16	5.97	6.32	6.10	6.64	6.43	-0.21	-0.03
Residual fuel oil	1.00	0.92	0.91	0.88	0.85	0.87	0.86	0.85	0.85	0.00	-0.07
Other products	1.28	1.17	1.12	1.00	1.14	1.20	1.20	1.20	1.14	-0.06	-0.10
Total	13.60	13.46	13.47	13.45	13.55	14.15	13.94	14.36	13.86	-0.50	-0.08
Asia Oceania											
LPG and ethane	0.86	0.84	0.83	0.90	0.73	0.75	0.73	0.72	0.74	0.02	-0.02
Naphtha	1.85	1.88	1.96	2.04	1.88	1.95	2.00	1.99	1.90	-0.09	0.04
Motor gasoline	1.58	1.54	1.57	1.51	1.51	1.62	1.69	1.56	1.53	-0.02	0.02
Jet and kerosene	0.88	0.86	0.98	1.11	0.68	0.69	0.68	0.76	0.80	0.04	0.05
Gasoil/diesel oil	1.77	1.77	1.83	1.85	1.76	1.76	1.75	1.82	1.87	0.05	0.09
Residual fuel oil	0.77	0.67	0.63	0.77	0.60	0.54	0.56	0.52	0.54	0.02	-0.04
Other products	0.63	0.57	0.51	0.56	0.48	0.46	0.50	0.42	0.42	0.00	-0.03
Total	8.34	8.14	8.32	8.74	7.65	7.78	7.91	7.77	7.79	0.02	0.11
OECD											
LPG and ethane	5.21	5.15	5.35	5.58	4.85	4.89	4.89	4.68	4.93	0.25	-0.18
Naphtha	3.36	3.40	3.35	3.63	3.33	3.40	3.46	3.43	3.32	-0.11	0.19
Motor gasoline	14.05	14.10	14.20	13.78	14.46	14.80	14.92	14.55	14.46	-0.09	0.11
Jet and kerosene	3.81	3.87	3.98	4.03	3.83	4.06	4.08	4.08	4.05	-0.03	0.21
Gasoil/diesel oil	12.80	12.99	13.41	13.53	12.84	13.24	12.95	13.73	13.54	-0.19	-0.27
Residual fuel oil	2.49	2.17	2.14	2.15	1.89	2.04	2.08	1.95	1.95	0.00	-0.14
Other products	4.29	4.05	3.92	3.73	4.09	4.23	4.33	3.95	3.87	-0.08	-0.25
Total	46.01	45.73	46.35	46.43	45.28	46.65	46.70	46.37	46.12	-0.25	-0.33

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2013	2014	4Q14	1Q15	2Q15	3Q15	Aug 15	Sep 15	Oct 15 ²	Latest month vs.	
										Sep 15	Oct 14
United States³											
LPG and ethane	2.44	2.40	2.58	2.62	2.18	2.20	2.19	2.07	2.29	0.22	-0.12
Naphtha	0.27	0.23	0.24	0.23	0.20	0.22	0.24	0.24	0.23	-0.01	0.00
Motor gasoline	8.84	8.92	9.00	8.81	9.26	9.39	9.47	9.27	9.25	-0.02	0.10
Jet and kerosene	1.44	1.48	1.51	1.46	1.55	1.59	1.60	1.54	1.59	0.05	0.09
Gasoil/diesel oil	3.83	4.04	4.12	4.27	3.88	3.93	3.89	4.02	3.99	-0.02	-0.27
Residual fuel oil	0.32	0.26	0.28	0.24	0.19	0.31	0.32	0.28	0.21	-0.06	-0.03
Other products	1.82	1.78	1.76	1.66	1.99	2.04	2.12	1.82	1.78	-0.03	-0.12
Total	18.96	19.11	19.51	19.29	19.25	19.68	19.81	19.23	19.35	0.13	-0.34
Japan											
LPG and ethane	0.52	0.50	0.50	0.57	0.42	0.41	0.39	0.40	0.39	-0.01	-0.03
Naphtha	0.77	0.75	0.83	0.84	0.75	0.79	0.77	0.85	0.76	-0.09	-0.04
Motor gasoline	0.95	0.92	0.94	0.88	0.89	0.97	1.03	0.91	0.89	-0.02	0.01
Jet and kerosene	0.53	0.52	0.61	0.73	0.35	0.35	0.34	0.40	0.43	0.03	0.03
Diesel	0.41	0.40	0.41	0.43	0.42	0.43	0.42	0.44	0.45	0.01	0.04
Other gasoil	0.41	0.40	0.41	0.42	0.33	0.32	0.30	0.33	0.36	0.02	-0.01
Residual fuel oil	0.46	0.41	0.38	0.46	0.34	0.31	0.34	0.26	0.29	0.03	-0.06
Other products	0.50	0.44	0.40	0.46	0.40	0.38	0.42	0.34	0.34	0.00	0.00
Total	4.56	4.35	4.48	4.79	3.89	3.94	4.00	3.94	3.92	-0.03	-0.07
Germany											
LPG and ethane	0.11	0.09	0.08	0.09	0.11	0.10	0.10	0.11	0.08	-0.03	0.00
Naphtha	0.39	0.42	0.41	0.43	0.38	0.36	0.38	0.34	0.36	0.02	-0.03
Motor gasoline	0.43	0.44	0.44	0.40	0.44	0.45	0.45	0.44	0.45	0.01	-0.01
Jet and kerosene	0.19	0.19	0.18	0.17	0.20	0.21	0.21	0.20	0.20	-0.01	0.01
Diesel	0.70	0.73	0.75	0.71	0.76	0.81	0.77	0.81	0.81	0.00	0.01
Other gasoil	0.43	0.36	0.38	0.45	0.24	0.34	0.34	0.42	0.39	-0.04	-0.02
Residual fuel oil	0.12	0.12	0.14	0.12	0.13	0.13	0.12	0.13	0.12	-0.01	-0.02
Other products	0.07	0.05	0.04	0.01	0.04	0.06	0.06	0.08	0.05	-0.03	0.00
Total	2.44	2.40	2.41	2.39	2.30	2.46	2.43	2.53	2.44	-0.09	-0.07
Italy											
LPG and ethane	0.11	0.11	0.11	0.13	0.11	0.11	0.11	0.12	0.12	0.00	0.02
Naphtha	0.05	0.09	0.08	0.11	0.11	0.11	0.12	0.11	0.10	-0.01	0.03
Motor gasoline	0.20	0.20	0.20	0.19	0.21	0.23	0.22	0.23	0.21	-0.02	0.01
Jet and kerosene	0.09	0.09	0.08	0.08	0.10	0.11	0.12	0.11	0.09	-0.02	0.00
Diesel	0.45	0.50	0.52	0.44	0.47	0.47	0.42	0.48	0.47	-0.01	-0.09
Other gasoil	0.10	0.04	0.05	0.09	0.09	0.10	0.09	0.10	0.11	0.00	0.06
Residual fuel oil	0.08	0.06	0.06	0.08	0.08	0.08	0.08	0.09	0.09	0.00	0.02
Other products	0.18	0.14	0.13	0.11	0.14	0.13	0.12	0.13	0.14	0.00	-0.01
Total	1.26	1.22	1.24	1.22	1.31	1.35	1.27	1.36	1.32	-0.04	0.05
France											
LPG and ethane	0.12	0.11	0.12	0.15	0.11	0.11	0.11	0.11	0.12	0.01	0.00
Naphtha	0.12	0.12	0.07	0.12	0.12	0.12	0.13	0.09	0.07	-0.02	0.00
Motor gasoline	0.16	0.16	0.16	0.14	0.17	0.18	0.17	0.17	0.16	-0.01	0.00
Jet and kerosene	0.15	0.15	0.14	0.14	0.16	0.17	0.17	0.16	0.16	0.00	0.01
Diesel	0.69	0.70	0.71	0.67	0.71	0.72	0.65	0.73	0.72	-0.01	-0.02
Other gasoil	0.28	0.25	0.27	0.29	0.20	0.28	0.29	0.33	0.24	-0.09	-0.04
Residual fuel oil	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.04	0.04	-0.01	-0.01
Other products	0.13	0.12	0.11	0.11	0.12	0.10	0.08	0.11	0.11	0.00	-0.03
Total	1.71	1.65	1.63	1.68	1.63	1.71	1.63	1.75	1.62	-0.13	-0.10
United Kingdom											
LPG and ethane	0.11	0.12	0.13	0.14	0.14	0.12	0.12	0.13	0.13	0.00	0.03
Naphtha	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.02	-0.02	-0.01
Motor gasoline	0.31	0.30	0.30	0.29	0.30	0.30	0.30	0.30	0.29	-0.01	0.00
Jet and kerosene	0.31	0.31	0.32	0.33	0.30	0.31	0.32	0.35	0.36	0.01	0.03
Diesel	0.46	0.48	0.50	0.47	0.50	0.50	0.51	0.50	0.49	0.00	0.01
Other gasoil	0.12	0.13	0.13	0.13	0.14	0.14	0.15	0.15	0.15	0.00	0.00
Residual fuel oil	0.04	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.13	0.12	0.12	0.11	0.11	0.13	0.12	0.13	0.12	-0.01	-0.01
Total	1.50	1.52	1.54	1.52	1.54	1.56	1.58	1.62	1.59	-0.03	0.06
Canada											
LPG and ethane	0.38	0.37	0.40	0.40	0.36	0.38	0.38	0.39	0.40	0.01	0.03
Naphtha	0.09	0.09	0.09	0.10	0.09	0.09	0.10	0.08	0.08	0.01	0.00
Motor gasoline	0.81	0.84	0.83	0.79	0.82	0.85	0.86	0.82	0.82	0.00	-0.02
Jet and kerosene	0.14	0.13	0.13	0.13	0.13	0.16	0.16	0.15	0.14	-0.01	0.01
Diesel	0.29	0.29	0.31	0.32	0.31	0.32	0.32	0.33	0.32	-0.01	0.00
Other gasoil	0.30	0.30	0.29	0.27	0.24	0.26	0.25	0.29	0.27	-0.03	-0.06
Residual fuel oil	0.06	0.06	0.07	0.06	0.04	0.03	0.03	0.02	0.04	0.01	-0.02
Other products	0.31	0.30	0.30	0.29	0.26	0.31	0.28	0.31	0.32	0.01	0.02
Total	2.37	2.40	2.41	2.36	2.26	2.38	2.39	2.39	2.40	0.01	-0.03

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION

(million barrels per day)

	2014	2015	2016	3Q15	4Q15	1Q16	2Q16	3Q16	Oct 15	Nov 15	Dec 15
OPEC											
Crude Oil											
Saudi Arabia	9.53	10.12		10.27	10.16				10.19	10.17	10.12
Iran	2.81	2.86		2.87	2.89				2.88	2.87	2.91
Iraq	3.33	3.98		4.24	4.24				4.17	4.29	4.26
UAE	2.76	2.88		2.92	2.89				2.89	2.89	2.89
Kuwait	2.61	2.74		2.76	2.76				2.71	2.78	2.79
Neutral Zone	0.38	0.09		0.04	0.04				0.04	0.04	0.04
Qatar	0.71	0.66		0.64	0.68				0.67	0.68	0.68
Angola	1.66	1.76		1.77	1.76				1.78	1.74	1.76
Nigeria	1.90	1.80		1.80	1.82				1.90	1.80	1.76
Libya	0.46	0.40		0.38	0.40				0.43	0.39	0.38
Algeria	1.12	1.11		1.12	1.11				1.11	1.11	1.11
Ecuador	0.55	0.54		0.53	0.54				0.53	0.54	0.54
Venezuela	2.46	2.40		2.40	2.38				2.38	2.40	2.37
Indonesia	0.70	0.67		0.66	0.67				0.67	0.67	0.67
Total Crude Oil	30.98	32.02		32.41	32.33				32.35	32.37	32.28
Total NGLs ¹	6.50	6.66	6.89	6.68	6.74	6.78	6.86	6.93	6.74	6.74	6.74
Total OPEC²	37.48	38.68		39.09	39.07				39.09	39.11	39.02
NON-OPEC^{2,3}											
OECD											
Americas	19.09	19.90	19.45	20.05	19.96	19.56	19.29	19.38	19.93	20.03	19.90
United States	11.99	12.91	12.41	13.01	12.88	12.46	12.41	12.35	13.01	12.87	12.76
Mexico	2.81	2.60	2.54	2.60	2.61	2.59	2.57	2.50	2.60	2.63	2.60
Canada	4.28	4.37	4.49	4.43	4.46	4.50	4.31	4.51	4.31	4.52	4.53
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.32	3.44	3.30	3.34	3.50	3.46	3.30	3.12	3.53	3.49	3.49
UK	0.87	0.94	0.89	0.89	0.95	0.96	0.90	0.79	0.96	0.96	0.93
Norway	1.89	1.95	1.89	1.91	2.01	1.97	1.87	1.82	2.02	1.99	2.02
Others	0.57	0.55	0.52	0.54	0.54	0.53	0.53	0.52	0.55	0.54	0.54
Asia Oceania	0.51	0.46	0.48	0.50	0.47	0.48	0.48	0.48	0.46	0.48	0.47
Australia	0.43	0.38	0.39	0.42	0.38	0.39	0.39	0.39	0.38	0.39	0.38
Others	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09
Total OECD	22.91	23.80	23.23	23.90	23.93	23.50	23.07	22.98	23.93	24.00	23.87
NON-OECD											
Former USSR	13.87	13.98	13.91	13.91	13.99	14.02	13.95	13.86	13.94	14.07	13.96
Russia	10.91	11.06	11.08	11.04	11.14	11.16	11.10	11.06	11.12	11.12	11.16
Others	2.95	2.92	2.83	2.87	2.85	2.86	2.84	2.80	2.82	2.95	2.79
Asia²	6.86	7.06	6.97	7.03	7.06	6.99	6.97	6.95	7.05	7.12	7.03
China	4.22	4.33	4.30	4.34	4.34	4.30	4.30	4.30	4.32	4.35	4.35
Malaysia	0.65	0.71	0.71	0.67	0.68	0.70	0.71	0.71	0.68	0.68	0.69
India	0.88	0.87	0.86	0.87	0.89	0.87	0.85	0.85	0.89	0.90	0.88
Others	1.11	1.15	1.10	1.14	1.15	1.12	1.11	1.10	1.15	1.19	1.10
Europe	0.14	0.14	0.13	0.14	0.14	0.13	0.13	0.13	0.14	0.14	0.14
Americas²	4.40	4.56	4.67	4.54	4.54	4.61	4.64	4.67	4.52	4.49	4.59
Brazil	2.35	2.53	2.67	2.56	2.51	2.59	2.65	2.69	2.50	2.48	2.56
Argentina	0.63	0.63	0.64	0.63	0.63	0.64	0.64	0.64	0.63	0.63	0.63
Colombia	0.99	1.01	0.97	0.98	1.00	0.99	0.97	0.96	1.00	0.99	1.00
Others	0.42	0.39	0.38	0.37	0.39	0.40	0.38	0.37	0.38	0.39	0.39
Middle East^{2,4}	1.32	1.24	1.20	1.23	1.20	1.21	1.20	1.20	1.20	1.21	1.19
Oman	0.95	0.98	0.96	1.00	0.97	0.97	0.96	0.96	0.97	0.97	0.96
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.15	0.05	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02
Others	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Africa	2.33	2.32	2.31	2.30	2.30	2.30	2.30	2.31	2.30	2.30	2.29
Egypt	0.71	0.72	0.70	0.73	0.72	0.71	0.70	0.70	0.72	0.72	0.71
Gabon	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Others	1.38	1.36	1.38	1.34	1.35	1.36	1.36	1.39	1.35	1.35	1.35
Total Non-OECD	28.91	29.29	29.19	29.16	29.22	29.27	29.18	29.12	29.15	29.31	29.20
Processing gains ⁵	2.21	2.24	2.27	2.24	2.24	2.27	2.27	2.27	2.24	2.24	2.24
Global Biofuels	2.23	2.30	2.36	2.59	2.41	1.90	2.39	2.75	2.57	2.53	2.13
TOTAL NON-OPEC	56.26	57.63	57.05	57.89	57.81	56.94	56.91	57.12	57.89	58.09	57.44
TOTAL SUPPLY	93.75	96.31		96.97	96.88				96.98	97.20	96.46

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE. Orimulsion production reportedly ceased from January 2007.

2 Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

3 Comprises crude oil, condensates, NGLs and oil from non-conventional sources

4 Includes small amounts of production from Jordan and Bahrain.

5 Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jul2015	Aug2015	Sep2015	Oct2015	Nov2015*	Nov2012	Nov2013	Nov2014	4Q2014	1Q2015	2Q2015	3Q2015
OECD Americas												
Crude	617.2	614.4	616.6	642.6	644.9	520.1	522.6	545.5	0.41	0.81	0.00	-0.10
Motor Gasoline	248.4	249.6	257.5	247.1	251.4	249.9	250.3	252.9	0.33	-0.11	-0.16	0.07
Middle Distillate	216.0	228.1	219.8	211.0	217.9	191.7	189.8	195.5	0.06	-0.10	0.14	0.07
Residual Fuel Oil	47.3	44.8	47.1	50.2	50.6	44.6	43.4	44.6	-0.03	0.05	0.03	-0.01
Total Products ³	738.3	759.2	763.2	744.7	745.9	680.5	668.9	707.6	0.10	-0.39	0.43	0.31
Total ⁴	1542.4	1563.5	1571.5	1576.3	1581.3	1367.9	1351.7	1426.9	0.33	0.41	0.59	0.37
OECD Europe												
Crude	339.1	342.9	339.0	346.9	344.0	330.7	325.5	307.2	0.04	0.28	0.00	-0.06
Motor Gasoline	83.5	84.8	89.2	88.7	90.2	92.4	86.1	87.8	0.04	0.13	-0.18	0.04
Middle Distillate	281.8	297.4	301.5	295.5	297.9	252.3	244.9	256.4	-0.17	0.10	0.20	0.26
Residual Fuel Oil	68.5	71.0	69.3	69.5	71.0	78.2	67.3	65.3	0.03	0.02	0.01	0.03
Total Products ³	525.8	550.9	556.3	549.9	554.3	523.0	485.0	507.3	-0.11	0.25	-0.01	0.36
Total ⁴	933.3	962.2	964.9	966.5	965.2	921.7	877.3	884.6	-0.13	0.59	0.01	0.27
OECD Asia Oceania												
Crude	204.9	204.7	202.2	205.2	198.2	170.4	157.8	173.9	-0.06	0.05	0.26	0.01
Motor Gasoline	24.7	23.6	23.6	23.2	23.3	25.0	24.8	22.7	-0.02	0.02	0.03	-0.02
Middle Distillate	65.6	70.2	67.0	65.0	65.9	64.1	65.0	70.7	-0.07	-0.09	0.06	0.06
Residual Fuel Oil	19.8	21.2	22.4	21.9	23.5	18.9	18.0	20.3	-0.02	-0.03	0.01	0.03
Total Products ³	170.2	178.3	175.7	168.5	170.1	175.4	172.9	182.0	-0.16	-0.18	0.14	0.11
Total ⁴	438.6	449.1	444.7	439.1	435.4	417.9	402.9	423.9	-0.33	-0.15	0.41	0.17
Total OECD												
Crude	1161.2	1162.0	1157.8	1194.7	1187.1	1021.2	1005.8	1026.6	0.39	1.14	0.26	-0.14
Motor Gasoline	356.5	358.0	370.2	358.9	364.9	367.3	361.2	363.4	0.35	0.04	-0.32	0.09
Middle Distillate	563.4	595.7	588.2	571.5	581.6	508.1	499.7	522.6	-0.18	-0.08	0.39	0.39
Residual Fuel Oil	135.6	137.1	138.8	141.5	145.1	141.6	128.7	130.1	-0.03	0.04	0.06	0.05
Total Products ³	1434.3	1488.4	1495.2	1463.1	1470.4	1378.9	1326.8	1396.8	-0.17	-0.32	0.56	0.78
Total ⁴	2914.2	2974.8	2981.2	2981.9	2981.9	2707.5	2632.0	2735.4	-0.13	0.86	1.01	0.81

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jul2015	Aug2015	Sep2015	Oct2015	Nov2015*	Nov2012	Nov2013	Nov2014	4Q2014	1Q2015	2Q2015	3Q2015
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	695.0	696.0	691.0	0.00	0.00	0.03	0.01
Products	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	207.8	207.1	208.1	206.2	206.1	196.1	206.7	209.6	0.02	-0.01	-0.02	0.01
Products	256.1	255.4	254.6	256.1	258.8	235.7	259.7	254.4	0.00	0.01	0.01	-0.05
OECD Asia Oceania												
Crude	384.4	383.3	381.4	381.5	381.5	393.6	385.8	385.3	-0.01	0.02	-0.01	-0.05
Products	33.4	33.7	33.7	33.9	33.9	20.0	30.1	31.5	0.01	0.01	0.00	0.01
Total OECD												
Crude	1287.3	1285.5	1284.6	1282.9	1282.7	1284.6	1288.4	1285.9	0.01	0.01	0.00	-0.02
Products	290.5	290.1	289.3	291.0	293.7	256.7	290.8	286.9	0.01	0.02	0.02	-0.04
Total ⁴	1582.0	1579.6	1578.3	1578.3	1580.8	1542.6	1583.3	1577.0	0.02	0.03	0.02	-0.06

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')²

	End September 2014		End December 2014		End March 2015		End June 2015		End September 2015 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	186.1	77	193.1	82	182.8	81	175.6	74	182.5	-
Chile	10.1	32	9.7	28	11.3	33	11.8	36	11.5	-
Mexico	48.8	24	52.8	28	49.8	26	50.4	25	49.5	-
United States ⁴	1840.7	94	1860.5	96	1909.4	99	1972.2	100	2002.1	-
Total ⁴	2107.8	86	2138.3	88	2175.3	90	2232.2	90	2267.7	93
OECD Asia Oceania										
Australia	38.6	35	36.2	33	34.1	32	35.9	33	35.5	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	608.2	136	580.7	121	567.7	146	578.3	147	589.6	-
Korea	196.6	83	196.8	79	201.0	87	224.6	94	226.0	-
New Zealand	9.2	56	8.4	49	8.7	56	9.0	59	8.7	-
Total	852.6	102	822.1	94	811.6	106	847.9	109	859.8	104
OECD Europe⁵										
Austria	22.0	84	22.9	92	23.7	91	23.2	82	23.7	-
Belgium	43.8	69	42.4	63	42.7	68	47.6	73	50.5	-
Czech Republic	21.0	103	21.9	116	21.7	103	21.5	106	21.0	-
Denmark	23.0	152	25.8	173	29.0	188	28.4	178	28.6	-
Estonia	1.8	55	1.6	57	1.5	50	1.5	46	1.5	-
Finland	38.7	204	37.9	213	44.1	254	45.0	229	39.9	-
France	171.3	105	167.8	100	172.9	106	169.8	99	166.8	-
Germany	283.0	118	284.2	119	286.1	124	287.2	117	283.0	-
Greece	29.6	97	26.5	91	31.1	112	27.8	91	29.2	-
Hungary	18.2	121	18.7	136	20.0	137	20.5	130	20.6	-
Ireland	10.0	67	9.3	63	12.8	90	11.1	74	11.3	-
Italy	123.0	100	119.4	98	121.0	93	117.1	87	117.2	-
Luxembourg	0.8	14	0.9	15	0.7	12	0.6	12	0.6	-
Netherlands	126.8	143	123.3	138	136.4	155	140.2	152	153.1	-
Norway	24.5	125	24.2	110	23.2	101	25.9	121	25.1	-
Poland	63.5	120	63.2	125	62.7	115	62.6	110	63.9	-
Portugal	23.0	93	22.2	94	21.7	86	21.8	84	23.0	-
Slovak Republic	10.6	152	11.4	152	11.6	133	11.4	140	11.0	-
Slovenia	4.8	92	4.6	96	4.9	99	4.7	88	4.6	-
Spain	122.7	100	121.3	97	132.4	109	133.4	107	139.4	-
Sweden	27.8	92	29.1	98	31.1	94	29.3	92	31.6	-
Switzerland	38.8	156	37.3	161	37.3	172	37.2	165	36.3	-
Turkey	62.5	83	62.4	81	64.7	75	65.7	69	71.2	-
United Kingdom	75.1	49	78.2	52	76.3	50	77.2	49	78.8	-
Total	1366.4	101	1356.4	101	1409.7	104	1410.6	100	1432.0	106
Total OECD	4326.8	93	4316.8	93	4396.5	97	4490.7	96	4559.4	99
DAYS OF IEA Net Imports⁶ -	168	-	168	-	172	-	194	-	196	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End September 2015 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
3Q2012	4292	1542	2750	93	33	59
4Q2012	4230	1547	2683	93	34	59
1Q2013	4259	1580	2680	94	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	57
1Q2014	4196	1585	2611	94	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4327	1577	2749	93	34	59
4Q2014	4317	1579	2738	93	34	59
1Q2015	4397	1582	2815	97	35	62
2Q2015	4491	1584	2907	96	34	62
3Q2015	4559	1578	2981	99	34	64

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 3Q2015 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2012	2013	2014	4Q14	1Q15	2Q15	3Q15	Aug 15	Sep 15	Oct 15	Year Earlier	
											Oct 14	change
Saudi Light & Extra Light												
Americas	0.76	0.74	0.65	0.60	0.58	0.65	0.56	0.57	0.56	0.51	0.67	-0.16
Europe	0.85	0.79	0.84	0.84	0.91	0.77	0.77	0.66	0.89	0.75	0.83	-0.08
Asia Oceania	1.26	1.21	1.17	1.18	1.37	1.25	1.16	1.20	1.15	1.15	1.14	0.02
Saudi Medium												
Americas	0.44	0.45	0.36	0.25	0.24	0.37	0.44	0.51	0.42	0.39	0.20	0.18
Europe	0.05	0.01	0.03	0.04	0.02	0.02	0.02	0.05	-	0.03	0.05	-0.02
Asia Oceania	0.45	0.43	0.45	0.45	0.40	0.44	0.48	0.52	0.44	0.33	0.55	-0.22
Iraqi Basrah Light²												
Americas	0.49	0.38	0.35	0.20	0.09	0.20	0.09	0.11	-	0.19	0.25	-0.07
Europe	0.26	0.25	0.50	0.70	0.50	0.48	0.95	0.93	1.07	0.96	0.72	0.24
Asia Oceania	0.33	0.31	0.24	0.27	0.41	0.31	0.42	0.45	0.31	0.39	0.18	0.21
Kuwait Blend												
Americas	0.22	0.28	0.27	0.22	0.15	0.21	0.11	0.12	0.22	-	0.27	-
Europe	0.09	0.10	0.09	0.14	0.12	0.08	0.16	0.19	0.08	0.17	0.22	-0.05
Asia Oceania	0.65	0.64	0.62	0.62	0.66	0.61	0.62	0.65	0.56	0.57	0.61	-0.04
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.12	0.08	0.10	0.12	0.09	0.11	0.07	0.07	0.06	0.10	0.15	-0.04
Asia Oceania	0.02	0.00	0.01	-	0.03	-	0.02	0.02	0.04	-	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.16	0.03	0.01	0.00	0.03	0.01	0.03	0.03	0.05	-	-	-
Asia Oceania	0.33	0.30	0.28	0.26	0.31	0.25	0.25	0.23	0.32	0.28	0.23	0.05
Venezuelan 22 API and heavier												
Americas	0.69	0.61	0.64	0.62	0.67	0.67	0.67	0.68	0.66	0.67	0.50	0.17
Europe	0.08	0.07	0.08	0.09	0.10	0.09	0.07	0.04	0.11	0.09	0.09	-0.01
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.73	0.70	0.66	0.66	0.59	0.43	0.45	0.48	0.42	0.49	0.65	-0.15
Europe	0.14	0.14	0.14	0.13	0.16	0.13	0.19	0.17	0.24	0.13	0.11	0.02
Asia Oceania	-	-	-	-	-	0.01	0.02	0.03	-	0.03	-	-
Canada Heavy												
Americas	1.41	1.49	1.71	1.79	1.84	1.81	2.02	2.06	2.09	1.85	1.69	0.16
Europe	-	-	0.00	0.01	-	0.01	0.01	-	0.02	0.02	-	-
Asia Oceania	-	-	0.00	0.00	-	-	-	-	-	-	0.00	-
BFOE												
Americas	0.02	0.03	0.01	0.01	0.01	-	0.01	-	0.02	-	-	-
Europe	0.55	0.47	0.56	0.59	0.47	0.48	0.52	0.48	0.55	0.49	0.60	-0.11
Asia Oceania	0.07	0.06	0.07	0.04	0.03	0.09	0.02	-	0.07	-	-	-
Russian Urals												
Americas	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Europe	1.86	1.79	1.58	1.38	1.54	1.51	1.64	1.65	1.66	1.62	1.59	0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.07	0.06	0.01	-	-	0.01	-	-	-	-	-	-
Europe	0.53	0.59	0.64	0.68	0.73	0.60	0.59	0.58	0.55	0.58	0.60	-0.02
Asia Oceania	-	0.00	0.02	0.01	0.04	0.02	0.12	0.17	0.02	0.07	-	-
Libya Light and Medium												
Americas	0.03	0.00	-	-	-	-	-	-	-	-	-	-
Europe	0.88	0.57	0.31	0.54	0.20	0.23	0.22	0.17	0.18	0.27	0.59	-0.32
Asia Oceania	0.04	0.03	0.02	0.02	-	0.02	-	-	-	-	0.03	-
Nigerian Light⁴												
Americas	0.24	0.07	0.00	0.01	0.03	0.01	0.03	-	0.02	0.03	-	-
Europe	0.58	0.53	0.55	0.54	0.62	0.53	0.55	0.55	0.55	0.60	0.55	0.04
Asia Oceania	0.04	0.03	0.02	0.00	-	-	-	-	-	-	0.01	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2012	2013	2014	4Q14	1Q15	2Q15	3Q15	Aug 15	Sep 15	Oct 15	Year Earlier	
											Oct 14	% change
Crude Oil												
Americas	6101	5130	4201	3755	3869	4085	4075	4117	3905	3837	3793	1%
Europe	9346	8926	8679	9056	9477	9201	9605	9412	9966	9593	9248	4%
Asia Oceania	6761	6557	6381	6331	6871	6426	6486	6666	6115	6298	6082	4%
Total OECD	22208	20612	19261	19142	20217	19711	20165	20195	19986	19728	19123	3%
LPG												
Americas	20	17	12	13	13	12	5	5	9	10	11	-10%
Europe	287	382	427	434	479	361	408	414	420	400	479	-16%
Asia Oceania	620	546	531	527	537	535	491	543	462	441	554	-20%
Total OECD	927	945	969	974	1029	908	904	962	891	851	1044	-18%
Naphtha												
Americas	20	17	20	13	20	14	12	13	13	8	21	-60%
Europe	381	332	356	383	411	287	413	432	452	371	322	15%
Asia Oceania	900	927	960	996	976	915	954	893	1019	905	1016	-11%
Total OECD	1301	1276	1335	1391	1407	1217	1379	1338	1484	1285	1358	-5%
Gasoline ³												
Americas	730	659	665	663	572	745	813	793	830	614	687	-11%
Europe	212	106	131	114	125	114	72	101	116	132	138	-4%
Asia Oceania	86	83	83	79	102	125	69	80	65	84	85	-1%
Total OECD	1028	848	879	856	799	984	954	973	1012	829	909	-9%
Jet & Kerosene												
Americas	73	81	100	104	148	152	132	152	84	138	98	41%
Europe	398	445	454	401	373	426	583	550	609	394	411	-4%
Asia Oceania	62	74	60	88	67	68	50	36	69	63	111	-43%
Total OECD	533	601	613	593	589	646	765	738	762	594	619	-4%
Gasoil/Diesel												
Americas	59	58	95	81	157	40	46	49	67	72	68	6%
Europe	984	1121	1097	993	1105	1309	1270	1360	1315	1151	989	16%
Asia Oceania	185	162	181	176	164	188	169	149	181	231	219	5%
Total OECD	1227	1341	1373	1250	1426	1537	1485	1557	1563	1454	1276	14%
Heavy Fuel Oil												
Americas	206	165	132	135	119	113	139	163	147	76	190	-60%
Europe	521	552	617	559	690	484	513	483	407	432	476	-9%
Asia Oceania	224	242	214	167	212	134	186	173	227	191	150	27%
Total OECD	951	960	964	861	1021	732	838	819	781	700	816	-14%
Other Products												
Americas	813	812	671	656	626	760	759	676	764	500	595	-16%
Europe	636	791	704	649	668	667	737	893	733	740	690	7%
Asia Oceania	357	386	374	307	317	306	343	360	362	309	299	3%
Total OECD	1806	1989	1750	1613	1610	1734	1839	1929	1859	1549	1584	-2%
Total Products												
Americas	1921	1810	1695	1665	1655	1836	1906	1851	1914	1418	1669	-15%
Europe	3419	3729	3786	3533	3851	3649	3995	4231	4052	3620	3503	3%
Asia Oceania	2433	2421	2402	2339	2375	2272	2263	2234	2385	2224	2434	-9%
Total OECD	7773	7960	7883	7538	7881	7758	8164	8316	8352	7262	7606	-5%
Total Oil												
Americas	8022	6940	5896	5420	5525	5921	5980	5968	5819	5255	5462	-4%
Europe	12765	12655	12465	12589	13327	12850	13600	13643	14018	13213	12751	4%
Asia Oceania	9194	8978	8783	8670	9246	8698	8749	8900	8501	8522	8516	0%
Total OECD	29982	28572	27144	26680	28098	27468	28329	28512	28338	26990	26729	1%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2015), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 9 February 2016

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Oil Market Report

9 February 2016

HIGHLIGHTS

- **Crude oil prices spiralled lower during January, with brimming stockpiles pushing global benchmarks below \$30/bbl.** Markets edged higher in early February on suggestions of possible discussions to coordinate a global cut in production. ICE Brent was last trading at \$33.93 /bbl, while NYMEX WTI was at \$30.65/bbl.
- **Having peaked, at a five-year high of 1.6 mb/d in 2015, global oil demand growth is forecast to ease back considerably in 2016, to 1.2 mb/d,** pulled down by notable slowdowns in Europe, China and the US. Early elements of the projected slowdown surfaced in 4Q15.
- **Global oil supply dropped 0.2 mb/d to 96.5 mb/d in January, as higher OPEC output only partly offset lower non-OPEC production.** Non-OPEC supplies slipped 0.5 mb/d from a month earlier to stand close to levels of a year ago. For 2016 as a whole, non-OPEC output is expected to decline by 0.6 mb/d, to 57.1 mb/d.
- **OPEC crude oil output rose by 280 kb/d in January to 32.63 mb/d as a sanctions-free Iran, Saudi Arabia and Iraq all turned up the taps.** Supplies from the group during January stood nearly 1.7 mb/d higher year-on-year.
- **OECD commercial stocks built counter-seasonally by 7.6 mb in December to stand at 3 012 mb at month end, 350 mb above average.** Refined products covered 32.3 days of forward demand, 0.1 days above end-November. Preliminary information indicates that inventories have continued building into January.
- **Global refinery runs fell by 1.3 mb/d in January to 79.8 mb/d, as the onset of seasonal maintenance in the US and weakening refinery margins curbed runs.** Global throughputs nevertheless stood more than 1.7 mb/d above a year earlier, with gains particularly strong in the US and the Middle East.

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Note to Subscribers:

This month's ***Oil Market Report*** is an abbreviated version; it includes the highlights, an overview and tables, due to the release of the ***Medium-Term Oil Market Report, 2016*** on 22nd February.

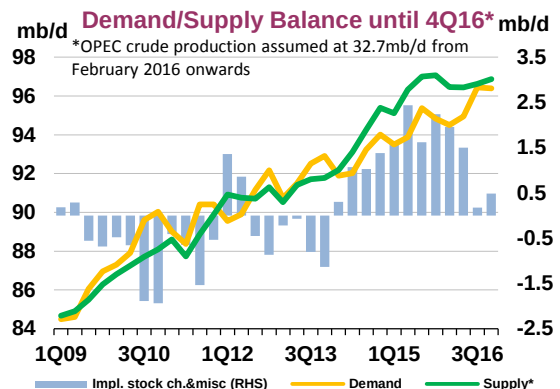
The usual *OMR* format with detailed written analysis will resume for the March edition.

False dawn?

The collapse in oil prices which characterised the first half of January looked to have halted earlier this month. On January 20th closing prices for WTI and Brent reached nadirs of \$28.35/bbl and \$27.88 / bbl respectively, since when Brent has moved briefly above \$35/bbl and WTI has lagged a little behind. Perhaps some of the more fevered forecasts of oil prices falling to as low as \$10/bbl are extreme and better days do lie ahead for oil prices. However, before victory over the bearish forces is declared we should look at the main factors driving this optimism.

Persistent speculation about a deal between OPEC and leading non-OPEC producers to cut output appears to be just that: speculation. It is OPEC's business whether or not it makes output cuts either alone or in concert with other producers but the likelihood of coordinated cuts is very low. This removes one driver of bullishness.

Another widely-held view is that OPEC production, other than Iran, will not grow as strongly in 2016 as it did in 2015. Although it is still early in the year, Iraqi output in January reached a new record and it is possible that more increases could follow. Iran has ramped up production in preparation for its emergence from nuclear sanctions and preliminary data suggests that Saudi Arabia's shipments have increased. Thus, another driver might be removed.



Another driver of bullishness is that oil demand growth will receive a boost from the collapse in oil prices to below \$30/bbl. We retain our view that global oil demand growth will ease back considerably in 2016 to 1.2 mb/d – at 1.2% still a very respectable rate – but our analysis so far sees no evidence of a need to revise it upwards. Estimates by the International Monetary Fund that global GDP growth in 2016 will be 3.4% followed by 3.6% in 2017 is heavily caveated with risks to growth in Brazil, Russia and of course slower growth in China. Economic headwinds suggest that any change will likely be downwards.

A factor that helped sentiment is the recent fall in the value of the US dollar against some currencies and the perception that this reduces the cost of imported oil. Although it is widely believed that interest rate hikes in 2016 in the United States and the United Kingdom are increasingly unlikely, the dollar is still likely to remain strong as it benefits from its safe haven status with other economies faring relatively worse. Another driver removed.

The expected fall in non-OPEC output is another driver of possibly higher prices later this year. Our current assumption is that total non-OPEC output will fall by a net 600 kb/d in 2016. The number could be higher of course and many senior international oil company figures have said so but there is a lingering feeling that the big fall-off in production from US shale producers is taking an awful long time to happen. Perhaps resilience still has some way to go.

With major doubts around these five drivers of recent relative price strength we are left with our revised supply/demand balance. In this report we suggest that the surplus of supply over demand in the early part of 2016 is even greater than we said in last month's OMR. On the assumption – perhaps optimistic – that OPEC crude production is flat at 32.7 mb/d in Q116 there is an implied stock build of 2 mb/d followed by a 1.5 mb/d build in Q216. Supply and demand data for the second half of the year suggests more stock building, this time by 0.3 mb/d. If these numbers prove to be accurate, and with the market already awash in oil, it is very hard to see how oil prices can rise significantly in the short term. In these conditions the short term risk to the downside has increased.

DEMAND

Tables

Global Oil Demand (2014-2016)

(million barrels per day)

	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Africa	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.1	4.1	4.3	4.2	4.1	4.3	4.2
Americas	30.5	30.5	31.3	31.5	31.0	30.9	30.9	31.6	31.1	31.1	30.9	30.9	31.5	31.5	31.2
Asia/Pacific	31.3	30.4	29.9	31.5	30.8	32.2	31.5	31.3	32.2	31.8	32.7	32.2	32.2	33.2	32.6
Europe	13.7	14.1	14.6	14.2	14.1	14.1	14.2	14.8	14.3	14.4	14.2	14.4	14.7	14.3	14.4
FSU	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.7	4.8	5.0	4.9	4.9
Middle East	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.4	8.8	8.2	8.3
World	91.9	92.0	93.2	94.0	92.8	93.5	93.9	95.4	94.8	94.4	94.5	94.9	96.4	96.4	95.6
Annual Chg (%)	1.3	0.6	0.8	1.2	1.0	1.8	2.0	2.3	0.9	1.7	1.1	1.1	1.1	1.7	1.2
Annual Chg (mb/d)	1.1	0.5	0.7	1.1	0.9	1.6	1.9	2.2	0.8	1.6	1.0	1.1	1.1	1.6	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.2	-0.1	0.0	-0.1	-0.1

OECD

OECD Demand based on Adjusted Preliminary Submissions - December 2015

(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	10.77	0.6	1.83	1.2	4.54	-6.0	0.57	0.3	0.55	0.4	6.23	2.76	24.49	-0.1
US50	9.01	0.8	1.58	1.2	3.67	-7.2	0.24	7.5	0.24	-3.2	4.67	3.10	19.41	-0.2
Canada	0.81	-2.2	0.12	-2.9	0.32	7.3	0.26	-4.7	0.04	-51.4	0.84	2.28	2.39	-1.6
Mexico	0.82	1.1	0.08	7.1	0.36	-8.3	0.05	-4.3	0.18	50.4	0.62	-0.83	2.10	1.6
OECD Europe	1.89	-1.0	1.21	-0.3	4.59	0.7	1.61	1.0	0.84	-5.3	3.37	4.37	13.51	0.9
Germany	0.42	0.1	0.16	-6.7	0.70	2.9	0.40	7.8	0.13	-9.3	0.55	2.76	2.36	1.7
United Kingdom	0.29	-1.7	0.31	-8.0	0.50	1.5	0.12	16.0	0.02	-44.6	0.28	-3.10	1.53	-2.2
France	0.17	1.2	0.14	1.2	0.72	-3.1	0.28	-6.2	0.04	-25.1	0.29	-1.14	1.64	-3.2
Italy	0.21	-1.5	0.07	-1.5	0.49	-5.2	0.08	39.8	0.07	12.7	0.40	12.26	1.32	3.4
Spain	0.11	1.3	0.10	1.4	0.44	1.7	0.20	0.9	0.15	1.2	0.25	3.19	1.25	1.8
OECD Asia & Oceania	1.61	-2.9	1.19	-6.4	1.30	1.1	0.59	-3.6	0.68	-4.0	3.40	-4.63	8.76	-3.6
Japan	0.96	-4.7	0.78	-9.3	0.42	-2.6	0.42	-9.6	0.31	-26.7	1.74	-8.04	4.65	-8.8
Korea	0.21	0.8	0.21	-2.4	0.37	5.1	0.13	16.6	0.32	37.1	1.40	-0.19	2.64	4.6
Australia	0.31	-1.5	0.14	2.2	0.41	1.8	0.00	77.0	0.03	-5.7	0.17	-5.06	1.05	-0.5
OECD Total	14.27	0.0	4.23	-1.5	10.43	-2.3	2.77	-0.1	2.06	-3.4	13.00	1.12	46.76	-0.5

* Including US territories

Non-OECD

Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q15	3Q15	4Q15	3Q15	4Q15	3Q15	4Q15
LPG & Ethane	5,278	5,378	5,447	261	219	5.1	4.2
Naphtha	3,109	3,199	3,216	137	120	4.5	3.9
Motor Gasoline	10,339	10,507	10,550	591	376	6.0	3.7
Jet Fuel & Kerosene	3,076	3,104	3,149	110	121	3.7	4.0
Gas/Diesel Oil	14,667	14,460	14,615	289	193	2.0	1.3
Residual Fuel Oil	5,341	5,128	5,132	-235	-193	-4.4	-3.6
Other Products	6,804	6,956	6,555	284	161	4.3	2.5
Total Products	48,615	48,734	48,664	1,437	997	3.0	2.1

Non-OECD: Demand by Region

(thousand barrels per day)

	Demand		Annual Chg (kb/d)			Annual Chg (%)	
	2Q15	3Q15	4Q15	3Q15	4Q15	3Q15	4Q15
Africa	4,061	3,953	4,126	82	168	2.1	4.2
Asia	23,834	23,567	23,947	1,341	756	6.0	3.3
FSU	4,897	5,045	4,959	-99	-88	-1.9	-1.7
Latin America	6,783	6,875	6,780	-82	-158	-1.2	-2.3
Middle East	8,339	8,588	8,144	179	296	2.1	3.8
Non-OECD Europe	700	705	708	17	23	2.5	3.4
Total Products	48,615	48,734	48,664	1,437	997	3.0	2.1

China

China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2014	2015	2016	2015	2016	2015	2016
LPG & Ethane	884	1,075	1,164	191	89	21.6	8.3
Naphtha	1,168	1,184	1,211	16	27	1.4	2.2
Motor Gasoline	2,252	2,445	2,639	193	194	8.6	8.0
Jet Fuel & Kerosene	540	616	663	76	47	14.1	7.7
Gas/Diesel Oil	3,381	3,395	3,376	14	-19	0.4	-0.6
Residual Fuel Oil	318	247	176	-72	-70	-22.5	-28.5
Other Products	2,070	2,222	2,282	152	60	7.4	2.7
Total Products	10,612	11,183	11,511	571	328	5.4	2.9

SUPPLY

Tables

OPEC Crude Production

	(million barrels per day)						
	Nov 2015 Supply	Dec 2015 Supply	Jan 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Jan 2016 Supply	2015 Crude Supply	OPEC Supply 2015 vs 2014
Algeria	1.11	1.11	1.10	1.12	0.02	1.11	-0.01
Angola	1.74	1.75	1.75	1.81	0.06	1.76	0.10
Ecuador	0.54	0.54	0.53	0.55	0.02	0.54	-0.01
Indonesia	0.69	0.70	0.71	0.71	0.00	0.69	-0.01
Iran	2.87	2.91	2.99	3.60	0.61	2.86	0.04
Iraq	4.33	4.30	4.35	4.35	0.00	3.99	0.66
Kuwait ²	2.80	2.81	2.83	2.83	0.00	2.78	-0.02
Libya	0.39	0.38	0.38	0.40	0.02	0.40	-0.06
Nigeria	1.84	1.80	1.84	1.91	0.07	1.80	-0.10
Qatar	0.68	0.65	0.68	0.68	0.00	0.66	-0.05
Saudi Arabia ²	10.19	10.14	10.21	12.26	2.05	10.17	0.45
UAE	2.89	2.89	2.89	2.93	0.04	2.88	0.12
Venezuela ³	2.40	2.37	2.37	2.46	0.09	2.40	-0.06
Total OPEC	32.47	32.35	32.63	35.61	2.98	32.05	1.07
<i>(excluding Iraq, Nigeria, Libya and Iran)</i>					2.28		

1 Capacity levels can be reached within 90 days and sustained for an extended period.

2 Includes half of Neutral Zone production.

3 Includes upgraded Orinoco extra-heavy oil assumed at 500 kb/d in January.

Non-OPEC Supply

	(million barrels per day)										
	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Americas	19.1	20.0	19.6	20.0	19.9	19.9	19.6	19.3	19.3	19.6	19.4
Europe	3.3	3.4	3.5	3.3	3.6	3.5	3.5	3.4	3.2	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	22.9	23.8	23.5	23.9	24.0	23.8	23.6	23.1	23.0	23.4	23.3
Former USSR	13.9	14.0	14.0	13.9	14.0	14.0	14.0	14.0	13.9	13.8	13.9
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Other Asia	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.4	4.6	4.5	4.5	4.6	4.6	4.5	4.6	4.6	4.7	4.6
Middle East	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.9	29.5	29.3	29.1	29.3	29.3	29.2	29.1	29.1	29.1	29.1
Processing Gains	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC	56.3	57.4	57.5	57.9	57.9	57.7	57.0	56.9	57.0	57.2	57.1
Annual Chg (mb/d)	2.4	2.3	1.6	1.4	0.3	1.4	-0.3	-0.5	-0.8	-0.7	-0.6
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	-0.1	0.0	0.0

All world oil supply data for January discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary January supply data.

OECD STOCKS

Tables

Preliminary Industry Stock Change in December 2015 and Fourth Quarter 2015

	December 2015 (preliminary)								Fourth Quarter 2015			
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	-1.8	9.0	7.1	14.3	-0.06	0.29	0.23	0.46	0.31	0.18	-0.04	0.45
Gasoline	13.7	-2.2	-0.5	11.0	0.44	-0.07	-0.02	0.36	0.11	0.00	-0.01	0.10
Middle Distillates	15.9	-4.3	-0.9	10.6	0.51	-0.14	-0.03	0.34	0.25	0.00	-0.02	0.23
Residual Fuel Oil	-1.6	-1.2	-2.4	-5.1	-0.05	-0.04	-0.08	-0.16	0.02	0.04	-0.01	0.04
Other Products	-17.4	0.7	-1.8	-18.5	-0.56	0.02	-0.06	-0.60	-0.28	0.01	-0.08	-0.35
Total Products	10.6	-7.0	-5.6	-1.9	0.34	-0.22	-0.18	-0.06	0.10	0.05	-0.12	0.03
Other Oils ¹	-0.5	-0.4	-3.9	-4.8	-0.02	-0.01	-0.13	-0.15	-0.08	-0.04	-0.04	-0.17
Total Oil	8.3	1.7	-2.4	7.6	0.27	0.05	-0.08	0.25	0.33	0.19	-0.21	0.31

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

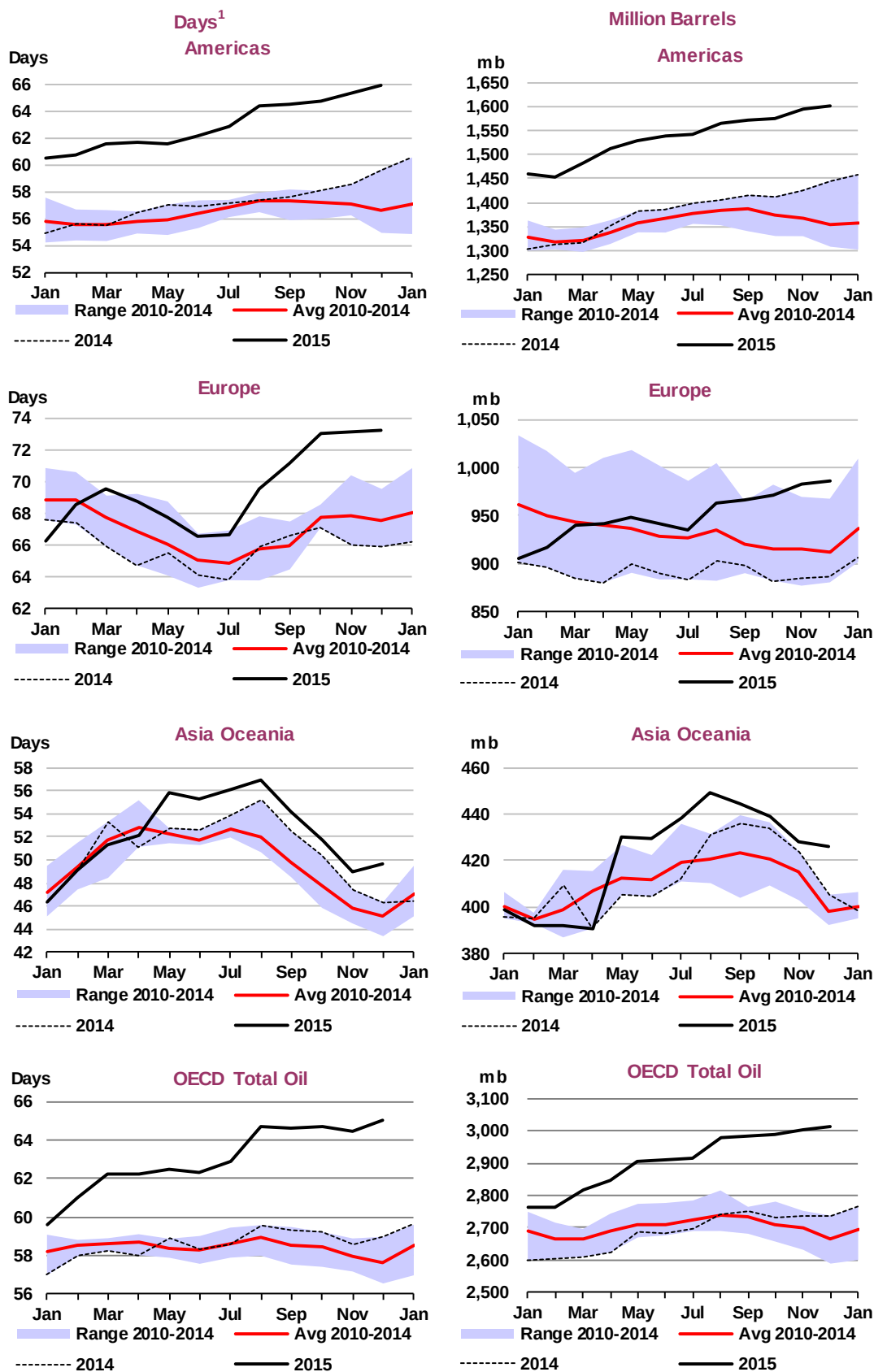
Revisions versus 19 January 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Oct-15	Nov-15	Oct-15	Nov-15	Oct-15	Nov-15	Oct-15	Nov-15
Crude Oil	-0.4	2.5	-0.3	2.6	0.0	-7.1	-0.7	-2.0
Gasoline	-0.3	2.8	0.7	1.6	0.0	0.0	0.3	4.4
Middle Distillates	-0.2	8.9	4.5	9.1	0.0	0.0	4.3	18.0
Residual Fuel Oil	0.0	-0.5	-0.1	3.3	0.0	0.0	0.0	2.8
Other Products	0.0	4.6	0.0	1.1	0.0	0.0	0.0	5.6
Total Products	-0.5	15.8	5.1	15.1	0.0	0.0	4.7	30.9
Other Oils ¹	0.1	-5.9	0.0	-0.8	0.0	-0.1	0.1	-6.8
Total Oil	-0.7	12.5	4.8	16.8	0.0	-7.2	4.1	22.1

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)



1 Days of forward demand are based on average demand over the next three months

PRICES

Tables

Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Nov	Dec	Jan	Jan-Dec Avg Chg	% Chg	Week Commencing:				
						04 Jan	11 Jan	18 Jan	25 Jan	01 Feb
NYMEX										
Light Sweet Crude Oil	42.92	37.33	31.78	-5.55	-14.9	34.63	30.59	29.18	32.19	31.28
RBOB	56.04	52.68	45.95	-6.73	-12.8	50.26	44.86	43.67	44.56	43.00
No.2 Heating Oil	59.84	49.50	42.05	-7.46	-15.1	45.78	41.07	38.51	42.12	44.23
No.2 Heating Oil (\$/mmbtu)	10.55	8.73	7.42	-1.31	-15.1	8.07	7.24	6.79	7.43	7.80
Henry Hub Natural Gas (\$/mmbtu)	2.28	2.04	2.23	0.19	9.3	2.36	2.23	2.12	2.20	2.05
ICE										
Brent	45.93	38.90	31.93	-6.97	-17.9	35.03	30.54	29.32	32.81	34.10
Gasoil	58.45	47.39	38.99	-8.40	-17.7	42.54	38.34	35.77	39.30	40.58
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-3.01	-1.57	-0.15	1.42		-0.40	0.05	-0.14	-0.62	-2.83
NYMEX No.2 Heating Oil - WTI	16.92	12.17	10.27	-1.91		11.15	10.48	9.33	9.93	12.95
NYMEX RBOB - WTI	13.12	15.35	14.17	-1.18		15.63	14.27	14.49	12.37	11.72
NYMEX 3-2-1 Crack (RBOB)	14.39	14.29	12.87	-1.42		14.13	13.01	12.77	11.56	12.13
NYMEX No.2 - Natural Gas (\$/mmbtu)	8.27	6.69	5.18	-1.50		5.72	5.01	4.67	5.23	5.75
ICE Gasoil - ICE Brent	12.52	8.49	7.06	-1.43		7.51	7.80	6.45	6.49	6.47

Source: ICE, NYMEX.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Nov	Dec	Jan	Jan-Dec Avg Chg	%	Week Commencing:				
						04 Jan	11 Jan	18 Jan	25 Jan	01 Feb
Crudes										
North Sea Dated	44.26	38.13	30.75	-7.38	-19.4	34.31	29.02	27.88	31.79	32.55
Brent (Asia) Mth 1	45.28	38.75	31.26	-7.48	-19.3	34.93	30.72	28.15	31.26	33.62
WTI (Cushing) Mth 1	42.75	37.24	31.57	-5.67	-15.2	34.63	30.59	28.61	31.87	31.28
Urals (Mediterranean)	42.37	36.98	29.15	-7.82	-21.2	32.84	27.33	26.31	30.14	31.07
Dubai	41.76	34.55	26.81	-7.74	-22.4	30.18	26.41	23.80	26.86	30.16
Tapis (Dated)	45.03	41.54	35.51	-6.02	-14.5	38.57	33.42	33.08	36.99	37.75
Differential to North Sea Dated										
WTI (Cushing)	-1.51	-0.89	0.82	1.71		0.32	1.57	0.73	0.08	-1.27
Urals (Mediterranean)	-1.89	-1.15	-1.60	-0.44		-1.47	-1.69	-1.57	-1.65	-1.48
Dubai	-2.50	-3.58	-3.94	-0.36		-4.13	-2.62	-4.08	-4.92	-2.39
Tapis (Dated)	0.77	3.41	4.77	1.36		4.26	4.40	5.20	5.20	5.20
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.92	-0.47	-0.73	-0.26		-0.91	-0.43	-0.72	-0.85	-0.72
Forward WTI Cushing Mth1-Mth2	-1.21	-1.23	-1.26	-0.03		-1.20	-1.00	-1.31	-1.53	-1.71
Forward Dubai Mth1-Mth2	-1.44	-0.76	-1.05	-0.29		-1.01	-0.94	-1.02	-1.23	-0.55

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Spot Product Prices

(monthly and weekly averages, \$/bbl)

	Nov	Dec	Jan	Jan-Dec		Week Commencing:					Nov	Dec	Jan	Chg
				Chg	%	04 Jan	11 Jan	18 Jan	25 Jan	01 Feb				
Rotterdam, Barges FOB														
											Differential to Dated Brent			
Premium Unl 10 ppm	56.64	49.73	44.86	-4.86	-9.8	48.38	43.59	42.88	44.61	43.17	12.38	11.60	14.12	2.52
Naphtha	46.92	43.33	35.53	-7.80	-18.0	41.17	34.25	33.11	33.57	33.75	2.66	5.20	4.78	-0.42
Jet/Kerosene	56.46	47.47	38.56	-8.92	-18.8	42.56	37.55	34.70	39.42	41.45	12.20	9.34	7.81	-1.54
ULSD 10ppm	58.06	46.49	38.11	-8.38	-18.0	42.02	37.35	34.62	38.45	40.28	13.80	8.36	7.36	-1.00
Gasoil 0.1%	55.44	44.98	37.05	-7.93	-17.6	40.95	36.29	33.76	37.21	39.13	11.19	6.86	6.31	-0.55
LSFO 1%	31.63	23.85	19.78	-4.06	-17.0	21.56	18.07	17.91	21.59	22.15	-12.63	-14.28	-10.97	3.32
HSFO 3.5%	27.75	19.33	15.54	-3.79	-19.6	16.26	13.50	14.16	18.26	18.93	-16.51	-18.79	-15.21	3.59
Mediterranean, FOB Cargoes														
											Differential to Urals			
Premium Unl 10 ppm	57.66	50.56	45.76	-4.79	-9.5	49.21	44.49	43.81	45.54	44.11	15.29	13.58	16.61	3.03
Naphtha	45.00	41.17	33.42	-7.75	-18.8	39.03	32.11	31.03	31.49	31.81	2.64	4.19	4.26	0.07
Jet Aviation fuel	55.38	46.05	37.33	-8.72	-18.9	41.22	36.28	33.54	38.26	40.38	13.01	9.07	8.17	-0.90
ULSD 10ppm	57.55	46.07	38.12	-7.95	-17.3	41.94	37.15	34.90	38.50	40.18	15.18	9.10	8.97	-0.13
Gasoil 0.1%	54.79	43.99	36.79	-7.21	-16.4	40.42	35.85	33.55	37.32	39.26	12.42	7.02	7.63	0.62
LSFO 1%	32.59	25.78	21.40	-4.38	-17.0	23.11	19.77	19.54	23.18	23.83	-9.78	-11.20	-7.75	3.45
HSFO 3.5%	30.35	22.24	18.78	-3.46	-15.6	19.51	17.26	17.51	20.84	22.55	-12.02	-14.73	-10.37	4.36
US Gulf, FOB Pipeline														
											Differential to LLS			
Super Unleaded	60.76	55.83	50.62	-5.21	-9.3	54.52	48.42	46.18	52.48	50.99	16.38	16.99	17.79	0.80
Unleaded	52.06	49.54	42.89	-6.65	-13.4	46.30	41.55	40.90	42.41	38.37	7.67	10.70	10.06	-0.64
Jet/Kerosene	55.75	45.61	38.96	-6.65	-14.6	41.94	37.78	35.45	39.97	42.41	11.37	6.76	6.13	-0.64
ULSD 10ppm	56.85	45.70	40.08	-5.62	-12.3	43.19	38.98	36.73	40.76	42.68	12.47	6.86	7.25	0.39
Heating Oil	52.40	41.28	36.55	-4.73	-11.5	40.06	35.40	33.63	36.51	38.07	8.01	2.44	3.72	1.28
No. 6 3%*	31.77	23.08	19.09	-3.99	-17.3	20.24	17.75	17.59	20.49	21.23	-12.62	-15.76	-13.74	2.02
Singapore, FOB Cargoes														
											Differential to Dubai			
Premium Unleaded	58.92	55.60	50.33	-5.26	-9.5	54.23	50.37	47.80	48.93	46.17	17.16	21.04	23.52	2.48
Naphtha	49.18	45.92	36.78	-9.14	-19.9	43.25	36.46	33.81	33.60	34.87	7.41	11.37	9.97	-1.40
Jet/Kerosene	57.47	47.70	37.91	-9.79	-20.5	41.85	37.83	34.30	37.65	40.82	15.71	13.15	11.10	-2.05
Gasoil 0.05%	57.41	46.86	36.16	-10.71	-22.9	40.99	35.97	32.34	35.32	37.72	15.65	12.31	9.34	-2.97
LSWR Cracked	36.90	29.24	24.19	-5.05	-17.3	26.16	23.16	22.35	25.11	25.89	-4.87	-5.31	-2.62	2.69
HSFO 180 CST	36.08	28.12	23.68	-4.44	-15.8	25.59	22.55	21.99	24.58	25.33	-5.68	-6.43	-3.13	3.30
HSFO 380 CST 4%	35.26	27.38	23.14	-4.24	-15.5	25.03	21.95	21.42	24.17	24.78	-6.50	-7.17	-3.67	3.50

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* Waterborne

REFINING

Tables

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	Jul 15	Aug 15	Sep 15	Oct 15	Nov 15	Dec 15	Change from		Utilisation rate (1)	
							Nov 15	Nov 14	Dec 15	Nov 14
US (2)	16.88	16.66	16.17	15.47	16.49	16.60	0.11	0.13	0.92	0.91
Canada	1.71	1.83	1.64	1.56	1.58	1.67	0.08	-0.08	0.84	0.86
Chile	0.16	0.14	0.16	0.15	0.16	0.16	0.00	-0.01	0.71	0.67
Mexico	1.00	1.06	1.05	1.06	1.05	1.12	0.07	0.03	0.68	0.65
OECD Americas (3)	19.76	19.70	19.03	18.23	19.28	19.55	0.27	0.07	0.89	0.88
France	1.11	1.09	1.27	1.27	1.18	1.09	-0.08	-0.06	0.78	0.81
Germany	1.90	1.93	1.90	1.83	1.89	1.94	0.05	0.02	0.96	0.96
Italy	1.39	1.42	1.35	1.34	1.40	1.38	-0.03	0.09	0.79	0.73
Netherlands	1.08	1.04	1.10	1.13	0.96	1.07	0.10	0.08	0.83	0.80
Spain	1.35	1.41	1.29	1.36	1.21	1.34	0.13	0.09	0.89	0.78
United Kingdom	1.22	1.21	1.20	1.21	1.18	1.17	-0.01	0.00	0.85	0.83
Other OECD Europe	4.27	4.30	4.33	4.21	4.33	4.29	-0.05	0.30	0.89	0.86
OECD Europe	12.31	12.41	12.45	12.35	12.16	12.28	0.12	0.52	0.87	0.84
Japan	3.05	3.33	3.07	2.95	3.11	3.31	0.19	-0.11	0.87	0.80
South Korea	2.91	2.88	2.70	2.70	2.73	2.98	0.24	0.28	0.90	0.80
Other Asia Oceania	0.79	0.78	0.71	0.72	0.75	0.78	0.02	-0.06	0.74	0.77
OECD Asia Oceania	6.75	6.98	6.48	6.36	6.60	7.06	0.46	0.11	0.87	0.80
OECD Total	38.82	39.08	37.96	36.93	38.04	38.88	0.85	0.71	0.88	0.85

1 Expressed as a percentage, based on crude throughput and current operable refining capacity

2 US\$0

3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

Global Refinery Crude Throughput

(million barrels per day)

	3Q2015	Oct 15	Nov 15	Dec 15	4Q2015	Jan 16	Feb 16	Mar 16	1Q2016	Apr 16	May 16
Americas	19.5	18.2	19.3	19.5	19.0	19.1	18.7	18.8	18.9	19.0	19.3
Europe	12.4	12.3	12.2	12.3	12.3	12.0	12.2	12.0	12.1	11.8	11.6
Asia Oceania	6.7	6.4	6.6	7.1	6.7	7.1	7.1	6.8	7.0	6.6	6.3
Total OECD	38.6	36.9	38.0	38.9	38.0	38.2	38.0	37.6	37.9	37.4	37.2
FSU	7.1	6.5	7.1	7.2	6.9	6.9	6.9	6.7	6.8	6.4	6.5
Non-OECD Europe	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.3	10.4	10.7	10.7	10.6	10.5	10.5	10.8	10.6	10.9	10.8
Other Asia	10.0	9.7	10.1	10.2	10.0	10.3	10.2	10.2	10.3	10.3	10.3
Latin America	4.5	4.3	4.2	4.6	4.4	4.5	4.5	4.5	4.5	4.4	4.5
Middle East	6.8	6.8	6.5	6.9	6.7	6.8	7.0	6.8	6.9	6.9	6.9
Africa	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.0
Total Non-OECD	41.4	40.4	41.2	42.2	41.3	41.6	41.8	41.6	41.7	41.5	41.6
Total	80.1	77.3	79.2	81.1	79.2	79.8	79.8	79.2	79.6	78.8	78.8

1 Preliminary and estimated runs based on capacity, known outages, economic run cuts and global demand forecast

IEA/KBC Global Indicator Refining Margins¹

	(\$/bbl)									
	Monthly Average				Change	Average for week ending:				
	Oct 15	Nov 15	Dec 15	Jan 16	Jan 16-Dec 15	08 Jan	15 Jan	22 Jan	29 Jan	05 Feb
NW Europe										
Brent (Cracking)	4.24	6.65	4.38	5.50	↑	1.12	5.38	6.16	5.85	4.60
Urals (Cracking)	5.66	8.37	5.04	6.63	↑	1.58	6.44	7.24	6.84	5.98
Brent (Hydroskimming)	-0.95	0.93	-1.35	0.31	↑	1.66	-0.26	0.85	0.82	-0.17
Urals (Hydroskimming)	-0.46	1.44	-1.91	0.28	↑	2.19	-0.65	0.67	0.75	0.33
Mediterranean										
Es Sider (Cracking)	6.01	7.85	5.19	6.58	↑	1.39	6.18	7.17	6.91	6.08
Urals (Cracking)	5.81	8.09	4.55	6.01	↑	1.46	5.45	6.76	6.30	5.55
Es Sider (Hydroskimming)	1.04	2.77	0.64	2.67	↑	2.03	1.84	3.14	3.25	2.47
Urals (Hydroskimming)	-0.31	1.38	-1.80	0.66	↑	2.46	-0.67	1.28	1.40	0.64
US Gulf Coast										
50/50 HLS/LLS (Cracking)	5.92	5.84	5.13	4.87	↓	-0.27	4.28	4.31	6.07	5.05
Mars (Cracking)	4.12	3.60	2.76	4.27	↑	1.51	3.02	4.12	5.52	4.67
ASCI (Cracking)	3.58	3.22	2.26	3.88	↑	1.62	2.68	3.81	5.14	4.15
50/50 HLS/LLS (Coking)	7.82	7.78	7.44	7.00	↓	-0.43	6.63	6.50	8.09	7.01
50/50 Maya/Mars (Coking)	8.59	8.87	9.58	9.98	↑	0.40	9.83	9.99	10.41	9.77
ASCI (Coking)	9.19	9.04	8.46	9.70	↑	1.24	9.02	9.74	10.60	9.61
US Midcon										
WTI (Cracking)	15.28	8.01	7.43	3.95	↓	-3.48	6.04	4.02	3.76	1.95
30/70 WCS/Bakken (Cracking)	13.74	6.44	6.27	4.41	↓	-1.86	6.04	5.50	3.16	2.68
Bakken (Cracking)	16.37	7.76	8.00	5.46	↓	-2.54	7.61	6.59	3.94	3.38
WTI (Coking)	18.22	10.12	9.77	5.91	↓	-3.86	8.38	6.00	5.56	3.62
30/70 WCS/Bakken (Coking)	19.13	10.39	10.14	7.86	↓	-2.28	10.03	8.89	6.37	5.87
Bakken (Coking)	17.66	8.61	9.06	6.35	↓	-2.72	8.70	7.50	4.75	4.12
Singapore										
Dubai (Hydroskimming)	-0.80	1.80	0.72	2.75	↑	2.02	1.68	2.77	3.49	3.04
Tapis (Hydroskimming)	3.17	4.34	2.78	2.31	↓	-0.47	2.18	3.51	2.27	1.26
Dubai (Hydrocracking)	5.28	7.73	6.85	7.73	↑	0.88	7.21	8.01	8.15	7.56
Tapis (Hydrocracking)	7.89	8.94	7.70	6.52	↓	-1.19	6.77	7.90	6.27	5.12

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	23.6	24.1	23.9	23.7	24.4	24.6	24.1	24.2	24.1	24.7	24.4	24.4	24.3	24.1	24.6	24.6	24.4
Europe	13.8	13.6	13.0	13.4	13.9	13.5	13.5	13.4	13.5	14.1	13.6	13.7	13.5	13.7	14.0	13.6	13.7
Asia Oceania	8.5	8.3	8.9	7.7	7.7	8.3	8.1	8.7	7.6	7.8	8.2	8.1	8.6	7.6	7.8	8.2	8.0
Total OECD	45.9	46.0	45.8	44.8	45.9	46.4	45.7	46.4	45.3	46.6	46.2	46.1	46.4	45.4	46.4	46.5	46.2
NON-OECD DEMAND																	
FSU	4.6	4.7	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.7	4.8	5.0	4.9	4.9
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	9.9	10.3	10.4	10.6	10.5	11.0	10.6	11.0	11.3	11.3	11.2	11.2	11.2	11.6	11.6	11.7	11.5
Other Asia	11.4	11.8	12.1	12.2	11.8	12.2	12.0	12.4	12.6	12.3	12.8	12.5	13.0	13.0	12.8	13.3	13.0
Americas	6.5	6.7	6.6	6.8	7.0	6.9	6.8	6.6	6.8	6.9	6.8	6.8	6.6	6.8	6.9	6.9	6.8
Middle East	7.8	7.9	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.4	8.8	8.2	8.3
Africa	3.8	3.9	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.1	4.1	4.3	4.2	4.1	4.3	4.2
Total Non-OECD	44.8	45.9	46.1	47.2	47.3	47.7	47.1	47.1	48.6	48.7	48.7	48.3	48.1	49.6	50.0	49.9	49.4
Total Demand¹	90.7	91.9	91.9	92.0	93.2	94.0	92.8	93.5	93.9	95.4	94.8	94.4	94.5	94.9	96.4	96.4	95.6
OECD SUPPLY																	
Americas ⁴	15.8	17.2	18.3	18.9	19.3	19.9	19.1	20.0	19.6	20.0	19.9	19.9	19.6	19.3	19.3	19.6	19.4
Europe	3.5	3.3	3.5	3.2	3.1	3.4	3.3	3.4	3.5	3.3	3.6	3.5	3.5	3.4	3.2	3.4	3.4
Asia Oceania	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	19.8	21.0	22.3	22.6	22.9	23.8	22.9	23.8	23.5	23.9	24.0	23.8	23.6	23.1	23.0	23.4	23.3
NON-OECD SUPPLY																	
FSU	13.8	13.9	13.9	13.8	13.8	13.9	13.9	14.0	14.0	13.9	14.0	14.0	14.0	14.0	13.9	13.8	13.9
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.2	4.2	4.2	4.3	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Other Asia ²	2.7	2.7	2.6	2.6	2.6	2.7	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.2	4.2	4.3	4.5	4.6	4.4	4.6	4.5	4.5	4.6	4.6	4.5	4.6	4.6	4.7	4.6
Middle East	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa ²	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.7	28.7	28.9	28.7	28.8	29.3	28.9	29.5	29.3	29.1	29.3	29.3	29.2	29.1	29.1	29.1	29.1
Processing gains ³	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	1.9	2.0	1.7	2.3	2.6	2.3	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC Supply ²	52.5	53.8	55.1	55.9	56.5	57.6	56.3	57.4	57.5	57.9	57.9	57.7	57.0	56.9	57.0	57.2	57.1
OPEC																	
Crude	32.1	31.2	30.7	30.8	31.2	31.2	31.0	31.2	32.2	32.4	32.4	32.1					
NGLs	6.4	6.3	6.4	6.4	6.6	6.6	6.5	6.6	6.7	6.7	6.8	6.7	6.8	6.8	6.9	6.9	6.9
Total OPEC ²	38.4	37.5	37.1	37.2	37.8	37.8	37.5	37.7	38.9	39.1	39.1	38.7					
Total Supply⁴	90.9	91.4	92.2	93.1	94.3	95.4	93.7	95.1	96.3	97.0	97.1	96.4					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.2	0.2	0.8	0.7	-0.1	0.4	0.9	1.0	0.8	0.3	0.7					
Government	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0					
Total	0.2	-0.2	0.2	0.7	0.7	-0.1	0.4	0.9	1.0	0.7	0.4	0.8					
Floating storage/Oil in transit	-0.1	0.1	0.2	-0.3	0.3	-0.2	0.0	0.4	-0.4	0.2	-0.2	0.2					
Miscellaneous to balance ⁵	0.1	-0.5	-0.1	0.7	0.0	1.7	0.5	0.3	1.8	0.7	2.1	1.0					
Total Stock Ch. & Misc	0.2	-0.6	0.3	1.1	1.0	1.4	0.9	1.6	2.4	1.6	2.2	2.0					
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	31.8	31.8	30.4	29.7	30.2	29.8	30.0	29.6	29.8	30.8	30.1	30.1	30.7	31.2	32.5	32.2	31.7

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

2 Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

3 Net volumetric gains and losses in the refining process and marine transportation losses.

4 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

5 Includes changes in non-reported stocks in OECD and non-OECD areas.

6 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-	-	-0.1
Total Demand	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.2	-0.1	-	-0.1	-0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	0.1	0.1	0.1	0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	-	0.1	0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-0.1	-0.1	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-	-0.1	-	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-
Total OPEC	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	0.1	-	0.2	0.1	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-0.1	-0.1	-	0.5	-0.7	0.1	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-	-	0.1	0.1	-	-0.5	0.7	-0.1	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-	0.1	-	0.4	0.1	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	-	-0.4	-0.1	-0.3	-0.1	0.1	-	-0.1

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Demand (mb/d)																
Americas	24.07	23.88	23.72	24.37	24.56	24.14	24.24	24.09	24.73	24.36	24.36	24.32	24.13	24.63	24.63	24.43
Europe	13.62	13.04	13.43	13.88	13.47	13.46	13.44	13.53	14.14	13.58	13.68	13.47	13.68	13.99	13.59	13.68
Asia Oceania	8.34	8.87	7.68	7.69	8.32	8.14	8.74	7.65	7.78	8.22	8.09	8.58	7.58	7.79	8.24	8.05
Total OECD	46.02	45.79	44.83	45.93	46.35	45.73	46.42	45.27	46.65	46.16	46.13	46.37	45.39	46.40	46.46	46.16
Asia	22.06	22.47	22.73	22.23	23.19	22.65	23.44	23.83	23.57	23.95	23.70	24.12	24.62	24.44	24.93	24.53
Middle East	7.91	7.72	8.16	8.41	7.85	8.04	7.64	8.34	8.59	8.14	8.18	7.84	8.40	8.85	8.19	8.32
Americas	6.67	6.63	6.79	6.96	6.94	6.83	6.64	6.78	6.88	6.78	6.77	6.56	6.76	6.89	6.89	6.77
FSU	4.72	4.63	4.86	5.14	5.05	4.92	4.58	4.90	5.05	4.96	4.87	4.66	4.82	5.03	4.93	4.86
Africa	3.89	4.00	3.99	3.87	3.96	3.95	4.08	4.06	3.95	4.13	4.06	4.25	4.23	4.12	4.28	4.22
Europe	0.66	0.66	0.67	0.69	0.68	0.68	0.69	0.70	0.71	0.71	0.70	0.71	0.73	0.71	0.73	0.72
Total Non-OECD	45.90	46.10	47.20	47.30	47.67	47.07	47.08	48.61	48.73	48.66	48.28	48.14	49.55	50.05	49.94	49.42
World	91.92	91.89	92.03	93.23	94.02	92.80	93.50	93.88	95.38	94.83	94.40	94.50	94.95	96.45	96.40	95.58
of which: US50	18.96	18.82	18.77	19.31	19.51	19.11	19.29	19.25	19.68	19.32	19.38	19.40	19.26	19.65	19.63	19.49
Europe 5*	8.12	7.87	7.91	8.19	8.04	8.00	8.05	7.99	8.34	8.05	8.11	8.05	8.04	8.22	8.00	8.08
China	10.26	10.39	10.57	10.46	11.02	10.61	11.04	11.28	11.26	11.16	11.18	11.16	11.58	11.64	11.67	11.51
Japan	4.56	5.07	3.93	3.93	4.48	4.35	4.79	3.89	3.94	4.21	4.21	4.54	3.72	3.87	4.26	4.10
India	3.69	3.81	3.88	3.56	3.80	3.76	3.95	4.01	3.86	4.11	3.98	4.22	4.27	4.03	4.31	4.21
Russia	3.46	3.46	3.62	3.86	3.68	3.66	3.38	3.63	3.75	3.60	3.59	3.46	3.53	3.71	3.54	3.56
Brazil	3.11	3.12	3.17	3.28	3.31	3.22	3.16	3.17	3.22	3.16	3.18	3.03	3.09	3.19	3.21	3.13
Saudi Arabia	2.96	2.78	3.28	3.48	3.02	3.14	2.88	3.46	3.58	3.15	3.27	2.91	3.43	3.76	3.14	3.31
Canada	2.37	2.41	2.32	2.44	2.41	2.40	2.36	2.26	2.38	2.37	2.34	2.29	2.25	2.37	2.33	2.31
Korea	2.33	2.35	2.31	2.32	2.38	2.34	2.48	2.32	2.39	2.54	2.43	2.57	2.42	2.45	2.52	2.49
Mexico	2.09	2.00	2.02	2.00	2.02	2.01	1.91	1.95	2.04	2.02	1.98	1.94	1.97	1.96	2.01	1.97
Iran	1.92	1.96	1.89	1.85	1.91	1.90	1.82	1.85	1.79	1.91	1.84	1.87	1.86	1.86	1.92	1.88
Total	63.82	64.04	63.66	64.69	65.58	64.50	65.11	65.06	66.22	65.59	65.50	65.44	65.42	66.72	66.54	66.03
% of World	69.4%	69.7%	69.2%	69.4%	69.8%	69.5%	69.6%	69.3%	69.4%	69.2%	69.4%	69.2%	68.9%	69.2%	69.0%	69.1%
Annual Change (% per annum)																
Americas	1.9	0.4	-0.6	0.2	1.0	0.3	1.5	1.6	1.5	-0.8	0.9	0.3	0.1	-0.4	1.1	0.3
Europe	-1.2	-0.6	-2.9	-0.6	-0.6	-1.2	3.1	0.8	1.9	0.8	1.6	0.2	1.1	-1.1	0.0	0.0
Asia Oceania	-2.1	0.3	-2.4	-4.2	-3.6	-2.4	-1.4	-0.4	1.2	-1.2	-0.5	-1.9	-0.8	0.1	0.3	-0.6
Total OECD	0.2	0.1	-1.6	-0.8	-0.3	-0.6	1.4	1.0	1.6	-0.4	0.9	-0.1	0.3	-0.5	0.6	0.1
Asia	3.6	2.2	2.9	2.2	3.4	2.7	4.3	4.9	6.0	3.3	4.6	2.9	3.3	3.7	4.1	3.5
Middle East	0.8	1.7	2.1	0.2	2.6	1.6	-1.0	2.2	2.1	3.8	1.8	2.5	0.7	3.0	0.6	1.7
Americas	2.4	3.3	2.1	2.5	1.8	2.4	0.2	-0.1	-1.2	-2.3	-0.8	-1.2	-0.4	0.2	1.6	0.1
FSU	1.9	5.4	5.9	4.3	2.2	4.4	-1.1	0.7	-1.9	-1.7	-1.0	1.7	-1.6	-0.2	-0.7	-0.2
Africa	2.0	0.0	0.8	4.5	1.8	1.7	2.1	1.7	2.1	4.2	2.5	4.2	4.2	4.4	3.6	4.1
Europe	-4.1	5.5	1.5	3.7	0.8	2.8	5.4	4.8	2.5	3.4	4.0	2.3	3.7	1.3	2.8	2.5
Total Non-OECD	2.5	2.4	2.7	2.3	2.7	2.6	2.1	3.0	3.0	2.1	2.6	2.2	1.9	2.7	2.6	2.4
World	1.3	1.3	0.6	0.8	1.2	1.0	1.8	2.0	2.3	0.9	1.7	1.1	1.1	1.1	1.7	1.2
Annual Change (mb/d)																
Americas	0.44	0.10	-0.13	0.06	0.23	0.07	0.36	0.37	0.36	-0.20	0.22	0.08	0.03	-0.10	0.27	0.07
Europe	-0.16	-0.08	-0.41	-0.08	-0.08	-0.16	0.40	0.10	0.27	0.11	0.22	0.03	0.15	-0.15	0.00	0.01
Asia Oceania	-0.17	0.03	-0.18	-0.34	-0.31	-0.20	-0.12	-0.03	0.09	-0.10	-0.04	-0.16	-0.06	0.01	0.03	-0.04
Total OECD	0.11	0.06	-0.72	-0.36	-0.15	-0.30	0.64	0.44	0.71	-0.19	0.40	-0.06	0.12	-0.25	0.30	0.03
Asia	0.77	0.48	0.65	0.48	0.76	0.59	0.97	1.11	1.34	0.76	1.04	0.68	0.79	0.87	0.98	0.83
Middle East	0.06	0.13	0.17	0.01	0.20	0.13	-0.08	0.18	0.18	0.30	0.14	0.19	0.06	0.26	0.05	0.14
Americas	0.15	0.21	0.14	0.17	0.12	0.16	0.02	-0.01	-0.08	-0.16	-0.06	-0.08	-0.03	0.02	0.11	0.00
FSU	0.09	0.24	0.27	0.21	0.11	0.21	-0.05	0.04	-0.10	-0.09	-0.05	0.08	-0.08	-0.01	-0.03	-0.01
Africa	0.08	0.00	0.03	0.17	0.07	0.07	0.08	0.07	0.08	0.17	0.10	0.17	0.17	0.17	0.15	0.17
Europe	-0.03	0.03	0.01	0.02	0.01	0.02	0.04	0.03	0.02	0.02	0.03	0.02	0.03	0.01	0.02	0.02
Total Non-OECD	1.12	1.09	1.26	1.07	1.26	1.17	0.98	1.41	1.44	1.00	1.21	1.05	0.94	1.32	1.28	1.14
World	1.22	1.15	0.54	0.71	1.11	0.88	1.62	1.86	2.15	0.81	1.61	1.00	1.06	1.07	1.57	1.17
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.02	-0.05	-0.03	-0.02	-0.05	-0.03
Europe	0.02	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.02	0.00	0.04	0.00	0.05	-0.03	0.02
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	-0.01	-0.04	-0.01	0.00	-0.01	-0.02
Total OECD	0.02	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.12	-0.04	-0.05	-0.03	0.03	-0.09	-0.04
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.02	-0.09	-0.07	0.00	0.00	-0.04
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	-0.05	-0.02	-0.01	-0.01	-0.02
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.11	-0.03	-0.14	-0.09	-0.01	-0.01	-0.06
World	0.02	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.23	-0.06	-0.19	-0.13	0.02	-0.10	-0.10
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.02	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.23	-0.06	-0.18	-0.11	0.03	0.13	-0.03

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	4Q14	1Q15	2Q15	3Q15	Sep 15	Oct 15	Nov 15 ²	Oct 15	Nov 14
Americas											
LPG and ethane	3.22	3.22	3.45	3.48	2.98	3.02	2.91	3.12	3.40	0.28	-0.12
Naphtha	0.35	0.34	0.35	0.35	0.31	0.33	0.34	0.34	0.35	0.01	0.03
Motor gasoline	10.64	10.87	10.73	10.49	10.97	11.16	11.00	10.99	10.82	-0.18	0.21
Jet and kerosene	1.74	1.81	1.76	1.72	1.81	1.88	1.80	1.86	1.80	-0.06	0.07
Gasoil/diesel oil	5.28	5.22	5.39	5.52	5.11	5.16	5.28	5.25	4.89	-0.36	-0.28
Residual fuel oil	0.58	0.54	0.59	0.51	0.44	0.63	0.59	0.57	0.66	0.09	0.02
Other products	2.32	2.36	2.29	2.17	2.47	2.56	2.33	2.31	2.22	-0.09	-0.12
Total	24.14	24.36	24.56	24.24	24.09	24.73	24.24	24.44	24.14	-0.30	-0.19
Europe											
LPG and ethane	1.08	1.14	1.07	1.21	1.14	1.12	1.05	1.02	1.13	0.11	0.12
Naphtha	1.17	1.16	1.04	1.25	1.13	1.12	1.10	1.10	1.13	0.03	0.09
Motor gasoline	1.91	1.92	1.89	1.78	1.98	2.03	2.00	1.93	1.85	-0.08	0.04
Jet and kerosene	1.27	1.32	1.23	1.19	1.34	1.49	1.52	1.31	1.19	-0.12	0.05
Gasoil/diesel oil	5.94	6.17	6.20	6.15	5.95	6.31	6.64	6.42	6.19	-0.23	0.21
Residual fuel oil	0.92	0.86	0.91	0.88	0.85	0.87	0.85	0.85	0.83	-0.01	-0.10
Other products	1.17	1.11	1.12	1.00	1.14	1.21	1.21	1.16	1.11	-0.04	-0.03
Total	13.46	13.68	13.47	13.44	13.53	14.14	14.37	13.79	13.44	-0.35	0.38
Asia Oceania											
LPG and ethane	0.84	0.79	0.83	0.90	0.73	0.75	0.72	0.74	0.76	0.02	-0.03
Naphtha	1.88	1.97	1.96	2.04	1.88	1.95	1.99	1.90	1.97	0.07	-0.01
Motor gasoline	1.54	1.55	1.57	1.51	1.51	1.62	1.56	1.53	1.54	0.00	0.00
Jet and kerosene	0.86	0.86	0.98	1.11	0.68	0.69	0.76	0.80	0.91	0.11	-0.01
Gasoil/diesel oil	1.77	1.81	1.83	1.85	1.76	1.76	1.82	1.87	1.84	-0.03	0.02
Residual fuel oil	0.67	0.63	0.63	0.77	0.60	0.54	0.52	0.54	0.63	0.10	0.01
Other products	0.57	0.49	0.51	0.56	0.48	0.46	0.41	0.42	0.45	0.04	-0.06
Total	8.14	8.09	8.32	8.74	7.65	7.78	7.77	7.79	8.10	0.32	-0.09
OECD											
LPG and ethane	5.15	5.14	5.35	5.58	4.85	4.89	4.68	4.88	5.30	0.42	-0.03
Naphtha	3.40	3.46	3.35	3.63	3.33	3.40	3.42	3.33	3.45	0.11	0.11
Motor gasoline	14.10	14.34	14.20	13.78	14.46	14.80	14.55	14.46	14.20	-0.26	0.24
Jet and kerosene	3.87	3.99	3.98	4.03	3.83	4.06	4.08	3.97	3.91	-0.06	0.11
Gasoil/diesel oil	12.99	13.20	13.41	13.52	12.83	13.23	13.73	13.54	12.92	-0.62	-0.05
Residual fuel oil	2.17	2.03	2.14	2.15	1.89	2.04	1.95	1.96	2.13	0.18	-0.07
Other products	4.05	3.96	3.92	3.73	4.09	4.23	3.96	3.89	3.79	-0.10	-0.21
Total	45.73	46.13	46.35	46.42	45.27	46.65	46.38	46.02	45.69	-0.33	0.11

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	4Q14	1Q15	2Q15	3Q15	Sep 15	Oct 15	Nov 15 ²	Latest month vs.	
										Oct 15	Nov 14
United States³											
LPG and ethane	2.40	2.38	2.58	2.62	2.18	2.20	2.07	2.29	2.52	0.22	-0.16
Naphtha	0.23	0.22	0.24	0.23	0.20	0.22	0.24	0.23	0.24	0.01	0.01
Motor gasoline	8.92	9.15	9.00	8.81	9.26	9.39	9.27	9.25	9.11	-0.14	0.18
Jet and kerosene	1.48	1.54	1.51	1.46	1.55	1.59	1.54	1.59	1.55	-0.04	0.07
Gasoil/diesel oil	4.04	3.98	4.12	4.27	3.88	3.93	4.02	3.99	3.70	-0.29	-0.21
Residual fuel oil	0.26	0.25	0.28	0.24	0.19	0.31	0.28	0.21	0.36	0.15	0.02
Other products	1.78	1.85	1.76	1.66	1.99	2.04	1.82	1.78	1.71	-0.07	-0.09
Total	19.11	19.38	19.51	19.29	19.25	19.68	19.23	19.35	19.19	-0.16	-0.18
Japan											
LPG and ethane	0.50	0.45	0.50	0.57	0.42	0.41	0.40	0.39	0.40	0.01	-0.09
Naphtha	0.75	0.80	0.83	0.84	0.75	0.79	0.85	0.76	0.79	0.03	-0.04
Motor gasoline	0.92	0.91	0.94	0.88	0.89	0.97	0.91	0.89	0.89	0.00	-0.01
Jet and kerosene	0.52	0.50	0.61	0.73	0.35	0.35	0.40	0.43	0.52	0.09	-0.03
Diesel	0.40	0.43	0.41	0.43	0.42	0.43	0.44	0.45	0.42	-0.03	0.01
Other gasoil	0.40	0.36	0.41	0.42	0.33	0.32	0.33	0.36	0.36	0.00	-0.04
Residual fuel oil	0.41	0.35	0.38	0.46	0.34	0.31	0.26	0.29	0.31	0.01	-0.06
Other products	0.44	0.40	0.40	0.46	0.40	0.38	0.34	0.34	0.37	0.03	-0.03
Total	4.35	4.21	4.48	4.79	3.89	3.94	3.94	3.92	4.06	0.14	-0.29
Germany											
LPG and ethane	0.09	0.10	0.08	0.09	0.11	0.10	0.11	0.08	0.08	0.00	0.01
Naphtha	0.42	0.39	0.41	0.43	0.38	0.36	0.34	0.36	0.42	0.06	0.01
Motor gasoline	0.44	0.43	0.44	0.40	0.44	0.45	0.44	0.45	0.42	-0.03	-0.01
Jet and kerosene	0.19	0.19	0.18	0.17	0.20	0.21	0.20	0.20	0.17	-0.03	-0.01
Diesel	0.73	0.77	0.75	0.71	0.76	0.81	0.81	0.81	0.84	0.03	0.09
Other gasoil	0.36	0.35	0.38	0.45	0.24	0.34	0.42	0.39	0.32	-0.07	-0.05
Residual fuel oil	0.12	0.12	0.14	0.12	0.13	0.13	0.13	0.12	0.11	0.00	-0.02
Other products	0.05	0.04	0.04	0.01	0.04	0.06	0.08	0.05	0.06	0.01	0.00
Total	2.40	2.39	2.41	2.39	2.30	2.46	2.53	2.44	2.41	-0.03	0.02
Italy											
LPG and ethane	0.11	0.12	0.11	0.13	0.11	0.11	0.12	0.12	0.12	0.00	0.02
Naphtha	0.09	0.11	0.08	0.11	0.11	0.11	0.11	0.10	0.11	0.01	0.02
Motor gasoline	0.20	0.21	0.20	0.19	0.21	0.23	0.23	0.21	0.21	0.00	0.02
Jet and kerosene	0.09	0.09	0.08	0.08	0.10	0.11	0.11	0.09	0.08	-0.02	0.00
Diesel	0.50	0.46	0.52	0.44	0.47	0.47	0.48	0.47	0.46	-0.02	-0.03
Other gasoil	0.04	0.09	0.05	0.09	0.09	0.10	0.10	0.11	0.10	-0.01	0.06
Residual fuel oil	0.06	0.08	0.06	0.08	0.08	0.08	0.09	0.09	0.07	-0.01	0.01
Other products	0.14	0.13	0.13	0.11	0.14	0.13	0.13	0.14	0.15	0.01	0.02
Total	1.22	1.30	1.24	1.22	1.31	1.35	1.36	1.32	1.28	-0.03	0.12
France											
LPG and ethane	0.11	0.12	0.12	0.15	0.11	0.11	0.11	0.12	0.12	0.01	0.01
Naphtha	0.12	0.11	0.07	0.12	0.12	0.12	0.09	0.07	0.07	-0.01	0.01
Motor gasoline	0.16	0.16	0.16	0.14	0.17	0.18	0.17	0.16	0.15	-0.01	0.01
Jet and kerosene	0.15	0.15	0.14	0.14	0.16	0.17	0.16	0.16	0.14	-0.02	0.00
Diesel	0.70	0.70	0.71	0.67	0.71	0.72	0.73	0.72	0.68	-0.04	0.03
Other gasoil	0.25	0.25	0.27	0.29	0.20	0.28	0.33	0.24	0.19	-0.06	-0.03
Residual fuel oil	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.01	-0.01
Other products	0.12	0.10	0.11	0.11	0.12	0.10	0.11	0.11	0.07	-0.04	-0.04
Total	1.65	1.65	1.63	1.68	1.63	1.71	1.75	1.62	1.45	-0.17	-0.02
United Kingdom											
LPG and ethane	0.12	0.13	0.13	0.14	0.14	0.12	0.13	0.12	0.14	0.02	0.01
Naphtha	0.02	0.03	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.00	0.02
Motor gasoline	0.30	0.29	0.30	0.29	0.30	0.30	0.30	0.29	0.30	0.00	-0.01
Jet and kerosene	0.31	0.31	0.32	0.33	0.30	0.31	0.35	0.28	0.30	0.02	0.02
Diesel	0.48	0.50	0.50	0.47	0.50	0.50	0.50	0.49	0.54	0.04	0.02
Other gasoil	0.13	0.14	0.13	0.13	0.14	0.14	0.15	0.15	0.13	-0.02	-0.01
Residual fuel oil	0.03	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.12	0.12	0.12	0.11	0.11	0.13	0.13	0.14	0.12	-0.02	0.01
Total	1.52	1.54	1.54	1.52	1.54	1.56	1.62	1.53	1.58	0.05	0.05
Canada											
LPG and ethane	0.37	0.39	0.40	0.40	0.36	0.38	0.39	0.38	0.43	0.06	0.05
Naphtha	0.09	0.09	0.09	0.10	0.09	0.09	0.08	0.08	0.10	0.02	0.02
Motor gasoline	0.84	0.82	0.83	0.79	0.82	0.85	0.82	0.82	0.81	-0.01	-0.02
Jet and kerosene	0.13	0.14	0.13	0.13	0.13	0.16	0.15	0.14	0.12	-0.02	0.00
Diesel	0.29	0.32	0.31	0.32	0.31	0.32	0.33	0.32	0.29	-0.03	-0.01
Other gasoil	0.30	0.26	0.29	0.27	0.24	0.26	0.29	0.26	0.25	-0.01	-0.03
Residual fuel oil	0.06	0.04	0.07	0.06	0.04	0.03	0.02	0.04	0.03	-0.01	-0.03
Other products	0.30	0.29	0.30	0.29	0.26	0.31	0.31	0.32	0.31	-0.01	-0.01
Total	2.40	2.34	2.41	2.36	2.26	2.38	2.39	2.37	2.34	-0.03	-0.02

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2014	2015	2016	3Q15	4Q15	1Q16	2Q16	3Q16	Nov 15	Dec 15	Jan 16
OPEC											
Crude Oil											
Saudi Arabia	9.53	10.12		10.27	10.16				10.17	10.12	10.19
Iran	2.81	2.86		2.87	2.89				2.87	2.91	2.99
Iraq	3.33	3.99		4.24	4.27				4.33	4.30	4.35
UAE	2.76	2.88		2.92	2.89				2.89	2.89	2.89
Kuwait	2.61	2.74		2.76	2.76				2.78	2.79	2.81
Neutral Zone	0.38	0.09		0.04	0.04				0.04	0.04	0.04
Qatar	0.71	0.66		0.64	0.67				0.68	0.65	0.68
Angola	1.66	1.76		1.77	1.76				1.74	1.75	1.75
Nigeria	1.90	1.80		1.80	1.84				1.84	1.80	1.84
Libya	0.46	0.40		0.38	0.40				0.39	0.38	0.38
Algeria	1.12	1.11		1.12	1.11				1.11	1.11	1.10
Ecuador	0.55	0.54		0.53	0.54				0.54	0.54	0.53
Venezuela	2.46	2.40		2.40	2.38				2.40	2.37	2.37
Indonesia	0.70	0.69		0.69	0.69				0.69	0.70	0.71
Total Crude Oil	30.98	32.05		32.43	32.38				32.47	32.35	32.63
Total NGLs ¹	6.50	6.68	6.85	6.70	6.76	6.77	6.82	6.88	6.76	6.76	6.77
Total OPEC²	37.48	38.73		39.13	39.14				39.23	39.11	39.40
NON-OPEC^{2,3}											
OECD											
Americas	19.09	19.90	19.44	20.05	19.95	19.61	19.29	19.29	20.06	19.86	19.68
United States	11.99	12.92	12.43	13.01	12.93	12.53	12.43	12.30	12.96	12.78	12.61
Mexico	2.81	2.60	2.54	2.60	2.59	2.58	2.56	2.50	2.58	2.58	2.58
Canada	4.28	4.36	4.46	4.43	4.42	4.48	4.28	4.48	4.50	4.49	4.48
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.32	3.45	3.35	3.34	3.57	3.50	3.35	3.18	3.60	3.56	3.52
UK	0.87	0.95	0.94	0.88	1.02	1.01	0.96	0.85	1.06	1.01	1.02
Norway	1.89	1.94	1.88	1.91	2.01	1.96	1.87	1.81	1.99	2.01	1.96
Others	0.57	0.55	0.52	0.54	0.55	0.53	0.53	0.52	0.55	0.54	0.54
Asia Oceania	0.51	0.46	0.49	0.50	0.48	0.50	0.49	0.49	0.49	0.49	0.50
Australia	0.43	0.38	0.40	0.42	0.39	0.40	0.40	0.40	0.40	0.40	0.41
Others	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Total OECD	22.91	23.81	23.29	23.89	24.00	23.61	23.14	22.96	24.15	23.91	23.70
NON-OECD											
Former USSR	13.87	13.98	13.92	13.91	13.98	14.04	13.95	13.86	14.07	13.93	14.05
Russia	10.91	11.06	11.09	11.04	11.13	11.18	11.11	11.06	11.12	11.14	11.22
Others	2.95	2.92	2.83	2.87	2.85	2.86	2.84	2.80	2.95	2.79	2.83
Asia²	6.86	7.06	7.00	7.02	7.08	7.02	7.00	6.98	7.18	7.05	7.02
China	4.22	4.33	4.30	4.34	4.33	4.30	4.30	4.30	4.35	4.33	4.31
Malaysia	0.65	0.71	0.73	0.67	0.70	0.72	0.73	0.73	0.73	0.71	0.71
India	0.88	0.87	0.84	0.87	0.88	0.85	0.83	0.83	0.88	0.87	0.86
Others	1.11	1.15	1.13	1.14	1.17	1.14	1.13	1.12	1.21	1.15	1.14
Europe	0.14	0.14	0.13	0.14	0.14	0.13	0.13	0.13	0.14	0.14	0.13
Americas²	4.40	4.56	4.59	4.54	4.56	4.54	4.56	4.59	4.48	4.66	4.50
Brazil	2.35	2.53	2.62	2.56	2.54	2.55	2.59	2.63	2.48	2.63	2.53
Argentina	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Colombia	0.99	1.01	0.97	0.98	1.00	0.99	0.97	0.96	0.99	1.00	0.99
Others	0.42	0.39	0.37	0.37	0.39	0.37	0.37	0.37	0.39	0.40	0.35
Middle East^{2,4}	1.32	1.25	1.19	1.23	1.23	1.22	1.19	1.19	1.23	1.25	1.22
Oman	0.95	0.99	0.96	1.00	1.00	0.99	0.96	0.96	1.00	1.01	0.99
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.15	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Africa	2.33	2.32	2.31	2.30	2.30	2.30	2.30	2.31	2.30	2.29	2.29
Egypt	0.71	0.72	0.70	0.73	0.72	0.71	0.70	0.70	0.72	0.71	0.71
Gabon	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Others	1.38	1.36	1.38	1.34	1.35	1.36	1.36	1.39	1.35	1.35	1.35
Total Non-OECD	28.91	29.30	29.14	29.15	29.28	29.24	29.13	29.07	29.40	29.32	29.22
Processing gains ⁵	2.21	2.24	2.27	2.24	2.24	2.27	2.27	2.27	2.24	2.24	2.27
Global Biofuels	2.23	2.30	2.36	2.59	2.40	1.90	2.39	2.75	2.45	2.18	1.95
TOTAL NON-OPEC	56.26	57.66	57.06	57.87	57.92	57.01	56.93	57.05	58.24	57.65	57.13
TOTAL SUPPLY	93.75	96.38		97.00	97.07				97.46	96.76	96.53

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Aug2015	Sep2015	Oct2015	Nov2015	Dec2015*	Dec2012	Dec2013	Dec2014	1Q2015	2Q2015	3Q2015	4Q2015
OECD Americas												
Crude	614.4	616.6	642.2	647.4	645.6	503.6	499.5	552.4	0.81	0.00	-0.10	0.31
Motor Gasoline	249.6	257.5	246.7	254.2	267.9	265.7	261.0	275.7	-0.11	-0.16	0.07	0.11
Middle Distillate	228.1	219.8	210.8	226.8	242.6	211.6	197.4	208.9	-0.10	0.14	0.07	0.25
Residual Fuel Oil	44.8	47.1	50.2	50.1	48.6	42.9	46.1	41.5	0.05	0.03	-0.01	0.02
Total Products ³	759.2	763.2	744.2	761.8	772.4	704.1	671.2	730.4	-0.39	0.43	0.31	0.10
Total ⁴	1563.5	1571.5	1575.6	1593.8	1602.0	1365.3	1316.0	1446.3	0.41	0.59	0.37	0.33
OECD Europe												
Crude	342.9	339.0	346.6	346.5	355.6	316.7	316.6	319.1	0.28	0.00	-0.06	0.18
Motor Gasoline	85.3	89.7	89.3	91.8	89.6	92.3	88.2	90.5	0.13	-0.18	0.04	0.00
Middle Distillate	298.5	302.5	300.0	307.0	302.7	261.2	252.2	250.7	0.10	0.19	0.26	0.00
Residual Fuel Oil	71.0	69.3	69.4	74.2	73.1	78.4	66.1	64.1	0.02	0.01	0.03	0.04
Total Products ³	552.5	557.8	555.0	569.4	562.5	536.0	497.4	502.0	0.24	-0.01	0.36	0.05
Total ⁴	963.8	966.4	971.3	982.0	983.7	912.1	880.8	886.0	0.59	0.00	0.27	0.19
OECD Asia Oceania												
Crude	204.7	202.2	205.2	191.1	198.2	167.4	155.7	173.2	0.05	0.26	0.01	-0.04
Motor Gasoline	23.6	23.6	23.2	23.3	22.8	24.3	23.7	21.1	0.02	0.03	-0.02	-0.01
Middle Distillate	70.2	67.0	65.0	65.9	65.0	60.5	67.8	63.7	-0.09	0.06	0.06	-0.02
Residual Fuel Oil	21.2	22.4	21.9	23.6	21.2	19.7	19.3	20.8	-0.03	0.01	0.03	-0.01
Total Products ³	178.3	175.7	168.5	170.1	164.6	170.0	169.5	168.8	-0.18	0.14	0.11	-0.12
Total ⁴	449.1	444.7	439.1	428.2	425.9	405.4	392.4	405.2	-0.15	0.41	0.17	-0.21
Total OECD												
Crude	1162.0	1157.8	1194.0	1185.0	1199.3	987.6	971.8	1044.7	1.14	0.26	-0.14	0.45
Motor Gasoline	358.5	370.8	359.2	369.3	380.3	382.3	372.9	387.3	0.04	-0.32	0.09	0.10
Middle Distillate	596.8	589.2	575.8	599.7	610.3	533.3	517.5	523.3	-0.08	0.39	0.39	0.23
Residual Fuel Oil	137.1	138.8	141.5	147.9	142.8	141.0	131.5	126.4	0.04	0.06	0.05	0.04
Total Products ³	1490.0	1496.7	1467.8	1501.3	1499.4	1410.1	1338.1	1401.2	-0.32	0.56	0.78	0.03
Total ⁴	2976.4	2982.7	2986.0	3004.0	3011.6	2682.7	2589.2	2737.6	0.86	1.01	0.81	0.31

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Aug2015	Sep2015	Oct2015	Nov2015	Dec2015*	Dec2012	Dec2013	Dec2014	1Q2015	2Q2015	3Q2015	4Q2015
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	695.3	696.0	691.0	0.00	0.03	0.01	0.00
Products	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	207.1	208.1	206.2	205.5	207.2	196.3	206.6	209.5	-0.01	-0.02	0.01	-0.01
Products	255.4	254.6	256.0	257.7	259.9	238.7	259.7	256.7	0.01	0.02	-0.05	0.06
OECD Asia Oceania												
Crude	383.3	381.4	381.5	381.5	381.5	393.6	386.6	385.0	0.02	-0.01	-0.05	0.00
Products	33.7	33.7	33.9	33.9	33.9	21.0	30.5	31.9	0.01	0.00	0.01	0.00
Total OECD												
Crude	1285.5	1284.6	1282.9	1282.1	1283.8	1285.2	1289.1	1285.4	0.01	0.00	-0.02	-0.01
Products	290.1	289.3	290.9	292.6	294.8	260.7	291.2	289.6	0.02	0.02	-0.04	0.06
Total ⁴	1579.6	1578.3	1578.3	1579.1	1582.8	1547.3	1584.4	1579.2	0.03	0.03	-0.06	0.05

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
(millions of barrels² and 'days')³

	End December 2014		End March 2015		End June 2015		End September 2015		End December 2015 ³	
	Stock	Days Fwd ²	Stock	Days Fwd	Stock	Days Fwd	Stock	Days Fwd	Stock	Days Fwd
	Level	Demand	Level	Demand	Level	Demand	Level	Demand	Level	Demand
OECD Americas										
Canada	193.1	82	182.8	81	175.6	74	182.5	-	-	-
Chile	9.7	28	11.3	33	11.8	36	11.5	-	-	-
Mexico	52.8	28	49.8	26	50.4	25	49.5	-	-	-
United States ⁴	1860.5	96	1909.4	99	1972.2	100	2002.1	-	-	-
Total⁴	2138.3	88	2175.3	90	2232.2	90	2267.7	93	2298.1	95
OECD Asia Oceania										
Australia	36.2	33	34.1	32	35.9	33	35.5	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	580.7	121	567.7	146	578.3	147	589.6	-	-	-
Korea	196.8	79	201.0	87	224.6	94	226.0	-	-	-
New Zealand	8.4	49	8.7	56	9.0	59	8.7	-	-	-
Total	822.1	94	811.6	106	847.9	109	859.8	105	841.3	98
OECD Europe⁵										
Austria	22.9	92	23.7	91	23.2	82	23.7	-	-	-
Belgium	42.4	63	42.7	68	47.6	73	50.5	-	-	-
Czech Republic	21.9	116	21.7	103	21.5	106	21.0	-	-	-
Denmark	25.8	172	28.8	186	28.4	178	28.6	-	-	-
Estonia	1.6	57	1.5	50	1.5	46	1.5	-	-	-
Finland	37.9	213	44.1	254	45.0	229	39.9	-	-	-
France	167.8	100	172.9	106	169.8	99	166.8	-	-	-
Germany	284.2	119	286.1	124	287.2	117	283.0	-	-	-
Greece	26.5	91	31.1	112	27.8	91	29.2	-	-	-
Hungary	18.7	136	20.0	137	20.5	130	20.6	-	-	-
Ireland	9.3	63	12.8	90	11.1	74	11.3	-	-	-
Italy	119.4	98	121.0	93	117.1	87	117.2	-	-	-
Luxembourg	0.9	15	0.7	12	0.6	12	0.6	-	-	-
Netherlands	123.3	138	136.4	155	140.2	152	153.1	-	-	-
Norway	24.2	110	23.2	101	25.9	121	25.1	-	-	-
Poland	63.2	125	62.7	115	62.6	110	63.9	-	-	-
Portugal	22.2	94	21.7	86	21.8	84	23.0	-	-	-
Slovak Republic	11.4	152	11.6	133	11.4	140	11.0	-	-	-
Slovenia	4.6	96	4.9	99	4.7	88	4.6	-	-	-
Spain	121.3	97	132.4	109	133.4	107	139.4	-	-	-
Sweden	29.1	101	32.6	103	30.6	98	33.1	-	-	-
Switzerland	37.3	161	37.3	172	37.2	165	36.3	-	-	-
Turkey	62.4	81	64.7	75	65.7	69	71.2	-	-	-
United Kingdom	78.2	52	76.3	50	77.2	49	78.8	-	-	-
Total	1356.4	101	1410.9	104	1412.0	100	1433.5	106	1455.0	108
Total OECD	4316.8	93	4397.8	97	4492.1	96	4561.0	99	4594.4	99
DAYS OF IEA Net Imports⁶ -	167	-	172	-	194	-	196	-	-	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End December 2015 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
4Q2012	4230	1547	2683	92	34	59
1Q2013	4259	1580	2680	93	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	57
1Q2014	4196	1585	2611	94	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4327	1577	2749	93	34	59
4Q2014	4317	1579	2738	93	34	59
1Q2015	4398	1582	2816	97	35	62
2Q2015	4492	1584	2908	96	34	62
3Q2015	4561	1578	2983	99	34	65
4Q2015	4594	1583	3012	99	34	65

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 4Q2015 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2012	2013	2014	4Q14	1Q15	2Q15	3Q15	Sep 15	Oct 15	Nov 15	Year Earlier	
											Nov 14	change
Saudi Light & Extra Light												
Americas	0.76	0.74	0.65	0.60	0.58	0.65	0.57	0.56	0.51	0.82	0.56	0.27
Europe	0.85	0.79	0.84	0.84	0.91	0.77	0.77	0.89	0.75	0.58	0.73	-0.15
Asia Oceania	1.26	1.21	1.17	1.18	1.37	1.25	1.16	1.15	1.15	1.19	1.09	0.10
Saudi Medium												
Americas	0.44	0.45	0.36	0.25	0.24	0.37	0.44	0.42	0.44	0.47	0.31	0.16
Europe	0.05	0.01	0.03	0.04	0.02	0.02	0.02	-	0.03	0.07	0.01	0.06
Asia Oceania	0.45	0.43	0.45	0.45	0.40	0.44	0.48	0.44	0.33	0.44	0.46	-0.02
Iraqi Basrah Light²												
Americas	0.49	0.38	0.35	0.20	0.09	0.20	0.09	-	0.22	0.33	0.26	0.06
Europe	0.26	0.25	0.50	0.70	0.50	0.48	0.95	1.07	0.96	1.11	0.72	0.39
Asia Oceania	0.33	0.31	0.24	0.27	0.41	0.31	0.42	0.31	0.39	0.52	0.27	0.25
Kuwait Blend												
Americas	0.22	0.28	0.27	0.22	0.15	0.21	0.11	0.22	-	0.21	0.11	0.11
Europe	0.09	0.10	0.09	0.14	0.12	0.08	0.16	0.08	0.17	0.17	0.09	0.09
Asia Oceania	0.65	0.64	0.62	0.62	0.66	0.61	0.62	0.56	0.57	0.72	0.49	0.23
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.12	0.08	0.10	0.12	0.09	0.11	0.07	0.06	0.10	0.09	0.11	-0.01
Asia Oceania	0.02	0.00	0.01	-	0.03	-	0.02	0.04	-	-	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.16	0.03	0.01	0.00	0.03	0.01	0.03	0.05	-	0.03	-	-
Asia Oceania	0.33	0.30	0.28	0.26	0.31	0.25	0.25	0.32	0.28	0.27	0.30	-0.03
Venezuelan 22 API and heavier												
Americas	0.69	0.61	0.64	0.62	0.67	0.67	0.67	0.66	0.67	0.72	0.63	0.09
Europe	0.08	0.07	0.08	0.09	0.10	0.09	0.07	0.11	0.09	0.10	0.08	0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.73	0.70	0.66	0.66	0.59	0.43	0.45	0.42	0.49	0.62	0.72	-0.10
Europe	0.14	0.14	0.14	0.13	0.16	0.13	0.19	0.24	0.13	0.11	0.10	0.01
Asia Oceania	-	-	-	-	-	0.01	0.02	-	0.03	0.03	-	-
Canada Heavy												
Americas	1.41	1.49	1.71	1.79	1.84	1.81	2.02	2.09	1.87	1.94	1.70	0.24
Europe	-	-	0.00	0.01	-	0.01	0.01	0.02	0.02	-	0.02	-
Asia Oceania	-	-	0.00	0.00	-	-	-	-	-	-	-	-
BFOE												
Americas	0.02	0.03	0.01	0.01	0.01	-	0.01	0.02	-	0.05	0.02	0.03
Europe	0.55	0.47	0.56	0.59	0.47	0.48	0.52	0.55	0.49	0.44	0.52	-0.08
Asia Oceania	0.07	0.06	0.07	0.04	0.03	0.09	0.02	0.07	-	0.17	0.11	0.06
Russian Urals												
Americas	0.00	0.00	-	-	-	-	-	-	-	-	-	-
Europe	1.86	1.79	1.58	1.38	1.54	1.51	1.64	1.66	1.62	1.63	1.32	0.30
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.07	0.06	0.01	-	-	0.01	-	-	-	-	-	-
Europe	0.53	0.59	0.64	0.68	0.73	0.60	0.59	0.55	0.58	0.52	0.65	-0.13
Asia Oceania	-	0.00	0.02	0.01	0.04	0.02	0.12	0.02	0.07	0.04	-	-
Libya Light and Medium												
Americas	0.03	0.00	-	-	-	-	-	-	-	-	-	-
Europe	0.88	0.57	0.31	0.54	0.20	0.23	0.22	0.18	0.27	0.21	0.58	-0.37
Asia Oceania	0.04	0.03	0.02	0.02	-	0.02	-	-	-	-	0.02	-
Nigerian Light⁴												
Americas	0.24	0.07	0.00	0.01	0.03	0.01	0.03	0.02	0.03	-	-	-
Europe	0.58	0.53	0.55	0.54	0.62	0.53	0.55	0.55	0.60	0.56	0.48	0.08
Asia Oceania	0.04	0.03	0.02	0.00	-	-	-	-	-	-	0.00	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2012	2013	2014	4Q14	1Q15	2Q15	3Q15	Sep 15	Oct 15	Nov 15	Year Earlier	
											Nov 14	% change
Crude Oil												
Americas	6101	5130	4201	3755	3869	4085	4075	3905	3845	4057	3873	5%
Europe	9346	8926	8679	9056	9477	9201	9605	9966	9593	9406	8650	9%
Asia Oceania	6761	6557	6381	6331	6871	6426	6486	6115	6298	6050	6044	0%
Total OECD	22208	20612	19261	19142	20217	19711	20165	19986	19736	19513	18566	5%
LPG												
Americas	20	17	12	13	13	12	5	9	10	14	16	-7%
Europe	287	382	427	434	479	361	408	420	391	444	432	3%
Asia Oceania	620	546	531	527	537	535	491	462	441	532	448	19%
Total OECD	927	945	969	974	1029	908	904	891	841	991	895	11%
Naphtha												
Americas	20	17	20	13	20	14	12	13	8	14	10	43%
Europe	381	332	356	383	411	287	413	452	382	298	338	-12%
Asia Oceania	900	927	960	996	976	915	954	1019	905	1029	960	7%
Total OECD	1301	1276	1335	1391	1407	1217	1379	1484	1295	1341	1308	3%
Gasoline³												
Americas	730	659	665	663	572	745	813	830	613	530	597	-11%
Europe	212	106	131	114	125	114	72	116	130	134	67	99%
Asia Oceania	86	83	83	79	102	125	69	63	84	117	79	47%
Total OECD	1028	848	879	856	799	984	954	1010	827	781	744	5%
Jet & Kerosene												
Americas	73	81	100	104	148	152	132	84	137	128	101	27%
Europe	398	445	454	401	373	426	583	609	399	421	425	-1%
Asia Oceania	62	74	60	88	67	68	50	69	63	84	65	30%
Total OECD	533	601	613	593	589	646	765	762	599	633	591	7%
Gasoil/Diesel												
Americas	59	58	95	81	157	40	46	67	72	98	60	63%
Europe	984	1121	1097	993	1105	1309	1270	1315	1151	1257	930	35%
Asia Oceania	185	162	181	176	164	188	169	181	231	214	144	48%
Total OECD	1227	1341	1373	1250	1426	1537	1485	1564	1454	1568	1133	38%
Heavy Fuel Oil												
Americas	206	165	132	135	119	113	139	147	76	100	114	-12%
Europe	521	552	617	559	690	484	513	407	432	464	622	-25%
Asia Oceania	224	242	214	167	212	134	186	227	191	264	159	66%
Total OECD	951	960	964	861	1021	732	838	781	700	829	894	-7%
Other Products												
Americas	813	812	671	656	626	760	759	764	500	655	605	8%
Europe	636	791	704	649	668	667	736	732	747	672	591	14%
Asia Oceania	357	386	374	307	317	306	343	362	309	276	345	-20%
Total OECD	1806	1989	1750	1613	1610	1734	1839	1858	1556	1603	1541	4%
Total Products												
Americas	1921	1810	1695	1665	1655	1836	1906	1914	1417	1539	1503	2%
Europe	3419	3729	3786	3533	3851	3649	3995	4052	3632	3691	3405	8%
Asia Oceania	2433	2421	2402	2339	2375	2272	2263	2384	2224	2516	2200	14%
Total OECD	7773	7960	7883	7538	7881	7758	8163	8350	7273	7746	7107	9%
Total Oil												
Americas	8022	6940	5896	5420	5525	5921	5980	5819	5262	5596	5375	4%
Europe	12765	12655	12465	12589	13327	12850	13600	14018	13225	13097	12055	9%
Asia Oceania	9194	8978	8783	8670	9246	8698	8748	8499	8522	8566	8243	4%
Total OECD	29982	28572	27144	26680	28098	27468	28328	28336	27009	27259	25674	6%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

2 Excludes intra-regional trade.

3 Includes additives.

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For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2015), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 11 March 2016

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Oil Market Report

11 March 2016

HIGHLIGHTS

- **Crude prices rose to their highest in three months in early March, stoked by tightening supply, proposed new producer talks on co-ordinated output action and US dollar weakness.** At the time of writing, Brent was at \$39.80/bbl and US WTI was at \$37.30/bbl.
- **Sharp decelerations in demand growth – particularly in the US and China – pulled global growth down to a one-year low of 1.2 mb/d in 4Q15, compared to the year earlier, dramatically below the near five-year high of 2.3 mb/d in 3Q15. A gain of around 1.2 mb/d is forecast for 2016.**
- **Global oil supplies eased by 180 kb/d in February, to 96.5 mb/d, on lower OPEC and non-OPEC output.** Production stood 1.8 mb/d above a year earlier, as a slight decline in non-OPEC was more than offset by OPEC gains. Non-OPEC production is estimated to fall by 750 kb/d, to 57.0 mb/d in 2016, 100 kb/d less than in last month's *Report*.
- **OPEC crude oil production eased by 90 kb/d in February to a still-robust 32.61 mb/d with losses from Iraq, Nigeria and the UAE partly offset by a substantial rise in flows from post-sanctions Iran.** Saudi Arabia, OPEC's largest producer, held supplies steady.
- **OECD commercial inventories gained 20.2 mb in January while forward demand cover remained comfortable at 32.7 days.** Preliminary data suggest that in February, OECD inventories drew for the first time in a year while volumes of crude held in floating storage increased.
- **Global refinery throughputs are estimated at 79.1 mb/d in 1Q16, reflecting weak OECD refinery throughput and a shift of peak spring maintenance to 1Q.** Annual growth in 4Q15 fell to below 1 mb/d amid product stock builds and in line with a slowdown in global oil demand growth.

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LIGHT AT THE END OF THE TUNNEL?

International crude oil prices have recovered remarkably in recent weeks. From a nadir of \$28.5/bbl in mid-January Brent crude is now trading around \$40/bbl. This should not, however, be taken as a definitive sign that the worst is necessarily over. Even so, there are signs that prices might have bottomed out.

The factors cited in this report that currently support higher prices include: possible action by oil producers to control output; supply outages in Iraq, Nigeria and the UAE; signs that non-OPEC supply is falling; no reduction in our forecast of oil demand growth; and recent weakness of the US dollar.

Later this month some oil producers are expected to meet to discuss a possible output freeze. We cannot know what this might be and in any event it is rather unlikely that an agreement will affect the supply/demand balance substantially in the first half of 2016. Before any production freeze or cut is agreed, we have seen supply disruptions in Iraq, Nigeria and UAE. Production from these countries fell in February by 350 kb/d. Meanwhile, Iran's return to the market has been less dramatic than the Iranians said it would be; in February we believe that production increased by 220 kb/d and, provisionally, it appears that Iran's return will be gradual.

The focus is on non-OPEC countries to see if high-cost output is falling. There are already signs that this is happening: in the US, we expect production this year to fall by 530 kb/d, and we have downgraded our 2016 outlook for Brazil, Colombia and others. For the non-OPEC countries we now expect production to fall by 750 kb/d: our view last month was that this number would be 600 kb/d. Of course, there is no guarantee that this trend will continue, but there are clear signs that market forces – ahead of any production restraint initiative – are working their magic and higher cost producers are cutting output.

We have warned in earlier Reports that the risks to global oil demand growth are almost certainly on the downside. For now, we have left unchanged at 1.2 mb/d our estimate for growth in 2016. Many reports claim that strong demand for US gasoline is a factor behind recent price bullishness but they overlook weakness in other products e.g. middle distillates. Our view is that total demand in the world's biggest market will be flat in 2016, but if prices maintain their recent upward momentum there could be further weakness. In the world's second biggest demand market, China, we maintain our view that growth this year will be only 330 kb/d, well below the ten-year average growth rate of 440 kb/d. We expect India and other smaller non-OECD Asian economies and the Middle East to provide most of the 2016 growth. The foundations for global demand growth are sound, but not rock-solid.

The impact of the changing value of the US dollar on oil markets is thought by some to be a major driving force in the recent price recovery. Where this factor leads us in the next few months depends on how well commodity-dependent economies and net oil-importing economies have adjusted to lower prices; whether commodities prices have truly bottomed out as some believe; and on changes to interest rates.

We have looked at stocks data for both the OECD – where commercial stocks levels increased in January to yet another record high – and non-OECD. It is clear that China has added significant volumes to both commercial and strategic stocks during 2015 culminating in an apparent build of 1.4 mb/d in December. We have also re-analysed our data for floating storage and oil in transit and further reduced the uncertainty in the supply/demand balance that is described as “missing barrels”. The figure usually described as such is now 0.8 mb/d, well within the normal range considering the vagaries of oil data.

In this report we present an essentially unchanged picture for the overall oil supply/demand balances. For the first half of 2016, the implied surplus of supply over demand remains high at 1.9 mb/d in 1Q and 1.5 mb/d in 2Q. To the extent the oil price is forward-looking, comfort will be taken from our view that in the second half of 2016 the gap between supply and demand narrows significantly to 0.2 mb/d in both 3Q and 4Q.

For prices there may be light at the end of what has been a long, dark tunnel, but we cannot be precisely sure when in 2017 the oil market will achieve the much-desired balance. It is clear that the current direction of travel is the correct one, although with a long way to go. Without an increase in demand expectations high cost oil suppliers will continue to bear the brunt of the market-clearing process.

DEMAND

Summary

- **Oil demand will grow by 1.2 mb/d (1.2%) in 2016, significantly below the five-year peak hit in 2015 (+1.8 mb/d).** The main factors are an uncertain macroeconomic backdrop, mild 1Q16 OECD winter temperatures, an acclimatisation of consumers to lower prices and non-OECD subsidy cuts.
- **Rapid recent demand growth in many of the big Asian net oil-importing economies**, e.g. Korea, India and the Philippines, is in **stark contrast to the weak gains/absolute declines in some more industrial and commodity-dependent economies**, e.g. Brazil.
- **Modest-to-weak demand gains are seen in many OECD economies**, 4Q15-1Q16, as the majority of the previous, largely price-driven, stimulus waned against an increasingly uncertain macroeconomic background.
- **Hefty product stock builds in China between November and January, trimmed our apparent demand estimate** there, as large quantities of refinery output went into product inventories and not 'true' demand. IEA demand estimates subtract stock builds since these are considered delayed future consumption. Having risen relatively sharply in the first ten months of 2015, the next three months saw growth ease to a fifth of this level.

Global Oil Demand (2014-2016)

	(million barrels per day)														
	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Africa	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.2	4.1	4.3	4.2	4.1	4.3	4.2
Americas	30.5	30.5	31.3	31.5	31.0	30.9	30.9	31.6	31.2	31.1	30.8	30.9	31.5	31.5	31.2
Asia/Pacific	31.3	30.4	29.9	31.5	30.8	32.2	31.6	31.5	32.4	31.9	32.9	32.3	32.3	33.4	32.7
Europe	13.7	14.1	14.6	14.2	14.1	14.1	14.3	14.8	14.4	14.4	14.2	14.4	14.7	14.3	14.4
FSU	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.7	4.8	5.0	4.9	4.9
Middle East	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.4	8.8	8.3	8.3
World	91.9	92.1	93.3	94.0	92.8	93.5	94.0	95.5	95.2	94.6	94.7	95.0	96.6	96.7	95.8
Annual Chg (%)	1.3	0.7	0.8	1.2	1.0	1.8	2.1	2.4	1.3	1.9	1.2	1.0	1.1	1.6	1.2
Annual Chg (mb/d)	1.2	0.6	0.7	1.1	0.9	1.6	2.0	2.3	1.2	1.8	1.2	1.0	1.0	1.5	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.2	0.2	0.1	0.1	0.3	0.2

Global Overview

From a demand perspective, the oil market presents a very mixed picture as we move into 2016. Surging deliveries in many of the big Asian net oil-importing economies, e.g. India, Korea, Indonesia and the Philippines, contrast with outright falls/weakness in Brazil, Japan and France. Low oil prices continue to provide a welcome fillip to buoyant importer nations, but on the other hand low oil prices dent the spending power of the major oil exporters. Commodity-dependent economies are increasingly cash-strapped and momentum is further squeezed as many of them lower subsidies. Notable examples include Saudi Arabia, Venezuela, Bahrain and Oman (see this year's *Medium-term Oil Market Report*).

With the macroeconomic situation remaining uncertain in 2016, it is difficult to see much scope for higher oil demand growth than the current forecast with the associated risks almost completely skewed to the downside. The International Monetary Fund (IMF) published its *World Economic Outlook (WEO)* in January 2016, forecasting global GDP growth of 3.4% for 2016, two-tenths of a percentage point below its October estimate and four-tenths of a percentage point below last July's outlook. Many banks, such as Citibank, Credit Suisse and HSBC, have cited sub 3% growth as a possibility for 2016, which would bring prospective global economic growth down into the territory that the IMF traditionally warned of as

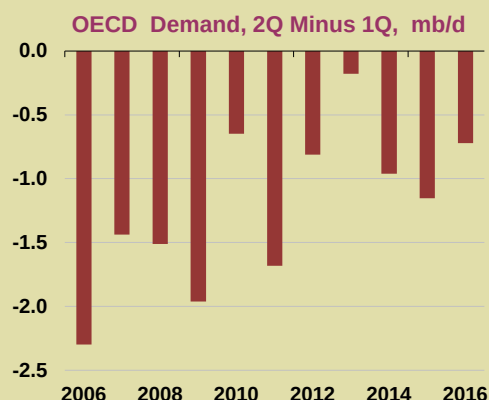
‘equivalent to a global recession’. Our demand outlook reflects a more positive view for now, with the majority of January’s preliminary data releases coming out in favour of this belief, particularly Germany, Russia, Korea and China.

Notable historical data revisions contained in this month’s *Report* include an updated monthly series for Indonesia. After a hiatus, Indonesia – recently having reactivated their membership of OPEC – has provided detailed demand numbers to the Joint Organisations Data Initiative (JODI), and, although the numbers are still preliminary, roughly 75 kb/d has been added to the Indonesian 2015 demand estimate of 1.9 mb/d. In light of this additional data, a smaller, albeit still sizeable +30 kb/d addition has also been applied to the 2014 estimate, raising global demand.

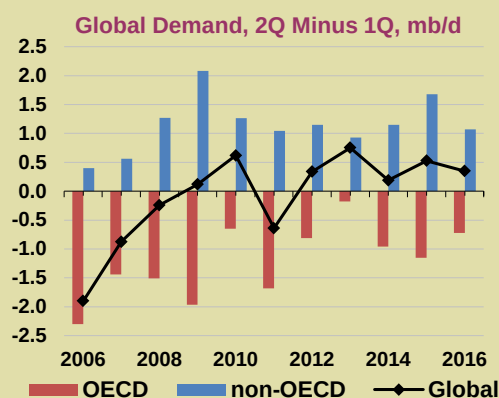
Unpicking potential 2Q demand swings

Changes in oil demand have always been subject to seasonal factors. In the second quarter (2Q), for example, OECD demand traditionally wanes as the northern hemisphere winter ends. Recently, however, this effect has diminished, as many consumers have switched out of oil products for their heating requirements. Globally, the impact diminishes further as non-OECD consumption takes an ever-greater share of the global total.

With occasional exceptions, such as the unusually cold 1Q14 and 1Q15, the scale of 2Q OECD demand contractions has eased in recent years. From a peak of -2.3 mb/d in 2Q06, the 2Q-over-1Q OECD decline has diminished to a recent five-year average of -1.0 mb/d in 2011-15. The 10-year average is nearer -1.3 mb/d. Having fallen to -0.2 mb/d on a quarter-on-quarter (q-o-q) basis in 2Q13, the next two years saw colder 1Q weather, raising the potential 2Q OECD demand contraction. OECD demand declined by three- and four-years highs of -1.0 mb/d in 2Q14 and -1.2 mb/d in 2Q15. Compared to 1Q13, average OECD heating-degree days rose by 6% in 1Q14 and 4% in 1Q15. With early indicators pointing towards milder conditions in 1Q16, this curbs the inevitable 2Q16 OECD downside demand pressure to -0.7 mb/d q-o-q in our forecasts. The US, for example, with the exception of a spectacular, but short, cold spell in January, has enjoyed a generally mild winter. The UK, meanwhile, has seen average winter temperatures climb to their highest level in over one hundred years. Early indicators of OECD winter temperatures roughly match the forecast cited in the 13 November 2015 edition of this *Report*.



Outside the OECD, the 2Q demand pattern is a near polar-opposite, hence the changing global 2Q seasonal picture as non-OECD consumers rise in prominence. Additional cooling requirements in many non-OECD economies play an important role, for example in Saudi Arabia where the five-year average 2Q gain came to +445 kb/d through 2Q15. Exceptionally cold 1Q conditions in others, for example Russia (+160 kb/d, 2Q11-2Q15), dampen business activity, as do traditional vacations such as the Chinese New Year, with the average 2Q Chinese demand gain +200 kb/d 2Q11-2Q15. Non-OECD oil deliveries rose by a q-o-q average of 1.2 mb/d, 2Q06-through-2Q15, or 1.2 mb/d 2Q11-through-2Q15, a rate of progress that is only modestly foreseen to ease in 2Q16, to +1.1 mb/d q-o-q.



With non-OECD oil product demand surpassing that of the OECD in 2Q13, persistently from 1Q14, the global 2Q demand trend has increasingly become a rising one. The average declines of old, consistently reverting to gains from 2Q12, furnish the IEA’s +0.3 mb/d q-o-q global demand forecast for 2Q16 (+1.0 mb/d in year-on-year (y-o-y) terms). These projections very much depend upon the status-quo remaining with oil prices and economic activity; a dramatic further deterioration in economic activity (or sharply higher oil prices), for example, would reduce the demand forecast, and vice versa.

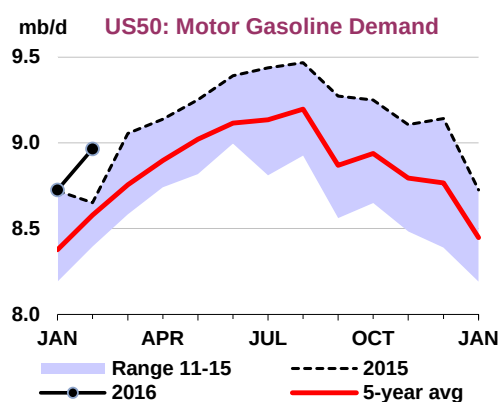
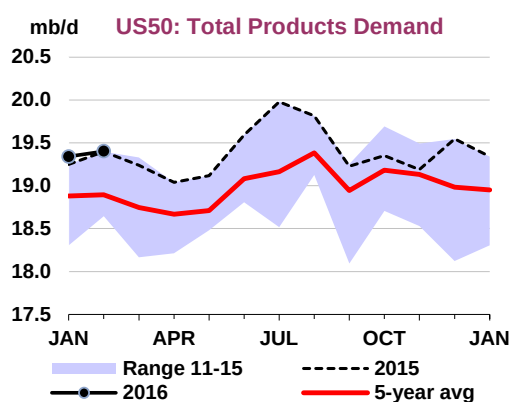
OECD

Roughly flat in January, according to the latest preliminary numbers, the OECD demand trend has essentially been treading water since 3Q15, when it rose by 1.5% y-o-y supported by very strong gains in the US and a rare increase in Japanese oil product demand. In 4Q15 OECD demand growth has vanished, with persistent strong gains in Europe offset by declines in the OECD Americas and OECD Asia Oceania.

OECD Demand based on Adjusted Preliminary Submissions - January 2016

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	10.39	0.1	1.68	3.4	4.61	-5.3	0.64	10.3	0.52	0.0	6.36	3.07	24.21	0.2
US50	8.72	0.1	1.41	3.0	3.75	-6.5	0.29	26.6	0.30	10.2	4.87	4.57	19.34	0.5
Canada	0.78	-2.2	0.14	7.3	0.31	2.2	0.28	-1.1	0.03	-42.1	0.77	-5.19	2.30	-2.9
Mexico	0.75	2.0	0.07	5.1	0.34	-3.3	0.05	3.8	0.09	-0.2	0.62	2.72	1.93	1.3
OECD Europe	1.70	0.3	1.19	2.3	4.23	3.0	1.60	-10.9	0.86	0.4	3.36	-1.21	12.94	-0.6
Germany	0.39	3.2	0.16	-1.3	0.70	7.6	0.37	-19.2	0.13	6.1	0.58	8.70	2.33	1.0
United Kingdom	0.28	0.0	0.30	-2.9	0.43	2.7	0.11	-0.3	0.03	19.8	0.30	7.02	1.46	1.8
France	0.13	-3.1	0.14	-0.3	0.61	-2.8	0.28	-5.1	0.03	-36.2	0.32	-11.22	1.52	-6.0
Italy	0.18	-2.4	0.08	4.0	0.40	-2.6	0.09	10.9	0.07	6.5	0.36	9.17	1.19	2.7
Spain	0.10	1.4	0.09	1.9	0.41	1.9	0.20	-9.4	0.15	-5.2	0.26	2.56	1.22	-1.0
OECD Asia & Oceania	1.46	0.8	1.19	4.6	1.24	2.0	0.53	2.1	0.70	-7.2	3.31	-3.79	8.44	-1.0
Japan	0.84	-0.1	0.76	1.1	0.38	-6.4	0.38	-4.6	0.33	-27.0	1.67	-6.52	4.36	-6.0
Korea	0.21	6.2	0.25	17.6	0.36	7.3	0.12	28.2	0.32	26.6	1.39	-0.17	2.66	6.7
Australia	0.29	-0.1	0.14	1.4	0.40	4.2	0.00	52.0	0.03	0.0	0.16	-5.91	1.01	0.8
OECD Total	13.56	0.2	4.07	3.4	10.08	-1.1	2.77	-4.3	2.09	-2.4	13.04	0.14	45.60	-0.2

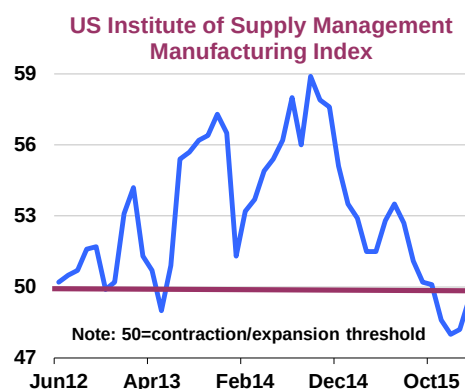
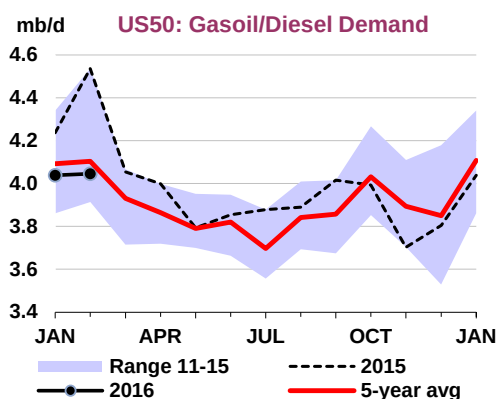
* Including US territories



Americas

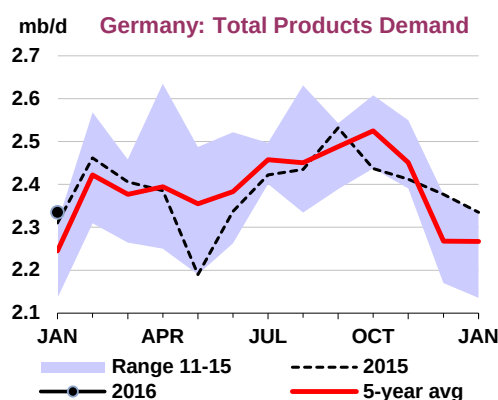
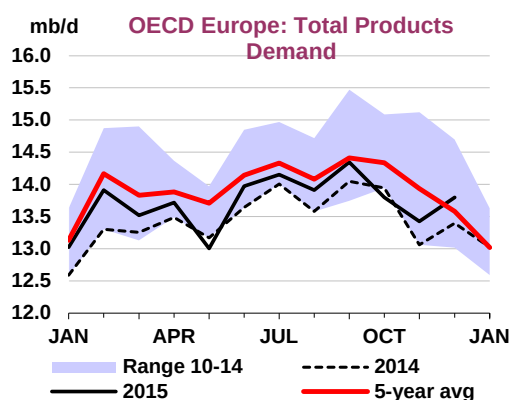
The strongly rising OECD Americas demand trend that hatched in 4Q14, turned negative in 4Q15, as its main instigator, **US** demand growth flipped. Pulled down by a combination of sharply lower distillate demand and decelerating gasoline demand growth, the US boom has ground to a halt. Average US oil demand growth of 0.5 mb/d y-o-y in the first eight months of 2015 slowed down to only 0.1 mb/d in the September to December period. To some extent, the strong growth in the first eight months of 2015 was from a low base in the same period of 2014 but momentum has definitely waned since the industrial outlook worsened. Furthermore, most of the reaction by US drivers to low prices has already happened, trimming the possibilities for further strong growth. The last US official monthly data release showed demand averaging 19.5 mb/d in December 2015, roughly on a-par with the year earlier, as continued strong gains in gasoline offset sharp contractions in gasoil/diesel. Preliminary estimates of January and February demand show total US demand easing back to 19.3 mb/d and 19.4 mb/d respectively.

Lower US distillate deliveries are a symptom of three consecutive months, November to January, when industrial production fell y-o-y. The contraction in industrial output in December was 1.8% y-o-y and this was followed by a 0.7% y-o-y fall in January. Tentative signs of life, however, may already be emerging, as the Institute of Supply Management's forward-looking Manufacturing Purchasing Managers' Index (PMI) – which we used to forecast accurately the climb-down in US distillate demand from January 2015 through 1Q16 – turned up sharply in February. The previous PMI uptick in May/June 2015 was followed by three consecutive months of rising y-o-y gasoil demand, in contrast to the overall 2015 trend.

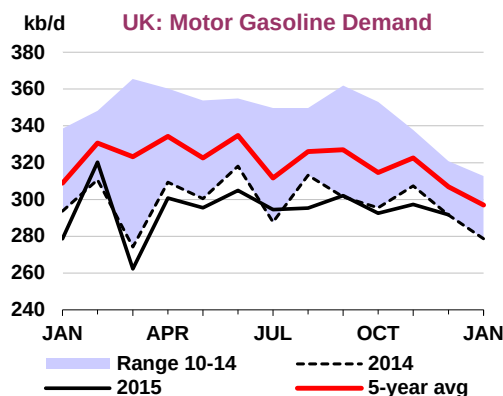
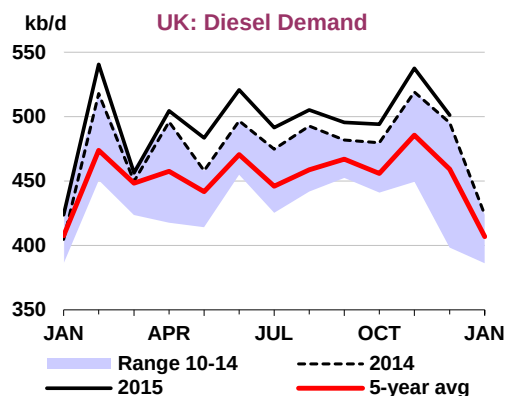


Europe

Compared to other OECD regions, European demand growth remained strong, up by around 205 kb/d (or 1.5%) y-o-y in 4Q15, supported by strong gains in Germany, the Netherlands, Italy and Turkey, more than offsetting persistent weaknesses in France and Finland. Lower oil prices provided a particular support to **German** demand, which has now risen y-o-y in each of the three months through January, with particularly strong gains apparent in the transport and petrochemical sectors. Having roughly flat-lined in 2015, a similar picture is envisaged for 2016 as a whole, as German oil deliveries average roughly 2.4 mb/d in both years. The overall OECD European demand picture is for a similarly flat 2016 outlook, as forecast deliveries remain roughly on-a-par with 2015 at 13.7 mb/d.

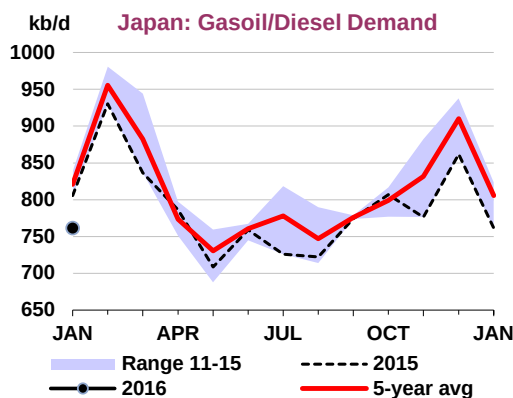
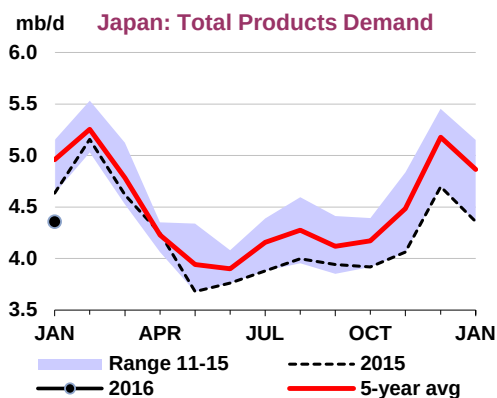
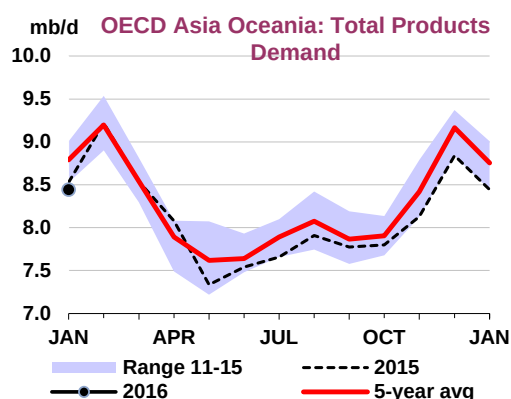


Record vehicle usage in the **UK** continues to support the relatively strong gasoline/diesel numbers, which respectively rose by 0.1% and 1.2% on a y-o-y basis in December. The UK Department for Transport reported 7 billion more vehicle miles driven in 2015, compared to 2014, rising to a total of 317.8 billion miles, four billion above the previous all-time high set in 2007. Light commercial vehicles accounted for the majority of these extra miles, hence the outperformance of diesel compared to gasoline in the UK demand statistics in 2015 – growing by 3.3% versus a decline of 1.9% for gasoline – as internet-home-delivery rose sharply.



Asia Oceania

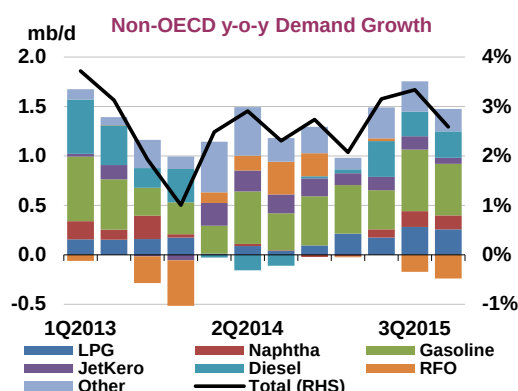
Despite persistently strong gains in Korea, Israel, New Zealand and Australia, the region as a whole saw a decline of 0.7% in 4Q15 to 8.3 mb/d, as sharply falling **Japanese** demand impacted the overall picture. Preliminary releases for January point towards a further 1% decline in OECD Asia Oceania, as Japanese deliveries fell by approximately 6% on the year earlier, to 4.4 mb/d, a decline magnified by the deteriorating macroeconomic environment. The Cabinet Office in Japan reported that the economy contracted by an annualised 1.1% q-o-q in 4Q15 (revised from an earlier estimate of -1.4%), as inherent weakness in domestic demand pulled down GDP, with weak wage growth acting as a severe restraint on consumer spending. A further decline in Japanese economic activity in 1Q16 would see the economy fall back into a technical recession for a second time in one-and-a-half years, dragging down the already ailing Japanese oil demand statistics. Gasoil, naphtha, 'other products' and residual fuel oil showed the greatest downside in January for Japan. The outlook for the year as a whole is for deliveries to fall by just over 3% to an average of around 4.1 mb/d.



Australian demand surged ahead in 4Q15. Economic growth rose to a two-year high of 3.0% in 4Q15, y o-y, supporting renewed impetus in Australian oil demand. Rising by 1.3% in 4Q15, to 1.1 mb/d, Australian oil deliveries rose to an all-time high, supported by particularly sharp gains in gasoil, gasoline and jet/kerosene. This is particularly notable in the view of the weak backdrop for commodities prices on which Australia is heavily dependent.

Non-OECD

Pulled down by sputtering economic activity, non-OECD oil demand growth has decelerated sharply in recent months: rising by approximately 2.6% on a y-o-y basis in 4Q15 compared to a previous five-year average of over 3%. Although lower oil prices have provided a windfall to many net oil-importing economies, particularly India, the converse is true for net oil-exporters. Furthermore, many net-importers have also seen their prospects dampened by the generally spreading macroeconomic malaise that the very sharp declines in commodity prices brought about. Individual cuts in oil product price subsidies, such as those recently embarked upon in Venezuela and Saudi Arabia, further cull the non-OECD demand outlook, which shows a prospective gain of 1.2 mb/d (or 2.5%) in 2016, to 49.6 mb/d.



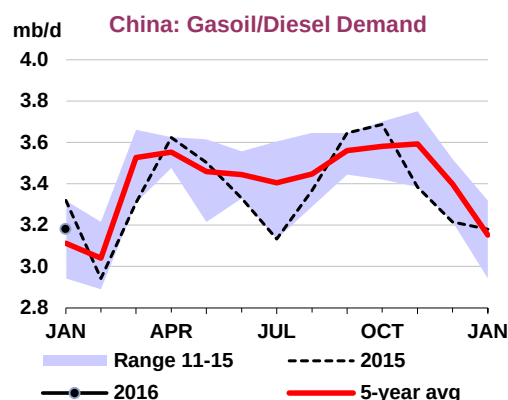
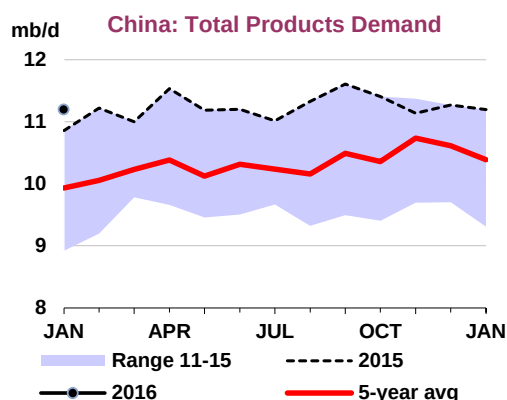
Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q15	3Q15	4Q15	3Q15	4Q15	3Q15	4Q15
LPG & Ethane	5,294	5,397	5,490	282	257	5.5	4.9
Naphtha	3,101	3,213	3,236	157	140	5.1	4.5
Motor Gasoline	10,420	10,573	10,721	624	523	6.3	5.1
Jet Fuel & Kerosene	3,089	3,133	3,074	137	60	4.6	2.0
Gas/Diesel Oil	14,677	14,427	14,706	249	268	1.8	1.9
Residual Fuel Oil	5,365	5,196	5,097	-174	-241	-3.2	-4.5
Other Products	6,786	6,958	6,607	304	227	4.6	3.6
Total Products	48,732	48,898	48,931	1,578	1,233	3.3	2.6

China

While the Chinese New Year celebrations have caused a delay to data releases, preliminary data suggest that only weak growth in refining activity (see *Refining*), lower net product imports and reports of heavy product destocking since November, have restrained Chinese oil demand. This adds up to estimated deliveries of approximately 11.2 mb/d in January, up by only 0.3 mb/d versus last year continuing the weaker growth trajectory that has infected China since November.

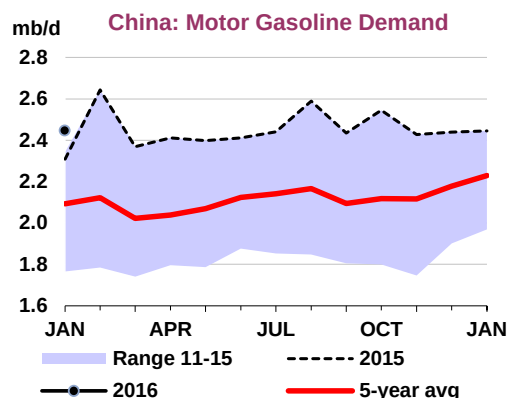


China: Demand by Product

(thousand barrels per day)

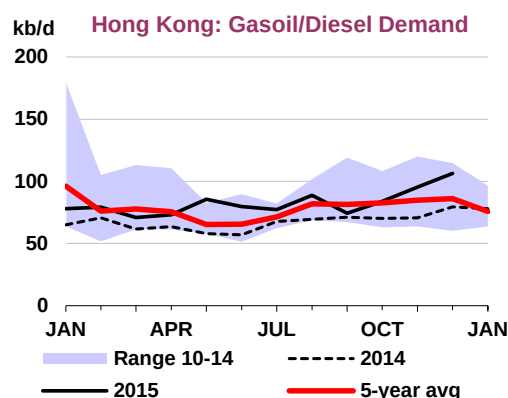
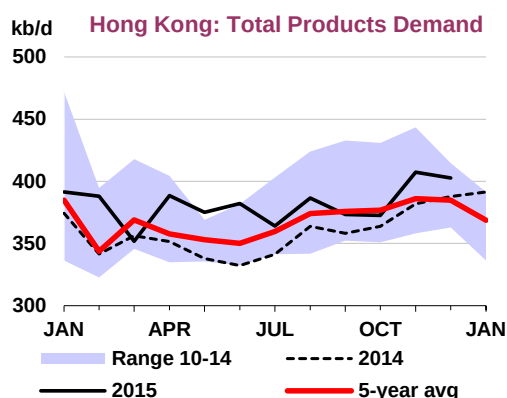
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2014	2015	2016	2015	2016	2015	2016
LPG & Ethane	884	1,086	1,176	202	90	22.9	8.2
Naphtha	1,168	1,201	1,226	33	25	2.8	2.1
Motor Gasoline	2,252	2,450	2,646	198	196	8.8	8.0
Jet Fuel & Kerosene	541	609	656	68	47	12.6	7.7
Gas/Diesel Oil	3,377	3,373	3,354	-4	-19	-0.1	-0.6
Residual Fuel Oil	320	264	185	-56	-79	-17.5	-29.8
Other Products	2,070	2,244	2,315	174	71	8.4	3.2
Total Products	10,612	11,228	11,559	616	331	5.8	2.9

With the Xinhua New Agency's *China Oil, Gas and Petrochemicals (China OGP)* publication showing a hefty five million barrel (160 kb/d) gasoil stock-build in January, along with trade data from the General Administration of Customs (GAC) depicting sharp gains in diesel exports, weak gasoil demand continues to weigh on overall Chinese growth. Falling industrial oil use is partially offsetting still relatively robust growth in jet fuel and gasoline, chiefly attributable to persistent strength in the consumer sector as travel demand was strong ahead of February's extended holiday. The outlook is restrained by ongoing economic weakness, keeping Chinese oil demand growth at around 0.3 mb/d in 2016, with industrial oil use particularly lagging. Caixin's forward-looking Manufacturing PMI fell to a five-month low in February 2016 and has implied net-pessimistic manufacturing sentiment since February 2015. The government's decision not to pass through lower product prices, with crude below \$40/bbl, further undermines potential Chinese oil demand growth.

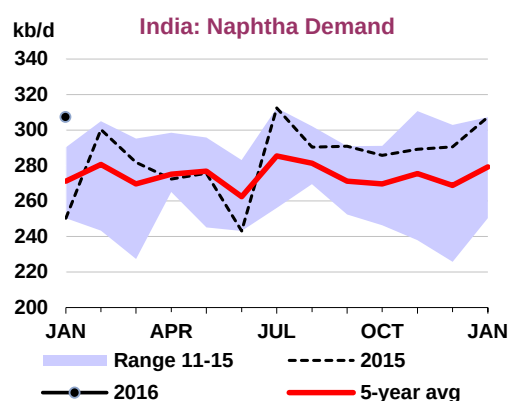
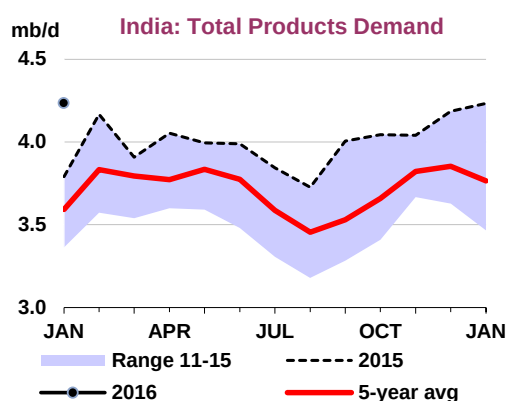


Other Non-OECD

The recent upturn in **Hong Kong** oil deliveries that started towards the end of 2014, persisted, indeed gained momentum through the final months of 2015. At an estimated 405 kb/d in December, total Hong Kong oil demand posted a near 4% gain on the year earlier. Particularly strong gains in gasoil led Hong Kong's upside, as lower prices allowed Hong Kong to shrug-off the restraints otherwise applied by the ailing industrial backdrop. The Nikkei Manufacturing PMI has been in 'contracting' territory for each of the 11 months through January, easing to 46.1 in January from 46.4 in December 2015, whereby any reading below 50 signifies a net-contraction in manufacturing business sentiment.



Up roughly 12% on the year earlier, **Indian** oil demand growth in January shows the impact of sharply falling oil prices. The overall GDP figures for India provide a strong background; recently the Ministry of Statistics and Programme Implementation (MOSPI) released data showing a 7.3% y-o-y gain in 4Q15. More timely data releases, albeit not capturing every sector of the economy, include MOSPI's industrial activity number, which surprisingly fell by 1.3% y-o-y in December, acting as a note of caution on the short-term demand outlook. More supportive of potential Indian demand prospects has been the Nikkei Manufacturing PMI, which at 51.1 in both February and January, rose to its highest level since September 2015 and is clearly in expansionary territory.

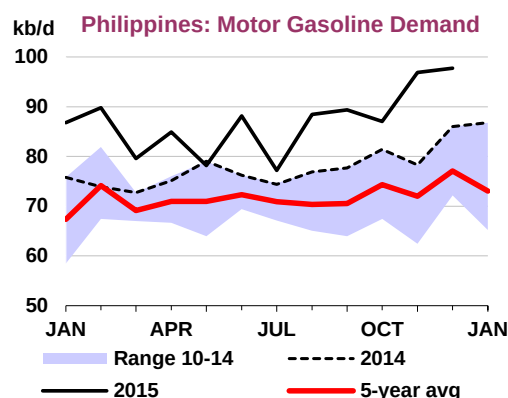
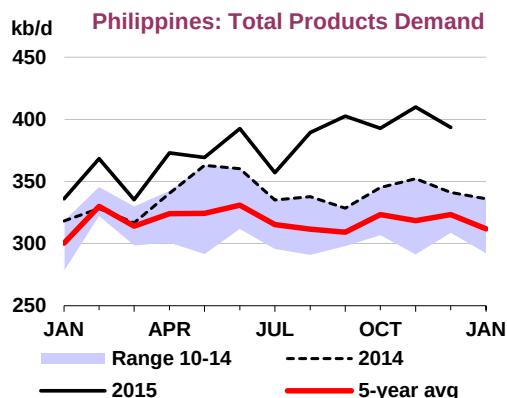


Non-OECD: Demand by Region

(thousand barrels per day)

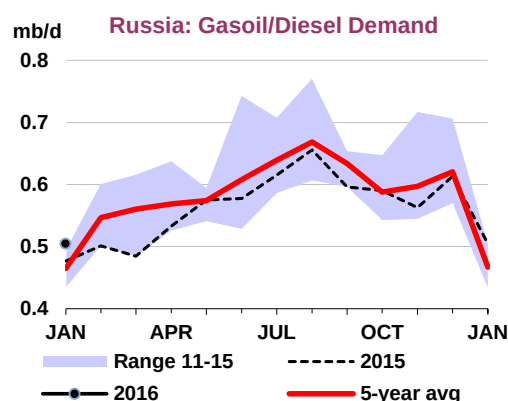
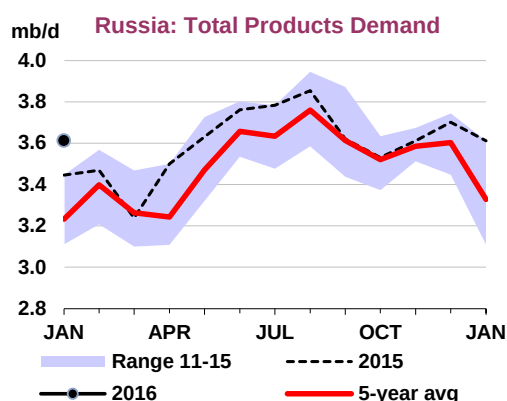
	Demand		Annual Chg (kb/d)			Annual Chg (%)	
	2Q15	3Q15	4Q15	3Q15	4Q15	3Q15	4Q15
Africa	4,068	3,958	4,151	81	187	2.1	4.7
Asia	23,951	23,712	24,170	1,461	949	6.6	4.1
FSU	4,893	5,046	4,970	-98	-77	-1.9	-1.5
Latin America	6,784	6,875	6,811	-81	-127	-1.2	-1.8
Middle East	8,341	8,598	8,118	198	274	2.4	3.5
Non-OECD Europe	695	708	712	17	29	2.4	4.2
Total Products	48,732	48,898	48,931	1,578	1,233	3.3	2.6

Total estimated Indian oil product demand increased to 4.2 mb/d in January, with particularly sharp gains seen in petroleum coke (listed in the IEA's 'other products' demand classification), naphtha, jet fuel and gasoline. Indeed, all of the major Indian demand categories experienced y-o-y rises in January, except for kerosene. Having risen by approximately 5.7% in 2015, a similarly paced expansion is foreseen for Indian oil demand in 2016 (+6.3%), momentum that will be supported by the robust economy and the likely low oil price.



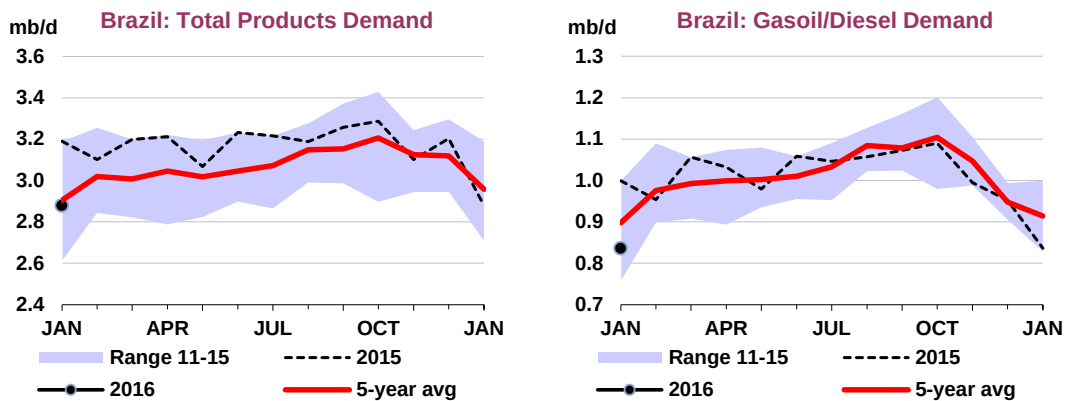
Reflecting the recent, consumer-driven strength that has been notable in some Asian net-oil importing nations, strong gains have been seen in the **Philippines** recently. Oil product deliveries there posted double-digit percentage point gains in each of the five months August-through-December 2015, with demand peaking at 410 kb/d in November. Strong economic underpinnings, at least on the consumer and service sides of the economy, supported heightened gains in gasoline. A rapid +6.3% expansion is foreseen in oil use in 2016, to an average 0.4 mb/d.

Ending a year-long data hiatus, **Indonesia** has finally published a complete monthly data set of demand statistics for 2015 and even though we treat the JODI release with extreme caution, the numbers overwhelmingly came out ahead of initial expectations. The Indonesian economy has undoubtedly benefited from lower oil prices being a net oil-importer – consuming roughly 1.9 mb/d of oil products in 2015 versus our crude oil production estimate of 0.7 mb/d. Even so, Indonesia has recently reactivated their OPEC membership. As in other net oil-importing, but still significant oil producing, economies like the UK, lower oil prices provided more of a support than a restraint, supporting accelerating economic growth and in turn additional oil demand through the each of the final two quarters of 2015. Statistics Indonesia cited GDP growth of 4.74% y-o-y in 3Q15, building on the 4.66% gain posted in 2Q15, accelerating to 5.04% in 4Q15. This growth supported an extra 0.1 mb/d of Indonesian oil demand in 2015, with a similarly sized gain forecast for 2016 when demand is projected to average 2.0 mb/d.

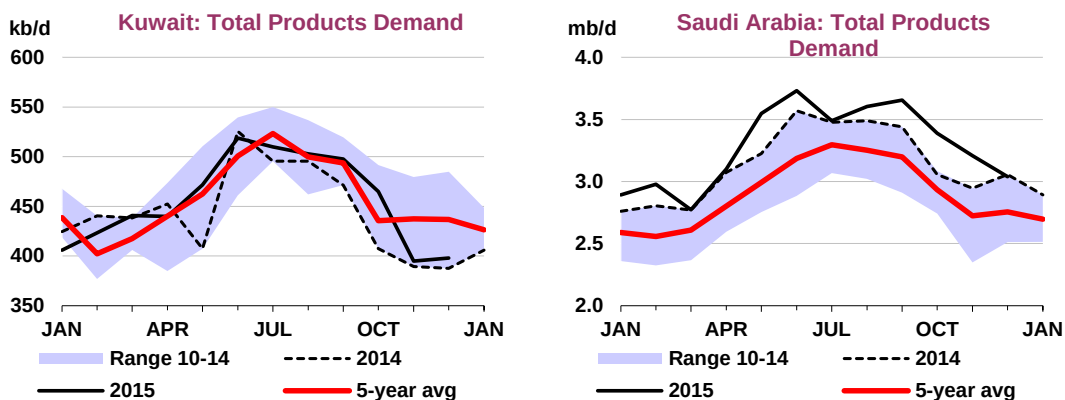


After roughly one year of declining y-o-y **Russian** oil demand the country finally turned positive once again in January, as estimated deliveries increased by 4.8% to 3.6 mb/d. Strong gains in industrial oil demand led the January resumption, more than offsetting the persistent decline seen in gasoline. A plateauing out in the pace at which Russian industrial output declines provided some support to January oil demand, as did the additional military use related to the uptick in activities seen recently. Having fallen by, on average, 1.7% in 2015, a further decline in Russian oil demand, of around 0.8%, is seen for 2016.

Sharp declines in **Brazilian** oil product demand in January carried on the falling demand trend that took root in mid-2015. January's near 10% y-o-y contraction is chiefly attributable to very weak industrial demand – with gasoil down by 16.3% – although declines were seen across the product spectrum. Dragging gasoil demand down has been the much suppressed level of industrial activity. Instituto Brasileiro de Geografia e Estatística reported five consecutive double-digit percentage point declines through January. With total Brazilian oil demand having fallen by around 35 kb/d (or 1.1%) in 2015, a further decline of around 1.9% (or 60 kb/d) is foreseen in 2016, to 3.1 mb/d, as underlying economic activity remains under severe pressure. Indeed, the recent decline in Markit's Brazilian Manufacturing PMI, to a fresh three-month low at a clearly pessimistic reading of 44.5 in February, indicates tough times are ahead.



Some relatively hefty late-year declines across the transport sector confirmed the September-October upturn in **Kuwaiti** demand momentum to be a temporary phenomenon, as y-o-y progress slowed to around 2% November-December, from nearer 10% in the previous pair of months. Persistent gains in the industrial sector kept overall Kuwaiti oil demand in growth territory, more than offsetting double-digit percentage point declines in jet/kerosene and gasoil/diesel. Growth potentially dips below 1% in 2016, as persistently lower energy prices dampen economic activity, which in turn restrains potential oil demand growth.

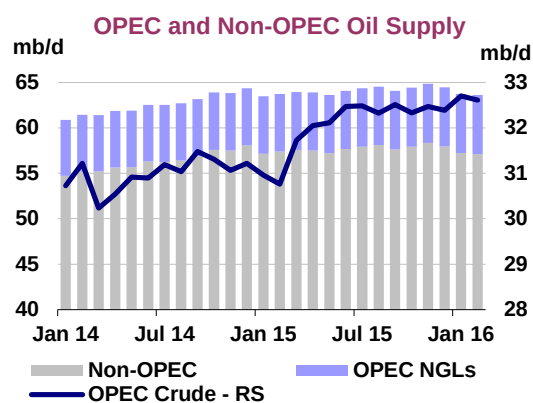
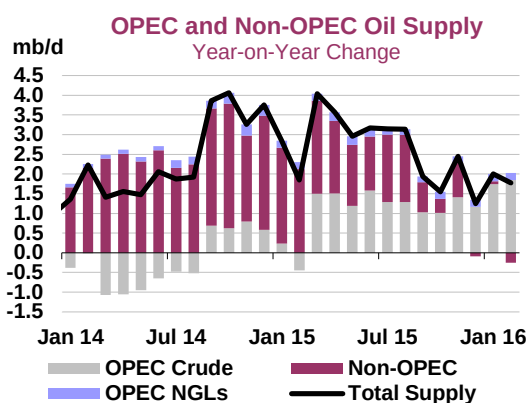


Unusually cool December weather pulled **Saudi Arabian** oil demand down to parity with the year earlier, to 3.0 mb/d. Thus for the year as a whole, Saudi Arabia consumed an average of 3.3 mb/d, 4.6% up on the year earlier, momentum that will fall to around one-third in 2016 (+1.4%) as the economy struggles. Ahmed Alkholifey, deputy governor of the Saudi Arabian central bank, cited (3 March) that economic growth would “not reach 2%”, while alluding to the existence of “predictions that it will decrease to less than 1%”.

SUPPLY

Summary

- **Global oil supplies eased by 180 kb/d in February, to 96.5 mb/d, on lower output from both OPEC and non-OPEC producers.** Production nevertheless stood an impressive 1.8 mb/d above a year earlier, as a slight decline in non-OPEC output was more than offset by gains made by OPEC countries.
- **OPEC crude oil production eased by 90 kb/d in February to a still-robust 32.61 mb/d with losses from Iraq, Nigeria and the UAE partly offset by a substantial rise in flows from post-sanctions Iran.** Saudi Arabia, OPEC's largest producer, held supplies steady. Saudi Arabia, Venezuela, Qatar and Russia offered in mid-February to freeze output in an effort to stabilise prices (see *Deep Freeze*).
- **On the face of it, a mid-February offer by Saudi Arabia, Venezuela, Qatar and Russia to hold output steady at January levels will not make an immediate impact on a over-supplied world oil market.** But the pain caused by \$30/bbl oil was at least enough to trigger a first stab at co-ordinated action that is intended to stabilise prices. A new round of freeze talks has been suggested for the end of March or early April.



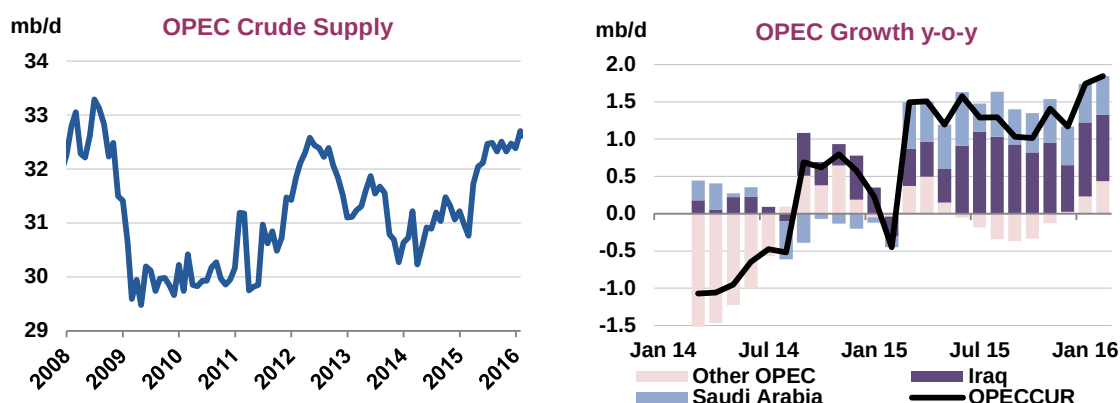
- **After sliding by 785 kb/d month-on-month (m-o-m) in January, non-OPEC supplies are estimated to have dropped another 90 kb/d in February, to 57.1 mb/d, which, in turn, is 250 kb/d below last year.** The outlook for 2016 as a whole is downgraded by 100 kb/d since last month's *Report*, to 57.0 mb/d, 750 kb/d below 2015 output.
- **The latest oil price rout, seen since the start of the year, has prompted companies worldwide to further curtail spending and output plans.** US producers removed another 106 rigs from service in February and cut 2016 output targets in their latest investor updates. Production plans were revised lower in Brazil, Colombia, China and Kazakhstan.

All world oil supply data for February discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary February supply data.

OPEC crude oil supply

A 220 kb/d rise in flows from Iran during February tempered losses from pipeline outages in northern Iraq and Nigeria and field maintenance in the UAE. OPEC's 13 members pumped 32.61 mb/d in February, down 90 kb/d on a month-on-month (m-o-m) basis, but up 1.85 mb/d on the previous year with the group's top three producers Saudi Arabia, Iraq – including the Kurdistan Regional Government (KRG) – and Iran posting strong year-on-year (y-o-y) gains.

Saudi production was stable in February at 10.23 mb/d – up 520 kb/d y-o-y. Output from Iraq, OPEC's fastest source of supply growth in 2015, fell 210 kb/d from January's record 4.43 mb/d due to a halt in northern exports, but still stood 890 kb/d above a year ago. Iran, in the first full month freed of nuclear sanctions, pumped at a four-year high of 3.22 mb/d, up 380 kb/d on the previous year. Tehran is making good on its vow to boost supplies immediately following sanctions relief and has increased crude output by 300 kb/d since the start of the year. That is more modest than a surge of 400 kb/d reported by Iran. Export volumes gained pace in February after Iran resumed crude sales to Europe and raised supplies to regular buyers in Asia. Higher production will be required in March to fill Iranian shipments that are due to climb by around 150 kb/d from February to roughly 1.6 mb/d, according to preliminary data.



While Iran is making strides on the supply front, disruptions in Iraq and Nigeria have shut in roughly 850 kb/d of exports since the middle of February. Iraq's northern pipeline that ships some 600 kb/d to world markets is expected to be online shortly, but *force majeure* on some 250 kb/d of Nigerian Forcados crude oil loadings may be in place for some time. OPEC's 'effective' spare capacity stood at 2.69 mb/d in February, with Saudi Arabia accounting for 75% of the surplus.

OPEC Crude Production

(million barrels per day)

	Dec 2015 Supply	Jan 2016 Supply	Feb 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Feb 2016 Supply	2015 Crude Supply	OPEC Supply 2015 vs 2014
Algeria	1.11	1.10	1.10	1.12	0.02	1.11	-0.01
Angola	1.75	1.75	1.76	1.81	0.05	1.76	0.10
Ecuador	0.54	0.53	0.53	0.55	0.02	0.54	-0.01
Indonesia	0.70	0.70	0.71	0.71	0.00	0.69	-0.01
Iran	2.91	3.00	3.22	3.60	0.38	2.86	0.04
Iraq	4.35	4.43	4.22	4.35	0.13	3.99	0.66
Kuwait ²	2.81	2.83	2.83	2.83	0.00	2.78	-0.02
Libya	0.38	0.38	0.36	0.40	0.04	0.40	-0.06
Nigeria	1.80	1.87	1.78	1.90	0.12	1.80	-0.10
Qatar	0.64	0.64	0.64	0.67	0.03	0.66	-0.05
Saudi Arabia ²	10.14	10.21	10.23	12.26	2.03	10.17	0.45
UAE	2.89	2.91	2.86	2.93	0.07	2.88	0.12
Venezuela ³	2.37	2.35	2.37	2.46	0.09	2.40	-0.06
Total OPEC	32.39	32.70	32.61	35.59	2.98	32.05	1.07
<i>(excluding Iraq, Nigeria, Libya)</i>					2.69		

¹ Capacity levels can be reached within 90 days and sustained for an extended period.

² Includes half of Neutral Zone production.

³ Includes upgraded Orinoco extra-heavy oil assumed at 500 kb/d in February.

Deep Freeze

On the face of it, a mid-February offer by Saudi Arabia, Venezuela, Qatar and Russia to freeze production at January levels will not make an immediate impact on a massively over-supplied world oil market. But the pain caused by \$30/bbl oil was at least enough to trigger a first stab at co-ordinated action that is intended to stabilise prices. The eventual target is believed to be an oil price of around \$50/bbl.

Brent crude is now trading at around \$40/bbl and a new round of freeze discussions has been suggested for the end of March or early April. A meeting of Latin American oil producers – including Venezuela, Ecuador, Colombia and Mexico – was due to take place on 11 March, but reportedly has been postponed.

The initiative to hold output at January levels agreed in Doha is conditional on the participation of other major producers inside and outside OPEC. “A freeze is the beginning of a process,” Saudi Oil Minister Ali al-Naimi said at the IHS CERAWeek conference in Houston on 23 February. “If we can get all the major producers to agree not to add additional barrels then this high inventory we have now will probably decline in due time.” He insisted the proposal did not signal an imminent production cut. “That is not going to happen because not many countries are going to deliver,” he said. “There is no sense in wasting our time seeking production cuts.” This initiative may also signal that Riyadh is subtly shifting its market policy from completely hands-off to one of a light touch.

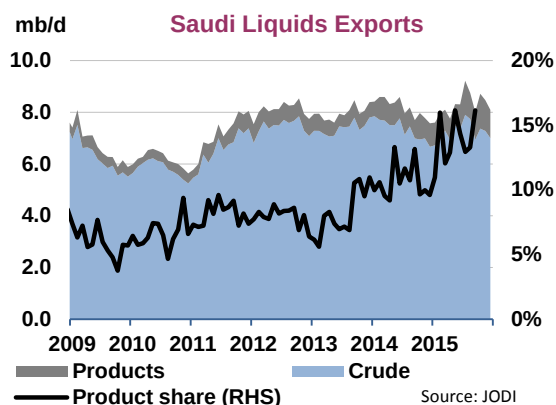
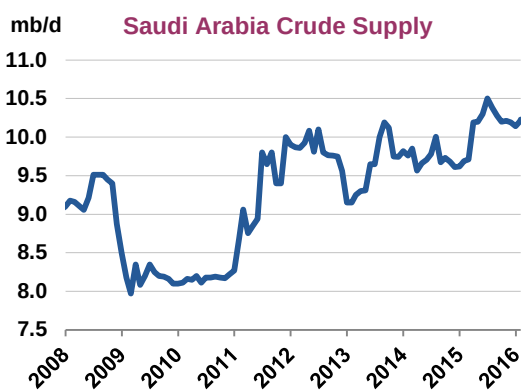
As for current supply dynamics, the world’s leading oil exporters Saudi Arabia and Russia were pumping at or near record highs during January. In terms of OPEC supply, only post-sanctions Iran is expected to show any significant upside potential. It is, however, unlikely that Iran, which plans to boost crude exports to 2 mb/d this summer, will participate in any agreement to restrain supply.

Iraq, OPEC’s second biggest producer, has yet to commit although its growth prospects this year are limited – not just by reduced spending but also by heightened instability. For OPEC countries, the freeze would be based on the January production level of 32.34 mb/d that was reported by secondary sources to the group’s secretariat. Those figures peg output from Saudi Arabia at 10.09 mb/d, Iran at 2.93 mb/d and Iraq at 4.38 mb/d.

The freeze initiative has been described as a trust-building exercise that is the first step of a bigger process. It is worth noting, however, that previous attempts to orchestrate OPEC and non-OPEC action have shown mixed results. Russia has endorsed the freeze at the highest level, but it remains to be seen if it will cooperate fully. In 2001 Moscow agreed to curb supply along with OPEC, but never delivered and actually increased exports.

In any case, the Russian Energy Minister Alexander Novak has said 2016 production is to stay roughly equal to the 2015 average, which implies that output would decline from current highs. Major oil companies have also cut production targets in response to lower oil prices and spending cuts, while smaller companies, which made up most of last year’s gains, have few new projects in the pipeline for this year.

Output in **Saudi Arabia** inched up 20 kb/d in February to 10.23 mb/d, with exports to world markets holding relatively steady, according to preliminary tanker tracking data. A determination to defend market share and satisfy internal demand has pushed the Kingdom’s production above the 10 mb/d mark for a solid year.



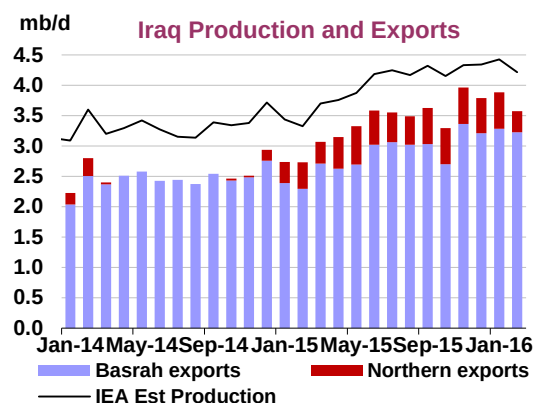
“Our view is market forces determine the price of oil and we will maintain our market share and markets will recover,” Saudi Foreign Minister Adel al-Jubeir said on 5 March. To that end, Saudi Aramco adjusted formula prices for oil loading in April in line with market expectations, but capped the increase in a bid to stay competitive with rival crudes. The official selling price (OSP) for flagship Arab Light for loadings to Asia – Saudi Arabia’s biggest export market – was raised by \$0.25/bbl versus March to a discount of \$0.75 /bbl to the Oman/Dubai average.

This competitive pricing strategy saw Saudi crude exports in 2015 average 7.4 mb/d – up 300 b/d on the previous year, according to the latest official figures submitted to the Joint Organisations Data Initiative (JODI). Total Saudi liquids exports, excluding condensates and NGLS, averaged around 8.5 mb/d last year, a rise of 500 kb/d on 2014.

Production in **Kuwait** and **Qatar** was also steady in February at 2.83 mb/d and 640 kb/d, respectively. Output in the **UAE** fell by 50 kb/d to 2.86 mb/d due to maintenance at the Murban oil field development. The UAE has meanwhile appointed Sultan al-Jaber as director general of the Abu Dhabi National Oil Co (Adnoc), which controls the majority of the UAE’s production. He replaces Abdulla Nasser al-Suwaidi, who had been in charge of Adnoc since June 2011. Jaber is a minister of state and a member of the federal cabinet. He is also chairman of Masdar, Abu Dhabi’s renewable energy company, and chief executive of Mubadala Energy.

Iraqi production fell by 210 kb/d to 4.22 mb/d in February after reported sabotage halted some 600 kb/d of flows along the northern pipeline that delivers crude to the Turkish port of Ceyhan. The pipeline and supply setback that began in mid-February follows a banner month in which Iraq pumped a record 4.43 mb/d. Repairs on the Turkish section of the pipeline are reportedly due to be completed shortly.

Shipments from the northern Kurdish region and Kirkuk in February were cut nearly in half to 350 kb/d – a devastating disruption for the cash-strapped KRG. The Kurdish region was left with just \$233 million in February export revenue after it allocated \$70 million to producers. That is less than half the \$650 million it received for crude oil sales in January.



By contrast, southern Iraq continued to turn in a strong performance. Shipments of flagship Basra crude dipped by 60 kb/d in February to 3.23 mb/d due to stormy weather – but have held above the 3.2 mb/d mark for four months running. Even so, low oil prices meant that Baghdad’s earnings fell to \$2.2 billion from \$2.26 billion in January.

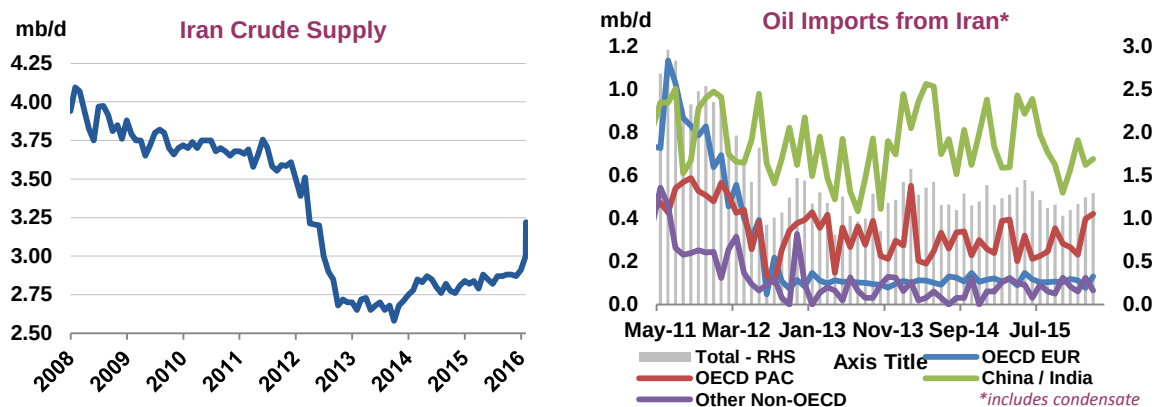
The falling oil revenues and budgetary strain have forced the federal government to slash the budgets of the international oil companies developing its southern oil fields. Foreign operators had initially proposed to spend \$23 billion, but Iraqi Oil Minister Adel Abdul Mahdi said Baghdad’s 2016 oil expenditure has been cut to “a little more than \$9 billion” from \$13 billion last year.

The KRG is struggling to make timely payments to foreign contractors including to those producing from key exporting fields such as Taq Taq, Tawke and Shaikan. In a setback to the KRG’s oil development plans, Genel Energy, a key operator in Kurdistan, made a major downgrade to reserves at the Taq Taq field and said its production performance is likely to deteriorate due to geological issues. Taq Taq is now pumping only around 80 kb/d – a dramatic decline from a rate of 150 kb/d reached last year. Output is expected to slump to as low as 50 kb/d by 2018.

Iranian production rose by 220 kb/d to a four-year high of 3.22 mb/d in February following the mid January lifting of nuclear sanctions. A resumption of crude oil sales to Europe during the first full month of sanctions relief and higher sales to existing customers in Asia helped push crude oil exports above 1.4 mb/d – up from around 1.15 mb/d just before sanctions were eased.

Shipments of crude in March, much of it Iranian Heavy, are expected to rise by around 150 kb/d, according to preliminary data. Before sanctions were tightened in mid-2012, Tehran was exporting roughly 2.2 mb/d of crude to world markets. Europe accounted for around 600 kb/d of that total.

Crude oil sales to Europe in February were around 140 kb/d – with Total, Cepsa and Litasco – the Swiss-based trading unit of Lukoil - making purchases. Exports are expected to climb to 250 kb/d in March, with Total importing more than half the volume. Italian refiner Iplom is also expected to buy Iranian crude. Iran is poised to make more headway in Europe when Greek refiner Hellenic Petroleum restarts imports and supply arrangements with Eni and Saras are finalised.



Regular buyers in Asia including South Korea, Japan and India have also stepped up purchases. South Korea's imports of around 200 kb/d so far this year are nearly double that of 2015. Progress in ramping up crude sales has been somewhat slowed by the wariness of banks and ship owners to do business with Iran. To compensate, the National Iranian Oil Co (NIOC) is reportedly offering deferred payment options to major buyers. Iran is also negotiating with Egypt to resume use of the Sumed oil pipeline, which could offer an additional export outlet to Europe. Storage at the end point of Sidi Kerir on the Mediterranean coast is full, however, and free tank space might not be available for several months.

While crude oil loadings have increased, exports of condensate were just 80 kb/d in February. That compares to average exports of roughly 130 kb/d in 2015. Iran has also been storing at sea more of the ultra-light oil from Iran's South Pars gas project. Volumes stored rose by 4 million barrels in February to 42 million - the highest since August 2015. There are now 21 Iranian VLCCs engaged in storage. This is 50% of the National Iranian Tanker Co fleet.

Royal Dutch Shell has meanwhile paid 1.77 billion euros (\$1.94 billion) it owed NIOC. The outstanding debt was a result of Iranian deliveries that Shell was unable to pay for while nuclear sanctions were in place. Payment was made in euros as dollar transactions still fall under US sanctions.

For OPEC's African members, February offered little cheer. In **Nigeria**, output fell by 90 kb/d to 1.78 mb/d after an attack on a sub-sea pipeline forced the shut-in of 250 kb/d of Forcados production. Shell declared *force majeure* on Forcados shipments on 21 February after it found an oil spill near the terminal. Industry sources said it might be weeks before loadings restart, as the damage is extensive. The incident is also affecting domestic gas supply. Attacks on oil installations have increased since President Muhammadu Buhari pledged to stamp out oil theft and corruption. The government has responded by sending extra troops to guard oil facilities in the Niger delta. Production in **Angola** held steady at

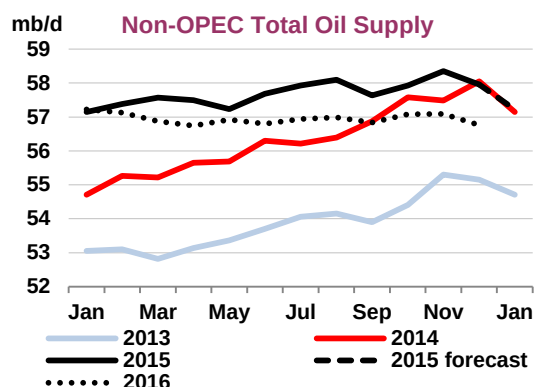
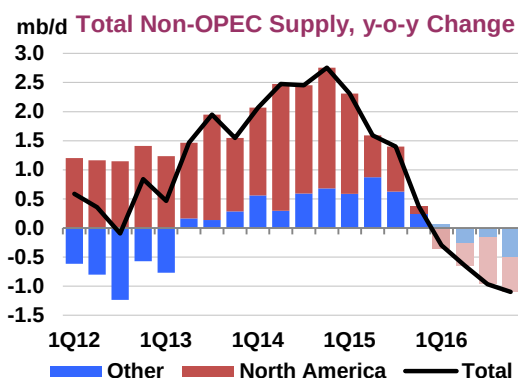
1.76 mb/d in February. Similarly, in South America, output in **Ecuador** and **Venezuela** was stable month on month (m-o-m) at 530 kb/d and 2.37 mb/d, respectively.

In North Africa, **Libyan** output dipped by 20 kb/d to 360 kb/d in February, the lowest in a year and a small fraction of the 1.6 mb/d that was pumped before Muammar Gaddafi was ousted in 2011. Direct targeting of the oil sector by militants linked to Islamic State escalated at the start of the year, with strikes on the terminals at Es Sider and Ras Lanuf. These vital ports have been closed since December 2014 and now only two of seven onshore loading terminals are operational. Libya is stuck in a battle between the officially recognised government in the east and the so-called Libya Dawn administration in Tripoli.

Crude oil supply in **Indonesia** inched up to 710 kb/d in February. Production from the ExxonMobil-operated Cepu block at the Banyu Urip field reportedly reached 165 kb/d in early March. A new target of 185 kb/d has been set for the block, which has the potential at least to sustain the country's crude output.

Non-OPEC overview

Lower prices and spending curbs are clearly starting to impact non-OPEC oil production. In the latest round of investor updates, oil companies in the US, Latin America, the Caspian, the North Sea and China took another axe to spending plans and output targets for 2016.



December, the latest month for which actual data is available, marked the first month of real declines in US crude and condensate output. Total US oil production slipped by 165 kb/d month-on-month, despite a rebound in output from the Gulf of Mexico (GoM). US producers removed another 106 rigs from service over the month of February, with the total rig count now standing 76% below the peak seen in October 2014. Major shale producers such as EOG, Continental, Hess and even Pioneer lowered spending and production targets for this year as oil at \$30/bbl makes investment too costly. This is a clear signal of lower supplies to come.

The latest round of cuts was not limited to the US, however, with Petrobras, faced by a crippling corruption scandal, huge debts and political instability in Brazil, also curbing its output and spending plans yet again in February. The beleaguered state producer now expects only marginal output growth in 2016, despite a number of new production units set to enter service. Renewed attacks on oil infrastructure in Colombia add to the challenge of maintaining output levels. Furthermore, state-controlled Ecopetrol has applied for permission to suspend operations at some marginal fields, prompting the government to curb its output expectations for the year as a whole.

After underpinning Chinese's production gains in 2015, offshore producer CNOOC, announced that it expects its domestic output to slip by 1.5% this year, much like PetroChina and Sinopec whose mature

fields are in decline. Sinopec also announced it would shut four smaller fields at its massive Shengli field over the course of 2016 to stem financial losses. Marginal oil fields are also being shut in the North Sea.

Preliminary data and estimates suggest that non-OPEC production fell by a substantial 785 kb/d in January followed by another 90 kb/d in February. The fall in January is attributed to a seasonal decline in biofuels production (-245 kb/d), further expected declines in the US (-210 kb/d), Brazil (-180 kb/d), Peru (-55 kb/d), China (-110 kb/d), and preliminary indications of lower North Sea production. February's production decline is expected to be dominated by the US and Mexico.

As a result, we have marginally cut our estimate for non-OPEC production for 2016, to 57.0 mb/d. That is 100 kb/d less than in last month's *Report* and represents a decline of 750 kb/d compared with 2015 output levels. The United States remains the main source of 2016 production declines, contracting by 530 kb/d. Other sources of decline are Mexico (-85 kb/d), Colombia (-80 kb/d), China (-50 kb/d), Kazakhstan (-50 kb/d), Norway (-40 kb/d) and Azerbaijan (-35 kb/d).

Non-OPEC Supply

(million barrels per day)

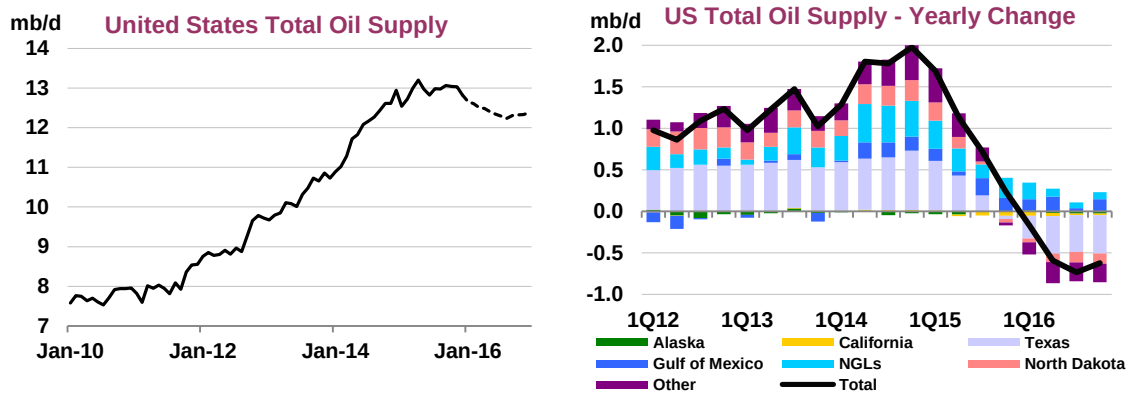
	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Americas	19.1	20.0	19.6	20.1	20.0	19.9	19.6	19.2	19.2	19.5	19.4
Europe	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.2	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	22.9	23.8	23.5	23.9	24.1	23.8	23.7	23.1	22.9	23.3	23.2
Former USSR	13.9	14.0	14.0	13.9	14.0	14.0	14.2	14.0	13.8	13.8	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Other Asia	2.6	2.8	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.4	4.6	4.5	4.5	4.6	4.6	4.4	4.5	4.5	4.6	4.5
Middle East	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.9	29.5	29.3	29.2	29.4	29.3	29.2	29.1	29.0	29.0	29.1
Processing Gains	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC	56.3	57.4	57.5	57.9	58.1	57.7	57.1	56.8	56.9	57.0	57.0
Annual Chg (mb/d)	2.4	2.3	1.6	1.4	0.4	1.4	-0.3	-0.6	-1.0	-1.1	-0.8
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.2	0.0	0.1	-0.1	-0.1	-0.2	-0.1

OECD

North America

US – February Alaska actual, others estimated: Total US oil production fell by 165 kb/d in December from a month earlier, to 12.87 mb/d, slipping below year earlier levels for the first time since the start of 2011. The fall in US onshore crude output was partly offset by a rebound in US GoM production, resulting in a drop of only 45 kb/d in total US crude and condensate supplies. Natural gas liquids output and the supply of other non-hydrocarbon liquids (additives and oxygenates) fell by 120 kb/d (60 kb/d each) from the month prior.

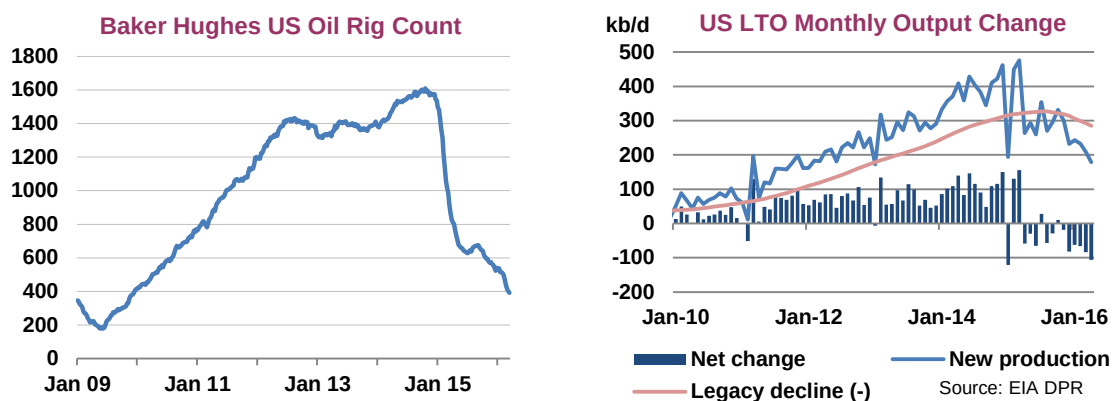
While total US crude and condensate production slipped by a marginal 45 kb/d in December, onshore oil production was down by a more significant 155 kb/d with output in the major shale producing states dropping sharply. Notably, North Dakota production fell by just under 30 kb/d from a month earlier, to 1.14 mb/d according to the latest EIA data, or 85 kb/d below year-earlier levels. Production in Texas, the largest US producing state by volume, dropped by 65 kb/d from November. At 3.34 mb/d, output was 172 kb/d less than a year prior. Other LTO producing states such as Colorado, Oklahoma and New Mexico also saw monthly declines, of 10 kb/d, 10 kb/d and 40 kb/d, respectively.



December's output drop is likely only the start of what is in store for US LTO producers in 2016. Continental, Hess Corp and EOG slashed their 2016 budgets last month for the second straight year. Continental announced it would pump 9% less oil this year as it can no longer afford to extract more crude at low prices. EOG cut its capital budget by 50% for this year, to \$2.6 billion, and targets a production drop of 5%. Even Pioneer, which has so far refrained from dropping rigs and cutting its budget, announced in its latest investor update that it will cut its 2016 capital spending by 9% from last year to \$2 billion and cut its rig count to half of the late 2015 levels. The company nevertheless expects to grow production by 10% this year.

Because of the spending cuts, the number of oil rigs operating in the US has declined sharply in recent months. The latest update from Baker Hughes shows the number falling to 392 in early March, 106 less than at the end of January and 144 fewer than at the end of 2015. The number of oil rigs working in the US now stands 76% lower than at its peak in October 2014.

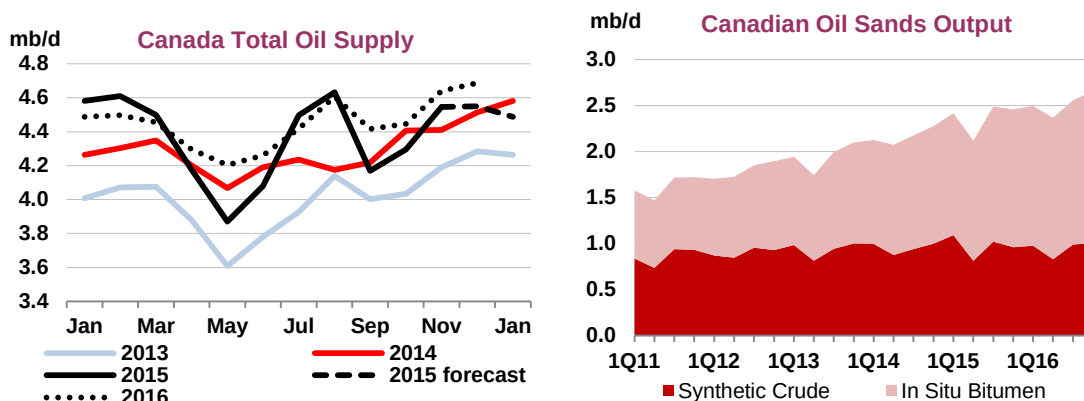
In its latest *Drilling Productivity Report* released on 7 March, the US EIA estimated that declines in oil output in the seven most prolific shale resource basins will accelerate through April, to as much as 106 kb/d on a monthly basis. Total LTO output in April is estimated to fall to 4.87 mb/d in April, 420 kb/d less than in October 2015, after six consecutive months of decline.



In contrast, and providing a partial offset, output in the US GoM rebounded in December from month-earlier levels. Total output rose by 112 kb/d, to 1.6 mb/d. New projects commissioned over 2015 underpinned annual gains of 180 kb/d in the latest month. Output is expected to continue to rise this year, with several new projects commissioned. Notably, Anadarko's 80 kb/d Heidelberg field started up in January, ahead of schedule. Later this year, several other developments will come on stream: Shell's Stones development (60 kb/d), ExxonMobil's Julia (34 kb/d), Walter Oil & Gas' Coelacanth (30 kb/d) and Noble's Gunflint (20 kb/d). In all, total US oil output is forecast to decline by nearly 530 kb/d this year, to 12.4 mb/d. US crude and condensates, and, most notably, LTO production see the sharpest declines.

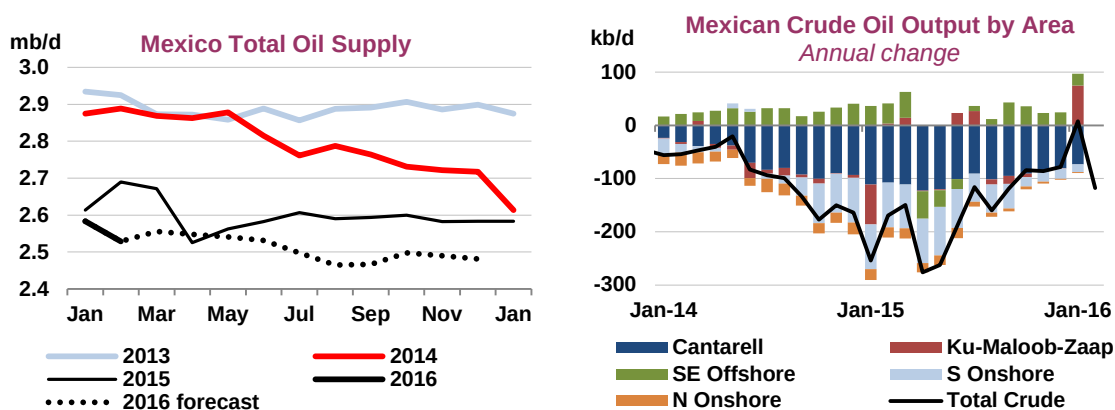
Canada – Alberta, British Colombia December actual, others estimated: After posting a sharp monthly recovery in November of nearly 250 kb/d, total Canadian oil production levels are estimated roughly unchanged in December, at around 4.55 mb/d. Production in Alberta, accounting for two-thirds of total output, inched up another 40 kb/d to 3.06 mb/d, as a slight drop in synthetic crude output was more than offset by increases in bitumen.

Lower prices are forcing Canadian producers to re-evaluate spending and production for this year. Husky Energy reduced its guidance output levels by 15 kb/d to 315-345 kboe/d, while cutting its spending plans by C\$800 million to C\$2.1-2.3 billion. The company said it would “eye savings by deferring discretionary activities in Western Canada”. Benchmark Western Canadian Select touched lows of \$16/bbl in January and February, but has since recovered, to stand at nearly \$27/bbl by 7 March.



Suncor, meanwhile, announced it had increased the production capacity of its Firebag oil facility from 1 January, lifting output to 200 kb/d. Suncor is focussing on lowering cost and has revised its capital budget down by C\$750 million to C\$6-6.5 billion. The company maintains its oil sands production guidance of 430 kb/d to 455 kb/d. Also, Suncor is spending money to complete its 180 kb/d Fort Hills and its 150 kb/d Hebron projects offshore Newfoundland and Labrador with first oil for both projects on track for late 2017. Total Canadian oil production will increase by 75 kb/d in 2016, to 4.45 mb/d, compared with growth of 100 kb/d in 2015 and 280 kb/d in 2014.

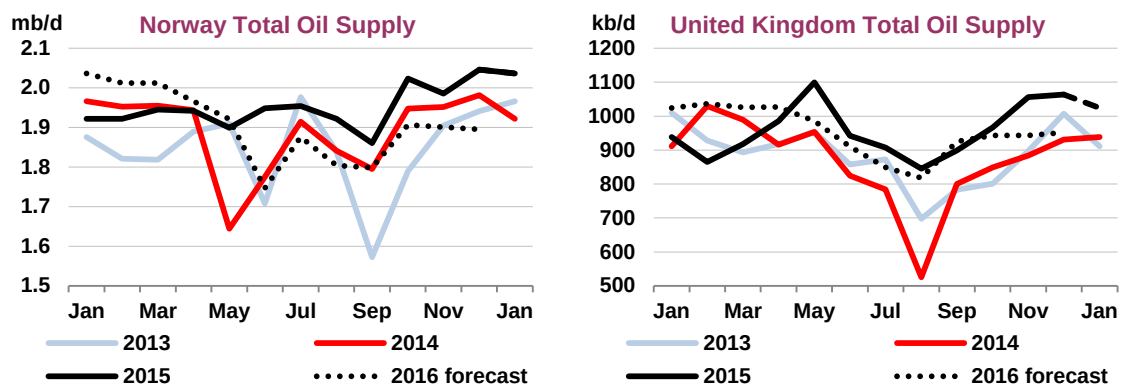
Mexico - January actual, February preliminary: After reporting steady output in January of nearly 2.6 mb/d, Mexican oil production slipped 55 kb/d in February according to preliminary data from Pemex. At 2.53 mb/d, total oil output was 160 kb/d below year-ago levels. In January, total oil output was unchanged and posted its first annual gain since the start of 2013, despite continued declines at the mature Cantarell field. The latest monthly figures show Cantarell output at just over 230 kb/d in January, a drop of 70 kb/d from a year ago.



Pemex faces a 100 billion peso (\$5.5 billion) cut to its 2016 budget, to Ps478 billion under adjustments announced by the finance ministry and the central bank. The latest budget cut comes in addition to the Ps62 billion reduction already announced for 2016 compared with the 2015 budget.

North Sea

Norway – December actual, January provisional: Preliminary data from the Norwegian Petroleum Directorate (NPD) shows oil production averaging 2.04 mb/d in January, a slight decrease from December. Output nevertheless stood an impressive 115 kb/d above the year earlier level. Final data for December were revised up 40 kb/d compared with preliminary estimates from the NPD, to 2.05 mb/d in total. Notable increases are coming from Lundin's Edvard Grieg project, which started production in December. In its first month of production, output exceeded expectations at 31 kb/d. Gross plateau production is expected to be 100 kboe/d. Despite getting the approval to start-up production at its much-delayed Goliat field in the Barents Sea, and statements that output would start in February, Eni has yet to commission its Goliat field in the Barents Sea.



UK – December actual, January preliminary: UK oil output inched marginally higher in December, marking its fourth consecutive month of growth. At 1.06 mb/d output was more than 130 kb/d higher than a year earlier, and 8 kb/d above that of November. Preliminary data published to the Joint Oil Data Initiative suggest output dropped off in January by 40 kb/d, though the preliminary data submitted for December was subsequently revised higher.

UK independent producer Premier Oil announced further delays to its Solan field, west of the Shetland Islands. The field, which was originally expected to start up in 2014, has again been delayed and is now expected to commence operations by the end of March. The field will reach a plateau of 20-25 kb/d and reportedly has operating costs of \$26/bbl. Total meanwhile started up its delayed Laggan Tomore field, also west of Shetland, in February. While most of the field's 90 kboe/d output will be gas, around 15% is estimated to be condensate.

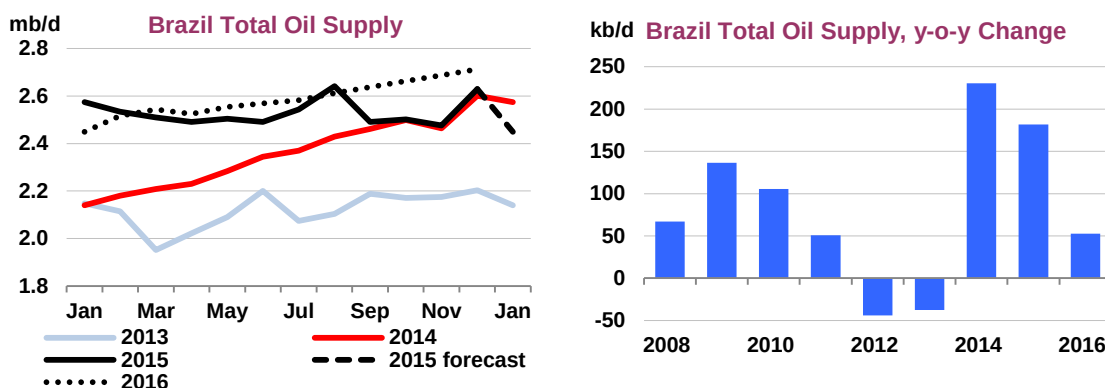
With monthly data for 2015 complete, it is clear that UK crude oil production increased 13% in 2015 to 895 kb/d, the first significant rise since 1999. Total oil output, including NGLs, increased by 90 kb/d to nearly 960 kb/d according to statistics from the Department of Energy and Climate Change (DECC). The UK Oil and Gas Authority (OGA), an executive office part of the DECC, revised up its base-case projections of UK Continental Shelf crude oil and natural gas liquids through 2021. In its February update, OGA lifted its oil output expectations for 2016 to 910 kb/d, from 830 kb/d estimated last November. The 2020 projections were also revised up from 625 kb/d to 790 kb/d, slightly lower than our own 2020 forecast published in the recent *Medium-Term Oil Market Report*.

Non-OECD

Latin America

Brazil –January actual: Brazilian oil production plunged by 180 kb/d in January, to 2.45 mb/d, on sharply lower Campos Basin output. Total supplies stood 125 kb/d below a year ago, the first decline since the start of 2014, as higher Santos Basin output (+187 kb/d) failed to offset declines at Campos basin fields.

Output from Brazil is expected to increase in coming months, however. Petrobras brought online the 150 kb/d capacity Cidade de Marica floating production and storage unit (FPSO) in mid-February. The vessel, which started producing in the Lula Alto subsalt field, is the first of four new vessels expected to come on line in 2016. The Cidade de Saquarema FPSO will go to work on the Lula Central field towards the middle of the year, and the Cidade de Caraguatatuba FPSO will be installed at the Lapa field in the second half of the year. Petrobras also plans to start long-term well tests at the Libra field towards the end of 2016. The four vessels will have a combined nameplate capacity of nearly 500 kb/d once operational and will offset declines at mature fields in the Campos Basin.



Amid the ongoing corruption scandal, which has paralysed Brazilian industry, and lower oil prices, Petrobras has again taken the axe to its spending and production plans. In its latest update, the company cut its 2016 production target by 40 kb/d, to 2.145 mb/d, and its 2020 target to 2.7 mb/d from the 2.8 mb/d announced in the previous five-year business plan (and as much as 4.2 mb/d planned initially). It also cut spending for the five-year period to \$98.3 billion from the \$130.3 billion announced last year. Petrobras produced 2.128 mb/d in 2015, an increase of 4.6% from the previous year. The scandal, which also involves many of Petrobras' suppliers including shipbuilders, construction companies and engineering firms, threatens more significant delays to the delivery of production systems needed to develop the prolific sub-salt areas.

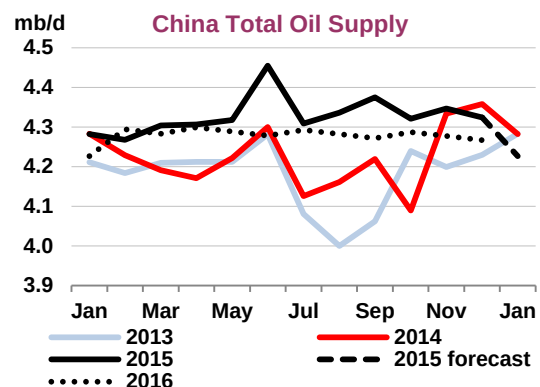
In more positive news, Petrobras secured a \$10 billion loan from the China Development Bank (CDB) potentially providing a lifeline to the company, which faces more than double that amount in maturities over the next two years. The loan is part of a deal to supply crude to China, though information on the volumes and terms agreed are not yet clear. This is the latest major deal between Petrobras and China. In 2009, a \$10 billion arrangement with China included a commitment to export as much as 150 kb/d of oil in the first year and 200 kb/d over the subsequent nine years. In May, Petrobras announced a \$10 billion agreement with three Chinese banks that included \$5 billion in loans from CDB. Petrobras Chief Financial Officer Ivan Monteiro said in November the company was studying ways to borrow against future crude exports in an effort to cut its dependence on international capital markets after the company's debt was downgraded to junk status by credit agencies. Brazil's senate also approved the removal of the mandate for Petrobras to hold a minimum 30% operating stake in sub-salt projects on 24 February. If approved by the lower congressional house, IOCs could step in, and potentially speed up the development of Brazil's vast resources.

Colombia – December actual: Colombian crude and condensate production inched up by 10 kb/d in December to just shy of 1 mb/d according to data from the Ministry of Mines and Energy. For 2015 as a whole, output averaged just over 1 mb/d, an increase of 1.5% from the previous year with a major factor being a sharp decline in attacks on oil infrastructure by the leftist guerrillas Revolutionary Armed Forces of Colombia (FARC) and National Liberation Army (ELN). Renewed attacks on pipelines look set to curb output in early 2016, however. State-run Ecopetrol was forced to suspend operations of its Cano Limon pipeline on 8 February after it was targeted by two bomb attacks. The 780 km pipeline transports around 210 kb/d of crude. Only a week later, guerrillas from ELN reportedly blew up a section of the 200-mile long Transandino crude oil pipeline, which carries 85 kb/d of oil to the Pacific Tumaco port in February.

Colombian oil production is expected to drop in 2016 as, in addition to renewed sabotage, three years of investment cuts are beginning to impact output. In response to lower prices, Ecopetrol asked the regulator for permission to shut in output at its onshore Akacias field in early March. The field produces just under 7 kb/d. Ecopetrol received the approval to shut another marginal field (Cano Sur) last month. The Colombian finance ministry has again cut its 2016 output goal from an initial target of 955 kb/d, and 944 kb/d announced last month, to 921 kb/d. Consequently, we have slightly downgraded our forecast for Colombian production for 2016, which is now seen declining by 80 kb/d y-o-y to 930 kb/d.

Asia

China – January preliminary: According to data issued by the National Development and Reform Commission (NDRC), in late February, Chinese crude oil production fell to 17.69 mt, or 4.17 mb/d in January, sharply lower than both the previous month and a year earlier. While the National Bureau of Statistics (NBS) will only release January and February production data later in March due to the Lunar New Year celebrations, final NBS data show output declining by nearly 70 kb/d from a year earlier in December, taking full year crude production levels to 4.28 mb/d, some 70 kb/d above the 2014 average levels. The gains stemmed from China's National Offshore Oil Company (CNOOC), which brought on line several new offshore fields in the Bohai and South China Sea last year and provided an offset to field decline elsewhere.



Chinese total oil production, including non-conventional oil supplies, is expected to decline in 2016, by 50 kb/d, to average just under 4.3 mb/d. Lower prices are forcing Chinese oil companies to scale back output plans, and even CNOOC has announced it will cut domestic production by 1.5% this year, after leading gains in 2015. The offshore producer plans to cut 2016 capital expenditures by 11%, after slashing spending by 37% last year.

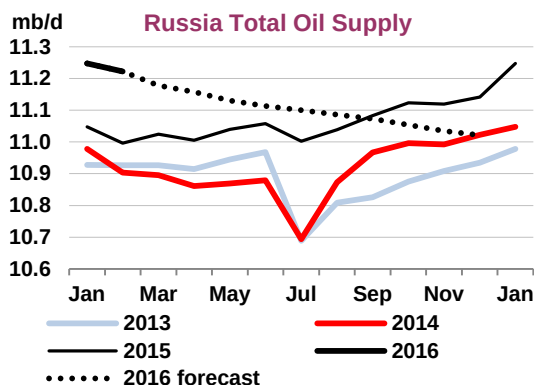
The country's two largest producers are also expected to see output declines this year. CNPC's domestic oil production is set to decline due to lower output from aging fields, e.g. Daqing and as more marginal wells are shut due to poor economics. PetroChina, which controls the group's domestic oil fields, produced 2.2 mb/d of crude in the first nine months of 2015, down 1.5% y-o-y according to the latest available company update. Output at Daqing, China's largest oil field, dropped by 30 kb/d last year and the company has stated that output will decline by a similar amount each year in the period 2016-20.

State-owned Sinopec, meanwhile, announced in February that it will shut four marginal oilfields at its Shengli field this year. Shengli, China's second largest field producing 540 kb/d, lost \$1.4 billion in 2015 due to tumbling oil prices. Output at the Xiaoying, Yihezhuang, Tahoe and Qiaozhuang fields, with output of 60,000 mt/year, or 1.2 kb/d, will be suspended during 2016. According to the company's most recent operations report, Sinopec cut its domestic output by 4.34% y-o-y over the first nine months of 2015:

Viet Nam – February preliminary Vietnam's crude oil production fell by nearly 20 kb/d in February to 310 kb/d, according to government data. Actual output for January was revised up from preliminary estimates of 315 kb/d to 330 kb/d, showing a 15 kb/d year-on-year decline.

Former Soviet Union

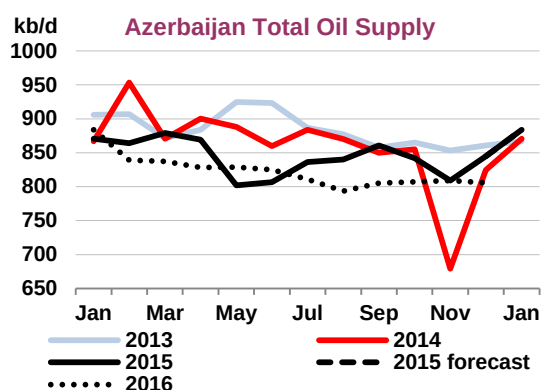
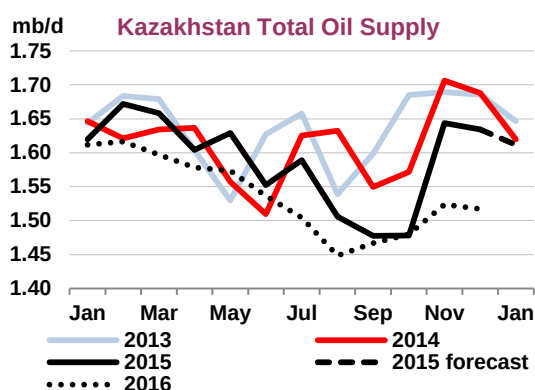
Russia –January actual, February provisional: Amid talks of freezing output at January's level, Russian crude and condensate production was essentially unchanged in February, near 10.9 mb/d. Output was 25 kb/d lower than the previous month, but stood more than 220 kb/d above a year earlier. The latest data published by the Central Dispatching Unit, the statistical arm of the energy ministry, show the three production sharing agreements (PSAs) raised output by 12.7% from the previous year, to 235 kb/d in February. Other notable gains came from Bashneft and other smaller producers, such as Novatek. Following record growth in 2015, of 51%, Russia's second largest gas producer plans to increase its crude and condensate production from 180 kb/d in 2015 to 235 kb/d this year. The majority of the gain will come from the company's 70 kb/d Yaudeyskoye field, which it launched in January. SeverEnergiya, Novatek's JV with Gazprom Neft accounted for most of the growth last year.



Russia's three largest producers, Rosneft, Lukoil and Surgutneftegaz, meanwhile, continue to see output declining marginally. The three companies, which made up 60% of Russian crude and condensate output in the most recent month, saw output decline by 92 kb/d from a year earlier. Surgutneftegaz announced earlier this year that it expects its crude production to drop by 0.4% in 2016, as output from new fields will not be enough to offset declines at mature fields in Western Siberia. Lukoil, which saw the steepest declines in recent months, could get a boost this year, once it launches its Filanovsky field in the Caspian Sea. CEO Vagit Alekperov said recently that the field will see first output in August or September. Russia's largest producer, Rosneft, is facing natural declines, with some sources saying the company expects a 2% decline in output this year.

Kazakhstan – January actual: Oil output in Kazakhstan was largely unchanged in January at 1.7 mb/d, of which 1.6 mb/d was crude oil and condensates. The latest oil price slump has prompted Kazakh oil companies to further reduce drilling and workover operations. Nostrum Oil and Gas, which operates projects in northwest Kazakhstan, scaled back drilling plans for 2016, thus lowering its output forecast for 2017. The company now expects output to be 45-60 kb/d in 2017, compared with an earlier target of 70 kb/d. While Tengizchevroil has yet to publish production plans for its giant Tengiz and Korolev fields for 2016, planned maintenance at the field's second generation plant and sour gas injection facilities in August is expected to curb output. The company increased output by nearly 2% last year, to average 595 kb/d, close to the facility's 600 kb/d nameplate capacity. Chevron, which holds a 50% stake in the Tengizchevroil joint venture, said in late January it remains committed to a planned expansion project that would lift output by 250-300 kb/d, but reiterated that it is holding off from taking a final investment decision.

The Kazakhstan government has revised down its crude production forecast for 2016 and its oil price assumption for the budget. It now expects crude production to fall to 1.54 mb/d, from 1.59 in 2015, due to the maintenance planned at the Tengiz field, decline at mature fields and delays to new capacity coming on line. The government still hopes that the long-delayed Kashagan project will be restarted this year, though we anticipate that the project will more likely only start up in 2017. The new budget is based on an oil price of \$30/bbl for 2016, down from \$40/bbl used previously.



Azerbaijan – January actual: After dipping to just 800 kb/d in December, Azeri oil production bounced back by 40 kb/d in January. Output had fallen back after a fire at Socar’s Gunashli platform in the Caspian Sea on 4 December forced the company to shut the pipeline system connecting the field’s 28 oil and gas wells. The fire was extinguished in on 10 February, and Socar expects to resume normal operations by end-May. The outage is expected to curb Socar’s production by an average of 10 kb/d for 2016, according to the company.

Output at BP’s nearby Azeri-Chirag-Deepwater Gunashli (ACG) complex was unaffected by the fire. Production at the complex averaged 634 kb/d in 2015, marginally lower than in 2014, in part due to maintenance. Declines at the Azeri-Chirag-Guneshli (ACG) fields, which account for most of Azerbaijan’s oil output, are largely responsible for the expected decline in total Azeri oil production in 2016, of nearly 40 kb/d. This will take production down to 810 kb/d.

FSU net oil exports FSU net-exports soared by 0.66 mb/d to hit 10.14 mb/d in January, their highest level for ten months. Crude exports increased by 0.27 mb/d to 6.7 mb/d with Russian volumes shipped via the Transneft network accounting for the lion’s share (0.24 mb/d) of the increase. The bulk of the extra cargoes were shipped via Novorossiysk on Russia’s Black Sea coast. Shipping data suggests that most of these volumes were imported by European refiners in Greece, Italy and Turkey.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	1Q2015	2Q2015	3Q2015	4Q2015	Nov 15	Dec 15	Jan 16	Latest month vs. Dec 15 Jan 15	
Crude											
Black Sea	1.62	1.64	1.83	1.56	1.59	1.60	1.71	1.56	1.76	0.21	-0.01
Baltic	1.33	1.45	1.47	1.45	1.38	1.51	1.59	1.42	1.48	0.06	-0.04
Arctic/FarEast	1.14	1.41	1.36	1.41	1.41	1.47	1.39	1.54	1.56	0.03	0.26
BTC	0.60	0.62	0.64	0.61	0.61	0.61	0.57	0.66	0.69	0.03	-0.03
Crude Seaborne	4.69	5.12	5.29	5.03	4.98	5.20	5.26	5.17	5.50	0.32	0.18
Druzhba Pipeline	1.01	1.07	1.07	1.08	1.06	1.08	1.04	1.05	1.01	-0.03	-0.01
Other Routes	0.40	0.24	0.25	0.24	0.23	0.21	0.21	0.21	0.21	0.00	-0.04
Total Crude Exports	6.14	6.43	6.61	6.35	6.27	6.49	6.51	6.43	6.70	0.27	0.12
Of Which: Transneft ¹	3.88	4.19	4.27	4.16	4.08	4.23	4.26	4.03	4.27	0.24	-0.02
Products											
Fuel oil ²	1.72	1.49	1.65	1.51	1.31	1.48	1.50	1.57	1.60	0.03	-0.10
Gasoil	0.95	0.98	1.22	1.03	0.82	0.84	0.82	0.86	1.15	0.29	-0.09
Other Products	0.57	0.66	0.73	0.69	0.58	0.66	0.59	0.69	0.75	0.06	0.02
Total Product	3.25	3.13	3.61	3.23	2.71	2.97	2.92	3.11	3.50	0.39	-0.17
Total Exports	9.38	9.56	10.22	9.58	8.98	9.46	9.43	9.54	10.20	0.66	-0.05
Imports	0.08	0.06	0.05	0.06	0.07	0.08	0.07	0.07	0.06	0.00	0.02
Net Exports	9.30	9.50	10.17	9.53	8.91	9.38	9.36	9.48	10.14	0.66	-0.08

Sources: Argus Media Ltd, IEA estimates

¹Transneft data exclude Russian CPC volumes.

²Includes Vacuum Gas Oil

Deliveries to Baltic ports remained relatively stable (+0.06 mb/d m-o-m), although this masked that exports via Ust-Luga rose by 140 kb/d which more than offset a 90 kb/d fall in shipments via Primorsk. Flows through the Druzhba pipeline have remained relatively constant at just over 1 mb/d in recent months with customers in Central and Eastern Europe maintaining their imports despite the competition from Middle Eastern sour crudes.

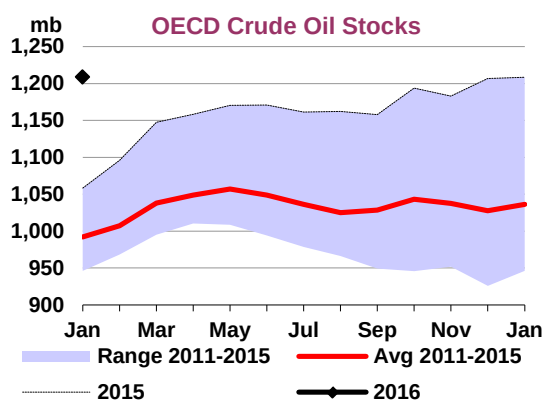
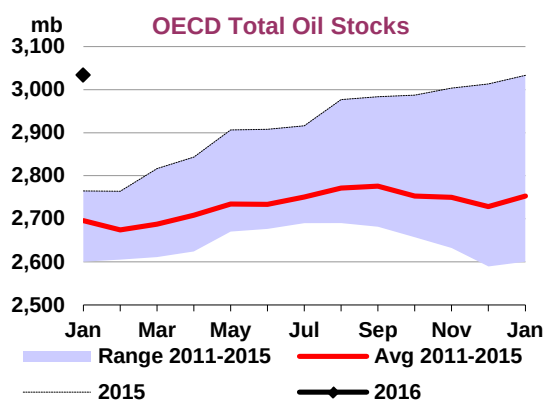
In the East, shipments in January via the ESPO pipeline exceeded 1 mb/d for the second consecutive month, with 350 kb/d shipped via the spur line to Daqing and the rest shipped via the Kozmino terminal which has now been expanded to accept 1 mb Suezmax sized vessels. Shipping data suggest that China is importing more and more ESPO crude and at the end of 2015 overtook Germany to become Russia's biggest customer. In January, China imported nearly 60% of all cargoes leaving Kozmino while teapot refiners in the north of the country have recently begun importing crude via train from Russia.

Exports of refined products rose by 0.39 mb/d in January with gasoil accounting for 0.29 mb/d of the increase. Refiners hiked deliveries of 10 ppm product to northern ports, by a total of 0.17 mb/d with much of these being railed to the Latvian terminal of Ventspils. Shipping data suggest these volumes were destined for northern Europe. Meanwhile, gasoil shipments from Black Sea ports increased by 0.13 mb/d. Much of this material was likely to be sub-Euro 5 specification and thus shipped to markets in Africa and Asia. Exports of fuel oil have fallen in the wake of last year's Russian tax manoeuvre and as refiners use more VGO as a feedstock following the completion of a raft of upgrading projects. Accordingly, in January, exports were 0.1 mb/d below one year earlier.

OECD STOCKS

Summary

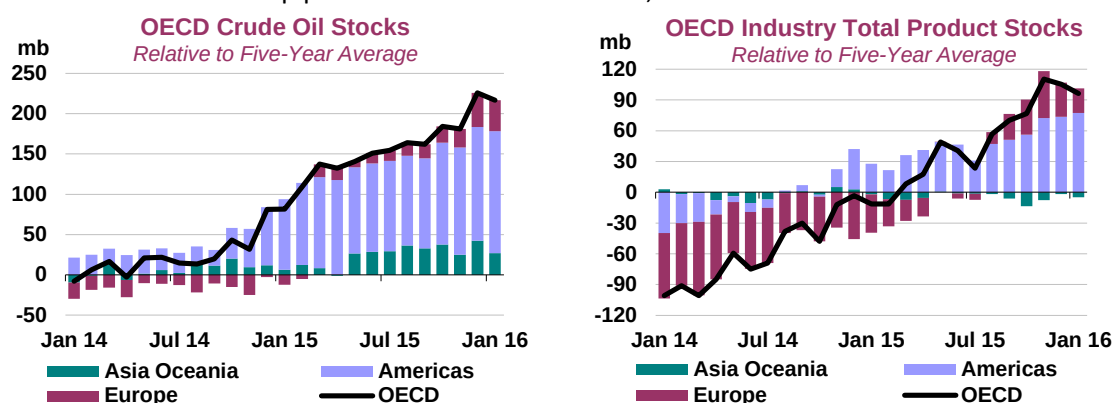
- **End-2015 was characterised by stockholders in both the OECD and non-OECD continuing to fill their tanks at impressive rates.** Stocks in the OECD added 0.3 mb/d in 4Q15 while those in the non-OECD, could have risen by up to 1.1 mb/d over the same period. China may have accounted for more than half of this, and evidence suggests that inventories built in India and in the Singapore region.
- **OECD commercial inventories gained 20.2 mb in January**, although since this was less than the 32.2 mb average build for the month, the overhang of stocks versus average levels fell to 338 mb from a record 350 mb one month earlier. Demand cover remains healthy with OECD refined products inventories covering 32.7 days of forward demand at end-January, significantly above both year ago and average levels.
- **Preliminary data suggest that OECD inventories drew for the first time in a year as they fell by 6.3 mb in February.** As refinery maintenance in the OECD ramped up, crude oil stocks increased by 10.8 mb while refined products drew by a relatively shallow 14.7 mb. Middle distillates inched down by 3.6 mb during a month when they have drawn by 18.9 mb on average over the past five years as heating demand remained lacklustre in key markets.
- **Chinese national crude stocks built by a record 1.4 mb/d in December** with some of these volumes destined for newly completed strategic storage capacity at Zhoushan and Jinzhou. The pace of builds has likely dropped in January and February.
- **At end-February, 72 mb of crude oil was stored on the water, approximately 17 mb above a year earlier.** Volumes continue to be driven by cargoes of Iranian condensate held on NITC-owned tankers in the Middle East Gulf, which totalled 42 mb at end-month. Other volumes are stored off Singapore and Northwest Europe.



Global overview

At the end of 2015 and in the early part of 2016 stockholders in both the OECD and non-OECD filled their tanks at impressive rates. According to the revised (see *Recent developments in floating storage*) *Miscellaneous to balance* line item carried in Table 1 of this *Report*, non-OECD stocks could have added up to 1.1 mb/d in 4Q15. Chinese inventories likely accounted for more than 50% of this as information suggests that first oil could have reached tanks at newly commissioned strategic sites. Elsewhere in Asia, evidence suggests that crude stocks built in India at the recently completed Paradip refinery. Although land-based product stocks in Singapore fell in the fourth quarter, reports circulate that stocks increased

in neighbouring countries. Other components of the *Miscellaneous to balance* line item include higher stocks held at refineries and pipeline fills in the Middle East, Latin America and Asia.



In the OECD, the fourth quarter build was split between the Americas and Europe, which increased stocks of both crude and products while holdings in Asia Oceania fell. A similar regional picture has prevailed into January. Although while crude has built in the Americas, as refiners there have entered maintenance, product holdings have increased in Europe as imports from the Americas, the FSU and the Middle East have remained high. This in turn has helped to pressure product cracks, notably for middle distillates, to multi-year lows.

Preliminary Industry Stock Change in January 2016 and Fourth Quarter 2015

	January 2016 (preliminary)				(million barrels per day)				Fourth Quarter 2015			
	(million barrels)								(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	20.7	-1.7	-17.3	1.8	0.67	-0.05	-0.56	0.06	0.27	0.22	0.04	0.53
Gasoline	21.2	6.3	1.8	29.3	0.68	0.20	0.06	0.94	0.11	0.02	0.00	0.13
Middle Distillates	2.7	9.3	-2.8	9.2	0.09	0.30	-0.09	0.30	0.16	-0.01	-0.01	0.13
Residual Fuel Oil	1.7	-2.9	-2.4	-3.6	0.05	-0.09	-0.08	-0.12	0.03	0.03	-0.01	0.04
Other Products	-27.6	-1.4	2.1	-27.0	-0.89	-0.05	0.07	-0.87	-0.19	0.01	-0.08	-0.26
Total Products	-2.0	11.3	-1.4	7.9	-0.07	0.36	-0.04	0.25	0.11	0.05	-0.11	0.04
Other Oils ¹	5.0	1.5	4.1	10.6	0.16	0.05	0.13	0.34	-0.16	-0.04	-0.04	-0.25
Total Oil	23.7	11.1	-14.6	20.2	0.76	0.36	-0.47	0.65	0.21	0.22	-0.11	0.33

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD inventory position at end-January and revisions to preliminary data

OECD commercial inventories gained 20.2 mb in January, although since this was less than the 32.2 mb five-year average build for the month, the overhang of stocks versus average levels fell to 338 mb from a record 350 mb one month earlier. Crude inventories added a slim 1.8 mb over the month as a steep 17.3 mb draw in Asia Oceania nearly offset a 20.7 mb build in the Americas. Meanwhile, NGLs and other refinery feedstocks increased by a combined 10.6 mb with all OECD regions posting builds. Refined products holdings rose by 7.9 mb, although this was far shallower than the average 16.9 mb build for the month, after the increase was tempered by plummeting 'other products' stocks (essentially propane) in the US as space heating demand picked up. Refined products inventories covered 32.7 days of forward demand at end-month, 0.4 days, 2.3 days and 2.1 days above the previous month, the previous year and the five-year average respectively.

By end-month, stocks of all refined product categories stood above average in the OECD with the overhang of total products standing at 96 mb. The lion's share of the overhang was accounted for by middle distillates that stood 59 mb above average after having built for nine of the last 12 months, during which they added over 80 mb. These bloated inventories, and the lack of sustained cold weather in key heating oil markets, has put pressure on middle distillates cracks, which currently remain at multi-year lows.

Upon the receipt of more complete data, December inventories were adjusted upwards by a slim 1.8 mb with Asia Oceanian and European stocks now being seen 8.6 mb and 4.0 mb, higher, respectively, more than offsetting a 10.8 mb downward revision to inventories in the OECD Americas. Considering that November holdings were also adjusted downwards by 0.5 mb, the net-effect of the revisions is that the counter-seasonal 7.6 mb December stock build, presented in last month's *Report*, is now even steeper at 10.0 mb which saw that month's inventory overhang reach a record 350 mb.

Revisions versus 9 February 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Nov-15	Dec-15	Nov-15	Dec-15	Nov-15	Dec-15	Nov-15	Dec-15
Crude Oil	-1.0	-3.9	-0.8	3.7	0.0	7.7	-1.9	7.4
Gasoline	0.2	-0.3	0.1	2.1	0.0	0.3	0.3	2.2
Middle Distillates	-0.1	-8.0	0.8	-0.9	0.0	0.8	0.7	-8.2
Residual Fuel Oil	0.1	1.0	0.2	-1.0	0.0	0.0	0.2	0.0
Other Products	0.2	7.9	0.1	0.2	0.0	0.0	0.3	8.1
Total Products	0.4	0.6	1.2	0.4	0.0	1.1	1.6	2.0
Other Oils ¹	-0.2	-7.4	0.0	0.0	0.0	-0.1	-0.2	-7.6
Total Oil	-0.8	-10.8	0.3	4.0	0.0	8.6	-0.5	1.8

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

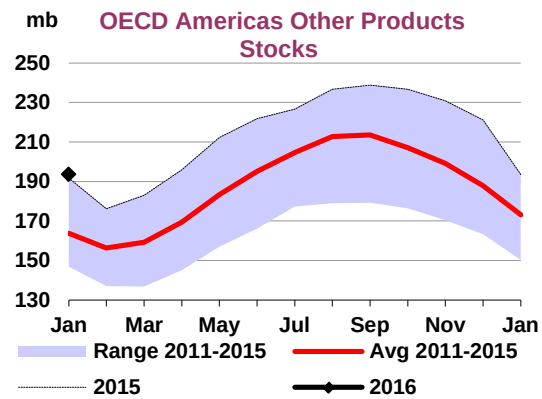
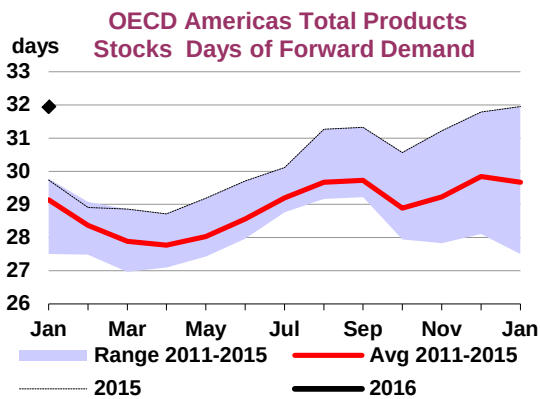
Preliminary data suggest that OECD stocks drew for the first time in a year as they fell by 6.3 mb in February. Total stocks were pressured lower by a steep 15.5 mb draw in Japanese inventories that more than offset counter-seasonal builds in the Americas (8.3 mb) and Europe (0.9 mb). With refinery maintenance in the OECD ramping up, crude oil stocks increased by 10.8 mb, although this was significantly less than the 15.4 mb five-year average build for the month. On the other hand, NGLs and other feedstocks adhered to seasonal trends and drew by 2.5 mb while refined products fell by a combined 14.7 mb, although this less than half the 34.7 mb seasonal average draw. Refined products holdings were buttressed by counter-seasonal builds of gasoline (0.6 mb) and fuel oil (0.9 mb) while middle distillates drew by 3.6 mb, far shallower than the 18.9 mb average draw for the month.

Recent OECD industry stock changes

OECD Americas

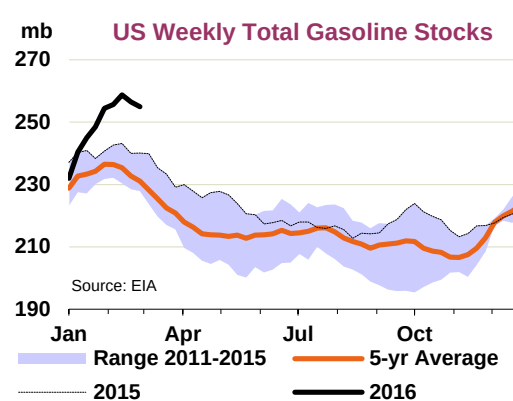
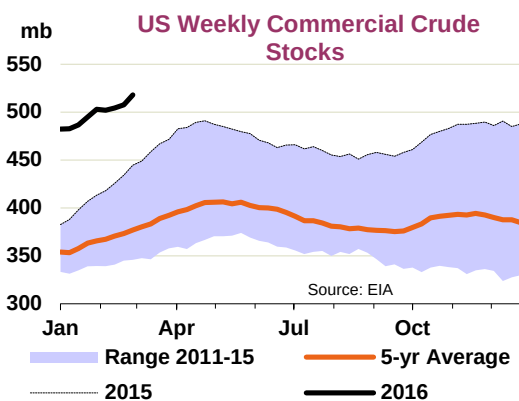
Commercial industry stocks in the OECD Americas rose by a steep 23.7 mb in January after crude added 20.7 mb and NGLs and other feedstocks rose by a combined 5.0 mb, more than offsetting a seasonal draw in refined products (-2.1 mb). The build was nearly four times the average build for the month and saw the surplus of inventories to average levels balloon to 256 mb from 238 mb one month earlier. Crude oil holdings account for the majority of the overhang, despite regional production growth slowing over the past six months. At end-January, inventories stood 151 mb and 86 mb above the five-year average and one year earlier, respectively.

Regional refined products holdings drew as 'other products' inventories plummeted by 27.6 mb in the US on a seasonal increase in propane demand for space heating. Despite this decrease being more than 2.5 times the five-year average draw for the month, 'other products' inventories stood 29.7 mb above average at end-month. Meanwhile, middle distillates built counter-seasonally by 2.7 mb while gasoline holdings soared by 21.2 mb (centred entirely in the US), more than twice the seasonal build for the month as US refinery output of the product remained high against a backdrop of falling demand. Total regional refined products inventories covered 32.0 days of forward demand at end-January, level with end-December and a significant 2.2 days higher than one year earlier.



Preliminary weekly data from the US Energy Information Administration (EIA) suggest that US industry inventories defied seasonal trends and rose by 8.3 mb in February. Stocks of crude oil built by a steep 17.2 mb as domestic production has remained at relatively robust levels while crude imports have remained above year-ago levels buoyed by a narrower WTI – Brent spread. At end-February, US commercial crude holdings stood at close to 520 mb. On a like-for-like basis, crude stocks have filled about 75% of working capacity.

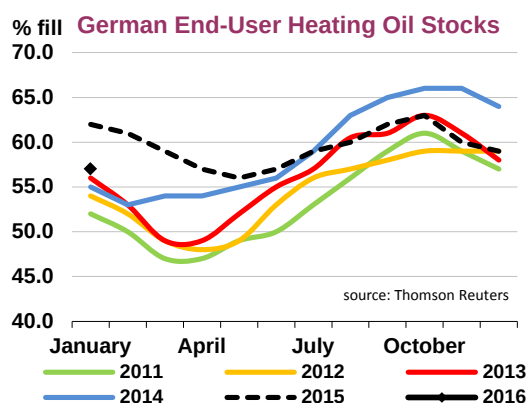
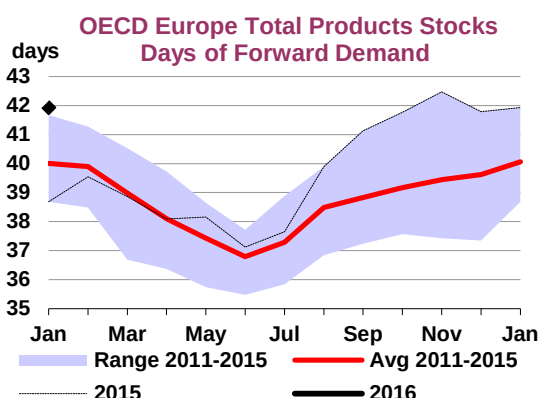
The overhang in US crude stocks is concentrated in PADD 3 and PADD 2 with a combined excess over the average of 126 mb. Despite an increase in pipeline capacity and flexibility, stocks at the Cushing, Oklahoma, storage hub have remained stubbornly high and in February hit a record 67 mb, equating to about 90% of working capacity. One factor behind these high inventories is that crude imports to the midcontinent from Canada have remained about 0.3 mb/d above a year earlier while refinery throughputs are only up about 0.1 mb/d y-o-y. Meanwhile, transfers south to PADD 3 have remained relatively static despite pipeline operators reportedly cutting their tariffs significantly due to substantial spare capacity on a number of lines.



Product inventories slipped by a weak 9.7 mb in February as middle distillates and fuel oil posted seasonal trend-defying builds of 3.5 mb, 2.2 mb, respectively which partly offset draws of 14.0 mb and 1.7 mb in 'other products' and motor gasoline, respectively, the former draw came against the backdrop of continuing healthy demand for propane. Despite the monthly gasoline draw, stocks hit a record 259 mb in mid-February amid high imports, low exports, lacklustre demand and high refinery output. By end-month, gasoline demand cover approached 29 days, two days higher than a year earlier.

OECD Europe

Industrial holdings in OECD Europe rose by 11.1 mb to stand at 999 mb by end-January. However, since this build was gentler than the 24.1 mb five-year average build for January, the overhang of inventories versus average levels narrowed to 63 mb from 76 mb one month earlier. Crude oil stocks inched down counter-seasonally by 1.7 mb, pressured lower by draws in Italy and the Netherlands, while NGLs and other feedstocks rose by a broadly seasonal 1.5 mb. Refined products built by 11.3 mb, significantly less than the 20.8 mb five-year average build for January after the increase was tempered by draws of 2.9 mb and 1.4 mb in fuel oil and 'other products', respectively. Middle distillates and motor gasoline inventories rose seasonally by 9.3 mb and 6.3 mb, respectively, although the former build was about 3 mb less than average. At end-January, refined products stocks covered 41.9 days of forward demand, 0.1 days above end-December and 3.2 days above a year ago.

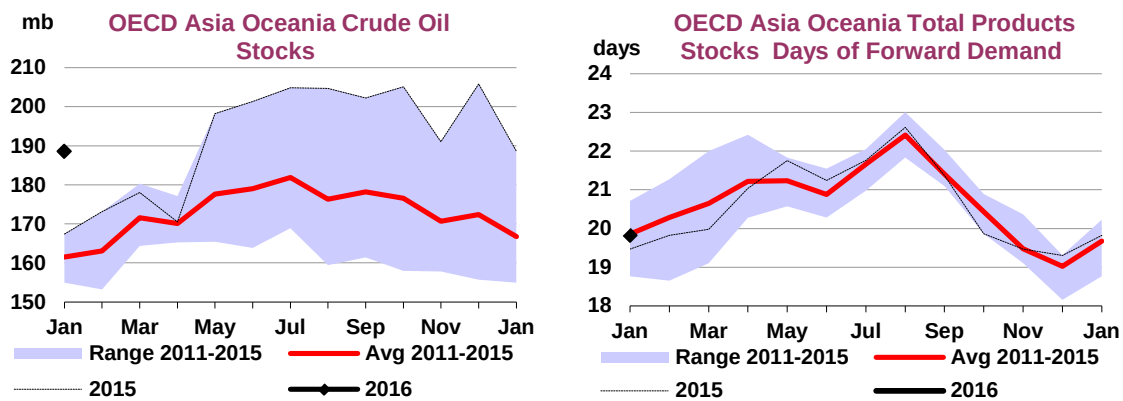


Meanwhile, consumer holdings of heating oil in Germany posted a third successive monthly draw to stand at 57% of capacity in February, 5% below one year earlier. Indications are that volumes of refined products stored in independent storage in Northwest Europe have remained high so far this year, with recent reports suggesting that this has led to significant port congestion as vessels wait outside the region's main terminals for an opportunity to discharge their cargoes.

OECD Asia Oceania

Commercial oil holdings in OECD Asia Oceania drew counter-seasonally by 14.6 mb in January. Accordingly, regional inventories' surplus to average levels narrowed to 19 mb at end month, from 36 mb one month earlier. Nonetheless, at end-month, stocks remained 21 mb above year-ago levels. The monthly draw came from a steep fall in crude stocks (-17.3 mb) as holdings in both Japan and Korea posted sharp draws of 7.3 mb and 10.2 mb, respectively. Considering that refinery throughputs in both countries remained relatively stable in January, it is likely that stocks drew after crude imports declined. Meanwhile, refined products holdings inched counter-seasonally down by 1.4 mb with middle distillates and fuel oil decreasing by 2.8 mb and 2.4 mb, respectively, more than offsetting builds of 2.1 mb and 1.8 mb in 'other products' and motor gasoline, respectively. Following a more pessimistic regional demand prognosis going forward, at end-month refined products covered 19.8 days of forward demand, a rise of 0.5 days on end-December and 0.4 days higher than a year earlier.

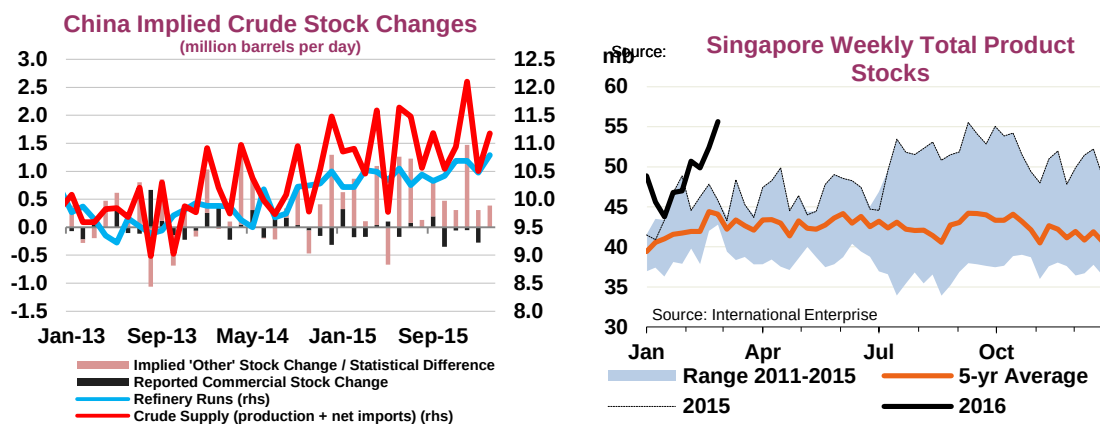
According to preliminary weekly data from the Petroleum Association of Japan (PAJ), commercial stocks in Japan plummeted by 15.5 mb in February with crude holdings (-4.6 mb), NGLs and other refinery feedstocks (-3.3 mb) and refined products (-7.6 mb) all posting draws. Despite throughputs remaining broadly level month-on-month, shipping data indicate that product imports, especially from the Middle East dropped back.



Recent developments in Non-OECD stocks

Chinese commercial crude inventories drew by an equivalent 8.5 mb in January, which saw stocks sit approximately 26 mb below year-ago levels. Meanwhile, the gap between crude supply (production plus net imports) and crude demand (refinery throughputs) suggests that national stocks remained stable in January since non-reported stocks rose with preliminary indications for February suggesting that national crude stocks have once again increased. Considering that national crude stocks built at a staggering pace (1.4 mb/d) at end-2015 as crude net-imports surged to 7.8 mb/d and outstripped refinery runs, it is likely that a large portion of this unreported stock build was destined for newly-completed strategic tanks at Zhoushan and Jinzhou.

Chinese product stocks increased by an equivalent 6.2 mb in January after gasoil holdings surged by an equivalent 5.0 mb while gasoline and kerosene inventories added 0.8 mb and 0.4 mb, respectively. The increase in gasoil stocks was the steepest since July 2015 and came against the backdrop of Chinese refiners holding with excess gasoil as they maximise gasoline output to supply strong domestic markets. In recent months, this has seen Chinese refiners exporting increasing volumes of gasoil to elsewhere in Asia but in January, these shipments fell back by about 50 kb/d from the 4Q15 levels to 175 kb/d.

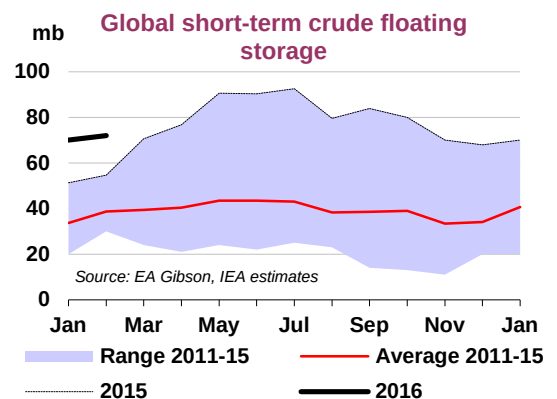


Land-based refined product inventories in Singapore climbed by 7.7 mb in February to sit at a record 56.8 mb by end-month. Soaring residual fuel oil stocks (+5.2 mb) pressured total stocks higher as a raft of arrivals from Europe and elsewhere in Asia outpaced exports while bunker demand has reportedly been lacklustre. This build put regional residual fuel oil spot prices under severe pressure. Meanwhile, light distillates posted their fourth consecutive monthly build as naphtha inflows remained strong. By early March, stocks stood at a record 15.5 mb, 2.4 mb above a year earlier. Middle distillates added 1.3 mb over the month and by end-February stood 1 mb and 1.3 mb above a year earlier and average levels, respectively.

Indications are that the Indian government has not yet begun to fill either of the two remaining Phase 1 strategic sites at Mangalore and Padur with crude. Apparently, structural work has been completed but work is continuing on the pipelines to connect them to port infrastructure. The UAE's Adnoc is in advanced discussions to store oil in at least one of these facilities with India understood to have first refusal on the oil in the event of an emergency. The Indian government is also currently discussing allocating funds to build an additional 90 mb of strategic capacity with sites earmarked for new tanks including Bikaner, Rajkot, Chandikhol and Padur. Although completion of the remaining Phase 1 strategic sites is delayed, Indian crude stocks likely built in 4Q15 as tanks at the recently inaugurated Paradip refinery were filled with heavy crude. According to the refinery operators IOC, the plant has 4 mb of crude storage.

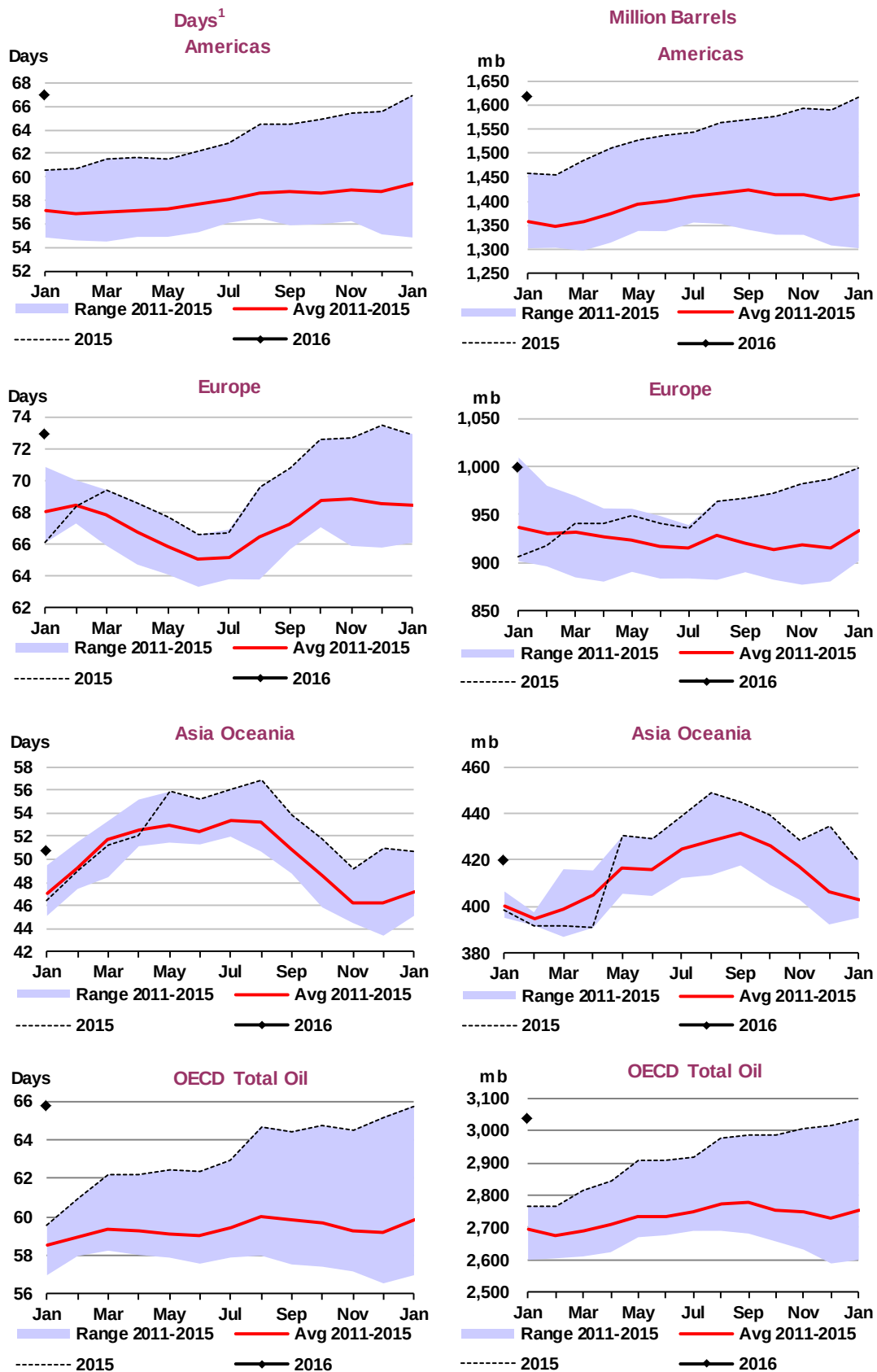
Recent developments in floating storage

At end-February, 72 mb of crude oil was stored on the water, approximately 17 mb higher than a year ago. Volumes continue to be driven by cargoes of Iranian crude and condensate held in NITC (National Iranian Tanker Company)-owned tankers in the Middle East Gulf, amounting to 42 mb at end-month. Other volumes were stored around Singapore and one 2 mb VLCC was reportedly anchored off Northwest Europe. Other volumes of oil stored on the water but not counted as floating storage include cargoes of both crude and products in tankers waiting to discharge at congested terminals in China and the ARA region. Following a revision to quarterly floating storage and oil in transit data carried in Table 1 of last month's *Report*, it has been discovered that a portion of these volumes were misallocated in 2015 only. Consequently, the quarterly floating storage and oil in transit data for 2015 (the misallocation did not affect annual volumes) have been revised in Table 1 of this *Report* with implications for the *Miscellaneous to balance* line item.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

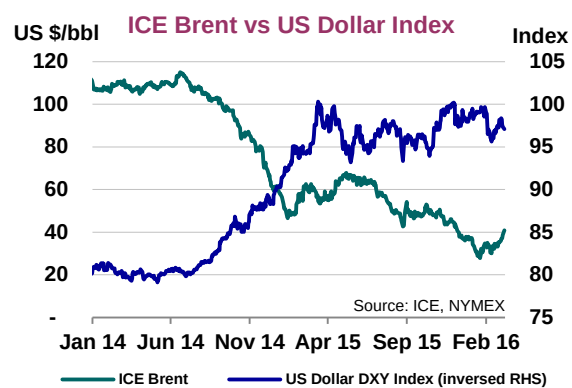
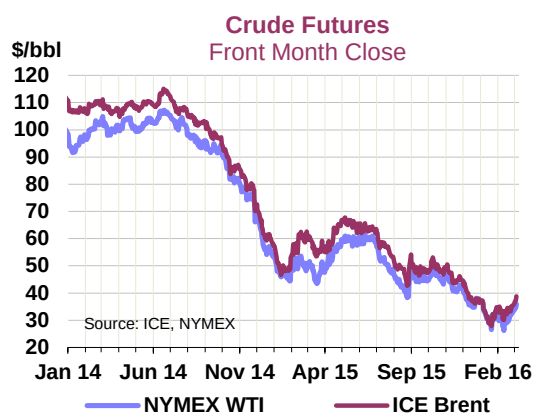


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil prices rose to their highest in three months in early March, stoked by tightening supply, proposed new talks between major producers on co-ordinated action and US dollar weakness.** At the time of writing, Brent was at \$39.80/bbl and US WTI was at \$37.30/bbl. Global benchmarks diverged during February as ballooning US stockpiles pressured WTI and export disruptions in Iraq and Nigeria strengthened Brent.
- **Spot crude markets also derived some benefit from supply outages and arbitrage plays, with prices firming across the board in early March.** North Sea benchmark Dated Brent was supported by the shipment of UK Forties crude into Asia, while Nigerian barrels made their way into India and the US.
- **Spot product prices weakened in February for products at the top of the barrel in the face of brimming inventories, lacklustre demand and high supply with cracks slipping in tandem with strengthening crude prices.** Despite middle distillate spot prices firming over February, cracks only posted slim increases which left them languishing significantly below year-ago levels across all markets which consequently dragged down refinery margins.



Market overview

Crude oil prices rallied into early March as tightening supplies and the possibility of fresh producer talks on orchestrated action brightened market sentiment. In addition, the US dollar weakened, providing further support for oil importers. Further evidence is emerging of a slowdown in US output as drillers continue to remove rigs while reported sabotage in Iraq and Nigeria has halted 850 kb/d of exports since mid-February. The possibility of further rounds of producer talks in late March or early April also helped boost Brent from sub-\$30 /bbl levels touched in mid-January. Price gains are being capped, however, by a massive supply overhang that has brought prices down from triple-digit highs reached in mid-2014. During February, international benchmarks diverged as record high US commercial crude oil inventories above 500 million barrels pressured WTI and export outages in Iraq and Nigeria strengthened Brent.

With US oil inventories at record highs, cargoes of crude oil are being offered into Europe for arrival during April and May. A number of tankers have already crossed the Atlantic from the US after the lifting of the crude oil export ban. The arbitrage window opens for European sales when Brent's premium to WTI reaches around \$3/bbl. During February, Brent's premium to WTI was an average \$2.91/bbl – up from just \$0.15/bbl during January.

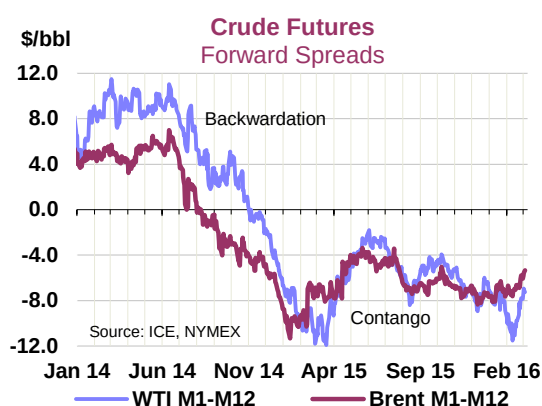
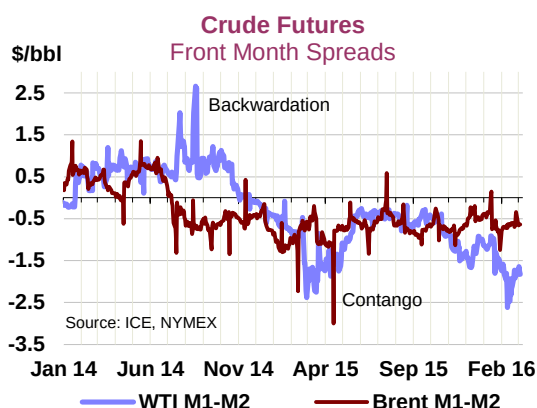
Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Dec	Jan	Feb	Feb-Jan Avg Chg	% Chg	Week Commencing:				
						08 Feb	15 Feb	22 Feb	29 Feb	07 Mar
NYMEX										
Light Sweet Crude Oil	37.33	31.78	30.62	-1.16	-3.7	28.15	30.03	32.27	34.66	37.90
RBOB	52.68	45.95	41.80	-4.15	-9.0	40.17	41.01	42.42	52.88	58.49
No.2 Heating Oil	49.50	42.05	43.81	1.77	4.2	42.37	44.31	44.17	46.73	51.34
No.2 Heating Oil (\$/mmbtu)	8.73	7.42	7.73	0.31	4.2	7.47	7.81	7.79	8.24	9.06
Henry Hub Natural Gas (\$/mmbtu)	2.04	2.23	1.93	-0.30	-13.6	2.05	1.88	1.78	1.69	1.69
ICE										
Brent	38.90	31.93	33.53	1.60	5.0	31.49	33.47	34.55	37.10	40.84
Gasoil	47.39	38.99	41.00	2.01	5.2	39.08	42.09	41.72	44.19	47.65
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-1.57	-0.15	-2.91	-2.76		-3.34	-3.44	-2.28	-2.44	-2.94
NYMEX No.2 Heating Oil - WTI	12.17	10.27	13.19	2.93		14.22	14.28	11.90	12.07	13.44
NYMEX RBOB - WTI	15.35	14.17	11.18	-2.99		12.02	10.98	10.15	18.22	20.59
NYMEX 3-2-1 Crack (RBOB)	14.29	12.87	11.85	-1.02		12.76	12.08	10.73	16.17	18.21
NYMEX No.2 - Natural Gas (\$/mmbtu)	6.69	5.18	5.80	0.62		5.42	5.94	6.01	6.56	7.37
ICE Gasoil - ICE Brent	8.49	7.06	7.47	0.41		7.59	8.62	7.17	7.09	6.81

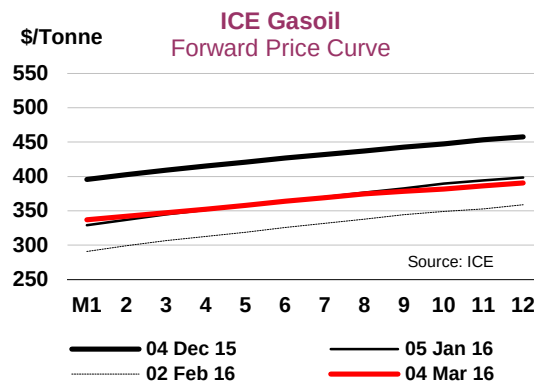
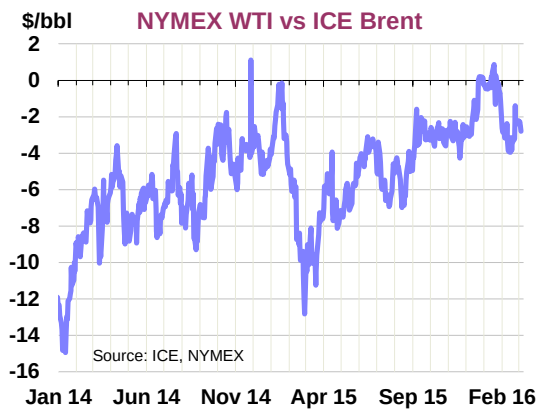
Source: ICE, NYMEX.

The wider spread is due to supply disruptions in OPEC producers that have propped up Brent and bulging US stocks that have pressured WTI. During February, ICE Brent futures rose by \$1.60/bbl, or 5%, from January to an average \$33.53/bbl. NYMEX WTI fell by \$1.16/bbl, or 3.7%, from January to average \$30.62/bbl. ICE Brent was last trading at \$39.80/bbl. US WTI was at \$37.30/bbl.



Record US stockpiles have widened out the NYMEX WTI contango structure – where prices for immediate delivery are discounted versus forward months. The discount of prompt-month to second-month WTI deepened to -\$1.98/bbl in February compared to -\$1.24/bbl in January. The Brent M1-M2 spread in February was broadly steady at -\$0.64/bbl versus -\$0.54/bbl in January. A similar trend was seen on forward curves. The WTI M1-M12 spread widened out to -\$9.71/bbl in February versus -\$7.83/bbl in January. The Brent M1-M12 contract spread pulled in a touch to -\$6.88/bbl in February compared to -\$7.27/bbl in January.

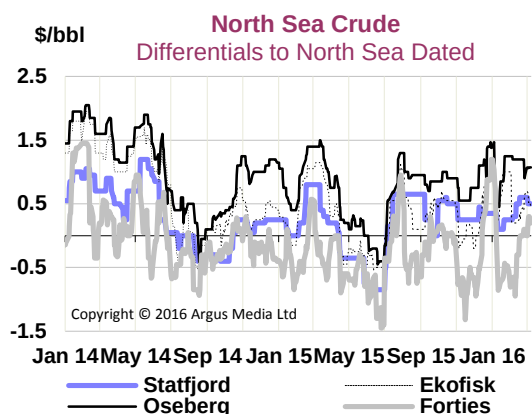
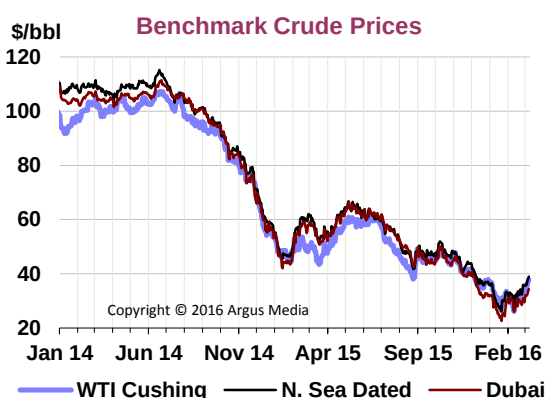
The contango structure in products markets meanwhile showed little fluctuation despite the recent recovery in gasoil prices to stand at about 50% above their mid-January lows. Prompt months continue to trade at a discount to product for delivery at a later date. Considering that the monthly time spreads in the ICE gasoil contract continue to make floating storage unprofitable, this adds weight to the belief that the numerous product cargoes which are stored on tankers off Northwest Europe are anchored due to port congestion resulting from high stock levels at key terminals.



Spot crude oil prices

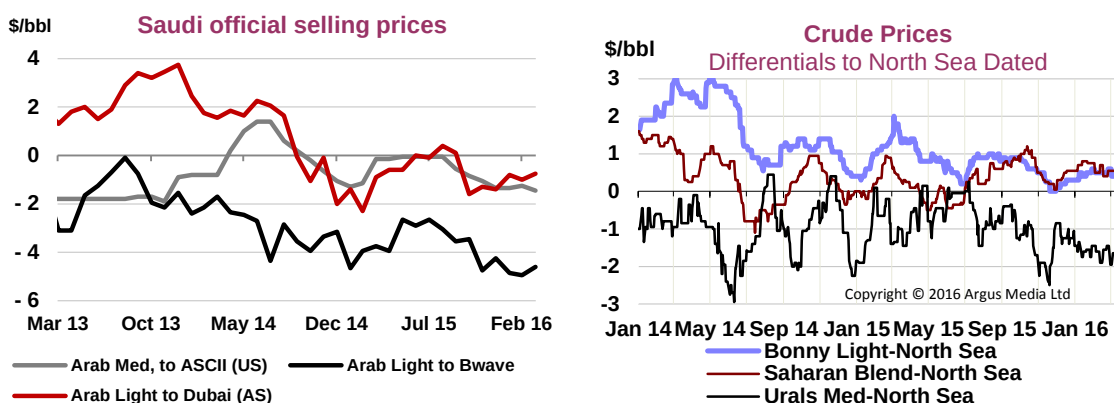
Spot crude oil prices strengthened in early March as the Atlantic basin market tightened up following the steady movement of Forties crude into Asia and the lengthy shut-in of exports from northern Iraq (600 kb/d) and Nigeria (250 kb/d). Shipments of Forties to Asia are reportedly running as high as 200 kb/d, helped by the economics of low VLCC freight rates. The UK grade looks attractive versus rival Middle East crudes such as Murban and its discount to the UAE grade has dropped to about \$1.60/ bbl. Recently released loading programmes, however, indicate that the North Sea will remain amply supplied with flows in April expected to rise to the highest in four years.

The lengthy outage of northern Iraqi exports has made alternatives such as southern Iraqi Basra Light look more attractive although the sour crude market remains well supplied with a number of refineries in the midst of maintenance. Urals availabilities were plentiful, with its discount to Dated Brent widening to around \$1.90/bbl in the Mediterranean. Sales of Iranian crude are on the rise with Europe returning to buy during February – the first full month of sanctions relief for Tehran. Shipments of around 140 kb/d headed for the continent in February and around 250 kb/d is slated to load during March, according to preliminary data. When European shipments are added to Asian movements, we estimate that overall Iranian liftings ran at more than 1.4 mb/d in February and could reach 1.6 mb/d in March. Iran meanwhile raised its April official selling prices (OSPs) for most of its crude oil grades for loading to Europe and Asia, except for the Mediterranean, where differentials dipped. Market sources say Iran has not been heavily discounting its crude oil.



Of the global benchmarks, US WTI posted the weakest month-on-month (m-o-m) performance in February, falling \$1.19/bbl to \$30.38/bbl as stockpiles filled to the brim. North Sea Dated Brent strengthened, rising \$1.71/bbl over January to average \$32.46 /bbl for the month. Russian Urals rose by a similar amount versus January to average \$30.87 /bbl in February. Middle East Dubai climbed the most – rising \$2.52/bbl over February to average \$29.33/bbl.

Lower oil prices sent China on a buying spree at the start of the year. Imports jumped nearly 20% from January to February to about 8 mb/d as so-called teapot refiners stepped up purchases of Russian crudes and robust refining margins stoked demand. A Brent price above \$40/bbl could slow the pace of purchases during the second quarter during the peak refinery maintenance season. That could depress spot prices for Middle East and Asia-Pacific crudes when trade for May-loading cargoes starts later in March. Strong demand from China for Russian ESPO has pushed up the grade's premiums, although levels for April-loading cargoes have started to slip.



In the meantime, India is also buying on a big scale. Purchases of Iraqi Basra crude for April loading reportedly are as high as 10 million barrels, supported by IOC's purchases for its new 300 kb/d Paradip refinery. India is also snapping up Nigerian grades. In Europe, Nigerian barrels are under pressure due to weaker refining margins. Increasing supplies from Nigeria are, however, heading to the US as domestic light tight oil output slows. Falling domestic supply has in turn boosted the price of North American grades, with Bakken rising to a record premium to WTI – closing the arbitrage opportunity to move barrels by rail to the East Coast. The LLS/Brent differential is close to parity, signalling that the end of light crude imports to the Gulf Coast might be drawing near.

Saudi Arabia followed market trends by lowering its monthly formula prices for April shipments to the US, while increasing the differential on its flagship Arab Light grade for sales to Europe and Asia. Benchmark Dubai fell below \$30/bbl at the start of the year, boosting demand for Middle East and Russian crude in Asia. That pushed up prompt prices versus future months, narrowing the contango structure – an indication that higher Middle East formula prices were to be expected.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

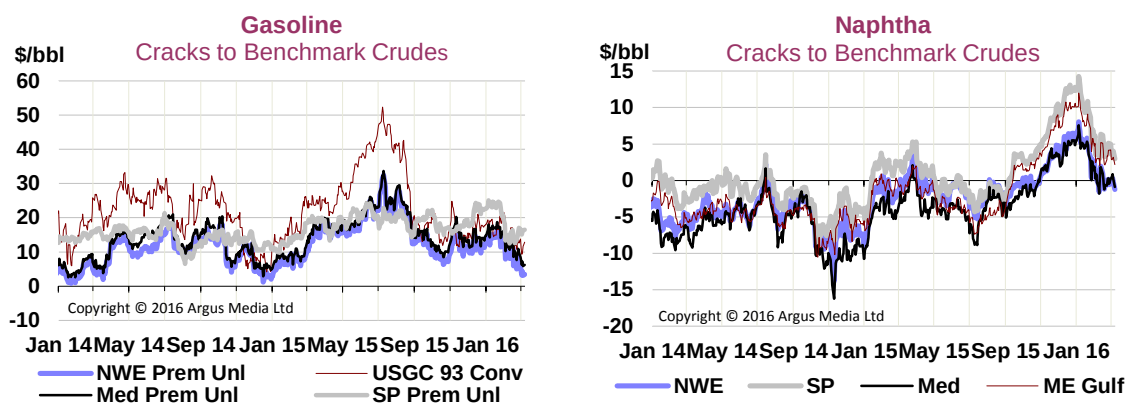
	Dec	Jan	Feb	Feb-Jan		Week Commencing:				
				Avg Chg	%	08 Feb	15 Feb	22 Feb	29 Feb	07 Mar
Crudes										
North Sea Dated	38.13	30.75	32.46	1.71	5.6	30.47	32.52	33.66	36.16	38.99
Brent (Asia) Mth 1	38.75	31.26	33.04	1.77	5.7	30.28	33.36	33.36	36.12	39.27
WTI (Cushing) Mth 1	37.24	31.57	30.38	-1.19	-3.8	28.15	30.03	31.32	34.66	37.90
Urals (Mediterranean)	36.98	29.15	30.87	1.71	5.9	28.77	30.85	32.19	34.30	37.34
Dubai	34.55	26.81	29.33	2.52	9.4	26.56	29.85	29.61	31.57	35.09
Tapis (Dated)	41.54	35.51	37.34	1.83	5.1	35.15	37.32	37.76	40.26	43.09
Differential to North Sea Dated										
WTI (Cushing)	-0.89	0.82	-2.08	-2.91		-2.32	-2.49	-2.34	-1.50	-1.09
Urals (Mediterranean)	-1.15	-1.60	-1.60	0.00		-1.70	-1.67	-1.47	-1.86	-1.65
Dubai	-3.58	-3.94	-3.13	0.81		-3.91	-2.67	-4.05	-4.59	-3.90
Tapis (Dated)	3.41	4.77	4.88	0.11		4.68	4.80	4.10	4.10	4.10
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.47	-0.73	-0.64	0.09		-0.66	-0.64	-0.59	-0.56	-0.60
Forward WTI Cushing Mth1-Mth2	-1.23	-1.26	-1.92	-0.66		-2.21	-2.13	-1.69	-1.76	-1.92
Forward Dubai Mth1-Mth2	-0.76	-1.05	-0.66	0.39		-0.64	-0.49	-0.86	-0.91	-0.88

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Spot product prices

In February, spot prices weakened for products at the top of the barrel in the face of brimming inventories, lacklustre demand and high supply. Considering that over the same period, benchmark crude prices strengthened, gasoline cracks in Europe and the US consequently fell to below year-ago levels. Despite falling from their previous lofty levels, naphtha cracks remained above a year ago with only those in Europe slipping into negative territory. Even as middle distillate spot prices firmed during February, cracks only posted slim increases that left them languishing significantly below year-ago levels and consequently dragged down refinery margins.

On an average monthly basis, gasoline spot prices posted the steepest losses across surveyed markets in February. In the Atlantic Basin, prices sank to multi-year lows in the wake of steadily climbing US inventories that hit record levels early in the month. Accordingly, spot prices for Super Unleaded on the US Gulf Coast touched \$40/bbl in mid-month, their lowest since December 2008. Nonetheless, as inventories drew thereafter and export demand picked up, prices rebounded to \$53/bbl in early-March, but this was nearly \$30/bbl below year-ago levels. Gasoline cracks dropped by over \$3/bbl over the month in the region but remained only slightly below a year earlier.



In Europe, the picture was little improved as prices softened in the wake of slim demand to ship product to West Africa and the US Atlantic Coast, although prices stabilised in late-February after the arbitrage window to ship product westwards reopened as US prices firmed. On average, European cracks weakened more steeply than in the US, although this was due to the relative strength of Brent in February. In Singapore, gasoline prices were also hit by brimming inventories as light distillate stocks hit their highest in several years, with cracks softening more than in other markets due to Dubai's strength.

Naphtha cracks across all surveyed markets have fallen back over the past couple of months as, although demand from the petrochemical sector has remained robust, demand from gasoline blenders has waned. Throughout 4Q15, Asian naphtha demand had, to a large extent, sustained naphtha cracks elsewhere. However, as inflows to Asia from these markets outstripped demand, stocks built and spot prices weakened. This in turn closed the arbitrage to Asia which saw European and Middle Eastern cracks fall to levels last seen in 3Q15. Nonetheless, Asian spot prices turned the corner in late-February, boosted by an uptick in gasoline blending demand, and as supply tightened from less inflows, although cracks continued to weaken in line with strengthening crude prices.

Diesel cracks across all markets languished at levels not seen in several years as supply continued to outstrip demand across many markets. In Europe, exports from the FSU swamped markets while inventories remain high and as winter weather heating demand continues to be underwhelming. Nonetheless, in February, spot prices increased towards the end of the month. Consequently, cracks inched up, although by early-March they only remained at about half of last year's levels.

Spot Product Prices

(monthly and weekly averages, \$/bbl)

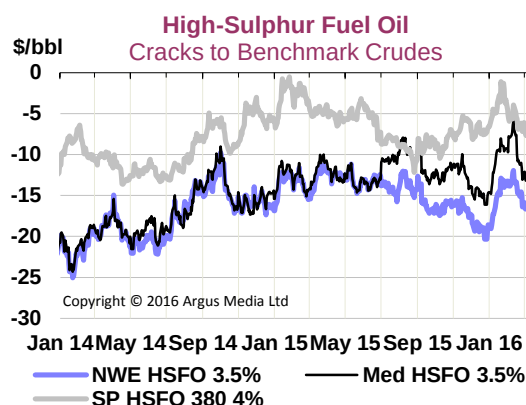
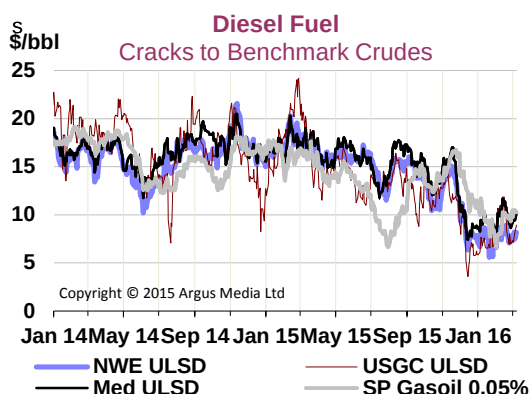
	Dec	Jan	Feb	Feb-Jan		Week Commencing:					Dec	Jan	Feb	Chg
				Chg	%	01 Feb	08 Feb	15 Feb	22 Feb	29 Feb				
Rotterdam, Barges FOB														
											Differential to Dated Brent			
Premium Unl 10 ppm	49.73	44.86	40.93	-3.94	-8.8	43.17	39.16	40.81	40.51	40.27	11.60	14.12	8.47	-5.65
Naphtha	43.33	35.53	32.68	-2.85	-8.0	33.75	30.85	32.22	33.34	36.03	5.20	4.78	0.22	-4.56
Jet/Kerosene	47.47	38.56	40.94	2.38	6.2	41.45	39.24	41.32	41.25	43.97	9.34	7.81	8.47	0.67
ULSD 10ppm	46.49	38.11	40.41	2.30	6.0	40.28	38.70	41.01	41.12	43.80	8.36	7.36	7.95	0.59
Gasoil 0.1%	44.98	37.05	39.12	2.06	5.6	39.13	37.15	39.93	39.77	42.22	6.86	6.31	6.65	0.35
LSFO 1%	23.85	19.78	21.35	1.56	7.9	22.15	20.58	21.12	21.33	22.40	-14.28	-10.97	-11.12	-0.15
HSFO 3.5%	19.33	15.54	18.46	2.91	18.7	18.93	17.71	18.49	18.45	19.77	-18.79	-15.21	-14.01	1.20
Mediterranean, FOB Cargoes														
											Differential to Urals			
Premium Unl 10 ppm	50.56	45.76	41.94	-3.82	-8.3	44.11	40.12	41.89	41.57	41.33	13.58	16.61	11.08	-5.53
Naphtha	41.17	33.42	30.99	-2.43	-7.3	31.81	28.99	30.58	31.97	34.74	4.19	4.26	0.13	-4.14
Jet Aviation fuel	46.05	37.33	39.89	2.57	6.9	40.38	38.07	40.33	40.30	43.01	9.07	8.17	9.03	0.86
ULSD 10ppm	46.07	38.12	40.76	2.64	6.9	40.18	39.43	41.73	41.24	43.84	9.10	8.97	9.89	0.93
Gasoil 0.1%	43.99	36.79	39.81	3.02	8.2	39.26	38.17	40.73	40.54	43.08	7.02	7.63	8.94	1.31
LSFO 1%	25.78	21.40	22.72	1.32	6.2	23.83	22.18	22.62	22.22	22.76	-11.20	-7.75	-8.14	-0.39
HSFO 3.5%	22.24	18.78	21.64	2.86	15.2	22.55	21.94	21.48	20.57	21.64	-14.73	-10.37	-9.23	1.15
US Gulf, FOB Pipeline														
											Differential to LLS			
Super Unleaded	55.83	50.62	46.80	-3.82	-7.6	50.99	43.49	44.66	46.98	48.16	16.99	17.79	14.42	-3.37
Unleaded	49.54	42.89	39.22	-3.67	-8.6	38.37	37.25	38.53	41.50	42.54	10.70	10.06	6.84	-3.22
Jet/Kerosene	45.61	38.96	40.67	1.71	4.4	42.41	40.00	40.71	39.44	42.01	6.76	6.13	8.30	2.17
ULSD 10ppm	45.70	40.08	41.75	1.67	4.2	42.68	40.54	42.07	41.43	44.60	6.86	7.25	9.38	2.12
Heating Oil	41.28	36.55	36.45	-0.09	-0.3	38.07	34.71	36.55	36.29	38.29	2.44	3.72	4.08	0.36
No. 6 3%*	23.08	19.09	20.41	1.31	6.9	21.23	19.64	20.32	20.41	20.90	-15.76	-13.74	-11.97	1.77
Singapore, FOB Cargoes														
											Differential to Dubai			
Premium Unleaded	55.60	50.33	44.33	-6.01	-11.9	46.17	40.48	44.08	44.65	47.55	21.04	23.52	14.99	-8.53
Naphtha	45.92	36.78	33.97	-2.81	-7.6	34.87	31.33	34.35	34.15	35.51	11.37	9.97	4.63	-5.33
Jet/Kerosene	47.70	37.91	40.98	3.07	8.1	40.82	38.13	42.00	41.47	43.97	13.15	11.10	11.64	0.55
Gasoil 0.05%	46.86	36.16	38.51	2.35	6.5	37.72	35.77	39.87	39.27	41.82	12.31	9.34	9.18	-0.17
LSWR Cracked	29.24	24.19	24.88	0.68	2.8	25.89	23.48	25.24	24.40	25.28	-5.31	-2.62	-4.45	-1.84
HSFO 180 CST	28.12	23.68	24.25	0.57	2.4	25.33	22.65	24.59	23.85	24.78	-6.43	-3.13	-5.08	-1.95
HSFO 380 CST 4%	27.38	23.14	23.65	0.51	2.2	24.78	22.16	24.02	23.08	24.52	-7.17	-3.67	-5.68	-2.01

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* Waterborne

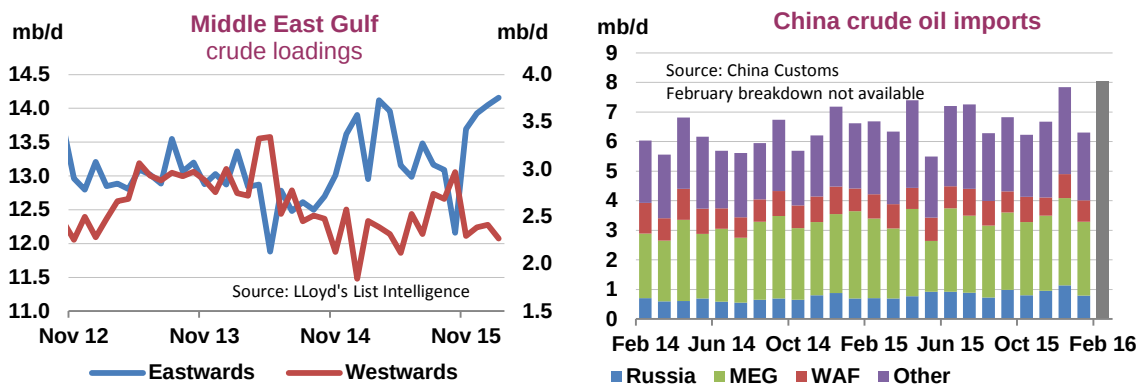
US cracks followed a similar pattern as weak fundamentals in Europe closed the window to ship diesel from the Gulf Coast eastwards. In Singapore, brisk regional demand has helped to temper the negative effect of Middle Eastern refiners increasingly targeting the region with exports. This saw diesel cracks there firm throughout the second half of the month.

Fuel oil markets were fragile in February as bloated inventories saw HSFO prices in Singapore remain extremely low. This shut the arbitrage window to ship product to Asia from the Middle East, Europe and the Americas. Consequently, as arrivals in the region dried up in mid-February and fundamentals tightened, prices recovered from the second half of the month onwards which once again attracted cargoes to the region from elsewhere. By early-March this export demand had seen Rotterdam spot prices rise to \$22/bbl, their highest since early December.

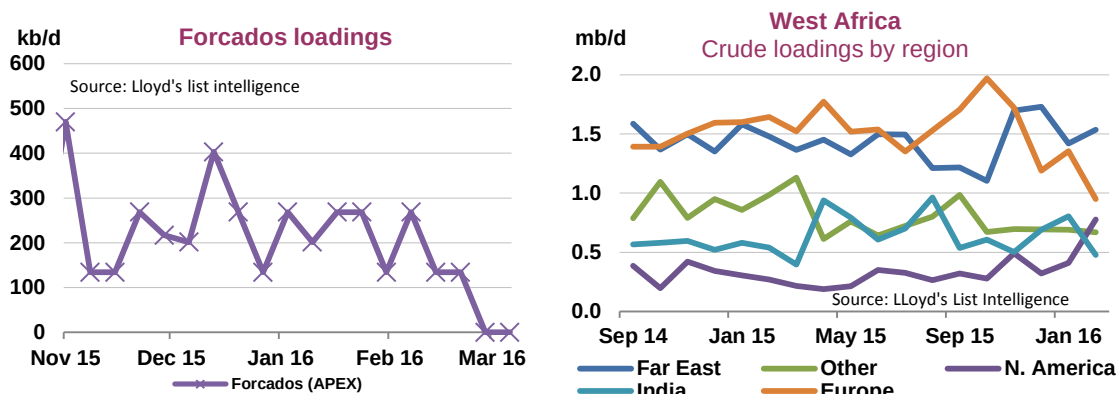


Freight

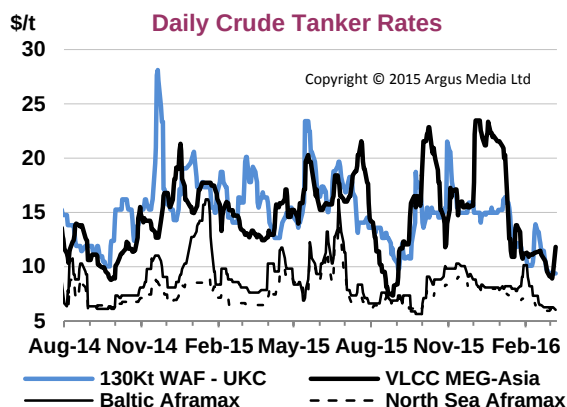
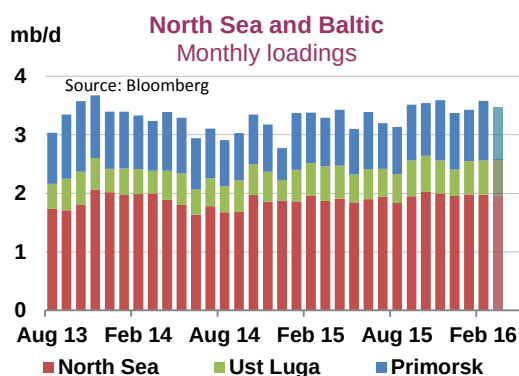
February was another strong month for crude markets east of Suez, with overall volumes out of the region remaining at sustained levels, as outages in Iraq were compensated for by higher Iranian volumes (see 'OPEC Supply'). Sailings from the Middle East Gulf continued to pivot eastwards as China drew in record-high volumes of crude oil. Imports of crude hit a record high of 8 mb/d in February, according to Chinese customs data.



West African crude sailings increasingly moved westwards across the Atlantic, at the expense of Europe and India. As extra volumes of Iranian crudes headed towards Suez, West African grades into the region were pushed below the 1 mb/d mark, Lloyd's List Intelligence shipments data shows, and pivoted westwards, reaching as far as the Pacific Coast, something unseen in more than a year. North America, one of the key destinations of West African crude before the shale revolution, is now drawing more than 750 kb/d of crude from the region, chiefly to the US, after having imported about 220 kb/d on average in 2015. One very-large-crude-carrier (VLCC), the larger class of tankers carrying up to 2 million barrels, discharged a load of Nigerian Qua Iboe in the US Gulf. The last VLCC on the route loaded in December 2014. Loadings at Nigeria's Forcados terminal were halted in mid-February after *force majeure* (see 'OPEC Supply'). The overall effect on Nigerian monthly loadings was concealed by higher output from other grades.

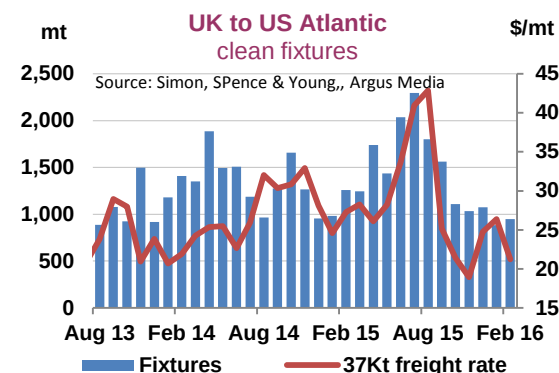
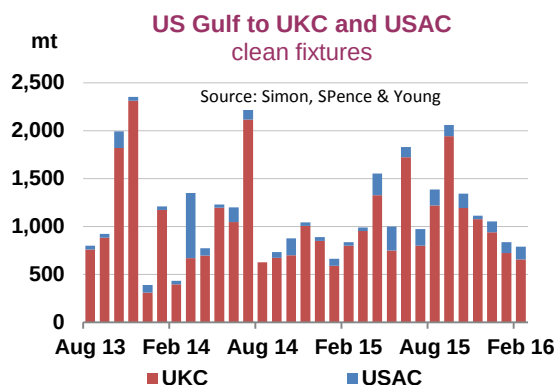
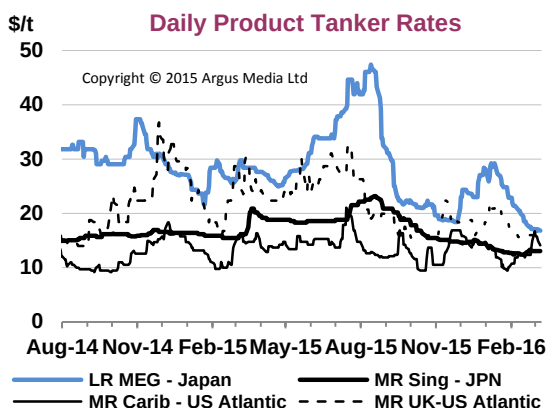
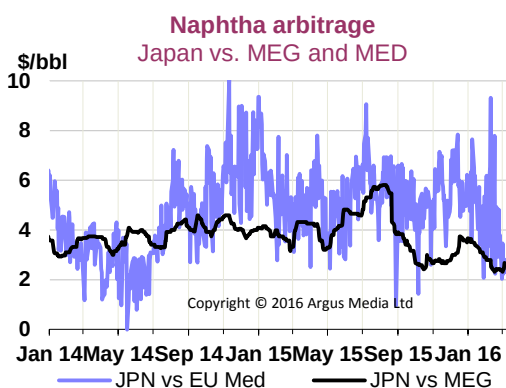


In the North Sea and Baltic markets, activity remains sustained on the back of UK, Norway and Russian output being little changed over the month. Rates remained however subdued, as tonnage was reportedly abundant.



Product shipments eased on the main East of Suez route MEG – Japan as naphtha differentials eased, after having widened in early 2016, particularly the differential to Europe, shutting arbitrage opportunities.

Product tankers West of Suez markets also saw little transatlantic movement. The NWE – US Atlantic gasoline arbitrage remained firmly shut during the month, as gasoline stocks remained abundant in the US (See 'OECD Stocks'). Reported US ULSD pipeline maintenance in late February US didn't affect overall monthly gasoil volumes out of the US Gulf, as a depressed freight rate on the US Gulf – UK backhaul route appears to confirm.



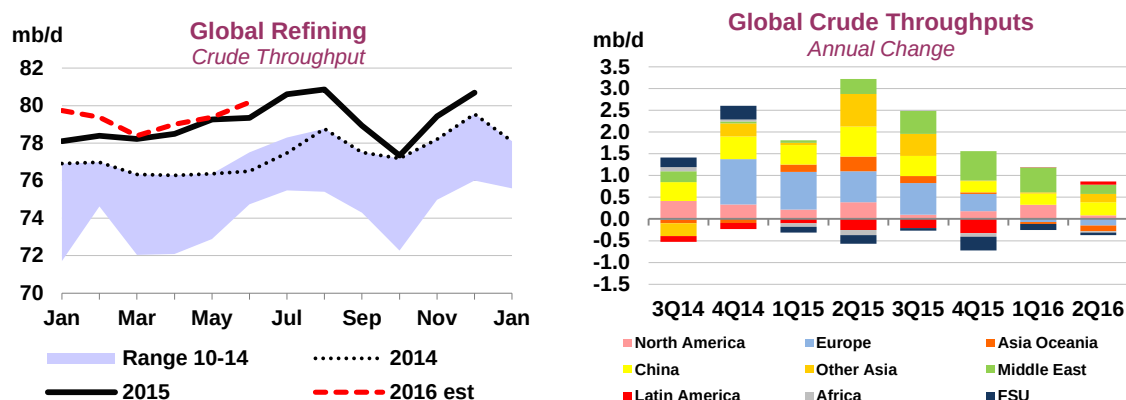
REFINING

Summary

- **1Q16 refinery runs estimates are revised down by 0.5 mb/d to 79.1 mb/d** to reflect weaker January performance numbers for OECD refiners and a shift of peak spring maintenance to 1Q. This is still 0.9 mb/d higher than refinery throughput in 1Q last year. Planned maintenance is expected to decline in 2Q16.
- **Year-on-year growth rates in 4Q15 fell to below 1 mb/d**, a significant slowdown compared to average growth rates of above 2 mb/d in the first three quarters, amid products stocks builds and in line with a slowdown in global oil demand growth in part due to a warmer than average northern hemisphere winter.
- **January OECD throughput numbers showed a 0.9 mb/d decline from December** mostly on the back of seasonally lower US runs. With non-OECD runs estimated to be flat month-on-month (m-o-m), global overall crude demand was lower by 1 mb/d in January compared to December.
- **Margins moved lower globally with the exception of the US Midcontinent** as the January uptick from lower 4Q2015 values proved to be short-lived. Product stocks may prevent the traditional boost from the maintenance season.

Global refining overview

The outlook for global refinery runs in the first quarter of 2016 has been revised down by 0.5 mb/d with the shift of the spring maintenance peak to February-March from the more usual April-May period. Unusually strong margins last year reportedly prompted many refiners to push back planned maintenance, so there is a backlog of work to complete. Even with the downward revision, 1Q16 runs are still 0.9 mb/d higher year-on-year (y-o-y), with most of the growth coming from the non-OECD. Within the OECD, runs increase by almost 200 kb/d y-o-y, but this is a net result of higher US runs and lower OECD Europe crude throughput. In the second quarter, global refinery runs increase by less than 0.5 mb/d y-o-y as OECD throughput declines and non-OECD growth eases.



With finalised December data now in for most countries covered in our refinery statistics, 4Q15 runs registered a marked slowdown of annual growth rates compared to previous quarters. Growth eased to just over 0.8 mb/d as opposed to an average growth rate of 2.1 mb/d over the previous three quarters, following a similar trend in demand. Quite uncharacteristically, OECD drove the global gains, with European refiners accounting for half of the global runs increase in 4Q15 while non-OECD refiners barely added to their throughput. This raises questions whether the refinery runs seasonality has changed over

the last few years, and whether the growing throughput East of Suez is creating more visible swings in crude oil flows on a seasonal basis. We will analyse these in upcoming *Oil Market Reports*.

Global Refinery Crude Throughput¹

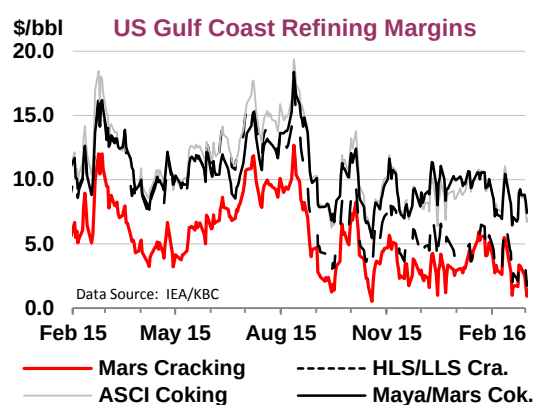
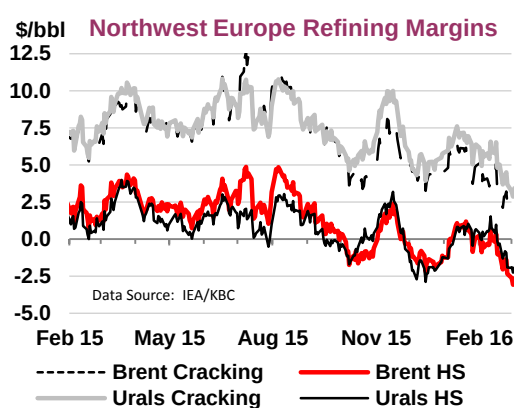
(million barrels per day)

	Nov 15	Dec 15	4Q2015	Jan 16	Feb 16	Mar 16	1Q2016	Apr 16	May 16	Jun 16	2Q2016
Americas	19.3	19.7	19.1	19.0	18.7	18.8	18.8	19.1	19.4	19.8	19.4
Europe	12.2	12.3	12.3	12.0	12.0	11.5	11.8	11.6	11.6	11.8	11.7
Asia Oceania	6.6	7.0	6.7	7.1	7.1	6.8	7.0	6.5	6.4	6.0	6.3
Total OECD	38.0	39.0	38.0	38.1	37.8	37.1	37.7	37.2	37.4	37.6	37.4
FSU	7.0	7.1	6.9	6.9	6.8	6.8	6.8	6.5	6.8	7.0	6.8
Non-OECD Europe	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.7	10.7	10.6	10.5	10.8	10.5	10.6	10.8	10.6	10.9	10.8
Other Asia	10.0	10.1	9.9	10.1	10.1	9.8	10.0	10.3	10.4	10.3	10.3
Latin America	4.2	4.2	4.2	4.3	4.5	4.5	4.4	4.5	4.6	4.6	4.6
Middle East	6.8	6.8	6.8	7.0	6.7	6.9	6.9	6.8	6.9	7.0	6.9
Africa	2.1	2.2	2.2	2.3	2.1	2.2	2.2	2.3	2.1	2.2	2.2
Total Non-OECD	41.3	41.6	41.1	41.6	41.4	41.2	41.4	41.7	41.9	42.5	42.0
Total	79.3	80.6	79.0	79.6	79.3	78.3	79.1	78.9	79.3	80.1	79.4

¹ Preliminary and estimated runs based on capacity, known outages, economic run cuts and global demand forecast

Margins

In February, the overwhelming direction of margin movement was negative. While global refinery margins had been coming off their recent years' peak registered in the third quarter of last year, reaching their annual lows in November-December, they had a brief reprieve in January as the crude oil price decline accelerated. In February, crude oil futures changed course, gaining in average \$2/bbl for the month as a whole. With products market over-supplied prices did not follow crude with a consequent decline in global margins across the board.



Hydroskimming margins in Europe sank into negative territory again, while cracking margins went down y-o-y. US Gulf Coast margins too, slipped in February, and even Midcontinent refiners started feeling the pain. In the northern hemisphere winter season, when middle distillates used in heating usually support refinery margins as gasoline demand falls back, the milder than average weather that continued well into 1Q16 was a major contributor to further deterioration in diesel cracks.

IEA/KBC Global Indicator Refining Margins¹

(\$/bbl)

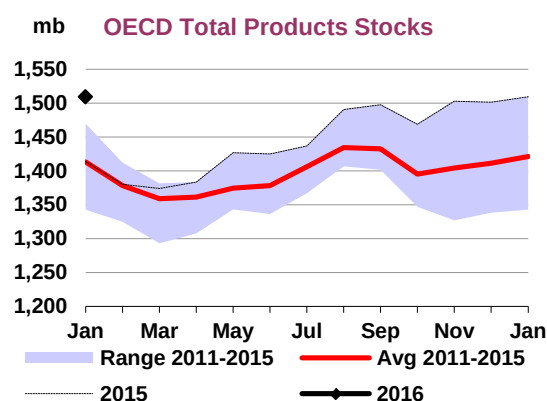
	Monthly Average				Change	Average for week ending:					
	Nov 15	Dec 15	Jan 16	Feb 16	Feb 16-Jan 16	29 Jan	05 Feb	12 Feb	19 Feb	26 Feb	
NW Europe											
Brent (Cracking)	6.65	4.38	5.50	3.66	↓	-1.83	4.60	4.26	4.11	3.93	2.70
Urals (Cracking)	8.37	5.04	6.63	5.15	↓	-1.47	5.98	5.65	5.84	5.41	4.08
Brent (Hydroskimming)	0.93	-1.35	0.31	-0.76	↓	-1.07	-0.17	-0.32	-0.09	-0.56	-1.71
Urals (Hydroskimming)	1.44	-1.91	0.28	-0.11	↓	-0.38	0.33	0.21	0.81	0.11	-1.19
Mediterranean											
Es Sider (Cracking)	7.85	5.19	6.58	5.49	↓	-1.09	6.08	6.06	6.22	5.75	4.30
Urals (Cracking)	8.09	4.55	6.01	5.35	↓	-0.66	5.55	5.61	6.33	5.74	4.03
Es Sider (Hydroskimming)	2.77	0.64	2.67	1.69	↓	-0.99	2.47	2.39	2.62	1.83	0.35
Urals (Hydroskimming)	1.38	-1.80	0.66	0.49	↓	-0.17	0.64	0.88	1.92	0.72	-1.16
US Gulf Coast											
50/50 HLS/LLS (Cracking)	5.84	5.13	4.87	3.87	↓	-1.00	5.05	4.00	4.77	3.28	3.31
Mars (Cracking)	3.60	2.76	4.27	3.10	↓	-1.17	4.67	3.34	4.15	2.19	2.64
ASCI (Cracking)	3.22	2.26	3.88	2.86	↓	-1.02	4.15	2.88	3.94	2.03	2.54
50/50 HLS/LLS (Coking)	7.78	7.44	7.00	5.72	↓	-1.28	7.01	5.79	6.54	5.12	5.25
50/50 Maya/Mars (Coking)	8.87	9.58	9.98	8.08	↓	-1.90	9.77	7.87	8.51	7.54	8.14
ASCI (Coking)	9.04	8.46	9.70	8.29	↓	-1.41	9.61	8.17	9.17	7.48	8.10
US Midcon											
WTI (Cracking)	8.01	7.43	3.95	4.10	↑	0.16	1.95	0.11	2.20	6.40	7.41
30/70 WCS/Bakken (Cracking)	6.44	6.27	4.41	2.35	↓	-2.06	2.68	0.83	0.84	3.26	4.13
Bakken (Cracking)	7.76	8.00	5.46	3.09	↓	-2.37	3.38	0.93	1.05	4.39	5.51
WTI (Coking)	10.12	9.77	5.91	5.86	↓	-0.05	3.62	1.55	3.70	8.32	9.50
30/70 WCS/Bakken (Coking)	10.39	10.14	7.86	5.72	↓	-2.14	5.87	3.81	3.88	6.84	7.89
Bakken (Coking)	8.61	9.06	6.35	3.86	↓	-2.49	4.12	1.53	1.69	5.25	6.47
Singapore											
Dubai (Hydroskimming)	1.80	0.72	2.75	0.93	↓	-1.82	3.04	0.69	1.52	0.89	0.73
Tapis (Hydroskimming)	4.34	2.78	2.31	1.51	↓	-0.80	1.26	1.95	1.65	2.13	0.75
Dubai (Hydrocracking)	7.73	6.85	7.73	5.52	↓	-2.21	7.56	5.10	5.75	5.54	5.59
Tapis (Hydrocracking)	8.94	7.70	6.52	5.16	↓	-1.36	5.12	5.53	4.98	5.80	4.58

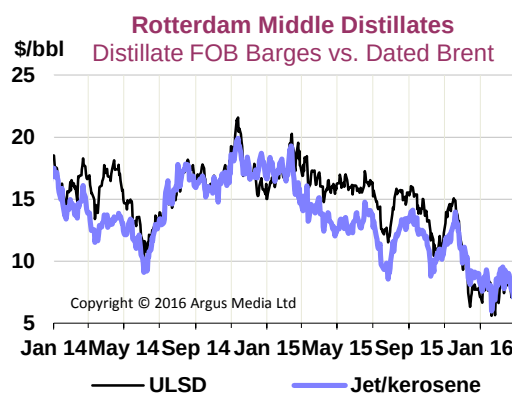
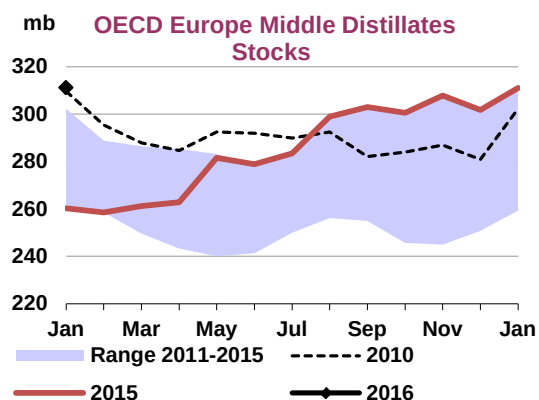
¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

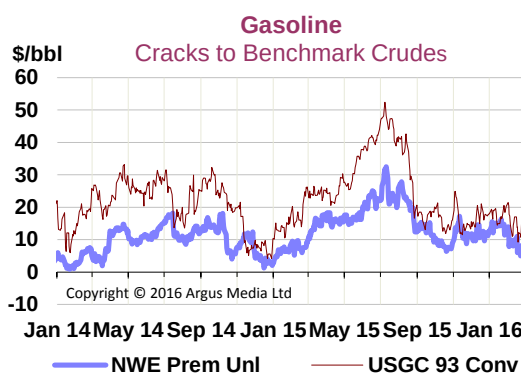
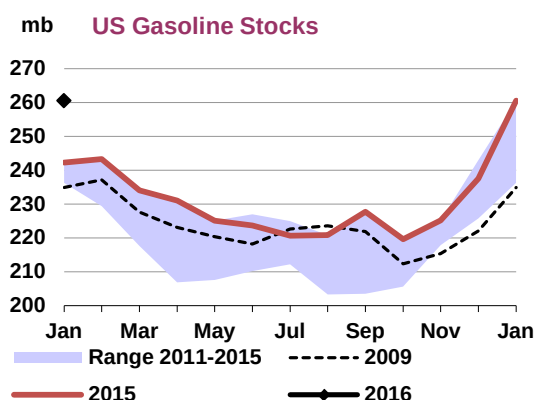
The impressive refinery margins of 2015 eventually proved to contain the seeds of their own destruction. OECD refiners that increased the throughput collectively by over 1 mb/d in 2015 to capture the margin gains, contributed to significant stock builds, as demand growth lagged refinery output growth.

Effectively, a quarter of the OECD refinery runs gains went straight to stock builds, as industry product stocks added some 100 mb in 2015, or about 270 kb/d. Of this, about half was in OECD Europe's middle distillate stocks, providing an additional 6-7 days of demand coverage. Thus, the onshore commercial stocks of middle distillates in Europe have now surpassed previous peaks in 2010. This has brought the distillate cracks to single digits, levels not seen since 2009.





Across the Atlantic Ocean, the product oversupply is mostly reflected in gasoline stocks. Even though US gasoline stock build into January is a given seasonal fact, the January stocks registered an all-time record at nearly 260 mb. Coupled with middle distillate stocks at seasonal highs, refineries are hard-pressed to find margin support. Another challenge for the refiners is that the gasoline stocks need to turn over partially to allow full operational switch to summer grade gasoline later this month.



Thus, two of the major global refining centres are entering the spring maintenance season well-supplied for their main products. If the spring maintenance season coincides with economic run cuts, as some smaller sized US refiners have reportedly been considering, margins may get the necessary boost. Otherwise, the OECD refiners, especially in Europe, may soon be reversing their last year's gains.

OECD refinery throughput

OECD runs declined 930 kb/d in January from December levels, which is a reflection of a large seasonal swing in the US, where the throughput was 840 kb/d lower. OECD Europe also saw runs decline 270 kb/d, while a Japanese throughput increase more than offset the declines elsewhere in the region, bringing OECD Asia into a net m-o-m gain of 100 kb/d. Even with a significant downward trend from December to January, overall OECD throughput was still almost 600 kb/d higher than a year earlier. Unlike last year, when Europe led the annual growth in OECD runs, 2016 started with the US taking the lead again while European refiners registered only a modest gain, and OECD Asia ran flat y-o-y. In 1Q16, OECD refiners overall are expected to slow down y-o-y gains even more, to just 170 kb/d as falls in Europe and Asia offset much of the US increase. This trend turns into a y-o-y decline in 2Q16 for the OECD as a whole, as the US barely adds to output while OECD Asia accelerates the decrease.

Refinery Crude Throughput and Utilisation in OECD Countries

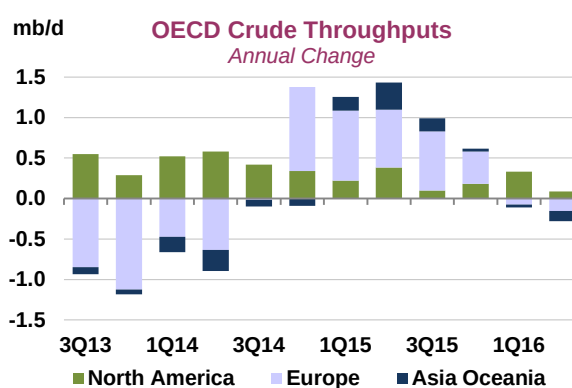
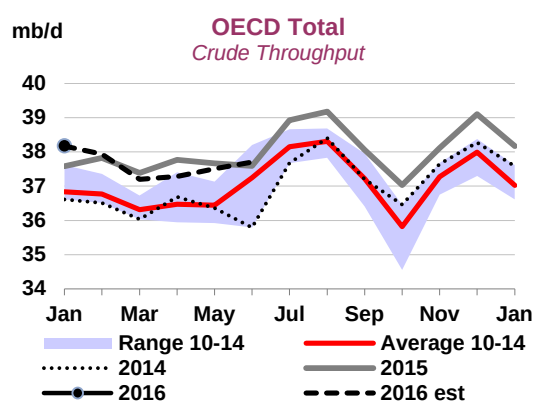
(million barrels per day)

	Aug 15	Sep 15	Oct 15	Nov 15	Dec 15	Jan 16	Change from		Utilisation rate ¹	
							Dec 15	Jan 15	Jan 16	Jan 15
US ²	16.66	16.17	15.47	16.49	16.77	15.92	-0.84	0.43	0.87	0.87
Canada	1.83	1.64	1.56	1.59	1.66	1.75	0.09	-0.07	0.89	0.92
Chile	0.14	0.16	0.15	0.14	0.17	0.16	-0.01	0.01	0.71	0.68
Mexico	1.06	1.05	1.06	1.05	1.12	1.11	-0.01	0.11	0.68	0.61
OECD Americas³	19.70	19.03	18.23	19.27	19.72	18.95	-0.76	0.48	0.86	0.86
France	1.09	1.27	1.27	1.18	1.09	1.16	0.06	-0.01	0.83	0.83
Germany	1.93	1.90	1.83	1.89	1.94	1.92	-0.03	-0.03	0.95	0.96
Italy	1.42	1.35	1.34	1.40	1.38	1.30	-0.08	0.04	0.74	0.72
Netherlands	1.04	1.10	1.13	0.96	1.10	1.08	-0.02	-0.01	0.83	0.84
Spain	1.41	1.29	1.36	1.21	1.34	1.23	-0.12	0.04	0.81	0.78
United Kingdom	1.21	1.20	1.21	1.18	1.17	1.14	-0.03	0.03	0.83	0.81
Other OECD Europe	4.30	4.33	4.21	4.33	4.24	4.19	-0.05	0.07	0.87	0.84
OECD Europe	12.41	12.45	12.35	12.15	12.27	12.00	-0.27	0.12	0.85	0.83
Japan	3.33	3.07	2.95	3.11	3.25	3.36	0.11	-0.13	0.91	0.87
South Korea	2.88	2.70	2.70	2.73	2.98	2.97	-0.01	0.18	0.90	0.85
Other Asia Oceania	0.78	0.71	0.72	0.75	0.79	0.79	0.00	-0.06	0.79	0.77
OECD Asia Oceania	6.98	6.48	6.36	6.60	7.02	7.12	0.10	-0.01	0.89	0.85
OECD Total	39.08	37.96	36.93	38.02	39.00	38.07	-0.93	0.59	0.86	0.85

1 Expressed as a percentage, based on crude throughput and current operable refining capacity

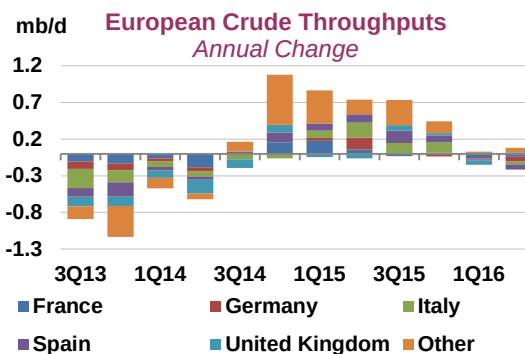
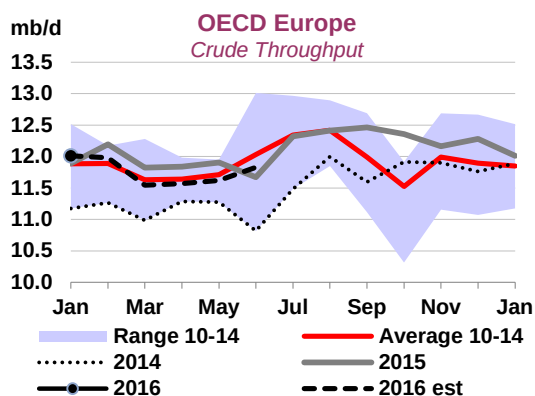
2 US50

3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

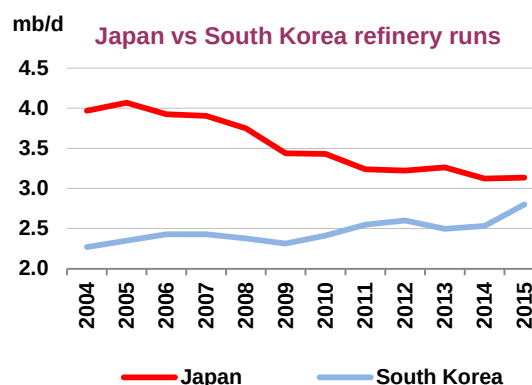


The **US** slowdown in January was largely seasonal and within the recent historical range. Preliminary weekly data in February show further declines, especially in PADD 2, where refiners were heard contemplating run cuts due to lower margins amid high product stocks. A major refiner also noted that the shift back towards more heavy imports in its crude slate from the previous diet with higher US tight oil content requires time to adjust the refinery kit, which may result in lower intensity operations. Publicly available information shows lighter spring maintenance programmes this year compared to 2015, some 200 kb/d lower on average. If the programme matches last year's volumes, there is the chance of a downward revision of the US 1Q16 estimates and the 2Q16 forecast from current levels of 15.8 mb/d and 16.5 mb/d, respectively. Elsewhere in the OECD Americas, **Canadian** runs were higher vs December, but lower y-o-y by 70 kb/d, while **Mexico** registered a 110 kb/d y-o-y throughput increase, the first sizeable gain in two years.

OECD Europe still registered an annual throughput increase in January, but at a mere 120 kb/d, it was the lowest rate since the start of the margins renaissance in 4Q14. The forecast for 1Q16 and 2Q16 is for net annual declines with runs dipping below 12 mb/d, as deteriorating margins weigh on refinery profitability.



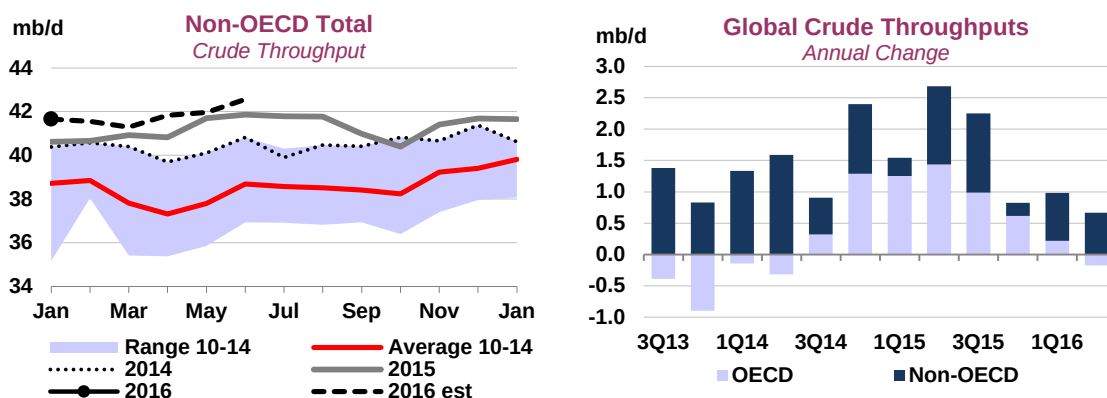
Japanese refiners halted the long-term declining trend last year, as the throughput volumes did not change from 2014, but our forecast for 1Q16 and 2Q16 sees this trend resuming with runs falling y-o-y. South Korea registered record high throughputs in December at just below 3 mb/d. The closure of Australian refineries has been a boon for export-oriented Korean refiners that have increased shipments to Australian ports. The gap between average annual runs in South Korea and Japan is now as close as ever – it halved to 340 kb/d last year. As the deadline for METI's phase II ordinance calling for the shutdown of 370 kb/d of Japanese refining capacity is just a year away, the ministry is considering another potential round of cuts, with the report scheduled to be completed later this year.



Non-OECD refinery throughput

While non-OECD refiners were not in the driving seat last year for the first time in many years they are set to again take the leading role this year. Estimates for 4Q15 runs, with a slight downward revision of 200 kb/d from the previous *Report*, show rather modest y-o-y gains by recent historical standards. Throughput estimates for 1Q16 and our forecast for 2Q16, however, show non-OECD driving the global increase with throughputs likely breaking through 42 mb/d, a level that the OECD had not reached.

Chinese data for January as published by the National Bureau of Statistics are not yet available, but secondary sources indicate a 2% decline in refinery throughput over December, which still implies a 2.5% annual gain. Chinese refiners were suffering from product oversupply at home, but exports were not an obvious solution as the domestic price floor policy (with crude pegged at \$40/bbl) meant that the margins gained by exporting to international markets were lower than from domestic sales. With international futures recently trading around \$40/bbl, this may open the door. The fuel specification changes that came into force at the start of this year have reportedly resulted in unusual arbitrage flows of gasoline blending components, such as reformate, from Europe to China as some refiners there, especially poorly-equipped independents struggle to produce on-spec volumes. Also, with Chinese majors reporting shutting down several clusters of small production fields for economic reasons, some independent refiners were deprived of their main feedstock and had to turn to international markets.



India's refining throughput reached a record high, at 4.85 mb/d in January. State refiners reported very good 4Q earnings as lower oil prices propped up domestic demand. The country's authorities are now considering partial deregulation of the crude imports policy to allow state-owned refiners to import crude on spot basis rather than necessarily having to go through a tendering process, which is the current requirement. This may help firm the margins even more as it will provide Indian refiners with the flexibility to change their crude slate to benefit from volatility in crude prices and differentials.

Russian refinery runs in January were down 300 kb/d from December and 200 kb/d from January last year, to 5.56 mb/d. The government agreed to postpone the deadlines for a few remaining upgrade projects towards a later date, but, to compensate for lower upstream taxes, swiftly introduced and adopted excise duty hikes for transport fuels. This will increase domestic pump prices by at least 2%, from April, and may yet result in higher exports of diesel and even gasoline.

Elsewhere in the non-OECD, the estimate of 4Q refinery throughput in the **Middle East** is slightly revised up to 6.8 mb/d, with a 700 kb/d annual gain, reflecting further ramp-up of new capacity in Saudi Arabia. In **Africa**, Nigerian refineries were reported to be re-opened this month after attacks in January. The country is still undergoing major reforms of the oil sector, both upstream and downstream. Overall for Africa, 4Q estimates were higher with stronger throughput numbers in Algeria and Egypt coming in for December.

The estimate for **Latin American** refinery runs in 4Q was revised down by 120 kb/d due to outages in Venezuela. Brazil's refinery runs came in stronger in January, reaching 1.94 mb/d. Argentina finally allowed its refiners to import international crudes that are priced lower compared to regulated prices for domestic production and are also of higher quality than the heavier domestic crudes. Rumours circulate again about a possible restart of the Aruba refinery, a 235 kb/d facility that Valero shut down in 2012 but did not completely mothball. PDVSA is now reportedly considering using the refinery as an upgrader of its extra-heavy oil before it can be processed by regular refineries. The Aruba refinery is located 30 km offshore from the Venezuelan coast. In theory, the company could use some diluents to ship the extra-heavy oil to the refinery and then recycle the diluents back upstream to save on their procurement costs.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	23.6	24.1	23.9	23.7	24.4	24.6	24.1	24.2	24.1	24.7	24.4	24.4	24.2	24.2	24.6	24.6	24.4
Europe	13.8	13.6	13.0	13.4	13.9	13.5	13.5	13.5	13.6	14.1	13.7	13.7	13.5	13.7	14.0	13.6	13.7
Asia Oceania	8.5	8.3	8.9	7.7	7.7	8.3	8.1	8.7	7.6	7.8	8.3	8.1	8.5	7.6	7.8	8.2	8.0
Total OECD	45.9	46.0	45.8	44.8	45.9	46.4	45.7	46.5	45.3	46.6	46.3	46.2	46.2	45.5	46.4	46.4	46.1
NON-OECD DEMAND																	
FSU	4.6	4.7	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.7	4.8	5.0	4.9	4.9
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	9.9	10.3	10.4	10.6	10.5	11.0	10.6	11.0	11.3	11.3	11.3	11.2	11.3	11.5	11.7	11.8	11.6
Other Asia	11.4	11.8	12.1	12.2	11.8	12.2	12.1	12.4	12.6	12.4	12.9	12.6	13.1	13.1	12.9	13.4	13.1
Americas	6.5	6.7	6.6	6.8	7.0	6.9	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.8	6.9	6.9	6.8
Middle East	7.8	7.9	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.4	8.8	8.3	8.3
Africa	3.8	3.9	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.2	4.1	4.3	4.2	4.1	4.3	4.2
Total Non-OECD	44.8	45.9	46.1	47.2	47.3	47.7	47.1	47.1	48.7	48.9	48.9	48.4	48.4	49.5	50.1	50.3	49.6
Total Demand¹	90.7	91.9	91.9	92.1	93.3	94.0	92.8	93.5	94.0	95.5	95.2	94.6	94.7	95.0	96.6	96.7	95.8
OECD SUPPLY																	
Americas ⁴	15.8	17.2	18.3	18.9	19.3	19.9	19.1	20.0	19.6	20.1	20.0	19.9	19.6	19.2	19.2	19.5	19.4
Europe	3.5	3.3	3.5	3.2	3.1	3.4	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.2	3.4	3.4
Asia Oceania	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	19.8	21.0	22.3	22.6	22.9	23.8	22.9	23.8	23.5	23.9	24.1	23.8	23.7	23.1	22.9	23.3	23.2
NON-OECD SUPPLY																	
FSU	13.8	13.9	13.9	13.8	13.8	13.9	13.9	14.0	14.0	13.9	14.0	14.0	14.2	14.0	13.8	13.8	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.2	4.2	4.2	4.4	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Other Asia ²	2.7	2.7	2.6	2.6	2.6	2.7	2.6	2.8	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.2	4.2	4.3	4.5	4.6	4.4	4.6	4.5	4.5	4.6	4.6	4.4	4.5	4.5	4.6	4.5
Middle East	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa ²	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.7	28.7	28.9	28.7	28.8	29.3	28.9	29.5	29.3	29.2	29.4	29.3	29.2	29.1	29.0	29.0	29.1
Processing gains ³	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	1.9	2.0	1.7	2.3	2.6	2.3	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC Supply ²	52.5	53.9	55.1	55.9	56.5	57.7	56.3	57.4	57.5	57.9	58.1	57.7	57.1	56.8	56.9	57.0	57.0
OPEC																	
Crude	32.1	31.2	30.7	30.8	31.2	31.2	31.0	31.2	32.2	32.4	32.4	32.1					
NGLs	6.4	6.3	6.4	6.4	6.6	6.6	6.5	6.6	6.7	6.7	6.8	6.7	6.8	6.8	6.9	6.9	6.9
Total OPEC ²	38.4	37.5	37.1	37.2	37.8	37.8	37.5	37.7	38.9	39.1	39.2	38.7					
Total Supply⁴	90.9	91.4	92.2	93.1	94.3	95.5	93.8	95.1	96.3	97.0	97.2	96.4					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.2	0.2	0.8	0.7	-0.1	0.4	0.9	1.0	0.8	0.3	0.8					
Government	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0					
Total	0.2	-0.2	0.2	0.7	0.7	-0.1	0.4	0.9	1.0	0.8	0.4	0.8					
Floating storage/Oil in transit	-0.1	0.1	0.2	-0.3	0.3	-0.2	0.0	0.4	0.4	-0.2	0.5	0.3					
Miscellaneous to balance ⁵	0.1	-0.5	-0.2	0.7	0.0	1.7	0.5	0.3	0.8	0.9	1.1	0.8					
Total Stock Ch. & Misc	0.2	-0.6	0.3	1.0	1.0	1.4	0.9	1.6	2.3	1.5	2.0	1.9					
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	31.9	31.7	30.4	29.7	30.2	29.8	30.0	29.6	29.9	31.0	30.4	30.2	30.8	31.4	32.8	32.8	31.9

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.1	0.1	-	-	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.1	0.1	-	0.1	-0.1	-	0.1	-
Other Asia	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	0.1	0.2	0.3	0.1	0.3	-	0.1	0.4	0.2
Total Demand	-	-	-	-	-	-	-	-	0.1	0.2	0.4	0.2	0.2	0.1	0.1	0.3	0.2
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-0.1	-	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-0.1	-	-0.2	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-	-	-0.1	-0.1	-0.1
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	0.1	-	-	-	-	0.2	-	0.1	-0.1	-0.1	-0.2	-0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	0.1	-	-	-	-	0.2	0.1					
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	0.9	-0.3	0.7	0.1					
Miscellaneous to balance	-	-	-	-	-	0.1	-	-	-1.0	0.2	-1.0	-0.2					
Total Stock Ch. & Misc	-	-	-	-	-	0.1	-	-	-0.1	-0.1	-0.2	-0.1					
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-0.1	-	-	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.6	0.3

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Demand (mb/d)																
Americas	24.07	23.88	23.72	24.37	24.56	24.14	24.24	24.09	24.73	24.37	24.36	24.25	24.17	24.63	24.63	24.42
Europe	13.62	13.04	13.43	13.88	13.47	13.46	13.47	13.56	14.13	13.67	13.71	13.45	13.72	14.00	13.58	13.69
Asia Oceania	8.34	8.87	7.68	7.69	8.32	8.14	8.75	7.65	7.78	8.26	8.11	8.53	7.62	7.80	8.22	8.04
Total OECD	46.02	45.79	44.83	45.93	46.35	45.73	46.45	45.30	46.64	46.30	46.17	46.23	45.51	46.43	46.43	46.15
Asia	22.06	22.48	22.76	22.25	23.22	22.68	23.43	23.95	23.71	24.17	23.82	24.42	24.65	24.53	25.16	24.69
Middle East	7.91	7.72	8.17	8.40	7.84	8.03	7.64	8.34	8.60	8.12	8.18	7.83	8.36	8.84	8.28	8.33
Americas	6.67	6.62	6.79	6.96	6.94	6.83	6.64	6.78	6.88	6.81	6.78	6.50	6.75	6.90	6.91	6.77
FSU	4.72	4.63	4.86	5.14	5.05	4.92	4.58	4.89	5.05	4.97	4.87	4.71	4.79	5.03	4.94	4.87
Africa	3.89	3.99	3.99	3.88	3.96	3.96	4.09	4.07	3.96	4.15	4.07	4.27	4.24	4.13	4.30	4.23
Europe	0.66	0.65	0.67	0.69	0.68	0.67	0.68	0.70	0.71	0.71	0.70	0.71	0.72	0.71	0.72	0.72
Total Non-OECD	45.90	46.10	47.24	47.32	47.70	47.09	47.05	48.73	48.90	48.93	48.41	48.44	49.51	50.14	50.31	49.60
World	91.92	91.88	92.07	93.25	94.05	92.82	93.50	94.03	95.54	95.23	94.58	94.66	95.01	96.57	96.74	95.75
of which: US50	18.96	18.82	18.77	19.31	19.51	19.11	19.29	19.25	19.68	19.36	19.40	19.33	19.32	19.67	19.64	19.49
Europe 5*	8.12	7.87	7.91	8.19	8.04	8.00	8.05	7.99	8.34	8.08	8.12	8.01	8.07	8.22	8.00	8.08
China	10.26	10.40	10.58	10.45	11.01	10.61	11.02	11.31	11.31	11.27	11.23	11.29	11.52	11.67	11.76	11.56
Japan	4.56	5.07	3.93	3.93	4.48	4.35	4.79	3.89	3.94	4.23	4.21	4.46	3.73	3.87	4.22	4.07
India	3.69	3.81	3.88	3.56	3.80	3.76	3.95	4.01	3.86	4.09	3.98	4.30	4.25	4.03	4.33	4.23
Russia	3.46	3.46	3.62	3.86	3.68	3.66	3.38	3.63	3.75	3.61	3.60	3.51	3.50	3.71	3.55	3.57
Brazil	3.11	3.12	3.17	3.28	3.31	3.22	3.16	3.17	3.22	3.20	3.19	2.99	3.09	3.20	3.24	3.13
Saudi Arabia	2.96	2.78	3.29	3.47	3.02	3.14	2.88	3.46	3.58	3.21	3.29	2.92	3.42	3.76	3.21	3.33
Canada	2.37	2.41	2.32	2.44	2.41	2.40	2.36	2.26	2.38	2.34	2.34	2.29	2.24	2.36	2.32	2.30
Korea	2.33	2.35	2.31	2.32	2.38	2.34	2.48	2.32	2.39	2.54	2.43	2.59	2.43	2.46	2.52	2.50
Mexico	2.09	2.00	2.02	2.00	2.02	2.01	1.91	1.95	2.04	2.02	1.98	1.95	1.97	1.96	2.01	1.97
Iran	1.92	1.96	1.89	1.85	1.91	1.90	1.82	1.85	1.79	1.87	1.83	1.88	1.85	1.86	1.95	1.88
Total	63.82	64.05	63.67	64.67	65.57	64.50	65.09	65.08	66.28	65.83	65.57	65.50	65.40	66.76	66.75	66.11
% of World	69.4%	69.7%	69.2%	69.4%	69.7%	69.5%	69.6%	69.2%	69.4%	69.1%	69.3%	69.2%	68.8%	69.1%	69.0%	69.0%
Annual Change (% per annum)																
Americas	1.9	0.4	-0.6	0.2	1.0	0.3	1.5	1.6	1.5	-0.8	0.9	0.0	0.3	-0.4	1.1	0.3
Europe	-1.2	-0.6	-2.9	-0.6	-0.6	-1.2	3.3	1.0	1.9	1.5	1.9	-0.1	1.2	-0.9	-0.7	-0.2
Asia Oceania	-2.1	0.3	-2.4	-4.2	-3.6	-2.4	-1.4	-0.4	1.2	-0.7	-0.4	-2.5	-0.4	0.2	-0.5	-0.8
Total OECD	0.2	0.1	-1.6	-0.8	-0.3	-0.6	1.5	1.1	1.5	-0.1	1.0	-0.5	0.5	-0.4	0.3	-0.1
Asia	3.4	2.3	3.2	2.2	3.5	2.8	4.2	5.2	6.6	4.1	5.0	4.2	2.9	3.5	4.1	3.7
Middle East	0.8	1.7	2.1	0.0	2.5	1.6	-1.0	2.1	2.4	3.5	1.8	2.5	0.2	2.8	2.0	1.9
Americas	2.3	3.2	2.1	2.5	1.8	2.4	0.2	-0.1	-1.2	-1.8	-0.7	-2.1	-0.5	0.4	1.4	-0.2
FSU	1.9	5.4	5.9	4.3	2.2	4.4	-1.1	0.7	-1.9	-1.5	-1.0	2.9	-2.0	-0.4	-0.7	-0.1
Africa	2.0	-0.1	0.8	4.8	1.6	1.7	2.4	1.9	2.1	4.7	2.8	4.4	4.1	4.3	3.5	4.1
Europe	-4.1	5.6	2.9	3.2	-0.2	2.8	4.1	3.4	2.4	4.2	3.5	4.5	3.7	0.4	1.4	2.5
Total Non-OECD	2.4	2.5	2.9	2.3	2.7	2.6	2.1	3.2	3.3	2.6	2.8	2.9	1.6	2.5	2.8	2.5
World	1.3	1.3	0.7	0.8	1.2	1.0	1.8	2.1	2.4	1.3	1.9	1.2	1.0	1.1	1.6	1.2
Annual Change (mb/d)																
Americas	0.44	0.10	-0.13	0.06	0.23	0.07	0.36	0.37	0.35	-0.20	0.22	0.01	0.08	-0.09	0.26	0.06
Europe	-0.16	-0.08	-0.41	-0.08	-0.08	-0.16	0.43	0.13	0.26	0.20	0.25	-0.02	0.16	-0.13	-0.09	-0.02
Asia Oceania	-0.17	0.03	-0.18	-0.34	-0.31	-0.20	-0.12	-0.03	0.09	-0.06	-0.03	-0.22	-0.03	0.02	-0.04	-0.07
Total OECD	0.11	0.06	-0.72	-0.36	-0.15	-0.30	0.67	0.47	0.70	-0.05	0.45	-0.22	0.21	-0.21	0.13	-0.02
Asia	0.73	0.51	0.70	0.48	0.79	0.62	0.95	1.19	1.46	0.95	1.14	0.99	0.69	0.82	0.99	0.87
Middle East	0.06	0.13	0.17	0.00	0.19	0.12	-0.08	0.17	0.20	0.27	0.14	0.19	0.02	0.24	0.17	0.15
Americas	0.15	0.21	0.14	0.17	0.12	0.16	0.01	-0.01	-0.08	-0.13	-0.05	-0.14	-0.03	0.03	0.10	-0.01
FSU	0.09	0.24	0.27	0.21	0.11	0.21	-0.05	0.03	-0.10	-0.08	-0.05	0.13	-0.10	-0.02	-0.03	-0.01
Africa	0.08	0.00	0.03	0.18	0.06	0.07	0.10	0.08	0.08	0.19	0.11	0.18	0.17	0.17	0.14	0.16
Europe	-0.03	0.03	0.02	0.02	0.00	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.00	0.01	0.02
Total Non-OECD	1.09	1.12	1.33	1.07	1.27	1.20	0.96	1.49	1.58	1.23	1.32	1.38	0.77	1.24	1.38	1.19
World	1.19	1.17	0.61	0.71	1.12	0.90	1.62	1.96	2.28	1.18	1.76	1.16	0.98	1.03	1.51	1.17
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.07	0.04	0.01	0.00	-0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	-0.01	0.09	0.03	-0.01	0.04	0.01	0.00	0.01
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	-0.05	0.03	0.01	-0.03	-0.01
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	-0.01	0.14	0.05	-0.14	0.11	0.03	-0.03	-0.01
Asia	0.00	0.01	0.03	0.03	0.03	0.03	-0.01	0.12	0.15	0.22	0.12	0.30	0.02	0.10	0.23	0.16
Middle East	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.01	-0.03	0.00	0.00	-0.04	-0.01	0.09	0.01
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	-0.06	-0.01	0.01	0.02	-0.01
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.05	-0.02	-0.01	0.01	0.01
Africa	0.00	-0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.03	0.01	0.01	0.00	0.00	0.02	0.01
Europe	0.00	-0.01	0.00	0.00	0.00	0.00	-0.02	-0.01	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01	0.00
Total Non-OECD	0.00	0.00	0.04	0.02	0.03	0.02	-0.03	0.12	0.16	0.27	0.13	0.30	-0.05	0.09	0.37	0.18
World	0.00	0.00	0.04	0.02	0.03	0.02	0.00	0.15	0.16	0.40	0.18	0.16	0.07	0.12	0.34	0.17
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	-0.03	0.02	0.07	0.00	0.01	0.03	0.00	0.10	0.13	0.37	0.15	0.16	-0.08	-0.04	-0.07	-0.01

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	1Q15	2Q15	3Q15	4Q15	Oct 15	Nov 15	Dec 15 ²	Nov 15	Dec 14
Americas											
LPG and ethane	3.22	3.21	3.48	2.98	3.02	3.36	3.12	3.39	3.59	0.20	-0.01
Naphtha	0.35	0.34	0.35	0.31	0.33	0.36	0.34	0.35	0.38	0.03	0.00
Motor gasoline	10.64	10.88	10.49	10.97	11.16	10.89	10.99	10.81	10.87	0.06	0.17
Jet and kerosene	1.74	1.81	1.72	1.81	1.88	1.84	1.86	1.80	1.86	0.06	0.05
Gasoil/diesel oil	5.28	5.20	5.52	5.11	5.16	5.04	5.25	4.89	4.97	0.09	-0.42
Residual fuel oil	0.58	0.55	0.51	0.44	0.63	0.62	0.57	0.66	0.64	-0.02	0.09
Other products	2.32	2.37	2.17	2.47	2.56	2.25	2.31	2.22	2.22	0.00	0.12
Total	24.14	24.36	24.24	24.09	24.73	24.37	24.44	24.12	24.53	0.41	0.01
Europe											
LPG and ethane	1.08	1.15	1.21	1.14	1.11	1.12	1.01	1.13	1.23	0.11	0.14
Naphtha	1.17	1.16	1.25	1.13	1.12	1.15	1.10	1.12	1.22	0.10	0.08
Motor gasoline	1.91	1.92	1.78	1.98	2.03	1.90	1.93	1.85	1.92	0.07	0.01
Jet and kerosene	1.27	1.32	1.19	1.34	1.49	1.24	1.31	1.20	1.21	0.01	0.00
Gasoil/diesel oil	5.94	6.19	6.16	5.96	6.30	6.32	6.42	6.18	6.35	0.17	0.19
Residual fuel oil	0.92	0.88	0.89	0.87	0.88	0.89	0.86	0.88	0.93	0.05	0.05
Other products	1.17	1.10	1.00	1.14	1.20	1.05	1.16	1.07	0.93	-0.13	-0.06
Total	13.46	13.71	13.47	13.56	14.13	13.67	13.79	13.42	13.80	0.37	0.40
Asia Oceania											
LPG and ethane	0.84	0.79	0.90	0.73	0.75	0.78	0.74	0.76	0.82	0.06	-0.12
Naphtha	1.88	1.97	2.04	1.88	1.95	2.00	1.90	1.97	2.13	0.16	0.08
Motor gasoline	1.54	1.55	1.52	1.51	1.62	1.57	1.54	1.55	1.63	0.08	-0.03
Jet and kerosene	0.86	0.86	1.11	0.68	0.69	0.95	0.80	0.91	1.14	0.24	-0.12
Gasoil/diesel oil	1.77	1.81	1.85	1.76	1.76	1.88	1.87	1.85	1.91	0.07	0.02
Residual fuel oil	0.67	0.63	0.77	0.60	0.54	0.63	0.54	0.63	0.71	0.08	0.01
Other products	0.57	0.49	0.56	0.48	0.46	0.45	0.42	0.45	0.48	0.03	-0.09
Total	8.14	8.11	8.75	7.65	7.78	8.26	7.80	8.13	8.84	0.71	-0.25
OECD											
LPG and ethane	5.15	5.14	5.58	4.85	4.89	5.26	4.87	5.28	5.64	0.37	0.02
Naphtha	3.40	3.47	3.63	3.33	3.40	3.50	3.33	3.44	3.73	0.29	0.16
Motor gasoline	14.10	14.36	13.78	14.46	14.80	14.37	14.46	14.22	14.42	0.20	0.15
Jet and kerosene	3.87	3.99	4.03	3.83	4.06	4.03	3.97	3.91	4.22	0.31	-0.07
Gasoil/diesel oil	12.99	13.20	13.53	12.83	13.22	13.23	13.54	12.91	13.24	0.32	-0.21
Residual fuel oil	2.17	2.07	2.16	1.91	2.05	2.14	1.97	2.17	2.28	0.11	0.15
Other products	4.05	3.95	3.73	4.09	4.23	3.76	3.89	3.74	3.64	-0.11	-0.02
Total	45.73	46.17	46.45	45.30	46.64	46.30	46.03	45.67	47.17	1.49	0.17

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	1Q15	2Q15	3Q15	4Q15	Oct 15	Nov 15	Dec 15 ²	Latest month vs.	
										Nov 15	Dec 14
United States³											
LPG and ethane	2.40	2.37	2.62	2.18	2.20	2.50	2.29	2.52	2.69	0.17	0.02
Naphtha	0.23	0.22	0.23	0.20	0.22	0.24	0.23	0.24	0.25	0.01	-0.02
Motor gasoline	8.92	9.16	8.81	9.26	9.39	9.17	9.25	9.11	9.14	0.04	0.20
Jet and kerosene	1.48	1.55	1.46	1.55	1.59	1.58	1.59	1.55	1.60	0.05	0.04
Gasoil/diesel oil	4.04	3.98	4.27	3.88	3.93	3.83	3.99	3.70	3.80	0.10	-0.37
Residual fuel oil	0.26	0.26	0.24	0.19	0.31	0.30	0.21	0.36	0.33	-0.03	0.08
Other products	1.78	1.86	1.66	1.99	2.04	1.74	1.78	1.71	1.73	0.02	0.14
Total	19.11	19.40	19.29	19.25	19.68	19.36	19.35	19.19	19.54	0.36	0.09
Japan											
LPG and ethane	0.50	0.45	0.57	0.42	0.41	0.42	0.39	0.40	0.47	0.07	-0.12
Naphtha	0.75	0.80	0.84	0.75	0.79	0.81	0.76	0.79	0.89	0.10	0.04
Motor gasoline	0.92	0.91	0.88	0.89	0.97	0.92	0.89	0.89	0.96	0.07	-0.05
Jet and kerosene	0.52	0.50	0.73	0.35	0.35	0.57	0.43	0.52	0.74	0.22	-0.12
Diesel	0.40	0.43	0.43	0.42	0.43	0.44	0.45	0.42	0.45	0.03	0.02
Other gasoil	0.40	0.36	0.42	0.33	0.32	0.38	0.36	0.36	0.41	0.05	-0.06
Residual fuel oil	0.41	0.36	0.46	0.34	0.31	0.32	0.29	0.31	0.35	0.04	-0.08
Other products	0.44	0.40	0.46	0.40	0.38	0.38	0.34	0.37	0.42	0.05	-0.03
Total	4.35	4.21	4.79	3.89	3.94	4.23	3.92	4.06	4.70	0.64	-0.40
Germany											
LPG and ethane	0.09	0.10	0.09	0.11	0.10	0.08	0.08	0.08	0.09	0.01	0.01
Naphtha	0.42	0.39	0.43	0.38	0.36	0.40	0.36	0.42	0.43	0.01	0.01
Motor gasoline	0.44	0.43	0.40	0.44	0.45	0.43	0.45	0.42	0.42	0.00	0.01
Jet and kerosene	0.19	0.19	0.17	0.20	0.21	0.18	0.20	0.17	0.17	0.00	0.00
Diesel	0.73	0.77	0.71	0.76	0.81	0.79	0.81	0.84	0.72	-0.12	0.03
Other gasoil	0.36	0.35	0.45	0.24	0.34	0.36	0.39	0.32	0.39	0.07	0.02
Residual fuel oil	0.12	0.13	0.12	0.13	0.13	0.12	0.12	0.11	0.14	0.03	-0.01
Other products	0.05	0.04	0.01	0.04	0.06	0.04	0.05	0.06	0.02	-0.03	-0.01
Total	2.40	2.39	2.39	2.30	2.46	2.41	2.44	2.41	2.38	-0.04	0.05
Italy											
LPG and ethane	0.11	0.12	0.13	0.11	0.11	0.13	0.12	0.12	0.14	0.02	0.01
Naphtha	0.09	0.11	0.11	0.11	0.11	0.11	0.10	0.11	0.12	0.02	0.03
Motor gasoline	0.20	0.21	0.19	0.21	0.23	0.21	0.21	0.21	0.21	0.01	0.00
Jet and kerosene	0.09	0.09	0.08	0.10	0.11	0.08	0.09	0.08	0.07	-0.01	0.00
Diesel	0.50	0.46	0.44	0.47	0.47	0.47	0.47	0.46	0.47	0.02	-0.04
Other gasoil	0.04	0.09	0.09	0.09	0.10	0.10	0.11	0.10	0.11	0.01	0.05
Residual fuel oil	0.06	0.08	0.08	0.08	0.08	0.08	0.09	0.07	0.09	0.01	0.02
Other products	0.14	0.13	0.11	0.14	0.13	0.13	0.14	0.15	0.12	-0.03	-0.01
Total	1.22	1.30	1.22	1.31	1.35	1.31	1.32	1.28	1.33	0.05	0.06
France											
LPG and ethane	0.11	0.13	0.15	0.11	0.11	0.13	0.12	0.12	0.14	0.02	0.01
Naphtha	0.12	0.11	0.12	0.12	0.12	0.08	0.07	0.07	0.09	0.02	0.01
Motor gasoline	0.16	0.16	0.14	0.17	0.18	0.16	0.16	0.15	0.17	0.02	0.01
Jet and kerosene	0.15	0.15	0.14	0.16	0.17	0.15	0.16	0.14	0.14	0.00	0.00
Diesel	0.70	0.70	0.67	0.71	0.72	0.71	0.72	0.68	0.74	0.07	0.00
Other gasoil	0.25	0.25	0.29	0.20	0.28	0.24	0.24	0.19	0.28	0.09	-0.02
Residual fuel oil	0.05	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.00	-0.01
Other products	0.12	0.10	0.11	0.12	0.10	0.08	0.11	0.07	0.06	-0.01	-0.02
Total	1.65	1.65	1.68	1.63	1.71	1.58	1.62	1.45	1.67	0.22	-0.02
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.14	0.12	0.14	0.12	0.14	0.15	0.01	0.00
Naphtha	0.02	0.03	0.02	0.02	0.03	0.03	0.04	0.04	0.03	-0.01	0.01
Motor gasoline	0.30	0.29	0.29	0.30	0.30	0.29	0.29	0.30	0.29	-0.01	0.00
Jet and kerosene	0.31	0.31	0.33	0.30	0.31	0.30	0.28	0.30	0.32	0.02	-0.02
Diesel	0.48	0.50	0.47	0.50	0.50	0.51	0.49	0.54	0.50	-0.04	0.01
Other gasoil	0.13	0.13	0.13	0.14	0.14	0.13	0.15	0.13	0.11	-0.02	0.00
Residual fuel oil	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.01	-0.01
Other products	0.12	0.12	0.11	0.11	0.13	0.12	0.14	0.12	0.12	0.00	0.00
Total	1.52	1.54	1.52	1.54	1.56	1.55	1.53	1.58	1.55	-0.03	-0.01
Canada											
LPG and ethane	0.37	0.38	0.40	0.36	0.38	0.41	0.38	0.43	0.42	-0.01	-0.02
Naphtha	0.09	0.09	0.10	0.09	0.09	0.10	0.08	0.10	0.12	0.02	0.02
Motor gasoline	0.84	0.82	0.79	0.82	0.85	0.81	0.82	0.81	0.79	-0.02	-0.04
Jet and kerosene	0.13	0.14	0.13	0.13	0.16	0.13	0.14	0.12	0.13	0.01	0.00
Diesel	0.29	0.31	0.32	0.31	0.32	0.29	0.32	0.29	0.27	-0.02	-0.02
Other gasoil	0.30	0.26	0.27	0.24	0.26	0.26	0.26	0.25	0.27	0.02	0.00
Residual fuel oil	0.06	0.04	0.06	0.04	0.03	0.04	0.04	0.03	0.04	0.01	-0.04
Other products	0.30	0.29	0.29	0.26	0.31	0.30	0.32	0.31	0.26	-0.04	-0.03
Total	2.40	2.34	2.36	2.26	2.38	2.34	2.37	2.33	2.30	-0.04	-0.12

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION

(million barrels per day)

	2014	2015	2016	3Q15	4Q15	1Q16	2Q16	3Q16	Dec 15	Jan 16	Feb 16
OPEC											
Crude Oil											
Saudi Arabia	9.53	10.12		10.27	10.16				10.12	10.19	10.21
Iran	2.81	2.86		2.87	2.89				2.91	3.00	3.22
Iraq	3.33	3.99		4.25	4.28				4.35	4.43	4.22
UAE	2.76	2.88		2.92	2.89				2.89	2.91	2.86
Kuwait	2.61	2.74		2.76	2.76				2.79	2.81	2.81
Neutral Zone	0.38	0.09		0.04	0.04				0.04	0.04	0.04
Qatar	0.71	0.66		0.64	0.66				0.64	0.64	0.64
Angola	1.66	1.76		1.77	1.76				1.75	1.75	1.76
Nigeria	1.90	1.80		1.80	1.84				1.80	1.87	1.78
Libya	0.46	0.40		0.38	0.40				0.38	0.38	0.36
Algeria	1.12	1.11		1.12	1.11				1.11	1.10	1.10
Ecuador	0.55	0.54		0.53	0.54				0.54	0.53	0.53
Venezuela	2.46	2.40		2.40	2.38				2.37	2.35	2.37
Indonesia	0.70	0.69		0.69	0.69				0.70	0.70	0.71
Total Crude Oil	30.98	32.05		32.44	32.39				32.39	32.70	32.61
Total NGLs ¹	6.50	6.68	6.85	6.70	6.76	6.77	6.82	6.88	6.76	6.77	6.77
Total OPEC²	37.48	38.73		39.13	39.15				39.15	39.47	39.38
NON-OPEC^{2,3}											
OECD											
Americas	19.09	19.92	19.39	20.05	20.04	19.63	19.21	19.24	20.01	19.74	19.64
United States	11.99	12.94	12.41	13.01	12.98	12.59	12.41	12.28	12.87	12.66	12.60
Mexico	2.81	2.60	2.52	2.60	2.59	2.56	2.54	2.48	2.58	2.58	2.53
Canada	4.28	4.38	4.45	4.44	4.46	4.48	4.25	4.48	4.55	4.49	4.50
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.32	3.46	3.39	3.35	3.60	3.59	3.39	3.22	3.65	3.60	3.59
UK	0.87	0.96	0.95	0.88	1.03	1.03	0.97	0.86	1.06	1.02	1.04
Norway	1.89	1.95	1.91	1.91	2.02	2.02	1.88	1.83	2.05	2.04	2.01
Others	0.57	0.56	0.53	0.56	0.55	0.54	0.53	0.53	0.54	0.54	0.54
Asia Oceania	0.51	0.46	0.47	0.50	0.47	0.48	0.48	0.47	0.47	0.49	0.48
Australia	0.43	0.38	0.39	0.42	0.39	0.39	0.39	0.39	0.39	0.40	0.39
Others	0.08	0.08	0.08	0.09	0.08	0.09	0.08	0.08	0.08	0.08	0.09
Total OECD	22.91	23.84	23.25	23.91	24.11	23.70	23.07	22.93	24.13	23.83	23.70
NON-OECD											
Former USSR	13.87	14.00	13.96	13.92	14.04	14.15	14.01	13.84	14.08	14.19	14.17
Russia	10.91	11.06	11.12	11.04	11.13	11.22	11.13	11.09	11.14	11.25	11.22
Others	2.95	2.94	2.84	2.88	2.92	2.93	2.87	2.76	2.93	2.94	2.95
Asia²	6.88	7.06	6.98	7.01	7.09	6.99	6.99	6.97	7.09	6.95	7.01
China	4.25	4.33	4.28	4.34	4.33	4.26	4.29	4.28	4.32	4.22	4.29
Malaysia	0.65	0.71	0.73	0.67	0.70	0.72	0.73	0.73	0.71	0.71	0.73
India	0.88	0.87	0.83	0.87	0.88	0.85	0.82	0.82	0.87	0.86	0.84
Others	1.11	1.16	1.15	1.14	1.18	1.16	1.15	1.14	1.19	1.17	1.15
Europe	0.14	0.14	0.13	0.14	0.14	0.13	0.13	0.13	0.14	0.13	0.13
Americas²	4.40	4.56	4.51	4.54	4.56	4.44	4.48	4.53	4.65	4.40	4.43
Brazil	2.35	2.53	2.59	2.56	2.54	2.50	2.55	2.61	2.63	2.45	2.52
Argentina	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Colombia	0.99	1.01	0.93	0.98	1.00	0.94	0.93	0.93	1.00	0.98	0.91
Others	0.42	0.39	0.36	0.37	0.39	0.36	0.37	0.36	0.39	0.34	0.37
Middle East^{2,4}	1.32	1.25	1.20	1.23	1.23	1.23	1.20	1.20	1.25	1.24	1.23
Oman	0.95	0.99	0.97	1.00	1.00	1.00	0.97	0.97	1.01	1.01	1.00
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.15	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Africa	2.33	2.32	2.30	2.30	2.29	2.27	2.28	2.30	2.29	2.29	2.29
Egypt	0.71	0.72	0.70	0.73	0.72	0.71	0.70	0.69	0.71	0.71	0.71
Gabon	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Others	1.38	1.36	1.37	1.34	1.35	1.33	1.35	1.38	1.35	1.35	1.35
Total Non-OECD	28.93	29.33	29.08	29.15	29.35	29.21	29.09	28.98	29.48	29.22	29.26
Processing gains ⁵	2.21	2.24	2.27	2.24	2.24	2.27	2.27	2.27	2.24	2.27	2.27
Global Biofuels	2.23	2.30	2.36	2.59	2.39	1.89	2.39	2.75	2.15	1.90	1.89
TOTAL NON-OPEC	56.29	57.71	56.95	57.89	58.09	57.07	56.82	56.92	58.00	57.22	57.12
TOTAL SUPPLY	93.77	96.44		97.02	97.25				97.15	96.69	96.51

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Sep2015	Oct2015	Nov2015	Dec2015	Jan2016*	Jan2013	Jan2014	Jan2015	1Q2015	2Q2015	3Q2015	4Q2015
OECD Americas												
Crude	616.6	642.2	646.4	641.7	662.4	511.8	505.5	576.6	0.81	0.00	-0.10	0.27
Motor Gasoline	257.5	246.7	254.4	267.6	288.8	270.4	271.3	276.7	-0.11	-0.16	0.07	0.11
Middle Distillate	219.8	210.8	226.7	234.6	237.3	206.4	186.0	207.3	-0.10	0.14	0.07	0.16
Residual Fuel Oil	47.1	50.2	50.2	49.6	51.3	44.9	45.8	40.9	0.05	0.03	-0.01	0.03
Total Products ³	763.2	744.5	762.2	773.0	770.9	695.6	653.3	716.7	-0.39	0.43	0.31	0.11
Total ⁴	1571.5	1575.8	1592.9	1591.2	1614.9	1363.1	1302.6	1459.5	0.41	0.59	0.37	0.21
OECD Europe												
Crude	339.0	346.6	345.7	359.3	357.6	317.7	314.3	314.3	0.28	0.00	-0.06	0.22
Motor Gasoline	89.8	89.4	91.9	91.7	98.0	96.5	94.3	101.3	0.13	-0.18	0.04	0.02
Middle Distillate	303.0	300.6	307.8	301.8	311.1	261.6	259.3	260.2	0.10	0.20	0.26	-0.01
Residual Fuel Oil	69.4	69.5	74.4	72.0	69.1	76.2	68.8	70.1	0.02	0.01	0.03	0.03
Total Products ³	558.6	555.9	570.6	562.8	574.1	537.4	517.7	529.4	0.25	-0.01	0.37	0.05
Total ⁴	967.3	972.2	982.4	987.7	998.8	919.6	901.8	906.1	0.59	0.00	0.28	0.22
OECD Asia Oceania												
Crude	202.2	205.1	191.0	205.8	188.6	164.1	154.9	167.4	0.05	0.26	0.01	0.04
Motor Gasoline	23.5	23.1	23.4	23.1	24.9	26.5	25.6	23.0	0.02	0.03	-0.02	0.00
Middle Distillate	67.0	65.0	65.9	65.7	62.9	62.7	66.2	62.8	-0.09	0.06	0.06	-0.01
Residual Fuel Oil	22.4	21.9	23.6	21.2	18.8	19.4	20.3	19.7	-0.03	0.01	0.03	-0.01
Total Products ³	175.7	168.5	170.1	165.7	164.3	172.5	171.7	167.3	-0.18	0.14	0.11	-0.11
Total ⁴	444.7	439.1	428.2	434.5	419.9	406.5	395.8	398.8	-0.15	0.41	0.17	-0.11
Total OECD												
Crude	1157.8	1193.9	1183.1	1206.8	1208.5	993.5	974.8	1058.3	1.14	0.26	-0.14	0.53
Motor Gasoline	370.8	359.3	369.6	382.5	411.8	393.5	391.2	401.0	0.04	-0.32	0.09	0.13
Middle Distillate	589.8	576.4	600.4	602.1	611.3	530.7	511.4	530.3	-0.08	0.39	0.40	0.13
Residual Fuel Oil	138.9	141.6	148.2	142.8	139.2	140.4	134.8	130.7	0.04	0.05	0.05	0.04
Total Products ³	1497.5	1468.9	1502.9	1501.4	1509.3	1405.4	1342.7	1413.3	-0.32	0.56	0.79	0.04
Total ⁴	2983.5	2987.0	3003.5	3013.4	3033.7	2689.2	2600.2	2764.4	0.86	1.01	0.82	0.33

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Sep2015	Oct2015	Nov2015	Dec2015	Jan2016*	Jan2013	Jan2014	Jan2015	1Q2015	2Q2015	3Q2015	4Q2015
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	695.8	696.0	691.0	0.00	0.03	0.01	0.00
Products	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	208.1	206.2	205.5	206.9	206.9	203.8	206.4	208.6	-0.01	-0.02	0.01	-0.01
Products	254.6	256.0	257.7	262.0	263.3	259.6	259.8	255.9	0.01	0.02	-0.05	0.08
OECD Asia Oceania												
Crude	381.4	381.5	381.5	382.2	382.2	392.6	386.6	385.0	0.02	-0.01	-0.05	0.01
Products	33.7	33.9	33.9	34.2	34.2	21.8	30.6	32.0	0.01	0.00	0.01	0.01
Total OECD												
Crude	1284.6	1282.9	1282.1	1284.2	1284.3	1292.2	1288.9	1284.5	0.01	0.00	-0.02	0.00
Products	289.3	290.9	292.6	297.1	298.5	282.3	291.4	288.9	0.02	0.02	-0.04	0.08
Total ⁴	1573.9	1573.8	1574.7	1581.3	1582.8	1574.5	1580.3	1573.4	0.03	0.02	-0.06	0.08

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
 ('millions of barrels' and 'days')³

	End December 2014		End March 2015		End June 2015		End September 2015		End December 2015 ³	
	Stock	Days Fwd ²	Stock	Days Fwd	Stock	Days Fwd	Stock	Days Fwd	Stock	Days Fwd
	Level	Demand	Level	Demand	Level	Demand	Level	Demand	Level	Demand
OECD Americas										
Canada	193.1	82	182.8	81	175.6	74	182.5	78	188.3	-
Chile	9.7	28	11.3	33	11.8	36	11.5	34	11.5	-
Mexico	52.8	28	49.8	26	50.4	25	49.5	24	49.7	-
United States ⁴	1860.5	96	1909.4	99	1972.2	100	2002.1	103	2015.8	-
Total⁴	2138.3	88	2175.3	90	2232.2	90	2267.7	93	2287.3	94
OECD Asia Oceania										
Australia	36.2	33	34.1	32	35.9	33	35.5	32	33.3	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	580.7	121	567.7	146	578.3	147	589.6	139	582.0	-
Korea	196.8	79	201.0	87	224.6	94	226.0	89	227.9	-
New Zealand	8.4	48	8.7	56	9.0	59	8.7	52	7.7	-
Total	822.0	94	811.6	106	847.9	109	859.7	104	850.9	100
OECD Europe⁵										
Austria	22.9	92	23.7	91	23.2	82	23.7	91	24.1	-
Belgium	42.4	61	42.9	66	47.7	73	51.3	80	50.4	-
Czech Republic	21.9	116	21.7	103	21.5	106	21.0	123	21.6	-
Denmark	25.8	172	28.8	186	28.4	178	28.6	186	31.8	-
Estonia	1.6	57	1.5	50	1.5	46	1.5	48	1.8	-
Finland	37.9	213	44.1	254	45.0	229	39.9	214	44.9	-
France	167.8	100	172.9	106	169.8	99	166.8	105	167.1	-
Germany	284.2	119	286.1	124	287.2	117	283.0	118	285.2	-
Greece	26.5	91	31.1	112	27.8	91	29.2	94	32.2	-
Hungary	18.7	136	20.0	137	20.5	130	20.6	129	22.1	-
Ireland	9.3	63	12.8	90	11.1	74	11.3	75	10.3	-
Italy	119.4	98	121.0	93	117.1	87	117.2	89	117.3	-
Luxembourg	0.9	15	0.7	12	0.6	12	0.6	10	0.7	-
Netherlands	123.3	136	136.4	153	140.2	151	153.1	165	158.8	-
Norway	24.2	110	23.2	101	25.9	121	25.1	100	26.7	-
Poland	63.2	125	62.7	115	62.6	110	63.9	118	69.4	-
Portugal	22.2	94	21.7	86	21.8	84	23.0	96	23.9	-
Slovak Republic	11.4	152	11.6	133	11.4	140	11.0	137	11.6	-
Slovenia	4.6	96	4.9	99	4.7	88	4.6	96	4.5	-
Spain	121.3	97	132.4	109	133.4	107	139.4	114	130.9	-
Sweden	29.1	101	32.6	103	30.6	98	33.1	118	35.2	-
Switzerland	37.3	161	37.3	172	37.2	165	36.3	149	34.3	-
Turkey	62.4	81	64.7	75	65.7	69	71.2	82	74.6	-
United Kingdom	78.2	52	76.3	50	77.2	49	78.8	51	81.0	-
Total	1356.4	101	1411.1	104	1412.1	100	1434.4	105	1460.8	109
Total OECD	4316.8	93	4398.0	97	4492.2	96	4561.8	98	4599.0	99
DAYS OF IEA Net Imports⁶ -	167	-	172	-	194	-	196	-	198	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End December 2015 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
4Q2012	4230	1547	2683	92	34	59
1Q2013	4259	1580	2680	93	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	57
1Q2014	4196	1585	2611	94	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4327	1577	2749	93	34	59
4Q2014	4317	1579	2738	93	34	59
1Q2015	4398	1582	2816	97	35	62
2Q2015	4492	1584	2908	96	34	62
3Q2015	4562	1578	2984	98	34	64
4Q2015	4599	1586	3013	99	34	65

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 4Q2015 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	1Q15	2Q15	3Q15	4Q15	Oct 15	Nov 15	Dec 15	Year Earlier	
											Dec 14	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.58	0.65	0.57	0.72	0.51	0.82	0.83	0.57	0.26
Europe	0.79	0.84	0.78	0.91	0.77	0.77	0.69	0.75	0.58	0.75	0.95	-0.20
Asia Oceania	1.21	1.17	1.25	1.37	1.25	1.16	1.21	1.15	1.19	1.28	1.31	-0.04
Saudi Medium												
Americas	0.45	0.36	0.37	0.24	0.37	0.44	0.43	0.44	0.47	0.37	0.25	0.12
Europe	0.01	0.03	0.03	0.02	0.02	0.02	0.04	0.03	0.07	0.02	0.05	-0.04
Asia Oceania	0.43	0.45	0.44	0.40	0.44	0.48	0.41	0.33	0.44	0.46	0.32	0.13
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.09	0.20	0.09	0.29	0.22	0.33	0.31	0.09	0.23
Europe	0.25	0.50	0.72	0.50	0.48	0.95	0.94	0.96	1.11	0.77	0.65	0.12
Asia Oceania	0.31	0.24	0.41	0.41	0.31	0.42	0.49	0.39	0.52	0.57	0.37	0.21
Kuwait Blend												
Americas	0.28	0.27	0.13	0.15	0.21	0.11	0.07	-	0.21	-	0.30	-
Europe	0.10	0.09	0.13	0.12	0.08	0.16	0.18	0.17	0.17	0.19	0.10	0.09
Asia Oceania	0.64	0.62	0.65	0.66	0.61	0.62	0.69	0.57	0.72	0.78	0.76	0.02
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.09	0.11	0.07	0.10	0.10	0.09	0.10	0.11	0.00
Asia Oceania	0.00	0.01	0.01	0.03	-	0.02	-	-	-	-	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.03	0.01	0.03	0.01	-	0.03	0.01	0.01	0.00
Asia Oceania	0.30	0.28	0.27	0.31	0.25	0.25	0.26	0.28	0.27	0.23	0.26	-0.03
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.67	0.67	0.67	0.72	0.63	0.74	-0.11
Europe	0.07	0.08	0.09	0.10	0.09	0.07	0.10	0.09	0.10	0.11	0.10	0.01
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.59	0.43	0.45	0.54	0.49	0.62	0.51	0.63	-0.12
Europe	0.14	0.14	0.15	0.16	0.13	0.19	0.11	0.13	0.11	0.10	0.19	-0.10
Asia Oceania	-	-	0.01	-	0.01	0.02	0.02	0.03	0.03	0.01	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	1.84	1.81	2.02	1.94	1.87	1.94	2.01	1.97	0.04
Europe	-	0.00	0.01	-	0.01	0.01	0.01	0.02	-	0.02	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.01	-	0.01	0.02	-	0.05	0.02	0.02	0.00
Europe	0.47	0.56	0.49	0.47	0.48	0.52	0.49	0.49	0.44	0.52	0.66	-0.13
Asia Oceania	0.06	0.07	0.06	0.03	0.09	0.02	0.09	-	0.17	0.10	0.02	0.08
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.54	1.51	1.64	1.74	1.62	1.63	1.98	1.21	0.76
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	0.01	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.73	0.60	0.59	0.65	0.58	0.52	0.86	0.80	0.06
Asia Oceania	0.00	0.02	0.06	0.04	0.02	0.12	0.06	0.07	0.04	0.07	0.03	0.04
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.20	0.23	0.22	0.25	0.27	0.21	0.26	0.45	-0.19
Asia Oceania	0.03	0.02	0.01	-	0.02	-	-	-	-	-	0.01	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.03	0.01	0.03	0.02	0.03	-	0.03	0.02	0.01
Europe	0.53	0.55	0.57	0.62	0.53	0.55	0.58	0.60	0.56	0.58	0.59	-0.02
Asia Oceania	0.03	0.02	-	-	-	-	-	-	-	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2012	2013	2014	1Q15	2Q15	3Q15	4Q15	Oct 15	Nov 15	Dec 15	Year Earlier	
											Dec 14	% change
Crude Oil												
Americas	6101	5130	4201	3869	4085	4075	4090	3845	4103	4323	3604	20%
Europe	9346	8926	8679	9475	9201	9605	9741	9593	9567	10056	9256	9%
Asia Oceania	6761	6557	6381	6871	6426	6486	6523	6293	6048	7214	6858	5%
Total OECD	22208	20612	19261	20216	19711	20165	20354	19731	19718	21593	19718	10%
LPG												
Americas	20	17	12	13	12	5	12	10	14	12	14	-16%
Europe	287	382	427	479	361	408	404	391	384	437	391	12%
Asia Oceania	620	546	531	537	535	491	506	441	532	545	576	-5%
Total OECD	927	945	969	1029	908	904	921	841	929	994	981	1%
Naphtha												
Americas	20	17	20	20	14	12	12	8	14	14	8	86%
Europe	381	332	356	411	287	413	281	382	270	191	488	-61%
Asia Oceania	900	927	960	976	915	954	983	905	1029	1017	1010	1%
Total OECD	1301	1276	1335	1407	1217	1379	1277	1295	1314	1222	1505	-19%
Gasoline ³												
Americas	730	659	665	572	745	813	550	613	521	514	703	-27%
Europe	212	106	131	128	117	72	121	130	81	151	136	12%
Asia Oceania	86	83	83	102	125	69	106	94	113	110	72	53%
Total OECD	1028	848	879	801	987	954	777	837	715	775	910	-15%
Jet & Kerosene												
Americas	73	81	100	148	152	132	133	137	125	137	112	22%
Europe	398	445	454	373	426	586	392	399	421	356	368	-3%
Asia Oceania	62	74	60	67	68	50	75	63	84	80	89	-11%
Total OECD	533	601	613	589	646	768	601	599	631	573	570	1%
Gasoil/Diesel												
Americas	59	58	95	157	40	46	63	72	84	33	113	-71%
Europe	984	1121	1097	1127	1315	1270	1187	1151	1192	1217	1059	15%
Asia Oceania	185	162	181	164	188	169	222	231	220	215	164	31%
Total OECD	1227	1341	1373	1448	1543	1485	1471	1454	1495	1465	1336	10%
Heavy Fuel Oil												
Americas	206	165	132	119	113	139	91	76	100	98	102	-4%
Europe	521	552	617	690	484	513	578	437	536	760	582	31%
Asia Oceania	224	242	214	212	134	186	215	191	264	190	190	0%
Total OECD	951	960	964	1021	731	839	884	704	900	1048	874	20%
Other Products												
Americas	813	812	671	626	760	759	553	500	655	506	767	-34%
Europe	636	791	704	668	667	737	729	747	656	781	664	18%
Asia Oceania	357	386	374	317	306	343	320	309	276	374	279	34%
Total OECD	1806	1989	1750	1611	1733	1839	1602	1556	1587	1662	1710	-3%
Total Products												
Americas	1921	1810	1695	1655	1836	1906	1414	1417	1513	1314	1818	-28%
Europe	3419	3729	3786	3876	3657	3999	3691	3637	3540	3893	3688	6%
Asia Oceania	2433	2421	2402	2375	2272	2263	2427	2234	2519	2532	2380	6%
Total OECD	7773	7960	7883	7906	7765	8168	7532	7288	7572	7739	7886	-2%
Total Oil												
Americas	8022	6940	5896	5525	5921	5980	5504	5262	5616	5637	5422	4%
Europe	12765	12655	12465	13351	12858	13605	13432	13230	13107	13949	12944	8%
Asia Oceania	9194	8978	8783	9246	8698	8748	8950	8527	8566	9745	9238	5%
Total OECD	29982	28572	27144	28122	27476	28333	27886	27019	27290	29332	27603	6%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

2 Excludes intra-regional trade.

3 Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2015), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 14 April 2016

Oil Market Report

14 April 2016

HIGHLIGHTS

- **Crude oil prices rallied to a four-month high in mid-April as further evidence emerged of accelerating declines in US output**, while market participants held out hope that upcoming producer talks would agree a deal to help manage a still massive supply overhang. At the time of writing, Brent was at \$44.30/bbl and US WTI was at \$41.75/bbl.
- **Growth in global oil demand will ease to around 1.2 mb/d in 2016, below 2015's 1.8 mb/d expansion**, as notable decelerations take hold across China, the US and much of Europe. Preliminary 1Q16 data reveal this is already occurring, with year-on-year growth down to +1.2 mb/d, after gains of +1.4 mb/d in 4Q15 and +2.3 mb/d in 3Q15.
- **OPEC crude oil production fell by 90 kb/d in March to 32.47 mb/d** as ongoing outages in Nigeria, the UAE and Iraq more than offset a further increase from Iran and higher flows from Angola. Supply from Saudi Arabia dipped in March but held near 10.2 mb/d.
- **Global oil supplies sank by 0.3 mb/d in March to 96.1 mb/d, with annual gains shrinking to 0.2 mb/d**, from 1.7 mb/d a month earlier and 2.7 mb/d in 2015. The outlook for non-OPEC production in 2016 is largely unchanged since last month's *Report*, at 57.0 mb/d, 710 kb/d less than the 2015 average.
- **1Q16 global refinery runs are estimated 79.3 mb/d, 1.2 mb/d up year on year (y-o-y), in line with global demand growth**. The forecast for 2Q16 throughput is at 79.7 mb/d, up only 0.8 mb/d y-o-y, slower than forecast 1.1 mb/d demand growth. All of the net growth in the first half of 2016 comes from non-OECD refiners.
- **Commercial stocks in the OECD built counter-seasonally by 7.3 mb in February to end the month at 3 060 mb**. Accordingly, the overhang of inventories against average levels widened to 387 mb at end-month. Preliminary information for March suggests OECD holdings rose further while volumes of crude held in floating storage increased.

The IEA is recruiting an Oil Market Analyst

[The International Energy Agency \(IEA\)](#) is recruiting an oil market analyst to work in the Oil Industry and Markets Division (OIMD) in the IEA's Directorate of Energy Markets and Security (EMS). The selected candidate will be part of a close-knit team that generates forecasts and analysis of the oil market under demanding deadlines. S/he will work on the IEA's flagship Oil Market Report (OMR) and the annual Medium Term Oil Market Report (MTOMR) and will provide general support work for the functioning of the division. S/he will work under the supervision of the Head of Division.

Main responsibilities include:

Analysis

- Monitor, analyse and forecast developments in global oil markets and industry in the short and medium term, with particular focus on oil prices, market balances and trade flows.
- Develop and implement forecasting models.

Research Reports

- Prepare written reports under frequent and tight deadlines.
- Research and draft material for the IEA's Monthly Oil Market Report and the annual Medium-Term Oil Market Report.

Liaison and outreach

- Present analysis and findings internally and at international, governmental and professional conferences.
- Develop and maintain contacts in the oil industry, governments and oil consultancies.
- Provide support, as required, to other areas of the IEA, IEA committees and member governments.

Candidate's profile:

Academic Background

- A university degree in economics, engineering, international relations or other relevant disciplines.

The complete vacancy notice and application form can be found by clicking on these links:

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Or under 'current vacancies' at <http://www.oecd.org/careers/> (reference N°:10527).

Applications from nationals of OECD Member countries should include a CV and be sent online before midnight Paris time on **04 May 2016**. Please note that only candidates selected for interview will be contacted.

The OECD is an equal opportunity employer and encourages applications from all qualified candidates.

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MARKET BALANCE DRAWS NEAR

For some months now in this *Report* we have anticipated steady oil demand growth and falling non-OPEC supply. This scenario is now taking shape and the oil market looks set to move close to balance in the second half of this year. Oil prices are on the rise with Brent crude oil trading currently well above \$40/bbl.

Part of the recent support for prices arises from expectations of the meeting of leading oil producers scheduled to take place on Doha, Qatar, on 17 April. We cannot know the outcome but if there is to be a production freeze, rather than a cut, the impact on physical oil supplies will be limited. The publication date of this Report falls just ahead of the meeting and, accordingly, we have made no changes to our supply assumptions.

The latest rather downbeat global economic outlook from the International Monetary Fund might affect market sentiment but we have not made changes to our demand numbers. We remained confident that in 2016 global oil demand will grow by 1.2 mb/d. In the meantime, India could be replacing China as the main engine of global demand growth. Revised data for late 2015 and early data for 2016 shows year-on-year (y-o-y) growth of approximately 8%. For 2016 as a whole, India will see growth of around 300 kb/d – the strongest ever volume increase. Reforms to the rules allowing refiners to directly import crude oil are all part of a general trend towards liberalisation that should underpin India's growth momentum.

For now though, the main focus is on the supply side of the balance and our view held since the beginning of 2016 of forecast of a fall in non-OPEC supply in 2016 of 700 kb/d looks to be spot-on. In March the year-on-year fall was estimated at 690 kb/d, and, in particular, there are signs that the much-anticipated slide in production of light, tight, oil in the United States is gathering pace. By early April the rig count had fallen nearly 80% from the peak seen in October 2014 and more anecdotal evidence is emerging of financial problems taking their toll on the shale pioneers. Within the group of non-OPEC producers there are few areas of growth with only a handful of countries likely to increase production this year, unless Russia, which has surprised us all with continued growth in production, does not carry out its professed support for a production freeze. Within the ranks of OPEC's members, the pace of Iran's return to the market is more measured than some expected but production in March was still nearly 400 kb/d higher than at the start of the year, in line with our forecast. While nuclear sanctions have been lifted, some financial sanctions remain in place and the financing of Iran's crude oil trade is not always straightforward. Nor is access to markets, as shown for example by reports of marketing difficulties for Iran's condensates stocks.

For the time being, based on a conservative scenario for OPEC crude oil production of 32.8 mb/d in 2Q16 and 33.0 mb/d in both 3Q and 4Q, our outlook suggests that after big build-up of stocks in the first half of 2016 of 1.5 mb/d the surplus will fall to 0.2 mb/d in both 3Q and 4Q. A tighter market outlook seems to be supported in at least part of the pricing structure: the ICE Brent contango nearly vanished in early April after holding steady at a discount of \$0.65/bbl during February and March. The prompt month contract is flirting with backwardation, partly on the back of summer maintenance plans in the North Sea, but also due to the general feeling of impending market tightness. Our demand and supply numbers are, of course, highly provisional: even if they turn out to be too bullish, there is no doubt as to the direction of travel for the supply/demand balance. As always, the data will change. It is inevitable that in a 96 mb/d market it will be impossible to account for every barrel that we believe has been produced, especially in times of major supply surplus such as we have today. These "missing" barrels may eventually be re-allocated to revised supply and/or demand or to physical stocks, but in the meantime we must accept that data uncertainty is a fact of life.

In the June edition of this *Report* we will publish our detailed forecast for 2017. This will provide greater clarity as to when in the year will come the market re-balancing.

DEMAND

Summary

- **World oil demand is forecast to average 95.9 mb/d in 2016, a potential increase of 1.2 mb/d versus 2015.** Reasonably robust gains in non-OECD countries lead the projected expansion while OECD deliveries will be flat.
- **Recent demand data came out ahead of earlier expectations, raising both 4Q15 and 1Q16 demand estimates by 0.2 mb/d.** Regardless of the upgrade, 1Q16 growth at 1.2 mb/d year-on-year (y-o-y) remains well below the near five-year peak of 2.3 mb/d seen in 3Q15. Growth has eased due to lower demand in many European and North American consumers.
- This month's *Report* examines the **sharp recent slowdown in gasoil/diesel demand**, highlighting how growth has fallen from a peak of 0.6 mb/d y-o-y in 3Q15 to 0.1 mb/d in 4Q15 and is forecast to turn negative in 1Q16. The end of gasoil demand growth is not yet upon us, as modest gains are forecast towards the end of the year as the underlying industrial situation improves worldwide. Also, the return to more normal seasonal temperatures in 4Q16 may stimulate gasoil demand.
- **Strong gains in India remain one of the most persistent demand supports** showing that if an economy remains fundamentally robust lower-oil prices can stimulate additional demand. Despite trimming 100 kb/d from our January Indian demand estimate, deliveries still grew by 335 kb/d versus last year.

Global Oil Demand (2014-2016)

(million barrels per day)

	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Africa	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.2	4.1	4.3	4.3	4.2	4.3	4.3
Americas	30.5	30.5	31.3	31.5	31.0	30.9	30.9	31.6	31.2	31.1	30.6	31.0	31.7	31.5	31.2
Asia/Pacific	31.4	30.5	30.0	31.6	30.8	32.2	31.6	31.6	32.6	32.0	33.1	32.4	32.4	33.5	32.9
Europe	13.7	14.1	14.6	14.2	14.1	14.1	14.3	14.8	14.4	14.4	14.2	14.4	14.6	14.2	14.4
FSU	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.8	4.9	5.0	4.9	4.9
Middle East	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.9	8.3	8.7	8.3	8.3
World	91.9	92.1	93.3	94.1	92.9	93.6	94.1	95.6	95.5	94.7	94.8	95.2	96.6	96.8	95.9
Annual Chg (%)	1.3	0.7	0.8	1.3	1.0	1.8	2.2	2.5	1.5	2.0	1.3	1.2	1.0	1.4	1.2
Annual Chg (mb/d)	1.2	0.7	0.8	1.2	0.9	1.6	2.0	2.3	1.4	1.8	1.2	1.1	1.0	1.3	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.0	0.0	0.1

Global Overview

Strong gains in India, Thailand and Korea could not offset the sluggish performances elsewhere that saw growth fall back from a five-year peak of 2.3 mb/d y-o-y in 3Q15 to 1.4 mb/d in 4Q15 and 1.2 mb/d in 1Q16. In OECD countries, distillate demand growth in particular faded (see *Global gasoil demand crumbles*) pulled down by slower industrial activity and the generally mild recent winter temperatures. That is not to say that non-OECD economies were completely shielded from the global slowdown, as economically hamstrung Brazil and Russia also saw sharp 4Q15 declines.

Global oil deliveries will average 95.9 mb/d in 2016, a gain of 1.2 mb/d on the year – with projected 2016 growth unchanged in over six months of *Reports* – as the forecast non-OECD expansion remains relatively supportive while OECD deliveries essentially flatten. Lower oil prices provided a boost to global demand in mid-2015 but this is not expected to carry into 2016 while poorer economic prospects in many countries have seen the demand outlook pared back. It was the more consumer-focused fuels, such as gasoline and jet/kerosene, that grew the most strongly in 2015 and growth in these markets is

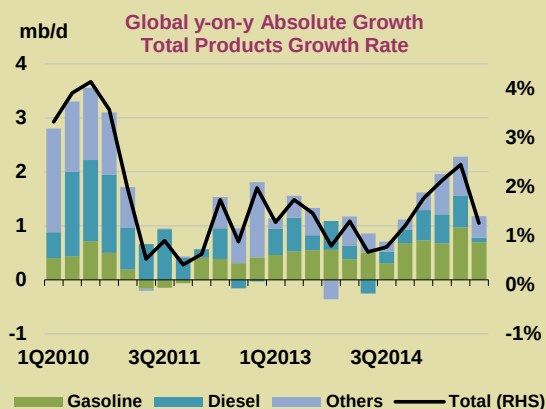
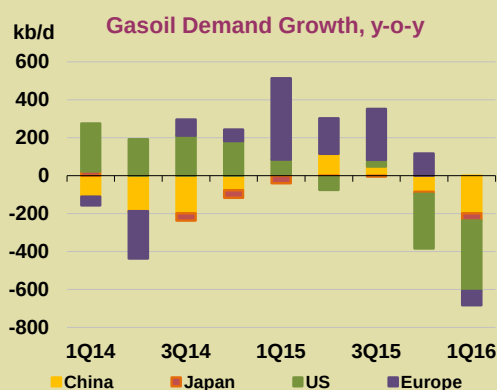
expected to ease in 2016. Rising by approximately 1.0 mb/d on a y-o-y basis in 3Q15, global gasoline demand growth should halve in 2H16. Peak jet/kerosene demand growth, of approximately 0.3 mb/d in 3Q15, subsides to around half this level in 2016 as a whole.

The severity of the slower growth environment is slightly eased compared to last month's *Report*, with approximately 0.2 mb/d of oil demand added to both 4Q15 and 1Q16 global delivery estimates, taking the totals to 95.5 mb/d and 94.8 mb/d respectively. These upgrades were chiefly attributable to additional Russian and Chinese deliveries.

Global gasoil demand crumbles

That famous maxim 'when the US sneezes, the rest of the world catches a cold' can be applied to middle distillate markets in recent months, although like all adages it perhaps oversimplifies the true situation. Both China and Japan had long seen weaker gasoil/diesel demand before US growth eased in mid-2015. By 4Q15 the US, China and Japan were all experiencing sharp y-o-y gasoil demand falls and the same occurred in Europe in 1Q16.

A consequence of the deliberate effort to switch the focus of the Chinese economy away from heavy manufacturing towards a more consumer-focused structure triggered China's gasoil growth slowdown post-2013. Japanese gasoil demand, meanwhile, eased in association with the persistent industrial contractions that emerged in 2H14. More of a surprise was the sharp reversal in US gasoil demand in 4Q15, as creaking manufacturing activity (see *Americas*) pulled down gasoil demand, along with unseasonably mild winter temperatures.



Prior to 1Q16, the European gasoil consumer demonstrated stolid resistance, a resolve that cracked in 1Q16 (down 75 kb/d) as key consumers France and Germany endured sharp declines, falling compared to the year earlier by 50 kb/d and 20 kb/d, respectively.

This changing demand-dynamic is in stark contrast to the recent experiences of the overall oil market, and the investment flows into the refining industry. Prior to 2014, gasoil accounted for roughly one out of every two extra barrels of oil consumed in the period 2009-13. The two years that followed saw gasoil account for a more muted one barrel in six. In our forecast, we expect stronger global gasoil demand growth to resurface in 4Q16, albeit only tentatively, with gasoil demand growth projected to inch up towards 0.4 mb/d by 4Q16. Two major 4Q16 supports will be the US and India.

OECD

Blighted by recent sharp reversals in the OECD Americas and OECD Asia Oceania, the overall OECD oil demand trend has flipped from strongly rising (+1.5%, 3Q15), to flat-to-falling (-0.1% in 4Q15 and -0.6% in 1Q16). The latest preliminary numbers depict OECD oil deliveries down by 0.7% y-o-y in February, to 47.2 mb/d, after declines of 0.8% in January and a gain of 0.4% in December.

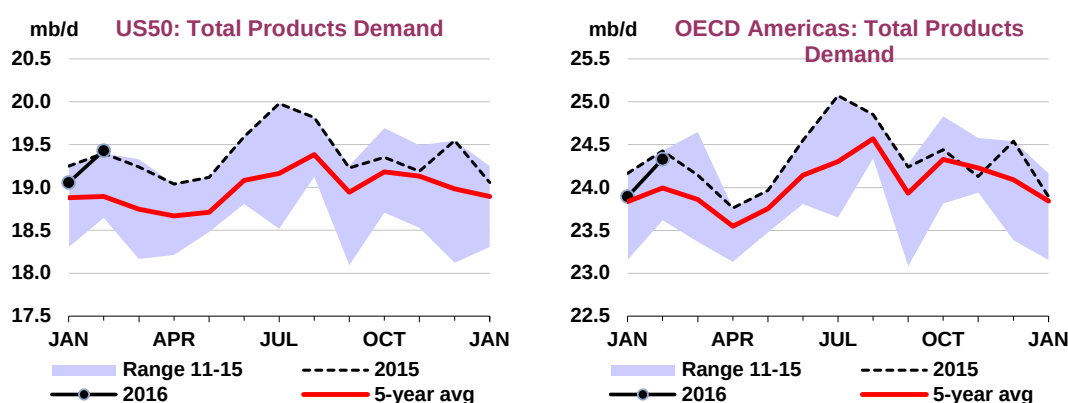
OECD Demand based on Adjusted Preliminary Submissions - February 2016

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	10.75	3.9	1.79	4.1	4.64	-10.5	0.62	-5.7	0.47	1.1	6.06	0.09	24.33	-0.4
US50	9.03	4.4	1.52	4.6	3.72	-12.3	0.27	-7.2	0.24	22.1	4.65	1.86	19.43	0.2
Canada	0.80	-0.7	0.14	-0.1	0.34	-4.8	0.28	-5.4	0.04	-42.6	0.73	-8.78	2.31	-5.6
Mexico	0.78	4.4	0.08	5.8	0.37	-1.1	0.05	0.0	0.09	6.1	0.59	-1.40	1.96	1.5
OECD Europe	1.83	0.7	1.24	2.9	4.64	1.5	1.75	-9.0	0.90	-2.4	3.59	3.90	13.94	0.4
Germany	0.41	2.6	0.16	-1.7	0.74	3.2	0.47	-8.7	0.12	-10.0	0.59	7.85	2.48	0.6
United Kingdom	0.30	-6.5	0.33	-3.4	0.52	-3.9	0.14	-4.9	0.02	-9.8	0.32	17.20	1.64	-1.0
France	0.15	5.6	0.14	-0.1	0.69	1.7	0.26	-19.3	0.04	-17.6	0.37	-7.10	1.65	-4.6
Italy	0.20	1.3	0.08	17.3	0.45	1.2	0.10	-2.5	0.07	-11.1	0.38	3.52	1.28	1.6
Spain	0.10	1.6	0.10	4.8	0.45	2.4	0.22	1.3	0.15	1.5	0.28	3.28	1.31	2.4
OECD Asia & Oceania	1.55	-1.0	1.22	-1.6	1.32	-3.3	0.60	-0.7	0.71	-10.1	3.53	-3.14	8.94	-3.0
Japan	0.88	-2.7	0.79	-5.1	0.45	-2.7	0.44	-6.0	0.35	-27.4	1.78	-11.36	4.69	-9.1
Korea	0.21	-2.3	0.24	3.4	0.34	-6.7	0.13	22.1	0.31	20.1	1.48	9.24	2.71	7.0
Australia	0.33	3.3	0.14	7.3	0.44	-0.2	0.00	122.0	0.03	15.1	0.18	-6.60	1.12	1.0
OECD Total	14.13	2.9	4.24	2.0	10.61	-4.7	2.96	-6.7	2.08	-4.5	13.19	0.20	47.21	-0.7

* Including US territories

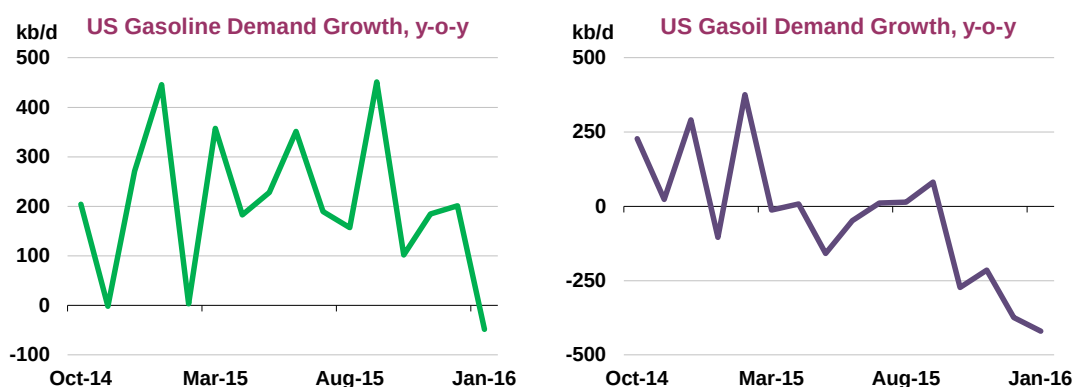
Americas

The demand strength seen in the **US** from December 2014 to August 2015 buttressed the rising overall OECD American trend. This has now clearly waned and indeed has turned negative. Although initially pulled down by sharp declines in industrial oil use, particularly propane, gasoil and 'other products', the latest official monthly series for January 2016 showed the contagion spreading to gasoline. One month of data is far too early to call an end to gasoline's strength, but the slowdown is still noteworthy.

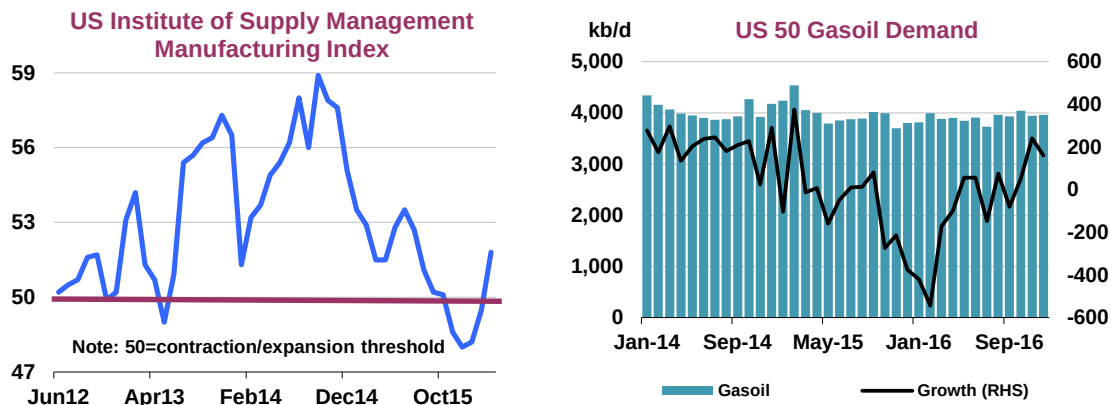


Having fallen by an estimated 50 kb/d y-o-y in January, to 8.7 mb/d, US gasoline demand growth is forecast to re-emerge over the remainder of 1Q16, as January's dip was partially attributable to the extreme strength seen one year earlier, while lower pump prices remain relatively supportive of additional demand. We estimate that for the whole of 1Q16, based upon weekly data from the Energy Information Administration, US gasoline deliveries were 9.0 mb/d, 140 kb/d up on the year earlier. This 1Q16 gain is near half the average 2015 expansion, and we believe that the most price-sensitive US drivers have already reacted to much reduced pump prices, leaving little leeway for further strong gains.

Recent escalations in US economic concerns further dampen US consumer confidence. The University of Michigan's consumer sentiment index reflects this. It fell to a five-month low of 91.0 in March, with both current and future expectations down compared to the month earlier.

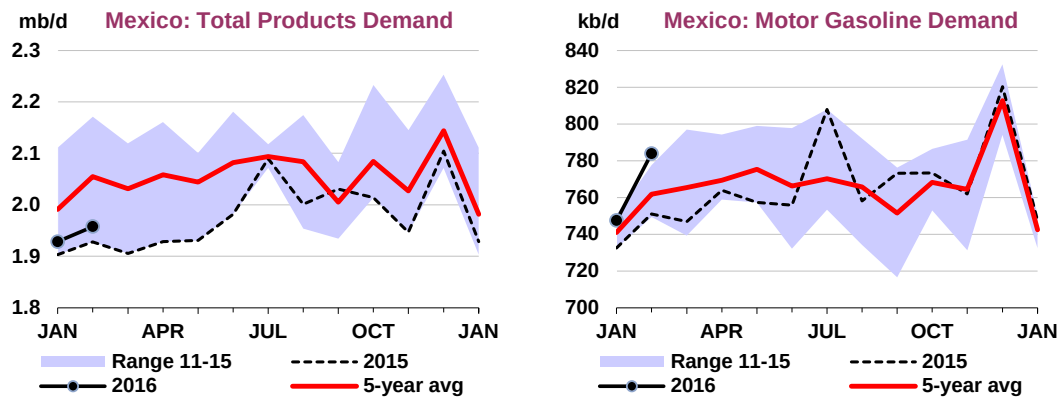


The largest recent US demand weakness was reserved for the gasoil/diesel market (see *Global gasoil demand crumbles*). Deliveries fell by 420 kb/d y-o-y in January, their fourth consecutive decline, pulled down by a combination of mild winter temperatures and weakening industrial activity, particularly in PADD 3 (the Gulf of Mexico), as slowdowns in the oil and gas sector dampened gasoil use. Although further sharp declines are anticipated through to April, we foresee the US gasoil market bottoming-out around the middle of the year, as forward-looking industrial activity indicators, like the Institute of Supply Management's Manufacturing Purchasing Managers' Index (PMI) broke back into expansionary territory once more in March, at 51.8. Further support for US gasoil demand in 2016 should emerge in 4Q16 as the return of traditional seasonal temperatures potentially triggers a spike in demand.



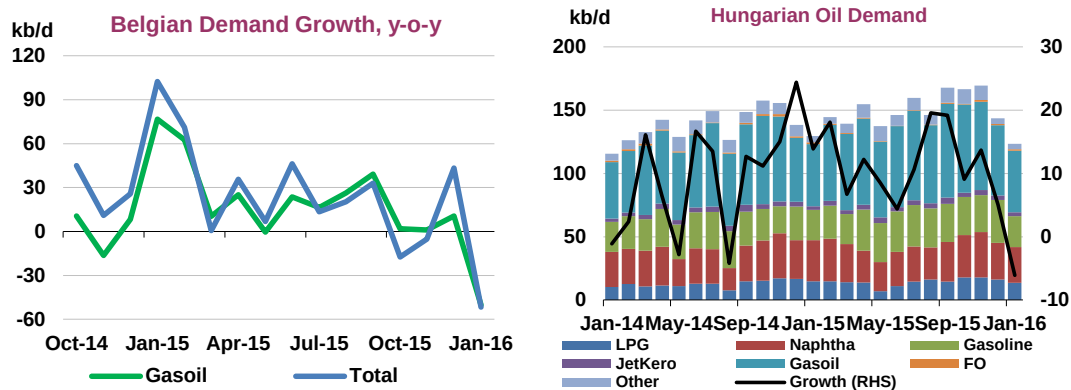
Overall, having risen strongly in 2015 (+290 kb/d), US growth is expected to moderate in 2016, to around 110 kb/d, as the early-year weakness in gasoil/diesel coincides with notable slowdowns in consumer-focussed products, such as gasoline and jet fuel. Thus, for the year as a whole, total oil demand across the 50 states of the US averages 19.5 mb/d.

Supported by strong gains in the gasoline, jet/kerosene and 'other products', **Mexican** oil demand posted its third consecutive month of y-o-y growth in February. Up by 30 kb/d on the year earlier, total Mexican deliveries averaged 2.0 mb/d in February. Reinforced by relatively resilient business confidence and the recently lower oil-price environment, Mexico appears tentatively to have exited the declining demand trend that existed before. Y-o-y growth averaged 30 kb/d in the three-months through February compared to -30 kb/d in the preceding 12-months. The latest release from the Instituto Nacional de Estadística y Geografía cites Mexican business confidence in February 2016 at its second highest level since October, at a net-optimistic 52.57.

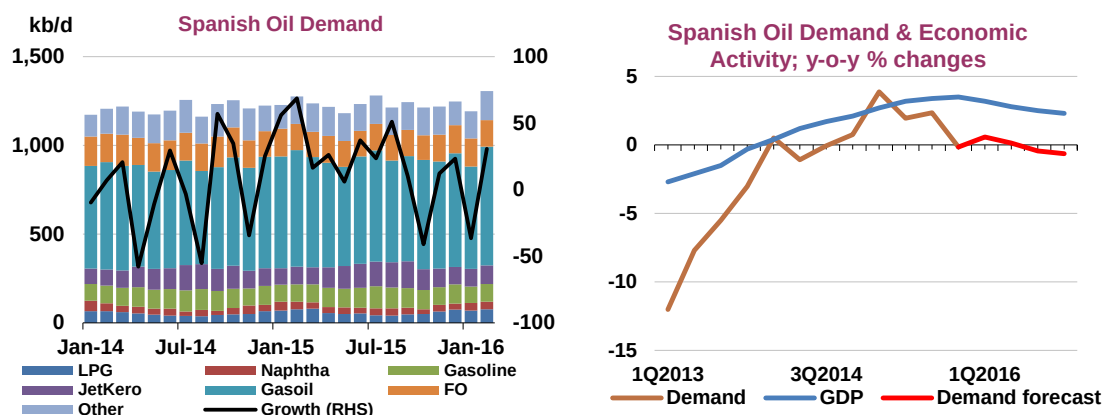


Europe

Sharp drops in a number of European countries – notably Belgium, Hungary, the Czech Republic, Greece, Portugal, Switzerland and Austria – pulled Europe back towards low-growth in 1Q16, as we had anticipated in recent issues of this *Report*. For example, the relative **Belgian** demand strength seen 4Q14-through-3Q15, has since largely faded. Dominating this change has been the sharp reversal in the momentum of gasoil (see *Global gasoil demand crumbles*), switching from an average y-o-y gain of 25 kb/d, 4Q14-3Q15, to a decline of 10 kb/d, October 2015-through-January 2016. Deteriorating gasoil has led the overall market from an average 35 kb/d gain, to a decline of 10 kb/d. Further falls are envisaged for 2016 as a whole pulling total Belgian deliveries down by around 1% in 2016 to 655 kb/d as the initial price-driven stimuli wanes in the face of a very testing macroeconomic environment. Similarly, **Hungary**, having risen strongly since mid-2014, saw deliveries in January fall back below year earlier levels, with weak conditions seen right across the barrel.

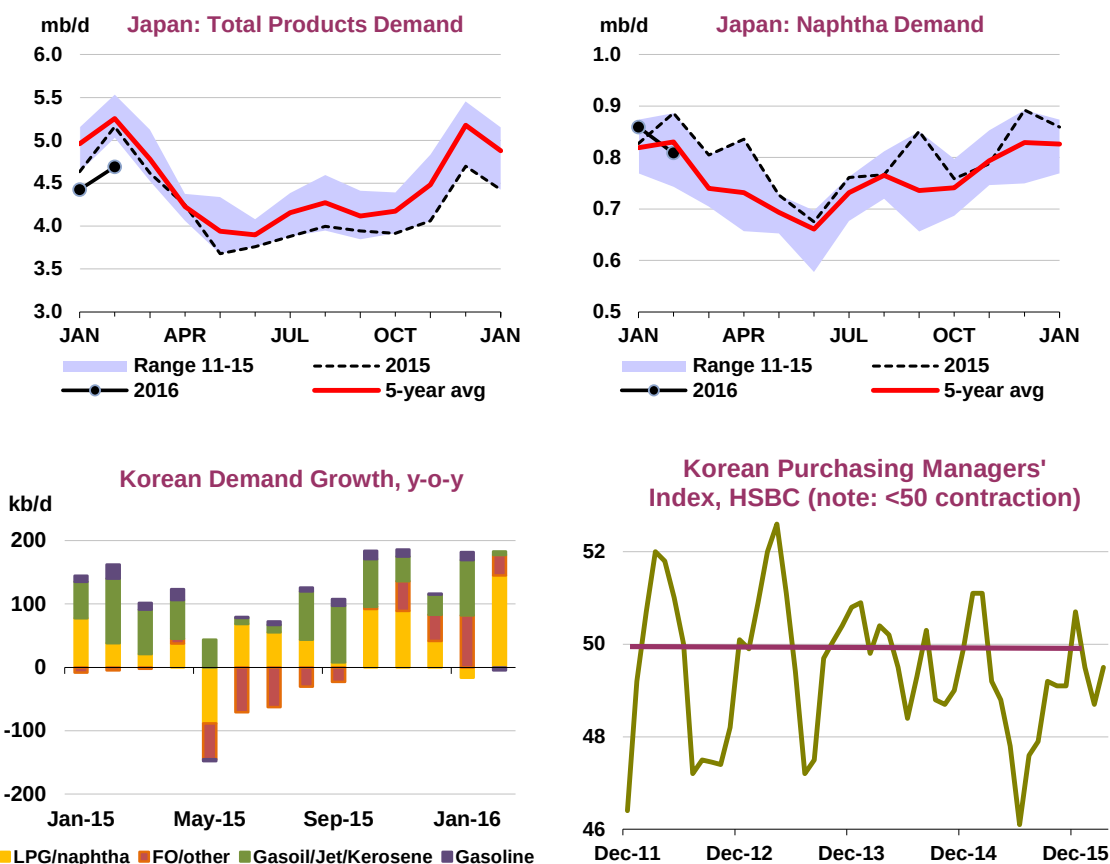


Preliminary **Spanish** oil demand numbers for February show that the generally rising y-o-y trend has recently returned. Estimated deliveries rose by 2.4% y-o-y in February, little changed from the +2.6% September 2014-August 2015 average. Indeed, fifteen of the twenty months through January 2016 (or sixteen of twenty-one if preliminary February data are included) posted higher y-o-y deliveries, with surging middle distillate demand the key support. Over the twenty-one months through February, Spanish oil demand growth averaged 15 kb/d y-o-y (1.3%), with gasoil/diesel up by on average 15 kb/d and jet/kerosene 5 kb/d. Much of this demand resurgence is a combination of price-driven rallies and the temporary response to the sharp declines that previously co-existed alongside the weak economy. A roughly flat demand picture is foreseen in 2016, as deliveries average 1.2 mb/d; the underlying macroeconomic data (with GDP growth of 2.6% forecast by the International Monetary Fund) unable to support much more of a response.



Asia Oceania

Roughly as forecast in last month's *Report*, the 1Q16 **Japanese** demand estimate of 4.5 mb/d depicts a still heavily falling trend, as estimated deliveries fell by 340 kb/d compared to the year earlier pulled down by sharp drops across all of the major product categories. For example, LPG (including ethane) demand fell by 90 kb/d in 1Q16, y-o-y, while naphtha deliveries dropped by 35 kb/d, gasoil -40 kb/d, residual fuel oil -110 kb/d, gasoline -15 kb/d, jet/kerosene -10 kb/d and 'other products' -40 kb/d. For the year as a whole a more modest 140 kb/d decline is foreseen, to 4.1 mb/d, as the majority of the previous downside was chiefly attributable to the power-sector where oil's share has almost completely been by-passed by alternatives, such as gas, coal and now nuclear.



Underpinned by strong gains from the industrial and petrochemical sector, **Korean** demand growth remains near multi-year highs. Indeed rising by an estimated 150 kb/d y-o-y in the six-months through February 2016, this amounts to a 6.3% y-o-y gain. As crude oil prices, suggested by the futures curve,

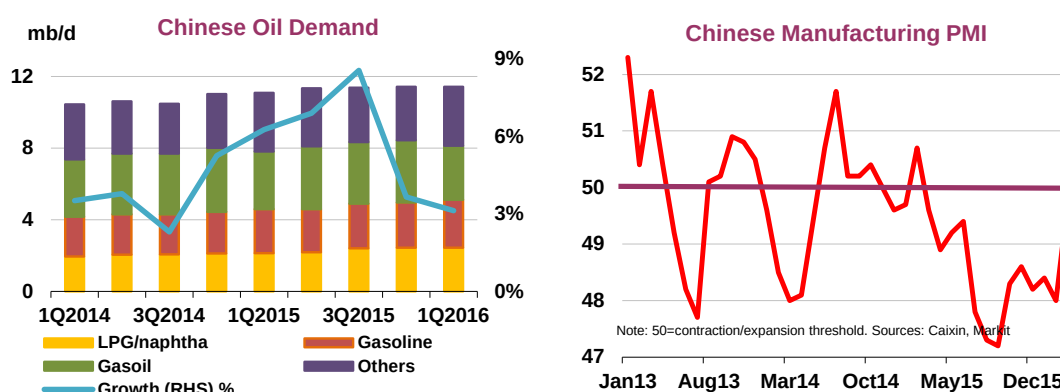
potentially edge up over 2H16 and industrial activity stutters – with Markit's Manufacturing PMI for Korea in sub-50 territory, January to March – momentum potentially eases, leaving Korean product demand forecast to average 2.5 mb/d in 2016, 4.3% up on the year earlier.

Non-OECD

Early indicators of 1Q16 non-OECD demand imply a modest acceleration (+3.3%, compared to a 3.0% gain in 4Q15), as strong gains in the petrochemical sector across the board, robust growth across all the major Indian product categories and some surprising resilience in Russia and China provided support. Indeed, non-OECD consumers are projected to account for almost all of global oil demand growth in 2016, although this is more a story of weak OECD demand than very strong non-OECD gains.

China

With a complete set of monthly data not yet available for the first two months of the year, a consequence of the extended Chinese New Year holidays, we report the two months in unison. At an average 11.4 mb/d in January-February, our 'apparent demand' estimate stood 320 kb/d (or 2.9%) above the year earlier. The number would have been even higher had it not been for the heady 17.3% month-on-month (m-o-m) product stock build reported by the Xinhua News Agency for February, as this is essentially deferred consumption or exports and is not treated as 'true' demand in our calculations.



China: Demand by Product

(thousand barrels per day)

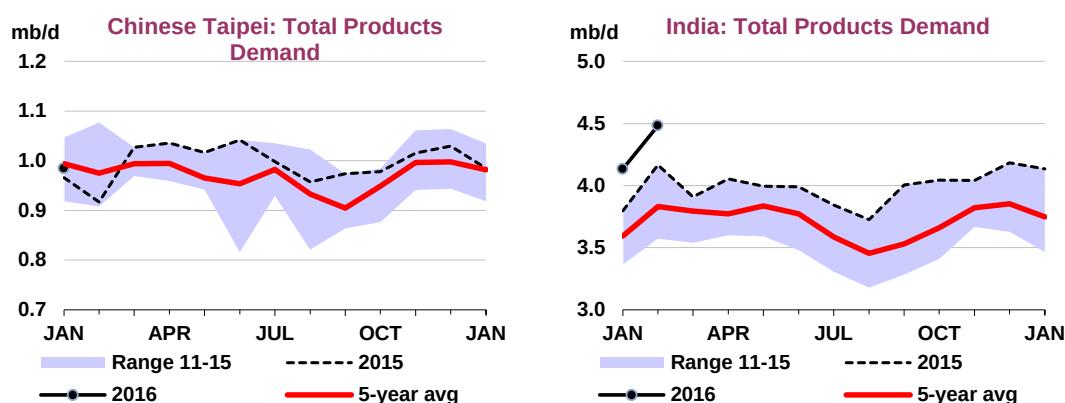
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2014	2015	2016	2015	2016	2015	2016
LPG & Ethane	884	1,093	1,189	210	96	23.7	8.8
Naphtha	1,169	1,205	1,243	36	38	3.1	3.1
Motor Gasoline	2,263	2,476	2,693	213	218	9.4	8.8
Jet Fuel & Kerosene	545	623	670	78	47	14.3	7.5
Gas/Diesel Oil	3,387	3,409	3,322	22	-87	0.6	-2.5
Residual Fuel Oil	323	272	195	-50	-78	-15.6	-28.6
Other Products	2,070	2,234	2,336	165	101	8.0	4.5
Total Products	10,639	11,313	11,647	673	335	6.3	3.0

Big increases in Chinese diesel stocks potentially put a sizeable dampener on 'true' Chinese gasoil/diesel demand. The Xinhua News Agency reported diesel stocks higher by close to one-third in February on a m-o-m basis. We caution, however, that the Chinese New Year vacation may have caused heightened volatility on the monthly data. With gas-powered heavy vehicles denting diesel's market share, while many of China's domestic industries struggle with overcapacity and closure, gasoil/diesel demand has

stuttered, falling by roughly 8% in the first two months of the year compared to the year earlier. Forecasting growth of around 3% for the year as a whole, or 0.3 mb/d, our Chinese demand forecast assumes something of a bottoming-out in the recent Chinese gasoil malaise. With industrial optimism indicators, such as Caixin's Manufacturing PMI, having risen sharply in March, to 49.7, a 15-month high, we at least foresee the projected scale of gasoil's y-o-y demand declines lessening as the year progresses.

Other Non-OECD

Having risen relatively strongly in the latter stages of 2015, early indicators of 2016 demand in **Chinese Taipei** show a deceleration, as January growth eased to a three-month low of +1.9% y-o-y. Indeed, deliveries eased below 1.0 mb/d in January for the first time since October 2015, pulled down by stuttering industrial activity. The Ministry of Economic Affairs reported industrial activity across Chinese Taipei down by 6% y-o-y in January. The consumer sector fared even worse according to an index published by the Research Centre for Taiwan Economic Development, which fell to a three-year low, of 80.9 in January, significantly below the 100-optimism threshold. With this and Markit's Manufacturing PMI remaining suppressed in February we foresee oil demand growth in Chinese Taipei decelerating to around 1% in 2016 as a whole. Oil demand of approximately 1.0 mb/d is forecast for 2016.



The very high growth rates of **Indian** oil demand alluded to in last month's *Report* turned out to be somewhat exaggerated. Official numbers, from oil companies and the Ministry of Petroleum & Natural Gas, showed growth of 8.8% y-o-y in January, nearly four-whole percentage points below the previous estimate based on data from the Petroleum Planning & Analysis Cell (PPAC), a unit of the ministry. Despite trimming a net 100 kb/d off the January estimate, a strong 335 kb/d gain on the year earlier remains, supported by particularly strong gains in gasoil/diesel, gasoline and 'other products', most notably bitumen used in India's extensive road building programme. Preliminary February numbers, derived from PPAC data, suggest that the strong gains persist. Indeed, for the year as a whole growth of approximately 0.3 mb/d is forecast, taking deliveries to around 4.2 mb/d.

Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q15	4Q15	1Q16	4Q15	1Q16	4Q15	1Q16
LPG & Ethane	5,395	5,516	5,596	284	351	5.4	6.7
Naphtha	3,215	3,251	3,297	154	169	5.0	5.4
Motor Gasoline	10,607	10,803	10,781	583	503	5.7	4.9
Jet Fuel & Kerosene	3,162	3,111	3,172	75	62	2.5	2.0
Gas/Diesel Oil	14,473	14,764	13,994	322	128	2.2	0.9
Residual Fuel Oil	5,211	5,110	5,227	-221	15	-4.1	0.3
Other Products	6,933	6,613	6,614	225	309	3.5	4.9
Total Products	48,997	49,169	48,680	1,422	1,536	3.0	3.3

Some surprisingly resilient demand numbers towards the end of 2015, rolling over into early 2016, triggered an upward revision of 15 kb/d to the 4Q15 demand estimate for **Thailand**. Much stronger than previously anticipated gasoline, gasoil and residual fuel oil demand raised the overall number. These increases were largely carried across into January, which showed growth escalating to a near two-and-a-half year high of 4% compared to the year earlier.

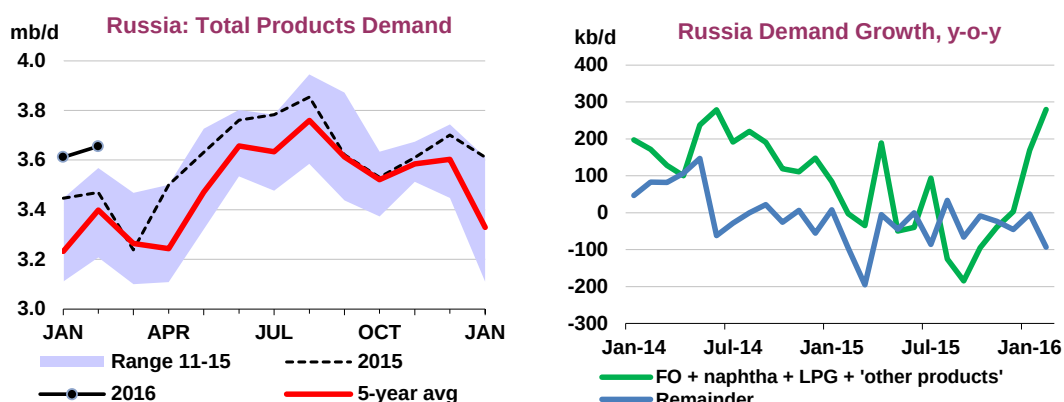
Non-OECD: Demand by Region

(thousand barrels per day)

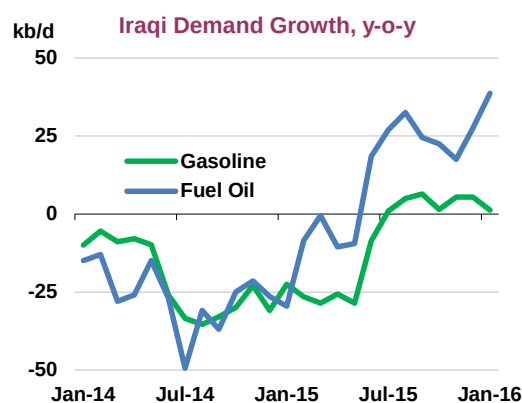
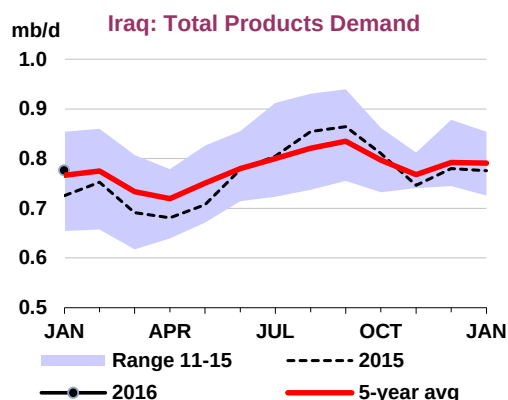
(thousands barrels per day)

	Demand		Annual Chg (kb/d)		Annual Chg (%)		
	3Q15	4Q15	1Q16	4Q15	1Q16	4Q15	1Q16
Africa	3,998	4,192	4,268	200	143	5.0	3.5
Asia	23,772	24,356	24,563	1,110	1,084	4.8	4.6
FSU	5,046	4,970	4,778	-77	200	-1.5	4.4
Latin America	6,877	6,813	6,502	-118	-143	-1.7	-2.2
Middle East	8,596	8,126	7,868	278	229	3.5	3.0
Non-OECD Europe	708	712	701	29	24	4.2	3.5
Total Products	48,997	49,169	48,680	1,422	1,536	3.0	3.3

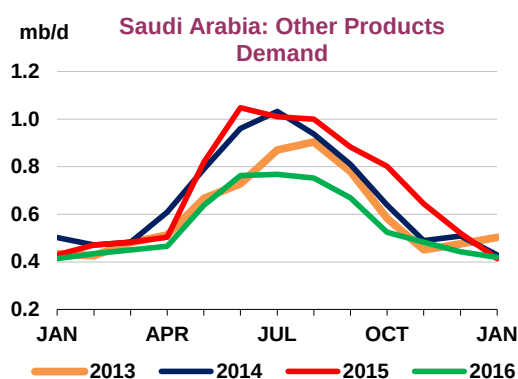
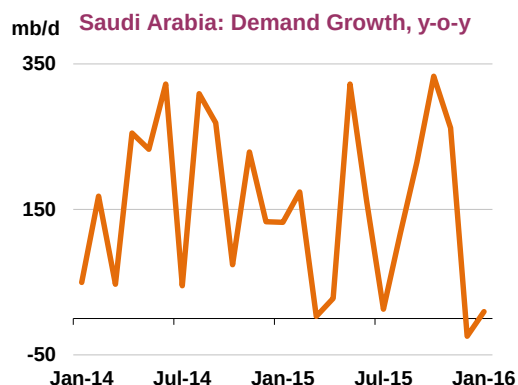
Raised by higher-than-anticipated February deliveries, for **Russia** the 1Q16 demand estimate of 3.6 mb/d is not only a rare y-o-y gain (+205 kb/d) but it is also 130 kb/d more than the estimate in last month's *Report*. Additional residual fuel oil, LPG, naphtha and 'other product' deliveries were the key contributors, while gasoline and jet/kerosene demand remain on a declining trend. Although a modest decline of 0.2% is still foreseen for 2016 as a whole to 3.6 mb/d, the projected drop has been curbed dramatically from 2015's 1.7% contraction. The projected easing in the Russian decline rate is chiefly attributable to additional oil use in manufacturing, as industrial activity seems to at least be tentatively picking up. Russia's Federal State Statistics service reported that for February industrial output posted its first y-o-y rise in roughly a year of +1.0%.



Despite offering little change from 0.8 mb/d since October 2015, the **Iraqi** oil product statistics posted eight consecutive months of y-o-y demand growth through January 2016. Having showed declines in the majority of the previous fifteen months, the reversal that followed is a clear trend. Strong gains in gasoline, residual fuel oil and 'other product' demand led the apparent Iraqi demand resurgence. For residual fuel oil and 'other products', the gains were chiefly attributable to additional power demand, while gasoline demand rose on slowly improving consumer confidence. Looking ahead in 2016, a near 2% gain in average deliveries is foreseen at 0.8 mb/d.



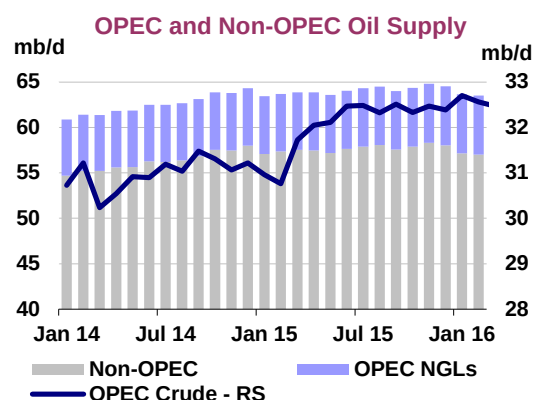
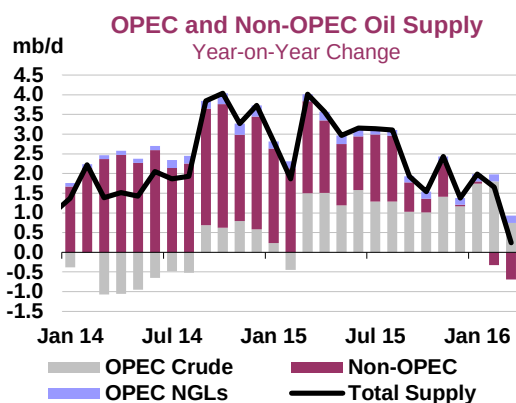
Undermined by particularly weak residual fuel oil and 'other product' demand numbers at the turn of the year, **Saudi Arabia**, in December, posted its first y-o-y decline in more than two-years. The drop took average deliveries down to around 3.0 mb/d, a nine-month low. Even after temporary weather effects have fallen out of the equation Saudi Arabian oil demand growth likely vanishes. Having risen by over 4% in 2015, very modest overall growth is foreseen in 2016, with an outright fall envisaged in 'other products' as significant increases in domestic gas production curb the prospective power-sector oil-burn. With details emerging of production starting at Saudi Aramco's huge Wasit gas facility, industry experts foresee crude oil's traditional extra summer power-sector demand being curtailed by between 0.1 mb/d and 0.2 mb/d. A further dampening factor in 2016 is the likely deceleration in economic growth: forecasters such as the International Monetary Fund foresee GDP growth falling to around one-third of its previous level (+1.2% in 2016 versus 3.4% in 2015).



SUPPLY

Summary

- **Global oil supplies dropped by nearly 0.3 mb/d in March to 96.1 mb/d, with non-OPEC accounting for two-thirds of the decrease.** Year-on-year (y-o-y) gains shrank to only 0.2 mb/d, from nearly 1.7 mb/d a month earlier and the 2.7 mb/d average over 2015, as non-OPEC production contracted for a second consecutive month, while OPEC gains were pared by outages in Nigeria, the UAE and Iraq.
- **OPEC crude oil production fell by 90 kb/d in March to 32.47 mb/d after a second month of supply outages from Nigeria, the UAE and Iraq more than offset a further increase from post-sanctions Iran and higher flows from Angola.** Supply from Saudi Arabia, OPEC's largest producer, dipped in March but held near 10.2 mb/d.
- **Major oil producers are due to meet in Qatar on 17 April to discuss freezing output at levels pumped at the start of the year.** With Saudi Arabia and Russia already producing at or near record rates and very little upside seen apart from Iran – which has vowed to ramp up production to a pre-sanctions level of 4 mb/d - any deal struck will not materially impact the global supply-demand balance during 1H16.

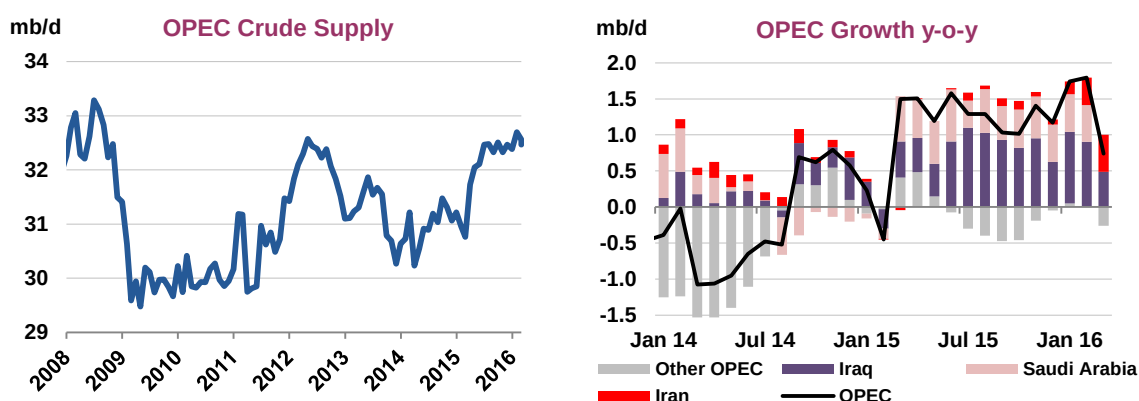


- **Non-OPEC oil production eased another 180 kb/d in March to 56.8 mb/d, 690 kb/d below a year earlier.** Evidence that spending cuts are starting to impact on US production mount, with the latest estimates showing tight oil output falling below year-earlier levels by as much as 450 kb/d in March. Maintenance and unscheduled outages curbed supplies in Canada and Ghana. In contrast, Russian production hit yet another high in March, standing nearly 230 kb/d above year-ago levels.
- **The outlook for non-OPEC production in 2016 is largely unchanged since last month's Report, at 57.0 mb/d, which is 710 kb/d less than the 2015 average.** Total US liquids production is expected to decline by 480 kb/d this year as higher Gulf of Mexico and NGL output provide a partial offset to declines in onshore crude oil production. Other notable declines are expected from China, Mexico, Colombia and Kazakhstan, while Russia, Canada, Brazil and Congo remain amongst the few countries expected to post gains this year.

All world oil supply data for March discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary March supply data.

OPEC crude oil supply

A second month of supply outages in Nigeria, the UAE and Iraq more than offset a further rise in Iranian production – pushing down overall output to 32.47 mb/d during March, a decrease of 90 kb/d month-on-month (m-o-m). Pipeline sabotage in Nigeria and Iraq and oil field maintenance in the UAE have shut in nearly 600 kb/d of supply since the start of the year. OPEC production might climb higher during April as oil fields in the UAE come out of maintenance and should Iraq's northern production recover from pipeline issues and Iran manage to boost crude oil exports that hit 1.6 mb/d during March. Libyan flows, which slipped in March, could also recover if a political settlement holds following the establishment of a new national unity government. Supply from Nigeria – at the lowest since July 2009 - is likely to be suppressed for a third month in April due to ongoing *force majeure* on some 250 kb/d of Forcados crude oil loadings.



The further increase in Iranian crude oil flows – output of 3.3 mb/d in March is up nearly 400 kb/d since the start of the year – comes ahead of a 17 April meeting in Qatar of major oil producers to discuss freezing production to help stabilise oil prices. Iran, OPEC's third largest producer, wants to reclaim market share it lost during the period under sanctions and has said it will not take part in any effort to freeze or cut output.

OPEC Crude Production

(million barrels per day)

	Jan 2016 Supply	Feb 2016 Supply	Mar 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Mar 2016 Supply	1Q16 Crude Supply
Algeria	1.10	1.10	1.11	1.12	0.01	1.10
Angola	1.75	1.76	1.80	1.81	0.01	1.77
Ecuador	0.53	0.55	0.54	0.55	0.01	0.54
Indonesia	0.70	0.71	0.72	0.72	0.00	0.71
Iran	3.00	3.22	3.30	3.60	0.30	3.17
Iraq	4.43	4.22	4.19	4.35	0.16	4.28
Kuwait ²	2.83	2.83	2.83	2.83	0.00	2.83
Libya	0.38	0.37	0.34	0.40	0.06	0.36
Nigeria	1.85	1.76	1.70	1.90	0.20	1.77
Qatar	0.64	0.67	0.67	0.67	0.00	0.66
Saudi Arabia ²	10.21	10.22	10.19	12.26	2.07	10.21
UAE	2.93	2.78	2.73	2.93	0.20	2.81
Venezuela ³	2.35	2.37	2.35	2.46	0.11	2.36
Total OPEC	32.70	32.56	32.47	35.60	3.13	32.58
<i>(excluding Iraq, Nigeria, Libya)</i>					2.71	

1 Capacity levels can be reached within 90 days and sustained for an extended period.

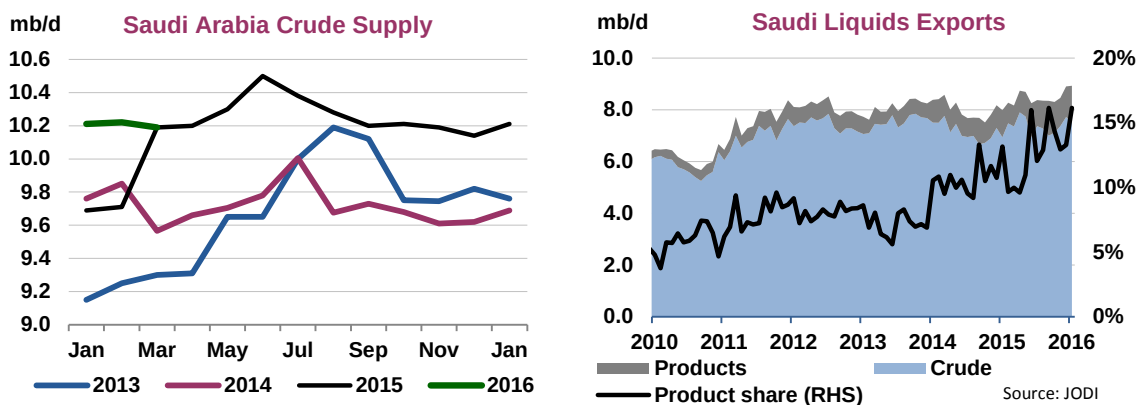
2 Includes half of Neutral Zone production.

OPEC has been pumping vigorously since the group opted in November 2014 to defend market share rather than price, with output in March from the 13-member group up 740 kb/d on the previous year. Crude supply from Iran – released from nuclear sanctions in mid-January - was up 510 kb/d year-on-year (y-o-y), output from Iraq, OPEC's second biggest producer, stood 490 kb/d above March 2015 and Saudi production was steady y-o-y. OPEC's "effective" spare capacity was 2.71 mb/d in March, with Saudi Arabia accounting for 76% of the surplus.

Crude oil production in **Saudi Arabia** dipped by 30 kb/d in March to 10.19 mb/d, with exports to world markets edging slightly lower, according to preliminary tanker tracking data. The Kingdom's resolve to preserve market share through competitive pricing and meet domestic demand has kept output above 10 mb/d since March 2015.

Saudi Aramco and Egypt's SUMED pipeline operator have meanwhile struck a deal to increase the flow of Saudi crude to Europe and explore the use of SUMED facilities for housing Saudi oil. Volumes were not specified. The SUMED pipeline, which runs from the Ain Sukhna terminal on Egypt's Red Sea coast to the Mediterranean port of Sidi Kerir, is half owned by Egyptian General Petroleum Corp. Saudi Arabia, Kuwait and the UAE each have a 15% share and Qatar holds 5%.

Crude oil sales to world markets have been running well above the 7 mb/d mark and surged to 7.84 mb/d in January – the highest since March 2015, according to the latest official figures submitted to the Joint Organisations Data Initiative (JODI). Saudi refineries ran 2.47 mb/d of crude during January versus 2.31 mb/d in December, while exports of refined oil products dropped to 1.34 mb/d in January from 1.44 mb/d the previous month. Total Saudi liquids exports, excluding condensates and NGLS, rose to a record 9.18 mb/d in January, up 250 kb/d on the previous month. Crude oil used to generate power dropped in January to 290 kb/d from 390 kb/d in December.



Saudi Arabia is poised to burn less crude oil in its power plants this summer when domestic demand surges after the anticipated ramp up of the 2.5 billion cubic feet per day Wasit gas plant, which will process non-associated gas from the offshore Arabiyah and Hasbah fields (see *Demand*). Industry sources say crude burn might be reduced by at least 100 kb/d. Saudi Arabia last summer delivered more than 800 kb/d of crude oil into power plants, nearly double what it used during the rest of the year. The spike in domestic crude consumption typically pushes Saudi crude production higher. Output last year surged to a record 10.5 mb/d in June.

Crude supply from **Kuwait** held steady in March at 2.83 mb/d. Significantly, Kuwait said it had reached agreement with Saudi Arabia to restart production from the shared 300 kb/d Khafji offshore oil field in the Neutral Zone, although there is little sign of an imminent restart. Saudi Arabia shut down Khafji in October 2014, citing environmental reasons. Thousands of workers at Kuwaiti oil and gas companies are meanwhile due to stage a strike from 17 April in protest over wages and benefits. A Kuwaiti official said

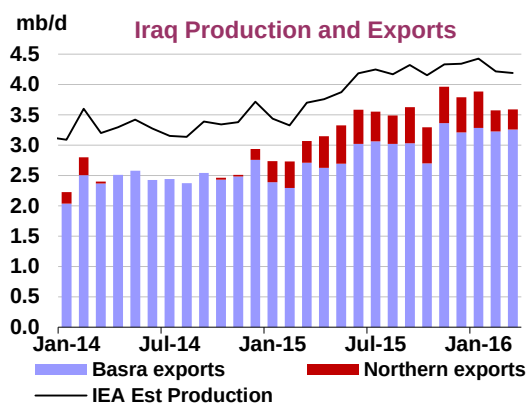
exports and production will not be affected. **Qatari** output was unchanged from February at 670 kb/d. Qatar is pressing on with plans to tender its 300 kb/d al-Shaheen oil field during April. Maersk Oil operates the offshore field under a 25-year production-sharing contract that expires in mid-2017. Al-Shaheen accounts for nearly 45% of Qatari output. **UAE** production fell by 50 kb/d to 2.73 mb/d during March due to ongoing maintenance at the Murban oil field development, which saw a peak volume of more than 300 kb/d of production taken offline. Production is expected to ramp up swiftly towards record rates upon completion of the field work in April.

Iraqi crude oil production eased 30 kb/d to 4.19 mb/d in March after the federal North Oil Co (NOC) halted supplies to the Kurdistan Regional Government's (KRG's) export pipeline to Turkey. Overall exports, including from the KRG, were just shy of 3.6 mb/d in March - up a touch on the previous month.

Southern Basra exports of 3.26 mb/d in March – up 30 kb/d on the previous month - earned the federal government \$2.9 billion. March is the fifth consecutive month with Basra crude shipments running higher than 3.2 mb/d, which suggests the robust rates can be sustained. Northern exports along the KRG's pipeline to Turkey fell to 330 kb/d in March, down 20 kb/d on February, due to a three-week stoppage on the Turkish side of the pipeline. Despite the lower exports, revenues to the autonomous northern region rose to \$557.3 million, boosted by \$350 million in loans and pre-payments.

Flows of northern crude have failed to recover to previous levels of more than 600 kb/d since restarting on 12 March after NOC halted pumping of some 150 kb/d of crude into the KRG's pipeline due to a long-running payment dispute between Baghdad and Erbil. Pipeline flows are currently running at roughly 500 kb/d.

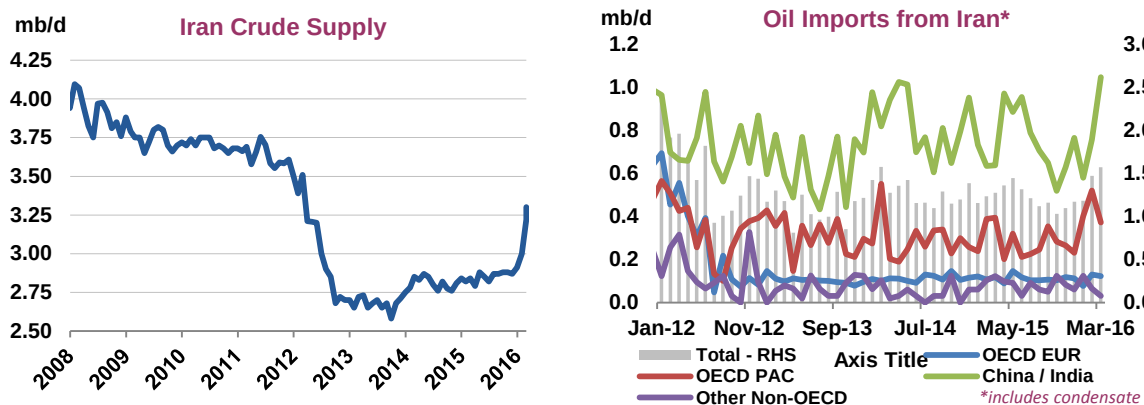
Iraq, OPEC's second biggest producer, is in the grip of a political and economic crisis that threatens to undermine the federal government and its crucial oil sector. Iraqi Prime Minister Haider al-Abadi has proposed a cabinet revamp that aims to combat corruption by appointing a technocrat government. Abadi has presented Jabbar Allibi, the former head of the South Oil Co (SOC), as the candidate for the oil ministry's top post. Adel Abdul Mahdi resigned as oil minister in March and Fayadh Nima is currently serving as acting minister.



Strong leadership is required for Iraq's strategic oil sector, where a number of vital projects are already facing lengthy delays. Low oil prices and reduced revenues have forced the federal government to cut the budgets of the international oil companies (IOCs) developing its prized oil fields to \$9 billion this year from \$13 billion in 2015. The country's financial crisis has also left Baghdad running an estimated \$3 billion to \$6 billion behind in payments to the IOCs working in the southern fields that pump most of the country's oil. Industry sources say the payment arrears could lead to a drop in production next year because contractors are cutting investment to avoid exposure to payment deferrals and slowing down drilling programmes.

Iran continued to ramp up production following the January easing of international sanctions, with output rising by 80 kb/d to 3.3 mb/d in March. Exports of crude oil rose to 1.6 mb/d – up around 100 kb/d from February and may climb higher still in April. Before sanctions were tightened in mid-2012, Tehran was selling roughly 2.2 mb/d of crude on world markets, with Europe accounting for around 600 kb/d.

Higher exports in March were due mostly to hefty buying from India, according to preliminary data. Purchases from India surged above 500 kb/d in March from around 220 kb/d the previous month, after private refinery Reliance Industries reportedly resumed purchases.

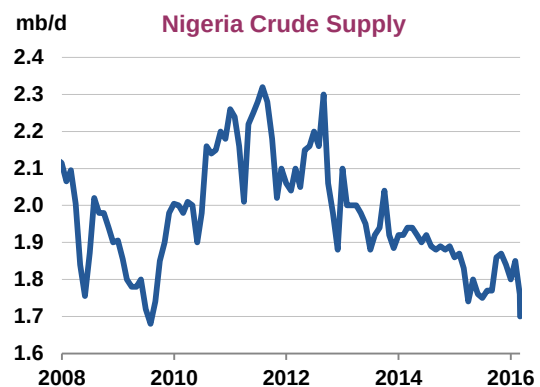


Crude oil sales to Europe held steady in March at around 300 kb/d, according to preliminary data, with Total, Cepsa, Lukoil and Turkish Tupras steady buyers. Deliveries may increase in April with Total due to lift considerably higher volumes and Greek refiner Hellenic Petroleum due to restart imports. Although some European banks reportedly are growing more confident in financing Iranian trade, some potential customers say the National Iranian Oil Co (NIOC) has yet to demonstrate sufficient flexibility with credit terms to entice them. Iran is also continuing discussions with Egypt to resume use of the SUMED oil pipeline, which could offer an additional export route to Europe. However, Saudi Aramco's deal with SUMED to increase flows through the pipeline may limit the opportunity for Iran to use the route.

While crude oil loadings have increased, condensates are proving to be a tough sell. Exports have slowed in part due to a shutdown at a Chinese petrochemical producer that processed substantial quantities of Iranian condensate. As a result of the slower sales, Iran has been storing ultra-light oil from Iran's South Pars gas project at sea. Volumes stored rose by 4 million barrels in March to 46 million - the highest since August 2015. There are now 22 Iranian VLCCs engaged in storage – 50% of the National Iranian Tanker Co fleet – as well as one chartered vessel.

Angola posted the biggest m-o-m increase after Iran, with output rising 40 kb/d to 1.8 mb/d during March. Shipments of Angolan crude to China are reportedly running at roughly 1 mb/d as the country's independent refiners lap up West African oil. The prolonged period of low oil prices has led Angola to seek a loan from the International Monetary Fund (IMF) to keep its oil-dependent economy solvent. Output in **Nigeria** sank 60 kb/d to 1.70 mb/d due to an ongoing disruption to Forcados shipments following an attack on a sub-sea pipeline. Supply in March was at its lowest since July 2009, when unrest in the Niger delta suppressed production. The Forcados terminal in Delta State, one of Nigeria's biggest terminals, was scheduled to load 250 kb/d of crude. At \$40/bbl, Nigeria could stand to lose an estimated \$1 billion between February – when force majeure was declared – and May, when repairs are expected to be completed. Attacks on oil installations have risen since President Muhammadu Buhari vowed to stamp out corruption and oil theft.

Libyan output, already at a small fraction of the 1.6 mb/d pumped before the country's civil war, slipped 30 kb/d to 340 kb/d in March due to power outages and technical issues. There are flickers of hope, however, of an oil

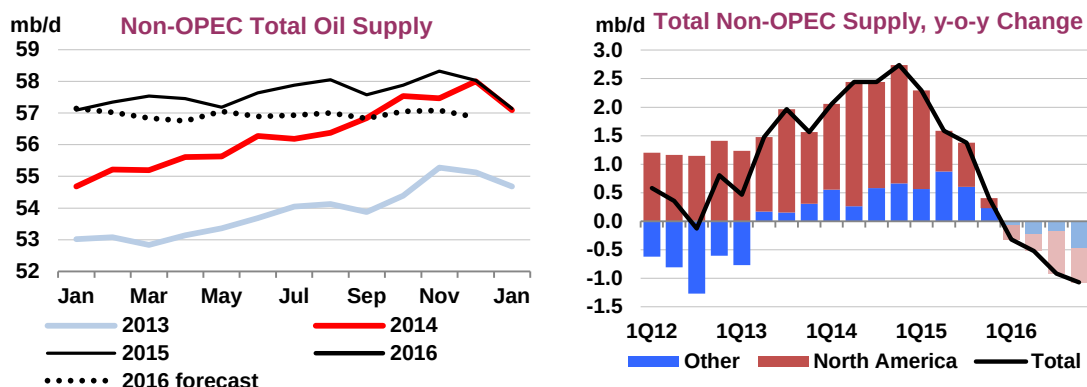


sector comeback following the long-awaited formation of a unity government. The new UN-backed Government of National Accord (GNA) has received support from the Petroleum Facilities Guard (PFG), which has said it is prepared to reopen the eastern ports of Zuetina, Es Sider, and Ras Lanuf and free up more than 600 kb/d of export capacity. A re-start could take time, however, as some of the infrastructure at the strategic ports, closed since December 2014, has been damaged following repeated attacks by Islamist militants. Libya has in the meantime been relying on two offshore terminals in the west for exports. Prior to the UN peace deal in December 2015, two rival governments were battling for control – the so-called Libya Dawn administration in Tripoli and the officially recognised government in the east.

Venezuelan crude oil output slipped by 20 kb/d to 2.35 mb/d in March after equipment failures at the country's 1.5 mb/d Jose export terminal created logistical bottlenecks that slowed supplies. Oil field operations are also under stress due to power shortages and difficulties getting basic goods and services to the fields.

Non-OPEC overview

The outlook for non-OPEC supply is largely unchanged since last month's *Report*, with 2016 output on track to decline by 700 kb/d to 57.0 mb/d on average. The latest oil statistics confirm earlier estimates showing US production starting to decline, with crude and condensate output contracting y-o-y since December. This is in stark contrast to just one year earlier, when the world's third largest crude oil producer saw annual output gains surge to more than 1.6 mb/d. Preliminary data and estimates through April show tight oil output slipping further, with operators idling another 30 oil rigs in March.



Signs that lower oil prices and spending curbs are impacting supplies are becoming evident also outside of the US. As noted in last month's *Report*, production plans for Brazil, Colombia, China and Kazakhstan have been revised lower. With the presentation of 2015 annual reports and investor updates the outlook for China has been further downgraded, with all major oil producers expecting domestic output to fall (see *China downgraded*). The number of casualties in the North Sea is also starting to pile up, with operators choosing to shut a number of projects ahead of schedule, and development plans for others delayed or cancelled (see *North Sea projects fall victim to oil price slump*).

In contrast, Russian oil producers continue to defy expectations, sustaining recent output gains. Preliminary data show crude and condensate output inching up to 10.91 mb/d in March, some 220 kb/d above a year earlier and a new post-soviet high. Ahead of the 17 April Doha meeting where major producers are set to discuss freezing production, Energy Minister Alexander Novak said Russian crude output this year would average between 10.76 mb/d and 10.82 mb/d should Russian and other producing states agree to freeze output at January levels. Our current forecast is for output to average 10.83 mb/d this year, 115 kb/d higher than in 2015.

While the most recent production statistics for Brazil show output in one of non-OPEC's key sources of growth slipping below year-earlier levels over January and February, the completion of maintenance and the start-up of new production units should underpin growth through the remainder of the year. A new floating production storage and offloading vessel starting production at the prolific Lula field in February and another vessel is on track to be delivered in 2Q16.

Preliminary production data released by Colombia's Ministry of Mines and Energy suggest the impact on output from attacks on the country's largest crude pipeline was less severe than first thought, with production only 55 kb/d lower than a month earlier. Technical problems at the Tullow-operated Jubilee field in Ghana and scheduled upgrader maintenance in Canada meanwhile looked set to temporarily curb output in March and into April. Several Canadian oil sands operators reportedly moved up scheduled maintenance to March in response to weak domestic crude prices.

Non-OPEC Supply

(million barrels per day)

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Americas	19.1	20.0	19.6	20.1	20.1	19.9	19.7	19.3	19.3	19.5	19.5
Europe	3.3	3.4	3.5	3.4	3.6	3.5	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	22.9	23.8	23.5	23.9	24.1	23.9	23.7	23.2	23.0	23.3	23.3
Former USSR	13.9	14.0	14.0	13.9	14.0	14.0	14.2	14.1	13.9	13.9	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2
Other Asia	2.6	2.8	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.5	4.6	4.6	4.5
Middle East	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.2
Total Non-OECD	28.9	29.4	29.3	29.1	29.3	29.3	29.1	29.0	28.9	29.0	29.0
Processing Gains	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC	56.3	57.3	57.4	57.8	58.1	57.7	57.0	56.9	56.9	57.0	57.0
Annual Chg (mb/d)	2.4	2.3	1.6	1.4	0.4	1.4	-0.3	-0.5	-0.9	-1.1	-0.7
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0

OECD

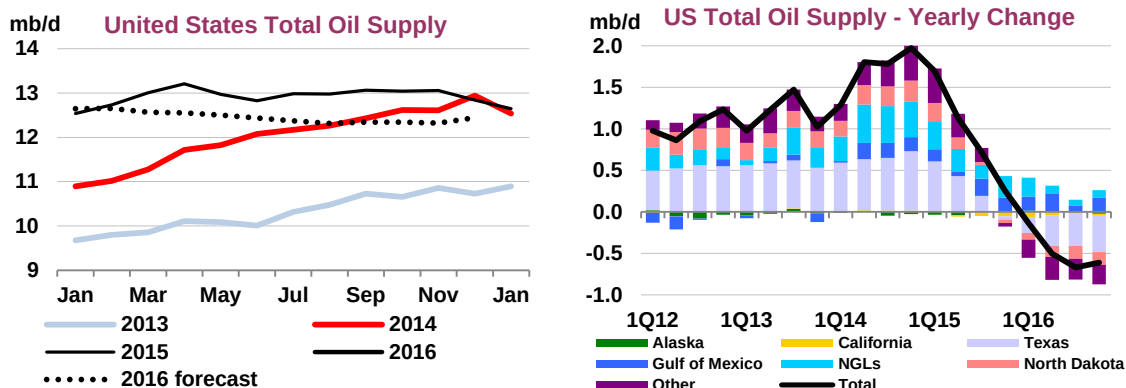
North America

US –January actual, Alaska – March preliminary: US crude and condensate production declined another 55 kb/d in January, marking a second consecutive month of y-o-y declines. Standing just shy of 9.2 mb/d, total US crude and condensate output was 160 kb/d below a year earlier, following drops of 280 kb/d the previous month. Output in the largest producer state, Texas, inched up from a month earlier, however, to 3.4 mb/d, flat from year-earlier levels. Lower US NGLs and other non-crude output took total US liquids production down a combined 200 kb/d from December, to 12.6 mb/d, or 200 kb/d below the same month a year earlier.

Preliminary indications are that output declines are accelerating. US shale production has been more resilient to lower prices and the drop in drilling activity than expected, in large part due to increased productivity gains and as hedging programmes, often required by lenders, insulated producers from the full impact of lower prices.

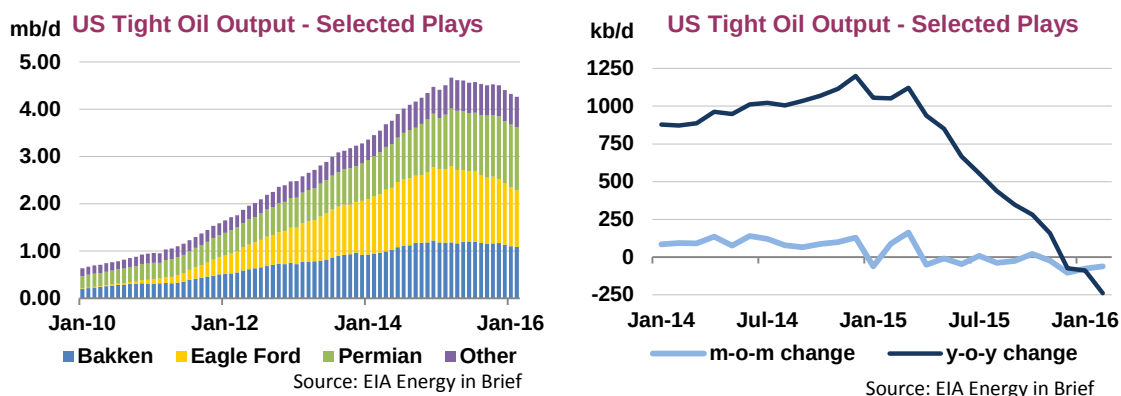
In its latest shale production update, the Energy Information Administration (EIA) forecast total US shale production dropped by 103 kb/d in December, 76 kb/d in January and 61 kb/d in February. The EIA's drilling productivity report meanwhile saw total oil output from the seven most prolific shale plays dropping by a combined 320 kb/d over the January to April period. According to this report, production

from shale plays has declined by 600 kb/d from a peak of 5,470 kb/d in March 2015. Both reports estimate output falling below year-earlier levels since December 2015.



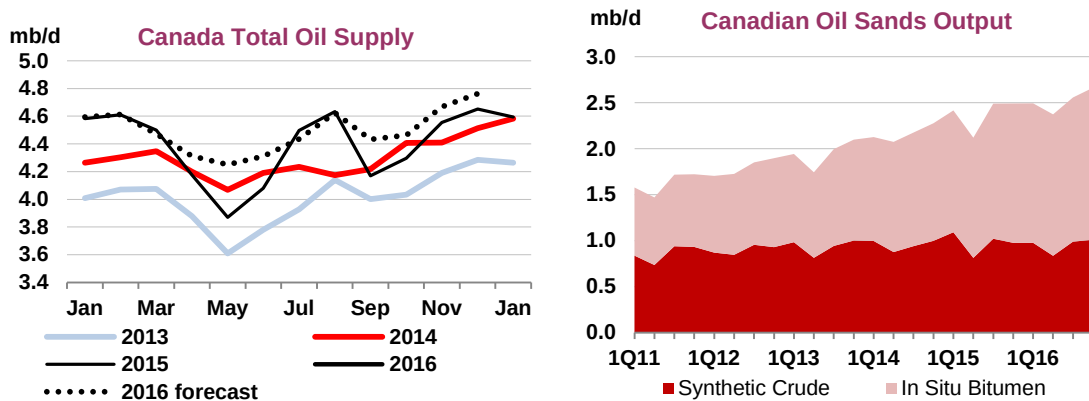
Meanwhile, the number of oil rigs operating in the US dropped by another 30 in the four weeks to 1 April, of which thirteen were removed from the Permian basin. The total US rig count was 362 on 1 April, 78% below the October 2014 peak.

Output in the Gulf of Mexico, meanwhile, held steady at just over 1.6 mb/d in January. After posting average gains of more than 140 kb/d last year, the latest output numbers stood 114 kb/d above a year ago. Offshore output is expected to gain another 155 kb/d this year, lifted by supplies from new fields. Notably, Anadarko reported first oil from its 80 kb/d Heidelberg project in January. Other projects scheduled to be commissioned this year include Stones, Julia, Coelacanth and Gunflint.



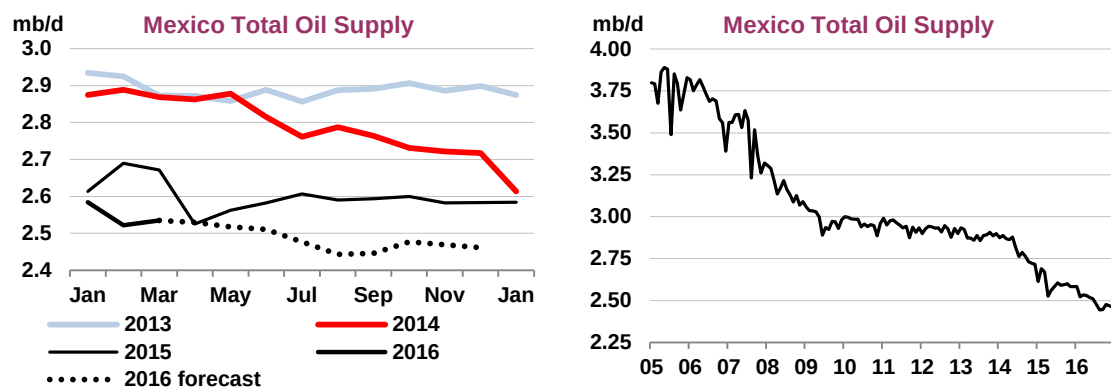
Canada – Newfoundland February actual, others December actual: Canadian oil production in January fell 60 kb/d from a month earlier, following a drop in Albertan bitumen production. Output of bitumen upgraded into synthetic crude dropped by nearly 20 kb/d m-o-m, while un-upgraded production slipped by some 40 kb/d. Consolidated production numbers for December peg Canadian oil production 100 kb/d higher than initial estimates. An upward adjustment to reported natural gas liquids output from 735 kb/d to 840 kb/d lifted total oil supply to 4.65 mb/d. In its monthly oil statistics submission to the IEA, January gas liquids output was also revised up from 704 kb/d to 799 kb/d.

Output is estimated to be lower in March, on major maintenance at upgrading and oilsands facilities. MEG Energy announced it had moved up maintenance of its Christina Lake facility from 2Q16 to the end of 1Q16, partly in response to weak prices. Connacher similarly brought forward maintenance of its Great Divide plant while Suncor moved the full shutdown of its Upgrader 2 up to March.



Mexico - February actual, March preliminary: After dropping 45 kb/d a month earlier, Mexican crude oil production largely held steady in March, at 2.2 mb/d. Total oil output stood 140 kb/d below a year ago, compared with an annual decline of 170 kb/d in February. While the country's historic upstream opening should boost exploration and development in coming years, Pemex has in recent years struggled to find and develop new resources to offset the decline at its mature fields. As such, over the past decade total Mexican oil output had dropped by a third from nearly 4 mb/d in 2005, to 2.6 mb/d on average last year. For this year, production is expected to decline a further 100 kb/d on average, roughly half the output loss seen last year, when unscheduled outages amplified the natural decline.

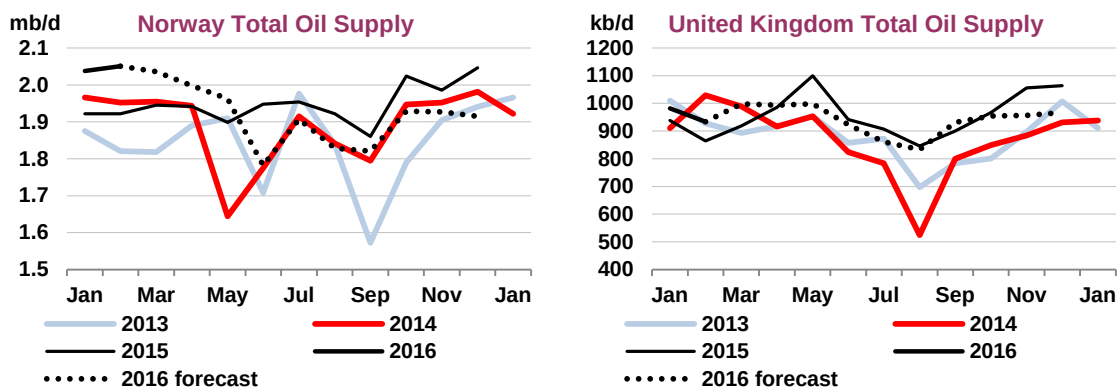
In a March update, Mexico's Ministry of Economy announced it has opted to set a low local content requirement for the upcoming deepwater bid round in December. The new rule says oil and gas companies must use 8% local content in deep and ultra-deep waters by 2025, rising from the 3% established in 2015 for a few projects operated by Pemex. According to the Hydrocarbon Law, exploration and extraction activities performed for onshore and shallow water projects should achieve on average at least 35% domestic content.



North Sea

Norway – January actual, February provisional: Preliminary data from the Norwegian Petroleum Directorate show oil production inching up another 12 kb/d in February. At 2.05 mb/d, supplies stood an impressive 130 kb/d, or 9%, above a year earlier, with a number of new fields contributing. Notably, the recently commissioned Edvard Grieg field saw output surge to 60 kb/d in January, up from 38 kb/d in December, its first month of production. Other gains came from the Knarr field, which started up last March and Gudrun which has steadily ramped up production to around 70 kb/d since its April 2014 start-up. In mid-March, Eni finally started production from the Goliat field, three years behind schedule and almost 50% over budget. Goliat, which is the first oil field to start production in the Barents Sea, is expected to reach daily output of 100 kb/d. Production will take place through a subsea system consisting of 22 wells, of which 17 are already completed.

While the commissioning of Edvard Grieg and Goliat is expected to underpin robust growth in Norwegian output this year, a return to more normal maintenance and outage levels is nevertheless expected to cap gains in 2016. Statoil, the largest operator on the Norwegian continental shelf, is planning to cut output by 25 kb/d on average in 1Q16 due to maintenance, compared with only 10 kb/d in 1Q15. For the year as a whole Statoil is planning to take 60 kb/d offline due to maintenance, compared with an average of 40 kb/d last year, with 2Q traditionally the peak maintenance period. Further maintenance shutdowns are expected from Ekofisk which is operated by ConocoPhillips who announced the field will be subject to its three-year maintenance shutdown around mid-year. Ekofisk output averaged 110 kb/d in January, the latest month for which field-level production data is available.



UK – January actual, February provisional: UK oil production dropped by a sharper-than-anticipated 80 kb/d in January, to 980 kb/d, narrowing y-o-y gains to just 40 kb/d compared with an average 170 kb/d increase over the preceding six months. Preliminary data reported through JODI shows output dropping further in February, though maintaining year-on-year gains. Output is expected to drop more sharply over summer months as maintenance picks up. The Buzzard field, the UK's largest, is expected to be closed for maintenance during most of July. Buzzard produced an average of 163 kb/d over 2015. The closure of the North Sea Cats gas pipeline for a month from 6 June is likely to result in a number of UK North Sea fields going off line during the maintenance period.

North Sea projects fall victim to oil price slump

The commissioning of new oil fields over the past few years has reversed a decade of falling oil production in the North Sea, while high oil prices have provided incentives for companies to extend field life, employ enhanced recovery techniques and improve field reliability to reduce downtime. As such, North Sea producers managed to post a second consecutive year of growth in 2015, adding 160 kb/d of supply. Ahead of the start-up of Johan Sverdrup towards the end of the decade, further growth looks at risk, however, as lower oil prices force companies to slash upstream capital expenditures and re-evaluate plans for both fields currently producing and those under development.

Det Norske has been shopping cheap assets in recent years and is clearly repositioning itself in the North Sea. Recent reports suggest that the company is contemplating scrapping the development plan for Vette (previously known as Bream). Det Norske bought the field from Premier Oil late last year, after the latter postponed the final investment decision for the project due to lower oil prices. Det Norske, which received a good price after netting out the tax carry forwards, was looking to negotiate cost savings on a planned floating production storage and offloading unit. Now, the combination of weak oil prices and lower potential production is challenging the economics of the project forcing its closure. According to the company, the final decision will be taken together with the other partners in the license; Kufpec (30%) and Tullow (20%).

For fields in production, operators in Norway are starting to turn off the taps early at fields approaching the end of their productive life. Following its decision to shut down the Volve field by end-2016, years later than its initial life expectancy, Statoil has announced it is also looking to shut its Veslefrikk oilfield. In contrast to Volve, however, the shutdown of Veslefrikk comes two years earlier than planned as production has slipped to 6 kb/d amid low oil prices. An application has been filed with the Ministry of Petroleum & Energy to halt

North Sea projects fall victim to oil price slump (continued)

production in the second quarter of 2018, coinciding with a planned stoppage on the Oseberg field that shares its export route with Veslefrikk. Statoil is set to make a final decision on the shutdown of the field in the second half of 2017, with submission of a decommissioning plan presently scheduled for the first quarter of next year.

Poor economics led Repsol to shut down its small Varg field, which produced 5 kb/d in January, five years ahead of earlier plans. The FPSO is scheduled to leave the field by 1 August.

Similarly, ExxonMobil will retire its Jotun field five years early this October, meaning that Det Norske's Jette field, which is tied back to the Jotun B platform, will also cease production. Moreover, the Jette field has been producing mainly water in recent months with oil and gas recovery being hit by reservoir and under-performing well issues, effectively making the field no longer commercially viable. All supplies from the Jotun and Jette fields have been processed at Norway's Slagen refinery in recent years and they will now have to look at similar crude, like the Statfjord blend, to take its place.

Dong Energy intends to shut down its Oselvar field, more than a decade earlier than planned, and just five years after first oil in 2013. Dong has reportedly seen a significant decline in recoverable reserves as reservoir pressure has dropped faster than expected at Oselvar, and might be looking to use parts of the infrastructure at the Centrica operated Butch field the UK side. Dong is now looking to shut down Oselvar, which is currently producing only 2 kb/d, as early as 2018.

While current production of the these fields stood only at around 30 kb/d in January, their shutdown means that nearly 65 mboe will be left untapped, of which the Vette field contributes the majority. Perhaps more significantly longer term, however, is the delay and the potential risk to projects such as Snorre2040, which will extend the lifetime of the field by adding 200-300 mb of recoverable reserves, and the development of other major finds such as Johan Castberg.

Norwegian field shut-downs

Field	Operator	Discovery	Start	Initial reserves (mboe)	Remaining (mboe)	Production (kb/d)
Varg	Repsol	1984	1998	102.5	0.6	5.6
Oselvar	Dong	1991	2012	5.7	2.5	1.5
Jotun	Exxon	1994	1999	145.9	0.6	1.5
Volve	Statoil	1993	2008	64.8	3.1	10.9
Veslefrikk	Statoil	1981	1989	344.7	6.3	9.4
Vette	Det Norske	1972		46.5	46.5	0.0
Jette	Det Norske	2009	2013	3.1	0.6	0.9
Skirne	Total	1990	2004	14.5	1.9	1.2
Atla	Total	2010	2012	1.9	0.6	0.3
Gaupe	BG	1985	2012	1.3	0.0	0.1
Gyda	Repsol	1980	2014	227.7	1.3	1.7
Source: NPD				958.6	64.2	33.3

Outside of Norway, first oil from Dong's Hejre oil project in Denmark has also been delayed from its scheduled start up in 2017. In its 2015 annual report released in March, Dong Energy announced that the project "continues to be in a challenging situation and that first oil in 2017 is no longer a likely scenario". Dong Energy and partner Bayerngas terminated the EPC contract for the production platform, holding the supplier consortium, consisting of Technip France and Daewoo Shipbuilding and Marine Engineering in breach of its contractual obligations.

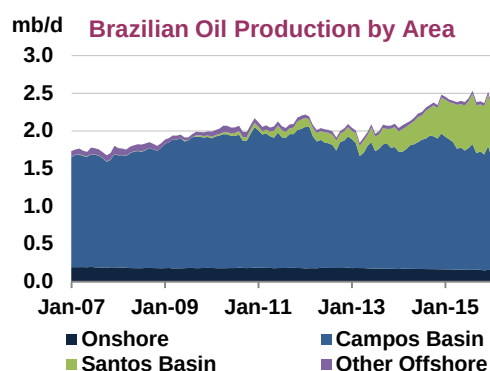
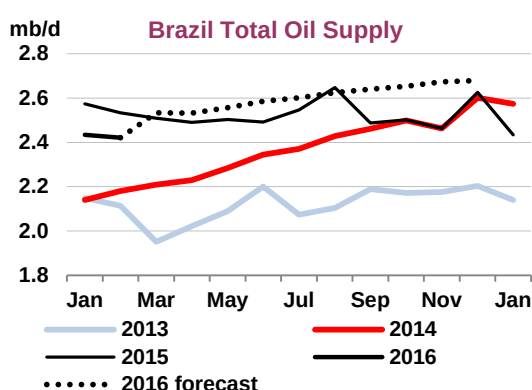
In the UK, field shutdown announcements have been so far been limited. One exception is A.P. Moeller-Maersk, whose oil unit has sought approval from UK authorities to shut the North Sea Janice field in the second or third quarter. UK lobby group Oil & Gas UK (OGUK) warns that the number of mature fields expected to cease output between 2015 and 2020 has jumped by 20% over the past year to more than 100.

Non-OECD

Latin America

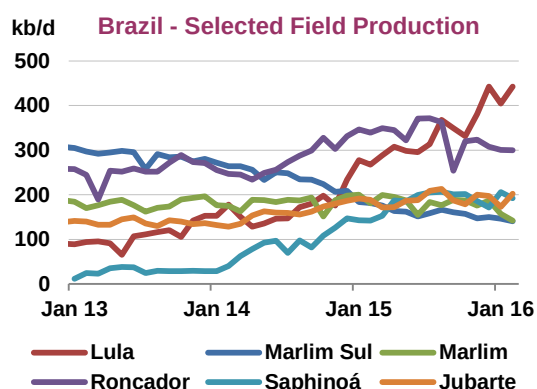
Brazil – February actual: Brazilian crude and condensate production was largely unchanged in February, at just over 2.4 mb/d. For a second month running, supplies ran short of year-earlier levels as Petrobras carried out maintenance work at offshore installations. February output was 113 kb/d below a year earlier, slightly less than the 140 kb/d decline seen in January.

In February, Campos Basin output stood 280 kb/d below a year ago, more than offsetting gains in the Santos Basin, which includes the massive Lula and Saphinoa fields. The two fields produced 443 kb/d and 192 kb/d respectively, a combined 225 kb/d above a year earlier. Output at Roncador and the Marlim fields in the more mature Campos Basin meanwhile continued to see y-o-y declines, of 40 kb/d and 120 kb/d respectively.



Indeed, Lula output reached a new high in February. According to state regulator ANP, Lula is producing an impressive 24.5 kb/d per well on average, with some wells flowing at much higher rates (the best well flowed at more than 34 kb/d last December). Lula is currently producing close to 450 kb/d of oil from five FPSOs. The Cidade de Marica entered operations at the Lula Alto area in February and the Cidade de Itaguai is still ramping up. A sixth unit, Cidade de Squarema, is on track to enter operations at Lula Central in the beginning of the second quarter. While it took Petrobras a little over 18 months to reach peak production at the first two FPSOs at Lula, the company achieved the same target in just 12 months with the third floater, and is already producing more than 80 kb/d at the Cidade de Itaguai FPSO just six months after first oil. Each unit is able to produce 150 kb/d.

Construction of the replica floaters for Lula South and Lula Extreme South is also progressing well according to Petrobras, and these units are on schedule to start production in 2017. The same applies for the replica floater meant for Lula North in 2018. Petrobras has delayed the start of production at Lula West from 2020 until some point in the next decade.



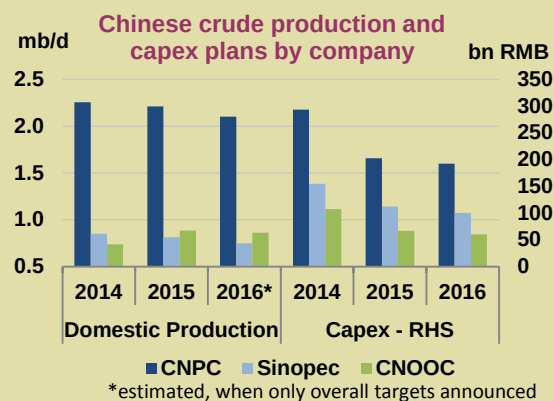
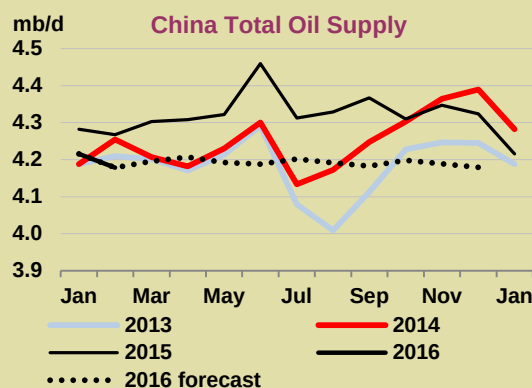
Further ahead, Petrobras is pushing back by at least three years to beyond 2020 first oil production from the FPSO vessel to be deployed at the Atapu North field in the Santos basin pre-salt province. According to project partner Galp Energia, two FPSOs will be installed in the area formerly known as Great Iara in 2018, one unit in the Atapu South field and another in the Berbigao-Sururu field. However, the location of a third floater, originally meant for Atapu North, is now receiving further technical evaluation.

Colombia – February actual: According to preliminary data from the Colombian Ministry of Mines and Energy, oil production dropped by a less than anticipated 30 kb/d in February, to 955 kb/d. Attacks on the state controlled Cano Limon pipeline reportedly halted crude throughputs through the 210 kb/d line for two weeks in February, and also protests occurred at the country's main export terminal. A full year production forecast of 940 kb/d slightly exceeds Bogota's output target for 2016 which was recently cut again amidst industry spending cutbacks. Ecopetrol, Colombia's largest producer, recently applied for permission to temporarily shut in production at its onshore Akacias field, just weeks after having suspended operations at the Can Sure heavy oil field.

Asia

Chinese production slows

China's domestic oil production is often overlooked, with attention focussed on crude oil imports, apparent demand and stock building. According to data from the National Bureau of Statistics of China (NBS) domestic output of crude oil in 2015 was 213 million tons, or nearly 4.3 mb/d on average, representing an increase of 1.7% compared with 2014. As such, China ranks as the world's fifth-largest producer behind Saudi Arabia, the US, Russia and Canada.



While still preliminary, recent data suggest oil production could be slipping fast. NBS traditionally releases only combined data for the first two months of the year because the weeklong Spring Festival holiday, which is based on the traditional lunar calendar and can fall in either month. Output for January and February averaged 4.16 mb/d, 75 kb/d less than over the same period a year earlier. Production is expected to continue on a downward trend in 2016 as China's major oil companies are adjusting to rising costs and lower prices.

Notably, PetroChina, the listed subsidiary of CNPC, announced that it expects its oil output to drop by 5% in 2016 as it plans to shut wells returning negative margins and slash capital expenditure on uneconomic upstream projects. According to its 2015 annual results released in March, China's largest producer plans to cut capex by 6.1% this year to Yuan 192 billion after a 32% drop last year. The company is also planning to cut the use of enhanced oil recovery techniques on ineffective wells both in China and at overseas operations. As such, CNPC's overall crude oil output is expected to fall to 2.52 mb/d 2016, from 2.66 mb/d in 2015. The company's domestic production declined by 2.1% in 2015, to 2.2 mb/d, with at least a further 3% or 60 kb/d cut planned this year to 2.16 mb/d. China's largest oilfield Daqing is expected to see output fall by at least 30 kb/d to 740 kb/d.

Sinopec, Asia's largest refiner, meanwhile, plans to cut capital expenditure by close to 11% this year, to \$15.4 billion, following spending cuts of 27.4% last year. Nearly half of the budget is expected to be allocated to domestic oil and gas exploration and development projects. China's third-largest producer also said it plans to reduce its crude oil production by up to 5%, to 0.91 mb/d. Sinopec plans to cut its domestic production from 0.76 mb/d this year, down from 0.81 mb/d produced in 2015. The company announced last month that it would shut four marginal fields at the large Shengli complex in an attempt to stem losses. The average cost of production from the complex is \$52/bbl. Output has fallen steadily to around 500 kb/d over January and February, compared with 550 kb/d at the start of 2015.

Chinese production slows (continued)

China National Offshore Oil Corp, CNOOC, which surpassed Sinopec as China's second largest oil producer last year expects to cut spending by another 10% this year after having slashed spending by 38% in 2015. The company lowered its oil and gas production target for 2016 – the first such cut in recent years. CNOOC said it aims to produce 1.28-1.33 mboe/d in 2016, compared with 1.36 mboe/d in 2015 as fewer new fields are expected to be brought on line compared with earlier years. CNOOC is expecting output from new four new fields commissioned in 2016 to add 28 kboe/d, compared with 117 kboe/d added last year. CNOOC saw its domestic crude production increase by 20% last year to 886 kb/d, and expects 2016 output of 860 kb/d.

The forecast for Chinese oil production has been cut by 85 kb/d since last month's Report, to 4.2 mb/d, a decline of 135 kb/d compared with 2015.

Africa

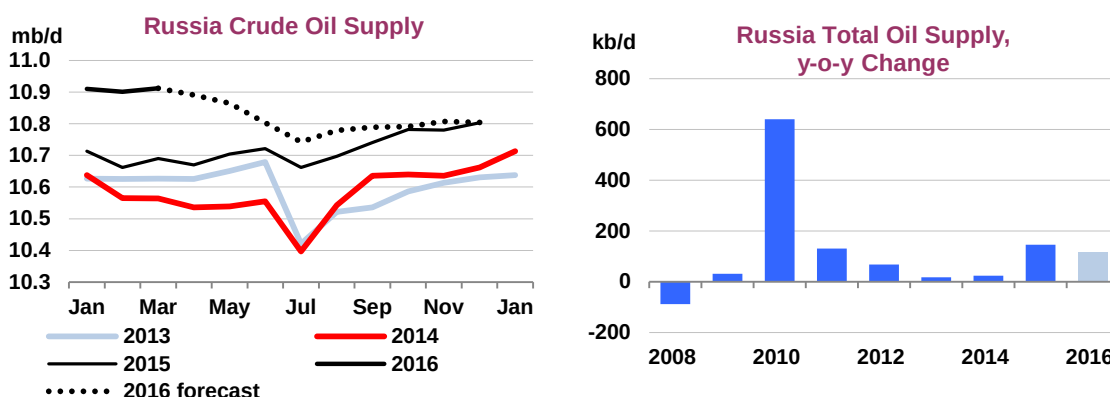
Production from Ghana's Jubilee field - operated by Tullow Oil - was expected to resume around 22 April, almost five weeks after force majeure was declared due to a technical hitch at the FPSO facility. The company's 80 kb/d Tweneboa, Enyenra and Ntomme (TEN) project is expected to start up in July or August, lifting total oil production in Ghana to 175 kb/d by year-end.

A reassessment of historical production from Gabon, Congo and South African coal-to-liquids plants lowered the output for the period of 2013-2015 by a combined 30-60 kb/d.

Former Soviet Union

Russia – February actual, March provisional: After posting a marginal decline a month earlier, preliminary statistics released by the Central Dispatching Unit, the statistical arm of the Russian Energy Ministry show Russian crude and condensate output inched higher still in March, reaching yet another record high of 10.91 mb/d.

The latest production statistics showed that companies categorised by the ministry as "small producers" were behind the higher production total, accounting for an increase of 1.5% to 1.16 mb/d in March. An 11.9% rise in output from joint ventures with foreign oil companies, to 357 kb/d, also contributed to the increase in total production. Meanwhile, output from major Russian oil companies fell last month, led by a 0.7% output decline at world's biggest listed oil producer Rosneft. Output at Lukoil and Surgutneftegaz edged down by 0.1%. Both Rosneft and Lukoil have announced plans to keep production unchanged this year after falling by 0.9% and 1.1%, respectively, in 2015.



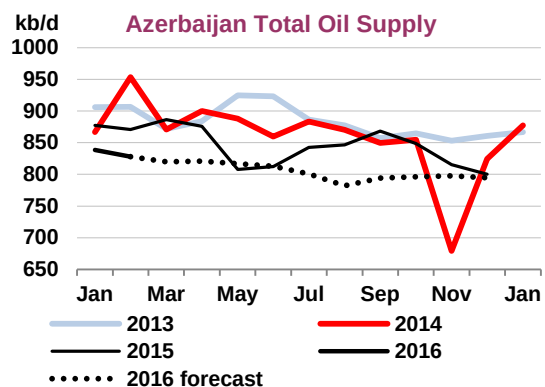
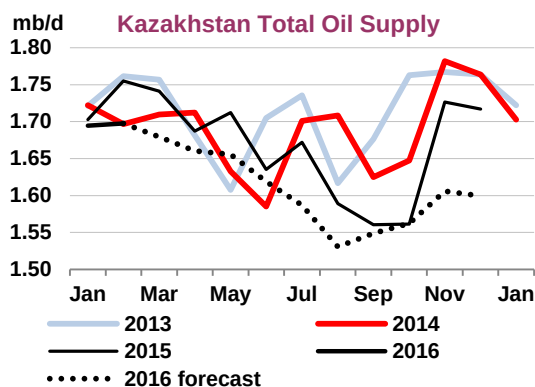
Sustained output growth is coming on the back of determined efforts to pump as much oil as possible to offset the impact of low oil prices. According to Sberbank, development drilling expanded 11.7% y-o-y in the two first months of 2016, with growth ranging from 40-50% at Rosneft, Slavneft and Tatneft to 70% at Bashneft. In contrast, Lukoil drilling was 40% lower than a year earlier, though from a high 2015 base.

The annual rate of decline from mature West Siberian fields remains relatively high at 3%, however, suggesting companies could struggle to hold production steady and avoid output declines. Lukoil has been unsuccessful in stemming output decline in Western Siberia, while Rosneft output has held up somewhat better. March production at Yuganskneftegaz was only 1% lower y-o-y, following a 3.2% decline in 2015.

Leading oil producers, including Russia, are due to meet in Doha on April 17 for talks on a prospective oil output freeze. Currently it is suggested that that output will be frozen at January levels, slightly below the most recent production levels, which saw Russian output reach highs not seen since 1987. Russian Energy Minister Alexander Novak said that the high level of production seen in March would not be an obstacle to the expected agreement on a production freeze, local news agencies reported.

Kazakhstan – February actual: For the second month running Kazakh crude and condensate production held steady in February, at nearly 1.6 mb/d, 57 kb/d below year-earlier levels. Kazakhstan's oil output is set to decline this year for the third year in a row due to spending cuts by some local producers in the face of lower crude prices as well as delays in launching commercial output at the huge Kashagan field.

Production at Kashagan was halted shortly after the initial launch in 2013 because the pipes connecting it to an onshore processing plant were leaking gas. State oil company KazMunayGaz, meanwhile, recently said that Kashagan field will re-start production in October. The history of chronic delays and uncertainty surrounding the replacement of the pipelines lead us to maintain our forecast of an early 2017-startup in for the time being. The first phase of the project is expected to produce up to 370 kb/d once it is fully operational.



Azerbaijan – February actual; Azeri production was relatively unchanged in February, standing 40 kb/d below a year earlier at 830 kb/d. Azeri output is forecast to drop by 40 kb/d for the year as a whole to just over 800 kb/d.

FSU net oil exports eased to 9.83 mb/d in February after hitting a ten-month high in January, with weaker product exports offsetting higher crude volumes, as spring refinery maintenance began. Crude exports increased by 200 kb/d on the month, led by seaborne loadings, particularly from the Baltic and BTC terminal at Ceyhan. The Black Sea saw volumes from Novorossiysk decrease due to storms. Shipping data suggests that volumes picked up in March to their highest level so far in 2016, helped by Russian production inching up again and as refinery maintenance intensified.

Refinery shutdowns dragged product exports down by more than 500 kb/d in February weighing particularly on fuel oil output, which dropped by more than 30% compared to January. Fuel oil was disproportionately affected as maintenance affected primarily simpler refiners, notably Rosneft's Tuapse plant. The bulk of the reduction came from ports in the Baltic and in the Black Sea.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	1Q2015	2Q2015	3Q2015	4Q2015	Dec 15	Jan 16	Feb 16	Latest month vs. Jan 16 Feb 15	
Crude											
Black Sea	1.62	1.64	1.83	1.56	1.59	1.60	1.56	1.76	1.72	-0.04	-0.15
Baltic	1.33	1.45	1.47	1.45	1.38	1.51	1.42	1.48	1.60	0.12	0.15
Arctic/FarEast	1.14	1.41	1.36	1.41	1.41	1.47	1.54	1.56	1.54	-0.02	0.16
BTC	0.60	0.62	0.64	0.61	0.61	0.61	0.66	0.69	0.77	0.08	0.18
Crude Seaborne	4.69	5.12	5.29	5.03	4.98	5.20	5.17	5.50	5.64	0.14	0.34
Druzhba Pipeline	1.01	1.07	1.07	1.08	1.06	1.08	1.05	1.01	1.09	0.08	0.04
Other Routes	0.40	0.24	0.25	0.24	0.23	0.21	0.21	0.21	0.21	0.00	-0.05
Total Crude Exports	6.14	6.43	6.61	6.35	6.27	6.49	6.43	6.70	6.91	0.21	0.31
Of which: Transneft ¹	3.88	4.19	4.27	4.16	4.08	4.23	4.03	4.27	4.27	0.00	0.05
Products											
Fuel oil ²	1.72	1.49	1.65	1.51	1.31	1.48	1.57	1.60	1.08	-0.52	-0.56
Gasoil	0.95	0.98	1.22	1.03	0.82	0.84	0.86	1.15	1.14	-0.01	-0.07
Other Products	0.57	0.66	0.73	0.69	0.58	0.66	0.69	0.75	0.76	0.02	0.05
Total Product	3.25	3.13	3.61	3.23	2.71	2.97	3.11	3.50	2.98	-0.52	-0.59
Total Exports	9.38	9.56	10.22	9.58	8.98	9.46	9.54	10.20	9.90	-0.30	-0.28
Imports	0.08	0.06	0.05	0.06	0.07	0.08	0.05	0.05	0.06	0.01	0.00
Net Exports	9.30	9.50	10.17	9.53	8.91	9.39	9.49	10.15	9.83	-0.32	-0.28

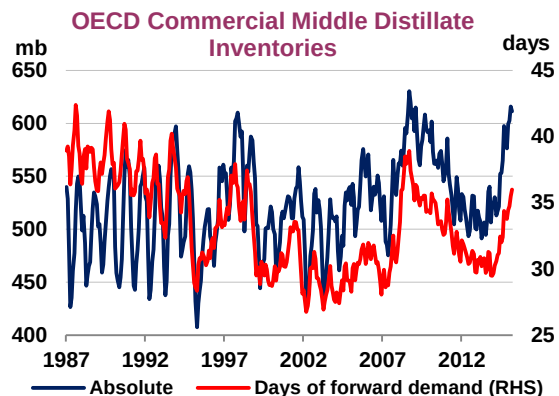
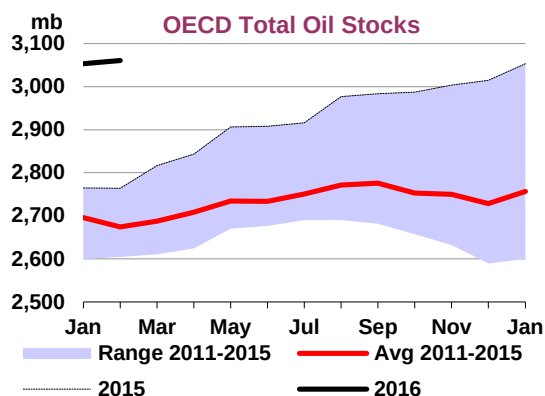
Sources: Argus Media Ltd, IEA estimates

¹Transneft data exclude Russian CPC volumes.²Includes Vacuum Gas Oil

STOCKS

Summary

- **Commercial stocks in the OECD continued their relentless rise and built counter-seasonally by 7.3 mb in February to end the month at 3 060 mb.** Accordingly, the overhang of inventories against average levels widened to 387 mb at end-month.
- **Despite drawing by a shallow 11.5 mb in February, refined products holdings remain comfortable, covering 33.5 days of forward demand by end-month, 3 days above the year earlier level.** Following steep builds in 2H15, middle distillate stocks remain ample, 100 mb above one year earlier, with warmer than average Northern hemisphere temperatures so far in 2016 resulting in lacklustre space heating demand.
- **Preliminary data for March suggest that OECD inventories built for a thirteenth consecutive month, adding 11.1 mb** as a build in crude – centred in the US – more than offset a draw in refined products.
- **A number of terminals in the OECD region have recently reopened, or are due to reopen over coming months will alleviate storage capacity concerns.** The largest of these is the 32 mb Limetree Bay terminal in the US Virgin Islands.



Global Overview

While much attention has been paid to stocks of crude oil over recent months, what is becoming clear is that stocks of middle distillates are more than ample which could negatively affect refinery economics in coming months. So far this winter, warmer-than-average temperatures in parts of the northern hemisphere have kept a lid on space heating demand which has seen OECD middle distillates inventories remain at close to record levels. By end-February, they stood 78 mb above average. Meanwhile, Chinese gasoil inventories surged by over 1 mb/d in February with refiners pushing extra product into an already saturated market as they struggle to keep pace with robust domestic gasoline demand. At the same time, middle distillate inventories in Singapore remain well above average. With refiners needing to hike gasoline production in 2Q and 3Q, especially in the US, middle distillates stocks will likely rise further. If markets remain saturated, then high stocks could well see gasoil and diesel cracks come under further pressure.

OECD inventory position at end-February and revisions to preliminary data

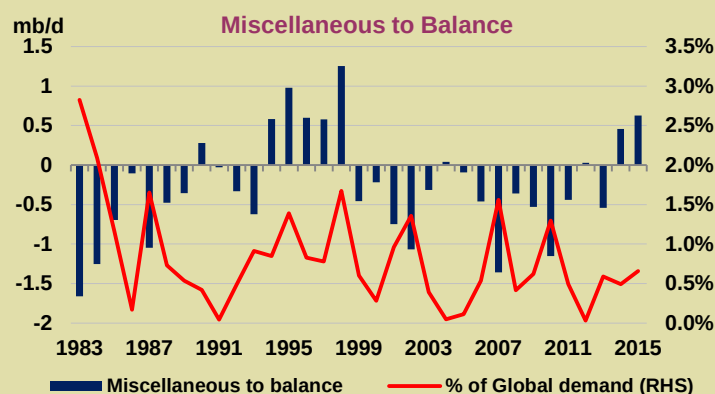
Commercial stocks in the OECD continued their relentless rise and built counter-seasonally by 7.3 mb in February to end the month at 3 060 mb. Accordingly, the overhang of inventories against average levels widened to 387 mb at end-month. Stocks were driven upwards by crude oil holdings which added 20.1 mb with approximately two thirds of this accounted for by the OECD Americas.

Despite drawing by 11.5 mb in February, refined products holdings remain comfortable covering 33.5 days of forward demand by end-month, 0.2 days and 3.0 days above end-January and one year earlier levels, respectively. These ample stocks have weighed heavily on product prices across the barrel over recent months. The monthly draw was far shallower than the 34.8 mb five-year average draw for the month and came against the backdrop of warmer than average winter weather in parts of the northern hemisphere that heavily impacted on demand. Consequently, middle distillate stocks only slipped by 4.4 mb, far less than the 18.9 mb average draw for the month. These stocks have built sharply over the last nine months and at end-February stood nearly 100 mb above one year ago, although short of record levels in both absolute and days of forward demand terms.

Getting the balance right

This month, the *Miscellaneous to balance* line item for 2015 in Table 1 of this *Report* is revised down by 0.2 mb/d compared to the figure presented last month. This revision stems from an upward adjustment to global demand and a smaller downward adjustment for global supply, both heavily focussed on Africa.

The *Miscellaneous to balance* item displays the difference between observed supply and demand, having taken account of observed OECD inventory and shipment changes and is used as a check on data integrity. Historically, the item averages less than one percent of global demand and the 0.6 mb/d figure for 2015 falls well within this range. The recent positive bias could represent timing differences between crude supply and product demand, understated demand, overstated supply or that non-OECD inventories are building.



Reliable, timely information on non-OECD inventories is scarce which, for the moment, prevents this *Report* from including a specific line item in Table 1 to account for non-OECD inventory changes. Nonetheless, over the last few years, this *Report* has tracked and discussed non-OECD stock changes in a number of key economies. This analysis has shown that over the past decade, non-OECD stocks have built as downstream and midstream infrastructure has expanded. This expansion was necessary, as the region, especially non-OECD Asia, has become the engine for global oil demand growth. This trend accelerated in 2015 as crude and products markets moved into contango and oil prices fell.

Much of the *Miscellaneous to balance* for 2015 is attributable to oil stocks building in a number of key non-OECD economies; China, for example, accounted for approximately two thirds of the total build, with crude entering newly-commissioned SPR tanks and both crude and products being stored at recently completed refineries and at unreported commercial storage sites. Elsewhere, official information becomes rarer but market intelligence suggests that stocks built at a number of commercial sites in South East Asia, notably in Malaysia and Indonesia, capturing 'spill over' from the Singapore storage hub. Meanwhile, India filled the first of its crude SPR sites and commissioned the 300 kb/d Paradip refinery at year-end.

Our *Report* must also contend with historic data revisions, from OECD and non-OECD countries that can change the oil market balance significantly as final data are often published with several months and even years delay. The IEA is continually working with colleagues in other agencies to improve data accuracy across the oil balance but, inevitably, at times it is difficult to reconcile demand and supply gaps with observed stock numbers, especially when, as now, oil supply is considerably in excess of demand.

Despite warmer than average temperatures in the US Midwest, stocks of 'other products' drew (-12.2 mb) in line with seasonal trends, as space heating demand for propane likely remained seasonally high. Fuel oil holdings increased counter-seasonally in the OECD Americas and Europe, against the backdrop of weakening prices and closed arbitrage opportunities to ship product to Asia. Gasoline inventories inched up counter-seasonally by 0.4 mb and by end-month, inventories stood 11 mb and 25 mb above last year and the five-year average, respectively, with demand cover standing at 29 days.

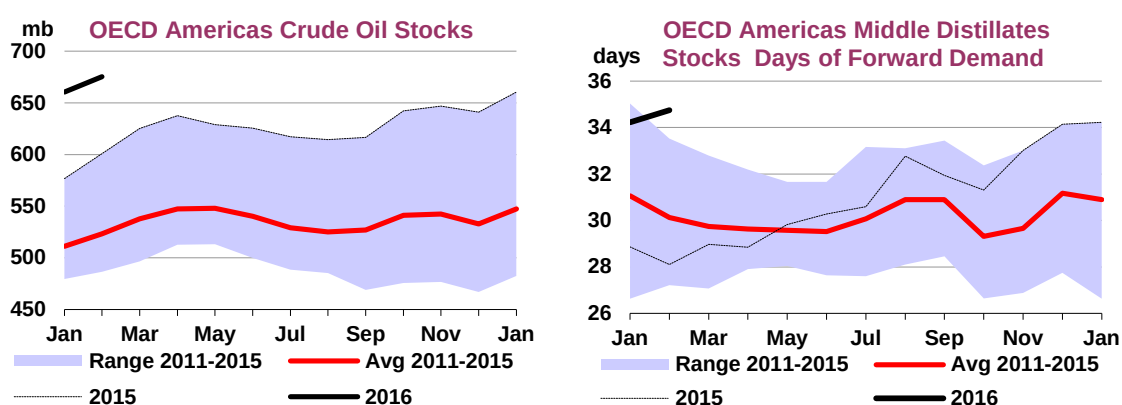
February data were revised upwards compared to preliminary estimates presented in last month's *Report* that indicated that stocks drew for the first time in a year in February. This stemmed from a steep build in Korea (13.8 mb) for which data were previously unavailable while European stocks came in slightly higher. Upon the receipt of more complete data, January inventories were also revised upwards by 19.5 mb with the bulk of the adjustment being made to European inventories (+15.1 mb) as stocks in the Netherlands, Italy and France were higher than previously assessed.

Preliminary data for March suggest that OECD inventories have continued to build, adding 11.1 mb by month-end. Although this was broadly in line with seasonal trends, crude increased by a weak 12.5 mb, compared to the 30.6 mb five-year average build for the month while refined products fell by a slight 2.2 mb, far less than the 19.2 mb seasonal draw. The build in crude was centred in the US where refinery throughputs remained seasonally due to maintenance and imports remained relatively high. Elsewhere, European oil stocks dropped counter-seasonally by 7.3 mb as crude bucked seasonal trends and dropped by 5.1 mb while products fell by a relatively weak 2.2 mb. In contrast, stocks in Asia Oceania adhered to seasonal trends and built by 7.5 mb, led by crude.

Recent OECD industry stock changes

OECD Americas

Industry inventories in the OECD Americas rose counter-seasonally by 5.1 mb in February after a 14.8 mb increase in crude oil holdings, more-than-offset a 10.6 mb draw in refined products. By end-month, inventories stood a record 271 mb above average with crude oil accounting for over 150 mb of the surplus. The build in crude came as refinery throughputs dropped to a seasonal low during peak maintenance and as imports, especially from West Africa, rose as the WTI – Brent spread remained narrow.

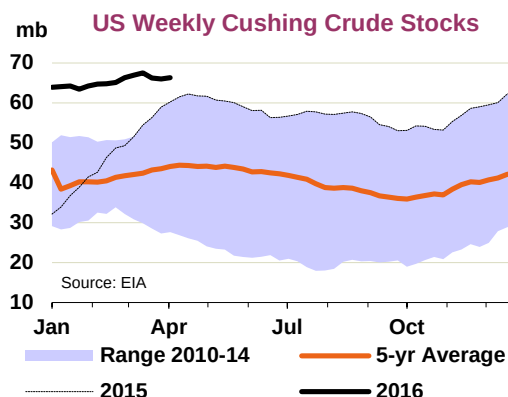
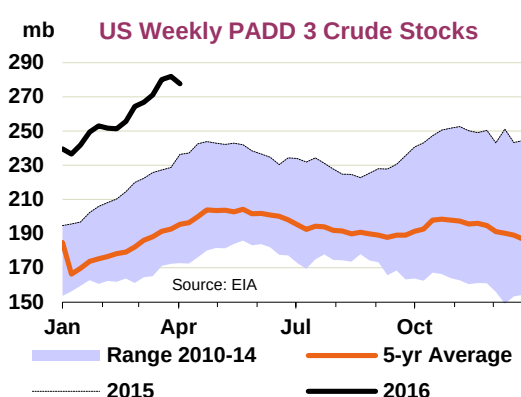


Refined products drew by approximately half of the seasonal decrease for the month. The fall was centred in 'other products' (-13.3 mb) with propane demand likely remaining high from both residential consumers and the petrochemical industry. Both middle distillates and fuel oil posted counter-seasonal builds of 2.8 mb and 2.5 mb, respectively while gasoline holdings followed seasonality and fell by 2.6 mb. At end-month, demand cover fell by 0.4 days to 32.0 days but remained 3.0 days above February 2015. Commencing with this Report, 1 mb of previously unaccounted for gasoline inventories have been added

to government holdings in the United States. These account for volumes contained in the US Northeast Gasoline Supply Reserve, established following the logistical difficulties encountered in the aftermath of Hurricane Sandy. The gasoline is stored at 3 sites; New York Harbour (0.7 mb), Boston (0.2 mb) and Maine (0.1 mb). Historical data contained in the Monthly Oil Data Service have been revised back to the establishment of the reserve in August 2014.

Preliminary weekly data from the US Energy Information Administration (EIA) point to US inventories posting a further 10.8 mb build in March – in line with seasonal trends. Crude oil increased by 11.0 mb with a further 0.8 mb build coming from NGLs and other feedstocks. The build in crude was centred in PADD 3 (the Gulf Coast) where refinery throughputs remained seasonally low due to planned maintenance. Stocks at the Cushing, Oklahoma storage terminal (the delivery point of the NYMEX WTI contract) remain stubbornly high and by early April exceeded 66 mb, keeping NYMEX WTI under downward pressure.

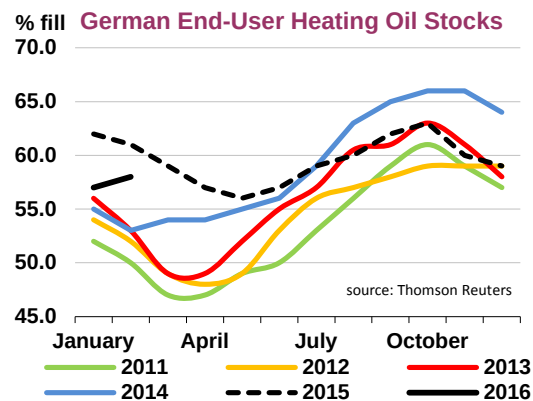
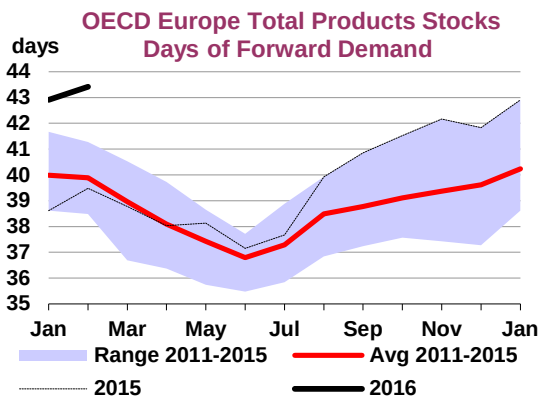
Refined products inched down by 0.9 mb, considerably weaker than the 8.1 mb five-year average draw for the month. The draw was tempered by a sharp 8.6 mb build in ‘other products’ as residential demand for propane tailed off. Additionally, middle distillates stocks increased counter-seasonally by 1.7 mb as stocks of ULSD and kerosene built. By end-March, ULSD holdings stood 34 mb above one-year earlier, with 23 mb of the difference being located in PADD 1 (the Atlantic Coast).



Reports suggest that the shuttered Hovensa refinery at St Croix on the US Virgin Islands will reopen in April as a storage facility to be renamed Limetree Bay Terminal. It was closed in 2012 and purchased in January 2016 by ArcLight Capital Partners and Freepoint Commodities. When fully opened, the terminal will have approximately 32 mb of capacity available for the storage of refined products and crude oil. Reportedly, 10 mb of tankage has already been leased by Sinopec on a long-term basis. As a US territory, stock changes in the Virgin Islands are not included in US official stock numbers. Nonetheless, during coming months we will estimate stock changes at Limetree Bay based on shipping information. At the time of writing, tanks were empty with no vessels having called at the facility since January 2015.

OECD Europe

Commercial stocks in OECD Europe built counter-seasonally by 4.0 mb in February after refined products increased by 3.3 mb while NGLs and feedstocks rose by a combined 1.8 mb which more than offset a 1.1 mb draw in crude oil. This saw inventories end the month 87 mb above average. Considering that regional refinery runs dropped by 140 kb/d on the month, this would suggest that imports of both crude and products remained strong.



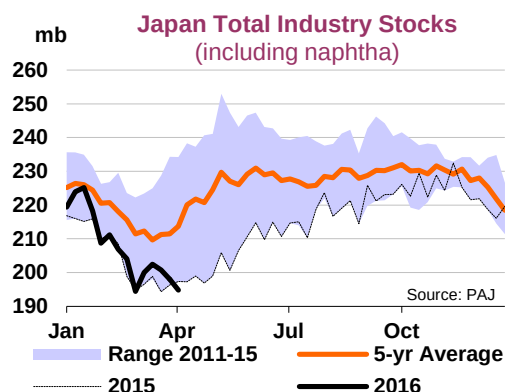
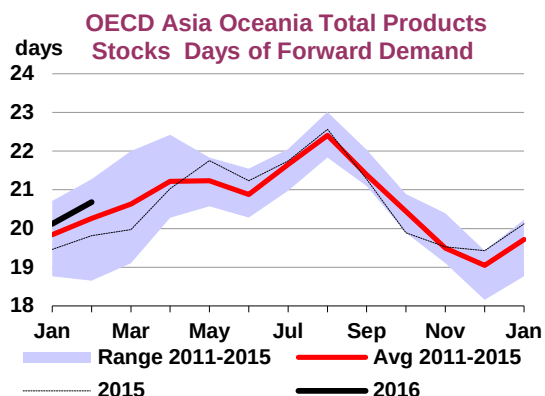
The increase in refined products was led by motor gasoline (+3.5 mb) and fuel oil (+2.3 mb). Gasoline built limited opportunities to ship product to the US and West Africa. A similar picture prevailed for fuel oil, where inventories grew as the arbitrage window to ship product to Asia remained closed for much of the month. Middle distillates fell by 2.5 mb, less than half the average draw for the month, as winter heating demand remained lacklustre amid warmer-than-average winter temperatures. Indeed, this saw German consumer heating oil stocks increase in February, a month when they would normally draw.

Preliminary data from Euroilstock suggest that inventories in EU15 + Norway drew counter-seasonally by 7.3 mb in March. The fall was led by crude (-5.1 mb) as a number of Mediterranean countries posted draws. Meanwhile, refined product holdings declined by 2.2 mb as all product categories dropped. Additionally, reports suggest that stocks of refined products held in independent storage in Northwest Europe remain close to record levels. This continues to impact tanker traffic with a number of vessels anchored offshore waiting to discharge into the region's main hubs.

UK midstream company Greenergy has announced the opening of an oil storage depot on the site of the closed Coryton refinery on the Thames estuary. The plant, previously owned by Petroplus, was closed permanently in early 2013 and the new terminal will be used for the supply of fuel to Southeast England, including London. It will have an initial capacity of about 1.2 mb used for storing mainly middle distillates and will be expanded by an extra 0.4 mb, likely to be completed by September.

OECD Asia Oceania

In contrast to other OECD regions, commercial holdings in OECD Asia Oceania followed seasonal trends and drew by 1.8 mb in February after a 4.2 mb fall in refined products outweighed a combined 2.5 mb build in crude oil, NGLs and other refinery feedstocks. There were diverging trends in crude oil inventories in Japan and Korea; while Japanese inventories drew by 15.5 mb as refinery runs rose and imports fell back, Korean inventories added 13.8 mb as imports surged by close to 15%, which more than offset the impact of higher runs. In terms of days of forward demand, refined product inventories are not as comfortable as in other OECD regions; at end-month they covered 20.7 days, 0.6 days above end-January and 0.9 days higher than one year earlier. In absolute terms, product inventories remain in line with average levels.



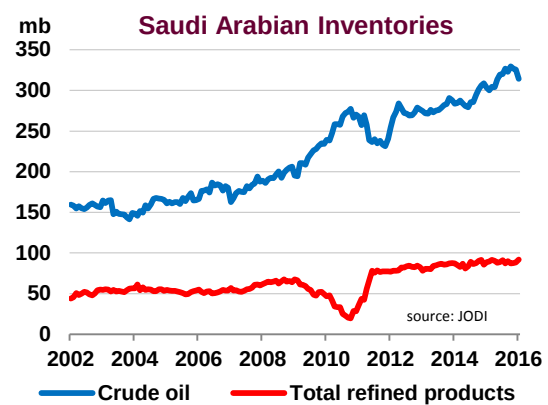
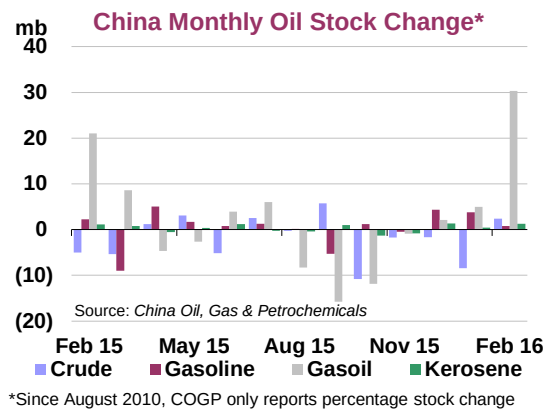
Preliminary data from the Petroleum Association of Japan (PAJ) suggest that Japanese stocks rebounded by 7.5 mb in March. The build was driven by crude oil holdings, which rose by 6.6 mb; data also show that crude runs were hiked by a further 200 kb/d suggesting that crude imports increased. As refinery activity rose, stocks of refined products inched upwards by 0.9 mb. Fuel oil added 1.2 mb, middle distillates fell by 0.2 mb while stocks of motor gasoline and 'other products' remained largely flat. By end-month, Japanese total oil stocks stood at an 11.5 mb deficit to average levels, with all inventories except fuel oil standing below average.

Recent developments in non-OECD stocks

According to data from International Enterprise, land-based refined product inventories in Singapore drew by 3.6 mb in March to stand at approximately 53 mb at end-month. Despite the monthly draw, stocks hit a record 58.4 mb in mid-March, led by surging residual fuel oil holdings. These stocks rose as arrivals from Iran and Europe increased, before drawing steeply over the final two weeks of the month as imports fell back. Consequently, stocks hit 30 mb for the first time before falling back to 25 mb by end-month. Light product holdings also remain at near-record levels, although arrivals from Europe tailed off at end-March as the arbitrage window shut, offsetting low import demand from Japan.

Information published in *China Oil, Gas and Petrochemicals* (China OGP), indicate that Chinese commercial product inventories surged by an equivalent 27.3 mb (data are reported in terms of percentage stock change) in February, the steepest build on record, after gasoil holdings soared by 30.3 mb, kerosene added 1.3 mb and gasoline fell by 4.3 mb. The increase in gasoil holdings to record levels (110 mb) comes as Chinese refiners recently hiked gasoil production in tandem with gasoline output as they struggle to keep pace with domestic demand for the latter product. Considering the softness of global middle distillates markets amid high stocks in key terminals, and warmer-than-average winter temperatures in many parts of the northern hemisphere, this large stock build in China could suggest that Chinese refiners are having trouble finding export markets for excess gasoil. Indeed, although gasoil exports rose in January to 200 kb/d, they remain below the record levels attained in 4Q15.

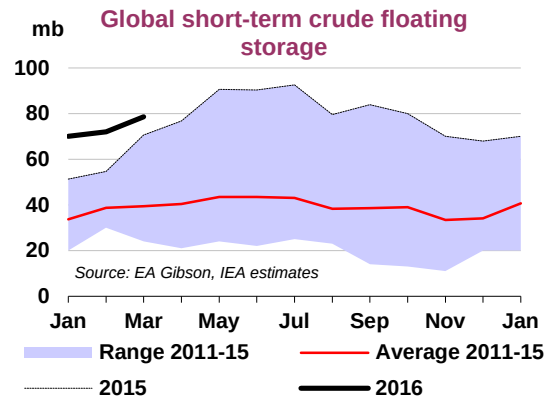
Chinese commercial crude inventories added an equivalent 2.4 mb in Feb as crude imports hit a record 8.0 mb/d. Deliveries from Saudi Arabia remained at near-record levels while imports from Angola, Russia and Oman also remained high. Much of the increase was driven by independent refiners, holding newly-distributed import quotas, reportedly increasing their buying. The sharp increase in imports also saw crude supply (net imports plus domestic crude production) outstrip officially reported refinery runs for the tenth consecutive month, which suggests an unreported stock build of 43 mb (1.5 mb/d). Preliminary indications for March suggest that Chinese national crude stocks could have risen further but the pace of builds would likely be lower than February.



Data from the Joint Organisations Data Initiative (JODI) suggest that Saudi Arabia increased its crude oil stocks by a slight 17 mb (50 kb/d) between January and December 2015, a period when it ramped up crude production by 0.6 mb/d, which suggests that almost all of the production increase was exported immediately. However, in January 2016, crude stocks drew by a steep 11.4 mb/d (370 kb/d), the largest draw since May 2011 as crude exports hit 7.8 mb/d and refinery runs came close to record levels. Indeed, despite the commissioning of the YASREF refinery at Yanbu, Saudi product stocks remained remarkably level over 2015 increasing by a slim 3 mb over the year, underlining the export orientation of the plant.

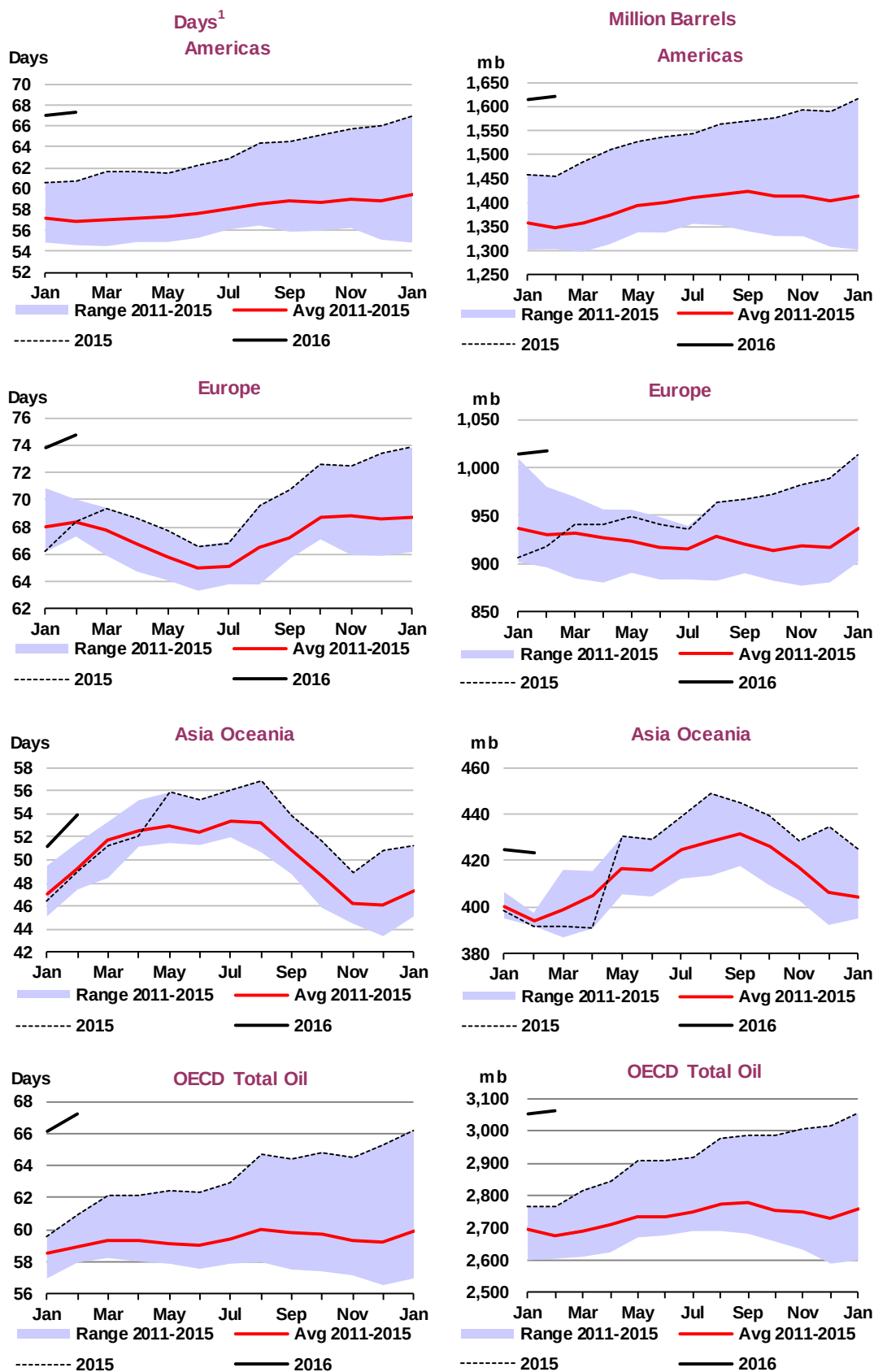
Recent developments in floating storage

Data from EA Gibson shipbrokers suggest that volumes of crude oil held in tankers increased by nearly 7 mb in March to about 79 mb by end-month. The increase was led by volumes of crude held in the Middle East as two VLCCs were added to the fleet moored in the region storing Iranian condensate while one VLCC was added in Asia Pacific. On the product side, brimming fuel oil and light product inventories in Singapore have seen market participants forced to store product on tankers due to a lack of available tank space with these seen as demurrage rather than floating storage. At the time of writing, at least four vessels holding products appeared to be engaged in the activity but considering that time spreads in product markets are less than levels required to cover storage costs, this is likely due to logistical rather than speculative reasons.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

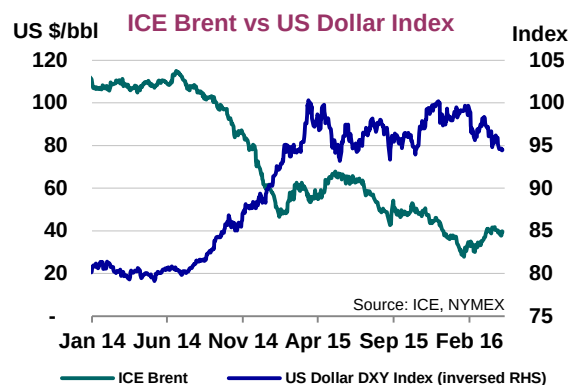
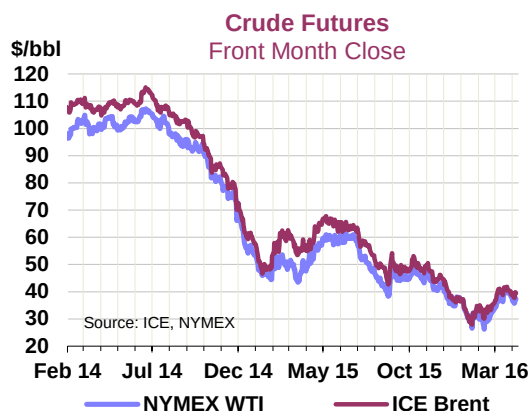


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil prices rallied to a four-month high approaching \$45/bbl in mid-April as further evidence emerged of accelerating declines in US output and market participants held out hope that upcoming producer talks would agree a deal to help manage a still massive supply overhang.** A weaker US dollar also lent support. At the time of writing, Brent was at \$44.30/bbl and US WTI was at \$41.75/bbl.
- **North Sea Dated Brent rose on the perception of tighter supplies during summer maintenance while WTI gained ground compared to Brent** as US refiners ran flat out. West African sales to China neared record levels, with independent refiners drinking in Angolan grades. Robust supplies of Urals pressured the Russian grade in the Mediterranean.
- **Spot product prices followed crude prices higher in March with all the major products across all surveyed markets posting double digit price increases in percentage terms.** Nonetheless, considering the strengthening in crude prices, cracks were mixed with any increases posted being minor. Moreover, while gasoline cracks remain on par with year-ago levels, those for middle distillates are languishing at about half that of a year earlier, weighing refinery margins down.
- **Crude volumes** loading in the Middle East Gulf headed to East Asia seesawed through the month. Total sailings remain strong, and just an inch off February record 16.8 mb/d loaded, according to Lloyd's List Intelligence data.



Market overview

Crude oil prices strengthened into mid-April – reaching a four-month high approaching \$45/bbl - on more signs of hastening declines in US supplies after still more rigs were taken out of action and high hopes that a producer meeting on 17 April in Qatar would agree a deal to limit production. If a deal is struck, however, it is unlikely to speed up a rebalancing of the oil market – especially during the first half of the year. A weaker US dollar is also propping up oil prices as it makes purchases of dollar-denominated oil cheaper for countries using other currencies. A plan by thousands of oil and gas workers in Kuwait to go on strike from 17 April lent further support, although a Kuwaiti official said production and exports would not be affected. ICE Brent was last trading at \$44.30/bbl. US WTI was at \$41.75/bbl.

The ICE Brent contango structure, where prompt oil is cheaper than future months, nearly vanished in early April after holding steady at a discount of -\$0.65/bbl during February and March. The prompt month contract is flirting with backwardation – when prompt oil is more expensive than future months - finding support from summer maintenance that will tighten North Sea crude supplies.

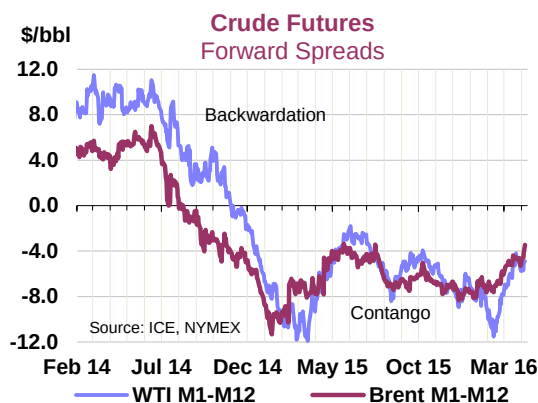
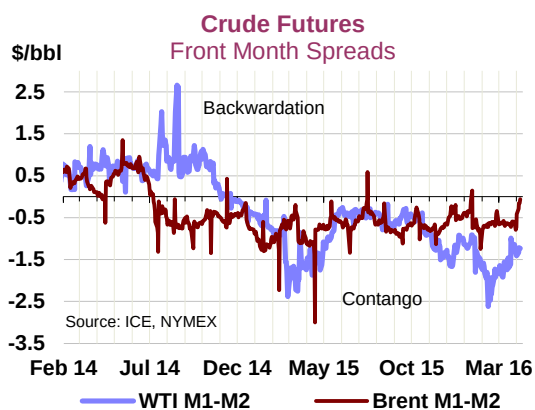
Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Jan	Feb	Mar	Mar-Feb Avg Chg	% Chg	Week Commencing:				
						07 Mar	14 Mar	21 Mar	28 Mar	04 Apr
NYMEX										
Light Sweet Crude Oil	31.78	30.62	37.96	7.34	24.0	37.81	38.32	40.15	38.22	37.26
RBOB	45.95	41.80	59.48	17.67	42.3	59.93	59.76	61.70	60.36	58.75
No.2 Heating Oil	42.05	43.81	50.11	6.29	14.4	51.15	51.23	51.36	48.82	47.29
No.2 Heating Oil (\$/mmbtu)	7.42	7.73	8.84	1.11	14.4	9.02	9.04	9.06	8.61	8.34
Henry Hub Natural Gas (\$/mmbtu)	2.23	1.93	1.81	-0.12	-6.1	1.75	1.88	1.82	1.93	1.97
ICE										
Brent	31.93	33.53	39.79	6.26	18.7	40.40	40.27	41.06	39.39	39.35
Gasoil	38.99	41.00	47.70	6.70	16.4	48.52	48.89	49.26	46.59	44.31
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-0.15	-2.91	-1.83	1.08		-2.59	-1.95	-0.91	-1.17	-2.09
NYMEX No.2 Heating Oil - WTI	10.27	13.19	12.15	-1.05		13.34	12.91	11.21	10.60	10.03
NYMEX RBOB - WTI	14.17	11.18	21.52	10.33		22.12	21.44	21.55	22.14	21.49
NYMEX 3-2-1 Crack (RBOB)	12.87	11.85	18.39	6.54		19.19	18.60	18.10	18.30	17.67
NYMEX No.2 - Natural Gas (\$/mmbtu)	5.18	5.80	7.03	1.23		7.27	7.16	7.24	6.68	6.37
ICE Gasoil - ICE Brent	7.06	7.47	7.91	0.44		8.12	8.62	8.20	7.20	4.96

Source: ICE, NYMEX.

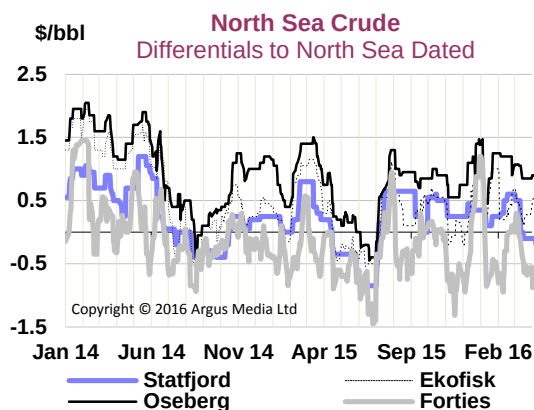
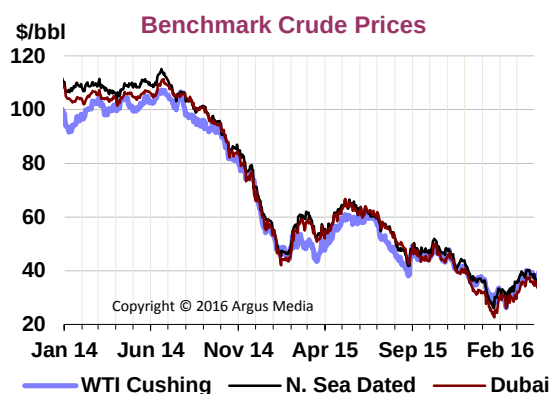
As for NYMEX WTI, with US refiners running flat out and domestic supply tightening, the discount of prompt-month to second-month WTI narrowed to -\$1.52/bbl in March compared to -\$1.98/bbl in February. On forward curves, the WTI M1-M12 spread shrank to -\$5.85/bbl in March from -\$9.71/bbl in February in anticipation of tighter US supplies. The Brent M1-M12 contract spread narrowed to -\$5.01/bbl in March versus -\$6.88/bbl in February due to expectations of lower North Sea supply during upcoming maintenance.



ICE Brent futures rose by \$6.26/bbl, or 19%, from February to an average \$39.79/bbl during March. NYMEX WTI gained \$7.34/bbl to average \$37.96/bbl, up 24% from February.

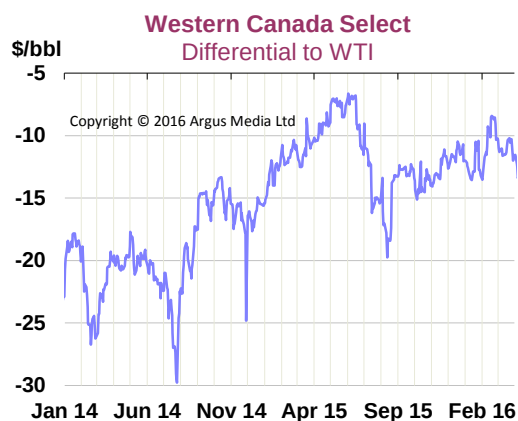
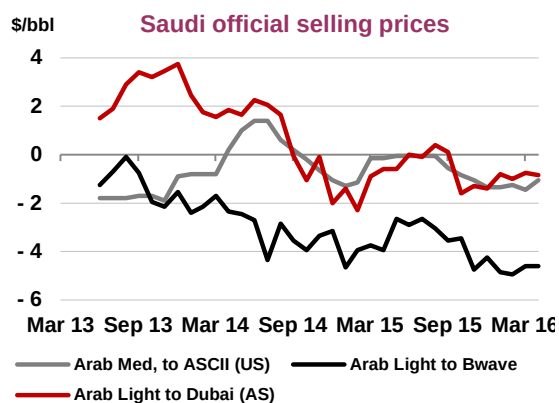
Spot crude oil prices

North Sea Dated Brent rose on the perception of tighter supplies during summer maintenance, although the prompt market was amply supplied. The steady shipment of Forties crude into Asia ground to a halt due to lacklustre demand from South Korea – which has been the biggest importer of the UK grade. Its discount to Dated Brent, however, was unaffected and held at around \$0.30/bbl. North Sea supplies from May, however, are set to tighten due to slower loadings of the four benchmark grades – Brent, Forties, Oseberg and Ekofisk – that are reportedly set to fall to a nine-month low of 910 kb/d. The reduced flows come ahead of scheduled summer oil field maintenance that will further tighten supplies.



Of the global benchmarks, US WTI posted the strongest month-on-month (m-o-m) performance in March, rising \$7.38/bbl to \$37.76/bbl as more drilling rigs were taken out of action. North Sea Dated Brent climbed \$6.03/bbl over February to average \$38.49/bbl for the month. Russian Urals gained \$5.99/bbl m-o-m to average \$36.85/bbl in March. Middle East Dubai rose by a similar amount to average \$35.12/bbl in March.

West African crude sales to China are due to breach 1 mb/d during April due to heavy buying from Angola. Demand from China is expected to remain strong for West African cargoes loading in May, which will arrive in June following seasonal refinery maintenance. The narrow discount of US WTI to North Sea Brent and lower domestic production are meanwhile luring more Nigerian cargoes into North America and supporting differentials. The premium of Qua Iboe to Dated Brent has risen to \$1.20/bbl versus \$1/bbl during the previous month. Although US imports of Nigerian crude are significantly below the 1 mb/d level of five years ago – before the LTO boom – purchases have risen above 500 kb/d.



Demand for crude oil was sluggish in Asia, currently in refinery maintenance, and the contango structure in the Dubai market widened out as a result. Higher supplies of Russian Espo, which competes with Abu Dhabi's Murban, pressured the grade and its premium to benchmark Dubai has sunk to \$2.50/bbl for May-loading cargoes from around \$4.50/bbl for April loadings. May-loading spot cargoes of sour Murban crude from the UAE traded at a discount of around \$0.45/bbl to official prices, weakening along with the arrival of additional supply after the Murban development came out of maintenance. Despite the softer market in Asia for light crudes, Saudi Aramco raised its official formula price for Arab Extra Light for May loading by \$0.15/bbl to \$1.80/bbl above the Dubai/Oman average.

Saudi prices to the US strengthened for all grades, with the biggest rise on Arab Extra Light, which increased by \$0.75/bbl. WTI gained ground against Brent, reflecting higher US refinery runs and a tighter crude balance. WTI could gain more support as US refinery maintenance in April has been reduced. An

outage along TransCanada's 590 kb/d Keystone pipeline widened out Canadian heavy crude differentials. Reflecting weakness in the Mediterranean sour market, Saudi Aramco cut its differentials for medium and heavy crude grades in its latest European official selling prices (OSPs) for May. Rising supplies of Urals pressured the Russian grade in Northwest Europe. Urals exports in May are expected to decrease as Russia comes out of refinery turnaround season.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Jan	Feb	Mar	Mar-Feb Avg Chg	%	Week Commencing:				
						07 Mar	14 Mar	21 Mar	28 Mar	04 Apr
Crudes										
North Sea Dated	30.75	32.46	38.49	6.03	18.6	39.13	38.86	39.59	37.90	37.38
Brent (Asia) Mth 1	31.26	33.04	39.05	6.02	18.2	39.59	39.42	40.40	39.33	38.87
WTI (Cushing) Mth 1	31.57	30.38	37.76	7.38	24.3	37.81	38.32	39.06	38.22	37.26
Urals (Mediterranean)	29.15	30.87	36.85	5.99	19.4	37.62	37.21	38.02	36.24	35.71
Dubai	26.81	29.33	35.12	5.79	19.7	35.35	35.78	36.96	35.42	35.22
Tapis (Dated)	35.51	37.34	42.35	5.01	13.4	43.23	42.96	43.46	40.91	39.74
Differential to North Sea Dated										
WTI (Cushing)	0.82	-2.08	-0.73	1.35		-1.33	-0.54	-0.52	0.33	-0.11
Urals (Mediterranean)	-1.60	-1.60	-1.64	-0.04		-1.51	-1.65	-1.56	-1.66	-1.67
Dubai	-3.94	-3.13	-3.37	-0.24		-3.78	-3.08	-2.63	-2.48	-2.16
Tapis (Dated)	4.77	4.88	3.85	-1.02		4.10	4.10	3.88	3.01	2.36
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.73	-0.64	-0.67	-0.03		-0.65	-0.70	-0.66	-0.69	-0.42
Forward WTI Cushing Mth1-Mth2	-1.26	-1.92	-1.59	0.33		-1.75	-1.62	-1.49	-1.31	-1.26
Forward Dubai Mth1-Mth2	-1.05	-0.66	-0.92	-0.26		-0.90	-0.83	-0.90	-1.04	-0.41

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Spot product prices

Spot product prices followed crude prices higher in March with the major products across all surveyed markets posting double digit price increases in percentage terms. Nonetheless, considering the strengthening in crude prices, cracks were mixed with any increases posted being minor. Gasoline cracks remain on a par with a year ago while those for middle distillates are languishing at about half of year ago levels as inventories remain stubbornly high. In turn, this is proving to be a millstone for refinery margins.

Gasoline prices in surveyed markets experienced a sharp rebound in March buoyed by the switch to summer grade product. Prices on the US Gulf Coast soared on tight supply for winter-grade product as refiners turned their attention to producing the more expensive summer grade. Consequently, stocks fell with data suggesting that on a national level they drew by about 9 mb over the month. Price increases were more acute for Regular Unleaded which surged by 30%. By end-March, spot prices for Premium Unleaded stood at nearly \$65/bbl, their highest since November 2015 with cracks standing at levels not seen since end-Summer 2015.

In Europe, gasoline prices increased by about 11% on a monthly average basis, despite exports to the US Atlantic Coast remaining low for much of the month. Also there are persistently high stocks, notably in the key ARA region. One bullish factor came from a surge in import demand from Nigeria, which remains mired in a gasoline supply shortage. Meanwhile, market intelligence suggests that the supply of cheaper winter-grade product remained tight with prices soaring at-end March as the arbitrage to ship product westwards widened. Accordingly, by early April, prices stood at levels not seen since end-2015. Although, due to the recent strength in crude prices, cracks in both the Mediterranean and Northwest Europe declined on a monthly average basis to about half of the levels posted at the turn of the year.

Spot Product Prices

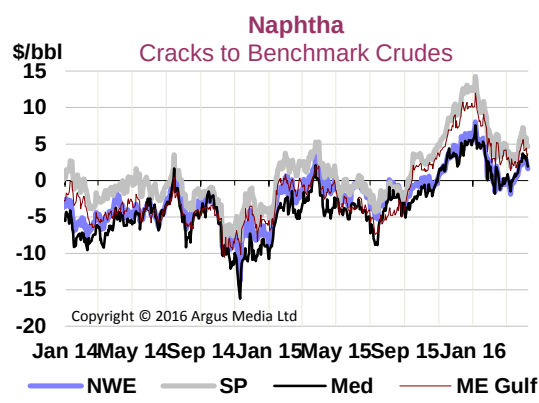
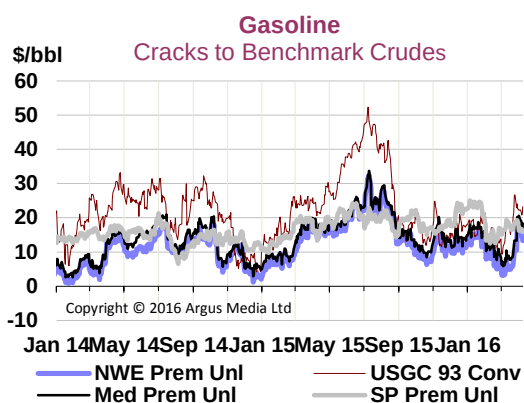
(monthly and weekly averages, \$/bbl)

	Jan	Feb	Mar	Mar-Feb		Week Commencing:					Jan	Feb	Mar	Chg
				Chg	%	07 Mar	14 Mar	21 Mar	28 Mar	04 Apr				
Rotterdam, Barges FOB														
											Differential to Dated Brent			
Premium Unl 10 ppm	44.86	40.93	45.60	4.68	11.4	44.46	44.09	47.43	54.85	52.54	14.12	8.47	7.11	-1.36
Naphtha	35.53	32.68	38.96	6.28	19.2	38.16	39.01	40.94	40.86	39.67	4.78	0.22	0.47	0.25
Jet/Kerosene	38.56	40.94	46.91	5.97	14.6	46.88	47.74	48.64	46.57	44.80	7.81	8.47	8.41	-0.06
ULSD 10ppm	38.11	40.41	47.13	6.72	16.6	47.88	48.23	48.44	46.04	44.03	7.36	7.95	8.64	0.69
Gasoil 0.1%	37.05	39.12	45.55	6.44	16.5	46.20	46.25	47.28	44.84	42.90	6.31	6.65	7.06	0.40
LSFO 1%	19.78	21.35	24.71	3.36	15.7	25.41	24.75	25.76	24.71	24.12	-10.97	-11.12	-13.79	-2.67
HSFO 3.5%	15.54	18.46	21.97	3.51	19.0	22.94	22.08	22.72	21.64	20.68	-15.21	-14.01	-16.52	-2.52
Mediterranean, FOB Cargoes														
											Differential to Urals			
Premium Unl 10 ppm	45.76	41.94	46.79	4.85	11.6	45.64	45.30	48.65	56.12	53.84	16.61	11.08	9.94	-1.14
Naphtha	33.42	30.99	37.76	6.77	21.8	36.97	37.84	39.78	39.66	38.37	4.26	0.13	0.91	0.78
Jet Aviation fuel	37.33	39.89	45.96	6.06	15.2	45.94	46.81	47.68	45.57	43.72	8.17	9.03	9.10	0.07
ULSD 10ppm	38.12	40.76	47.33	6.57	16.1	48.18	48.55	48.70	45.98	43.81	8.97	9.89	10.48	0.58
Gasoil 0.1%	36.79	39.81	45.69	5.88	14.8	46.56	46.38	46.93	44.20	42.23	7.63	8.94	8.83	-0.11
LSFO 1%	21.40	22.72	24.84	2.11	9.3	25.60	24.74	25.83	24.83	24.44	-7.75	-8.14	-12.02	-3.87
HSFO 3.5%	18.78	21.64	23.99	2.35	10.9	25.03	24.02	24.79	23.84	23.05	-10.37	-9.23	-12.87	-3.64
US Gulf, FOB Pipeline														
											Differential to LLS			
Super Unleaded	50.62	46.80	57.49	10.69	22.8	56.28	57.63	62.71	62.87	60.97	17.79	14.42	17.42	3.00
Unleaded	42.89	39.22	51.03	11.82	30.1	50.37	52.74	55.52	53.77	53.97	10.06	6.84	10.97	4.13
Jet/Kerosene	38.96	40.67	44.88	4.21	10.3	45.81	45.94	46.25	43.48	42.73	6.13	8.30	4.82	-3.48
ULSD 10ppm	40.08	41.75	47.35	5.60	13.4	49.13	48.63	48.00	45.21	44.59	7.25	9.38	7.28	-2.09
Heating Oil	36.55	36.45	40.53	4.08	11.2	41.52	41.46	41.62	39.19	39.32	3.72	4.08	0.47	-3.61
No. 6 3%*	19.09	20.41	23.58	3.18	15.6	24.17	23.66	24.94	23.82	22.79	-13.74	-11.97	-16.48	-4.51
Singapore, FOB Cargoes														
											Differential to Dubai			
Premium Unleaded	50.33	44.33	52.68	8.35	18.8	53.27	53.26	54.48	53.87	51.50	23.52	14.99	17.56	2.56
Naphtha	36.78	33.97	39.20	5.23	15.4	38.11	38.89	41.41	42.16	40.38	9.97	4.63	4.08	-0.56
Jet/Kerosene	37.91	40.98	47.40	6.42	15.7	47.78	48.31	48.73	47.59	45.82	11.10	11.64	12.27	0.63
Gasoil 0.05%	36.16	38.51	45.52	7.01	18.2	46.19	46.49	47.11	45.09	43.09	9.34	9.18	10.40	1.22
LSWR Cracked	24.19	24.88	28.10	3.22	13.0	28.51	28.48	29.16	28.69	27.65	-2.62	-4.45	-7.02	-2.57
HSFO 180 CST	23.68	24.25	27.78	3.53	14.6	28.16	28.25	29.00	28.34	27.25	-3.13	-5.08	-7.34	-2.26
HSFO 380 CST 4%	23.14	23.65	27.51	3.85	16.3	28.01	28.04	28.62	27.80	26.80	-3.67	-5.68	-7.62	-1.94

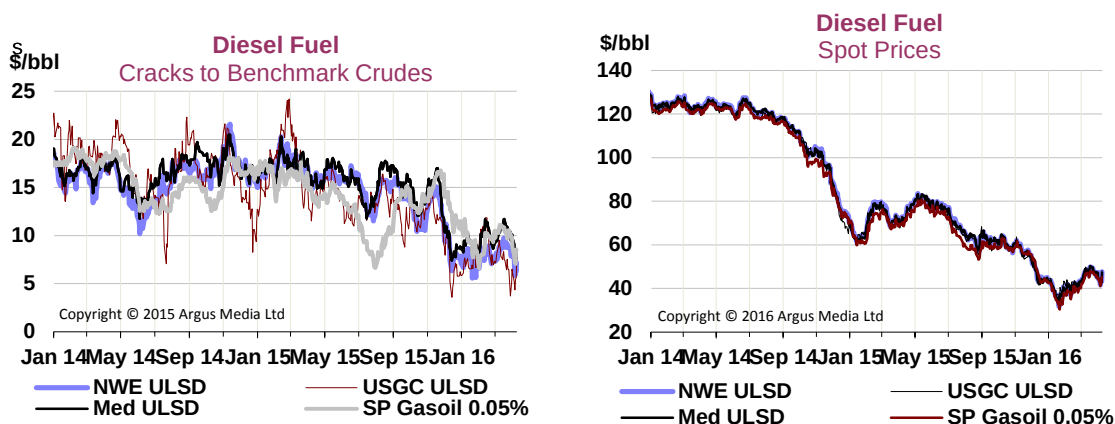
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* Waterborne

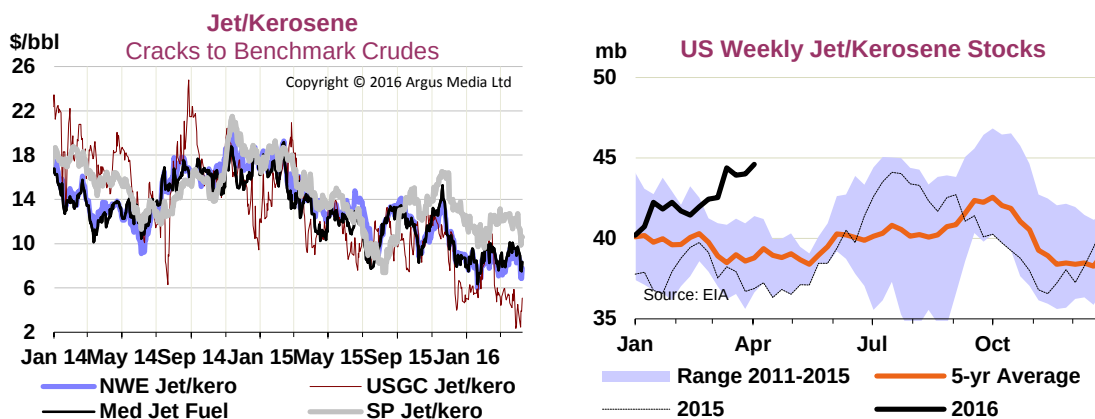
Naphtha prices strengthened steadily in March and by end-month cracks had returned to positive territory in all markets. Despite the arbitrage to Asia remaining closed for much of early March, European naphtha prices increased by close to 20% while cracks firmed to stand at \$2.50/bbl by end-month. Upward momentum came from consecutive regional stock draws and higher gasoline blending demand with more naphtha being required to replace previously-used butane. Additionally, demand from the European petrochemical industry remained high. A similar pattern was noted in Asia where petrochemical demand, especially in Korea and China, remains high. Accordingly, Singapore prices rose by about 15% but regional cracks slipped on a monthly average basis after being outstripped by gains in Dubai. Nonetheless, cracks remained firmly in the black by early-April at over \$7.00/bbl, with the high spot prices sufficient to reopen the arbitrage to ship product to Asia from Europe and the Middle East.



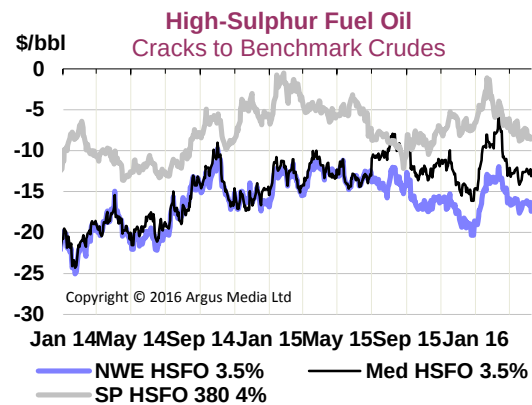
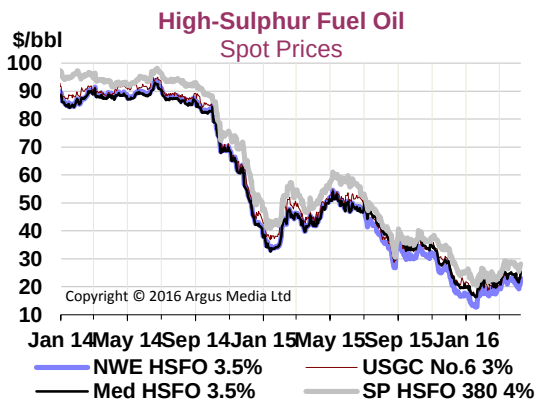
ULSD prices in Europe maintained their upward trend despite the lack of a prolonged cold weather event and healthy imports from refiners in the FSU, the US and East of Suez markets which has seen stocks at key terminals remain persistently high. Prices increased in the US by less than elsewhere as preliminary data indicate that exports of ULSD abruptly fell while stocks remained flat rather than followed their usual seasonal trend downwards. Considering the relative strength of LLS, ULSD cracks slipped on a monthly average basis. Furthermore, despite cracks in Europe and Singapore firming, they still remain at about half the levels of one year ago, weighing on refinery margins.



Kerosene prices increased less than for other middle distillates in all markets with high stocks and closed arbitrage windows tempering gains. In Europe, kerosene inventories reportedly remain high in key North Sea terminals with vessels storing product offshore until tank space becomes free. Meanwhile, in the US, (LLS) cracks fell to their lowest level in several years, barely in positive territory, as stocks continue to climb counter-seasonally as exports have declined.

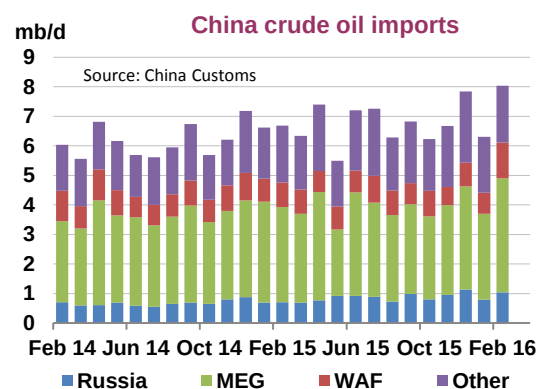
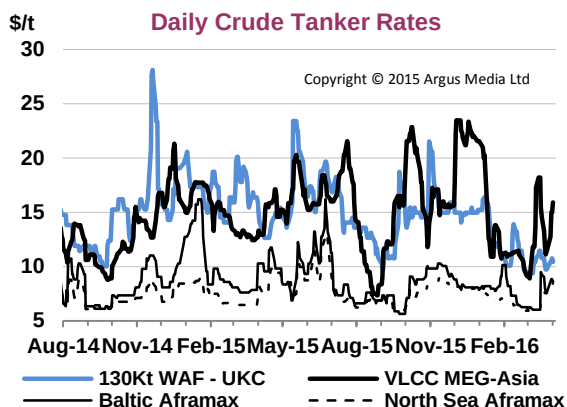


Residual fuel oil cracks remained weak in March as, despite spot prices increasing over the month, crude prices increased by more. Prices in Singapore remain under pressure from stubbornly high stocks and relatively high imports from the Atlantic Basin although imports dropped off in the second half of the month after arbitrage economics were eroded by an uptick in freight rates. Reports also suggest that despite Asian bunker demand remaining low, upward pressure is being put on Asian fuel oil prices from an increase in demand from utility companies who are burning fuel oil rather than more expensive natural gas.

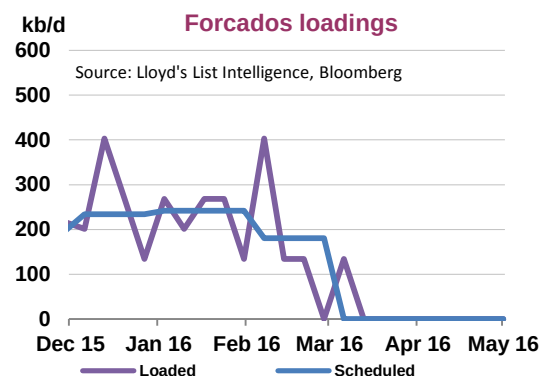
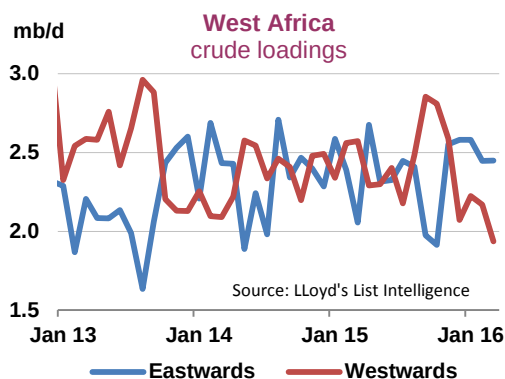


Freight

Very-large-crude-carriers loading in the Middle East Gulf (MEG) headed to East Asia seesawed through the month. Total sailings from the Gulf remain strong, and just an inch off February's record 16.8 mb/d loaded, according to Lloyd's List Intelligence data. The breakdown of record-high Chinese crude imports of 8.9 mb/d in February shows a record 3.9 mb/d coming from Middle Eastern countries. Delays of up to two weeks in the East caused hiccups in shipping availability, injecting volatility into freight rates as the market was squeezed. Charterers quickly reacted to spikes to over \$15/t by splitting VLCC cargoes into two Suezmax stems, thus capping rates, according to multiple reports.



The National Shipping Company of Saudi Arabia (Bahri) has announced the securing of financing to commission five more VLCCs, which would bring the total up to forty-one.

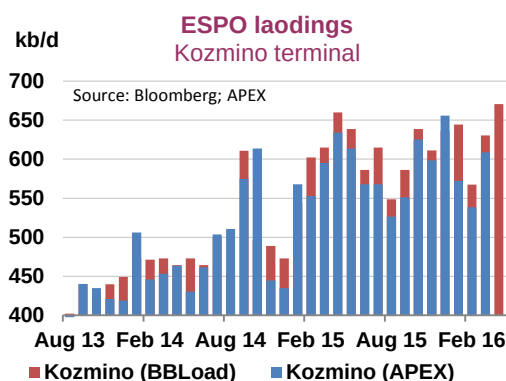
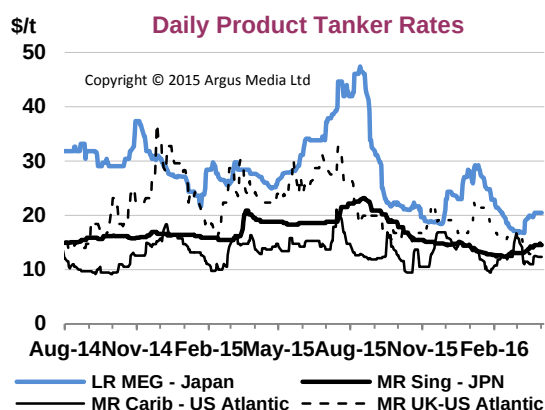


Overall volumes loaded in **West Africa** remain at a record-low, as the Forcados terminal remains offline. Angola's shipments increased, supported by Chinese buying, and provided some offset for eastbound

flows, but overall shipments from the region were down about 250 kb/d on the month, dragged down by Nigeria. Transatlantic shipments took the hit, largely on lower volumes to the US, supported by narrowing LLS differentials. Canadian refiners took advantage of some of the slack in US intake, drawing in a record 270 kb/d from West Africa in March. The freight market drew some strength from MEG VLCCs but closed flat as owners and charterers were in balance. Subdued liftings left freight rates on the Suezmax WAF – UKC benchmark route sitting at their lowest in more than a year, flirting with the \$10 / t mark.

Aframaxes in the North Sea and Baltic had a very subdued start as inquiry for cargoes remained subdued and tonnage well supplied. Freight rates shot up in mid-month, on cancellation of late running ships in the Baltic. A very strong April loading schedule was published for both Primorsk and Norway.

In South-East Asia, a number of ships were reportedly taken on timecharter and for short-term storage. The price support from storage was short lived, and the rate settled back by month-end. In the North-East, the Chinese Kozmino buying spree seems to be over, as independent refineries reportedly stocked up on ESPO crude, whose lower sulphur content is more suitable for less complex plants. The ESPO-Dubai premium touched \$7/bbl in Feb, prompting the freight rate up to \$1.2/bbl, the highest in 2016 so far. The rates eased later as volumes retraced.



Product trading West of Suez reached new lows, particularly on the benchmark **UK – US Atlantic** route, which saw two-year lows, as PADD1 gasoline inventories continue to rise, closing arbitrage opportunities to Europe. Demand for gasoline in West Africa drew in some cargoes from the UK Continent and provided some support for rates.

East of Suez, rates for Long-Range naphtha cargoes on the MEG – Japan route gradually found some strength, bouncing back from their lowest levels in a decade, as inquiry picked up. Rates remain under pressure as tonnage is abundant. Owners reportedly considered switching into the stronger Aframax market. Weakness in the clean MR market also prompted charterers to load onto smaller vessels. The softer tone also spilled over to larger vessels.

REFINING

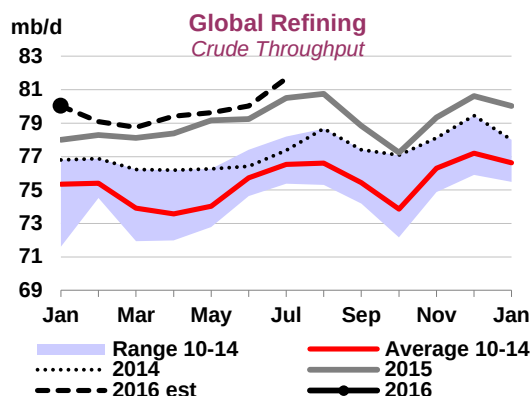
Summary

- **1Q16 estimate for global refinery runs were revised up by 0.2 mb/d to 79.3 mb/d since last month's Report**, 1.2 mb/d up on year-on-year (y-o-y), with better than expected January actuals and a higher forecast for March runs as maintenance shutdowns are now expected at slightly lower rates.
- **The forecast for 2Q16 throughput is similarly revised higher by 0.27 mb/d, reaching 79.7 mb/d.** Unlike 1Q16 runs though, y-o-y growth in 2Q16 throughput shows a slowdown compared to demand growth as high product stocks and lacklustre margins in some key regions discourage more intensive refining.
- **Refinery margin trends diverged once again in March, in line with historical seasonal patterns.** Indicative US margins both midcontinent and Gulf coast improved last month, as the region is getting ready for a seasonal demand boost for gasoline in 2Q, while European and Singapore hubs showed further deterioration in margins with the conclusion of the heating season.

Global refinery overview

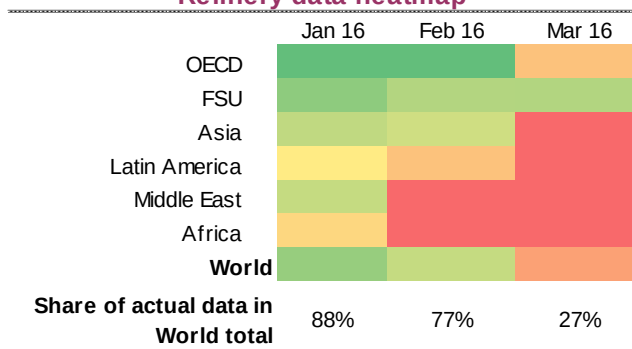
The picture of 1Q16 refinery activity is getting clearer even though the actual reported numbers are far from complete for March (see chart). By the time the Report is finalised, reasonably good estimates for the previous month are available for the US and Japan among OECD countries, and Russia, and, occasionally, China, among non-OECD countries. These four countries collectively account for about 45% of global runs.

Mostly finalised January data shows a remarkable 2 mb/d y-o-y growth, with two-thirds coming from the non-OECD. Though still preliminary, the estimate for 1Q16 runs is revised higher to reflect somewhat firmer runs in the US, and, among non-OECD countries, lower than expected maintenance outages in Asia. Publicly available information shows less peak maintenance this spring compared to last year.



significantly lower for 2Q this year compared to last, indicating possible upside revisions in the coming weeks, it would seem that the most likely direction for potential revisions of 2Q16 runs is lower. A more

Refinery data heatmap¹



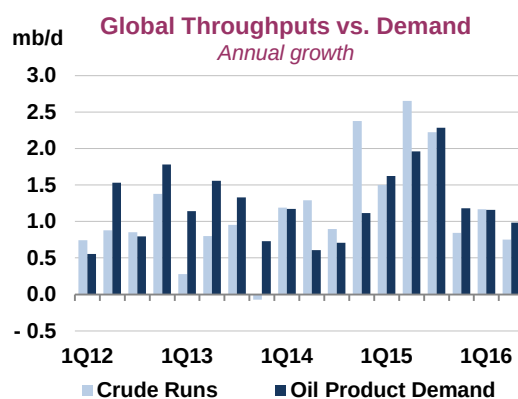
¹ Dark green: reported actual data, red: no reported data.

Discretionary run cuts, while occasionally mentioned in the press, do not seem to have had much impact. The net result is that 1Q16 runs are now estimated at 1.2 mb/d higher than last year, in line with demand growth. OECD runs grew by 0.2 mb/d y-o-y thanks to US gains, while non-OECD ramped up by an impressive 1 mb/d, which, however, falls short of their collective 1.5 mb/d y-o-y demand growth.

Our forecast for 2Q16 throughputs is also revised higher by 270 kb/d, to reach a more modest 750 kb/d y-o-y growth, which is below the expected headline demand growth of 1.1 mb/d. With publicly reported shutdowns

bullish outlook for 2Q16 is constrained by either lacklustre margins, such as in Europe, or high product stocks, such as in the US and China.

In our first look into 3Q16, our estimate for July shows a higher y-o-y change of 1.2 mb/d, with global runs expected to cross the 81 mb/d mark for the first time.



Global Refinery Crude Throughput¹

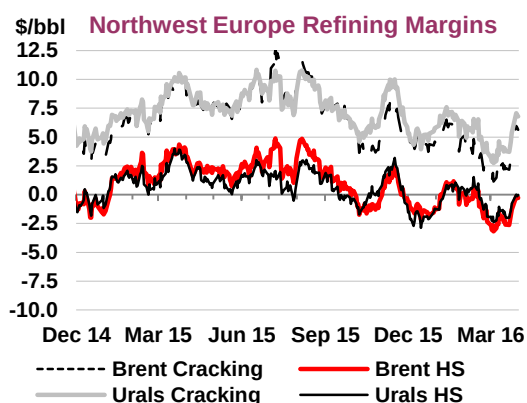
(million barrels per day)

	Dec 15	4Q2015	Jan 16	Feb 16	Mar 16	1Q2016	Apr 16	May 16	Jun 16	2Q2016	Jul 16
Americas	19.7	19.1	19.0	18.6	19.0	18.9	19.3	19.3	19.6	19.4	19.7
Europe	12.3	12.3	12.0	11.9	11.4	11.8	11.5	11.8	11.7	11.7	11.9
Asia Oceania	7.0	6.7	7.1	7.3	6.8	7.1	6.5	6.4	6.0	6.3	6.9
Total OECD	39.0	38.0	38.2	37.8	37.2	37.7	37.3	37.4	37.4	37.4	38.5
FSU	7.1	6.9	6.9	6.9	6.8	6.9	6.5	6.8	6.9	6.7	6.9
Non-OECD Europe	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.7	10.6	10.6	10.6	10.5	10.6	10.7	10.6	10.9	10.7	11.0
Other Asia	10.1	9.9	10.4	10.1	10.0	10.2	10.5	10.4	10.3	10.4	10.4
Latin America	4.3	4.2	4.4	4.4	4.6	4.5	4.7	4.7	4.7	4.7	4.6
Middle East	6.8	6.8	6.9	6.7	6.9	6.8	6.9	7.0	7.1	7.0	7.4
Africa	2.2	2.2	2.3	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.3
Total Non-OECD	41.6	41.1	41.9	41.3	41.6	41.6	42.1	42.2	42.6	42.3	43.1
Total	80.6	79.1	80.0	79.1	78.7	79.3	79.4	79.6	80.0	79.7	81.7

¹ Preliminary and estimated runs based on capacity, known outages, economic run cuts and global demand forecast

Margins

In March, crude prices moved higher by about \$5-7/ bbl on average, indicating further pressure on refinery margins that were already suffering from a stocks overhang. Margins moved lower in the European and Singapore hubs, while US refiners saw better economics. Our current methodology, based on transparent trading hub prices, does not quite capture the margins that the vast majority of non-OECD refiners are exposed to, but anecdotal evidence suggests that in India and China, for example, where both crude oil and products trade, as well as pricing, are mostly regulated, local refining margins continue to thrive.



Among the losers, European refiners were the worst affected as March average Brent cracking margins were just half of the January levels. European distillate cracks did manage to firm slightly compared to February as refinery maintenance had a small nominal impact. The flat price increase had the symmetrical (i.e. opposite) effect on fuel oil cracks. Gasoline cracks on a monthly average basis drifted lower in March, but, having started the month at the lowest levels for the past 15 months, they more than tripled towards end-March, contributing to a visible uptick in margins.

IEA/KBC Global Indicator Refining Margins¹

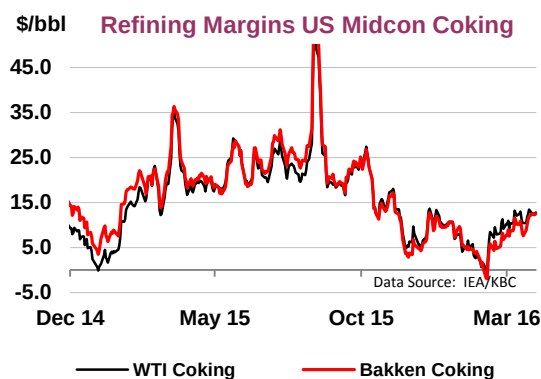
	(\$/bbl)										
	Monthly Average				Change		Average for week ending:				
	Dec 15	Jan 16	Feb 16	Mar 16	Mar 16-Feb 16	04 Mar	11 Mar	18 Mar	25 Mar	01 Apr	
NW Europe											
Brent (Cracking)	4.38	5.50	3.66	2.80	↓	-0.86	1.57	2.29	2.39	3.03	5.91
Urals (Cracking)	5.04	6.63	5.15	4.24	↓	-0.91	3.11	3.76	3.89	4.48	7.01
Brent (Hydroskimming)	-1.35	0.31	-0.76	-2.05	↓	-1.29	-2.82	-2.28	-2.32	-1.96	-0.17
Urals (Hydroskimming)	-1.91	0.28	-0.11	-1.47	↓	-1.36	-2.07	-1.64	-1.66	-1.44	0.01
Mediterranean											
Es Sider (Cracking)	5.19	6.58	5.49	4.31	↓	-1.18	3.46	3.86	4.14	4.46	6.44
Urals (Cracking)	4.55	6.01	5.35	4.34	↓	-1.01	3.63	3.95	4.37	4.42	5.92
Es Sider (Hydroskimming)	0.64	2.67	1.69	-0.24	↓	-1.93	-0.79	-0.56	-0.53	-0.18	1.65
Urals (Hydroskimming)	-1.80	0.66	0.49	-1.38	↓	-1.87	-1.80	-1.57	-1.48	-1.46	-0.09
US Gulf Coast											
50/50 HLS/LLS (Cracking)	5.13	4.87	3.87	4.92	↑	1.05	2.44	4.96	5.28	6.68	5.65
Mars (Cracking)	2.76	4.27	3.10	3.70	↑	0.61	1.42	3.72	3.72	5.53	4.67
ASCI (Cracking)	2.26	3.88	2.86	3.27	↑	0.41	1.11	3.33	3.27	4.96	4.20
50/50 HLS/LLS (Coking)	7.44	7.00	5.72	7.27	↑	1.55	4.51	7.35	7.77	9.15	7.95
50/50 Maya/Mars (Coking)	9.58	9.98	8.08	10.52	↑	2.44	7.98	10.46	11.09	12.21	11.05
ASCI (Coking)	8.46	9.70	8.29	9.75	↑	1.46	7.28	9.93	10.07	11.45	10.33
US Midcon											
WTI (Cracking)	7.43	3.95	4.10	9.10	↑	4.99	7.85	9.28	8.97	9.44	10.09
30/70 WCS/Bakken (Cracking)	6.27	4.41	2.35	6.91	↑	4.56	5.32	7.14	6.20	7.05	8.99
Bakken (Cracking)	8.00	5.46	3.09	8.91	↑	5.83	7.08	8.98	8.08	9.32	11.28
WTI (Coking)	9.77	5.91	5.86	11.64	↑	5.78	10.19	11.82	11.60	12.03	12.67
30/70 WCS/Bakken (Coking)	10.14	7.86	5.72	11.32	↑	5.59	9.62	11.51	10.80	11.46	13.26
Bakken (Coking)	9.06	6.35	3.86	10.09	↑	6.24	8.16	10.16	9.31	10.53	12.49
Singapore											
Dubai (Hydroskimming)	0.72	2.75	0.93	-0.16	↓	-1.09	0.70	0.01	-0.70	-0.47	-0.34
Tapis (Hydroskimming)	2.78	2.31	1.51	0.89	↓	-0.62	0.12	0.68	1.20	1.21	1.56
Dubai (Hydrocracking)	6.85	7.73	5.52	5.16	↓	-0.36	5.78	5.35	4.68	4.97	4.95
Tapis (Hydrocracking)	7.70	6.52	5.16	5.26	↑	0.10	4.25	5.07	5.65	5.68	5.88

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

In the US, midcontinent margins further improved after rebounding from early February lows, while the Gulf coast saw their year-to-date lows in early March, but recovered to register month-on-month (m-o-m) gains.

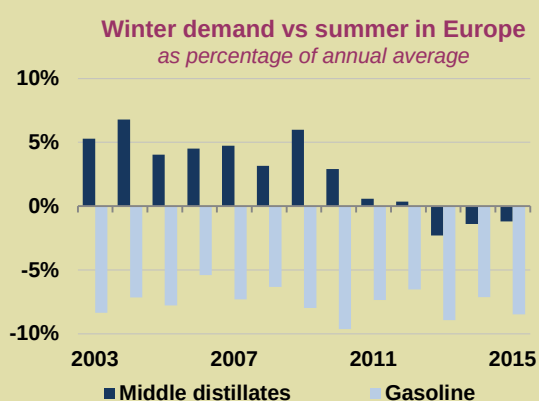
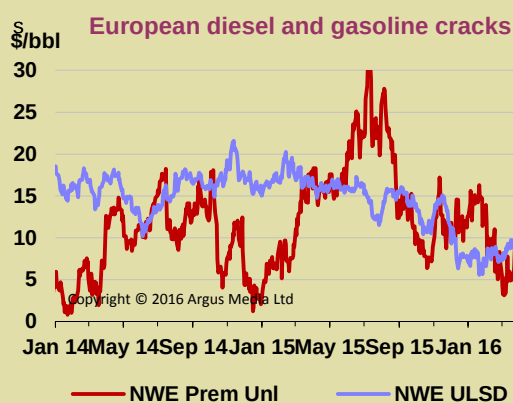
In Singapore, hydrocracking margins had posted small losses in March, but simple refining margins based on Dubai were negative for the first time since October.



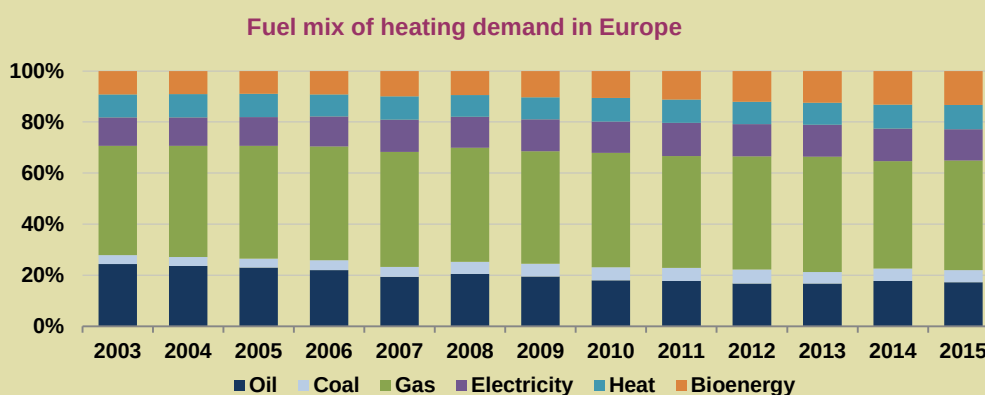
Seasonality: not so certain any more

Life used to be quite simple for OECD refiners serving markets mostly located in the temperate latitudes of the northern hemisphere. In winter, they produced gasoil (and partially, kerosene) for heating; in summer, they produced gasoline for driving. Across the Atlantic Basin, and in the Pacific, refiners were dealing with predictable demand patterns. Borrowing a phrase from the fuels blending business, margins had predictable drivers: cetane in winter, octane in summer. However, things are changing, and previous seasonal patterns do not necessarily hold up any more. In the March Report, we discussed the emerging new pattern of 1Q-2Q demand changes that, with the growing importance of non-OECD demand, has turned from seasonal decline to growth.

Within the OECD region itself, there have been significant changes in seasonality patterns for an important product group: middle distillates. A quick look at the European cracks, for example, suggests that diesel had no Christmas this last winter. In fact, gasoline cracks in Europe were almost a dollar higher than diesel cracks over the October to March period, an exceptional phenomenon compared to the historical “supremacy” of diesel. As recently as the 2014 winter season, diesel cracks were on average \$8-9/bbl higher than for gasoline cracks, and for two winters prior to that, the gap was even higher at \$13/bbl. Looking at demand trends for middle distillates in Europe, it becomes evident that the seasonal pattern has flipped. For the last three years, summer demand, which includes seasonal jet fuel and increased road diesel use in 2Q and 3Q, is now higher than winter demand.



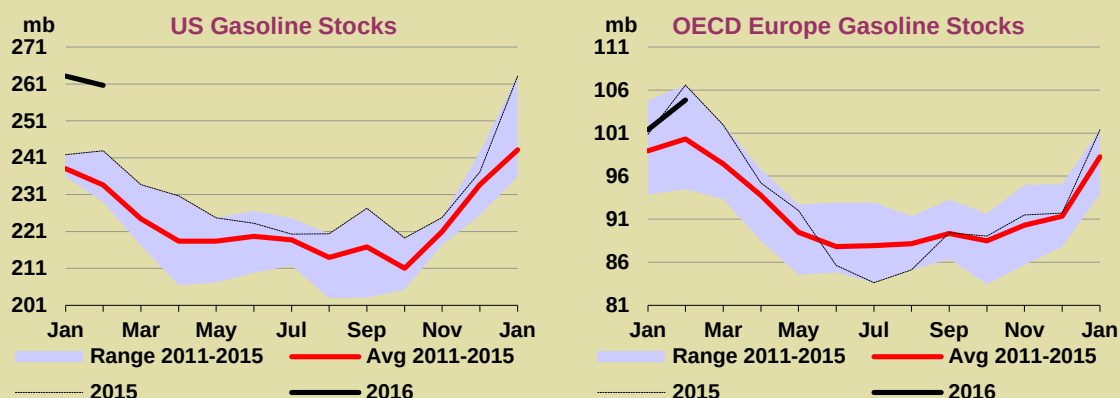
Indeed, while heating demand in Europe has generally declined over the last decade due to efficiency measures and tighter standards for boilers, it is oil products that have taken the biggest hit. The latter (predominantly gasoil, with some kerosene) used to account for a quarter of heating demand in Europe, but their share is now down to just 17%. This is a loss of about 450 kb/d of middle distillates, equivalent to about 6% of current European demand for diesel and kerosene.



In the US the gap between summer and winter middle distillates demand too, has been decreasing, although there still remains a clear winter peak due to heating oil seasonality. In Japan, winter demand for kerosene use for heating contributes to a huge seasonality of middle distillates demand, with winter consumption

Seasonality: not so certain any more (continued)

almost a third higher than summer consumption, compared to 2-3% in the US. Thus, while diesel has grossly underperformed recently, the strength of gasoline cracks looks all the more impressive when stocks both in Europe and the US are at or close to seasonal peaks both in terms of absolute levels and days of forward coverage.



One explanation for the relative strength of gasoline cracks has been the lack of high-octane components. This is possibly due to; on the one hand, lower refinery supply as the crude slate in the US now includes more domestic light tight oil and Canadian extra heavy oils, both not particularly rich in high-quality gasoline components, and, on the other hand, increased demand for high-octane gasoline. In a recent report¹, EIA analysis shows that one way the car manufacturers can meet current Corporate Average Fleet Economy (CAFE) standards that were finalised in 2012 for model years 2017-21, is through turbocharged engines, which require the use of high-octane gasoline. According to EIA estimates, the share of turbocharged vehicles grow from 3.3% in model year 2009 to almost 18% in model year 2014, which has driven up the demand for premium gasoline in the US. Thus, it is the chase for the highest quality gasoline blending components that drives the gasoline cracks, rather than general market tightness.

The change to summer grade gasoline too, which happens over March/April is generally supportive for the cracks as butane blending, which is a much cheaper component, is constrained by summer RVP² regulations, and prices of the more expensive blending components are bid up by refiners and blenders. Thus, the strength of gasoline cracks is likely to continue, but at the same time, European summer demand for middle distillates is now expected to fare better than in winter, which may provide, however small, support for diesel cracks.

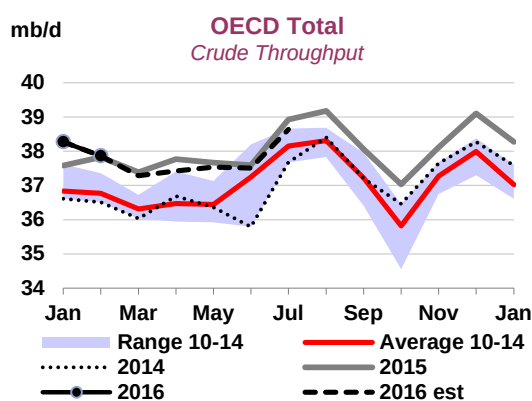
OECD refinery throughput

Finalised January numbers for OECD refinery throughput came in marginally higher than our previous estimate, by 100 kb/d, marking a robust 700 kb/d y-o-y gain, mostly driven by the **US** refiners. By contrast, preliminary February numbers are flat y-o-y as a 350 kb/d annual gain in the US and a seemingly inexorable rise in **Korean** throughput that broke through 3 mb/d for the first time in February, with a 300 kb/d yoy gain, were offset by declining runs in **Europe**, **Japan** and **Canada**. Weekly data for US March throughput do not show any effect from suggested run cuts, or pipeline outages later in the month as the runs increased both m-o-m (360 kb/d) and some 200 kb/d y-o-y, crossing the 16 mb/d

¹ "Engine design trends lead to increased demand for higher-octane gasoline", US Energy Information Administration, <http://www.eia.gov/todayinenergy/detail.cfm?id=25692>, accessed 12 April 2016.

² RVP, or Reid Vapour Pressure measures the volatility of gasoline. It is regulated, with the specification varying seasonally in line with prevailing temperatures.

mark, a level not seen in March before. Overall, the estimate for 1Q16 OECD runs is for a y-o-y growth of 200 kb/d. In 2Q16, this flips to a 200 kb/d decline y-o-y as the US growth eases while Europe and Asia Pacific decline, with Korean and Japanese runs levels affected by turnaround outages. Our first estimate for July runs continues the declining trend y-o-y, on the back of an expected 400 kb/d decline in Europe, flat US runs and only slightly firmer Japanese and Korean throughput.



Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

	Sep 15	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Change from Jan 16	Jan 15	Utilisation rate ¹ Feb 16	Feb 15
US ²	16.17	15.47	16.49	16.77	15.99	15.77	-0.22	0.36	0.86	0.87
Canada	1.64	1.56	1.59	1.66	1.76	1.64	-0.12	-0.14	0.83	0.90
Chile	0.16	0.15	0.14	0.17	0.17	0.16	-0.01	-0.01	0.72	0.74
Mexico	1.05	1.06	1.05	1.12	1.11	1.04	-0.08	0.01	0.63	0.62
OECD Americas³	19.03	18.23	19.27	19.72	19.04	18.62	-0.42	0.22	0.84	0.85
France	1.27	1.27	1.18	1.09	1.15	1.17	0.01	-0.10	0.83	0.90
Germany	1.90	1.83	1.89	1.94	1.92	1.91	-0.01	-0.09	0.94	0.99
Italy	1.35	1.34	1.40	1.38	1.30	1.14	-0.16	-0.17	0.65	0.75
Netherlands	1.10	1.13	0.96	1.10	1.11	1.11	0.00	0.00	0.86	0.86
Spain	1.29	1.36	1.21	1.34	1.22	1.26	0.04	0.08	0.83	0.78
United Kingdom	1.20	1.21	1.18	1.17	1.14	1.04	-0.10	-0.06	0.76	0.80
Other OECD Europe	4.33	4.21	4.33	4.24	4.17	4.24	0.07	0.03	0.88	0.86
OECD Europe	12.45	12.35	12.15	12.27	12.02	11.87	-0.14	-0.31	0.84	0.86
Japan	3.07	2.95	3.11	3.25	3.37	3.37	0.00	-0.07	0.91	0.86
South Korea	2.70	2.70	2.73	2.98	2.97	3.14	0.17	0.32	0.95	0.86
Other Asia Oceania	0.71	0.72	0.75	0.79	0.78	0.77	-0.01	-0.12	0.77	0.81
OECD Asia Oceania	6.48	6.36	6.60	7.02	7.12	7.28	0.15	0.13	0.91	0.85
OECD Total	37.96	36.93	38.02	39.00	38.17	37.77	-0.41	0.04	0.85	0.85

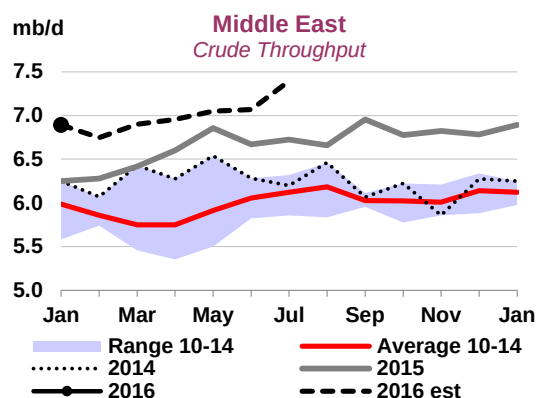
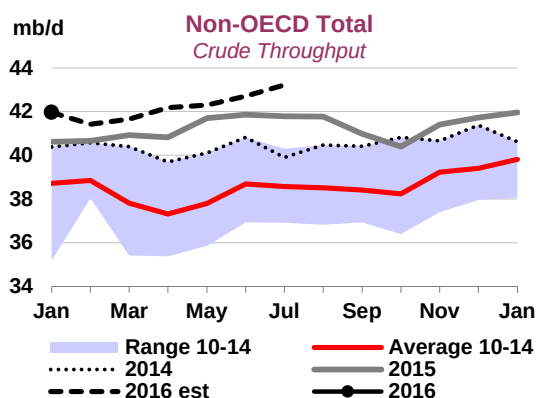
¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US50

³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

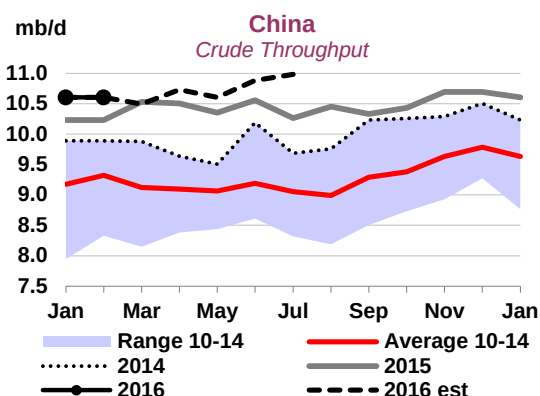
Non-OECD refinery throughput

Non-OECD accounted for two thirds of the global 2 mb/d gains in January and for almost all of the 800 kb/d increase in February in our preliminary estimates. In both 1Q16 and 2Q16 the runs are expected to grow by almost 1 mb/d y-o-y, reaching 42 mb/d for the first time in 2Q16. With the exception of throughput increases in **Brazil** and **Colombia**, where recent refinery projects are ramping up, bringing an additional 100 kb/d y-o-y, all the increase is East of Suez.



The Middle East is expected to lead the throughput increase as **Saudi Arabia** is ramping up new refineries. Refinery runs³ are expected to reach over 7 mb/d in 2Q16, which amounts to just under 30% of crude output in the region.

Chinese runs continue growing, despite reported stock builds and unfavourable export economics. Official data for January and February show a 4% increase, while March is estimated to be flat y-o-y due to turnarounds. A Chinese oil company representative voiced concern in the press about independent refiners increasing their runs at the expense of majors as Sinopec and Petrochina reportedly cut runs by about 2.5% y-o-y. This would imply that the independent refiners hiked their runs up by about 30% y-o-y, fuelled by the more liberal crude import regime introduced last year. The Chinese government hastily tripled the oil products export quota, but actual outflows are constrained by both logistics and export economics. The extent of the country's excess refining capacity was made apparent by comments from a former chairman of Sinopec who warned last month that the refining sector was facing even worse overcapacity than the steel industry.



In a similar development to China's crude import regime changes, but aimed at state-owned, as opposed to independent refiners, the **Indian** government finalised plans to allow state-owned refiners to independently import crude oil. This will increase the share of spot deals and increase the flexibility in varying the crude slate with changing prices. Indian refiners already run at above nominal capacity rates, so any gains in throughput would come from new refineries. This could be an interesting opportunity for **Indonesia's Pertamina**, which has been reportedly talking with Indian and other Asian refiners on the possibility of tolling contracts to process batches of crude oil that Pertamina delivers, to ship the produced fuels to Indonesia. Indonesia has not reported any refinery intake data since September 2014, but the throughput is estimated at low utilisation rates of about 70%. It is one of the biggest gasoline importers in the world as the local refineries do not produce enough of the fuel.

Russian refinery runs continued dropping in February, losing another 240 kb/d y-o-y, but they stabilised in March at just under 5.6 mb/d. Turnaround season is wrapping up, but we expect that discretionary run cuts in the second quarter will drive runs even lower, to 5.5 mb/d.

³ Our Middle East refining numbers exclude condensate splitters.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	23.6	24.1	23.9	23.7	24.4	24.6	24.1	24.2	24.1	24.7	24.4	24.4	24.1	24.2	24.8	24.6	24.4
Europe	13.8	13.6	13.0	13.4	13.9	13.5	13.5	13.4	13.6	14.1	13.7	13.7	13.5	13.7	13.9	13.5	13.6
Asia Oceania	8.5	8.3	8.9	7.7	7.7	8.3	8.1	8.7	7.6	7.8	8.3	8.1	8.6	7.6	7.8	8.3	8.1
Total OECD	45.9	46.0	45.8	44.8	45.9	46.4	45.7	46.4	45.3	46.6	46.3	46.2	46.1	45.5	46.6	46.3	46.1
NON-OECD DEMAND																	
FSU	4.6	4.7	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.8	4.9	5.0	4.9	4.9
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	9.9	10.3	10.4	10.6	10.5	11.0	10.6	11.1	11.3	11.4	11.4	11.3	11.4	11.6	11.7	11.8	11.6
Other Asia	11.4	11.8	12.1	12.2	11.8	12.2	12.1	12.4	12.6	12.4	12.9	12.6	13.1	13.2	12.9	13.4	13.1
Americas	6.5	6.7	6.6	6.8	7.0	6.9	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.8	6.9	6.9	6.8
Middle East	7.8	7.9	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.9	8.3	8.7	8.3	8.3
Africa	3.8	3.9	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.2	4.1	4.3	4.3	4.2	4.3	4.3
Total Non-OECD	44.8	45.9	46.1	47.3	47.4	47.7	47.1	47.1	48.8	49.0	49.2	48.5	48.7	49.7	50.1	50.4	49.7
Total Demand¹	90.7	91.9	91.9	92.1	93.3	94.1	92.9	93.6	94.1	95.6	95.5	94.7	94.8	95.2	96.6	96.8	95.9
OECD SUPPLY																	
Americas ⁴	15.8	17.2	18.3	18.9	19.3	19.9	19.1	20.0	19.6	20.1	20.1	19.9	19.7	19.3	19.3	19.5	19.5
Europe	3.5	3.3	3.5	3.2	3.1	3.4	3.3	3.4	3.5	3.4	3.6	3.5	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total OECD	19.8	21.0	22.3	22.6	22.9	23.8	22.9	23.8	23.5	23.9	24.1	23.9	23.7	23.2	23.0	23.3	23.3
NON-OECD SUPPLY																	
FSU	13.8	13.9	13.9	13.8	13.8	13.9	13.9	14.0	14.0	13.9	14.0	14.0	14.2	14.1	13.9	13.9	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.2	4.2	4.2	4.4	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2
Other Asia ²	2.7	2.7	2.6	2.6	2.6	2.7	2.6	2.8	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.2	4.3	4.3	4.5	4.6	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.5	4.6	4.6	4.5
Middle East	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa ²	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.2
Total Non-OECD	28.7	28.6	28.9	28.7	28.7	29.3	28.9	29.4	29.3	29.1	29.3	29.3	29.1	29.0	28.9	29.0	29.0
Processing gains ³	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	1.9	2.0	1.7	2.3	2.6	2.3	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC Supply ²	52.5	53.8	55.0	55.8	56.5	57.7	56.3	57.3	57.4	57.8	58.1	57.7	57.0	56.9	56.9	57.0	57.0
OPEC																	
Crude	32.1	31.2	30.7	30.8	31.2	31.2	31.0	31.2	32.2	32.4	32.4	32.1	32.6				
NGLs	6.4	6.3	6.4	6.4	6.6	6.6	6.5	6.6	6.7	6.7	6.8	6.7	6.8	6.8	6.9	6.9	6.9
Total OPEC ²	38.4	37.5	37.1	37.2	37.8	37.8	37.5	37.7	38.9	39.1	39.2	38.7	39.3				
Total Supply⁴	90.9	91.4	92.1	93.1	94.2	95.5	93.7	95.1	96.3	97.0	97.2	96.4	96.4				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.2	0.2	0.8	0.7	-0.1	0.4	0.9	1.0	0.8	0.3	0.8					
Government	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0					
Total	0.2	-0.2	0.2	0.7	0.7	-0.1	0.4	0.9	1.0	0.8	0.4	0.8					
Floating storage/Oil in transit	-0.1	0.1	0.2	-0.3	0.3	-0.2	0.0	0.4	0.4	-0.2	0.5	0.3					
Miscellaneous to balance ⁵	0.0	-0.5	-0.2	0.6	-0.1	1.6	0.5	0.2	0.7	0.7	0.9	0.6					
Total Stock Ch. & Misc	0.2	-0.6	0.2	0.9	0.9	1.4	0.9	1.5	2.2	1.3	1.8	1.7	1.5				
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	31.9	31.8	30.5	29.8	30.3	29.8	30.1	29.7	30.0	31.1	30.6	30.4	31.0	31.5	32.8	32.8	32.1

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	0.1	0.2	-0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	-0.1	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	0.1	-	0.1	0.2	0.1	0.1	0.1	-	0.1	0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.2	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	0.1	0.1	-	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	-0.1	0.1	0.1
Total Demand	-	-	-	-	-	-	-	0.1	0.1	0.1	0.2	0.1	0.2	0.2	-	-	0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	-	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-	-0.1	-	-0.1
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	0.1	-	-	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.2	-	-	-	-	-
Total Stock Ch. & Misc	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.3	-0.2	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.1	-	-	0.1

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Demand (mb/d)																
Americas	24.07	23.88	23.72	24.37	24.56	24.14	24.24	24.09	24.72	24.37	24.36	24.10	24.23	24.80	24.57	24.43
Europe	13.62	13.04	13.43	13.88	13.47	13.46	13.45	13.56	14.13	13.68	13.71	13.48	13.70	13.93	13.48	13.65
Asia Oceania	8.34	8.86	7.67	7.68	8.32	8.13	8.75	7.65	7.78	8.25	8.10	8.56	7.61	7.84	8.29	8.07
Total OECD	46.02	45.78	44.82	45.93	46.35	45.72	46.43	45.30	46.64	46.31	46.17	46.14	45.54	46.56	46.34	46.15
Asia	22.06	22.52	22.79	22.28	23.25	22.71	23.48	23.99	23.77	24.36	23.90	24.56	24.80	24.57	25.24	24.79
Middle East	7.91	7.72	8.17	8.40	7.85	8.04	7.64	8.35	8.60	8.13	8.18	7.87	8.29	8.67	8.30	8.29
Americas	6.67	6.61	6.79	6.95	6.93	6.82	6.64	6.79	6.88	6.81	6.78	6.50	6.76	6.91	6.91	6.77
FSU	4.72	4.63	4.86	5.14	5.05	4.92	4.58	4.89	5.05	4.97	4.87	4.78	4.87	5.02	4.95	4.90
Africa	3.89	4.02	4.02	3.90	3.99	3.98	4.13	4.11	4.00	4.19	4.11	4.27	4.27	4.17	4.33	4.26
Europe	0.66	0.65	0.67	0.69	0.68	0.67	0.68	0.70	0.71	0.71	0.70	0.70	0.71	0.71	0.72	0.71
Total Non-OECD	45.90	46.15	47.30	47.37	47.75	47.15	47.14	48.82	49.00	49.17	48.54	48.68	49.70	50.05	50.44	49.72
World	91.92	91.93	92.12	93.30	94.10	92.87	93.58	94.12	95.63	95.48	94.71	94.82	95.24	96.62	96.78	95.87
of which: US50	18.96	18.82	18.77	19.31	19.51	19.11	19.29	19.25	19.68	19.36	19.40	19.22	19.37	19.83	19.60	19.50
Europe 5*	8.12	7.87	7.91	8.19	8.04	8.00	8.03	7.99	8.34	8.09	8.11	8.04	8.04	8.18	7.95	8.05
China	10.26	10.44	10.61	10.48	11.02	10.64	11.09	11.35	11.38	11.43	11.31	11.44	11.64	11.68	11.83	11.65
Japan	4.56	5.07	3.92	3.92	4.48	4.35	4.79	3.89	3.94	4.23	4.21	4.45	3.71	3.89	4.24	4.07
India	3.69	3.81	3.88	3.56	3.80	3.76	3.95	4.01	3.86	4.09	3.98	4.32	4.29	4.08	4.35	4.26
Russia	3.46	3.46	3.62	3.86	3.68	3.66	3.38	3.63	3.75	3.61	3.60	3.58	3.58	3.70	3.56	3.60
Brazil	3.11	3.12	3.17	3.28	3.31	3.22	3.16	3.17	3.22	3.20	3.19	2.99	3.09	3.20	3.24	3.13
Saudi Arabia	2.96	2.78	3.29	3.47	3.02	3.14	2.88	3.46	3.58	3.21	3.29	2.97	3.36	3.57	3.20	3.27
Canada	2.37	2.41	2.32	2.44	2.41	2.40	2.36	2.26	2.38	2.34	2.34	2.29	2.25	2.36	2.31	2.30
Korea	2.33	2.35	2.31	2.32	2.38	2.34	2.48	2.32	2.39	2.54	2.43	2.62	2.44	2.48	2.59	2.53
Mexico	2.09	2.00	2.02	2.00	2.02	2.01	1.91	1.95	2.04	2.02	1.98	1.94	1.97	1.96	2.01	1.97
Iran	1.92	1.96	1.89	1.85	1.91	1.90	1.82	1.85	1.79	1.87	1.83	1.86	1.85	1.87	1.96	1.88
Total	63.82	64.07	63.70	64.70	65.59	64.52	65.15	65.12	66.35	65.99	65.66	65.70	65.59	66.80	66.84	66.24
% of World	69.4%	69.7%	69.1%	69.3%	69.7%	69.5%	69.6%	69.2%	69.4%	69.1%	69.3%	69.3%	68.9%	69.1%	69.1%	69.1%
Annual Change (% per annum)																
Americas	1.9	0.4	-0.6	0.2	1.0	0.3	1.5	1.6	1.4	-0.8	0.9	-0.6	0.6	0.3	0.8	0.3
Europe	-1.2	-0.6	-2.9	-0.6	-0.6	-1.2	3.1	1.0	1.9	1.6	1.9	0.2	1.0	-1.5	-1.5	-0.4
Asia Oceania	-2.0	0.3	-2.5	-4.2	-3.6	-2.5	-1.3	-0.3	1.3	-0.8	-0.3	-2.1	-0.5	0.8	0.4	-0.4
Total OECD	0.2	0.1	-1.6	-0.8	-0.3	-0.7	1.4	1.1	1.5	-0.1	1.0	-0.6	0.5	-0.2	0.1	0.0
Asia	3.4	2.5	3.3	2.3	3.6	3.0	4.3	5.3	6.7	4.8	5.2	4.6	3.4	3.4	3.6	3.7
Middle East	0.8	1.7	2.1	0.0	2.5	1.6	-1.1	2.2	2.3	3.5	1.8	3.0	-0.6	0.9	2.1	1.3
Americas	2.3	3.0	2.1	2.4	1.7	2.3	0.5	0.1	-1.1	-1.7	-0.6	-2.2	-0.5	0.4	1.4	-0.2
FSU	1.9	5.4	5.9	4.3	2.2	4.4	-1.1	0.7	-1.9	-1.5	-1.0	4.4	-0.6	-0.5	-0.5	0.6
Africa	2.0	0.6	1.5	5.5	2.3	2.4	2.7	2.2	2.4	5.0	3.1	3.5	4.1	4.3	3.3	3.8
Europe	-4.1	5.6	2.9	3.2	-0.2	2.8	4.1	3.4	2.4	4.2	3.5	3.5	2.4	0.9	1.0	1.9
Total Non-OECD	2.4	2.6	3.0	2.4	2.8	2.7	2.2	3.2	3.4	3.0	3.0	3.3	1.8	2.2	2.6	2.4
World	1.3	1.3	0.7	0.8	1.3	1.0	1.8	2.2	2.5	1.5	2.0	1.3	1.2	1.0	1.4	1.2
Annual Change (mb/d)																
Americas	0.44	0.10	-0.13	0.06	0.23	0.07	0.36	0.37	0.35	-0.19	0.22	-0.13	0.14	0.07	0.20	0.07
Europe	-0.16	-0.08	-0.41	-0.08	-0.08	-0.16	0.41	0.13	0.26	0.21	0.25	0.03	0.14	-0.21	-0.20	-0.06
Asia Oceania	-0.17	0.03	-0.20	-0.34	-0.31	-0.21	-0.12	-0.02	0.10	-0.07	-0.03	-0.19	-0.04	0.06	0.03	-0.03
Total OECD	0.11	0.05	-0.74	-0.36	-0.15	-0.30	0.65	0.48	0.71	-0.04	0.45	-0.29	0.24	-0.07	0.03	-0.02
Asia	0.73	0.54	0.74	0.51	0.81	0.65	0.96	1.20	1.49	1.11	1.19	1.08	0.81	0.80	0.88	0.89
Middle East	0.06	0.13	0.17	0.00	0.19	0.12	-0.08	0.18	0.20	0.28	0.14	0.23	-0.05	0.08	0.17	0.11
Americas	0.15	0.19	0.14	0.17	0.12	0.15	0.03	0.00	-0.07	-0.12	-0.04	-0.14	-0.03	0.03	0.09	-0.01
FSU	0.09	0.24	0.27	0.21	0.11	0.21	-0.05	0.03	-0.10	-0.08	-0.05	0.20	-0.03	-0.03	-0.02	0.03
Africa	0.08	0.02	0.06	0.21	0.09	0.09	0.11	0.09	0.09	0.20	0.12	0.14	0.17	0.17	0.14	0.16
Europe	-0.03	0.03	0.02	0.02	0.00	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01
Total Non-OECD	1.09	1.16	1.39	1.12	1.32	1.25	1.00	1.52	1.62	1.42	1.39	1.54	0.88	1.06	1.27	1.18
World	1.19	1.22	0.65	0.76	1.17	0.95	1.65	2.00	2.33	1.38	1.84	1.25	1.12	0.98	1.31	1.16
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.14	0.06	0.17	-0.05	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	0.00	0.01	0.00	0.03	-0.02	-0.07	-0.10	-0.04
Asia Oceania	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	-0.01	0.04	0.07	0.03
Total OECD	0.00	0.00	-0.01	-0.01	0.00	0.00	-0.02	0.00	0.00	0.01	0.00	-0.09	0.03	0.13	-0.08	0.00
Asia	0.00	0.03	0.03	0.03	0.02	0.03	0.05	0.04	0.06	0.19	0.08	0.15	0.15	0.04	0.08	0.10
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.03	-0.07	-0.17	0.02	-0.05
Americas	0.00	-0.01	0.00	-0.01	-0.01	-0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	-0.01	0.01	0.04
Africa	0.00	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.00	0.04	0.04	0.04	0.03
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Total Non-OECD	0.00	0.05	0.06	0.05	0.05	0.05	0.09	0.09	0.10	0.24	0.13	0.24	0.19	-0.09	0.13	0.12
World	0.00	0.04	0.05	0.05	0.05	0.05	0.07	0.09	0.10	0.25	0.13	0.16	0.22	0.05	0.05	0.12
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.04	0.04	0.05	0.05	0.05	0.03	0.04	0.05	0.20	0.08	0.09	0.14	-0.05	-0.20	-0.01

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	1Q15	2Q15	3Q15	4Q15	Nov 15	Dec 15	Jan 16 ²	Dec 15	Jan 15
Americas											
LPG and ethane	3.22	3.21	3.48	2.98	3.02	3.37	3.39	3.59	3.77	0.18	0.12
Naphtha	0.35	0.34	0.35	0.31	0.33	0.36	0.35	0.38	0.37	-0.01	0.00
Motor gasoline	10.64	10.88	10.49	10.97	11.16	10.90	10.82	10.88	10.37	-0.51	-0.02
Jet and kerosene	1.74	1.81	1.72	1.81	1.88	1.84	1.80	1.86	1.71	-0.15	0.08
Gasoil/diesel oil	5.28	5.20	5.52	5.11	5.16	5.04	4.89	4.98	4.96	-0.01	-0.49
Residual fuel oil	0.58	0.55	0.51	0.44	0.63	0.62	0.66	0.64	0.58	-0.06	0.06
Other products	2.32	2.37	2.17	2.47	2.56	2.25	2.22	2.22	2.14	-0.08	-0.03
Total	24.14	24.36	24.24	24.09	24.72	24.37	24.13	24.54	23.89	-0.65	-0.27
Europe											
LPG and ethane	1.08	1.15	1.21	1.14	1.11	1.13	1.13	1.24	1.25	0.01	0.04
Naphtha	1.17	1.16	1.25	1.13	1.12	1.15	1.12	1.23	1.30	0.07	0.06
Motor gasoline	1.91	1.92	1.78	1.98	2.03	1.90	1.85	1.92	1.67	-0.25	-0.03
Jet and kerosene	1.27	1.32	1.19	1.34	1.49	1.24	1.20	1.22	1.18	-0.04	0.01
Gasoil/diesel oil	5.94	6.19	6.16	5.96	6.30	6.32	6.18	6.35	5.71	-0.64	-0.19
Residual fuel oil	0.92	0.88	0.89	0.87	0.88	0.89	0.88	0.93	0.91	-0.02	0.05
Other products	1.17	1.09	0.98	1.14	1.20	1.05	1.07	0.93	0.91	-0.02	-0.03
Total	13.46	13.71	13.45	13.56	14.13	13.68	13.43	13.82	12.93	-0.89	-0.07
Asia Oceania											
LPG and ethane	0.85	0.79	0.90	0.73	0.75	0.78	0.76	0.82	0.77	-0.05	-0.08
Naphtha	1.88	1.97	2.04	1.88	1.95	2.00	1.97	2.13	2.06	-0.07	-0.02
Motor gasoline	1.55	1.55	1.52	1.51	1.62	1.57	1.55	1.63	1.48	-0.15	0.03
Jet and kerosene	0.86	0.86	1.11	0.68	0.69	0.95	0.91	1.14	1.21	0.07	0.07
Gasoil/diesel oil	1.77	1.81	1.85	1.76	1.76	1.88	1.85	1.91	1.74	-0.17	0.00
Residual fuel oil	0.67	0.63	0.77	0.60	0.54	0.63	0.63	0.71	0.73	0.02	-0.03
Other products	0.56	0.49	0.56	0.48	0.46	0.45	0.45	0.48	0.51	0.02	0.00
Total	8.13	8.10	8.75	7.65	7.78	8.25	8.13	8.83	8.50	-0.33	-0.03
OECD											
LPG and ethane	5.15	5.14	5.58	4.85	4.89	5.27	5.28	5.65	5.79	0.14	0.08
Naphtha	3.40	3.47	3.63	3.33	3.40	3.50	3.44	3.74	3.73	-0.01	0.05
Motor gasoline	14.10	14.36	13.78	14.46	14.80	14.37	14.22	14.43	13.52	-0.90	-0.01
Jet and kerosene	3.87	3.99	4.03	3.83	4.06	4.04	3.91	4.23	4.10	-0.13	0.17
Gasoil/diesel oil	12.99	13.20	13.53	12.83	13.22	13.23	12.91	13.23	12.41	-0.82	-0.68
Residual fuel oil	2.17	2.07	2.16	1.91	2.05	2.14	2.17	2.28	2.22	-0.07	0.08
Other products	4.05	3.95	3.71	4.09	4.23	3.76	3.74	3.64	3.56	-0.08	-0.06
Total	45.72	46.17	46.43	45.30	46.64	46.31	45.68	47.19	45.32	-1.87	-0.37

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	1Q15	2Q15	3Q15	4Q15	Nov 15	Dec 15	Jan 16 ²	Latest month vs.	
										Dec 15	Jan 15
United States³											
LPG and ethane	2.40	2.37	2.62	2.18	2.20	2.50	2.52	2.69	2.90	0.21	0.13
Naphtha	0.23	0.22	0.23	0.20	0.22	0.24	0.24	0.25	0.22	-0.03	-0.03
Motor gasoline	8.92	9.16	8.81	9.26	9.39	9.17	9.11	9.14	8.67	-0.47	-0.05
Jet and kerosene	1.48	1.55	1.46	1.55	1.59	1.58	1.55	1.60	1.45	-0.16	0.08
Gasoil/diesel oil	4.04	3.98	4.27	3.88	3.93	3.83	3.70	3.80	3.82	0.01	-0.42
Residual fuel oil	0.26	0.26	0.24	0.19	0.31	0.30	0.36	0.33	0.34	0.01	0.07
Other products	1.78	1.86	1.66	1.99	2.04	1.74	1.71	1.73	1.66	-0.07	0.03
Total	19.11	19.40	19.29	19.25	19.68	19.36	19.19	19.54	19.06	-0.49	-0.19
Japan											
LPG and ethane	0.50	0.45	0.57	0.42	0.41	0.42	0.40	0.47	0.43	-0.04	-0.10
Naphtha	0.75	0.80	0.84	0.75	0.79	0.81	0.79	0.89	0.86	-0.03	0.03
Motor gasoline	0.92	0.91	0.88	0.89	0.97	0.92	0.89	0.96	0.84	-0.12	0.00
Jet and kerosene	0.52	0.50	0.73	0.35	0.35	0.57	0.52	0.74	0.77	0.03	0.02
Diesel	0.43	0.43	0.43	0.42	0.43	0.44	0.42	0.45	0.37	-0.08	-0.03
Other gasoil	0.38	0.36	0.42	0.33	0.32	0.38	0.36	0.41	0.38	-0.03	-0.02
Residual fuel oil	0.41	0.36	0.46	0.34	0.31	0.32	0.31	0.35	0.36	0.02	-0.09
Other products	0.44	0.40	0.46	0.40	0.38	0.38	0.37	0.42	0.42	0.00	-0.01
Total	4.35	4.21	4.79	3.89	3.94	4.23	4.06	4.70	4.43	-0.27	-0.21
Germany											
LPG and ethane	0.09	0.10	0.09	0.11	0.10	0.08	0.08	0.09	0.09	0.00	0.00
Naphtha	0.42	0.39	0.43	0.38	0.36	0.40	0.42	0.43	0.45	0.02	0.01
Motor gasoline	0.44	0.43	0.40	0.44	0.45	0.43	0.42	0.42	0.37	-0.05	0.00
Jet and kerosene	0.19	0.19	0.17	0.20	0.21	0.18	0.17	0.17	0.16	0.00	0.00
Diesel	0.73	0.77	0.71	0.76	0.81	0.79	0.84	0.72	0.67	-0.05	0.01
Other gasoil	0.36	0.35	0.45	0.24	0.34	0.36	0.32	0.39	0.44	0.05	-0.02
Residual fuel oil	0.12	0.13	0.12	0.13	0.13	0.12	0.11	0.14	0.14	0.00	0.02
Other products	0.05	0.04	0.01	0.04	0.06	0.04	0.06	0.02	0.00	-0.02	0.00
Total	2.40	2.39	2.39	2.30	2.46	2.41	2.41	2.38	2.33	-0.05	0.02
Italy											
LPG and ethane	0.11	0.12	0.13	0.11	0.11	0.13	0.12	0.14	0.13	-0.02	-0.01
Naphtha	0.09	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.00	0.04
Motor gasoline	0.20	0.21	0.19	0.21	0.23	0.21	0.21	0.21	0.18	-0.03	0.00
Jet and kerosene	0.09	0.09	0.08	0.10	0.11	0.08	0.08	0.07	0.07	0.00	-0.01
Diesel	0.50	0.46	0.44	0.47	0.47	0.47	0.46	0.47	0.40	-0.07	-0.01
Other gasoil	0.04	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.08	-0.02	0.00
Residual fuel oil	0.06	0.08	0.08	0.08	0.08	0.08	0.07	0.09	0.07	-0.02	0.00
Other products	0.14	0.13	0.11	0.14	0.13	0.13	0.15	0.12	0.09	-0.02	-0.01
Total	1.22	1.30	1.22	1.31	1.35	1.31	1.28	1.33	1.15	-0.18	0.00
France											
LPG and ethane	0.11	0.13	0.15	0.11	0.11	0.13	0.12	0.14	0.16	0.02	0.01
Naphtha	0.12	0.11	0.12	0.12	0.12	0.08	0.07	0.09	0.13	0.04	0.01
Motor gasoline	0.16	0.16	0.14	0.17	0.18	0.16	0.15	0.17	0.13	-0.04	0.00
Jet and kerosene	0.15	0.15	0.14	0.16	0.17	0.15	0.14	0.14	0.14	-0.01	0.00
Diesel	0.70	0.70	0.67	0.71	0.72	0.71	0.68	0.74	0.60	-0.14	-0.03
Other gasoil	0.25	0.25	0.29	0.20	0.28	0.24	0.19	0.28	0.25	-0.03	-0.05
Residual fuel oil	0.05	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.01	0.00
Other products	0.12	0.10	0.09	0.12	0.10	0.08	0.07	0.06	0.09	0.03	0.01
Total	1.65	1.65	1.66	1.63	1.71	1.58	1.45	1.67	1.55	-0.12	-0.05
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.14	0.12	0.14	0.14	0.15	0.18	0.03	0.03
Naphtha	0.02	0.03	0.02	0.02	0.03	0.04	0.04	0.03	0.05	0.01	0.03
Motor gasoline	0.30	0.29	0.29	0.30	0.30	0.29	0.30	0.29	0.27	-0.02	-0.01
Jet and kerosene	0.31	0.31	0.33	0.30	0.31	0.30	0.30	0.33	0.31	-0.02	0.00
Diesel	0.48	0.50	0.47	0.50	0.50	0.51	0.54	0.50	0.45	-0.05	0.03
Other gasoil	0.13	0.13	0.13	0.14	0.14	0.13	0.13	0.11	0.11	0.00	0.00
Residual fuel oil	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.02	-0.01	0.00
Other products	0.12	0.12	0.11	0.11	0.13	0.12	0.12	0.12	0.11	-0.01	0.00
Total	1.52	1.54	1.52	1.54	1.56	1.56	1.58	1.57	1.50	-0.07	0.07
Canada											
LPG and ethane	0.37	0.38	0.40	0.36	0.38	0.41	0.43	0.42	0.42	0.00	0.00
Naphtha	0.09	0.09	0.10	0.09	0.09	0.10	0.10	0.12	0.12	0.00	0.02
Motor gasoline	0.84	0.82	0.79	0.82	0.85	0.81	0.81	0.79	0.81	0.03	0.02
Jet and kerosene	0.13	0.14	0.13	0.13	0.16	0.13	0.12	0.13	0.13	0.00	0.00
Diesel	0.29	0.31	0.32	0.31	0.32	0.29	0.29	0.27	0.30	0.03	0.00
Other gasoil	0.30	0.26	0.27	0.24	0.26	0.26	0.25	0.27	0.23	-0.04	-0.06
Residual fuel oil	0.06	0.04	0.06	0.04	0.03	0.04	0.03	0.04	0.05	0.01	0.00
Other products	0.30	0.29	0.29	0.26	0.31	0.30	0.31	0.26	0.24	-0.02	-0.05
Total	2.40	2.34	2.36	2.26	2.38	2.34	2.33	2.30	2.30	0.00	-0.07

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2014	2015	2016	4Q15	1Q16	2Q16	3Q16	4Q16	Jan 16	Feb 16	Mar 16
OPEC											
Crude Oil											
Saudi Arabia	9.53	10.12		10.16	10.19				10.19	10.20	10.17
Iran	2.81	2.86		2.89	3.17				3.00	3.22	3.30
Iraq	3.33	3.99		4.28	4.28				4.43	4.22	4.19
UAE	2.76	2.88		2.89	2.81				2.93	2.78	2.73
Kuwait	2.61	2.74		2.76	2.81				2.81	2.81	2.81
Neutral Zone	0.38	0.09		0.04	0.04				0.04	0.04	0.04
Qatar	0.71	0.66		0.66	0.66				0.64	0.67	0.67
Angola	1.66	1.76		1.76	1.77				1.75	1.76	1.80
Nigeria	1.90	1.80		1.84	1.77				1.85	1.76	1.70
Libya	0.46	0.40		0.40	0.36				0.38	0.37	0.34
Algeria	1.12	1.11		1.11	1.10				1.10	1.10	1.11
Ecuador	0.55	0.54		0.54	0.54				0.53	0.55	0.54
Venezuela	2.46	2.40		2.38	2.36				2.35	2.37	2.35
Indonesia	0.70	0.69		0.69	0.71				0.70	0.71	0.72
Total Crude Oil	30.98	32.05		32.39	32.58				32.70	32.56	32.47
Total NGLs ¹	6.50	6.68	6.85	6.76	6.77	6.82	6.88	6.94	6.77	6.77	6.77
Total OPEC²	37.48	38.73		39.15	39.35				39.47	39.33	39.24
NON-OPEC^{2,3}											
OECD											
Americas	19.08	19.93	19.46	20.08	19.73	19.32	19.30	19.48	19.83	19.80	19.58
United States	11.99	12.94	12.46	12.98	12.62	12.50	12.34	12.37	12.64	12.66	12.57
Mexico	2.81	2.60	2.50	2.59	2.55	2.52	2.46	2.47	2.58	2.52	2.53
Canada	4.28	4.38	4.49	4.50	4.56	4.29	4.50	4.63	4.59	4.61	4.47
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.32	3.46	3.41	3.60	3.54	3.42	3.26	3.41	3.55	3.49	3.57
UK	0.87	0.96	0.94	1.03	0.97	0.97	0.87	0.96	0.98	0.93	1.00
Norway	1.89	1.95	1.93	2.02	2.04	1.91	1.85	1.92	2.04	2.05	2.04
Others	0.57	0.56	0.53	0.55	0.53	0.54	0.53	0.52	0.53	0.51	0.53
Asia Oceania	0.51	0.46	0.45	0.47	0.46	0.46	0.45	0.45	0.44	0.46	0.46
Australia	0.43	0.38	0.37	0.39	0.37	0.38	0.37	0.37	0.36	0.38	0.38
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Total OECD	22.91	23.85	23.32	24.15	23.73	23.20	23.02	23.34	23.83	23.75	23.61
NON-OECD											
Former USSR	13.87	13.99	14.01	14.04	14.18	14.07	13.87	13.93	14.19	14.19	14.16
Russia	10.91	11.06	11.17	11.13	11.25	11.19	11.11	11.14	11.25	11.24	11.25
Others	2.95	2.94	2.84	2.91	2.93	2.87	2.76	2.79	2.94	2.95	2.91
Asia²	6.88	7.06	6.91	7.09	6.94	6.91	6.90	6.90	6.96	6.95	6.92
China	4.25	4.33	4.19	4.33	4.20	4.20	4.19	4.19	4.22	4.18	4.20
Malaysia	0.65	0.71	0.73	0.71	0.73	0.74	0.74	0.73	0.72	0.73	0.73
India	0.88	0.87	0.83	0.87	0.85	0.82	0.82	0.83	0.85	0.87	0.84
Others	1.11	1.16	1.15	1.18	1.17	1.16	1.15	1.14	1.18	1.16	1.16
Europe	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Americas²	4.42	4.58	4.52	4.57	4.43	4.52	4.55	4.57	4.40	4.38	4.50
Brazil	2.35	2.53	2.58	2.53	2.46	2.56	2.62	2.67	2.43	2.42	2.53
Argentina	0.63	0.63	0.62	0.63	0.63	0.63	0.62	0.62	0.63	0.63	0.63
Colombia	0.99	1.01	0.94	1.00	0.97	0.96	0.94	0.91	0.98	0.95	0.96
Others	0.44	0.41	0.37	0.40	0.37	0.37	0.37	0.37	0.36	0.38	0.38
Middle East^{2,4}	1.32	1.25	1.22	1.23	1.24	1.21	1.21	1.20	1.24	1.25	1.23
Oman	0.95	0.99	0.99	1.00	1.01	0.98	0.98	0.97	1.01	1.02	1.00
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.15	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Africa	2.28	2.25	2.23	2.23	2.20	2.21	2.24	2.26	2.23	2.23	2.15
Egypt	0.71	0.72	0.69	0.72	0.71	0.70	0.69	0.68	0.71	0.71	0.70
Gabon	0.22	0.21	0.20	0.21	0.20	0.20	0.20	0.20	0.21	0.20	0.20
Others	1.35	1.32	1.33	1.31	1.29	1.31	1.35	1.38	1.32	1.32	1.24
Total Non-OECD	28.90	29.28	29.01	29.30	29.13	29.04	28.89	28.99	29.15	29.13	29.10
Processing gains ⁵	2.21	2.24	2.27	2.24	2.27	2.27	2.27	2.27	2.27	2.27	2.27
Global Biofuels	2.23	2.30	2.36	2.39	1.88	2.39	2.75	2.41	1.90	1.87	1.87
TOTAL NON-OPEC	56.26	57.67	56.96	58.07	57.00	56.90	56.92	57.00	57.14	57.02	56.84
TOTAL SUPPLY	93.74	96.40		97.23	96.35				96.62	96.35	96.09

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Oct2015	Nov2015	Dec2015	Jan2016	Feb2016*	Feb2013	Feb2014	Feb2015	1Q2015	2Q2015	3Q2015	4Q2015
OECD Americas												
Crude	642.2	646.8	641.1	660.6	675.3	524.3	517.2	600.6	0.81	0.00	-0.10	0.27
Motor Gasoline	246.7	254.5	267.5	291.5	288.9	262.8	269.1	277.8	-0.11	-0.16	0.07	0.11
Middle Distillate	210.8	226.1	235.2	238.5	241.3	195.8	187.6	195.3	-0.10	0.14	0.07	0.17
Residual Fuel Oil	50.2	50.2	49.6	50.4	52.9	45.6	43.8	43.3	0.05	0.03	-0.01	0.03
Total Products ³	744.5	762.1	773.1	779.6	769.1	670.6	648.5	692.6	-0.39	0.43	0.31	0.11
Total ⁴	1575.8	1593.2	1591.2	1614.4	1619.5	1344.1	1313.4	1454.2	0.41	0.59	0.37	0.21
OECD Europe												
Crude	346.6	345.7	360.8	357.9	356.8	318.1	316.4	322.0	0.28	0.00	-0.06	0.24
Motor Gasoline	89.4	91.9	92.1	101.8	105.3	98.0	94.9	107.0	0.13	-0.18	0.04	0.03
Middle Distillate	300.6	307.4	301.6	313.0	310.5	259.3	259.0	258.5	0.10	0.20	0.26	-0.01
Residual Fuel Oil	69.5	74.4	71.9	72.5	74.8	78.5	63.8	67.8	0.02	0.01	0.03	0.03
Total Products ³	555.9	570.2	562.8	587.7	591.0	535.3	511.9	529.4	0.25	-0.01	0.37	0.05
Total ⁴	972.2	982.0	989.0	1014.0	1017.9	918.3	896.4	917.7	0.59	0.00	0.28	0.24
OECD Asia Oceania												
Crude	205.1	191.0	205.8	191.6	198.1	153.2	162.2	173.1	0.05	0.26	0.01	0.04
Motor Gasoline	23.1	23.4	23.1	25.4	24.8	26.7	26.5	23.7	0.02	0.03	-0.02	0.00
Middle Distillate	65.0	65.9	65.7	64.3	59.6	63.7	60.9	59.2	-0.09	0.06	0.06	-0.01
Residual Fuel Oil	21.9	23.6	21.2	18.9	18.8	21.4	18.8	18.4	-0.03	0.01	0.03	-0.01
Total Products ³	168.5	170.1	165.7	166.8	162.6	172.3	163.5	158.2	-0.18	0.14	0.11	-0.11
Total ⁴	439.1	428.2	434.5	424.8	423.1	397.6	394.4	391.9	-0.15	0.41	0.17	-0.11
Total OECD												
Crude	1193.9	1183.5	1207.7	1210.1	1230.1	995.6	995.9	1095.7	1.14	0.26	-0.14	0.54
Motor Gasoline	359.3	369.8	382.7	418.6	419.0	387.5	390.5	408.4	0.04	-0.32	0.09	0.13
Middle Distillate	576.4	599.4	602.5	615.7	611.3	518.8	507.4	512.9	-0.08	0.39	0.40	0.14
Residual Fuel Oil	141.6	148.2	142.7	141.8	146.5	145.5	126.4	129.5	0.04	0.05	0.05	0.04
Total Products ³	1468.9	1502.5	1501.5	1534.2	1522.7	1378.2	1324.0	1380.2	-0.32	0.56	0.79	0.04
Total ⁴	2987.0	3003.4	3014.6	3053.2	3060.4	2660.0	2604.2	2763.8	0.86	1.01	0.82	0.34

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Oct2015	Nov2015	Dec2015	Jan2016	Feb2016*	Feb2013	Feb2014	Feb2015	1Q2015	2Q2015	3Q2015	4Q2015
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	696.0	691.0	0.00	0.03	0.01	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.2	205.5	206.9	206.8	207.0	204.7	204.2	208.9	-0.01	-0.02	0.01	-0.01
Products	256.0	257.7	262.0	264.4	265.1	264.2	261.9	255.8	0.01	0.02	-0.05	0.08
OECD Asia Oceania												
Crude	381.5	381.5	382.2	383.6	383.6	389.6	387.8	386.2	0.02	-0.01	-0.05	0.01
Products	33.9	33.9	34.2	34.2	34.2	22.5	30.5	32.0	0.01	0.00	0.01	0.01
Total OECD												
Crude	1282.9	1282.1	1284.2	1285.5	1285.7	1290.3	1288.0	1286.1	0.01	0.00	-0.02	0.00
Products	291.9	293.6	298.1	300.5	301.3	287.7	293.4	289.8	0.02	0.02	-0.04	0.08
Total ⁴	1579.3	1580.1	1586.6	1589.9	1590.6	1581.4	1585.4	1579.5	0.03	0.03	-0.06	0.08

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')

	End December 2014		End March 2015		End June 2015		End September 2015		End December 2015 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	193.1	82	182.8	81	175.6	74	182.5	78	188.4	-
Chile	9.7	28	11.3	33	11.8	36	11.5	34	11.4	-
Mexico	52.8	28	49.8	26	50.4	25	49.5	24	49.7	-
United States ⁴	1861.5	96	1910.4	99	1973.2	100	2003.1	103	2016.8	-
Total⁴	2139.3	88	2176.3	90	2233.2	90	2268.7	93	2288.3	95
OECD Asia Oceania										
Australia	36.2	33	34.1	32	35.9	33	35.5	32	33.3	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	580.7	121	567.7	146	578.3	147	589.6	139	582.0	-
Korea	196.8	79	201.0	87	224.6	94	226.0	89	227.9	-
New Zealand	8.4	48	8.7	56	9.0	59	8.7	52	7.7	-
Total	822.0	94	811.6	106	847.9	109	859.7	104	850.9	99
OECD Europe⁵										
Austria	22.9	92	23.7	91	23.2	82	23.7	91	24.1	-
Belgium	42.4	61	42.9	66	47.7	73	51.3	80	50.4	-
Czech Republic	21.9	116	21.7	103	21.5	106	21.0	123	21.6	-
Denmark	25.8	172	28.8	186	28.4	178	28.6	186	31.8	-
Estonia	1.6	57	1.5	50	1.5	46	1.5	48	1.8	-
Finland	37.9	213	44.1	254	45.0	229	39.9	214	44.9	-
France	167.8	101	172.9	106	169.8	99	166.8	105	167.6	-
Germany	284.2	119	286.1	124	287.2	117	283.0	118	285.1	-
Greece	26.5	91	31.1	112	27.8	91	29.2	94	32.2	-
Hungary	18.7	136	20.0	137	20.5	130	20.6	129	22.0	-
Ireland	9.3	63	12.8	90	11.1	74	11.3	75	11.6	-
Italy	119.4	98	121.0	93	117.1	87	117.2	89	117.3	-
Luxembourg	0.9	15	0.7	12	0.6	12	0.6	10	0.7	-
Netherlands	123.3	136	136.4	153	140.2	151	153.1	165	158.8	-
Norway	24.2	110	23.2	101	25.9	121	25.1	100	26.7	-
Poland	63.2	125	62.7	115	62.6	110	63.9	118	69.4	-
Portugal	22.2	94	21.7	86	21.8	84	23.0	96	23.9	-
Slovak Republic	11.4	152	11.6	133	11.4	140	11.0	137	11.6	-
Slovenia	4.6	96	4.9	99	4.7	88	4.6	96	4.5	-
Spain	121.3	97	132.4	109	133.4	107	139.4	114	130.9	-
Sweden	29.1	101	32.6	103	30.6	98	33.1	118	35.2	-
Switzerland	37.3	161	37.3	172	37.2	165	36.3	149	34.4	-
Turkey	62.4	81	64.7	75	65.7	69	71.2	82	74.6	-
United Kingdom	78.2	52	76.3	50	77.2	49	78.8	51	80.7	-
Total	1356.4	101	1411.1	104	1412.1	100	1434.4	105	1462.0	108
Total OECD	4317.8	93	4399.0	97	4493.2	96	4562.8	98	4601.2	100
DAYS OF IEA Net Imports⁶	-	167	-	172	-	194	-	196	-	198

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

3 End December 2015 forward demand figures are IEA Secretariat forecasts.

4 US figures exclude US territories. Total includes US territories.

5 Data not available for Iceland.

6 Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
4Q2012	4230	1547	2683	92	34	59
1Q2013	4259	1580	2680	93	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	57
1Q2014	4196	1585	2610	94	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4328	1578	2749	93	34	59
4Q2014	4318	1580	2738	93	34	59
1Q2015	4399	1583	2816	97	35	62
2Q2015	4493	1585	2908	96	34	62
3Q2015	4563	1579	2984	98	34	64
4Q2015	4601	1587	3015	100	34	65

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

2 Days of forward demand calculated using actual demand except in 4Q2015 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	1Q15	2Q15	3Q15	4Q15	Nov 15	Dec 15	Jan 16	Year Earlier	
											Jan 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.58	0.65	0.57	0.72	0.82	0.83	0.80	0.43	0.37
Europe	0.79	0.84	0.78	0.91	0.77	0.77	0.69	0.58	0.75	0.83	0.81	0.01
Asia Oceania	1.21	1.17	1.25	1.37	1.25	1.16	1.21	1.19	1.28	1.31	1.25	0.07
Saudi Medium												
Americas	0.45	0.36	0.37	0.24	0.37	0.44	0.43	0.47	0.37	0.33	0.24	0.09
Europe	0.01	0.03	0.03	0.02	0.02	0.02	0.04	0.07	0.02	-	0.03	-
Asia Oceania	0.43	0.45	0.44	0.40	0.44	0.48	0.41	0.44	0.46	0.42	0.34	0.08
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.09	0.20	0.09	0.29	0.33	0.31	0.13	0.27	-0.14
Europe	0.25	0.50	0.72	0.50	0.48	0.95	0.94	1.11	0.77	0.65	0.55	0.09
Asia Oceania	0.31	0.24	0.41	0.41	0.31	0.42	0.49	0.52	0.57	0.36	0.40	-0.05
Kuwait Blend												
Americas	0.28	0.27	0.13	0.15	0.21	0.11	0.07	0.21	-	-	0.43	-
Europe	0.10	0.09	0.13	0.12	0.08	0.16	0.18	0.17	0.19	0.19	0.15	0.04
Asia Oceania	0.64	0.62	0.65	0.66	0.61	0.62	0.69	0.72	0.78	0.63	0.69	-0.05
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.09	0.11	0.07	0.10	0.09	0.10	0.04	0.10	-0.06
Asia Oceania	0.00	0.01	0.01	0.03	-	0.02	-	-	-	0.01	0.05	-0.04
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.03	0.01	0.03	0.01	0.03	0.01	0.06	0.02	0.04
Asia Oceania	0.30	0.28	0.27	0.31	0.25	0.25	0.26	0.27	0.23	0.39	0.19	0.20
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.67	0.67	0.72	0.63	0.45	0.67	-0.22
Europe	0.07	0.08	0.09	0.10	0.09	0.07	0.10	0.10	0.11	0.08	0.07	0.00
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.59	0.43	0.45	0.54	0.62	0.51	0.55	0.67	-0.11
Europe	0.14	0.14	0.15	0.16	0.13	0.19	0.11	0.11	0.10	0.11	0.12	0.00
Asia Oceania	-	-	0.01	-	0.01	0.02	0.02	0.03	0.01	0.03	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	1.84	1.81	2.02	1.94	1.94	2.01	2.15	1.76	0.39
Europe	-	0.00	0.01	-	0.01	0.01	0.01	-	0.02	0.02	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.01	-	0.01	0.02	0.05	0.02	-	-	-
Europe	0.47	0.56	0.49	0.47	0.48	0.52	0.49	0.44	0.52	0.38	0.43	-0.04
Asia Oceania	0.06	0.07	0.06	0.03	0.09	0.02	0.09	0.17	0.10	0.07	0.06	0.00
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.54	1.51	1.64	1.74	1.63	1.98	1.40	1.52	-0.12
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	0.01	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.73	0.60	0.59	0.65	0.52	0.86	0.70	0.78	-0.07
Asia Oceania	0.00	0.02	0.06	0.04	0.02	0.12	0.06	0.04	0.07	0.04	0.03	0.00
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.20	0.23	0.22	0.25	0.21	0.26	0.09	0.21	-0.12
Asia Oceania	0.03	0.02	0.01	-	0.02	-	-	-	-	0.02	-	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.03	0.01	0.03	0.02	-	0.03	-	0.02	-
Europe	0.53	0.55	0.57	0.62	0.53	0.55	0.58	0.56	0.58	0.49	0.67	-0.18
Asia Oceania	0.03	0.02	-	-	-	-	-	-	-	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	1Q15	2Q15	3Q15	4Q15	Nov 15	Dec 15	Jan 16	Year Earlier	
											Jan 15	% change
Crude Oil												
Americas	5130	4201	4022	3869	4085	4075	4056	4103	4223	4025	3743	8%
Europe	8926	8679	9506	9475	9201	9605	9741	9567	10056	9018	8945	1%
Asia Oceania	6557	6381	6576	6871	6426	6486	6526	6048	7222	6426	6798	-5%
Total OECD	20612	19261	20104	20216	19711	20165	20323	19718	21501	19469	19486	0%
LPG												
Americas	17	12	10	13	12	5	12	14	12	9	16	-42%
Europe	382	427	412	477	361	408	404	384	437	409	444	-8%
Asia Oceania	546	531	517	537	535	491	506	532	545	531	450	18%
Total OECD	946	970	940	1027	908	904	921	929	994	950	911	4%
Naphtha												
Americas	17	20	15	20	14	12	12	14	14	14	30	-54%
Europe	332	356	348	411	287	413	283	270	196	309	469	-34%
Asia Oceania	927	959	957	976	915	954	983	1029	1017	1082	1031	5%
Total OECD	1276	1335	1320	1407	1217	1379	1278	1314	1227	1404	1529	-8%
Gasoline ³												
Americas	659	665	670	572	745	813	549	521	513	445	564	-21%
Europe	106	131	108	124	117	72	121	81	151	180	101	78%
Asia Oceania	83	83	100	102	125	69	106	113	111	82	89	-8%
Total OECD	848	879	879	798	987	954	777	715	776	706	754	-6%
Jet & Kerosene												
Americas	81	100	141	148	152	132	133	125	137	175	131	34%
Europe	445	454	442	363	426	586	392	421	356	344	361	-5%
Asia Oceania	74	60	65	67	68	50	75	84	78	103	56	86%
Total OECD	601	613	649	579	646	768	600	631	572	623	547	14%
Gasoil/Diesel												
Americas	58	95	76	157	40	46	63	84	33	21	158	-86%
Europe	1121	1097	1220	1111	1315	1270	1184	1189	1212	1205	1063	13%
Asia Oceania	162	181	186	164	188	169	222	220	214	185	176	5%
Total OECD	1341	1373	1482	1432	1543	1485	1468	1492	1459	1412	1396	1%
Heavy Fuel Oil												
Americas	165	132	116	119	113	139	91	100	98	192	107	79%
Europe	552	617	564	680	484	513	578	536	760	521	648	-20%
Asia Oceania	242	214	187	212	134	186	215	264	190	164	209	-22%
Total OECD	960	963	866	1012	731	839	884	900	1048	877	964	-9%
Other Products												
Americas	812	671	675	626	760	759	553	655	506	612	698	-12%
Europe	791	704	703	678	667	737	729	656	781	733	645	14%
Asia Oceania	386	374	322	317	306	343	320	276	374	331	237	40%
Total OECD	1989	1750	1699	1621	1733	1839	1602	1587	1662	1676	1579	6%
Total Products												
Americas	1810	1695	1703	1655	1836	1906	1414	1513	1314	1468	1704	-14%
Europe	3729	3786	3798	3845	3657	3999	3691	3537	3893	3701	3730	-1%
Asia Oceania	2421	2403	2334	2375	2272	2263	2427	2519	2530	2478	2247	10%
Total OECD	7960	7884	7835	7876	7765	8168	7531	7569	7737	7648	7680	0%
Total Oil												
Americas	6940	5896	5725	5525	5921	5980	5470	5616	5536	5493	5447	1%
Europe	12655	12465	13305	13321	12858	13605	13431	13105	13949	12719	12674	0%
Asia Oceania	8978	8783	8910	9246	8698	8748	8952	8566	9752	8904	9045	-2%
Total OECD	28573	27144	27939	28091	27476	28333	27854	27287	29238	27116	27166	0%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2015), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 12 May 2016

Oil Market Report

12 May 2016

HIGHLIGHTS

- **Crude prices firmed on the back of unscheduled supply outages in Nigeria, Ghana and Canada** that exceeded 1.5 m/d by early May. This more than offset bearish sentiment in the wake of the mid-April Doha output talks. At the time of writing, crude oil prices were approaching 2016 highs: ICE Brent was \$47.00/bbl. NYMEX WTI was \$45.88/bbl.
- **Global oil supplies rose 250 kb/d in April to 96.2 mb/d as higher OPEC output more than offset deepening non-OPEC declines.** Y-o-y world output grew by just 50 kb/d in April versus gains of more than 3.5 mb/d a year ago. 2016 non-OPEC supply is forecast to drop by 0.8 mb/d to 56.8 mb/d.
- **OPEC crude output rose by 330 kb/d in April to 32.76 mb/d as a 300 kb/d jump in Iranian flows and a boost in Iraqi and UAE supplies more than offset outages in Kuwait and Nigeria.** Saudi output was steady near 10.2 mb/d. Iranian supply rose to 3.56 mb/d, a level last hit in November 2011 before sanctions were tightened.
- **Global oil demand growth for 1Q16 was revised upwards to 1.4 mb/d, led higher by strong gains in India, China and, more surprisingly, Russia.** For the year as a whole, growth will be around 1.2 mb/d, with demand reaching 95.9 mb/d.
- **Stock builds are beginning to slow in the OECD; in 1Q16 they grew at their slowest rate since 4Q14 and in February they drew for the first time in a year.** In March OECD commercial inventories fell by a slim 1.1 mb, with April preliminary data suggesting that stocks rebounded while oil held in floating storage rose.
- **2Q16 global refinery throughput is forecast at 79.6 mb/d, with 0.7 mb/d y-o-y gains falling below anticipated demand growth of 1.2 mb/d.** The 1Q16 estimate has been revised higher by 0.2 mb/d to 79.5 mb/d. India and Saudi Arabia are set to lead global annual increases this year.

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STAYING ON COURSE

Changes to the data in this month's *Report* confirm the direction of travel of the oil market towards balance. The net result of our changes to demand and supply data is that we expect to see global oil stocks increase by 1.3 mb/d in 1H16 followed by a dramatic reduction in 2H16 to 0.2 mb/d.

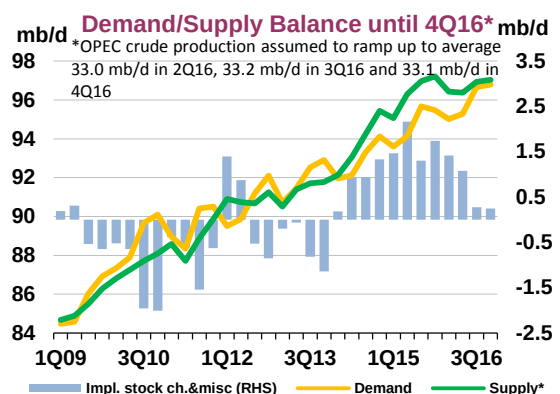
Once again, we have left unchanged our outlook for global oil demand growth in 2016 at a solid 1.2 mb/d. However, for 1Q16 revised data shows demand growing faster at 1.4 mb/d, in spite of the northern hemisphere winter being milder than usual. This strong 1Q16 performance might raise expectations that demand will remain at this stronger level causing us to raise our average figure for 2016. On the other hand, there are economic headwinds identified by the International Monetary Fund that, in April, revised down its expectations for global GDP growth in 2016 from 3.4% to 3.2% and for 2017 from 3.6% to 3.5%. In the meantime, India is the star performer: oil demand in 1Q16 was 400 kb/d higher year-on-year, representing nearly 30% of the global increase. This provides further support for the argument that India is taking over from the China as the main growth market for oil. Any changes to our current 2016 global demand outlook are now more likely to be upwards than downwards, as gasoline demand grows strongly in nearly every key market, more than offsetting weakness in middle distillates. Slower demand growth in OECD countries is not unexpected; it represents a return to the norm.

The supply side of the oil market balance always throws up surprises and in this report there are two main ones: first, wildfires in Canada have caused the shut-in of 1.2 mb/d of production capacity; and second, Iran's oil production and exports increased slightly faster than expected following the lifting of sanctions. In the case of Canada, at the time of writing we do not know how long oil production will be impacted by wild fires. For Iran, oil production in April was close to 3.6 mb/d, a level last achieved in November 2011. Even more important for global markets, oil exports reached 2 mb/d, a dramatic increase from the 1.4 mb/d seen in March. Elsewhere in OPEC, offsetting Iran's rise, there are concerns about falling production in Libya, Nigeria, where, on May 10th Shell declared *force majeure* on Bonny Light production, and the ability of Venezuela's oil industry to maintain operations in the face of power cuts and other shortages. The proposed economic changes in Saudi Arabia have seen the appointment of a new minister to replace the long serving Ali al-Naimi. At the forthcoming OPEC meeting on June 2nd we will see if there are any major policy changes from the Saudis with respect to supply to the oil market.

Meanwhile, non-OPEC oil production is currently more than 0.8 mb/d lower than this time last year. For 2016 as whole, we have revised our forecast for the fall in non-OPEC production from 0.7 mb/d to 0.8 mb/d.

A few years ago, shut-ins such as we have seen in Canada would have sent oil prices sharply higher. However, recently Brent crude oil prices have hovered around \$45/bbl, with little reaction seen to the Canadian wildfires. General oil market sentiment seems to have improved to such an extent that Brent prices fell into short-lived backwardation in April for the first time since mid-2014, aided by expectations of heavy North Sea field maintenance. Further oil price rises, though, are likely to be limited by brimming crude oil and products stocks that will remain a feature of the market until more normal levels of inventory are reached. In this Report we note that OECD stocks grew in 1Q16 at the slowest pace since 4Q14 and in February they declined for the first time in a year. This lends support to our view that the global supply surplus of oil will shrink dramatically later this year.

In next month's Report we will publish for the first time our detailed forecast for 2017, thus providing clarity on when the oil market could reach its much-anticipated balance.



DEMAND

Summary

- **The world will consume 95.9 mb/d of oil products in 2016, 1.2 mb/d more than in 2015**, with substantive non-OECD gains offsetting flat OECD deliveries. At +1.2 mb/d, the 2016 growth estimate has remained unchanged for seven consecutive monthly *Reports*.
- **Higher baseline figures for a number of consumer countries raised the 2015 historical demand estimate by 20 kb/d, to 94.7 mb/d.** The most notable additions were in South Africa and China. Incorporating these upward revisions, the latest global 2015 demand estimate shows growth of 1.8 mb/d versus 2014, a five-year high alongside crude oil prices falling to an eleven-year low.
- **The most recent demand data has raised the 1Q16 global oil demand estimate to 95.0 mb/d.** Despite being 0.2 mb/d above the previous estimate, 1Q16 demand growth shows a clear deceleration from the rapid gains of mid-2015. The 1.4 mb/d year-on-year (y-o-y) gain in 1Q16 is roughly 60% lower than the heady five-year y-o-y peak of +2.4 mb/d seen in 3Q15. The slowdown really took hold in 4Q15, when growth first eased to +1.4 mb/d, a level repeated in 1Q16.
- **Having slowed dramatically towards the end of last year, the latest US data show renewed strength.** Rising by on-average 0.5 mb/d y-o-y in the first eight months of 2015, the US declined in the following five months (falling by an average 0.1 mb/d), before flipping once again to growth. US deliveries rose by 0.3 mb/d y-o-y in February 2016 and by an average 0.2 mb/d March-April.
- **Rising by an estimated 400 kb/d in 1Q16, India saw the largest volume growth globally**, led by transport fuels. With demand at 4.4 mb/d in 1Q16, India is the world's fourth biggest oil consumer, behind the US, China and Japan. In 1Q16 it was the clear leader in terms of growth.
- **China's oil demand has been raised by government policies aimed at supporting the domestic economy.** In 1Q16 Chinese demand increased by 355 kb/d y-o-y to 11.5 mb/d. This pace of growth will be maintained over the year as a whole, a marginally more bullish outlook than published in last month's *Report*. One factor behind this increase was the raising by the IMF of China's GDP growth forecast for 2016.

Global Oil Demand (2014-2016)

(million barrels per day)

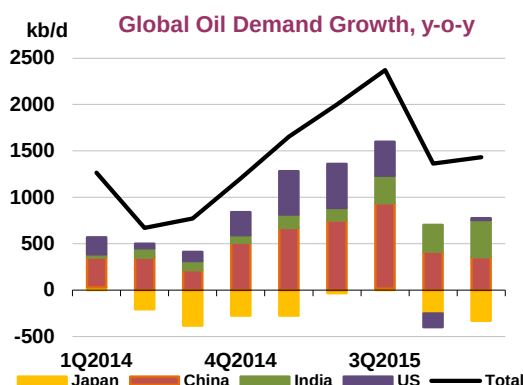
	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Africa	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.2	4.1	4.2	4.3	4.2	4.3	4.3
Americas	30.5	30.5	31.3	31.5	30.9	30.9	30.9	31.6	31.2	31.1	30.7	31.0	31.7	31.4	31.2
Asia/Pacific	31.4	30.5	30.0	31.6	30.9	32.3	31.7	31.6	32.6	32.0	33.2	32.5	32.5	33.5	32.9
Europe	13.7	14.1	14.6	14.2	14.1	14.1	14.3	14.8	14.4	14.4	14.2	14.4	14.6	14.2	14.4
FSU	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.9	4.9	5.0	5.0	4.9
Middle East	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.2	8.7	8.3	8.2
World	92.0	92.1	93.3	94.1	92.9	93.6	94.1	95.7	95.5	94.7	95.0	95.3	96.7	96.8	95.9
Annual Chg (%)	1.4	0.7	0.8	1.3	1.1	1.8	2.2	2.5	1.4	2.0	1.5	1.2	1.0	1.4	1.3
Annual Chg (mb/d)	1.3	0.7	0.8	1.2	1.0	1.6	2.0	2.4	1.4	1.8	1.4	1.2	1.0	1.3	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1

Global Overview

Rising by an estimated 1.4 mb/d in 1Q16, and with global growth forecast to hold steady at 1.2 mb/d for the year as a whole, at first glance the global demand outlook looks robust. This momentum is underpinned by a relatively benign global macroeconomic environment, based on April's *World*

Economic Outlook from the IMF which depicts global economic growth of 3.2% in 2016, albeit one-fifth of a percentage point below the previous projection. We might have expected that as oil prices fell sharply in 1Q16 -- to below \$30/bbl at one point -- there might be evidence of another growth spurt similar to that seen in the first half of 2015. But instead, a combination of non-price-related factors kept downward pressure on demand, including faltering economic conditions in a number of important consumer countries and some unusually mild northern hemisphere winter temperatures (see *Warmer early-winter weather suppresses OECD oil demand* in OMR dated 19 January 2016).

Notable growth slowdowns, between 3Q15 and 1Q16, were those seen in China, Japan and the US. Recent months have also seen lower growth in many other countries, with industrial oil use particularly heavily impacted. Hong Kong oil deliveries, for example, fell sharply in February as business confidence, tracked by the Census and Statistics Department of Hong Kong, dropped to a seven-year low, pulled down by severe gloom in the manufacturing, trade, construction and retail sub-sectors. Weakness in the industrial sector is a key factor behind 2016's lower rate of global demand growth versus 2015.



Although global oil demand growth has recently slowed sharply, robust gains are a feature in many non-OECD consumer countries. For example, India posted not just its strongest ever pace of demand growth in 1Q16, at +0.4 mb/d, but Indian oil demand growth was also the fastest growing country in the world in 1Q16. Following India in terms of oil demand growth were China and Russia, respectively higher by 355 kb/d and 275 kb/d in 1Q16. We currently expect that India will maintain pole position in the proverbial growth league in 2016, closely followed by China, with transport fuel growth the biggest factor. With new demand data received, we have revised upwards our estimate of 1Q16 global oil demand to 95.0 mb/d, 0.2 mb/d above the previous estimate. Most notably, the US (+95 kb/d), Russia (+70 kb/d), Thailand (+40 kb/d), Brazil (+35 kb/d), India (+35 kb/d) and Germany (+30 kb/d) were upgraded, partially offsetting downgrades in Saudi Arabia (-65 kb/d), Chinese Taipei (-20 kb/d), Hong Kong (-20 kb/d) and Portugal (-20 kb/d).

OECD Demand based on Adjusted Preliminary Submissions - March 2016

(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.17	4.1	1.78	-2.4	4.56	-4.2	0.46	-13.4	0.53	-2.5	5.63	-2.40	24.12	-0.1
US50	9.45	4.3	1.51	-2.9	3.67	-4.8	0.16	-22.2	0.22	-13.9	4.22	-2.38	19.22	-0.1
Canada	0.77	-0.5	0.13	-2.6	0.30	-5.3	0.22	-9.6	0.04	-32.5	0.75	1.17	2.21	-2.7
Mexico	0.80	7.1	0.08	8.3	0.37	-0.7	0.05	-5.7	0.14	70.0	0.54	-8.16	1.97	3.2
OECD Europe	1.83	0.6	1.26	3.8	4.70	2.1	1.41	-7.2	0.87	-1.4	3.50	1.15	13.56	0.5
Germany	0.43	1.6	0.17	-3.6	0.80	4.9	0.35	-7.1	0.12	5.2	0.58	4.16	2.44	1.7
United Kingdom	0.28	5.3	0.33	-1.3	0.50	9.4	0.12	-9.9	0.02	-13.1	0.32	17.46	1.56	5.7
France	0.14	-3.1	0.14	-0.4	0.66	-4.4	0.21	-17.6	0.04	-26.1	0.33	-6.93	1.53	-7.2
Italy	0.19	-6.3	0.09	6.1	0.44	-2.6	0.09	6.5	0.08	3.6	0.37	6.09	1.26	0.8
Spain	0.11	4.6	0.11	10.1	0.45	3.1	0.18	1.5	0.15	7.2	0.28	1.30	1.28	3.6
OECD Asia & Oceania	1.56	1.2	0.99	1.6	1.30	-3.5	0.51	-2.4	0.61	-18.0	3.29	-3.42	8.26	-3.3
Japan	0.90	-0.1	0.62	0.5	0.40	-6.9	0.38	-5.9	0.31	-29.5	1.65	-9.74	4.26	-7.8
Korea	0.21	-0.5	0.18	2.2	0.37	-2.7	0.10	11.2	0.26	-0.1	1.38	6.27	2.51	3.5
Australia	0.32	5.7	0.14	4.9	0.42	-1.3	0.00	-34.4	0.03	-7.5	0.17	-11.78	1.07	-0.7
OECD Total	14.55	3.4	4.02	0.4	10.55	-1.4	2.38	-7.5	2.01	-7.4	12.42	-1.70	45.94	-0.5

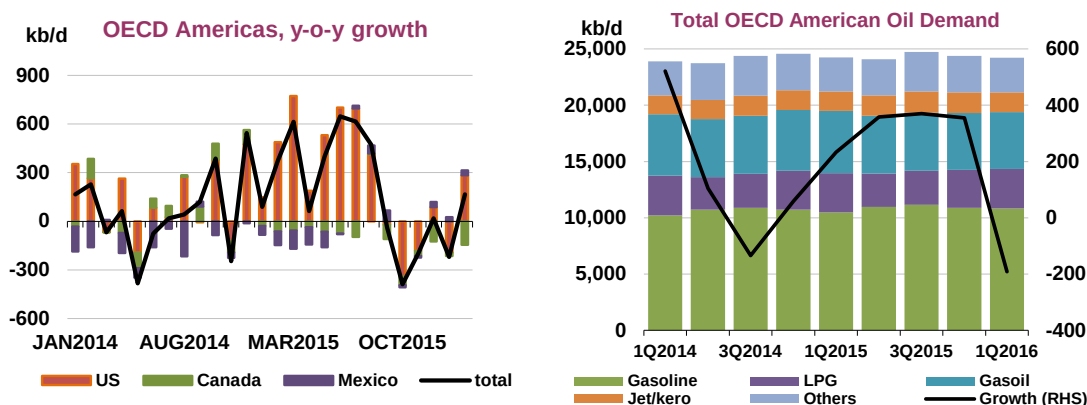
* Including US territories

OECD

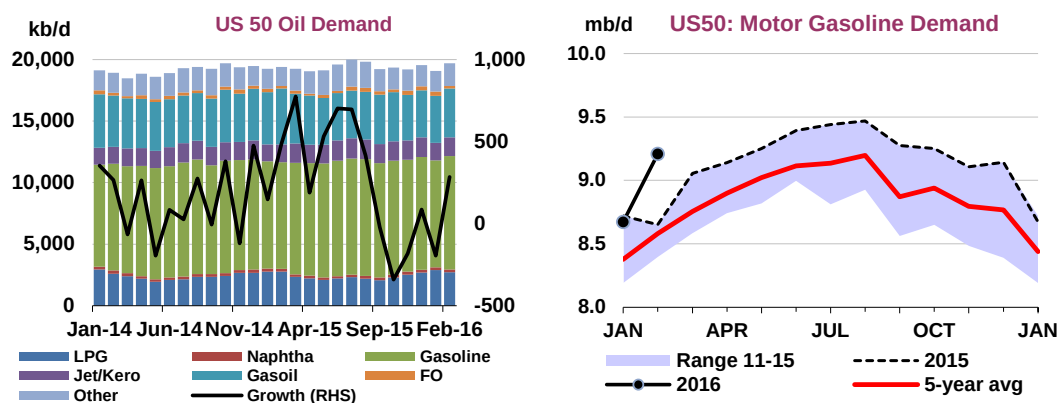
Down by an estimated 0.2 mb/d in 1Q16, y-o-y, OECD oil deliveries appear to have returned to their previous 'normal' downtrend. However, within the data, three conflicting directional movements exist. On the upside, European oil demand, at 13.5 mb/d in 1Q16, was marginally higher than a year ago. On the downside, demand in OECD Asia Oceania fell by 2.0% y-o-y to 8.6 mb/d. A third state of flux – flatness – was apparent in the OECD Americas, with demand unchanged at 24.2 mb/d. Mixing these three trends, total OECD oil deliveries averaged 46.3 mb/d in 1Q16, 0.2 mb/d or 0.4% down on the year earlier.

Americas

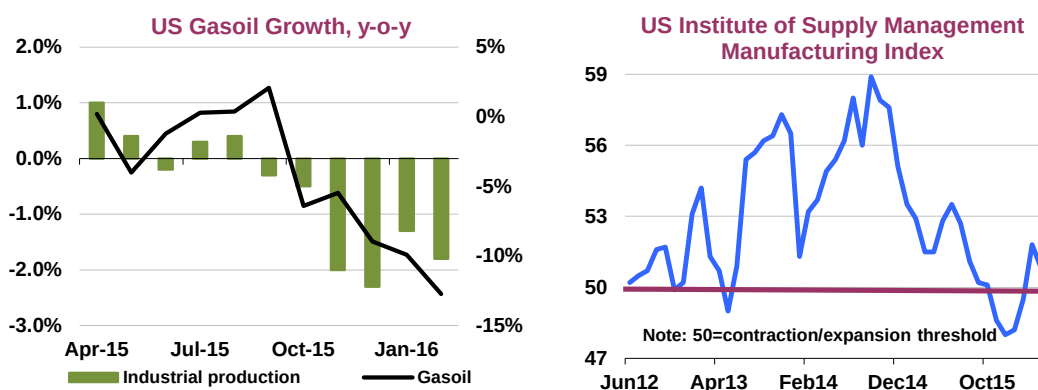
The recent weakening in the OECD Americas oil demand trend after months of relatively strong growth was triggered by declining US deliveries. These have since recovered somewhat but now there is weakness in **Canada**. Having enjoyed a relatively buoyant economy since 2009, supported by high oil prices, lower oil prices since 2014 have taken their toll. Oil demand fell by around 3.1% or 70 kb/d y-o-y in 1Q16. The forecast is for further Canadian declines in 2016, potentially worsening, depending on the extent of the damage caused by the recent fires.



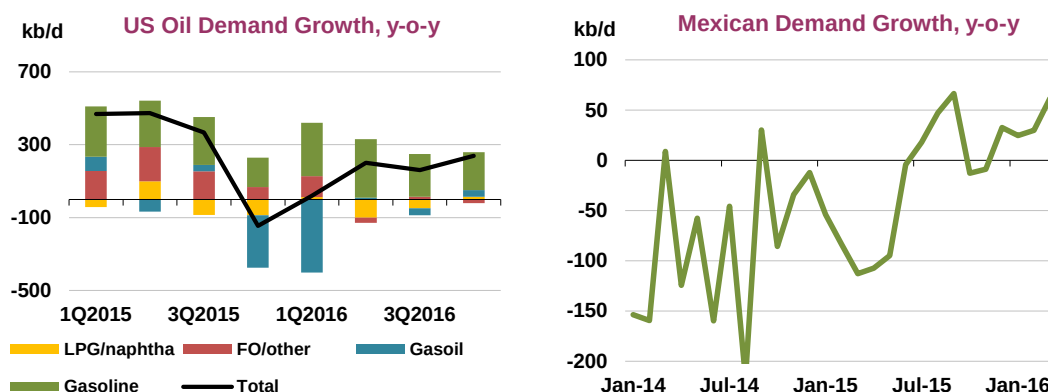
A sharp upwards revision to February **US** demand data, added 250 kb/d to the total compared to the number cited in last month's *Report*. The majority of the additions was seen in gasoline, as US drivers continue to drive more miles, while less efficient vehicle choices – such as Sports Utility Vehicles (SUV's) or four-wheel-drives – remain very much in vogue, a consequence of persistently lower retail pump prices. The Department of Transportation's Federal Highway Administration reported a 5.6% y-o-y gain in vehicle miles travelled in February, as double-digit SUV sales growth put a break on underlying US vehicle efficiency gains. The increase in miles driven was more than matched by higher US gasoline demand (+6.4% y-o-y).



With growth having slowed dramatically in the period September to January, recent US demand data suggests that stronger growth has returned. The average decline of 0.1 mb/d y-o-y seen in September to January was replaced by a 285 kb/d gain in February and average growth of 190 kb/d y-o-y March-April, based on weekly statistics from the US Energy Information Administration. With the odd exception, such as January 2016, when it fell by 50 kb/d y-o-y, US gasoline demand has seen robust growth in recent months. The main laggard in the US demand picture is distillates. US gasoil/diesel demand fell heavily, by an average 370 kb/d y-o-y, in October 2015 to February 2016, as the mild US winter reduced heating oil demand. Industrial demand was also subdued. The Manufacturing Purchasing Managers' Index (PMI), from the Institute for Supply Management (ISM), eased to a multi-year low, of 48.0 in December, while the US Federal Reserve's industrial output measure posted its seventh consecutive monthly y-o-y decline in March 2016, down by 2.0% y-o-y, in line with the generally declining y-o-y trend seen since November.



There is considerable uncertainty as to the direction of US industrial output and thus uncertainty about distillate demand. On the basis of the IMF's April *World Economic Outlook* projecting US GDP growth of 2.4% for 2016, and the latest ISM's PMI turning more upbeat, prospects look a little less bearish. We expect US oil demand growth of 155 kb/d in 2016 – less than 1% – with deliveries at 19.6 mb/d.

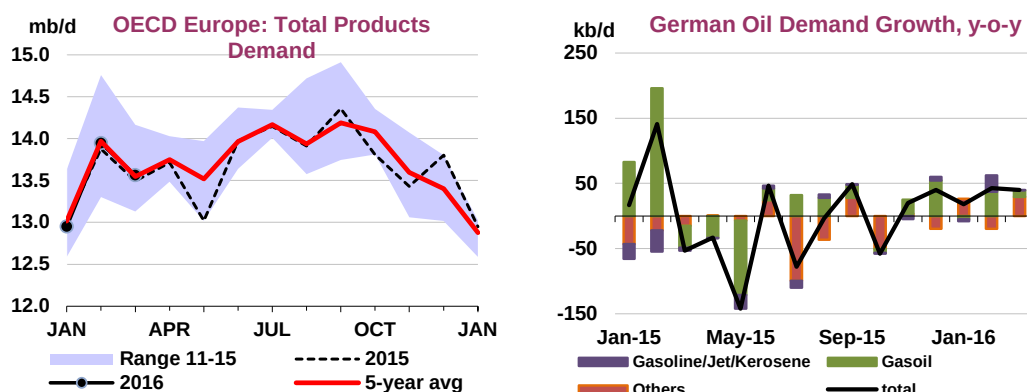


Rising strongly in March, preliminary **Mexican** oil demand added 60 kb/d y-o-y, a six-month growth high, supported by strong gains in residual fuel oil and gasoline. Mexican fuel oil demand rose to a three-month high, of 135 kb/d, as the Mexican Secretaria de Energia reported that the notoriously volatile power sector increased oil use by over two-and-a-half times compared to year earlier levels.

Europe

Ending a one-year period of strong European oil demand growth, momentum flattened in 1Q16. Deliveries averaged 13.5 mb/d, essentially unchanged on the corresponding quarter of 2015. Easing gasoil demand growth proved the key downside contributor as total European gasoil deliveries fell by

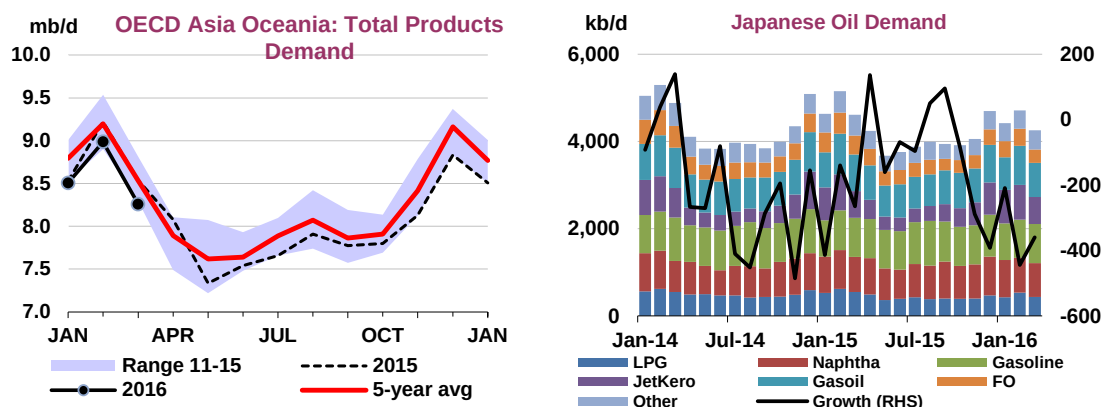
100 kb/d on a y-o-y basis, whereas the prior twelve-months saw European gasoil demand growth average +245 kb/d y-o-y.



Germany has been one of the more resilient European markets. Deliveries rose by an estimated 35 kb/d in 1Q16 and posted a fourth consecutive month of y-o-y growth in March. German demand averaged 2.4 mb/d in 1Q16, buttressed by particular strength in industrial oil use, which supported strong gains in gasoil, LPG and residual fuel oil. Underpinned by economic growth of 1.5% in 2016, according to the IMF's April *World Economic Outlook*, and recent buoyancy in the German industrial sector, deliveries are forecast to average 2.4 mb/d in 2016 as a whole, 15 kb/d up on 2015. Deutsche Bundesbank cited industrial activity in January rising by a five-month high of +1.8% y-o-y, with a further gain of 1.3% earmarked for February. This, along with reports of new car registrations at a one-year high of 323 000 in March, according to the Federal Motor Transport Authority, supported additional German demand.

Asia Oceania

Sharp declines in LPG, gasoil and residual fuel oil in 1Q16 pulled total oil deliveries in OECD Asia Oceania down sharply, falling by 170 kb/d y-o-y, after a decline of 65 kb/d in 4Q15 and a gain of 100 kb/d in 3Q15. Within the regional total, a huge 330 kb/d Japanese decline more than offsets 1Q16 y-o-y gains across the rest of OECD Asia Oceania. For the region as a whole, deliveries were down by 2% to 8.6 mb/d, with both LPG and residual fuel oil falling by 8.9%. At 4.7 mb/d in February, **Japanese** oil deliveries continue to fall sharply versus last year, pulled down by sharp dips in every major product category, albeit overall showing a 25 kb/d less severe drop than foreseen in last month's *Report*. Preliminary indicators of March demand suggest a further 360 kb/d y-o-y decline. In 2016 as a whole, oil deliveries in Japan should average 4.0 mb/d, 190 kb/d down on last year, with declines seen in the transport, industrial and power sectors.



Gains in Korea, Australia and New Zealand provided a partial 1Q16 offset. **Korea**, for example, saw estimated demand growth of 140 kb/d y-o-y in 1Q16 buttressed by very strong gains in the petrochemical, industrial and transport sectors. Through 2016, gains are forecast for Korea alongside modest gains in New Zealand, Israel and Australia.

Non-OECD

Supported by strong gains in India, China and, more surprisingly, Russia, oil demand in the combined non-OECD region climbed by 1.6 mb/d in 1Q16 compared to the year earlier to 48.8 mb/d. This latest update for 2016 supports our long-held conclusion that non-OECD countries will dominate growth in 2016. Indeed, for the year as a whole, we assume non-OECD demand growth of 1.3 mb/d, with next-to-no growth for OECD economies.

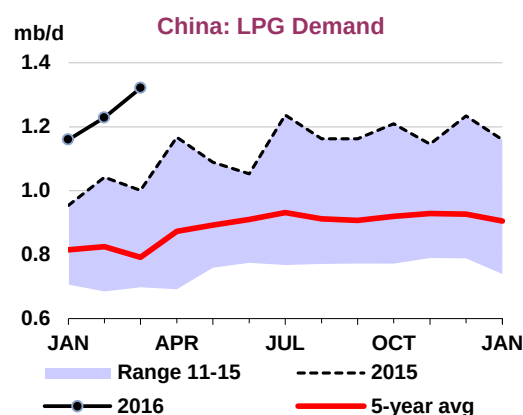
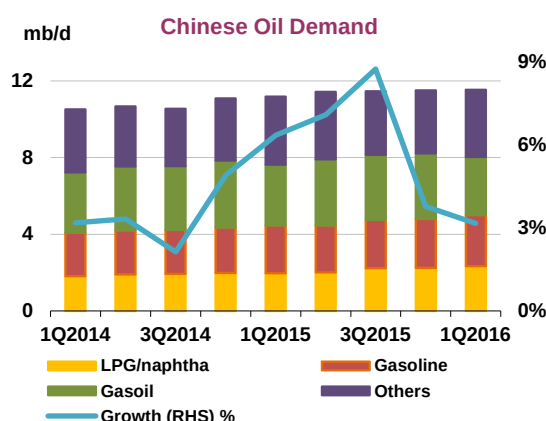
Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q15	4Q15	1Q16	4Q15	1Q16	4Q15	1Q16
LPG & Ethane	5,426	5,537	5,676	271	410	5.1	7.8
Naphtha	3,016	3,042	3,089	112	160	3.8	5.4
Motor Gasoline	10,592	10,760	10,779	540	501	5.3	4.9
Jet Fuel & Kerosene	3,169	3,103	3,119	66	7	2.2	0.2
Gas/Diesel Oil	14,437	14,712	14,086	327	274	2.3	2.0
Residual Fuel Oil	5,205	5,104	5,198	-231	-14	-4.3	-0.3
Other Products	7,181	6,916	6,805	322	236	4.9	3.6
Total Products	49,027	49,173	48,752	1,405	1,573	2.9	3.3

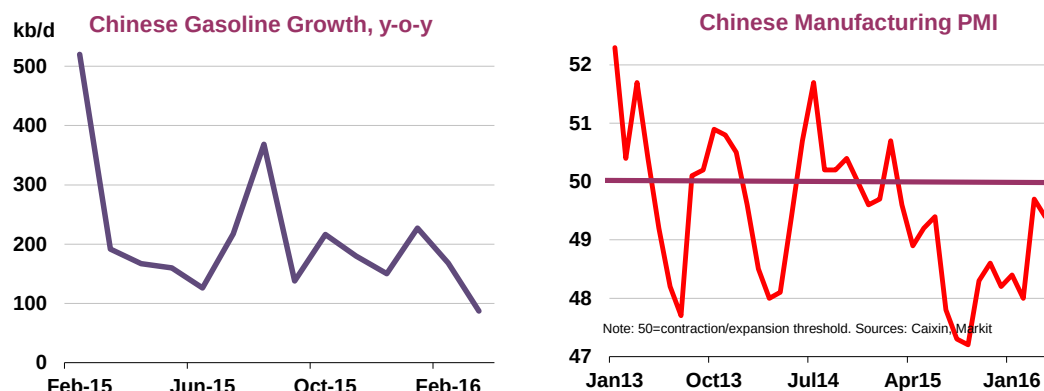
China

Government policies to support the economy have raised oil product demand in China. In 2015, deliveries averaged 11.4 mb/d, 0.7 mb/d up on the previous year. Early indicators for 2016 demand imply a gain of 0.4 mb/d y-o-y in 1Q16, to 11.5 mb/d. Along with a loosening in bank lending requirements, the Chinese government has also embarked upon an ambitious spending programme, widened export credit insurance and introduced company-specific tax rebates. Industrial fuels have particularly benefitted, with gasoil/diesel demand, for example, essentially flat in 2015. This is a significant improvement from earlier forecasts, while LPG has surged as new propane dehydrogenation capacity comes online.



Garnering less support from government policies, Chinese transport fuel demand – largely gasoline and jet fuel – remains relatively robust, although even here momentum has slowed recently as the initial stimuli from lower prices fades and consumer confidence wanes. Even with SUV sales remaining high (up

two-fifths in March on a y-o-y basis), transport fuel demand growth has slowed. The National Bureau of Statistics (NBS) showed neutrality returning to its consumer confidence index in March, ending a two-year bull run. China's Civil Aviation Administration reported passenger numbers up 11.6% y-o-y in February, to 38.98 million. On the downside for the aviation industry were reports that the freight load factor dropped by 2.7 percentage points to 68.2%.



Offsetting adjustments in Chinese product stocks had little overall impact on the 11.6 mb/d March Chinese apparent demand estimate, as the official Xinhua news agency reported conflicting directional adjustments. Specifically, big reductions in Chinese gasoil/diesel stocks, down by 0.2 mb/d in March compared to February, raised the gasoil demand estimate, while builds in gasoline and jet fuel stocks curbed their respective demand numbers. Having risen by an estimated 0.4 mb/d, y-o-y, in 1Q16 to 11.5 mb/d, a similarly paced expansion (+0.3 mb/d) is foreseen for the year as a whole taking deliveries up to an average 11.7 mb/d. The outlook has been marginally raised on modestly higher projections for underlying economic growth, as the IMF raised its 2016 GDP forecast by one-fifth of a percentage point to +6.5%, although it is far from clear-cut as forward-looking indicators of industrial demand (such as Caixin's Manufacturing PMI) remain net-pessimistic in early-2016.

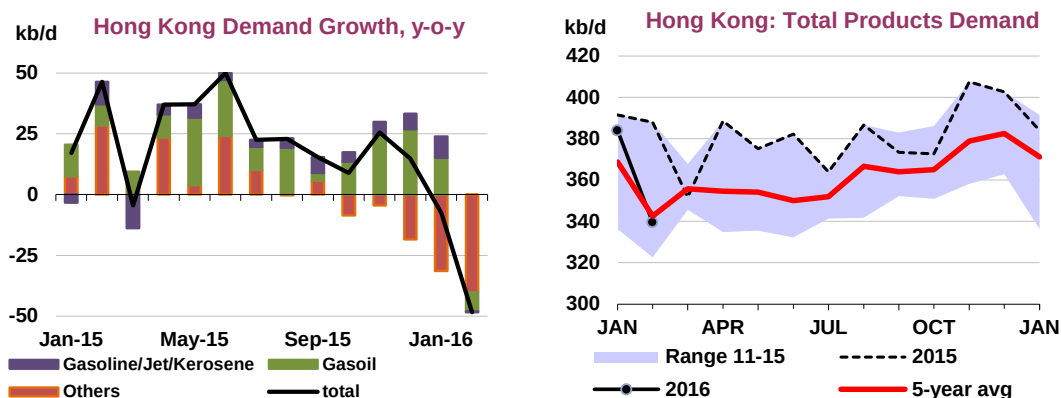
China: Demand by Product

	(thousand barrels per day)						
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2014	2015	2016	2015	2016	2015	2016
LPG & Ethane	919	1,122	1,247	202	125	22.0	11.1
Naphtha	997	997	1,048	-1	51	-0.1	5.2
Motor Gasoline	2,305	2,506	2,690	201	184	8.7	7.4
Jet Fuel & Kerosene	553	624	655	71	31	12.9	5.0
Gas/Diesel Oil	3,326	3,351	3,318	26	-33	0.8	-1.0
Residual Fuel Oil	332	282	202	-50	-80	-15.1	-28.4
Other Products	2,271	2,512	2,576	241	64	10.6	2.6
Total Products	10,703	11,393	11,737	690	343	6.4	3.0

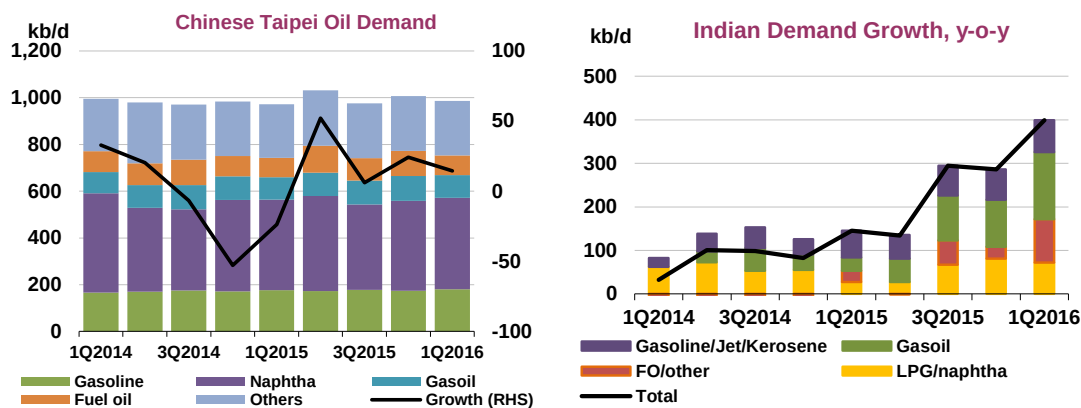
Other Non-OECD

Oil demand in **Hong Kong** fell heavily in February, by 50 kb/d y-o-y to 340 kb/d, pulled down by particularly pronounced declines in industrial fuel use, chiefly gasoil/diesel and residual fuel oil. The Census and Statistics Department (CSD) reported business confidence in 1Q16 falling to a seven-year low, while Moody's lowered its long term debt rating to negative from stable. Having consistently risen in the twelve months through September 2015, residual fuel oil deliveries in Hong Kong have fallen since November 2015 and at an accelerating rate. The sharp declines in residual fuel oil deliveries could be a harbinger of reduced trade flows to come. The latest *Hong Kong Shipping Statistics*, from the CSD, show total port cargo throughput down 24.5% y-o-y, to 26 million tonnes in 4Q15, with heavy drops cited with

tonnages from China and the US. This sentiment is reflected in the CSD's business confidence index, which showed sharp drops in expectations of 'import, export and wholesales'. The magnitude of the recent fuel oil declines are not yet forecast to hold for 2016 as a whole, as projections of economic growth, including the IMF's April estimate of +2.2%, remain supportive to oil demand growth overall. Particularly relevant for Hong Kong, as a big shipping hub, are the IMF's projections for the global volume of imports of goods rising by 3% in 2016, thus potentially supporting renewed bunker fuel demand growth in 2016.



Easing somewhat in 1Q16, demand growth in **Chinese Taipei** failed to match the heady heights seen in 4Q15, as weakening momentum took hold in the industrial fuels. For example, gasoil demand growth, having risen at a five-month high of +5.8% y-o-y in 4Q15, eased back considerably in 1Q16 (-3.2%), pulled back by sharp declines in industrial activity across the economy as a whole. The Ministry of Economic Affairs reported industrial activity down 3.6% y-o-y in March, while Markit's Manufacturing PMI became pessimistic, i.e. sub-50, in February and April.



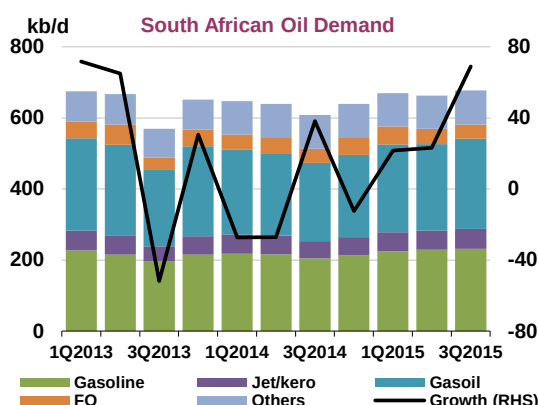
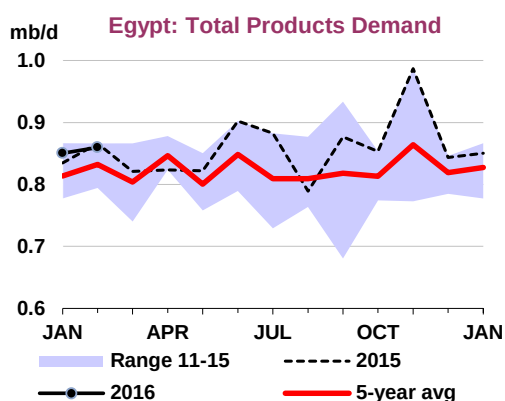
Following the publication of a more complete data set from **India's** Ministry of Petroleum & Natural Gas, we see that total oil demand in February was 4.4 mb/d, up 265 kb/d y-o-y, or 6.3%. Dramatic gains in the main transport fuels were key factors. Diesel was particularly strong, up 105 kb/d to 1.7 mb/d, although gasoline demand growth was not that far behind, rising by an estimated 45 kb/d y-o-y in February to 550 kb/d. Preliminary estimates for March demand portray growth accelerating further, adding 580 kb/d compared to the year earlier, to 4.5 mb/d, led by strong gains in gasoline, diesel, LPG and bitumen. Both diesel and gasoline demand rose sharply due to a rapidly expanding Indian vehicle market. Low rainfall raised diesel use in agriculture, and bitumen use soared on the country's ongoing road building programmes. Bringing in this latest March estimate suggests 1Q16 growth of 400 kb/d, the largest contribution of any single country in the world and 28% of global growth.

Non-OECD: Demand by Region

(thousand barrels per day)

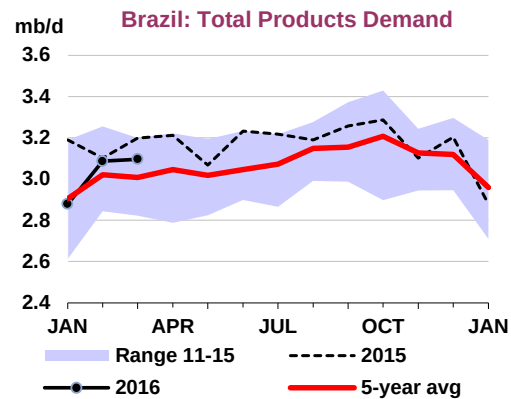
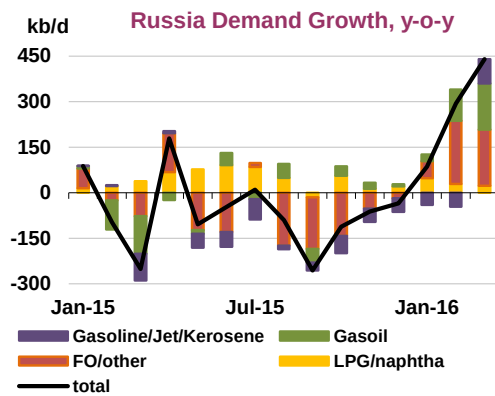
	Demand		Annual Chg (kb/d)			Annual Chg (%)	
	3Q15	4Q15	1Q16	4Q15	1Q16	4Q15	1Q16
Africa	4,033	4,199	4,248	211	120	5.3	2.9
Asia	23,791	24,376	24,647	1,084	1,104	4.7	4.7
FSU	5,049	4,974	4,850	-74	277	-1.5	6.0
Latin America	6,854	6,792	6,527	-123	-96	-1.8	-1.5
Middle East	8,591	8,122	7,780	278	145	3.5	1.9
Non-OECD Europe	708	712	700	29	23	4.2	3.4
Total Products	49,027	49,173	48,752	1,405	1,573	2.9	3.3

Falling back into negative y-o-y growth territory once again in February, **Egyptian** oil demand failed to post its normal seasonal uptick, with industrial oil use particularly weak. For example, the five-year average for February gasoil/diesel demand was a month-on-month gain of 10 kb/d, but this vanished in 2016. Having in February posted its weakest y-o-y performance in five months, Egyptian demand growth is expected to be fairly modest in 2016, at around 10 kb/d on the year, taking average deliveries up to around 870 kb/d for the year as a whole.

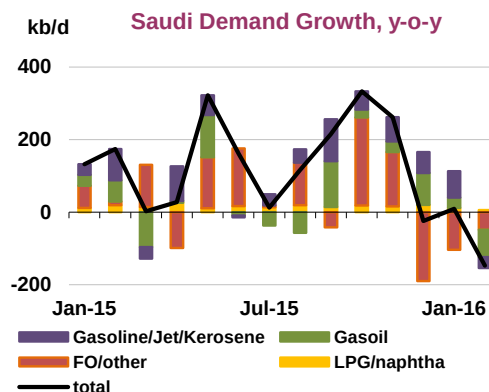
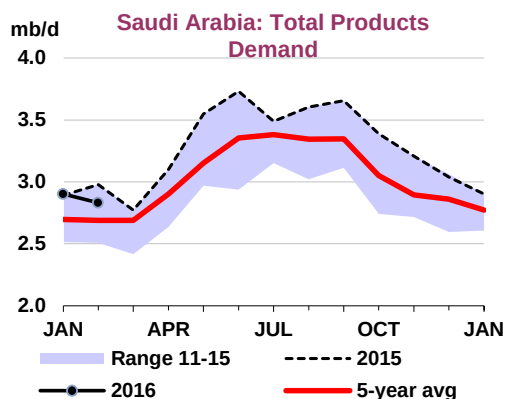


Having seen **South African** oil deliveries stutter in recent years, the publication of a spate of mid-2015 data releases from the Joint Organisation Data Initiative (JODI) showed distinct signs of an upturn emerging. Rising since the turn of 2015, and sharply since July 2015, South African oil deliveries averaged 670 kb/d January-through-October, the last months for which monthly JODI data are available. Pulled higher by accelerating transport fuel demand, y-o-y growth in 3Q15 climbed to a two-and-a-half year high. Gasoline demand growth accounted for four-tenths of 3Q15 momentum, gasoil/diesel five-tenths, the remainder jet/kerosene and LPG. Although the heady gains of mid-2015 are not likely to be repeated in 2016, absolute demand should remain a feature of the South African landscape, with growth forecast at around 2%, as deliveries average 680 kb/d.

The strength of the recent **Russian** demand data built further in March, as total oil deliveries surged by 440 kb/d compared to the year earlier, to 3.7 mb/d, supported by sharp gains in industrial fuels and road transport demand. Russian industrial output posted a rare gain in February, up by 1.0% y-o-y according to the Federal State Statistics Service (the first growth in over a year). A further sign of strength were new vehicle registrations up 13% March-over-February, according to the latest data from the Association of European Businesses in the Russian Federation. We have posted consecutive monthly y-o-y gains in the first three months of 2016, tentatively raising the Russian oil demand forecast for the year as a whole, despite bearish GDP projections from the IMF. We now foresee Russian oil demand growth of 1.5% in 2016, taking deliveries up to an average 3.6 mb/d, a rise largely consequential on the remarkable resilience thus far seen in 1Q16 and counter to the IMF trimming eight-tenths of a percentage point from its GDP projection, to -1.8% in April's *World Economic Outlook*.



Continuing to post sharp declines, in tune with the ongoing macroeconomic malaise, **Brazilian** oil product demand actually surprised to the upside in March, at 3.1 mb/d – 55 kb/d above the forecast cited in last month's *Report* but still down by 105 kb/d compared to the year earlier. Particularly sharp declines in gasoil/diesel, residual fuel oil and jet/kerosene pulled down the overall demand number, offsetting gasoline and 'other products' which held up reasonably well. For the year as a whole, Brazilian oil deliveries are forecast to average 3.1 mb/d, 70 kb/d down on the year earlier and marginally below the previous forecast as the IMF has lowered its projected rate of economic growth to -3.8%, three-tenths of a percentage point below the previous forecast published in January.

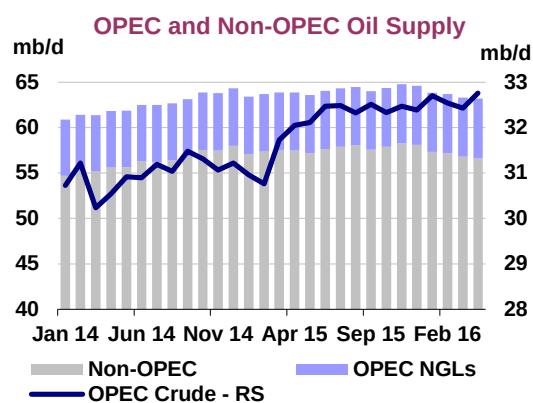
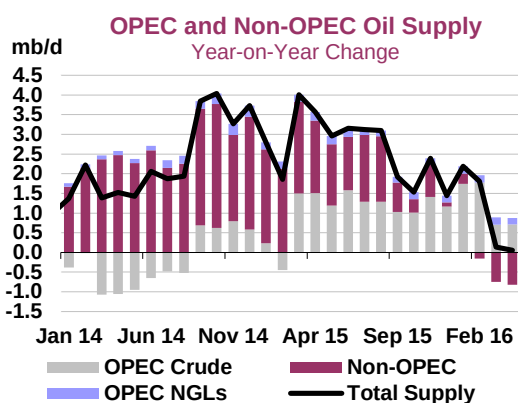


A dramatic drop in **Saudi Arabian** oil product demand pulled deliveries down by around 5% y-o-y in February to 2.8 mb/d, as gasoil, gasoline and 'other products' all fell sharply. Demand eased as the increasingly problematic economic situation – lower oil prices are pressuring the domestic economy – coincided with unusually high deliveries last February, artificially dampening the y-o-y comparison. For the year as whole, Saudi Arabian oil deliveries should average 3.3 mb/d, roughly the same as in 2015, as a combination of reduced subsidies, increasing fiscal constraint and the start-up of the huge Wasit gas facility curb prospective oil demand.

SUPPLY

Summary

- **Global oil supplies rose by 250 kb/d in April, to 96.2 mb/d, as higher OPEC output more than offset deepening non-OPEC declines that nearly wiped out annual world supply growth.** Compared with gains of more than 3.5 mb/d just a year ago, world oil production grew by a meagre 50 kb/d in April.
- **OPEC crude output rose by 330 kb/d in April to 32.76 mb/d – the highest since August 2008 – as a 300 kb/d jump in Iranian flows and higher Iraqi and UAE supplies more than offset outages in Kuwait and Nigeria.** Saudi Arabia held production steady. Riyadh replaced veteran Oil Minister Ali al-Naimi on 7 May, three weeks after output freeze talks between major producers ended without agreement.
- **Iranian oil fields pumped 3.56 mb/d in April – a level last reached in November 2011 before sanctions were tightened – and in line with our forecast** that output could rise towards 3.6 mb/d within six months of sanctions relief. Iran is seeking to regain lost market share and crude exports surged to reach 2 mb/d in April – close to pre-sanctions levels - compared to 1.4 mb/d in March. Some of the higher April crude sales could be due to loadings carried over from March.



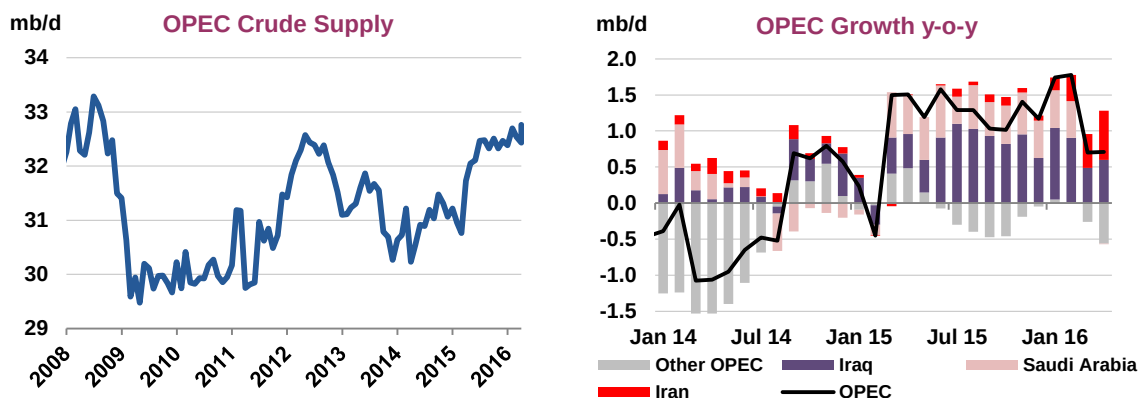
- **The outlook for non-OPEC supply for 2016 has been curbed by 0.1 mb/d since last month's Report due to unscheduled outages in April and May.** A devastating wildfire raging across Alberta shut in around 1.2 mb/d of oil sands production in early May, while unscheduled shutdowns cut output in Ghana and Italy. Non-OPEC supply is forecast to average 56.8 mb/d this year, a decline of 0.8 mb/d from 2015.
- **Non-OPEC oil production dropped 125 kb/d in April to 56.6 mb/d as planned and unplanned outages added to declines caused by lower oil prices and spending cuts.** Output is expected to drop further in May due to the wildfires in Northern Canada. Total non-OPEC production was more than 0.8 kb/d below April 2015, with the US accounting for the most substantial decline.

All world oil supply data for April discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary April supply data.

OPEC crude oil supply

A substantial boost in Iranian supplies, a further improvement in flows from Iraq and higher post-maintenance output in the UAE pushed OPEC production up by 330 kb/d in April to reach 32.76 mb/d – the group’s highest level in more than seven years. The increases – Iran posted the sharpest at 300 kb/d – more than outweighed losses in Kuwait due to a short-lived strike in mid-month and an ongoing and deepening outage in Nigeria due to pipeline sabotage and security issues. Saudi Arabia held output just shy of 10.2 mb/d in April. The Kingdom has replaced Oil Minister Ali al-Naimi, who steered policy for more than 20 years, as part of a wider cabinet reshuffle. Markets will watch for any major shift in Saudi oil policy when new Energy Minister Khalid al-Falih makes his first appearance at OPEC’s 2 June Vienna meeting (see *New Saudi energy order*). Output freeze talks between major producers on 17 April in Qatar ended without agreement. The stumbling block appeared to be Riyadh’s insistence that Iran be included in any deal. Iran has refused to restrict supply until its output reaches a pre-sanctions level of 4 mb/d.

In the weeks ahead of the Vienna meeting, OPEC production may rise higher still with Saudi Arabia likely to lift output to cover higher domestic requirements for summer power generation and Kuwaiti output fully recovered from a three-day workers’ strike. Iran and Iraq may also post further gains although their potential for substantial increases may be limited due to near-term production capacity constraints.



Iranian oil fields in April ramped up to 3.56 mb/d – scaling a level not seen since the end of 2011 before sanctions were tightened, and in line with our previous production assumption. Iran has vowed to swiftly reclaim lost market share and crude oil exports in April soared by roughly 600 kb/d to 2 mb/d, according to preliminary data. Some of the higher April crude sales may be due to loadings that spilled over from March.

While Middle East OPEC members continue to turn in strong production performances, producers such as Nigeria, Libya and Venezuela are unable to keep up (see *The struggle for some*). Libyan output edged higher in April but upward momentum may be halted by a marketing dispute that cut production in early May. Supply from Nigeria has sunk to the lowest in more than two decades and is likely to be restricted for a fourth month in May due to ongoing *force majeure* on some 250 kb/d of Forcados crude oil loadings as well as attacks on the country’s oil network. On 10 May, Shell also declared *force majeure* on Bonny Light exports due to the closure of a trunk line for repairs.

OPEC has meanwhile kept the taps open ever since the group agreed in November 2014 to defend market share rather than price, with output in April up 710 kb/d on the previous year. Crude supply from Iran – released from nuclear sanctions in mid-January - was up 680 kb/d year-on-year (y-o-y); output from Iraq, OPEC’s second biggest producer, stood 600 kb/d above April 2015 and Saudi flows were steady y-o-y. OPEC’s “effective” spare capacity was 2.49 mb/d in April, with Saudi Arabia accounting for 81% of the surplus.

OPEC Crude Production

(million barrels per day)

	Feb 2016 Supply	Mar 2016 Supply	Apr 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Apr 2016 Supply	1Q16 Crude Supply
Algeria	1.10	1.11	1.09	1.12	0.03	1.10
Angola	1.76	1.80	1.77	1.81	0.04	1.77
Ecuador	0.55	0.55	0.53	0.55	0.02	0.54
Indonesia	0.71	0.73	0.74	0.74	0.00	0.71
Iran	3.20	3.26	3.56	3.60	0.04	3.15
Iraq	4.22	4.19	4.36	4.40	0.04	4.28
Kuwait ²	2.83	2.83	2.73	2.83	0.10	2.83
Libya	0.37	0.34	0.36	0.40	0.04	0.36
Nigeria	1.76	1.68	1.62	1.90	0.28	1.76
Qatar	0.67	0.67	0.66	0.67	0.01	0.66
Saudi Arabia ²	10.22	10.19	10.19	12.20	2.01	10.21
UAE	2.78	2.73	2.82	2.93	0.11	2.81
Venezuela ³	2.37	2.35	2.33	2.46	0.13	2.36
Total OPEC	32.54	32.43	32.76	35.61	2.85	32.56
<i>(excluding Iraq, Nigeria, Libya)</i>					2.49	

1 Capacity levels can be reached within 90 days and sustained for an extended period.

2 Includes half of Neutral Zone production.

3 Includes upgraded Orinoco extra-heavy oil assumed at 440 kb/d in April.

New Saudi energy order

Saudi Arabia's replacement of long-serving Oil Minister Ali al-Naimi on 7 May and its ambitious new strategy to kick its "addiction to oil" have thrust the Kingdom's oil sector onto centre stage. Under Riyadh's Vision 2030, the newly created Ministry of Energy, Industry and Mineral Resources will be run by Aramco Chairman Khalid al-Falih, who promptly vowed to maintain Saudi oil policy. "We remain committed to maintaining our role in international energy markets and strengthening our position as the world's most reliable supplier of energy," he said. "We are committed to meeting existing and additional hydrocarbons demand from our expanding global customer base, backed by our current maximum sustainable capacity."

Falih is part of a small group that has the ear of Deputy Crown Prince Mohammed bin Salman, the most powerful figure in Saudi Arabia's oil sector and the force behind the economic transformation plan. Both support the bold policy to defend market share rather than price that Naimi set in motion at OPEC's meeting in November 2014. If anything, Riyadh's free market policy may now become even more entrenched. A central plank of Vision 2030 is to revamp and sell up to 5% of Aramco, the world's biggest oil company. After its listing, oil market decision-making "will be fully controlled by the board of Aramco and the Saudi government will not have a large role in [shaping] Aramco's production," Prince Mohammed said at a press conference in Riyadh.

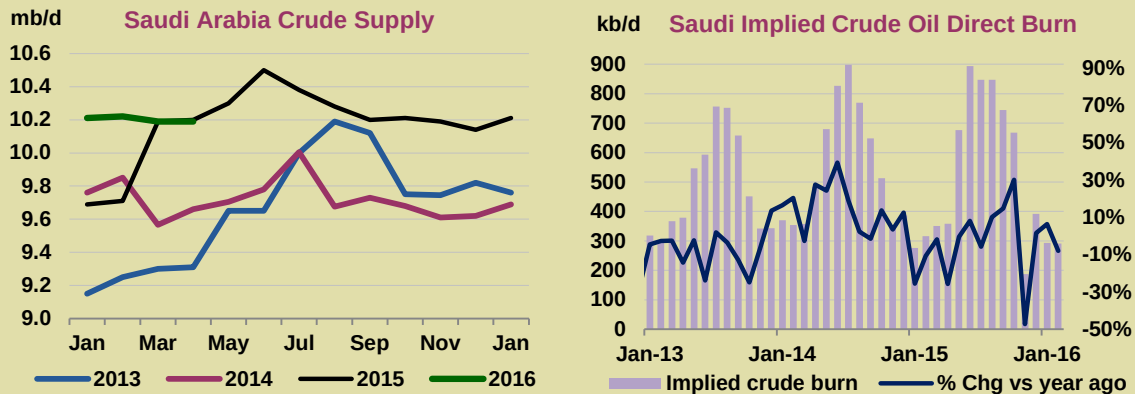
The powerful royal - along with Falih - is also unfazed by low oil prices. Thus world oil markets for now are preoccupied with whether Saudi Arabia will engage in a new turf battle with Iran, after talks in mid-April over a production freeze ended without agreement. Riyadh refused to sign the deal without participation by Tehran, which has swiftly raised exports close to pre-sanctions levels. It was reportedly Prince Mohammed's last minute intervention that prompted Riyadh to insist that all major producers take part in the agreement.

And just days before the discussions between major oil producers in Qatar, Prince Mohammed told Bloomberg in an interview the Kingdom could boost production to 11.5 mb/d immediately "if we wanted to". "If all major producers don't freeze production, we will not freeze production," he said. "If we don't freeze, then we will sell at any opportunity we get."

So could the Kingdom ramp up by more than 1 mb/d virtually overnight? Technically, yes, but the comments by Prince Mohammed may just have been intended to signal the ability of OPEC's largest producer to raise output rather than actually pump more and flood the market. On an operational level, roughly 5% of

New Saudi energy order (continued)

additional Saudi production is immediately available. Saudi oil fields that have pumped at around 10.2 mb/d for more than a year could ramp up towards 11 mb/d without strain. It would also take little time to raise supplies to 11.5 mb/d, though it would prove costly to do so since more expensive offshore production would have to be tapped.



As yet, there is no indication of a substantial increase in oil sales, with production in April steady at 10.19 mb/d compared to March. Saudi Aramco also raised most of its monthly formula prices for June to Europe and Asia, which could temper buying enthusiasm. Riyadh does, however, appear to be taking a slightly more flexible approach in its marketing effort. It reportedly sold a June-loading Arab Heavy cargo to Chinese independent refiner Shandong Chambroad Petrochemicals out of storage in Japan. This was Aramco's first spot sale to a so-called teapot refiner and could signal more spot sales to Asia. Aramco typically sells its crude through term supply contracts, rather than spot trades. The sale follows Saudi Arabia's move to export bigger volumes to northern Europe that began last summer.

Early soundings meanwhile suggest that supplies during the coming months may rise by 300 kb/d or so with most of the increase expected to cover higher domestic requirements for power generation. Saudi Arabia last summer delivered more than 800 kb/d of crude oil into power plants, nearly double what it used during the rest of the year. The spike in domestic consumption typically pushes up crude production. Saudi crude supply reached a record high of 10.5 mb/d last June. This summer it could burn at least 100 kb/d less crude oil in its power plants after the anticipated ramp up of the 2.5 billion cubic feet per day Wasit gas plant, which will process non-associated gas from the offshore Arabiyah and Hasbah fields.

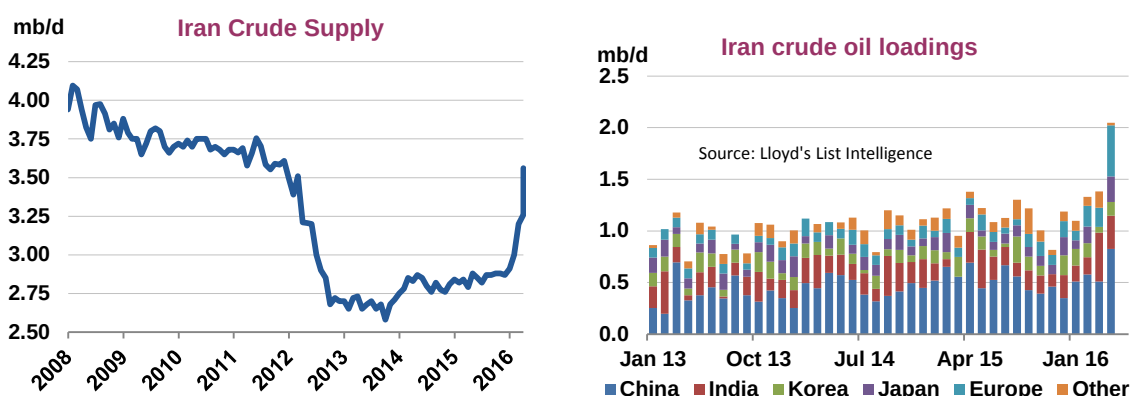
Production in the **UAE** came back strongly in April following the end of maintenance work on the oil fields that pump Murban crude. Output rose 90 kb/d month on month (m-o-m) to 2.82 mb/d in April and may climb towards record rates of around 2.9 mb/d in May. Abu Dhabi's core onshore fields that churn out Murban returned to pre-maintenance levels of around 1.5 mb/d to 1.6 mb/d towards the end of April following declines of as much as 300 kb/d when rehabilitation was at its most extensive.

Kuwait posted the sharpest decrease in April, with crude supplies falling by 100 kb/d m-o-m after a three-day oil workers' strike that began on 17 April cut supply by 60%. Production swiftly recovered to previous levels following the end of the protests over wages and benefits by thousands of Kuwaiti oil and gas workers. Crude oil exports were unaffected as Kuwait drew down oil from storage. There is no sign of an imminent restart of the Khafji offshore oil field in the Neutral Zone shared between Kuwait and Saudi Arabia. Kuwait had voiced optimism that the 300 kb/d offshore field – shut since October 2014 after Riyadh cited environmental reasons – would resume operations.

Qatari output dipped by 10 kb/d to 660 kb/d during April. In Qatar, bids were submitted at the end of April for the re-tender of the 300 kb/d offshore al-Shaheen oil field, currently operated by Maersk Oil under a 25-year production-sharing contract that expires in mid-2017. Al-Shaheen accounts for nearly 45% of Qatari output.

Iran's post-sanctions market share drive revved up in April, with crude supplies rising 300 kb/d m-o-m to 3.56 mb/d – just shy of pre-sanctions levels in 2011. On the export front, loadings of crude oil jumped by around 600 kb/d from March to roughly 2 mb/d, according to preliminary data, with China buying big and Europe loading substantially more. Some of the rise in crude oil exports in April – nearly double the rate since sanctions were eased in mid-January – may have been due to loadings that spilled over from March. It is also unclear how much, if anything, is being drawn from onshore storage at Kharg Island.

Before sanctions were tightened in mid-2012, Tehran was selling about 2.2 mb/d of crude on world markets, with Europe accounting for around 600 kb/d. In April, buyers in Europe loaded roughly 500 kb/d – more than double the previous month – with Total and Turkish Tupras accounting for a large chunk of the volume. Italy's Iplom and Greek Motor Oil Hellas also lifted in April, along with Cepsa and Lukoil.



China was by far the biggest buyer of Iranian crude in April, according to preliminary data, lifting more than 800 kb/d compared to 510 kb/d in March. Japan returned to lift roughly 250 kb/d in April after a hiatus in March due to the expiry of special shipping insurance cover provided by the government. After a 500 kb/d buying spree in March, India loaded fewer barrels in April at just over 300 kb/d – reportedly due to the expiry of free freight. India and Iran reportedly have agreed to use European banks to process pending oil payments to Tehran, which will free up \$6.4 billion of frozen funds. Exports of condensates slowed to 120 kb/d in April from 265 kb/d the previous month. Iran is storing 46 million barrels of the ultra-light oil from Iran's South Pars gas project at sea.

On the upstream front, Iran is aiming to tender around 15 projects under its new Iran Petroleum Contract (IPC) this summer after much delay. Iranian oil officials hope the new contract terms will be finalised swiftly, after a strong show of support for Iranian President Hassan Rohani in 30 April parliamentary elections.

Although Iranian negotiators say the final IPC terms will be a vast improvement on its former buyback deals, some prospective international investors remain unconvinced. Even so, international oil companies (IOCs) such as Total, OMV, Lukoil, Wintershall and Saipem are already jockeying for position and BP is reportedly taking steps to open up an office in Tehran. In the early phases of development, Iran will focus on fields that straddle the borders with its neighbours as well as the core fields Ahwaz, Gachsaran, Marun and Agha Jari that require enhanced oil recovery (EOR) to sustain or boost production. US companies are, for now, out of the race while Washington's non-nuclear-related sanctions remain in place.

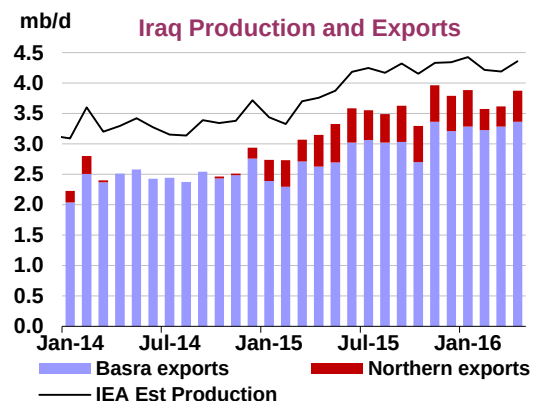
Iraqi crude oil production rebounded to 4.36 mb/d in April, up 170 kb/d m-o-m, after a recovery in flows along the Kurdistan Regional Government's (KRG's) export pipeline to Turkey and as shipments from the south neared record highs. Overall exports, including from the KRG, rose to 3.87 mb/d in April up 260 kb/d on the previous month.

Iraq is striving to sustain production at all-time highs in order to fund a costly battle against the Islamic State of Iraq and the Levant (ISIL) and to pull the country back from the brink of financial collapse. Southern Basra exports of 3.36 mb/d in April – up 80 kb/d on the previous month - earned the federal government \$3.343 billion, roughly \$450 million more than in March.

Oil exports from the Kurdistan region through Turkey rose to an average of 510 kb/d despite the continued suspension of 150 kb/d of oil from northern Kirkuk oil fields controlled by the federal North Oil Co (NOC). Baghdad called a halt to federal contributions to the KRG export pipeline in March due to an ongoing feud over revenues and control of reserves.

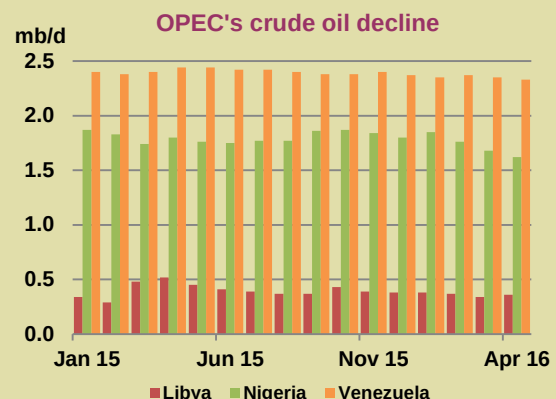
As a result, the autonomous northern region has reduced throughput at its two main refineries – Kalak and Bazian - in order to boost export flows. Although exports were 180 kb/d higher in April than in March, when shipments were suppressed due to an outage on the KRG pipeline to Turkey, the export figure is still well below a high of 600 kb/d set earlier in 2016. Revenue from the KRG's exports from Ceyhan totalled \$376 million in April. As for NOC, much of the 150 kb/d that it is producing is being re-injected into the Kirkuk oil field's Baba Dome.

Iraq is in political turmoil due to Prime Minister Haider al-Abadi's attempt to stamp out corruption by replacing party-affiliated ministers with a technocratic government. A divided parliament has failed to approve his candidates. Abadi's concern is that the ongoing chaos will set back the fight against ISIL, which controls large sections of northern and western Iraq. The radical group hit the 30 kb/d Khabbaz oil field near Kirkuk in early May. It is also targeting the south with suicide car bombs.



The struggle for some

While OPEC's Middle East members flex their production muscles, producers such as Nigeria, Libya and Venezuela are urgently trying to keep pumping rates from falling further. Between them, these countries have already lost 450 kb/d of output versus a year ago due to ongoing civil unrest in Nigeria and Libya and economic upheaval in Venezuela. The worst affected so far is Nigeria, where supplies in April sank to 1.62 mb/d – the lowest since August 1994 - due to a continuing suspension of Forcados shipments following an attack on a sub-sea pipeline in February as well as a temporary disruption to loadings of Brass River crude. Repairs on the Forcados pipeline, damaged by a militant attack in February, which was due to carry 250 kb/d of crude, are now expected to be completed by June. The risk of further oil sector attacks is rising and the same group of militants – Niger Delta Avengers – claimed they hit a Chevron platform in the oil-rich Niger Delta in early May, reportedly cutting roughly 35 kb/d of supplies. Just days after that attack, Shell workers were evacuated from the Bonga oil field after a threat by militants. And on 10 May, Shell declared *force majeure* on Bonny Light exports due to the closure of the Nembe Creek Trunk Line for repairs.



President Muhammadu Buhari has promised to crack down on pipeline saboteurs in the Delta region, which pumps most of the country's oil, and is considering a permanent pipeline security force. Production in April was down 180 kb/d compared to April 2015. Buhari extended an amnesty signed with militants in 2009 along with an accompanying sponsorship scheme, but lower oil prices forced the government to reduce payments. The militants say they want a larger cut of oil revenues.

The struggle for some (continued)

Libya is also struggling, with production in April of 360 kb/d down 160 kb/d on the previous year – which was already a small fraction of the 1.6 mb/d pumped prior to the country's civil war. Hopes are fading that the oil sector would recover after the long-awaited formation of a unity government. A marketing feud between rival governments in the west and east is rumbling on and has slowed production to a trickle. The standoff has prevented loadings at the eastern Marsa al-Hariga port and due to limited storage capacity, reduced output in early May to just above 200 kb/d. The eastern administration in Bayda has established its own National Oil Corp (NOC) alongside the Tripoli-based NOC.

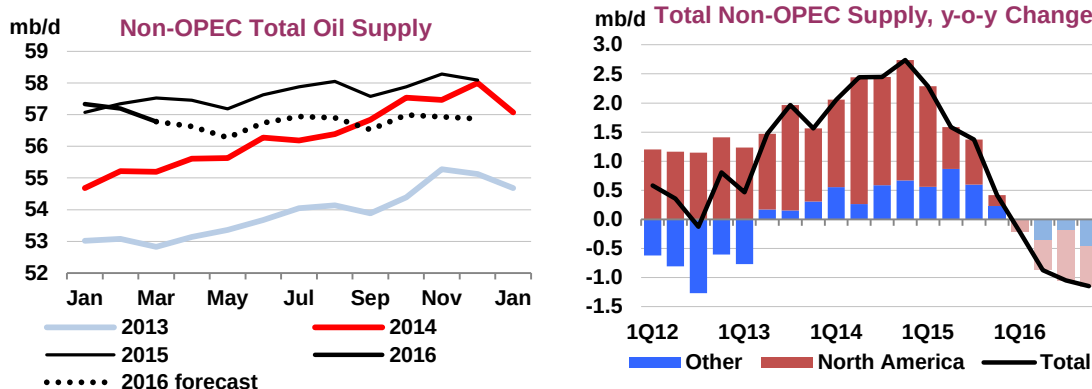
But Libya may yet surprise to the upside as it has the potential to double output to more than 700 kb/d, provided the eastern ports of Ras Lanuf and Es Sider are re-opened. Earlier this year militants attacked the vital terminals – closed since December 2014 - that can handle nearly 600 kb/d of exports between them. The bulk of any near-term production increase would be provided by the core, southwestern oil fields of Es Sharara and Elephant, that are now shut in. For now, however, the Petroleum Facilities Guard (PFG) militia continue to block the ports. The PFG said it would recognise a UN-backed unity government under Prime Minister Fayez Serraj, which arrived in Tripoli at the end of March, but it has yet to do so. Restarting production from the oil heartland in the eastern Sirte Basin, damaged by militant attacks, will be much more of a challenge.

In Venezuela, output slipped to 2.33 mb/d in April, down 110 kb/d on a year ago with operations under strain due to difficulties in servicing the oil fields and worsening power outages. Production could slow further due to Schlumberger's decision to reduce operations in the country because of insufficient payments. The concern for Caracas is that other service companies will also scale back due to unpaid invoices and further exacerbate the crucial oil field maintenance effort as well as drilling challenges. Cash-strapped Venezuela has grown more dependent on joint-venture partners and service firms to sustain its production but it has amassed huge debts to the companies in the process. Some of the recent gains in the massive Orinoco Belt are at risk due to Petroleos de Venezuela's inability to finance the diluents needed to transport the extra heavy oil. A worsening power crisis due to critically low reservoirs at the Guri hydropower complex could meanwhile put some of the country's refining and production at risk – particularly if outages occur near fields or facilities that do not have an independent source of power.

Supply from **Angola** drifted 30 kb/d lower m-o-m to 1.77 mb/d in April, while production from **Algeria** slipped by 20 kb/d to 1.09 mb/d. **Ecuador's** output edged 20 kb/d lower to 530 kb/d - although crude oil production was unaffected by a devastating earthquake that rocked the country in April. **Indonesian** crude oil production nudged up to 740 kb/d in April.

Non-OPEC overview

Non-OPEC oil production continued to fall in April as a number of outages added to declines caused by lower prices and spending curbs. Output is estimated to have dropped by another 125 kb/d from March, to 56.6 mb/d, or more than 0.8 kb/d below a year ago, with m-o-m declines stemming primarily from Canada, Russia, Ghana and Italy and the US.



Output is forecast to have dropped more sharply in May, after a devastating wildfire blazed across the heartland of Alberta's oil sands region and shut in more than 1.2 mb/d of production in early May. It is too early to know the full impact on production from the fire, but at the time of writing the risks from the wildfire was subsiding, with no damage to installations reported. One company had already resumed production at reduced rates and others were looking to return staff to assess damage and critical infrastructure needed to restart production.

Even before the fires, Canadian oil production was forecast to decline over April and May due to scheduled maintenance at a number of facilities. While maintenance also curbed Russian production in April to 10.84 mb/d, according to preliminary data, total crude and condensate output stood 170 kb/d above a year earlier. Increased drilling levels and new field start-ups should support growth in Russian output this year, estimated at 110 kb/d compared with 2015.

Non-OPEC Supply

(million barrels per day)

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Americas	19.1	20.0	19.6	20.1	20.1	19.9	19.8	19.1	19.2	19.4	19.4
Europe	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4
Total OECD	22.9	23.8	23.5	23.9	24.2	23.9	23.9	23.0	22.9	23.2	23.2
Former USSR	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.1	13.9	14.0	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2
Other Asia	2.6	2.8	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7
Latin America	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.5	4.5	4.6	4.5
Middle East	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.1	2.2	2.3	2.2
Total Non-OECD	28.9	29.4	29.3	29.1	29.3	29.3	29.1	28.9	28.9	29.0	29.0
Processing Gains	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC	56.3	57.3	57.4	57.8	58.1	57.7	57.1	56.5	56.8	56.9	56.8
Annual Chg (mb/d)	2.4	2.3	1.6	1.4	0.4	1.4	-0.2	-0.9	-1.0	-1.2	-0.8
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.4	-0.1	-0.1	-0.1

April output was also reduced by unscheduled outages in less prominent areas. In Italy, a corruption probe forced Eni to suspend output in the Southern Val d'Agri region, which produces around 75 kb/d - the majority of the country's oil output. In Ghana, technical problems at the floating production, storage and offloading vessel operating at the Jubilee field, led operator Tullow to suspend production and declare force majeure on liftings in mid-March. Operations resumed at a reduced rate in early May. Providing a partial offset, the resumption of output after maintenance and outages in Brazil is likely to have lifted production from recent lows.

Oil production in the US continues to decline. Output in February, the latest month for which consolidated monthly production data are available, saw crude and condensate output dropping by 50 kb/d, to 9.13 mb/d, or 320 kb/d less than a year earlier. This is in stark contrast to just one year earlier, when output was growing by 1.3 mb/d. Preliminary indications for March and April suggest output continued to fall, as producers removed another 72 oil rigs from service over the past 10 weeks.

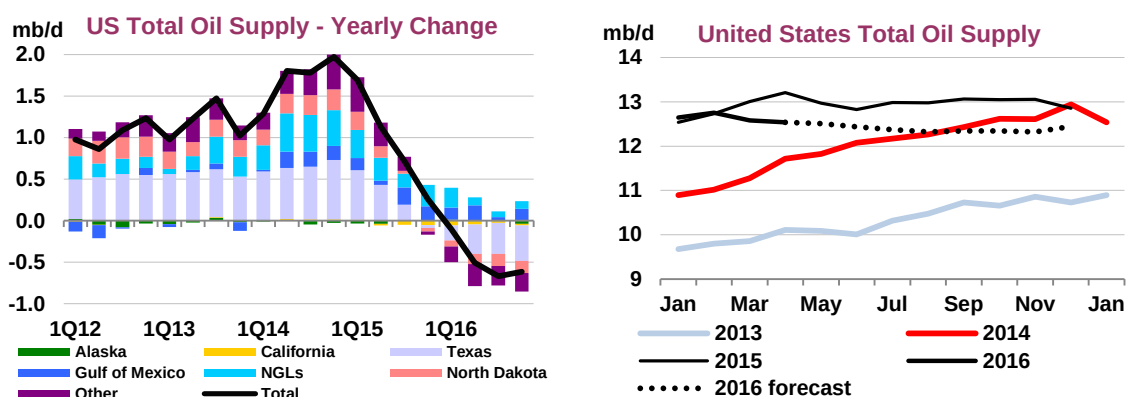
The recovery in the price of oil since mid-January has prompted some producers to suggest that the rig count might have hit bottom and that the more upbeat outlook for prices could prompt a drawdown in drilled but uncompleted wells (DUCs). Other producers have suggested that if oil prices hover around \$50/bbl for some months, they would look to increase activity to spur new growth. Constrained capital spending budgets will likely lead companies to be cautious as they redeploy rigs, however, slowing any

significant ramp-up in the rig count. Exploration and production companies have planned for capital expenditures at about half of last-year's levels. There will also be a significant time lag between when rigs are redeployed and a supply response is seen. As such, we maintain our forecast for US LTO output to decline by 540 kb/d this year, resulting in a net fall in total US oil output of 480 kb/d. On the back of the latest unscheduled outages, total non-OPEC supply estimates for 2016 have been lowered by 115 kb/d since last month's *Report*. At 56.8 mb/d, non-OPEC production in 2016 is more than 800 kb/d below the 2015 level.

OECD

North America

US –April Alaska actual, others estimated: US production continues to fall. In February, the latest month for which a complete set of supply data are available, crude and condensate output fell by 50 kb/d from a month earlier to 9.13 mb/d. The steepest declines stemmed from onshore Texas, which fell by 40 kb/d m-o-m, and offshore Gulf of Mexico, down 34 kb/d from the prior month. In contrast, output in North Dakota and New Mexico inched up by 7 kb/d and 26 kb/d respectively.



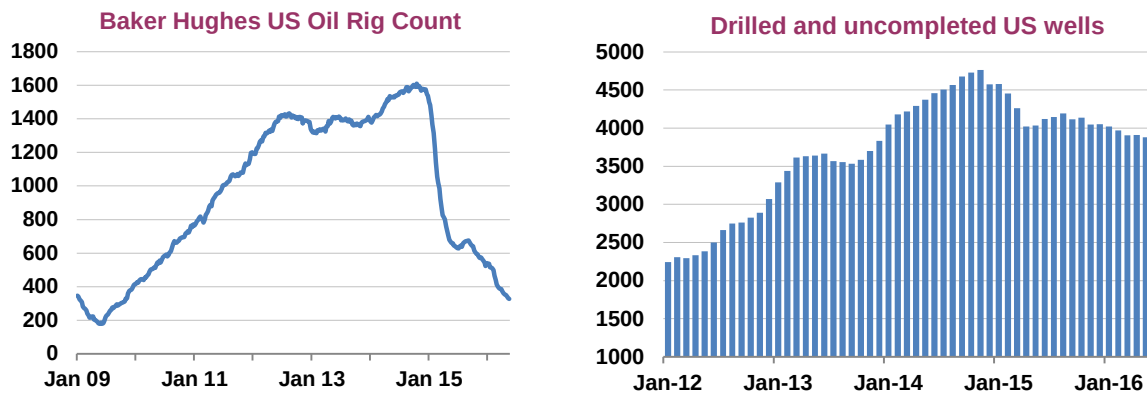
Total US crude and condensate output stood more than 320 kb/d lower than just twelve months earlier, in stark contrast to growth of more than 1.3 mb/d in February 2015. Preliminary weekly production statistics suggest that the year-on-year declines are accelerating, and by early May stood at around 450 kb/d on a four-week moving average. The decline was in part due to lower output in Alaska, however, where a production outage curbed Prudhoe Bay output.

While the US rig count continued to see steep falls in April, with producers pulling another 34 land based oil rigs out of service over the past five weeks, some producers have been signalling that activity might have bottomed out. The number of active oil rigs in the US has fallen for seven consecutive weeks, to a seven-year low of only 328 in the early May, compared with 668 a year earlier and as many as 1 600 rigs in October 2014 when activity peaked.

As oil prices have recovered to within sight of \$50/bbl, the rig count might start to rise. In its latest quarterly earnings presentation, Anadarko cited an improving outlook for prices. Pioneer stated they would add rigs if oil stays near or rises from \$50/bbl, while Whiting Petroleum Corp, the largest oil producer in North Dakota, said it would soon frack 44 wells to bring them online - just weeks after saying it would freeze virtually all new work. According to Rystad Energy, the number of drilled but uncompleted wells has dropped from around 4 050 at the end of 2015 to just over 3 900 in April.

Companies are expected to be cautious as they redeploy rigs, however. A review of Securities and Exchange Commission filings from a representative sample of 31 US-based independent exploration and production companies show announced capital budgets being cut 58% this year, following a 37% cut in

2015. Yet, production guidance for this year is only 6% below 2015 levels on a barrel of oil equivalent basis. As in 2015, hedging will provide some relief to producers, but to a lesser extent. For 2016, the group of companies has announced oil hedges covering 22% of target production at an average floor price of \$66.68/bbl, and gas hedges covering 18% of target production at a floor price of \$3.14 per mmbtu. This compares with commodity hedges in 2015 for the same group covering 28% of oil production at a weighted average floor price of \$84.92/bbl, and 31% of gas production at a floor price of \$4.04 per mmbtu.

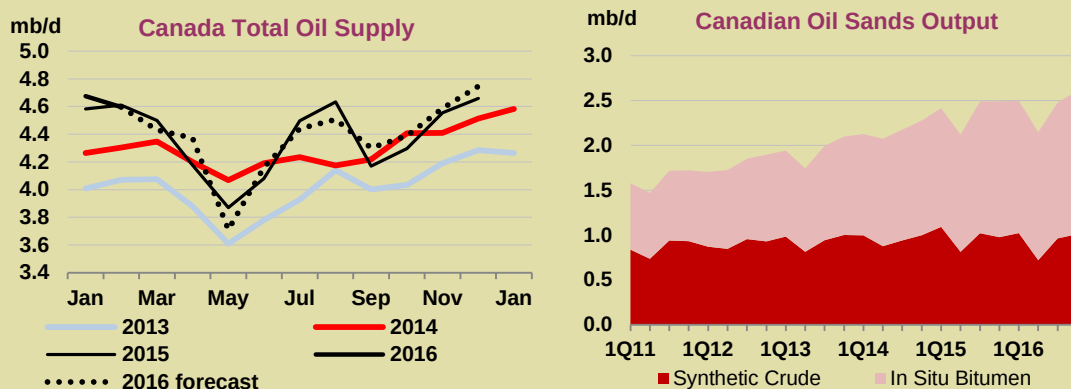


Despite the cushion provided by hedges and the drastic reduction of budgets, the group's financial situation remains dire. If production targets are achieved, and gas and NGL prices remain near current levels throughout the year, the operators need a market oil price ranging from \$49/bbl to \$66/bbl to achieve neutral free cash flow. The range depends on how aggressively cash operating expenses can be slashed, with \$49/bbl corresponding to a 20% reduction in cash expenses versus 2015. As a comparison, cash operating expenses fell by about 5% between 2014 and 2015.

The risk posed by oil prices below this range is yet another round of fund raising in an environment with strong headwinds. Equity issuance in the first quarter of 2016 was reported to be about half the level seen in 1Q15, and credit lines continue to be reduced by bankers in an effort to limit exposure to non-performing loans. Asset sales should provide some help, but the sector remains a buyer's market.

Wildfires curb Albertan oil sands output

The devastating wildfire burning through vast areas in and around Fort McMurray forced nearby oil sands companies to shut down 1.2 mb/d of production in early May and evacuate staff from more distant locations. While it is still too early to fully assess the impact on production from the outage, we assume that the affected sites will gradually restart operations over coming weeks and ramp up towards the start of June.



Wildfires curb Albertan oil sands output (continued)

As a result, total Canadian oil supplies are forecast to fall by 660 kb/d in May, to just over 3.7 mb/d, a reduction of nearly 1 mb/d from the start of 2016 and 160 kb/d less than in May 2015, which also saw output curbed by fires. For the year as a whole, our Canadian oil production estimate has been cut by 85 kb/d since last month's *Report*, nearly wiping out previously forecast annual gains.

With the fire spreading over 230 000 hectares, at its peak, 13 oil production sites were forced to evacuate staff and fully or partly shut down operations. At the time of writing, the fire conditions in the province remained extreme but the risks from the fires were subsiding near oil installations. As such, companies were looking to return staff and to assess the damage to facilities and critical infrastructure to plan for the resumption of operations.

Indeed, Royal Dutch Shell reported it was flying in staff to restart its mining operations 95 kilometres north of Fort McMurray at reduced rates on 9 May. Shell's 250 kb/d Muskeg and Jackpine (Albian Sands) mining operations was shut on 6 May. Shell added it plans to fly staff in and out.

Suncor, which had evacuated approximately 4 100 personnel and shut down operations at its Base Plant and the MacKay River and Firebag in situ mining operations last week were also looking to resume production. The company was planning to fly back workers to the sites over the next couple of days, with unconfirmed reports that they may begin the restart process in as early as next week. Prior to the fire, Suncor's Base Plant was reportedly operating at reduced rates of around 120 kb/d as it undertook a planned turnaround.

Disruption from Wildfires (kb/d)

as of 11 May 2016

Operator	Project	Type	Capacity	Pre-fire output	Disruption	Status	Date
Synchrude	Mildred Lake/Aurora	SCO	350	296	296	Shut	07-May
Suncor	Base Plant	SCO	350	120 *	120	Shut	05-May
Nexen	Long Lake	SCO	72	20 **	20	Shut, minor damage	05-May
CNRL	Horizon	SCO	125	125	83*	Reduced rates	
Shell	Muskeg & Jackpine	Dilbit	249	249	249	Restarted at reduced rates	05-09 May
Imperial	Kearl	Dilbit	220	216	216	Shut	09-May
Suncor	Firebag	Dilbit	180	147	147	Shut	
Suncor	MacKay River	Dilbit	38	38	38	Shut	
Conoco	Surmont	Dilbit	87	55	55	Shut	05-May
Statoil	Leismer	Dilbit	20	20	20	Shut	08-May
Athabasca	Hanging Stone	Dilbit	12	12	12	Shut	05-May
Connacher	Great Divide	Dilbit	14	8	0	Reduced rates	05-May
Husky	Sunrise	Dilbit	30	30	30	Shut	08-May
Total			1747	1336	1203		

Source: Oil company websites and news reports. *IEA estimates where no information available

* Suncor's Baseplant was running at approximately 120 kb/d prior to the fires due to planned maintenance

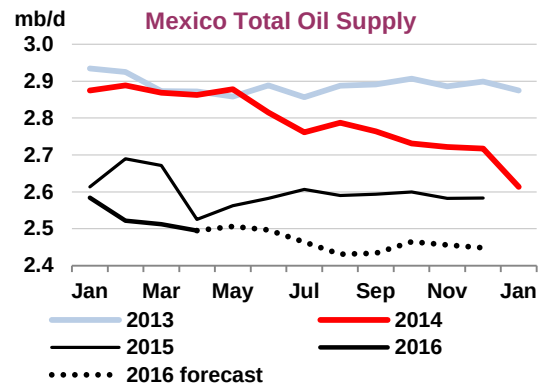
** Nexen had been operating at reduced levels since January 2016 due to an explosion at their upgrader

Synchrude Canada, meanwhile, shut its Mildred Lake plant on 7 May, evacuating all 1 500 staff in order to ensure "the safety of the personnel and the integrity of the operations". The company restarted power generation at its oilsands mine in Aurora on 10 May and were reportedly finalising their restart plan. The Synchrude upgrader produced an average 315 kb/d in 1Q16, slightly below capacity of 350 kb/d.

With the fire still raging, and nearly 90 000 people displaced, significant uncertainty remains surrounding the possible restart of production from the affected sites. While officials have warned they could be fighting the blaze for months, weather conditions have improved and oil companies are doing their utmost to protect oil installations, with no substantial damage reported thus far. While most companies' plans for restarting operations seem fairly advanced, the timing will depend on the fire threat, power availability and pipeline restarts as well as labour availability.

Projects closer to Fort McMurray, which rely more heavily on a nearby workforce, could see lengthier start-up delays as the damage to the city is extensive and alternative housing for workers might have to be found. The further the projects are from Fort McMurray, the more companies tend to rely on workers who fly in for three-week shifts. Housing camps are reportedly mostly intact as are the airstrips, which should allow workers to return fairly rapidly once conditions allow. Operators that left equipment idling, rather than shutting down completely as with maintenance outages, will have an easier time resuming production. Large steam-driven projects, like Husky's Sunrise and Nexen's Long Lake, could take a few weeks to fully restart, while mining operations could return much sooner.

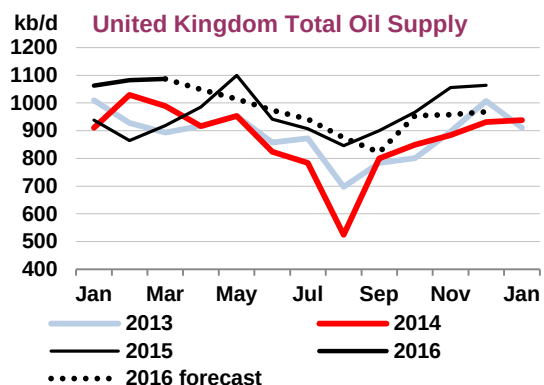
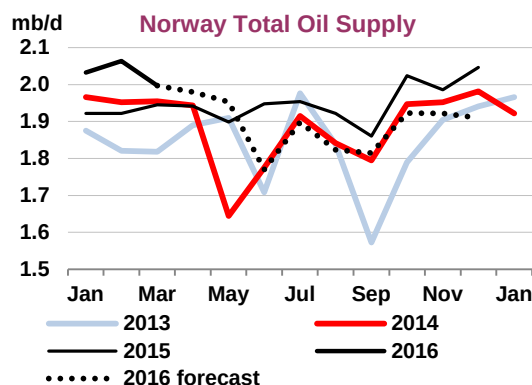
Mexico - March actual, April Preliminary: Mexican crude production averaged 2.2 mb/d in March, slipping 30 kb/d in April to 2.19 mb/d. Pemex announced it will cut production by 100 kb/d this year, to 2.134 mb/d as it reduces investment in upstream projects whose costs exceed a \$25/bbl target. Pemex will cut those investments as part of a broad Pesos 100 billion (USD 5.5 billion) reduction in spending this year to Pesos 378 billion due to the drop in oil prices. Most of the production cuts will come from non-conventional fields and from extra-heavy crude. The largest discoveries in recent years, Ayatsil and Tsimin, are due to come into production in early 2017. Both produce extra-heavy oil and Pemex could seek to farm them out or set up a joint-venture for their development. After declining by 210 kb/d in 2015 to 2.6 mb/d, total Mexican oil production, including NGLs, is forecast to decline by a total of 115 kb/d in 2016.



North Sea

Norway – February actual, March provisional: Preliminary production figures from the Norwegian Petroleum Directorate (NPD) show a slight dip in Norway's output level from February to March. According to the NPD data, total oil output averaged 2.01 mb/d in March, 51 kb/d less than a month earlier, but nearly 70 kb/d higher than the previous year. New output from Eni's Goliat platform, Norway's first producing oilfield in the Barents Sea, commenced production on 13 March, though a gas leak on the floating production unit resulted in a temporary production halt only a month after start-up.

Total Norwegian oil production is forecast to decline by a slight 15 kb/d this year, to 1.9 mb/d, as a return to normal seasonal levels and field declines offset the ramping up of new production units. Notably, planned maintenance at ConocoPhillips' Ekofisk field is expected to curb output sharply in June.



UK – February actual, March preliminary: Preliminary production estimates released by the UK Department of Energy and Climate Change (DECC) show UK total oil output surging to nearly 1.1 mb/d in March, the highest level since October 2011, and 170 kb/d above a year earlier. Furthermore, revised DECC production estimates for January and February were hiked by a substantial 80 kb/d and 150 kb/d respectively from its initial assessments.

In April, Premier Oil reported first output from its Solan development. Once fully on-stream, the field is expected to produce around 20-25 kb/d. Meanwhile, maintenance on the Buzzard field, the UK's largest, has reportedly been deferred to September, from an originally planned start date in July. Buzzard produces around 180 kb/d and is the largest contributor to the Forties crude stream, one of the four

grades underpinning the Brent benchmark. As such, total UK oil production for 1Q16 is now pegged at 1 mb/d, more than 170 kb/d higher than in 1Q15. Growth is expected to slow however, and output for the year as a whole is expected to be 910 kb/d, only slightly above the 2015 average.

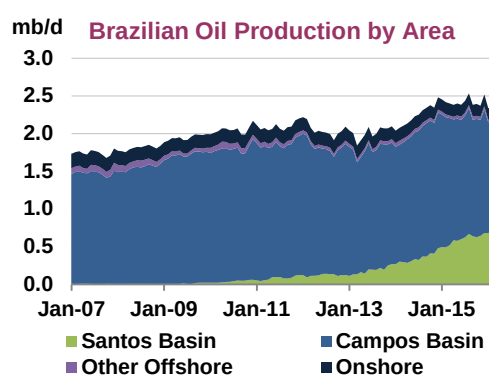
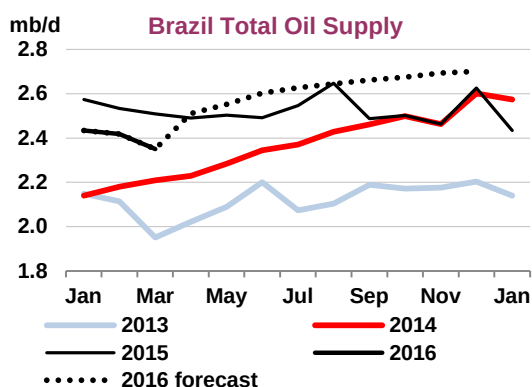
In **Italy**, oil production in the southern Val d'Agri (Agri Valley) area was suspended in late March after several Eni employees were arrested on suspicion of illegal waste trafficking. The Agri Valley lies in the southern Basilicata region. ENI plants there produce 75 kb/d. It is unclear when output will resume. Italian crude oil production averaged 100 kb/d in 2015, but had dropped to 80 kb/d in March, the latest month for which production data are available.

Non-OECD

Latin America

Brazil – March actual: A number of outages curbed Brazilian oil production by another 70 kb/d in March, extending year-on-year declines. Averaging 2.35 mb/d in March, total Brazilian supplies fell short of the year prior by nearly 160 kb/d, the third consecutive month of annual declines. A drop of 340 kb/d in Campos Basin output more than offset a 212 kb/d increase from the Santos Basin.

In its latest operational update, Petrobras, which accounts for more than 80% of Brazil's oil production, said its crude and NGL production fell below 2 mb/d in March. The company attributed the decline to planned stoppages at several of its larger units as well as corrective maintenance undertaken at the P-31 floating, production, storage and offloading (FPSO) vessel operating at the Albacora field. Petrobras was forced to shut down production from P-31, located at the Campos Basin field, due to gas and oil leaks in January. Output at the Albacora field, which averaged 50 kb/d in 2015, dropped to 9 kb/d in March. A fire at the P-48 platform located in the Barracuda & Caratinga complex, also located in the Campos Basin further reduced production. Production at the P-31 and the P-48 platforms resumed on 28 March and 16 April, respectively.



The ramping up of output of the Cidade de Marica, which entered operations in February, and the planned start-up of the Cidade de Saquarema and Cidade de Caraguatatuba FPSOs in 2Q16 and towards year-end will support growth later in the year. Petrobras also said there would likely be fewer stoppages in the second half of the year. Annual guidance was maintained at 2.145 mb/d, an increase of less than 20 kb/d from 2015.

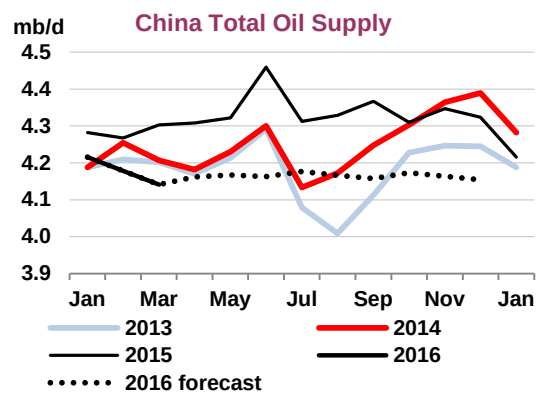
Africa

In **Ghana**, UK independent Tullow announced in early May it had resumed output at its offshore Jubilee field, but at reduced rates of around 30 kb/d, compared with just over 100 kb/d on average in 2015. The Jubilee field was shut in March due to damage to the FPSO turret bearing. According to the company, temporary off-take procedures have been implemented and new production guidance will be re-issued

once the new operating arrangements have stabilised. Tullow's TEN project, meanwhile, is now 90% complete and first oil remains on target for July/August 2016.

Asia

China – March actual: Chinese crude oil production dropped to 4.09 mb/d in March, from 4.15 mb/d on average over the first two months of the year, and 160 kb/d less than a year earlier. For 1Q16 as a whole, average output was 105 kb/d lower than a year earlier. Chinese oil companies have been cutting spending and output targets in response to lower oil prices (see *Chinese production slows* in OMR dated 14 April 2016). In 2016, we expect total Chinese oil supply to fall y-o-y by 0.16 mb/d, to 4.2 mb/d. Petrochina's output will shrink by 90 kb/d (-4.1%) as it shuts down aging and high-cost fields.



Former Soviet Union

Russia – March actual, April provisional: Russian crude and condensate output fell by nearly 60 kb/d in April to 10.84 mb/d, as maintenance curbed Gazprom output by nearly 50 kb/d m-o-m. While production slipped from recent highs, total output nevertheless stood 170 kb/d above a year earlier with gains primarily stemming from smaller producers such as Novatek (+90 kb/d), Bashneft (+40 kb/d), PSA Operating companies (+50 kb/d) and other small producers.

Output from Russia's main producers, however, continued to fall. Lukoil, the second largest producer saw its output drop nearly 20 kb/d in April, to just below 1.66 mb/d, or more than 80 kb/d below a year earlier, with the majority of the decline from its Western Siberian fields. In contrast to its peers, Lukoil curbed its development drilling by 35% in 1Q16 from a year earlier. Rosneft and Bashneft meanwhile expanded development drilling by more than 50% in the same period. Rosneft output inched up by 18 kb/d last month, but, at 3.77 mb/d, nevertheless stood 40 kb/d below the previous year. Surgutneftegaz meanwhile held output steady from both a month and year earlier at around 1.2 mb/d.

While increased drilling rates (total drilling rates are up 13% from 1Q16 versus 1Q15) have enabled producers to stem declines at mature fields, it is clear that field management at brownfields is deteriorating. Rosneft, but especially Surgut, are believed to drill simple wells using old-fashioned and inefficient methods. Over 2/3 of Rosneft's new metres drilled in Q1 2016 were vertical while Surgut only 6% of Surgut's meters drilled in the same period were horizontal. Russian producers are nevertheless expected to post annual gains of 110 kb/d this year, in part due to the start-up of new fields. Amongst others, Lukoil is expected to commission its Filanovskoe field in the second half of the year, with production reaching 20 kb/d by year-end.

Azerbaijan – March actual; Kazakhstan – March actual: Azeri oil production inched higher in March, to 0.87 mb/d, as output from the fire-affected Gunashli field resumed. Kazakhstan's output held steady at 1.61 mb/d, some 50 kb/d below a year earlier. Over the past month, conflicting statements by different stakeholders surrounding the resumption of production from the massive Kashagan project have been reported. An official from Chinese partner CNPC said the project will relaunch in June 2017, six months later than the official schedule given by consortium partners developing the project. Kazakhstan's KazMunaiGaz, which holds the largest share of the project, has said previously that the field would restart by the end of the year.

FSU net oil exports increased by 290 kb/d in March, to 10.16 mb/d, roughly unchanged from a year earlier. The increase was led by higher crude shipments, which broke the 7.0 mb/d mark for the first time on record, while product exports rebounded from a February low.

Most of the crude increase came from the Black Sea, where Rosneft diverted volumes from the Baltic, aided by maintenance at pipelines delivering to Primorsk. Loadings from Novorossiysk doubled on the month, as two February cargoes were delayed because of storms, and Azeri Socar resumed deliveries after a three month hiatus. ESPO loadings at Kozmino were also sustained above 600 kb/d, while flows into Europe through the Dhruzba pipeline fell slightly on maintenance at Mol's Bratislava refinery.

Russian fuel oil shipments bounced back after dipping in February. Gasoil exports also inched up, to 1.21 mb/d, the highest in more than a year. The export of other products, including naphtha and gasoline meanwhile dropped by 140 kb/d, as lower refinery output reduced supplies.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	2Q2015	3Q2015	4Q2015	1Q2016	Jan 16	Feb 16	Mar 16	Mar 15	Latest month vs.	
											Feb 16	Mar 15
Crude												
Black Sea	1.62	1.64	1.56	1.59	1.60	1.82	1.76	1.72	1.96	1.84	0.24	0.13
Baltic	1.33	1.45	1.45	1.38	1.51	1.54	1.48	1.60	1.53	1.44	-0.08	0.09
Arctic/FarEast	1.14	1.41	1.41	1.41	1.47	1.57	1.56	1.54	1.61	1.38	0.07	0.23
BTC	0.60	0.62	0.61	0.61	0.61	0.70	0.69	0.77	0.63	0.61	-0.14	0.03
Crude Seaborne	4.69	5.12	5.03	4.98	5.20	5.62	5.50	5.64	5.73	5.26	0.10	0.47
Druzhba Pipeline	1.01	1.07	1.08	1.06	1.08	1.04	1.01	1.09	1.03	1.14	-0.06	-0.11
Other Routes	0.40	0.24	0.24	0.23	0.21	0.21	0.21	0.21	0.20	0.25	-0.01	-0.05
Total Crude Exports	6.14	6.43	6.35	6.27	6.49	6.87	6.70	6.91	7.01	6.65	0.09	0.35
Of which: Transneft ¹	3.88	4.19	4.16	4.08	4.23	4.32	4.27	4.27	4.41	4.31	0.15	0.10
Products												
Fuel oil ²	1.72	1.49	1.51	1.31	1.48	1.35	1.60	1.08	1.35	1.60	0.27	-0.25
of which VGO	0.27	0.25	0.24	0.25	0.28	0.22	0.29	0.23	0.14	0.24	-0.08	-0.09
Gasoil	0.95	0.98	1.03	0.82	0.84	1.17	1.15	1.14	1.21	1.22	0.07	-0.01
Other Products	0.57	0.66	0.69	0.58	0.66	0.71	0.75	0.76	0.63	0.75	-0.14	-0.12
Total Product	3.25	3.13	3.23	2.71	2.97	3.22	3.50	2.98	3.19	3.58	0.20	-0.39
Total Exports	9.38	9.56	9.58	8.98	9.46	10.10	10.20	9.90	10.19	10.23	0.29	-0.03
Imports	0.08	0.07	0.06	0.07	0.08	0.04	0.05	0.03	0.03	0.04	0.00	-0.01
Net Exports	9.30	9.50	9.53	8.91	9.38	10.06	10.15	9.86	10.16	10.18	0.29	-0.02

Sources: Argus Media Ltd, IEA estimates

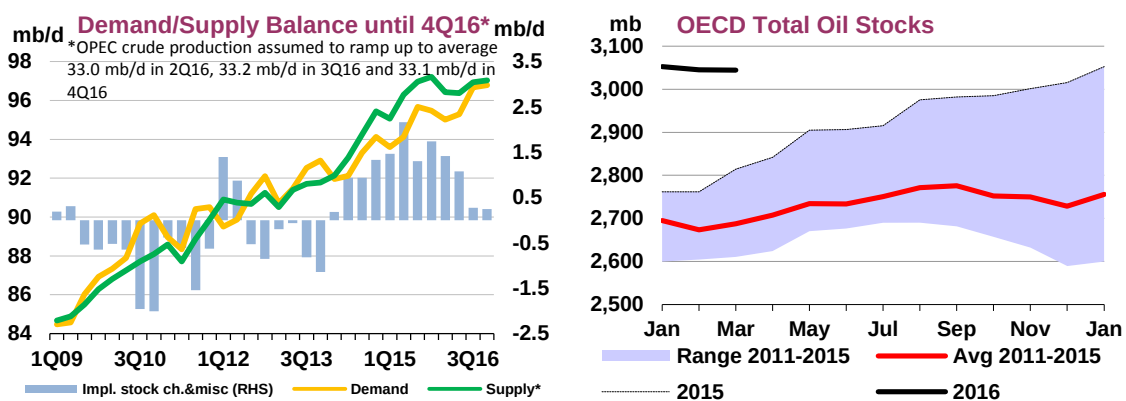
¹Transneft data exclude Russian CPC volumes.

²Includes Vacuum Gas Oil

STOCKS

Summary

- **Stock builds are beginning to slow in the OECD; in 1Q16 they grew at their slowest rate since 4Q14 and in February drew for the first time for a year.** Meanwhile, stock building in non-OECD countries remains brisk and we have not changed our view that global inventories will not begin to draw steadily until 2017.
- **OECD commercial inventories drew by a slim 1.1 mb in March to stand at 3 044 mb by end-month.** Since the draw was counter-seasonal to the 13.9 mb five-year average draw, inventories' surplus to average levels narrowed to 357 mb from 372 mb one month earlier.
- **Falling OECD refined products stocks led inventories lower in March but due to a sluggish demand prognosis over the coming months, forward demand cover remained relatively steady at 33.3 days,** 0.1 day lower than at end-February.
- **Upon the receipt of more complete data, February OECD inventories were revised 15.1 mb lower** with the adjustment centred in the Americas. The upshot is that the 7.3 mb February build presented in last month's *Report* has swung to a 7.2 mb draw. This was the first OECD stock draw in twelve months.
- **Preliminary data suggest that OECD inventories rebounded by a weak 5.7 mb in April.** As OECD refinery throughputs remained relatively low, crude holdings built by 14.7 mb. On the other hand, low throughputs saw refined product stocks defy seasonal trends and slip by 8.0 mb.
- **Despite the tentative disappearance of a contango structure in parts of the crude oil market, volumes of crude stored at sea increased by 10 mb to their highest level since June 2015** as a number of logistical bottlenecks forced market participants to turn to tankers.



Global overview

While global stock building remains brisk, with inventories increasing at a similar pace in 1Q16 to end-2015, initial indications are that OECD inventory builds are beginning to slow. Data for 1Q16 indicate that OECD commercial inventories built at the slowest rate (0.3 mb/d) since 4Q14 and posted their first monthly draw for a year in February, while over recent weeks the contango in many crude and products markets has flattened. ICE Brent moved into backwardation in mid-April as the contract for delivery two months ahead stood at a discount to oil for prompt delivery. Nonetheless, global stocks are not projected to draw steadily until some point in 2017.

Our current demand and supply balances imply that in 1Q16 the bulk of the global stock build took place in non-OECD countries where inventories are thought to have increased by 0.8 mb/d. As has often been the case recently, the majority of this build is attributable to China where stocks have risen on the back of soaring crude imports. Meanwhile, inventories have likely grown in India as the Paradip refinery – which has a crude oil processing capacity of 300 kb/d – has started up. The latest JODI data (not including March) suggests that other builds have been seen in South East Asia and the Middle East.

OECD inventory position at end-March and revisions to preliminary data

OECD commercial inventories fell by a slim 1.1 mb in March to stand at 3 044 mb by end-month. Since the decline was counter-seasonal to the 13.9 mb five-year average build for the month, inventories' surplus to average levels narrowed to 357 mb from 372 mb one month earlier. The March draw was not the first for this year; new February data saw stocks revised sharply lower by 15.1 mb, reversing an initial 7.3 mb build into a 7.2 mb draw. This marked the end of one year of consecutive monthly builds that added an astounding 291 mb.

Preliminary Industry Stock Change in March 2016 and First Quarter 2016

	March 2016 (preliminary)				First Quarter 2016			
	(million barrels)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	10.6	-1.6	0.8	9.8	0.34	-0.05	0.03	0.31
Gasoline	-8.9	-3.4	-0.1	-12.4	-0.29	-0.11	0.00	-0.40
Middle Distillates	2.2	-1.8	-1.0	-0.7	0.07	-0.06	-0.03	-0.02
Residual Fuel Oil	-1.9	-1.7	0.9	-2.7	-0.06	-0.06	0.03	-0.09
Other Products	9.5	0.4	0.4	10.2	0.31	0.01	0.01	0.33
Total Products	0.8	-6.5	0.2	-5.5	0.03	-0.21	0.00	-0.18
Other Oils ¹	0.5	-2.2	-3.6	-5.3	0.02	-0.07	-0.12	-0.17
Total Oil	11.9	-10.4	-2.6	-1.1	0.38	-0.34	-0.08	-0.04

1. Other oils includes NGLs, feedstocks and other hydrocarbons.

In March, stocks were driven lower by refined products, which declined by 5.5 mb, more than offsetting a combined 4.4 mb build in crude, NGLs and other refinery feedstocks. The draw in refined products was weaker than the 19.2 mb five-year average draw for March and came as 'other products' built by a steep 10.2 mb, centred in the US. This followed lethargic propane space heating demand due to above normal temperatures in many parts of the mid-continent while preliminary data suggest that exports remained lower than in previous months. In contrast, motor gasoline inventories adhered to seasonal trends and dropped by their steepest monthly increment in a year (-12.4 mb). Middle distillates holdings remained stable (-0.7 mb m-o-m) at close to 610 mb. On a days-of-forward demand basis, refined product cover remained broadly flat at 33.3 days, 0.1 day lower than end-February.

Crude oil holdings rose by 9.8 mb, however, the increase was far shallower than the 30.6 mb average build for March, after holdings in Europe drew counter-seasonally by 1.7 mb, while inventories in Asia Oceania inched up by a weak 0.8 mb. Initial indications are that imports into these regions remained low. In the Americas, inventories increased by 10.6 mb, although this was slightly weaker than average as regional refinery throughputs hit a record for the month (nearly 0.5 mb/d above one year earlier) while regional production has fallen on a year-on-year basis as producers struggle with a prolonged period of low oil prices. Meanwhile, NGLs and other feedstocks fell counter-seasonally by 5.3 mb with the draw centred in Europe and Asia Oceania.

Upon the receipt of more complete data, February OECD commercial inventories were revised downwards by 15.1 mb. Together with a 0.6 mb downward adjustment to January inventories, the net effect was that the 7.3 mb February build presented in last month's *Report* became a 7.2 mb draw. The February revision was centred in the Americas where 'other oils', total products and crude oil were adjusted downwards by 6.6 mb, 3.7 mb and 0.5 mb, respectively. In contrast, stock levels in Europe and Asia Oceania were lowered by 2.9 mb and 1.5 mb, respectively.

Revisions versus April 2016 Oil Market Report

(million barrels)

	Americas		Europe		Asia Oceania		OECD	
	Jan-16	Feb-16	Jan-16	Feb-16	Jan-16	Feb-16	Jan-16	Feb-16
Crude Oil	0.3	-0.5	-0.4	-6.0	0.0	-2.5	-0.1	-8.9
Gasoline	0.0	-3.6	0.1	2.4	0.0	-0.2	0.1	-1.4
Middle Distillates	0.0	-0.6	-0.3	-1.4	0.2	-0.2	-0.1	-2.3
Residual Fuel Oil	0.0	-0.6	0.2	0.8	0.0	0.0	0.2	0.2
Other Products	0.1	1.2	0.0	-1.2	0.0	0.7	0.1	0.8
Total Products	0.1	-3.7	0.0	0.6	0.2	0.3	0.3	-2.8
Other Oils ¹	-0.8	-6.6	0.0	2.5	0.0	0.6	-0.8	-3.4
Total Oil	-0.4	-10.7	-0.4	-2.9	0.2	-1.5	-0.6	-15.1

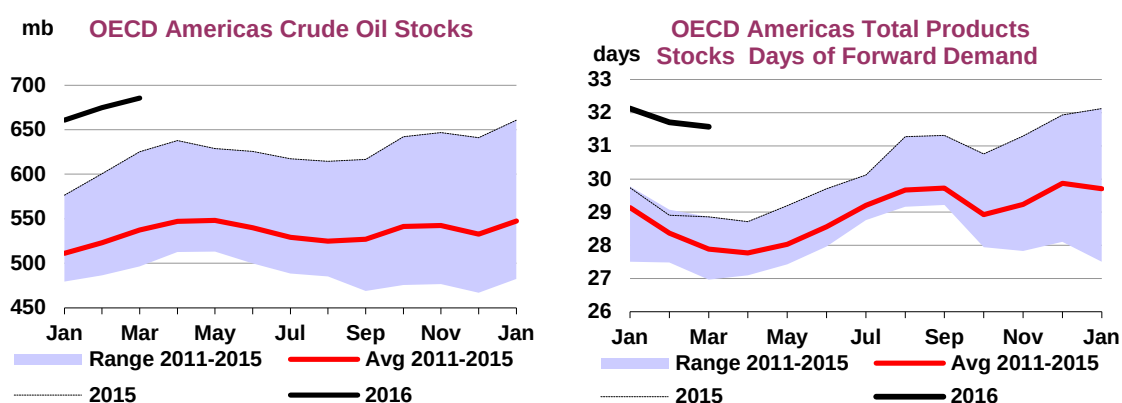
¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Preliminary data suggest that OECD inventories rose by a weak 5.7 mb in April. OECD refinery throughputs fell by 220 kb/d over the month that saw crude holdings post a steep 14.7 mb build while refined products fell counter-seasonally by 8.0 mb. On a region by region basis, stocks built by 13.8 mb in the US while European holdings drew by 8.0 mb and inventories in Asia Pacific remained flat. If confirmed by final data, this weak build will see the surplus to the five-year average level fall to 342 mb, the narrowest this year.

Recent OECD industry stock changes

OECD Americas

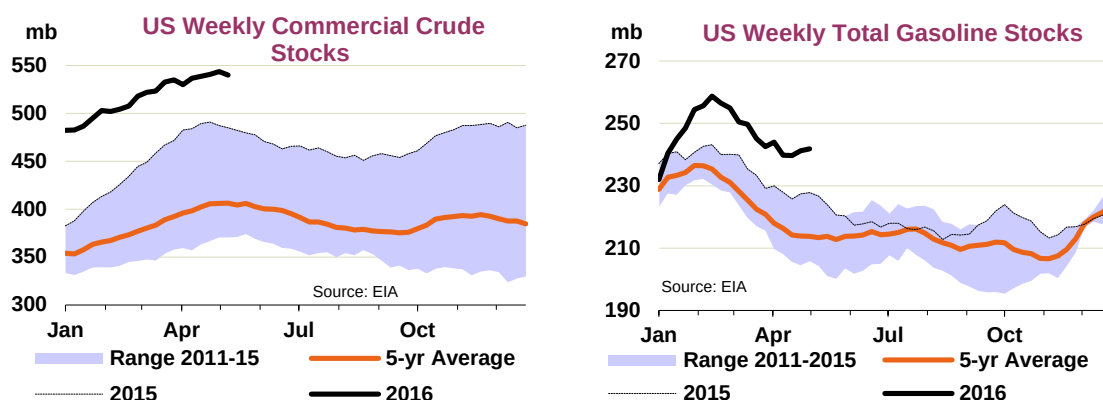
Commercial oil stocks in the OECD Americas adhered to seasonal trends in March and added 11.9 mb. Despite slowing regional crude production growth, so far in 2016 stocks remain on a very similar upward path to 2015. Indeed, over the first quarter inventories rose at a rate of 320 kb/d, just 90 kb/d shy of last year's build. The bulk of recent regional builds has been in crude oil as refineries entered seasonal maintenance. In March, these inventories added 10.6 mb with NGLs and other feedstocks inching up by 0.5 mb. Refinery maintenance, especially at plants on the US Gulf Coast, appears to be less than last year with regional crude runs higher year-on-year across the first quarter. Other factors underpinning growing crude oil stocks include higher imports encouraged by a narrower WTI-Brent spread.



Regional refined product inventories inched up unseasonally by 0.8 mb in March, likely boosted by refinery runs being 470 kb/d higher than a year ago. Nonetheless, since demand is projected to increase over the coming months, on a days-of-forward demand basis, cover slipped by 0.1 day to stand at 31.6 days at end-month. Holdings of 'other products' (+9.5 mb) began their seasonal climb as propane restocking commenced; by end-month they stood nearly 14 mb above one-year earlier – largely due to US natural gas production remaining on an upward path. In contrast, motor gasoline inventories dropped seasonally by 8.9 mb as refiners continued to destock winter-grade product; by end month, inventories

stood 18 mb above one year earlier. Middle distillate inventories increased counter-seasonally by 2.2 mb, amid anaemic US distillate demand that was 0.4 mb/d lower than in 2015. Stocks were also boosted by the fact that US exports to Europe were lower than a year earlier as ample European stocks depressed import requirements.

Data from the US EIA suggest that US oil stocks added a further 13.8 mb in April. As during March, crude inventories (+12.3 mb) led the rise, although as refiners came back online, the build likely came as crude imports into PADDs 1 and 3 (the Atlantic Coast and Gulf Coast) surged. Stocks at the Cushing, Oklahoma storage hub remain stubbornly high at close to 65 mb. Refinery maintenance in the midcontinent has been particularly heavy this year with April throughputs standing approximately 450 kb/d below a year ago while crude imports from Canada remained above year-ago levels.

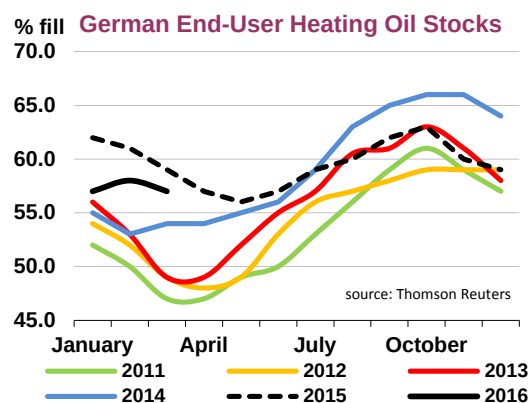
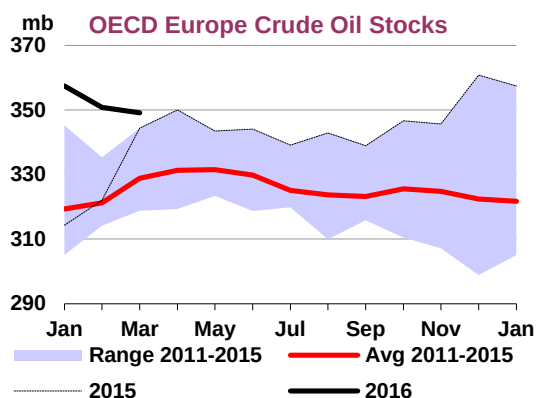


US refined products inched up seasonally by 1.5 mb/d, driven by a 13.9 mb increase in ‘other products’ as the restocking of propane continued apace. Motor gasoline inventories declined by 2.2 mb due to lower refinery runs and outages at gasoline producing units that offset the effect of higher US refinery runs, with the draw concentrated in PADDs 2, 3 and 4. Inventories on the Atlantic Coast (the country’s largest gasoline market) rose by 3.1 mb after an armada of cargoes arrived from Europe attracted by the wide transatlantic arbitrage created by the outages (which also had the effect of closing the seaborne arbitrage window to ship product northwards from the Gulf Coast).

OECD Europe

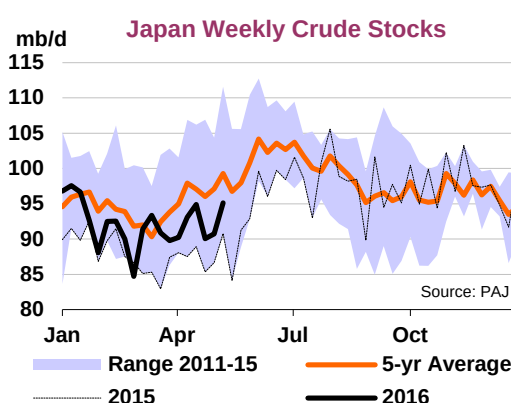
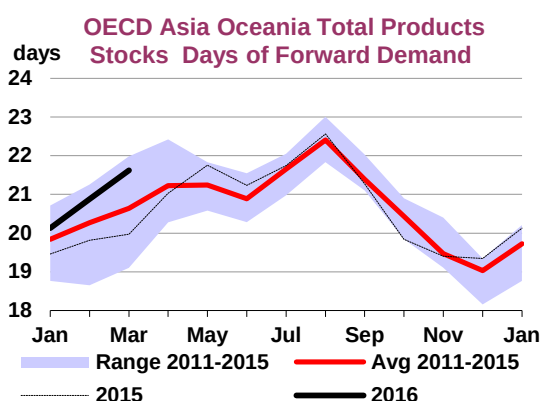
Industry oil holdings in Europe drew counter seasonally by 10.4 mb during March, with the region's surplus versus average levels narrowing to 73 mb by end-month from 85 mb at end-February. Crude, NGLs and other feedstocks declined by a combined 3.9 mb, in contrast to the 8.8 mb five-year average build for the month. With regional crude production remaining flat and refinery runs dropping by over 200 kb/d in March, it is likely that imports fell as refiners chose to utilise their stockpiles rather than import crude. Refined products declined by a broadly seasonal 6.5 mb in March as refinery output fell. Accordingly, holdings of motor gasoline, middle distillates and fuel oil fell by 3.4 mb, 1.8 mb and 1.7 mb, respectively. By end-month, refined products covered 42.8 days of forward demand, 0.8 days below end-February but 4.2 days above one year earlier.

Preliminary data for April suggest that European inventories fell by a broadly seasonal 8.0 mb in April after a 1.0 mb build in crude oil failed to offset a 9.0 mb draw in refined products. Following a fall in transatlantic inflows, middle distillates holdings dropped by 6.0 mb, more than twice the average draw for the month. Motor gasoline inventories declined by 1.4 mb, amid a notable uptick in exports to the US encouraged by a wide arbitrage window. Meanwhile, German end-user heating oil stocks abruptly changed course and drew to stand at 57 % of capacity in April.



OECD Asia Oceania

Commercial oil holdings in OECD Asia Oceania declined counter-seasonally by 2.6 mb in March which saw the region's surplus to average levels slip to 20 mb at end-month from 27 mb at end-February. There was a steep 3.6 mb draw in NGLs and other feedstocks, centred in Japan, which more than offset minor rises in crude oil (0.8 mb) and refined product (0.2 mb) stocks. The increase in refined product holdings came as regional refiners cut runs, with fuel oil and 'other products' increasing counter-seasonally by 0.9 mb and 0.4 mb respectively, while motor gasoline (-0.1 mb) and middle distillates (-1.1 mb) adhered to seasonal trends and drew. All told, refined products covered 21.6 days of forward demand at end-March, 0.7 days above end-February and 1.6 days above one year earlier.

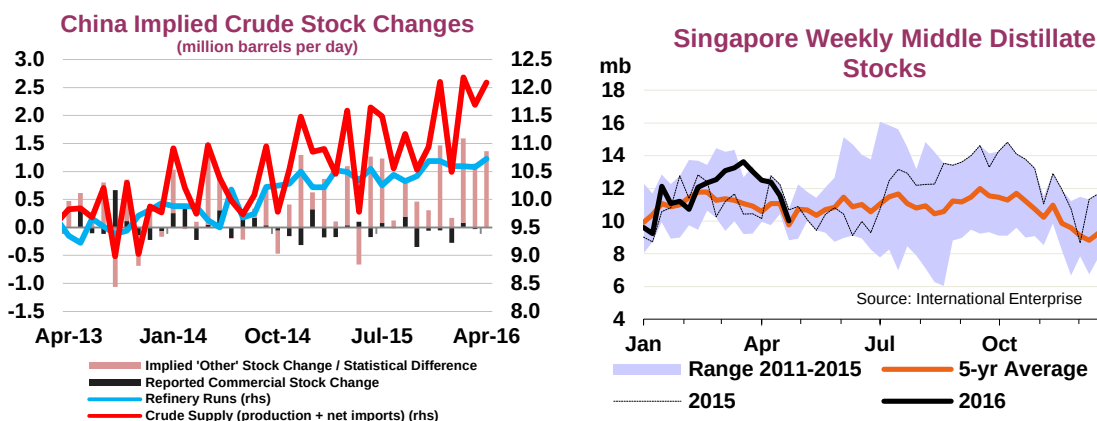


Data from the Petroleum Association of Japan point to Japanese inventories remaining remarkably flat in April as they inched down by 0.1 mb. Refined product holdings slipped counter-seasonally by 0.5 mb as product imports are likely to have fallen. This draw was centred in 'other products' which declined counter-seasonally by 2.2 mb. Meanwhile, middle distillates, motor gasoline and fuel oil holdings rose by 0.9 mb, 0.6 mb and 0.3 mb, respectively. Refinery activity remained low during the month which saw crude inventories increase counter-seasonally by 1.3 mb.

Recent developments in Non-OECD stocks

According to data from *China Oil, Gas and Petrochemicals (China OGP)*, Chinese commercial crude oil inventories remained relatively steady in March, inching down by an equivalent 0.8 mb which saw stocks sit about 14 mb below one year earlier. The draw came as both crude imports and refinery runs remained relatively stable on a daily basis. Nonetheless, data suggest that unreported crude stocks rose for a tenth consecutive month as crude supply (domestic production plus net imports) remained well above refinery runs, with stocks likely to have risen by approximately 1 mb/d. Preliminary estimates for April suggest that total Chinese crude stocks continued to build.

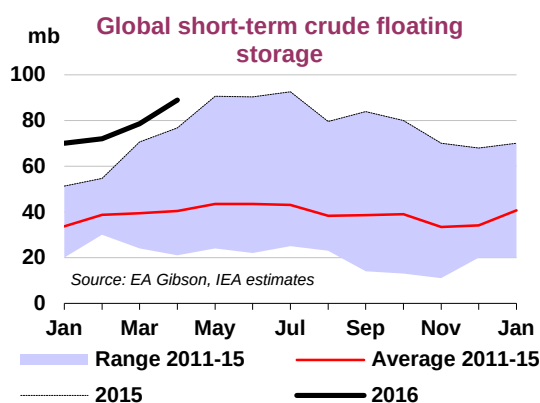
Refined product holdings also remained steady, increasing by a slight 0.2 mb in March. Nonetheless, this disguised the contrasting movements within product categories; while gasoil dropped by 6.8 mb, kerosene added 1.0 mb and gasoline surged by 6.0 mb, the steepest monthly increment since at least 2008. The increase in gasoline holdings reportedly came as Chinese refiners increased their gasoline production by nearly 9% compared to one year earlier as they struggle to keep up with strong domestic demand.



Land-based refined product inventories in Singapore drew by 1.8 mb in April to a three-month low as holdings of middle distillates dropped by 3.3 mb. This draw was the steepest since at least 2009 and came as shipments of gasoil and kerosene to the region fell due to refinery maintenance in the Middle East and as regional demand remained high owing to refinery turnarounds in Korea and Japan. By end-April, middle distillate stocks stood at their lowest since last June. In contrast, residual fuel oil holdings added 1.0 mb as arrivals of large cargoes on VLCCs from Europe remained steady and offset relatively healthy bunker activity. Meanwhile, light distillate holdings remained stable over the month at just under 15 mb.

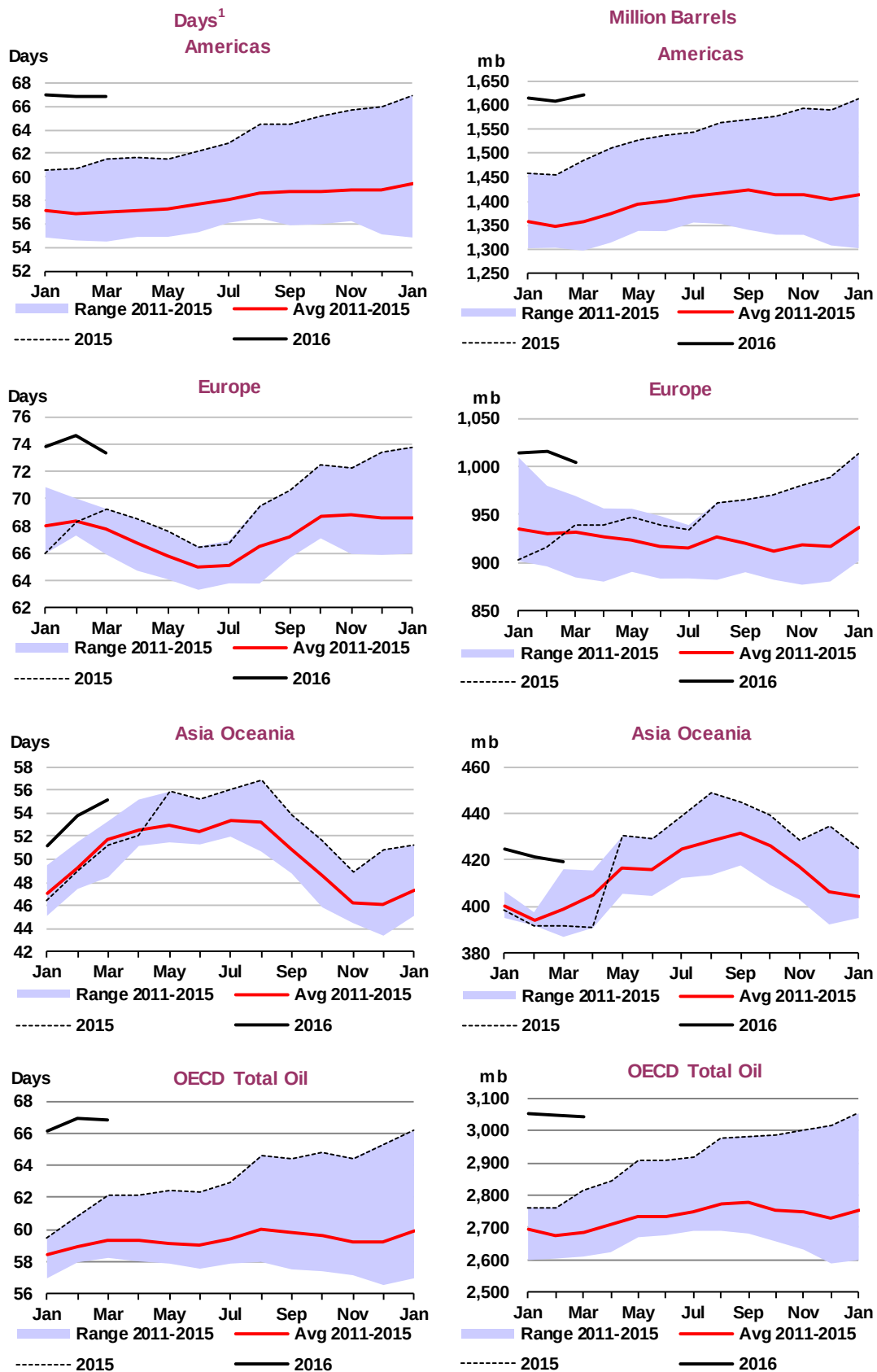
Recent developments in floating storage

Despite the contango structure in crude markets disappearing during April, volumes of crude oil held on tankers increased by 10.3 mb to 88.9 mb at end-month, the highest since June 2015. However, this increase was due to a number of bottlenecks rather than market participants storing oil for speculative reasons. While volumes in the Middle East Gulf remained close to 65 mb as the Iranian fleet remained unchanged on the month, volumes stored in Northwest Europe surged by more than 4 mb as a number of Forties cargoes remained unsold at end-April as the arbitrage window to ship crude to Asia remained firmly shut. Volumes stored off Asia increased to 15.4 mb after a further 4 mb of crude was stored off China following congestion at a number of major ports, notably Qingdao. A similar picture is seen in the US Gulf with one VLCC reportedly storing crude due to delays in offloading crude at the LOOP terminal arising from a recent significant uptick in imports due to the narrow WTI–Brent spread.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

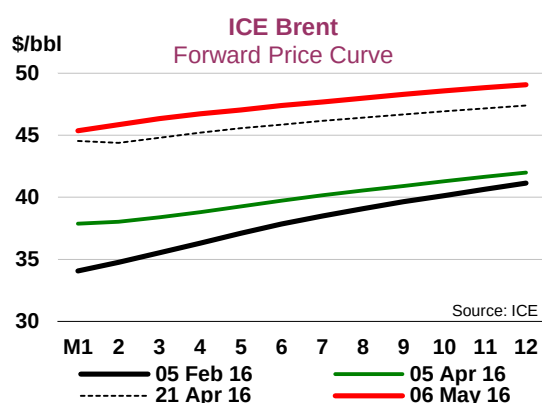
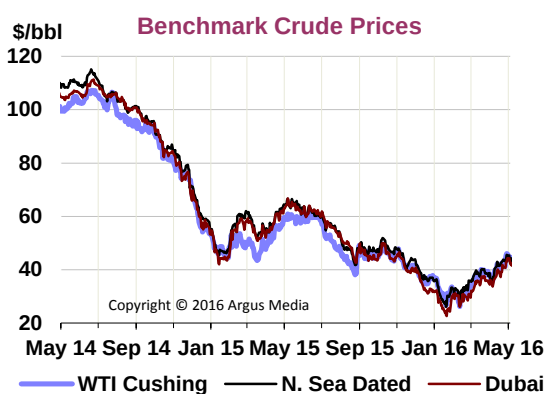


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

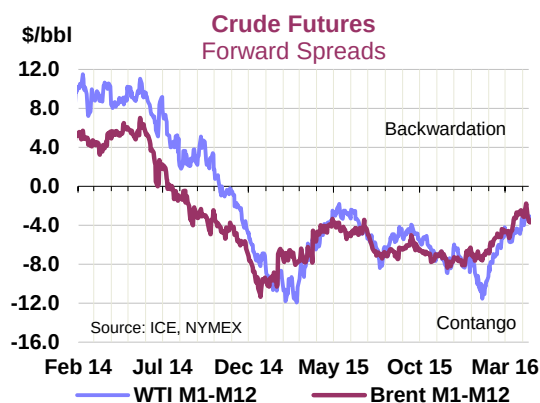
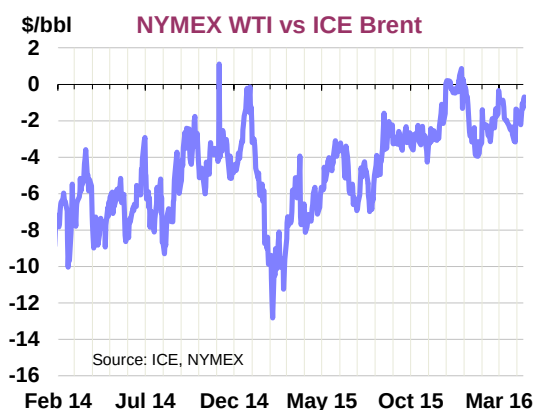
- **Benchmark crude oil prices strengthened in April on the back of unscheduled production outages in, amongst other places, Nigeria, Ghana and Canada,** which by early-May exceeded 1.5 mb/d. This more than offset bearish sentiment that emerged in the wake of the inconclusive Doha production talks in mid-April. At the time of writing, benchmark crudes were hovering at close to year-to-date highs: ICE Brent was last trading at \$47.00/bbl with NYMEX WTI slightly lower at \$45.88/bbl.
- **April saw the contango in crude and products futures flatten,** eroding the economics of oil storage. During mid-month, the first two months of the ICE Brent contract flipped into steady backwardation for the first time since mid-2014 on expectations for heavy seasonal maintenance in the North Sea and for the current supply overhang in global crude markets to diminish.
- **Spot crude prices continued to strengthen in April driven by numerous supply outages.** Sour crude prices in Asia posted the steepest rises as regional demand rose on strong cracking margins while further upward momentum came from a workers' strike in Kuwait. In contrast, rises for North Sea crudes were muted as supplies remained ample amid lacklustre regional crude demand.
- **Spot product prices followed crude higher and increased across the board in April.** Gasoline posted the steepest increase after a number of outages at production units in the US saw a flotilla of European cargoes head west. Gasoline cracks in the Atlantic Basin underpinned refinery margins there.
- **Freight rates for very-large-crude-carriers (VLCCs) on the benchmark MEG – East Asia route** weakened in April to a level unseen since August 2015. Weather delays in the Far East, which provided support and volatility in March, waned and, combined with abundant tonnage available, gave charterers the upper hand.



Market overview

Benchmark crude prices hit year-to-date highs in April following production outages in Nigeria, Ghana, Canada and elsewhere. This offset any bearish sentiment arising from the inconclusive Doha meeting of oil producers. ICE Brent hit a high of \$48.14/bbl in late-month but by early-May had retreated slightly to last trade at \$47.00/bbl. NYMEX WTI saw its discount to Brent narrow steadily over the month, reflecting declining US supply. WTI peaked at \$46.03 in late-April before falling back to \$45.88/bbl at the time of writing.

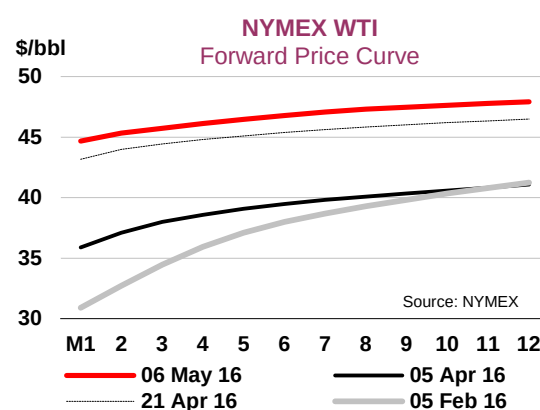
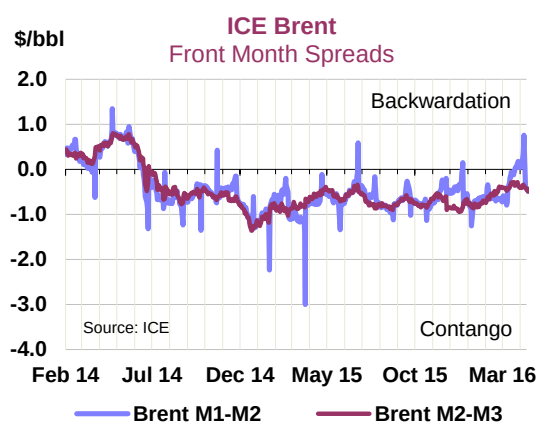
Despite global balances showing a significant supply overhang for the whole of 2016, bullish sentiment appears to reign supreme in oil markets. Speculative investors increased their long positions to all-time highs during the month, while contango in crude and product markets flattened with ICE Brent even flipping briefly into backwardation.



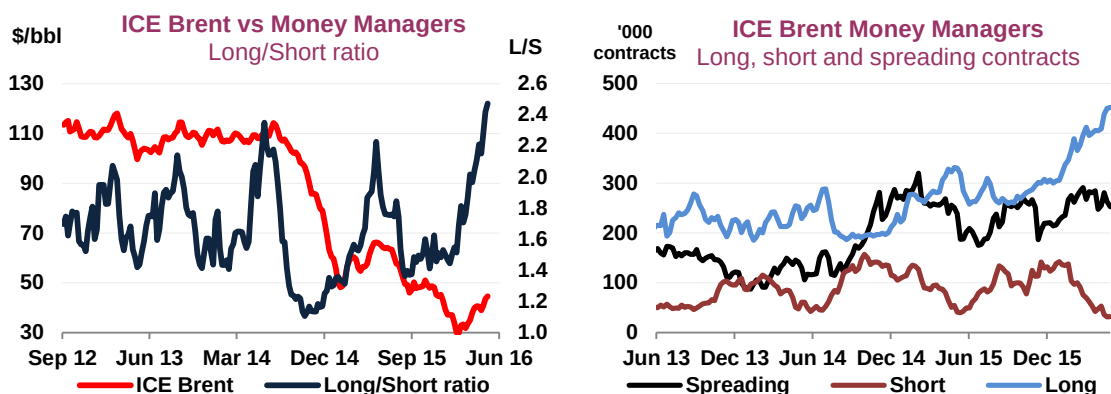
Nonetheless, despite all benchmark crudes strengthening, there were regional disparities. Asian markets increased strongly on robust crude demand as refiners reacted to healthy cracking margins. Accordingly, Dubai increased sharply in comparison to other benchmarks, which saw the grade's premium against ICE Brent vanish by early-May. Prices also strengthened in the US, although the momentum came more from declining domestic supply than from increased refinery activity. In comparison, increases in the price of North Sea crudes were modest as regional supply remains ample. European refiners are faced with margins significantly below year-ago levels and buying interest is limited.

Futures markets

April saw the contango structures of crude and products futures markets flatten. During mid-month, the first two months of the ICE Brent contract flipped into backwardation and remained so until early-May. This marked the first steady period of backwardation since mid-2014 and reportedly came amid expectations for heavy summer maintenance in the North Sea and for the current supply overhang in global crude markets to diminish. Backwardated markets erode the economics of oil storage and come at a time when the pace of growth of OECD stocks has slowed. By early May, the contract had flipped back to contango on news that maintenance on the UK's Buzzard field would be delayed until September. Accordingly, timespreads widened to \$0.30/bbl per month over both the first three and first twelve months of the contract, levels sufficient to cover most market participants' storage costs.



In the US, NYMEX WTI remained in contango throughout April, although timespreads diminished somewhat over the month. As has been the case for some time, the prompt month remained under pressure from persistently high stocks at the contract's delivery point in Cushing, Oklahoma. During April inventories at the terminal were around 65 mb. By early May, the contango had widened slightly with time spreads over the first three months of the contract standing at \$0.36/bbl per month compared to \$0.27 /bbl per month over the first twelve months.



Investors have increased their bullish bets on Brent financial contracts to all-time high levels, according to data provided by the Intercontinental Exchange (ICE). Unhedged long positions soared to more than 400 000 contracts, the highest since data was first published. The *long-to-short* ratio, an indicator of funds' overall positioning, was more than 2.5, signalling a very clear directional bet.

Spot crude oil prices

Spot crude prices continued on an upward trajectory in April driven by numerous supply outages. Sour crude prices in Asia posted the steepest incremental increase as Asian demand rose as margins for complex refiners strengthened while further upward momentum came from a workers' strike in Kuwait. In contrast, North Sea crudes posted more moderate increases as regional demand for crude remained lacklustre. US crudes increased on the back declining US production and from supply disruptions in Canada, with LLS moving to a rare premium against North Sea Dated in early May.

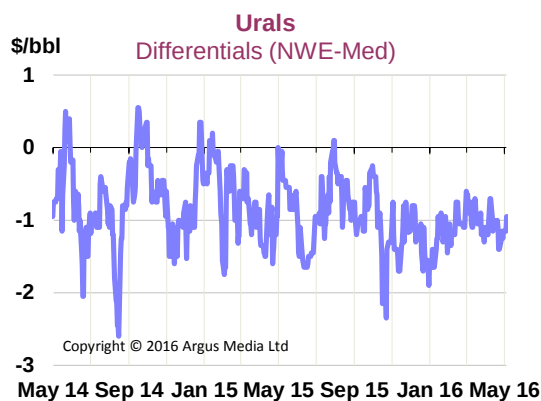
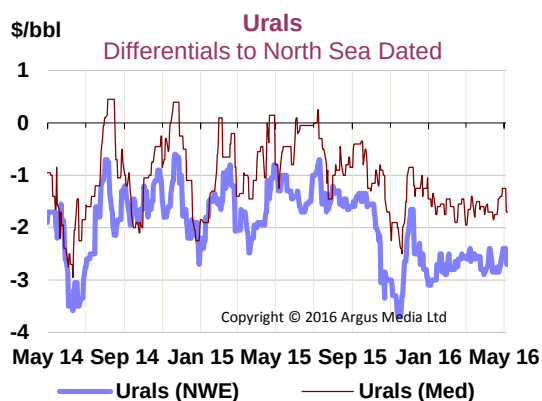
Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Feb	Mar	Apr	Apr-Mar Avg Chg	%	Week Commencing:				
						28 Mar	04 Apr	11 Apr	18 Apr	25 Apr
Crudes										
North Sea Dated	32.46	38.49	41.48	2.99	7.8	37.90	37.38	42.23	42.90	44.42
Brent (Asia) Mth 1	33.04	39.05	42.74	3.69	9.4	39.33	38.87	43.05	43.58	46.12
WTI (Cushing) Mth 1	30.38	37.76	40.95	3.19	8.4	38.22	37.26	41.23	41.65	44.50
Urals (Mediterranean)	30.87	36.85	39.89	3.03	8.2	36.24	35.71	40.46	41.29	43.08
Dubai	29.33	35.12	39.00	3.88	11.0	35.42	35.22	39.30	39.72	42.33
Tapis (Dated)	37.34	42.35	43.81	1.46	3.5	40.91	39.74	44.53	45.20	46.72
Differential to North Sea Dated										
WTI (Cushing)	-2.08	-0.73	-0.53	0.20		0.33	-0.11	-1.00	-1.26	0.09
Urals (Mediterranean)	-1.60	-1.64	-1.60	0.04		-1.66	-1.67	-1.77	-1.61	-1.34
Dubai	-3.13	-3.37	-2.48	0.89		-2.48	-2.16	-2.93	-3.18	-2.09
Tapis (Dated)	4.88	3.85	2.33	-1.52		3.01	2.36	2.30	2.30	2.30
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.64	-0.67	-0.36	0.32		-0.69	-0.42	-0.39	-0.29	-0.28
Forward WTI Cushing Mth1-Mth2	-1.92	-1.59	-1.21	0.38		-1.31	-1.26	-1.30	-1.30	-0.95
Forward Dubai Mth1-Mth2	-0.66	-0.92	-0.42	0.50		-1.04	-0.41	-0.40	-0.43	-0.40

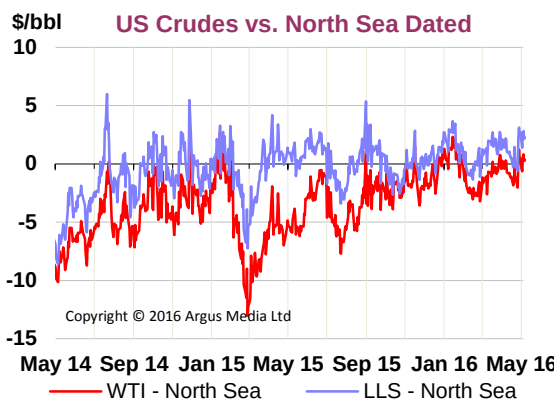
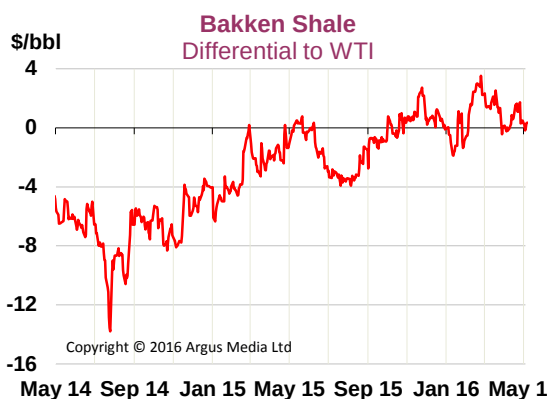
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The increase of \$2.99/bbl for Dated Brent in April versus March was lower than for other light grades. Brent was pressured by anaemic regional demand for crude. This resulted in a number of unsold Forties cargoes being stored on tankers near the Hound Point terminal. Considering the wide sweet – sour spreads during early April which closed the arbitrage eastwards, Asian buyers reportedly shunned Forties in April. Indications are that as VLCC rates fell further and as Brent's premium to Dubai disappeared during late April, Chinese buyers re-entered the market with at least one previously unsold cargo heading eastwards.



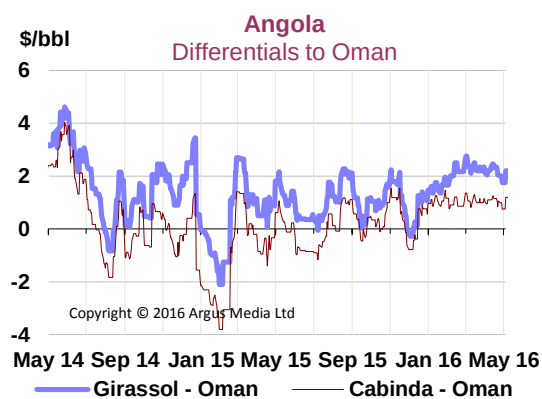
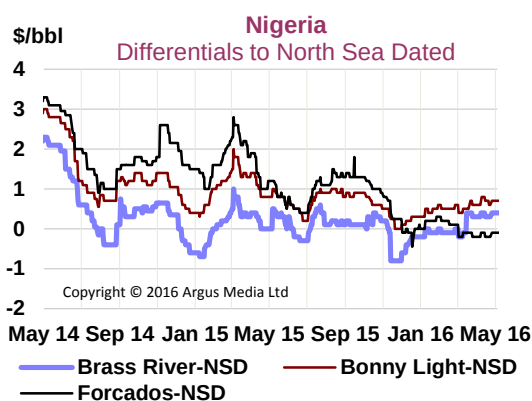
Urals saw its discount to North Sea Dated narrow in late-April following the release of a May loading program that was less than expected. This is because Russian domestic crude demand will increase as refineries exit turnarounds and as pipeline maintenance is projected to curb exports from the Black Sea port of Novorossiysk. By early May, Urals for delivery to Northwest European (NWE) customers was offered at a \$2.40/bbl discount to the North Sea benchmark, the narrowest since December 2015. In mid-month, Urals NWE saw its widest discount to Urals Med since February, after the Med grade was lifted by strong regional demand and the aforementioned supply concerns. This opened the opportunity to ship Urals from Baltic ports to Mediterranean customers.

In the US, benchmark WTI gained \$3.19/bbl on a monthly average basis as domestic production continues on a downward path with preliminary April data suggesting that US supply was 600 kb/d lower year-on-year (y-o-y). With gains in North Sea Dated being more modest, spot WTI rose to a small premium against the European benchmark in late-month.



Canadian crudes gained some support during mid-April as maintenance curbed supplies, but Western Canadian Selects (WCS) remained at a \$12/bbl discount to WTI. Following the shut-in of close to 1 mb/d of Canadian production capacity in early-May as wildfires hit the state of Alberta, this saw the differential narrow further. With midcontinent refiners continuing to ramp-up operations amidst uncertainty at the impact of the wild fires, this could see the differential narrow further. In response to 2015's wild fires, the WTI – WCS differential narrowed to less than \$10/bbl.

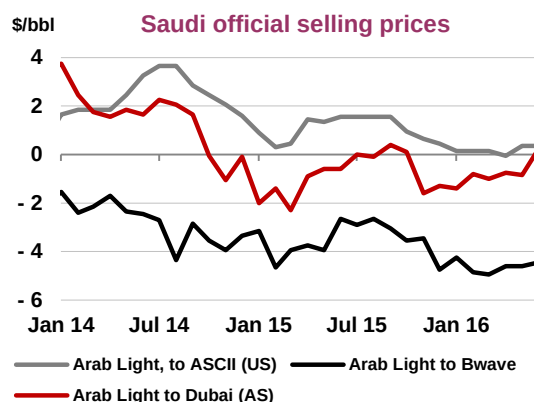
Bakken crude continues to stand at a premium to WTI as LTO production contracts. In April, this premium averaged \$0.60/bbl keeping the arbitrage window to rail crude to Atlantic Coast refiners firmly shut. Consequently, crude imports into PADD 1 remained well above year-earlier levels. A further increase in imports has resulted from the narrowing of the LLS – North Sea Dated spread over the past few weeks. Indeed, in late April LLS moved to a premium versus North Sea Dated as refiners on the Gulf Coast ramped up runs. In the last week of the month, the premium exceeded \$3/bbl, the widest since January, and despite falling back in early May, it remained at \$2.20/bbl at the time of writing.



African grades fared better in April compared to previous months. Following the continuing outage to the light, sweet Forcados stream and ongoing strong transatlantic demand (with US imports of West African crudes likely exceeding 400 kb/d in April), Nigerian Bonny Light strengthened steadily against Brent, and at the time of writing was being sold at a premium of \$0.70/bbl, its highest since November 2015. An additional boost also came as the premium of Brent to Dubai narrowed at end-April, making African crudes more attractive for Asian buyers. Nonetheless, reports continue to circulate that there are a plethora of cargoes still available from both the Nigerian and Angolan June loading programs.

On a monthly average basis, Dubai crude strengthened by \$3.88/bbl in April, the steepest amongst benchmark crudes as Asian demand increased on strong cracking margins and as a number of regional refineries emerged from maintenance. Additional upward momentum came as the Kuwaiti workers strike propelled the grade higher in mid-month. The Brent – Dubai spread narrowed steadily over the month so that by the time of writing, Dubai was trading at parity to Brent.

In early May, Saudi Aramco reflected the strong Asian sour crude market and strong margins for complex refiners and raised its June official selling price formula for the Arab Light grade delivered to Asian customers by \$1.10/bbl, the steepest increment in over a year. In contrast, the price of the grade for European customers was only increased by \$0.15/bbl, reflecting the recent lacklustre demand for crude there. US customers saw their prices remain at the same \$0.35/bbl discount against the Argus Sour Crude Index as in March.



Spot product prices

Spot product prices followed crude higher and strengthened across the board in April. Gasoline posted the steepest increases after a number of outages on production units in the US saw a flotilla of European cargoes head westwards. Consequently, gasoline cracks are currently underpinning refinery margins across surveyed markets as middle distillate cracks remain significantly lower than a year ago amid high inventories and ample supply both in the Atlantic Basin and Asia.

Spot Product Prices

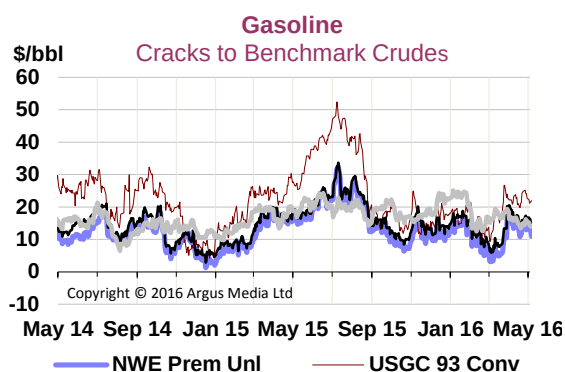
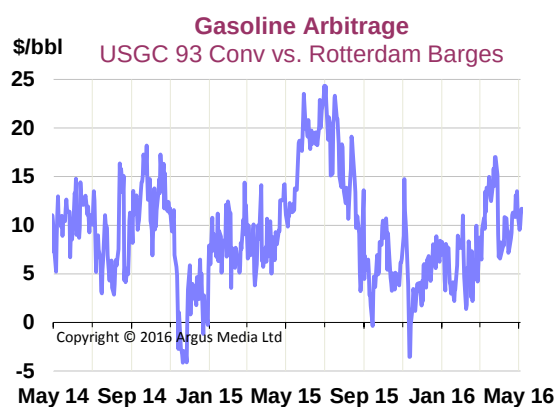
(monthly and weekly averages, \$/bbl)

	Feb	Mar	Apr	Apr-Mar		Week Commencing:					Feb	Mar	Apr	Chg
				Chg	%	11 Apr	18 Apr	25 Apr	02 May	09 May				
Rotterdam, Barges FOB														
	Differential to Dated Brent													
Premium Unl 10 ppm	40.93	45.60	55.51	9.90	21.7	56.37	55.02	58.36	56.15	54.57	8.47	7.11	14.03	6.92
Naphtha	32.68	38.96	42.16	3.20	8.2	42.52	42.63	44.30	42.89	41.38	0.22	0.47	0.67	0.21
Jet/Kerosene	40.94	46.91	49.55	2.64	5.6	49.85	51.17	53.21	51.76	50.39	8.47	8.41	8.07	-0.35
ULSD 10ppm	40.41	47.13	49.57	2.44	5.2	49.60	51.61	54.04	53.03	51.75	7.95	8.64	8.09	-0.55
Gasoil 0.1%	39.12	45.55	48.79	3.24	7.1	48.75	51.02	53.54	52.50	51.05	6.65	7.06	7.31	0.25
LSFO 1%	21.35	24.71	27.56	2.85	11.5	28.05	28.52	30.36	30.55	30.05	-11.12	-13.79	-13.92	-0.14
HSFO 3.5%	18.46	21.97	24.39	2.42	11.0	24.50	25.36	27.81	28.06	27.48	-14.01	-16.52	-17.10	-0.57
Mediterranean, FOB Cargoes														
	Differential to Urals													
Premium Unl 10 ppm	41.94	46.79	56.82	10.03	21.4	57.72	56.31	59.68	57.45	55.85	11.08	9.94	16.94	7.00
Naphtha	30.99	37.76	40.39	2.63	7.0	40.69	40.63	42.28	41.33	40.00	0.13	0.91	0.51	-0.40
Jet Aviation fuel	39.89	45.96	48.01	2.05	4.5	48.20	49.39	51.46	50.54	49.38	9.03	9.10	8.12	-0.98
ULSD 10ppm	40.76	47.33	49.25	1.92	4.0	49.08	51.12	53.89	53.23	52.02	9.89	10.48	9.36	-1.12
Gasoil 0.1%	39.81	45.69	47.76	2.08	4.6	47.56	49.75	52.50	51.71	50.48	8.94	8.83	7.88	-0.95
LSFO 1%	22.72	24.84	28.24	3.40	13.7	28.83	29.35	31.25	31.33	30.88	-8.14	-12.02	-11.65	0.37
HSFO 3.5%	21.64	23.99	26.91	2.92	12.2	27.14	27.97	30.35	30.49	29.93	-9.23	-12.87	-12.97	-0.11
US Gulf, FOB Pipeline														
	Differential to LLS													
Super Unleaded	46.80	57.49	65.31	7.82	13.6	65.21	65.32	70.62	67.93	62.97	14.42	17.42	22.61	5.18
Unleaded	39.22	51.03	58.77	7.74	15.2	58.90	59.46	64.16	59.67	57.01	6.84	10.97	16.07	5.11
Jet/Kerosene	40.67	44.88	47.55	2.67	5.9	47.86	48.92	51.68	50.52	49.80	8.30	4.82	4.85	0.03
ULSD 10ppm	41.75	47.35	50.29	2.94	6.2	50.22	52.31	55.16	54.16	53.06	9.38	7.28	7.59	0.31
Heating Oil	36.45	40.53	45.07	4.54	11.2	44.91	47.40	49.78	48.47	47.75	4.08	0.47	2.38	1.91
No. 6 3%*	20.41	23.58	25.95	2.36	10.0	25.88	26.30	29.37	29.53	29.30	-11.97	-16.48	-16.75	-0.27
Singapore, FOB Cargoes														
	Differential to Dubai													
Premium Unleaded	44.33	52.68	54.49	1.81	3.4	55.22	53.92	57.74	56.40	55.60	14.99	17.56	15.49	-2.07
Naphtha	33.97	39.20	42.52	3.32	8.5	42.68	42.63	44.49	42.18	41.78	4.63	4.08	3.52	-0.56
Jet/Kerosene	40.98	47.40	49.51	2.11	4.5	49.30	49.80	53.47	52.13	51.43	11.64	12.27	10.51	-1.77
Gasoil 0.05%	38.51	45.52	48.08	2.56	5.6	47.71	49.19	52.97	51.49	51.43	9.18	10.40	9.08	-1.32
LSWR Cracked	24.88	28.10	31.17	3.07	10.9	31.18	31.61	34.75	34.80	34.66	-4.45	-7.02	-7.83	-0.81
HSFO 180 CST	24.25	27.78	30.28	2.50	9.0	30.24	30.44	33.59	33.63	33.44	-5.08	-7.34	-8.72	-1.38
HSFO 380 CST 4%	23.65	27.51	29.65	2.14	7.8	29.63	29.77	32.77	33.13	33.03	-5.68	-7.62	-9.36	-1.74

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* Waterborne

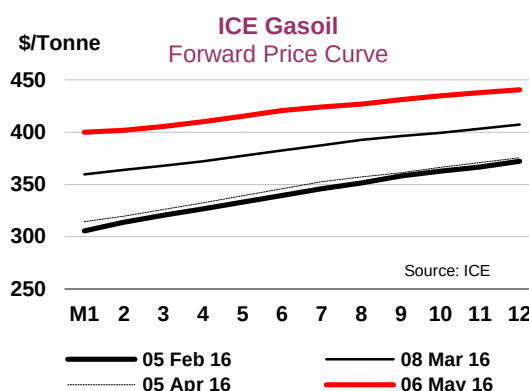
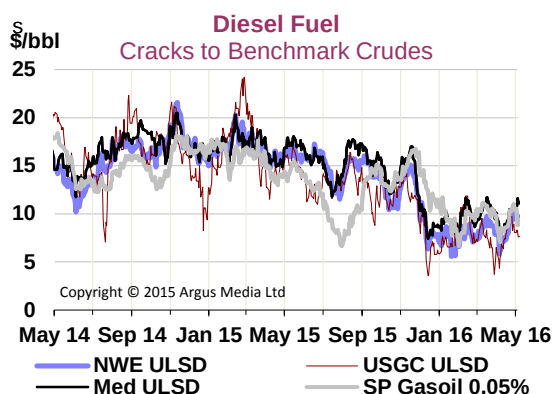
On a monthly average basis, spot gasoline prices in the Atlantic Basin posted double-digit price increases in percentage terms following multiple outages on gasoline producing units in the US. Accordingly, prices in the US Gulf Coast surged and briefly touched \$70/bbl at end-April, their highest since October 2015. These high prices shut the seaborne arbitrage to ship product northwards to the Atlantic Coast region and drew in multiple cargoes from Northwest Europe and the Mediterranean where product was roughly \$10/bbl cheaper – easily enough to cover shipping costs. By early-May, European prices stood at about \$55/bbl, their highest since November 2015.



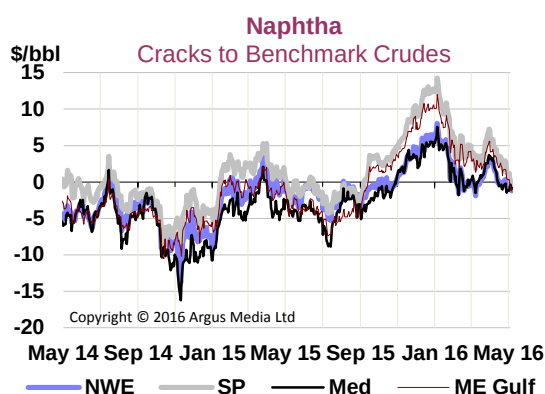
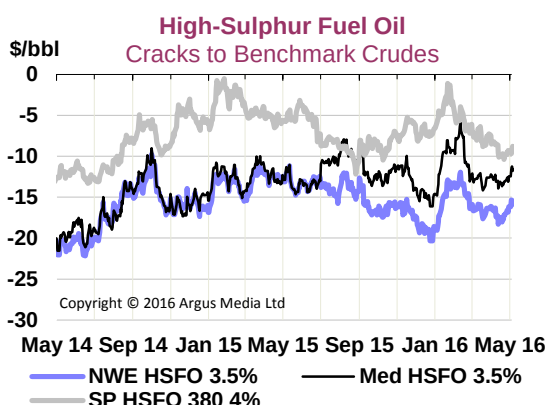
While gasoline spot price increases in the Atlantic Basin outstripped firmer crude prices with cracks strengthening accordingly, gasoline cracks in Asia softened as supply remained ample. Consequently, on a monthly average basis, cracks in Singapore slipped by \$2.07/bbl. Meanwhile, cracks in the

US Gulf Coast and Europe rose by \$5.18/bbl and \$6.97/bbl, respectively, with gasoline cracks underpinning refinery margins in these regions.

Naphtha cracks suffered from lower petrochemical consumption in Europe and Asia as falling LPG prices reportedly encouraged petrochemical plants to switch to the cheaper feedstock. Despite regional gasoline blending demand remaining healthy, naphtha cracks in Europe retreated into negative territory by early-month, the first time they had stood in the red in for two months. In Singapore, the picture was even worse as Dubai crude soared and trumped a slight increase in naphtha spot prices. Cracks plummeted so that by early May they stood at -\$0.20/bbl, the lowest since last September.



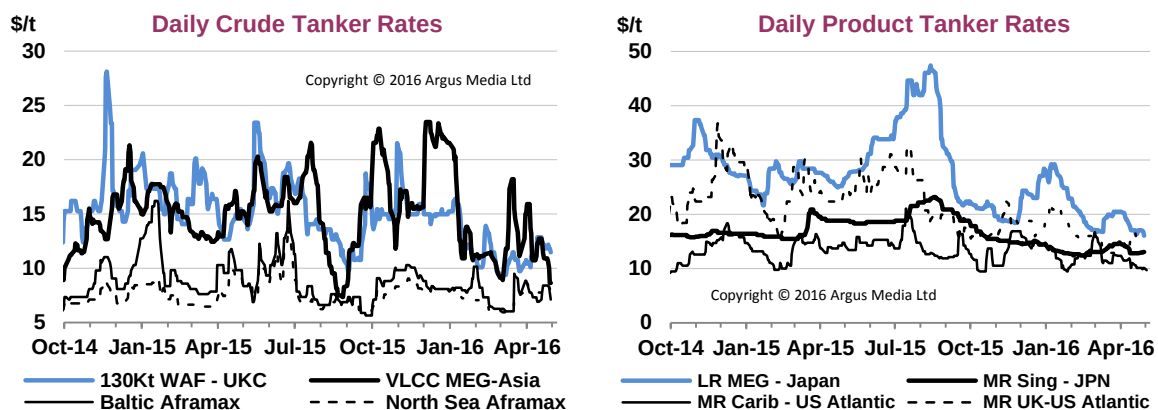
Middle distillate cracks remain significantly lower than a year ago due to ample supply and lacklustre demand in key markets. Diesel prices followed crude prices higher in all surveyed markets with the US Gulf Coast and Singapore regions posting the steepest increases. In Singapore, further upward momentum came from consecutive stock draws amidst lower shipments from the Middle East and high regional import demand from Japan and Korea where refineries were undergoing turnarounds. Price increases in Europe were more moderate considering that regional stocks remain ample and imports from Russia remained relatively robust offsetting fewer arrivals from the US. As European prices firmed, the contango in forward prices flattened and at the time of writing, the front two months of the ICE Gasoil contract were trading at approximate parity, thus not covering on-land storage costs.



Fuel oil crack spreads weakened in all regions bar the US as product prices struggled to match the increase in benchmark crudes. European cracks have suffered from sustained Russian fuel oil exports (See 'Supply'). Singapore cracks weakened, but the region still shipped multiple cargoes from Northwest Europe, with at least three VLCCs reported to have loaded in Rotterdam. The arbitrage window remains slightly open, despite Singapore residual fuel oil stocks remaining ample, supported by extremely cheap VLCC freight rates and solid Asian bunker demand. Moreover, preliminary data compiled by the Singapore Maritime Authority show March vessel arrivals at their highest in more than one year.

Freight

Freight rates for very-large-crude-carriers (VLCCs) weakened in April, breaking below the \$10/t mark on the benchmark MEG – East Asia route, a level unseen since August 2015. Weather delays in the Far East, which provided support and volatility in March, waned and combined with abundant tonnage available, gave charterers the upper hand. VLCC activity was weak also in the North Sea, with South Korea not taking any Forties cargoes in April, and only one long haul sailing was reported leaving Hound Point. Depressed VLCC rates, combined with fuel oil weakness in Rotterdam, are sustaining NWE-Singapore flows as the arbitrage economics remain marginal.



Suezmaxes rates for West Africa loading remained sustained despite 200 kb/d of Forcados production remaining offline. April voyages were for a longer haul, which helped supporting rates, with increased volumes moving to China and less to Europe. Even with Forcados out of the picture, both tanker reports and tracking data suggest that Nigerian grades like Qua Iboe are struggling to find buyers.

Aframaxes rates loading in the North Sea and Baltic found support from sustained North Sea production but were capped by the Ust Luga terminal undergoing maintenance until 17 May. In South East Asia, rates kept dropping on vessel oversupply.

Large product tankers experienced further weakness in April, as weaker demand met with an abundant supply of tonnage. West of Suez, refinery outages in the US supported the gasoline arbitrage from NWE. However, the backhaul route US Gulf – Europe remained unprofitable, which put a lid on rates. Weaker demand from West Africa, helped by the restart of Nigerian runs, piled weakness on rates. Caribbean rates were also subdued, on weak differentials between the US Gulf and the US Atlantic.

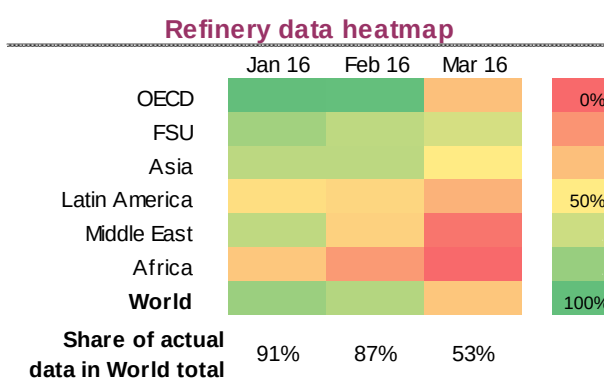
REFINING

Summary

- **1Q16 refinery runs estimates were revised upwards by 0.2 mb/d** mostly on stronger OECD runs and delayed maintenance. 1Q16 throughput reached 79.5 mb/d, or 1.5 mb/d higher year-on-year (y-o-y).
- **2Q16 runs, on the contrary, were revised down by 0.1 mb/d** to account for rescheduled maintenance in Asia from 1Q16. Throughput in this quarter inches up to 79.6 mb/d, up 0.7 mb/d y-o-y.
- **Gasoline cracks continue to single-handedly support refining margins in key regions**, offsetting the effect of higher crude prices and middle distillate oversupply on diesel cracks.

Global refinery overview

As more 1Q16 actual throughput data arrives, the estimates move higher, reflecting the willingness of refiners to run crude to store products even in a relatively low margin environment. The growth in 1Q16 runs exceeded the estimated global demand growth by 0.1 mb/d. In 2Q16 though, the growth in runs is expected to fall behind demand, adding only 0.1 mb/d versus demand growth of 0.3 mb/d from the previous quarter. Similarly, the annual oil demand growth of 1.2 mb/d will be matched by just 0.7 mb/d of throughput gain. After five quarters of strong growth rates, throughput in OECD Europe declined in 1Q16, albeit by a marginal 160 kb/d y-o-y, while in 2Q16 the US is expected to see its first quarterly y-o-y loss in throughput in four years due to maintenance and unscheduled outages.



India and Saudi Arabia are forecast to lead global throughput gains, each accounting for half of the projected net global runs gain in 2Q16. FSU refiners remain on a long-term decline trend, while underperforming Latin American refiners might yet turn the corner.

Global Refinery Crude Throughput¹

(million barrels per day)

	4Q2015	Jan 16	Feb 16	Mar 16	1Q2016	Apr 16	May 16	Jun 16	2Q2016	Jul 16	Aug 16
Americas	19.1	19.0	18.8	19.1	19.0	18.9	19.1	19.6	19.2	19.8	19.6
Europe	12.3	12.0	11.8	11.6	11.8	11.8	12.0	11.9	11.9	12.2	12.4
Asia Oceania	6.7	7.1	7.3	7.0	7.1	6.7	6.4	6.3	6.4	6.9	7.1
Total OECD	38.0	38.2	37.8	37.6	37.9	37.4	37.5	37.7	37.5	38.8	39.1
FSU	6.9	6.9	6.9	6.8	6.9	6.5	6.6	6.8	6.6	6.8	6.8
Non-OECD Europe	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.6	10.6	10.6	10.6	10.6	10.7	10.5	10.7	10.6	10.8	10.7
Other Asia	9.8	10.3	10.3	10.3	10.3	10.4	10.3	10.5	10.4	10.6	10.4
Latin America	4.2	4.4	4.4	4.3	4.4	4.7	4.6	4.6	4.6	4.7	4.6
Middle East	6.7	6.8	7.0	6.9	6.9	7.0	7.1	7.1	7.1	7.3	7.3
Africa	2.1	2.2	2.1	2.1	2.2	2.3	2.2	2.2	2.2	2.3	2.3
Total Non-OECD	40.8	41.7	41.7	41.6	41.7	41.9	41.8	42.4	42.0	43.0	42.6
Total	78.8	79.8	79.5	79.2	79.5	79.3	79.3	80.2	79.6	81.8	81.7

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Margins

Despite the rally in crude oil prices and a temporary backwardation at the front of the Brent curve, refinery margins fared well in April, rising in all main regions except Singapore. In NWE, diesel cracks improved towards the end of the month, but in monthly average terms, they were down from March from \$8.6/bbl to \$8.1/bbl. Once again, gasoline not only supported the margins but also boosted them higher. Gasoline cracks in NWE almost doubled in April to \$14/bbl. In the US, gasoline cracks improved by \$5/bbl in average, with diesel lower month on month (m-o-m). In Singapore, all cracks were pressured by excess supply in the region, with gasoline too, moving lower m-o-m, although remaining above European levels.

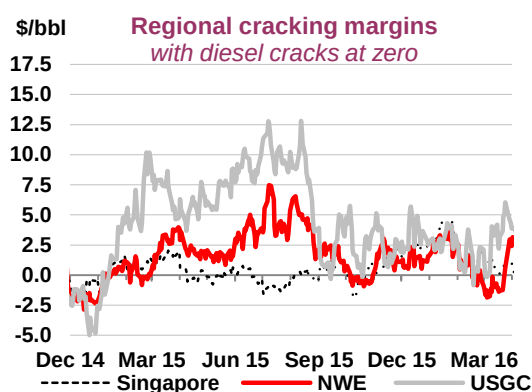
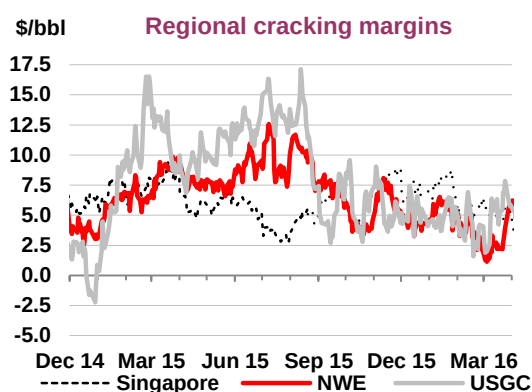
IEA/KBC Global Indicator Refining Margins¹

	(\$/bbl)									
	Monthly Average				Change		Average for week ending:			
	Jan 16	Feb 16	Mar 16	Apr 16	Apr 16-Mar 16	08 Apr	15 Apr	22 Apr	29 Apr	06 May
NW Europe										
Brent (Cracking)	5.50	3.66	2.80	4.37	↑	1.57	4.58	4.05	3.76	4.73
Urals (Cracking)	6.63	5.15	4.24	5.48	↑	1.24	5.44	5.14	5.14	5.85
Brent (Hydroskimming)	0.31	-0.76	-2.05	-1.40	↑	0.65	-1.16	-1.75	-1.87	-1.11
Urals (Hydroskimming)	0.28	-0.11	-1.47	-1.24	↑	0.23	-1.27	-1.68	-1.45	-0.83
Mediterranean										
Es Sider (Cracking)	6.58	5.49	4.31	5.66	↑	1.35	5.42	5.24	5.37	6.39
Urals (Cracking)	6.01	5.35	4.34	4.95	↑	0.61	4.73	4.60	4.76	5.50
Es Sider (Hydroskimming)	2.67	1.69	-0.24	1.01	↑	1.25	0.95	0.66	0.68	1.56
Urals (Hydroskimming)	0.66	0.49	-1.38	-0.99	↑	0.40	-0.99	-1.34	-1.26	-0.57
US Gulf Coast										
50/50 HLS/LLS (Cracking)	4.87	3.93	5.02	7.67	↑	2.64	6.17	7.51	8.46	8.94
Mars (Cracking)	4.27	3.13	3.78	5.42	↑	1.65	4.59	5.15	6.02	6.07
ASCI (Cracking)	3.88	2.89	3.33	5.01	↑	1.68	4.16	4.88	5.62	5.53
50/50 HLS/LLS (Coking)	7.00	5.77	7.37	10.20	↑	2.83	8.47	10.08	11.07	11.64
50/50 Maya/Mars (Coking)	9.98	8.11	10.58	12.53	↑	1.95	11.49	12.48	13.22	13.26
ASCI (Coking)	9.70	8.32	9.81	11.84	↑	2.03	10.47	11.74	12.80	12.67
US Midcon										
WTI (Cracking)	3.95	4.15	9.19	12.06	↑	2.87	10.74	11.72	12.44	13.59
30/70 WCS/Bakken (Cracking)	4.41	2.39	6.99	10.27	↑	3.28	9.96	10.12	9.66	11.50
Bakken (Cracking)	5.46	3.14	9.01	12.73	↑	3.72	12.04	12.39	12.38	14.31
WTI (Coking)	5.91	5.91	11.73	14.86	↑	3.13	13.28	14.53	15.33	16.62
30/70 WCS/Bakken (Coking)	7.86	5.76	11.39	14.96	↑	3.57	14.22	14.77	14.61	16.52
Bakken (Coking)	6.35	3.91	10.18	14.02	↑	3.84	13.22	13.68	13.71	15.70
Singapore										
Dubai (Hydroskimming)	2.75	0.93	-0.16	-1.51	↓	-1.35	-1.11	-1.80	-1.92	-1.25
Tapis (Hydroskimming)	2.31	1.51	0.89	0.27	↓	-0.61	0.78	-0.43	-0.77	0.98
Dubai (Hydrocracking)	7.73	5.52	5.16	3.90	↓	-1.26	4.02	3.67	3.57	4.33
Tapis (Hydrocracking)	6.52	5.16	5.26	4.51	↓	-0.75	5.00	3.85	3.41	5.22

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

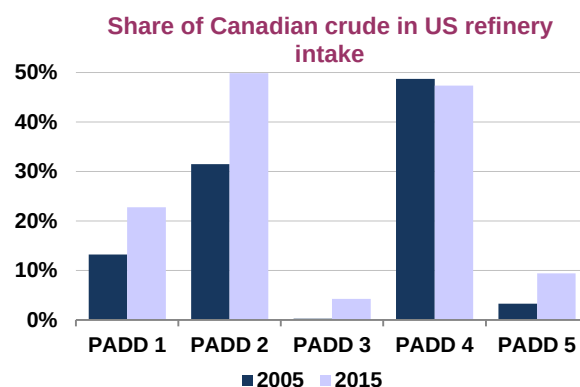
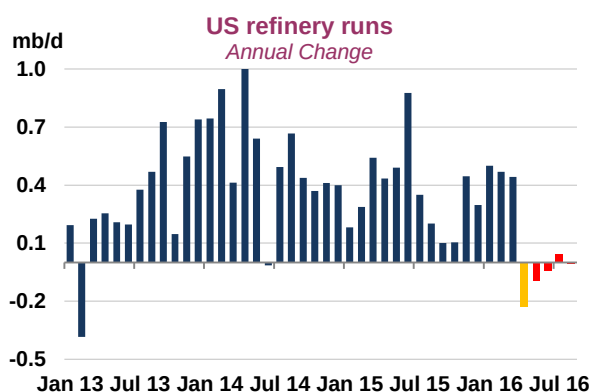
Source: IEA, KBC Advanced Technologies (KBC)

OECD middle distillate stocks are still well above normal seasonal levels. In terms of days of forward demand cover, they are at a record high. Diesel cracks reflect this oversupply, but refining margins are not that affected. In fact, the support from gasoline cracks has been so high since last year that were diesel prices to go to parity with crude (i.e. zero cracks), complex refining margins in all regions would still be mostly in positive territory.

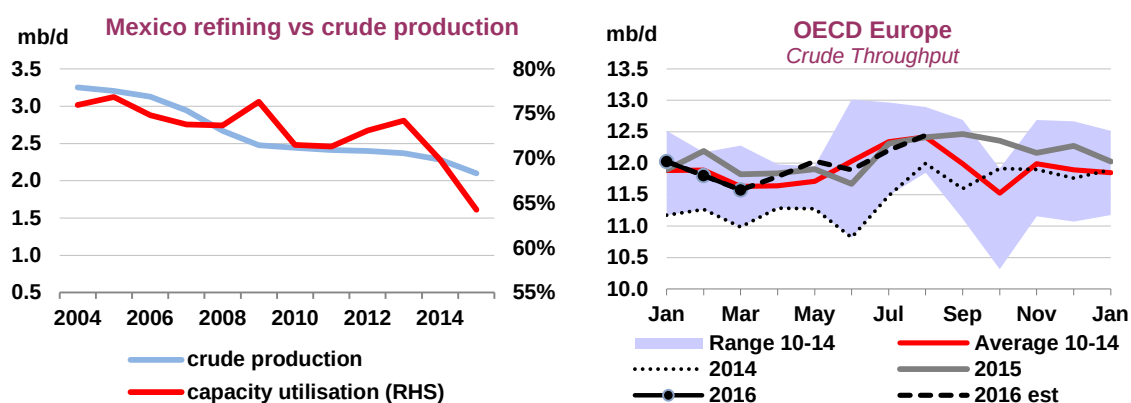


OECD refinery throughput

February throughput in the **US** was finalised at a slightly higher rate, with a 110 kb/d upwards revision. March preliminary monthly data also came in marginally higher than our estimate, with both months showing a robust y-o-y growth of 470 kb/d and 440 kb/d respectively. The weekly data for April, though, marked a dramatic revision of a trend as the runs dipped visibly below y-o-y levels for the first time in three years. Although March was expected to be the peak of spring maintenance, more capacity was offline in April due to refinery restart issues and crude pipeline problems (Transcanada's 500 kb/d pipeline carrying diluted bitumen from Alberta to US Midwest was shut for a few days early April due to a leak).



April runs are now estimated at just above 16 mb/d, some 230 kb/d lower y-o-y. The weaker performance is expected to continue in May, with some scheduled maintenance, but also incorporating the impact of Canadian wildfires on reduced supplies to the US as some traders of Canadian crude oil announced force majeure on deliveries in May. Canada is the biggest foreign supplier of crude oil to the US, providing an equivalent of 20% of the US refining throughput. Its share is especially high in landlocked refining regions of the country, with PADD 2 (Midwest), the second biggest refining region of the country, relying on Canada for about half of its crude intake. 2Q16 runs are forecast at 120 kb/d lower y-o-y, with July and August runs marginally higher or flat y-o-y. **Canadian** and **Mexican** runs in February were finalised with little changes from the preliminary numbers, leaving outlook unchanged, adding another 30 kb/d y-o-y decline to North American runs in 2Q16. Mexican refinery runs follow the path of crude production: having reached an all-time low utilisation rate of just 64% in 2015, they are not expected to recover soon.



Finalised numbers for February runs in OECD Europe came in 80 kb/d lower than cited in last month's *Report*, on **UK** and **Turkey** revisions, bringing the total to just under 11.8 kb/d. By contrast, preliminary numbers for March exceeded the forecast by 150 kb/d with stronger German runs and higher Spanish activity as some of the expected refinery turnaround possibly did not go ahead. With 1Q16 average runs showing a 160 kb/d y-o-y decline, 2Q16 is now expected to perform better, largely mirroring downward revisions to US runs which should result in a good gasoline arbitrage opportunity for European refiners. In July and August though, the decline trend resumes.

Refinery Crude Throughput and Utilisation in OECD Countries (million barrels per day)

	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Change from Feb 16	Mar 15	Utilisation rate ¹ Mar 16	Mar 15
US ²	15.47	16.49	16.77	15.99	15.88	16.10	0.22	0.44	0.88	0.88
Canada	1.56	1.59	1.66	1.76	1.67	1.73	0.06	0.02	0.87	0.86
Chile	0.15	0.14	0.17	0.17	0.17	0.17	-0.01	0.02	0.74	0.64
Mexico	1.06	1.05	1.12	1.11	1.04	1.09	0.05	-0.01	0.66	0.67
OECD Americas³	18.23	19.27	19.72	19.04	18.77	19.09	0.32	0.48	0.86	0.86
France	1.27	1.18	1.09	1.15	1.17	1.12	-0.04	-0.17	0.80	0.93
Germany	1.83	1.89	1.94	1.92	1.91	1.91	-0.01	0.12	0.94	0.88
Italy	1.34	1.40	1.38	1.30	1.14	1.20	0.06	-0.05	0.69	0.71
Netherlands	1.13	0.96	1.10	1.11	1.13	1.07	-0.07	0.12	0.83	0.73
Spain	1.36	1.21	1.34	1.22	1.26	1.27	0.01	0.02	0.84	0.83
United Kingdom	1.21	1.18	1.17	1.14	1.00	1.00	-0.01	-0.14	0.73	0.82
Other OECD Europe	4.21	4.33	4.24	4.17	4.17	4.00	-0.18	-0.15	0.83	0.85
OECD Europe	12.35	12.15	12.27	12.02	11.79	11.56	-0.23	-0.25	0.82	0.83
Japan	2.95	3.11	3.25	3.37	3.31	3.27	-0.04	0.00	0.88	0.82
South Korea	2.70	2.73	2.98	2.97	3.14	2.89	-0.25	0.13	0.88	0.84
Other Asia Oceania	0.72	0.75	0.79	0.78	0.80	0.79	-0.02	-0.05	0.79	0.76
OECD Asia Oceania	6.36	6.60	7.02	7.12	7.26	6.95	-0.31	0.08	0.87	0.82
OECD Total	36.93	38.02	39.00	38.18	37.82	37.60	-0.22	0.31	0.85	0.84

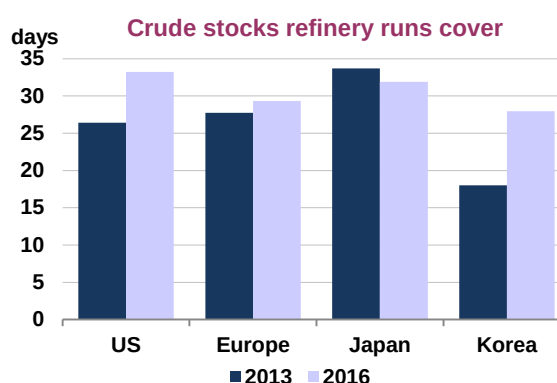
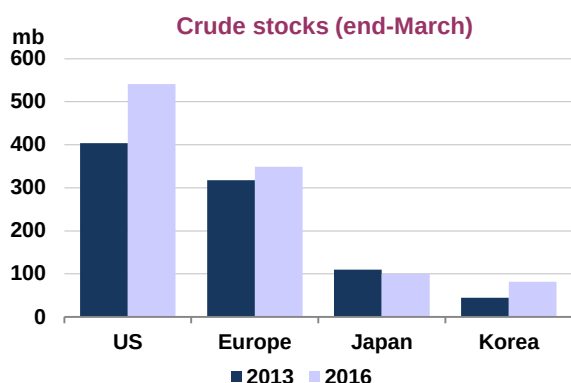
¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US\$0

³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

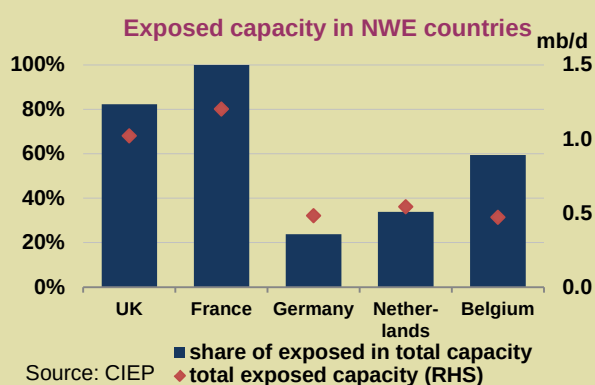
If preliminary numbers for March are confirmed, **South Korea** will have seen a record high quarterly throughput figure of 3 mb/d in 1Q16. This, however, is not expected to continue as both planned maintenance and the seasonal slowdown cut runs by 200 kb/d in 2Q16, but throughput resumes at above 3 mb/d levels in July and August. The government recently announced its intention to add 1.8 mb

to its strategic petroleum reserves, almost all for crude oil, which is explained by growing refinery runs. End-March commercial crude stocks in Korea stood at double the seasonal average for 2010-14. However, this increase has only seen the country reach the lower range of refinery run coverage levels observed in other OECD regions. Preliminary monthly data for March indicate that y-o-y declines in **Japan** may have halted for the moment. The forecast for runs from April through August is flat y-o-y, following the seasonal decline pattern of about 400 kb/d from 1Q to 2Q.



European refining –the future is never bright

The stellar year of 2015, when European refiners contributed a third of the global throughput increase, has not swayed many observers from the view that in the long-run, European refining will be pulled down by strong gravitational forces of structural demand decline and competition from refiners in other regions. In March this year the CEO of Spanish refiner CEPESA proposed at a public forum that the EU should follow the example of Japan's Ministry of Economy, Trade and Industry, and set specific targets for refinery closures. There will be refinery shutdowns, either in a planned manner, or, more spontaneously. His idea was that it would be easier if the closures were specifically mandated. The EU in response distanced its institutions from mandating or coordinating refining industry reorganisation, so it will be up to the invisible hand of the market to conduct the process.



A recent paper by the Dutch think-tank Clingendael International Energy Programme attempted to identify refineries in North-West Europe that have a more assured future versus refineries that are the most likely candidates to close. The authors analysed all refineries located in the five principal countries of the NWE trading hub: Netherlands, Belgium, Germany, France and the UK. If a refinery did not fall into one of the four 'must-run' categories (captive demand, petrochemical integration, downstream integration and surplus coking capacity), it was identified as exposed. Of the 34 refineries, only 12 qualified for the 'must-run' status.

Thus, the paper concludes that half of the close to 7 mb/d of capacity in the region is a candidate for restructuring in the long term. The differences by country are even more striking. Germany's refining sector is the most protected, with only a third of the capacity in the danger zone, while all of France's and all but one UK refinery are exposed. The authors also considered the barriers to exit, such as the refinery site's environmental clean-up costs or political intervention driven by public protests at job losses. This would add back nine refineries, with a total of 1.5 mb/d capacity, to the must-run list, reducing the hypothesised NWE capacity closures to about 35% of current capacity.

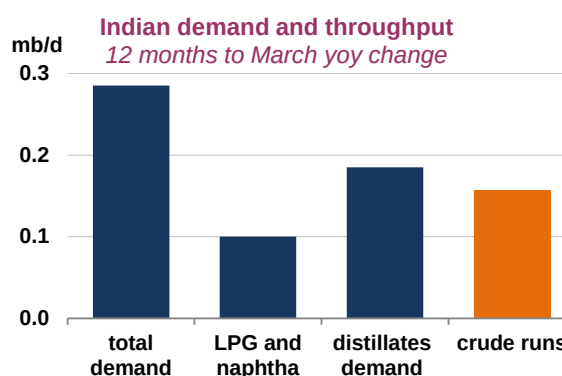
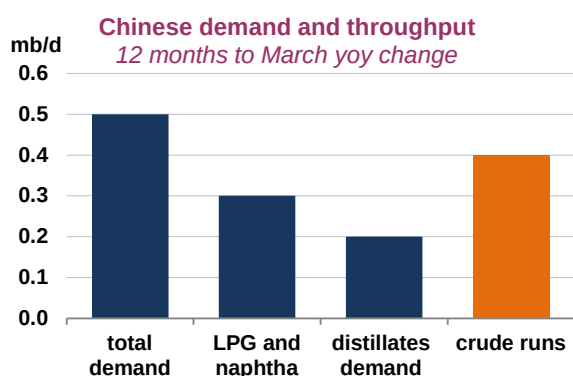
In the business of refinery closures, the first mover is at a disadvantage. Margins, even if temporarily, tend to improve, but it is the companies that did not part with their unwanted capacity that benefit most. This variation of the prisoners' dilemma adds further complication to refinery industry rationalisation in the free markets.

Non-OECD refinery throughput

Indian runs reached a record 5 mb/d mark for the first time in March, a league that has only ever had three other members: the US, China and Russia. This was a 436 kb/d upward revision to our estimate as a previously expected March maintenance of a Jamnagar CDU is now set for May. April runs are estimated to have been slightly lower with a minor maintenance programme, while May throughput will be affected by the Reliance maintenance, and, quite possibly, some operational run cuts due to the worst drought in decades. The drought has affected water supply to refineries as regional administrations imposed emergency water consumption controls. Mangalore Refining and Petrochemical Company announced in early May that it would shut down a CDU for one week, with a possible extension if conditions do not improve. India's runs are not expected to reach the 5 mb/d mark again in our forecast horizon through August.

Although the drought is also affecting the sugarcane harvest, Indian oil marketing companies have reportedly secured contracts to procure required volumes of ethanol, a byproduct of sugar mills, to meet the government target of 5% ethanol blending in gasoline, which would reduce the demand for refined gasoline. Set in 2012, the target has yet to be fully met. This will only very slightly moderate runaway gasoline demand in India, and the ban on diesel taxis in Delhi that came into force on May 1, will most likely have the same minimal effect. The Supreme Court on 9 May somewhat relaxed the diesel ban at the request of both the federal government and India's hugely important business services outsourcing industry. The latter suddenly faced the close to impossible task of ferrying thousands of workers to the offices with the inadequate public transport system.

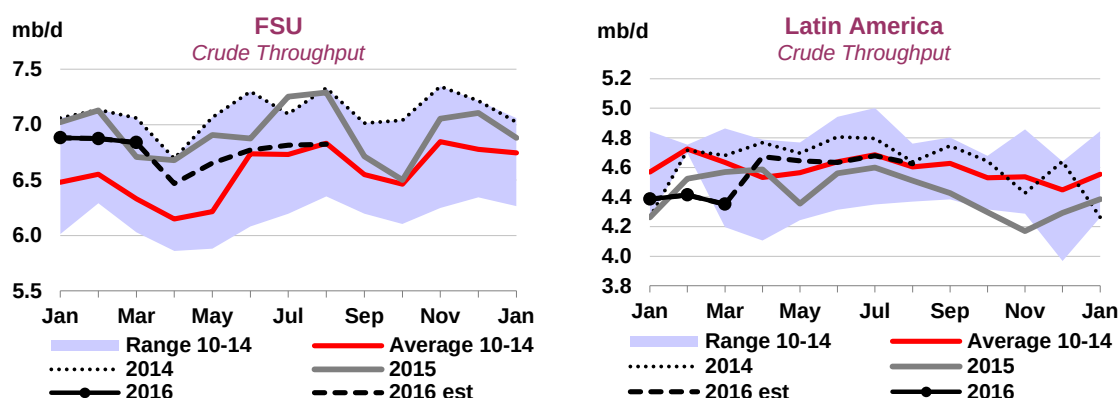
Chinese refinery throughput in March was slightly higher than our estimate, at 10.6 mb/d, marking a y-o-y growth rate of 0.5%. In April, while the two Chinese majors both reported 3.5% declines in 1Q16 crude runs versus a year earlier, independent refiners secured landmark deals with western majors to directly import crude oil for the first time. Even Saudi Aramco supplied an independent refiner from their Japanese storage facilities. Granted a total of 1.6 mb/d worth of licenses to refine imported crude oil, independent refiners increased their runs by just over 500 kb/d y-o-y in 1Q16. 2Q16 throughput is expected, however, to grow at a slower rate as independent refiners this summer are reportedly embarking on delayed maintenance from last year, some combining it with the upgrades necessary to improve fuel quality. This may provide some relief to the oversupplied domestic market.



There is a notable contrast between Chinese and Indian refining industry developments. In both countries, crude runs over the last 12 months (to March 2016) have increased by less than the total demand, relative to the previous 12-month period. In India, the crude throughput growth did not match the demand growth for the entire distillates group (gasoline, middle distillates and fuel oil), resulting in lower product exports. In China, LPG and naphtha, which are by-products from refining, accounted for a larger share in the demand growth, building up diesel and gasoline stocks and pushing for export

opportunities. Both Sinopec and Petrochina tried to address the mismatch between diesel output and domestic demand for diesel by lowering diesel yields and boosting gasoline yields.

April throughput volume in **Russia** at under 5.3 mb/d matched our forecast, resuming a y-o-y decline trend of about 230 kb/d. Although runs will pick up after seasonal maintenance, the y-o-y decline May through August will accelerate to 270 kb/d on average. A Russian energy ministry representative recently estimated that about 40 mt, or 14%, of the country's crude throughput comes from simple topping plants that should close down and free up crude volumes for export. The ministry forecasts crude runs down to 4.8 mb/d in 2020 from about 5.5 mb/d this year. As already discussed in the supply section, the FSU region as a whole exported a record volume of crude in March, reaching 7 mb/d for the first time, as refinery runs in 1Q16 were down 140 kb/d, with a decline of almost 200 kb/d forecast for 2Q16.

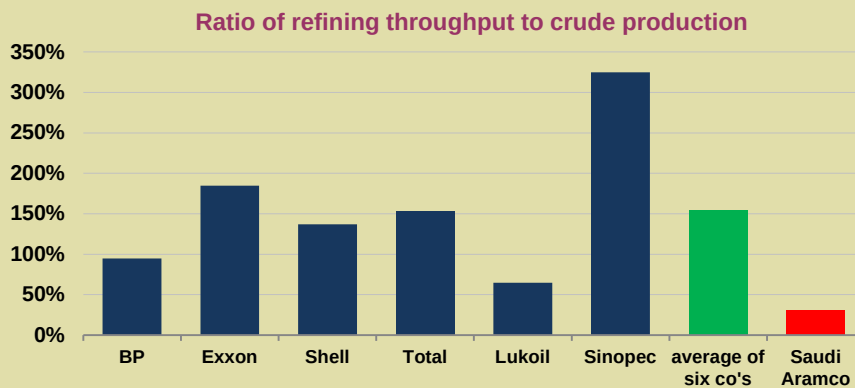


Refinery throughput is declining in another major crude exporting region: Latin America. In the absence of Venezuelan official data since September 2015 and Colombian data since the start of 2016, less than 60% of our 1Q16 throughput number is based on actual data. Venezuelan runs are estimated 80 kb/d lower y-o-y on average from January through August due to persisting problems and emergencies that started in autumn last year. **Brazil's** March throughput was surprisingly lower, in the absence of any reported maintenance. Instead of an expected 150 kb/d growth, runs were down 125 kb/d y-o-y. The forecast for 2Q16 and July-August are unchanged, with runs about 200 kb/d higher than 1Q16. Runs probably did pick up in April as there was a small stream of Europe-bound diesel cargoes from Brazil, reversing the more usual inward flow of US Gulf Coast or Rotterdam cargoes, although it remains to be seen if this was also a result of low diesel demand.

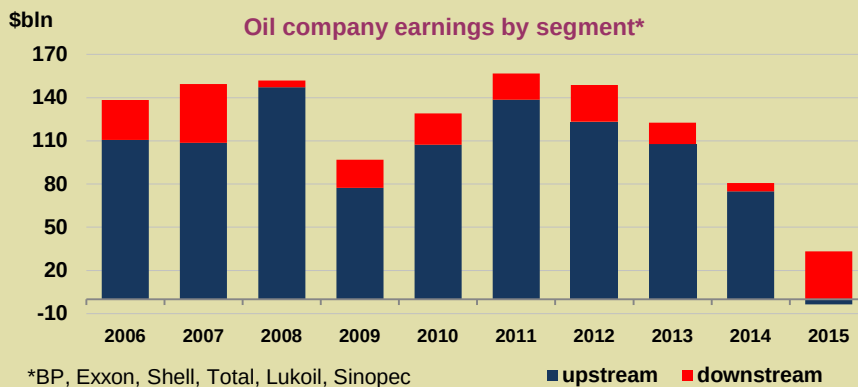
Saudi Arabia's February throughput was at a new record high of 2.7 mb/d, up by 0.6 mb/d y-o-y. While ramping up refining runs at home, Saudi Aramco also looks overseas to increase its exposure to the downstream business (see *Saudi Aramco's downstream ambition*). In Africa, the restart of **Morocco's** Samir plant, halted since August last year due to financial troubles, is pushed back to June. The refinery had acquired a cargo earlier in the year that would cover less than a week of its full run, but operations will resume at lower rates. It is still looking for potential buyers. **Nigeria** reported having restarted the Port Harcourt refinery in April, at a rate of about 25 kb/d, some 10% of the nameplate capacity, after months of complete shutdown at all three Nigerian refineries. The government has talked again about possible privatisation or joint ventures with Western majors, some of whom have reportedly expressed interest in rehabilitating the plants. By the admission of the country's petroleum resources minister, the refineries have not had proper maintenance for 15 years.

Saudi Aramco's downstream ambitions

Saudi Aramco recently announced plans to double its global refining capacity portfolio from the current level of 5.4 mb/d, of which they fully own 3.1 mb/d. It would be tempting to think that this is aimed at securing markets for their crude oil in the light of competition from Iran or other suppliers. In reality, the company could be attempting to increase its vertical integration to be more in line with international majors. The ratio of Saudi Aramco's refining capacity (wholly-owned) relative to crude output is very low when compared to international oil companies.



The total crude output of six international oil companies: BP, Exxon, Shell, Total, Lukoil and Sinopec, matches that of Saudi Aramco at about 10.4 mb/d, but their total refining volumes are more than five times higher than Saudi Aramco's. Downstream integration proved very useful in the current phase of oil price cycle as for many of the majors the loss in the upstream earnings was partially offset by downstream profits.



Representatives of both Saudi Aramco and the government have been quoted expressing interest in a number of refining projects in India, Indonesia and China, all expected to become net refined product importers longer-term. In March, Saudi Aramco also announced a deal with Shell to take full control of their joint venture refinery in the US, the 600 kb/d Motiva plant in Texas. The US is already a net refined product exporter, but the robust refining industry, especially in the Gulf Coast, still proves to be attractive.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	23.6	24.1	23.9	23.7	24.4	24.6	24.1	24.2	24.1	24.7	24.4	24.4	24.2	24.3	24.8	24.6	24.5
Europe	13.8	13.6	13.0	13.4	13.9	13.5	13.5	13.4	13.6	14.1	13.7	13.7	13.5	13.7	13.9	13.5	13.7
Asia Oceania	8.5	8.3	8.9	7.7	7.7	8.3	8.1	8.7	7.6	7.8	8.3	8.1	8.6	7.5	7.8	8.2	8.0
Total OECD	45.9	46.0	45.8	44.8	45.9	46.4	45.7	46.4	45.3	46.6	46.3	46.2	46.3	45.5	46.5	46.3	46.1
NON-OECD DEMAND																	
FSU	4.6	4.7	4.6	4.9	5.1	5.0	4.9	4.6	4.9	5.0	5.0	4.9	4.9	4.9	5.0	5.0	4.9
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	9.9	10.4	10.5	10.7	10.5	11.1	10.7	11.2	11.4	11.5	11.5	11.4	11.5	11.7	11.8	11.9	11.7
Other Asia	11.3	11.7	12.1	12.2	11.8	12.2	12.1	12.4	12.6	12.3	12.9	12.5	13.1	13.2	12.9	13.4	13.2
Americas	6.5	6.6	6.6	6.8	6.9	6.9	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.7	6.9	6.8	6.7
Middle East	7.8	7.9	7.7	8.2	8.4	7.8	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.2	8.7	8.3	8.2
Africa	3.8	3.9	4.0	4.0	3.9	4.0	4.0	4.1	4.1	4.0	4.2	4.1	4.2	4.3	4.2	4.3	4.3
Total Non-OECD	44.8	45.9	46.2	47.3	47.4	47.8	47.2	47.2	48.8	49.0	49.2	48.6	48.8	49.8	50.2	50.5	49.8
Total Demand¹	90.7	91.9	92.0	92.1	93.3	94.1	92.9	93.6	94.1	95.7	95.5	94.7	95.0	95.3	96.7	96.8	95.9
OECD SUPPLY																	
Americas ⁴	15.8	17.2	18.3	18.9	19.3	19.9	19.1	20.0	19.6	20.1	20.1	19.9	19.8	19.1	19.2	19.4	19.4
Europe	3.5	3.3	3.5	3.2	3.1	3.4	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.3	3.4	3.4
Asia Oceania	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4
Total OECD	19.8	21.0	22.3	22.6	22.9	23.8	22.9	23.8	23.5	23.9	24.2	23.9	23.8	23.0	22.9	23.2	23.2
NON-OECD SUPPLY																	
FSU	13.8	13.9	13.9	13.8	13.8	13.9	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.1	13.9	14.0	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.2	4.2	4.2	4.4	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2
Other Asia ²	2.7	2.7	2.6	2.6	2.6	2.7	2.6	2.8	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.2	4.3	4.3	4.5	4.6	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.5	4.5	4.6	4.5
Middle East	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa ²	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.1	2.2	2.3	2.2
Total Non-OECD	28.7	28.6	28.9	28.7	28.8	29.3	28.9	29.4	29.3	29.1	29.3	29.3	29.1	28.9	28.9	29.0	29.0
Processing gains ³	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Global Biofuels	1.9	2.0	1.7	2.3	2.6	2.3	2.2	1.8	2.4	2.6	2.4	2.3	1.9	2.4	2.7	2.4	2.4
Total Non-OPEC Supply ²	52.5	53.8	55.0	55.8	56.5	57.7	56.3	57.3	57.4	57.8	58.1	57.7	57.1	56.5	56.8	56.9	56.8
OPEC																	
Crude	32.1	31.2	30.7	30.8	31.2	31.2	31.0	31.2	32.2	32.4	32.4	32.1	32.6				
NGLs	6.4	6.3	6.4	6.4	6.6	6.6	6.5	6.6	6.7	6.7	6.8	6.7	6.8	6.8	6.9	6.9	6.9
Total OPEC ²	38.4	37.5	37.1	37.2	37.8	37.8	37.5	37.7	38.9	39.1	39.2	38.7	39.3				
Total Supply⁴	90.9	91.4	92.1	93.1	94.3	95.5	93.7	95.1	96.3	97.0	97.2	96.4	96.4				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.2	-0.2	0.2	0.8	0.7	-0.1	0.4	0.8	1.0	0.8	0.4	0.8	0.3				
Government	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1				
Total	0.2	-0.2	0.2	0.7	0.7	-0.1	0.4	0.9	1.0	0.8	0.4	0.8	0.4				
Floating storage/Oil in transit	-0.1	0.1	0.2	-0.3	0.3	-0.2	0.0	0.4	0.4	-0.2	0.5	0.3	0.2				
Miscellaneous to balance ⁵	0.1	-0.5	-0.3	0.6	-0.1	1.6	0.4	0.2	0.7	0.7	0.8	0.6	0.8				
Total Stock Ch. & Misc	0.2	-0.6	0.2	0.9	0.9	1.3	0.9	1.5	2.2	1.3	1.8	1.7	1.4				
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	31.8	31.7	30.5	29.8	30.3	29.9	30.1	29.7	30.0	31.1	30.6	30.4	31.1	31.9	33.0	32.9	32.2

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2012	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.1	-0.1	-	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Asia	-0.1	-0.1	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-	-	0.1	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-0.1	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	-	0.1
Total Demand	-0.1	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1	0.1	-	0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.2	-0.1	-0.1	-0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.4	-0.1	-0.1	-0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Stock Ch. & Misc	0.1	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-0.1	-	-	-	-	-	-	-	-	-	-	-	0.1	0.4	0.2	0.1	0.2

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016
Demand (mb/d)																
Americas	24.07	23.88	23.72	24.37	24.56	24.14	24.24	24.09	24.73	24.37	24.36	24.21	24.27	24.78	24.56	24.46
Europe	13.62	13.04	13.43	13.87	13.47	13.45	13.44	13.56	14.14	13.68	13.71	13.47	13.67	13.93	13.53	13.65
Asia Oceania	8.34	8.86	7.67	7.68	8.32	8.13	8.75	7.65	7.78	8.25	8.10	8.57	7.54	7.76	8.21	8.02
Total OECD	46.02	45.78	44.82	45.93	46.35	45.72	46.43	45.30	46.64	46.31	46.17	46.26	45.48	46.48	46.30	46.13
Asia	22.09	22.57	22.83	22.33	23.29	22.76	23.54	24.02	23.79	24.38	23.93	24.65	24.93	24.71	25.33	24.90
Middle East	7.91	7.72	8.16	8.39	7.84	8.03	7.63	8.34	8.59	8.12	8.17	7.78	8.24	8.67	8.30	8.25
Americas	6.63	6.60	6.77	6.93	6.91	6.80	6.62	6.77	6.85	6.79	6.76	6.53	6.73	6.87	6.84	6.74
FSU	4.72	4.63	4.86	5.14	5.05	4.92	4.57	4.89	5.05	4.97	4.87	4.85	4.93	5.04	4.97	4.95
Africa	3.89	4.01	4.01	3.89	3.99	3.97	4.13	4.12	4.03	4.20	4.12	4.25	4.27	4.18	4.33	4.25
Europe	0.66	0.65	0.67	0.69	0.68	0.67	0.68	0.69	0.71	0.71	0.70	0.70	0.71	0.71	0.72	0.71
Total Non-OECD	45.89	46.18	47.31	47.38	47.77	47.16	47.18	48.83	49.03	49.17	48.56	48.75	49.81	50.19	50.49	49.81
World	91.91	91.96	92.12	93.30	94.12	92.88	93.60	94.12	95.67	95.48	94.73	95.01	95.29	96.67	96.79	95.94
of which: US50	18.96	18.82	18.77	19.31	19.51	19.11	19.29	19.25	19.68	19.36	19.40	19.31	19.45	19.84	19.60	19.55
Europe 5*	8.12	7.87	7.91	8.19	8.04	8.00	8.03	7.99	8.34	8.09	8.11	8.05	8.02	8.17	7.97	8.05
China	10.35	10.52	10.67	10.54	11.09	10.70	11.18	11.42	11.46	11.50	11.39	11.54	11.74	11.77	11.91	11.74
Japan	4.56	5.07	3.92	3.92	4.48	4.35	4.79	3.89	3.94	4.23	4.21	4.46	3.65	3.80	4.16	4.02
India	3.68	3.81	3.88	3.56	3.80	3.76	3.95	4.01	3.86	4.09	3.98	4.35	4.38	4.19	4.40	4.33
Russia	3.46	3.46	3.62	3.86	3.68	3.66	3.37	3.62	3.75	3.61	3.59	3.65	3.64	3.72	3.58	3.65
Brazil	3.11	3.12	3.17	3.29	3.31	3.22	3.16	3.17	3.22	3.20	3.19	3.02	3.08	3.18	3.19	3.12
Saudi Arabia	2.96	2.78	3.29	3.47	3.02	3.14	2.88	3.46	3.58	3.21	3.29	2.90	3.32	3.58	3.23	3.26
Canada	2.37	2.41	2.32	2.44	2.41	2.40	2.36	2.26	2.38	2.34	2.34	2.29	2.22	2.34	2.29	2.29
Korea	2.33	2.35	2.31	2.32	2.38	2.34	2.48	2.32	2.39	2.54	2.43	2.62	2.43	2.49	2.59	2.53
Mexico	2.09	2.00	2.02	2.00	2.02	2.02	1.91	1.95	2.04	2.02	1.98	1.95	1.97	1.97	2.01	1.97
Iran	1.92	1.96	1.89	1.85	1.91	1.90	1.82	1.85	1.79	1.87	1.83	1.86	1.85	1.87	1.96	1.88
Total	63.91	64.15	63.76	64.75	65.65	64.58	65.23	65.20	66.42	66.06	65.73	66.00	65.74	66.89	66.90	66.39
% of World	69.5%	69.8%	69.2%	69.4%	69.8%	69.5%	69.7%	69.3%	69.4%	69.2%	69.4%	69.5%	69.0%	69.2%	69.1%	69.2%
Annual Change (% per annum)																
Americas	1.9	0.4	-0.6	0.2	1.0	0.3	1.5	1.6	1.5	-0.8	0.9	-0.1	0.7	0.2	0.8	0.4
Europe	-1.2	-0.6	-2.9	-0.6	-0.6	-1.2	3.1	1.0	1.9	1.6	1.9	0.2	0.8	-1.4	-1.1	-0.4
Asia Oceania	-2.0	0.3	-2.5	-4.2	-3.6	-2.5	-1.3	-0.3	1.3	-0.8	-0.3	-2.0	-1.4	-0.2	-0.5	-1.0
Total OECD	0.2	0.1	-1.6	-0.8	-0.3	-0.7	1.4	1.1	1.6	-0.1	1.0	-0.4	0.4	-0.4	0.0	-0.1
Asia	3.9	2.5	3.3	2.5	3.7	3.0	4.3	5.2	6.6	4.7	5.2	4.7	3.8	3.9	3.9	4.1
Middle East	0.8	1.7	2.1	0.0	2.5	1.6	-1.1	2.2	2.3	3.5	1.8	1.9	-1.2	0.9	2.2	0.9
Americas	1.4	3.3	2.4	2.8	2.0	2.6	0.4	0.0	-1.1	-1.8	-0.7	-1.5	-0.5	0.3	0.7	-0.2
FSU	1.9	5.4	5.9	4.3	2.2	4.4	-1.2	0.6	-1.8	-1.5	-1.0	6.0	0.8	-0.1	-0.1	1.5
Africa	2.1	0.7	1.3	4.7	2.2	2.2	2.8	2.6	3.8	5.3	3.6	2.9	3.6	3.6	3.0	3.3
Europe	-4.0	5.5	2.8	3.0	-0.3	2.6	4.1	3.4	2.4	4.2	3.5	3.4	2.4	0.8	1.0	1.9
Total Non-OECD	2.5	2.7	3.0	2.5	2.9	2.8	2.2	3.2	3.5	2.9	3.0	3.3	2.0	2.4	2.7	2.6
World	1.4	1.4	0.7	0.8	1.3	1.1	1.8	2.2	2.5	1.4	2.0	1.5	1.2	1.0	1.4	1.3
Annual Change (mb/d)																
Americas	0.44	0.10	-0.13	0.06	0.23	0.07	0.36	0.37	0.35	-0.19	0.22	-0.03	0.18	0.06	0.18	0.10
Europe	-0.16	-0.08	-0.41	-0.08	-0.08	-0.16	0.40	0.13	0.26	0.21	0.25	0.03	0.11	-0.20	-0.15	-0.05
Asia Oceania	-0.17	0.03	-0.20	-0.34	-0.31	-0.21	-0.12	-0.02	0.10	-0.07	-0.03	-0.17	-0.10	-0.02	-0.04	-0.08
Total OECD	0.11	0.05	-0.74	-0.36	-0.15	-0.30	0.65	0.48	0.71	-0.04	0.45	-0.17	0.19	-0.16	-0.01	-0.04
Asia	0.84	0.56	0.73	0.54	0.83	0.67	0.97	1.19	1.46	1.08	1.18	1.10	0.91	0.92	0.95	0.97
Middle East	0.06	0.13	0.17	0.00	0.19	0.12	-0.08	0.18	0.20	0.28	0.14	0.15	-0.10	0.08	0.18	0.07
Americas	0.09	0.21	0.16	0.19	0.14	0.17	0.03	0.00	-0.08	-0.12	-0.05	-0.10	-0.03	0.02	0.05	-0.02
FSU	0.09	0.24	0.27	0.21	0.11	0.21	-0.05	0.03	-0.10	-0.07	-0.05	0.28	0.04	-0.01	-0.01	0.07
Africa	0.08	0.03	0.05	0.17	0.09	0.09	0.11	0.10	0.15	0.21	0.14	0.12	0.15	0.15	0.13	0.14
Europe	-0.03	0.03	0.02	0.02	0.00	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01
Total Non-OECD	1.13	1.21	1.40	1.13	1.36	1.27	1.00	1.52	1.65	1.41	1.40	1.57	0.98	1.16	1.31	1.25
World	1.23	1.26	0.66	0.77	1.21	0.97	1.65	2.00	2.37	1.36	1.84	1.41	1.17	1.00	1.30	1.22
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.04	-0.02	-0.02	0.03
Europe	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.03	0.01	0.05	0.01
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	-0.06	-0.08	-0.08	-0.05
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.01	0.00	0.00	0.12	-0.05	-0.09	-0.04	-0.02
Asia	0.03	0.05	0.04	0.04	0.05	0.05	0.06	0.03	0.02	0.02	0.03	0.08	0.13	0.14	0.09	0.11
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.06	0.00	0.00	-0.04
Americas	-0.04	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	0.03	-0.02	-0.04	-0.06	-0.02
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.06	0.02	0.02	0.04
Africa	0.00	0.00	-0.01	-0.02	0.00	-0.01	0.00	0.01	0.04	0.01	0.01	-0.02	-0.01	0.01	0.00	-0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	-0.01	0.03	0.01	0.00	0.02	0.02	0.03	0.01	0.03	0.00	0.02	0.07	0.11	0.14	0.05	0.09
World	-0.01	0.03	0.01	0.00	0.02	0.01	0.03	0.01	0.04	0.00	0.02	0.19	0.06	0.05	0.00	0.07
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.04	0.04	0.01	0.02	0.04	0.03	0.00	0.00	0.03	-0.02	0.00	0.16	0.05	0.02	0.00	0.06

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	1Q15	2Q15	3Q15	4Q15	Dec 15	Jan 16	Feb 16 ²	Jan 16	Feb 15
Americas											
LPG and ethane	3.22	3.21	3.48	2.98	3.02	3.37	3.59	3.78	3.58	-0.21	-0.03
Naphtha	0.35	0.34	0.35	0.31	0.33	0.36	0.38	0.37	0.34	-0.02	-0.01
Motor gasoline	10.64	10.88	10.49	10.97	11.16	10.90	10.88	10.41	10.94	0.53	0.60
Jet and kerosene	1.74	1.81	1.72	1.81	1.88	1.84	1.86	1.71	1.79	0.08	0.07
Gasoil/diesel oil	5.28	5.20	5.52	5.11	5.16	5.04	4.98	4.96	5.17	0.22	-0.68
Residual fuel oil	0.58	0.55	0.51	0.44	0.63	0.62	0.64	0.58	0.44	-0.14	-0.02
Other products	2.32	2.37	2.17	2.47	2.56	2.25	2.22	2.15	2.33	0.19	0.23
Total	24.14	24.36	24.24	24.09	24.73	24.37	24.54	23.94	24.59	0.65	0.17
Europe											
LPG and ethane	1.08	1.15	1.21	1.14	1.11	1.13	1.24	1.25	1.27	0.02	0.09
Naphtha	1.17	1.17	1.25	1.14	1.12	1.15	1.23	1.29	1.31	0.02	0.03
Motor gasoline	1.91	1.92	1.78	1.98	2.02	1.90	1.92	1.67	1.83	0.16	0.02
Jet and kerosene	1.27	1.32	1.19	1.34	1.49	1.25	1.22	1.18	1.27	0.09	0.07
Gasoil/diesel oil	5.93	6.18	6.16	5.95	6.30	6.31	6.35	5.72	6.36	0.65	-0.12
Residual fuel oil	0.92	0.87	0.88	0.86	0.87	0.88	0.91	0.92	0.92	0.00	0.01
Other products	1.17	1.10	0.99	1.15	1.22	1.06	0.93	0.92	0.98	0.06	-0.04
Total	13.45	13.71	13.44	13.56	14.14	13.68	13.80	12.95	13.94	1.00	0.07
Asia Oceania											
LPG and ethane	0.85	0.79	0.90	0.73	0.75	0.78	0.82	0.77	0.91	0.14	-0.07
Naphtha	1.88	1.97	2.04	1.88	1.95	2.00	2.13	2.06	2.11	0.05	0.04
Motor gasoline	1.55	1.55	1.52	1.51	1.62	1.57	1.63	1.48	1.56	0.08	-0.01
Jet and kerosene	0.86	0.86	1.11	0.68	0.69	0.95	1.14	1.21	1.23	0.02	-0.01
Gasoil/diesel oil	1.77	1.81	1.85	1.76	1.76	1.88	1.91	1.74	1.93	0.19	-0.04
Residual fuel oil	0.67	0.63	0.77	0.60	0.54	0.63	0.71	0.73	0.75	0.02	-0.04
Other products	0.56	0.49	0.56	0.48	0.46	0.45	0.48	0.51	0.49	-0.01	-0.10
Total	8.13	8.10	8.75	7.65	7.78	8.25	8.83	8.51	8.98	0.48	-0.23
OECD											
LPG and ethane	5.15	5.15	5.58	4.85	4.89	5.27	5.65	5.81	5.76	-0.05	0.00
Naphtha	3.40	3.47	3.64	3.34	3.40	3.50	3.74	3.72	3.76	0.04	0.06
Motor gasoline	14.10	14.35	13.78	14.46	14.80	14.37	14.42	13.56	14.34	0.78	0.61
Jet and kerosene	3.87	3.99	4.03	3.83	4.06	4.04	4.23	4.10	4.28	0.19	0.13
Gasoil/diesel oil	12.99	13.20	13.53	12.82	13.22	13.23	13.23	12.41	13.46	1.05	-0.84
Residual fuel oil	2.17	2.05	2.15	1.90	2.03	2.13	2.27	2.23	2.11	-0.12	-0.05
Other products	4.05	3.96	3.72	4.10	4.24	3.76	3.64	3.57	3.80	0.23	0.08
Total	45.72	46.17	46.43	45.30	46.64	46.31	47.17	45.40	47.52	2.12	0.00

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	1Q15	2Q15	3Q15	4Q15	Dec 15	Jan 16	Feb 16 ²	Latest month vs.	
										Jan 16	Feb 15
United States³											
LPG and ethane	2.40	2.37	2.62	2.18	2.20	2.50	2.69	2.90	2.72	-0.18	-0.04
Naphtha	0.23	0.22	0.23	0.20	0.22	0.24	0.25	0.22	0.22	0.00	-0.01
Motor gasoline	8.92	9.16	8.81	9.26	9.39	9.17	9.14	8.67	9.21	0.54	0.56
Jet and kerosene	1.48	1.55	1.46	1.55	1.59	1.58	1.60	1.45	1.53	0.08	0.08
Gasoil/diesel oil	4.04	3.98	4.27	3.88	3.93	3.83	3.80	3.82	3.96	0.14	-0.58
Residual fuel oil	0.26	0.26	0.24	0.19	0.31	0.30	0.33	0.34	0.20	-0.14	0.00
Other products	1.78	1.86	1.66	1.99	2.04	1.74	1.73	1.66	1.85	0.18	0.28
Total	19.11	19.40	19.29	19.25	19.68	19.36	19.54	19.06	19.68	0.63	0.28
Japan											
LPG and ethane	0.50	0.45	0.57	0.42	0.41	0.42	0.47	0.43	0.54	0.11	-0.09
Naphtha	0.75	0.80	0.84	0.75	0.79	0.81	0.89	0.86	0.79	-0.07	-0.09
Motor gasoline	0.92	0.91	0.88	0.89	0.97	0.92	0.96	0.84	0.88	0.04	-0.03
Jet and kerosene	0.52	0.50	0.73	0.35	0.35	0.57	0.74	0.77	0.80	0.03	-0.03
Diesel	0.43	0.43	0.43	0.42	0.43	0.44	0.45	0.37	0.45	0.08	-0.01
Other gasoil	0.38	0.36	0.42	0.33	0.32	0.38	0.41	0.38	0.45	0.07	-0.02
Residual fuel oil	0.41	0.36	0.46	0.34	0.31	0.32	0.35	0.36	0.39	0.03	-0.10
Other products	0.44	0.40	0.46	0.40	0.38	0.38	0.42	0.42	0.42	0.00	-0.07
Total	4.35	4.21	4.79	3.89	3.94	4.23	4.70	4.43	4.71	0.29	-0.44
Germany											
LPG and ethane	0.09	0.10	0.09	0.11	0.10	0.09	0.09	0.09	0.10	0.01	0.01
Naphtha	0.42	0.40	0.43	0.39	0.37	0.40	0.43	0.45	0.42	-0.03	-0.01
Motor gasoline	0.44	0.43	0.40	0.44	0.45	0.43	0.42	0.37	0.41	0.04	0.02
Jet and kerosene	0.19	0.19	0.17	0.19	0.21	0.18	0.17	0.16	0.17	0.01	0.01
Diesel	0.73	0.77	0.71	0.76	0.81	0.79	0.72	0.67	0.76	0.09	0.05
Other gasoil	0.36	0.35	0.45	0.24	0.34	0.36	0.39	0.44	0.50	0.05	-0.01
Residual fuel oil	0.12	0.11	0.11	0.12	0.11	0.11	0.12	0.14	0.13	-0.01	0.02
Other products	0.05	0.05	0.02	0.05	0.07	0.05	0.02	0.00	0.00	0.00	-0.03
Total	2.40	2.39	2.39	2.30	2.46	2.41	2.36	2.33	2.49	0.17	0.04
Italy											
LPG and ethane	0.11	0.12	0.13	0.11	0.11	0.13	0.14	0.13	0.13	0.01	-0.01
Naphtha	0.09	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.13	0.01	0.02
Motor gasoline	0.20	0.21	0.19	0.21	0.23	0.21	0.21	0.18	0.20	0.02	0.00
Jet and kerosene	0.09	0.09	0.08	0.10	0.11	0.08	0.07	0.07	0.09	0.01	0.02
Diesel	0.50	0.46	0.44	0.47	0.47	0.47	0.47	0.40	0.45	0.05	0.01
Other gasoil	0.04	0.09	0.09	0.09	0.10	0.10	0.11	0.08	0.10	0.01	-0.01
Residual fuel oil	0.06	0.08	0.08	0.08	0.08	0.08	0.09	0.07	0.08	0.01	-0.01
Other products	0.14	0.13	0.11	0.14	0.13	0.13	0.12	0.09	0.11	0.02	0.00
Total	1.22	1.30	1.22	1.31	1.35	1.31	1.33	1.15	1.29	0.14	0.03
France											
LPG and ethane	0.11	0.13	0.15	0.11	0.11	0.13	0.14	0.16	0.17	0.01	0.01
Naphtha	0.12	0.11	0.12	0.12	0.12	0.08	0.09	0.13	0.12	-0.01	-0.01
Motor gasoline	0.16	0.16	0.14	0.17	0.18	0.16	0.17	0.13	0.15	0.02	0.01
Jet and kerosene	0.15	0.15	0.14	0.16	0.17	0.15	0.14	0.14	0.14	0.00	0.00
Diesel	0.70	0.70	0.67	0.71	0.72	0.71	0.74	0.60	0.69	0.09	0.01
Other gasoil	0.25	0.25	0.29	0.20	0.28	0.24	0.28	0.25	0.26	0.01	-0.06
Residual fuel oil	0.05	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.04	-0.01	-0.01
Other products	0.12	0.10	0.09	0.12	0.10	0.08	0.06	0.09	0.10	0.01	0.00
Total	1.65	1.65	1.66	1.63	1.71	1.58	1.67	1.55	1.68	0.13	-0.06
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.14	0.12	0.14	0.15	0.18	0.18	-0.01	0.03
Naphtha	0.02	0.03	0.02	0.02	0.03	0.04	0.03	0.04	0.04	0.00	0.02
Motor gasoline	0.30	0.29	0.29	0.30	0.30	0.29	0.29	0.27	0.29	0.02	-0.03
Jet and kerosene	0.31	0.31	0.33	0.30	0.31	0.30	0.33	0.31	0.34	0.03	0.00
Diesel	0.48	0.50	0.47	0.50	0.50	0.51	0.50	0.45	0.54	0.08	-0.01
Other gasoil	0.13	0.13	0.13	0.14	0.14	0.13	0.11	0.11	0.11	0.00	-0.04
Residual fuel oil	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.00	-0.01
Other products	0.12	0.12	0.11	0.11	0.13	0.12	0.12	0.11	0.11	0.01	0.01
Total	1.52	1.54	1.52	1.54	1.56	1.56	1.57	1.50	1.63	0.13	-0.02
Canada											
LPG and ethane	0.37	0.38	0.40	0.36	0.38	0.41	0.42	0.44	0.40	-0.04	0.02
Naphtha	0.09	0.09	0.10	0.09	0.09	0.10	0.12	0.12	0.11	-0.01	0.02
Motor gasoline	0.84	0.82	0.79	0.82	0.85	0.81	0.79	0.85	0.81	-0.04	0.00
Jet and kerosene	0.13	0.14	0.13	0.13	0.16	0.13	0.13	0.13	0.13	0.00	-0.01
Diesel	0.29	0.31	0.32	0.31	0.32	0.29	0.27	0.30	0.31	0.01	-0.04
Other gasoil	0.30	0.26	0.27	0.24	0.26	0.26	0.27	0.22	0.24	0.02	-0.05
Residual fuel oil	0.06	0.04	0.06	0.04	0.03	0.04	0.04	0.05	0.05	0.00	-0.02
Other products	0.30	0.29	0.29	0.26	0.31	0.30	0.26	0.25	0.26	0.01	-0.07
Total	2.40	2.34	2.36	2.26	2.38	2.34	2.30	2.35	2.31	-0.05	-0.14

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2014	2015	2016	4Q15	1Q16	2Q16	3Q16	4Q16	Feb 16	Mar 16	Apr 16
OPEC											
Crude Oil											
Saudi Arabia	9.53	10.13		10.18	10.21				10.22	10.19	10.19
Iran	2.81	2.86		2.89	3.15				3.20	3.26	3.56
Iraq	3.33	3.99		4.28	4.28				4.22	4.19	4.36
UAE	2.76	2.88		2.89	2.81				2.78	2.73	2.82
Kuwait	2.61	2.75		2.78	2.83				2.83	2.83	2.73
Neutral Zone	0.38	0.07		0.00	0.00				0.00	0.00	0.00
Qatar	0.71	0.66		0.66	0.66				0.67	0.67	0.66
Angola	1.66	1.76		1.76	1.77				1.76	1.80	1.77
Nigeria	1.90	1.80		1.84	1.76				1.76	1.68	1.62
Libya	0.46	0.40		0.40	0.36				0.37	0.34	0.36
Algeria	1.12	1.11		1.11	1.10				1.10	1.11	1.09
Ecuador	0.55	0.54		0.54	0.54				0.55	0.55	0.53
Venezuela	2.46	2.40		2.38	2.36				2.37	2.35	2.33
Indonesia	0.70	0.69		0.69	0.71				0.71	0.73	0.74
Total Crude Oil	30.98	32.05		32.39	32.56				32.54	32.43	32.76
Total NGLs ¹	6.50	6.68	6.85	6.76	6.77	6.82	6.88	6.94	6.77	6.77	6.82
Total OPEC²	37.48	38.73		39.15	39.33				39.31	39.20	39.58
NON-OPEC^{2,3}											
OECD											
Americas	19.08	19.93	19.36	20.08	19.78	19.09	19.18	19.39	19.85	19.59	19.48
United States	11.99	12.94	12.46	12.98	12.67	12.51	12.32	12.36	12.72	12.64	12.60
Mexico	2.81	2.60	2.48	2.59	2.54	2.50	2.44	2.46	2.52	2.51	2.50
Canada	4.28	4.39	4.41	4.50	4.57	4.08	4.42	4.57	4.60	4.43	4.37
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.32	3.46	3.42	3.60	3.62	3.41	3.26	3.40	3.62	3.62	3.51
UK	0.87	0.96	0.98	1.03	1.08	1.02	0.88	0.96	1.08	1.09	1.05
Norway	1.89	1.95	1.93	2.02	2.04	1.91	1.86	1.92	2.06	2.01	2.00
Others	0.57	0.56	0.51	0.55	0.51	0.48	0.53	0.52	0.47	0.52	0.46
Asia Oceania	0.51	0.46	0.45	0.47	0.45	0.45	0.45	0.45	0.44	0.46	0.46
Australia	0.43	0.38	0.37	0.39	0.37	0.38	0.38	0.37	0.36	0.38	0.38
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.08	0.07	0.08
Total OECD	22.91	23.86	23.24	24.15	23.85	22.96	22.89	23.24	23.90	23.67	23.45
NON-OECD											
Former USSR	13.87	14.00	14.04	14.06	14.20	14.07	13.90	13.98	14.21	14.20	14.10
Russia	10.91	11.06	11.17	11.13	11.24	11.18	11.13	11.13	11.24	11.23	11.18
Others	2.96	2.94	2.87	2.93	2.96	2.89	2.77	2.84	2.97	2.96	2.92
Asia²	6.88	7.06	6.90	7.08	6.94	6.89	6.89	6.89	6.95	6.89	6.88
China	4.25	4.33	4.17	4.33	4.18	4.16	4.17	4.16	4.18	4.14	4.16
Malaysia	0.65	0.71	0.74	0.71	0.74	0.75	0.75	0.74	0.73	0.74	0.75
India	0.88	0.87	0.83	0.87	0.85	0.82	0.82	0.84	0.87	0.84	0.83
Others	1.10	1.15	1.16	1.17	1.17	1.15	1.16	1.15	1.16	1.16	1.14
Europe	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Americas²	4.42	4.58	4.49	4.57	4.36	4.49	4.54	4.56	4.37	4.31	4.46
Brazil	2.35	2.53	2.56	2.53	2.40	2.55	2.63	2.67	2.42	2.35	2.51
Argentina	0.63	0.63	0.62	0.63	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Colombia	0.99	1.01	0.94	1.00	0.97	0.95	0.93	0.90	0.96	0.96	0.95
Others	0.44	0.41	0.37	0.40	0.37	0.38	0.37	0.37	0.38	0.38	0.38
Middle East^{2,4}	1.32	1.25	1.21	1.23	1.23	1.21	1.21	1.20	1.25	1.21	1.21
Oman	0.95	0.99	0.99	1.00	1.01	0.98	0.98	0.97	1.02	0.98	0.98
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.15	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.19	0.19
Africa	2.28	2.25	2.20	2.23	2.20	2.14	2.22	2.25	2.22	2.15	2.12
Egypt	0.71	0.72	0.69	0.72	0.70	0.70	0.69	0.68	0.70	0.70	0.70
Gabon	0.22	0.21	0.20	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Others	1.35	1.32	1.31	1.31	1.29	1.25	1.33	1.37	1.31	1.24	1.21
Total Non-OECD	28.90	29.28	28.97	29.30	29.07	28.93	28.88	29.01	29.13	28.89	28.90
Processing gains ⁵	2.21	2.24	2.27	2.24	2.27	2.27	2.27	2.27	2.27	2.27	2.27
Global Biofuels	2.23	2.30	2.36	2.39	1.91	2.39	2.75	2.41	1.89	1.94	2.02
TOTAL NON-OPEC	56.26	57.67	56.84	58.08	57.09	56.55	56.79	56.93	57.19	56.76	56.63
TOTAL SUPPLY	93.74	96.40		97.24	96.42				96.50	95.96	96.21

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Nov2015	Dec2015	Jan2016	Feb2016	Mar2016*	Mar2013	Mar2014	Mar2015	2Q2015	3Q2015	4Q2015	1Q2016
OECD Americas												
Crude	646.8	641.1	660.9	674.8	685.4	535.3	525.6	625.2	0.00	-0.10	0.27	0.49
Motor Gasoline	254.5	267.5	291.5	285.3	276.4	259.8	260.1	266.2	-0.16	0.07	0.11	0.10
Middle Distillate	226.1	235.2	238.5	240.7	242.9	193.2	185.9	200.2	0.14	0.07	0.17	0.08
Residual Fuel Oil	50.2	49.6	50.4	52.2	50.3	45.5	43.5	45.8	0.03	-0.01	0.03	0.01
Total Products ³	762.1	773.1	779.7	765.4	766.3	664.0	639.7	695.2	0.43	0.31	0.11	-0.07
Total ⁴	1593.2	1591.2	1614.0	1608.7	1620.7	1348.8	1316.5	1483.3	0.59	0.37	0.21	0.32
OECD Europe												
Crude	345.7	360.8	357.4	350.8	349.1	318.8	321.2	344.4	0.00	-0.06	0.24	-0.13
Motor Gasoline	91.5	92.1	101.9	107.7	104.3	97.2	93.7	101.9	-0.18	0.04	0.03	0.13
Middle Distillate	305.7	301.9	312.7	309.0	307.2	254.4	249.6	259.6	0.20	0.26	0.00	0.06
Residual Fuel Oil	74.4	71.9	72.7	75.6	73.9	79.5	59.6	65.5	0.01	0.03	0.03	0.02
Total Products ³	568.2	563.2	587.7	591.6	585.0	532.6	492.7	523.7	0.00	0.37	0.07	0.24
Total ⁴	979.9	989.3	1013.5	1015.1	1004.6	914.7	885.0	938.9	0.01	0.28	0.26	0.17
OECD Asia Oceania												
Crude	191.0	205.8	191.7	195.6	196.4	170.5	180.3	178.0	0.26	0.01	0.04	-0.10
Motor Gasoline	23.4	23.1	25.4	24.6	24.6	27.5	24.7	23.0	0.03	-0.02	0.00	0.02
Middle Distillate	65.9	65.9	64.5	59.4	58.3	63.8	55.9	56.0	0.06	0.06	-0.01	-0.08
Residual Fuel Oil	23.6	21.2	18.9	18.8	19.7	20.1	21.0	18.3	0.01	0.03	-0.01	-0.02
Total Products ³	170.1	165.9	167.0	162.9	163.1	173.0	160.1	152.8	0.14	0.11	-0.11	-0.03
Total ⁴	428.2	434.7	425.1	421.6	419.0	416.1	408.9	392.1	0.41	0.17	-0.11	-0.17
Total OECD												
Crude	1183.4	1207.7	1210.0	1221.2	1231.0	1024.6	1027.1	1147.7	0.26	-0.14	0.54	0.26
Motor Gasoline	369.4	382.7	418.8	417.6	405.3	384.5	378.5	391.1	-0.32	0.09	0.13	0.25
Middle Distillate	597.7	603.0	615.6	609.0	608.4	511.3	491.4	515.8	0.40	0.40	0.16	0.06
Residual Fuel Oil	148.2	142.7	142.0	146.6	143.9	145.1	124.0	129.5	0.05	0.05	0.04	0.01
Total Products ³	1500.4	1502.1	1534.5	1519.9	1514.4	1369.6	1292.5	1371.6	0.57	0.79	0.07	0.13
Total ⁴	3001.3	3015.2	3052.6	3045.4	3044.3	2679.5	2610.4	2814.3	1.01	0.82	0.36	0.32

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Nov2015	Dec2015	Jan2016	Feb2016	Mar2016*	Mar2013	Mar2014	Mar2015	2Q2015	3Q2015	4Q2015	1Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	695.9	691.0	0.03	0.01	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	205.5	206.9	206.8	206.3	206.8	204.4	204.0	208.9	-0.02	0.01	-0.01	0.00
Products	257.7	262.0	264.4	265.1	265.2	262.4	262.1	257.6	0.02	-0.05	0.08	0.04
OECD Asia Oceania												
Crude	381.5	382.2	383.6	384.2	384.2	389.6	387.8	386.9	-0.01	-0.05	0.01	0.02
Products	33.9	34.2	34.2	34.4	34.4	23.1	30.5	32.6	0.00	0.01	0.01	0.00
Total OECD												
Crude	1282.1	1284.2	1285.5	1285.6	1286.1	1290.0	1287.8	1286.8	0.00	-0.02	0.00	0.02
Products	293.6	298.1	300.5	301.5	301.6	286.5	293.7	292.2	0.02	-0.04	0.08	0.04
Total ⁴	1580.1	1586.6	1589.9	1590.7	1591.6	1579.9	1585.3	1582.6	0.03	-0.06	0.08	0.06

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
 ('millions of barrels' and 'days')²

	End March 2015		End June 2015		End September 2015		End December 2015		End March 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	182.8	81	175.6	74	182.5	78	188.4	-	-	-
Chile	11.3	33	11.8	36	11.5	34	11.4	-	-	-
Mexico	49.8	26	50.4	25	49.5	24	49.7	-	-	-
United States ⁴	1910.4	99	1973.2	100	2003.1	103	2016.8	-	-	-
Total ⁴	2176.3	90	2233.2	90	2268.7	93	2288.3	95	2317.8	96
OECD Asia Oceania										
Australia	34.1	32	35.9	33	35.5	32	33.5	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	567.7	146	578.3	147	589.6	139	582.0	-	-	-
Korea	201.0	87	224.6	94	226.0	89	227.9	-	-	-
New Zealand	8.7	56	9.0	59	8.7	52	7.7	-	-	-
Total	811.6	106	847.9	109	859.7	104	851.1	99	837.6	111
OECD Europe⁵										
Austria	23.7	91	23.2	82	23.7	91	24.1	-	-	-
Belgium	42.9	66	47.7	73	51.3	80	50.4	-	-	-
Czech Republic	21.7	103	21.5	106	21.0	123	21.6	-	-	-
Denmark	28.8	186	28.4	178	28.6	186	31.8	-	-	-
Estonia	1.5	50	1.5	46	1.5	48	1.8	-	-	-
Finland	44.1	254	45.0	229	39.9	214	44.9	-	-	-
France	172.9	106	169.8	99	166.8	105	167.6	-	-	-
Germany	283.9	123	285.6	116	281.4	117	285.3	-	-	-
Greece	31.1	112	27.8	91	29.2	94	32.4	-	-	-
Hungary	20.0	137	20.5	130	20.6	129	22.0	-	-	-
Ireland	12.8	90	11.1	74	11.3	75	11.6	-	-	-
Italy	121.0	93	117.1	87	117.2	89	117.3	-	-	-
Luxembourg	0.7	12	0.6	12	0.6	10	0.7	-	-	-
Netherlands	136.4	153	140.2	151	153.1	165	158.8	-	-	-
Norway	23.2	101	25.9	120	25.1	100	26.7	-	-	-
Poland	62.7	115	62.6	110	63.9	118	69.4	-	-	-
Portugal	21.7	86	21.8	84	23.0	96	23.9	-	-	-
Slovak Republic	11.6	133	11.4	140	11.0	137	11.6	-	-	-
Slovenia	4.9	99	4.7	88	4.6	96	4.5	-	-	-
Spain	132.4	109	133.4	107	139.4	114	130.9	-	-	-
Sweden	32.6	103	30.6	98	33.1	118	35.2	-	-	-
Switzerland	37.3	172	37.2	165	36.3	149	34.4	-	-	-
Turkey	64.7	75	65.7	69	71.2	82	74.6	-	-	-
United Kingdom	76.3	50	77.2	49	78.8	51	80.7	-	-	-
Total	1409.0	104	1410.5	100	1432.8	105	1462.4	109	1480.5	108
Total OECD	4396.9	97	4491.6	96	4561.2	98	4601.8	99	4635.9	102
DAYS OF IEA Net Imports⁶ -	172	-	194	-	196	-	198	-	-	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End March 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
1Q2013	4259	1580	2680	93	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	57
1Q2014	4196	1585	2610	94	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4328	1578	2749	93	34	59
4Q2014	4318	1580	2738	93	34	59
1Q2015	4397	1583	2814	97	35	62
2Q2015	4492	1585	2907	96	34	62
3Q2015	4561	1579	2982	98	34	64
4Q2015	4602	1587	3015	99	34	65
1Q2016	4636	1592	3044	102	35	67

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 1Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	1Q15	2Q15	3Q15	4Q15	Dec 15	Jan 16	Feb 16	Year Earlier	
											Feb 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.58	0.65	0.57	0.72	0.83	0.80	0.68	0.69	0.00
Europe	0.79	0.84	0.78	0.91	0.77	0.77	0.69	0.75	0.83	0.72	1.06	-0.34
Asia Oceania	1.21	1.17	1.25	1.37	1.25	1.16	1.21	1.28	1.31	1.46	1.39	0.07
Saudi Medium												
Americas	0.45	0.36	0.37	0.24	0.37	0.44	0.43	0.37	0.33	0.38	0.18	0.20
Europe	0.01	0.03	0.03	0.02	0.02	0.02	0.04	0.02	-	-	0.04	-
Asia Oceania	0.43	0.45	0.44	0.40	0.44	0.48	0.41	0.46	0.42	0.53	0.43	0.10
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.09	0.20	0.09	0.29	0.31	0.13	0.22	-	-
Europe	0.25	0.50	0.72	0.50	0.48	0.95	0.94	0.77	0.65	0.77	0.48	0.29
Asia Oceania	0.31	0.24	0.41	0.41	0.31	0.42	0.49	0.57	0.36	0.63	0.40	0.23
Kuwait Blend												
Americas	0.28	0.27	0.13	0.15	0.21	0.11	0.07	-	-	0.39	-	-
Europe	0.10	0.09	0.13	0.12	0.08	0.16	0.18	0.19	0.19	0.25	0.19	0.07
Asia Oceania	0.64	0.62	0.65	0.66	0.61	0.62	0.69	0.78	0.63	0.73	0.67	0.06
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.09	0.11	0.07	0.10	0.10	0.04	0.11	0.08	0.03
Asia Oceania	0.00	0.01	0.01	0.03	-	0.02	-	-	0.01	0.05	0.02	0.02
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.03	0.01	0.03	0.01	0.01	0.06	-	0.03	-
Asia Oceania	0.30	0.28	0.27	0.31	0.25	0.25	0.26	0.23	0.39	0.47	0.37	0.11
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.67	0.67	0.63	0.49	0.65	0.62	0.03
Europe	0.07	0.08	0.09	0.10	0.09	0.07	0.10	0.11	0.08	0.04	0.13	-0.09
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.59	0.43	0.45	0.54	0.51	0.55	0.48	0.51	-0.03
Europe	0.14	0.14	0.15	0.16	0.13	0.19	0.11	0.10	0.11	0.13	0.20	-0.07
Asia Oceania	-	-	0.01	-	0.01	0.02	0.02	0.01	0.03	0.01	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	1.84	1.81	2.02	1.94	2.01	2.15	2.06	1.93	0.13
Europe	-	0.00	0.01	-	0.01	0.01	0.01	0.02	0.02	-	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.01	-	0.01	0.02	0.02	-	0.02	-	-
Europe	0.47	0.56	0.49	0.47	0.48	0.52	0.49	0.52	0.38	0.56	0.46	0.10
Asia Oceania	0.06	0.07	0.06	0.03	0.09	0.02	0.09	0.10	0.07	0.18	-	-
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.54	1.51	1.64	1.74	1.98	1.40	1.61	1.59	0.02
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	0.01	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.73	0.60	0.59	0.65	0.86	0.70	0.60	0.70	-0.10
Asia Oceania	0.00	0.02	0.06	0.04	0.02	0.12	0.06	0.07	0.04	0.05	0.04	0.01
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.20	0.23	0.22	0.25	0.26	0.09	0.14	0.18	-0.04
Asia Oceania	0.03	0.02	0.01	-	0.02	-	-	-	0.02	0.01	-	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.03	0.01	0.03	0.02	0.03	-	0.18	0.07	0.11
Europe	0.53	0.55	0.57	0.62	0.53	0.55	0.58	0.58	0.49	0.52	0.65	-0.13
Asia Oceania	0.03	0.02	-	-	-	-	-	-	-	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	1Q15	2Q15	3Q15	4Q15	Dec 15	Jan 16	Feb 16	Year Earlier	
											Feb 15	% change
Crude Oil												
Americas	5130	4201	4022	3869	4085	4075	4056	4223	4024	4186	3737	12%
Europe	8926	8679	9503	9469	9194	9605	9741	10056	9018	9191	9862	-7%
Asia Oceania	6557	6381	6576	6871	6426	6486	6526	7222	6425	7077	7139	-1%
Total OECD	20612	19261	20101	20210	19704	20165	20323	21501	19467	20454	20738	-1%
LPG												
Americas	17	12	10	13	12	5	12	12	9	10	12	-14%
Europe	382	427	412	477	361	408	404	436	428	424	446	-5%
Asia Oceania	546	531	517	537	535	491	506	545	531	578	573	1%
Total OECD	946	970	940	1027	908	904	921	993	969	1011	1030	-2%
Naphtha												
Americas	17	20	15	20	14	12	12	14	14	15	22	-35%
Europe	332	356	348	411	287	413	283	196	308	371	399	-7%
Asia Oceania	927	959	957	976	915	954	983	1017	1082	890	977	-9%
Total OECD	1276	1335	1320	1407	1217	1379	1278	1227	1404	1275	1398	-9%
Gasoline ³												
Americas	659	665	670	572	745	813	549	513	447	470	558	-16%
Europe	106	131	107	124	117	72	117	138	203	185	106	75%
Asia Oceania	83	83	100	102	125	69	106	111	81	71	113	-37%
Total OECD	848	879	878	798	987	954	772	763	731	726	777	-7%
Jet & Kerosene												
Americas	81	100	141	148	152	132	133	137	175	134	152	-12%
Europe	445	454	442	363	426	586	392	356	358	482	342	41%
Asia Oceania	74	60	65	67	68	50	75	78	103	84	88	-4%
Total OECD	601	613	649	579	646	768	600	572	636	700	582	20%
Gasoil/Diesel												
Americas	58	95	76	157	40	46	63	33	21	110	160	-32%
Europe	1121	1097	1216	1111	1314	1261	1178	1195	1291	1552	980	58%
Asia Oceania	162	181	186	164	188	169	222	214	188	219	179	22%
Total OECD	1341	1373	1478	1432	1542	1476	1462	1442	1501	1881	1320	42%
Heavy Fuel Oil												
Americas	165	132	116	119	113	139	91	98	180	102	130	-21%
Europe	552	617	563	680	484	513	575	750	529	528	621	-15%
Asia Oceania	242	214	187	212	134	186	215	190	164	196	186	5%
Total OECD	960	963	865	1012	731	839	881	1039	873	825	937	-12%
Other Products												
Americas	812	671	675	626	760	759	553	506	613	738	591	25%
Europe	791	704	702	678	669	737	724	766	745	789	706	12%
Asia Oceania	386	374	322	317	306	343	320	374	330	412	398	4%
Total OECD	1989	1750	1698	1621	1735	1839	1597	1646	1688	1939	1695	14%
Total Products												
Americas	1810	1695	1703	1655	1836	1906	1414	1314	1460	1578	1625	-3%
Europe	3729	3786	3791	3846	3658	3990	3672	3837	3863	4330	3600	20%
Asia Oceania	2421	2403	2334	2375	2272	2263	2427	2530	2480	2449	2514	-3%
Total OECD	7960	7884	7828	7876	7766	8159	7512	7681	7803	8357	7740	8%
Total Oil												
Americas	6940	5896	5725	5525	5921	5980	5470	5536	5484	5763	5363	7%
Europe	12655	12465	13295	13315	12851	13595	13413	13894	12881	13521	13462	0%
Asia Oceania	8978	8783	8910	9246	8698	8748	8952	9752	8905	9526	9653	-1%
Total OECD	28573	27144	27929	28086	27470	28324	27835	29182	27270	28810	28478	1%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

2 Excludes intra-regional trade.

3 Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2015), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 14 June 2016

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Oil Market Report

CORRIGENDUM

14 June 2016

HIGHLIGHTS

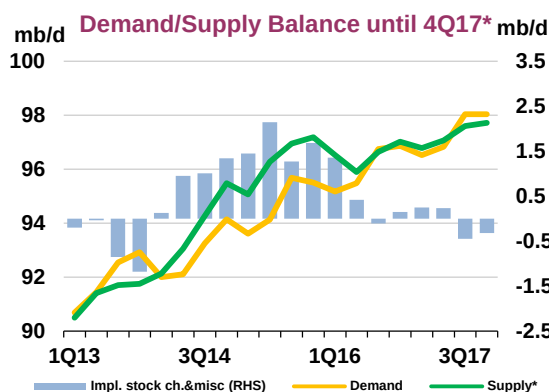
- **Crude oil prices rallied to a 2016 high above \$51/bbl in June, stoked by continuing outages in Nigeria and Canada as well as a steady decline in US oil production.** May marked the third straight month of average price rises in Brent and WTI futures.
- **Outages in OPEC and non-OPEC countries cut global oil supply by nearly 0.8 mb/d in May.** At 95.4 mb/d, output stood 590 kb/d below a year earlier - the first significant drop since early 2013. Non-OPEC supply growth is expected to return in 2017 at a modest 0.2 mb/d, after declining by 0.9 mb/d in 2016.
- **OPEC crude output fell by 110 kb/d in May to 32.61 mb/d as big losses in Nigeria due to oil sector sabotage more than offset higher Middle East output.** Iran has clearly emerged as OPEC's fastest source of supply growth this year, with an anticipated gain of 700 kb/d.
- **Global oil demand growth in 1Q16 has been revised upwards to 1.6 mb/d and for 2016 growth will now be 1.3 mb/d. In 2017 we will see the same rate of growth and global demand will reach 97.4 mb/d.** Non-OECD nations will provide most of the expected gains in both years. The growth rate is slightly above the previous trend, mostly due to relatively low crude oil prices.
- **Commercial inventories in the OECD increased from March levels by 14.4 mb to stand at 3 065 mb by end-April,** an impressive 222 mb above one year earlier. As the US driving season kicks off, OECD gasoline stocks stand above average levels and last year in absolute and days of forward demand terms. There is a similar picture in China.
- **Refinery runs in 2Q16 are suffering from deepening outages. Throughput is nearly flat year-on-year,** as refiners finally catch up with maintenance postponed from 2015. The seasonal ramp-up to 3Q16 is expected to be the largest on record, surging by about 2.3 mb/d quarter-on-quarter.

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BALANCING ACT

At half-time in 2016 we are ideally placed to look back at a turbulent six months and take our first look into 2017. Even in January when the price of oil fell to its lowest level since November 2003 we knew that the oil market would re-balance in the reasonably foreseeable future, even though, in the meantime, a lot of surplus oil would be added to bulging stocks. We now know that less oil has been stock-piled than we originally expected. In January, we estimated that the surplus of supply over demand in 1H16 would be 1.5 mb/d. Today, with all the usual caveats about data revisions to come, it looks as if the figure is about 0.8 mb/d. Between January and today two main factors have transformed the outlook: first, oil demand growth has been significantly stronger than we expected. Firm data for 1Q16 shows year-on-year growth of 1.6 mb/d versus an initial expectation of 1.2 mb/d. Accordingly, we have slightly increased our demand growth number for 2016 as a whole to 1.3 mb/d. In last month's *Report* we highlighted India's place at the top of the demand growth league table; in this *Report* we see that gasoline demand in the United States is very strong and on course to grow by 255 kb/d, or 2.8%, this year.



The second main factor to transform the outlook has been unexpected supply cuts. Canada's wildfires at their peak removed up to 1.5 mb/d of production capacity; in Nigeria, militant action has forced production down to thirty-year lows; and Libya remains a long way from significantly increasing its production despite occasional signs of optimism. Canada's shut-in production will fully return in the near future but the troubles in Nigeria and Libya look to be long-standing. This current list of shut-ins might soon be augmented by Venezuela where the deteriorating situation could affect the operations of the oil industry. In addition to the unplanned shut-ins, our forecast of production falls due to lower oil prices remains intact. The non-OPEC group of countries will see production fall by 0.9 mb/d in 2016, including a 500 kb/d fall for US shale output.

At the beginning of the month OPEC provided some clarity to the market by deciding not to re-introduce any form of production management. For planning purposes we have assumed only modest growth in production from member countries. So, assuming no further surprises, in 2H16 we expect the oil market to be balanced, with a small stock draw in 3Q16 offset by a small stock build in 4Q16.

In this report we publish for the first time our 2017 outlook. We see global oil demand growing at the same rate as in 2016 – 1.3 mb/d, and non-OPEC supply growing by a modest 0.2 mb/d. Again, on the planning assumption that OPEC oil production grows modestly in 2017 we expect to see global oil stocks build slightly in 1H17 before falling slightly more in 2H17. For the year as a whole there will be a very small stock draw of 0.1 mb/d. We must stress that this is our first look at 2017 and the huge number of moving parts will see us amend our numbers accordingly. However, to return to a phrase from last month's *Report*, the *direction* of travel seems to be clear.

At halfway in 2016 the oil market looks to be balancing; but we must not forget that there are large volumes of shut-in production, mainly in Nigeria and Libya, that could return to the market, and the strong start for oil demand growth seen this year might not be maintained. In any event, following three consecutive years of stock build at an average rate close to 1 mb/d there is an enormous inventory overhang to clear. This is likely to dampen prospects of a significant increase in oil prices.

DEMAND

Summary

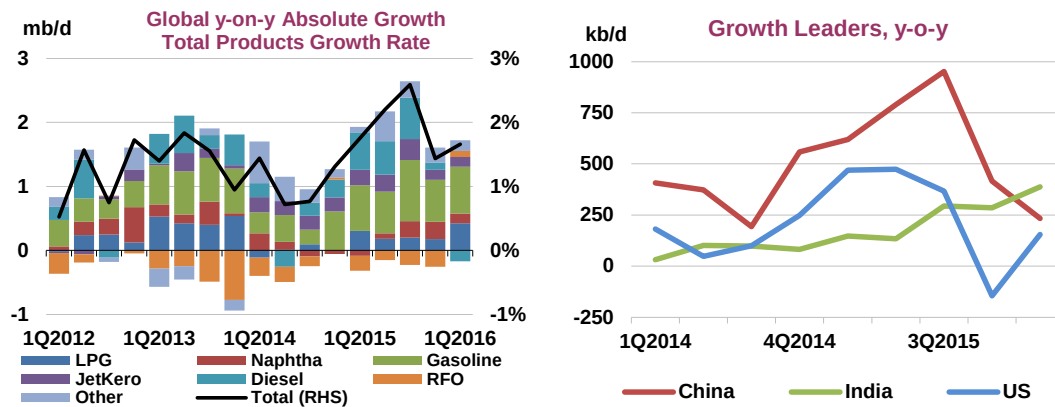
- In this month's *Report* we publish for the first time our 2017 global oil demand forecast. Next year we see demand growing by 1.3 mb/d to reach 97.4 mb/d, a growth rate that is currently the same as our expectation for 2016. Non-OECD nations will provide the majority of the expected gains in both years. The growth rate is slightly above the previous trend, attributable mainly to relatively low crude oil prices.
- The latest demand statistics – i.e. largely March/April numbers – show a mixed picture. Many countries show stronger year-on-year (y-o-y) gains than previously anticipated or at least less rapid declines, specifically the US, Japan, Turkey, Poland and the Netherlands. Weaker oil demand conditions emerged elsewhere, particularly in more hamstrung economies, such as Argentina, Iraq and Nigeria.
- At an upwardly revised 95.2 mb/d, the latest 1Q16 demand estimate shows global oil deliveries rising by 1.6 mb/d y-o-y, with non-OECD economies accounting for nine out of every ten extra barrels.
- Asia remains at the core of projections of global oil demand growth, supported by strong gains in India, Korea and China. India remains the world's growth leader, as highlighted in last month's *Report*, and in March oil demand rose by an estimated 0.5 mb/d y-o-y. Preliminary estimates for April point towards a further y-o-y gain of 0.4 mb/d.
- Having paused for breath somewhat towards the end of 2015, the US has rediscovered its earlier vigour. After a six-month hiatus from September 2015 to February 2016 when US demand dipped by an average 0.1 mb/d y-o-y, robust growth has resumed, averaging +0.4 mb/d y-o-y in the three months to May.

Global Oil Demand (2015-2017)

	(million barrels per day)														
	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.2	4.1	4.2	4.3	4.2	4.3	4.3	4.4	4.4	4.3	4.4	4.4
Americas	30.9	30.9	31.6	31.2	31.1	30.9	31.1	31.6	31.3	31.2	31.0	31.2	31.8	31.5	31.4
Asia/Pacific	32.3	31.7	31.6	32.6	32.0	33.1	32.5	32.6	33.6	33.0	34.1	33.4	33.3	34.3	33.8
Europe	14.1	14.3	14.9	14.4	14.4	14.3	14.4	14.7	14.3	14.4	14.2	14.5	14.7	14.3	14.4
FSU	4.6	4.9	5.1	5.0	4.9	4.9	4.9	5.0	5.0	5.0	4.8	5.0	5.1	5.1	5.0
Middle East	7.6	8.3	8.6	8.1	8.2	7.8	8.2	8.7	8.3	8.2	8.0	8.4	8.8	8.4	8.4
World	93.62	94.13	95.68	95.50	94.74	95.17	95.48	96.75	96.87	96.07	96.53	96.83	98.04	98.04	97.36
Annual Chg (%)	1.8	2.2	2.6	1.4	2.0	1.7	1.4	1.1	1.4	1.4	1.4	1.4	1.3	1.2	1.3
Annual Chg (mb/d)	1.6	2.0	2.4	1.4	1.9	1.6	1.3	1.1	1.4	1.3	1.4	1.4	1.3	1.2	1.3
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1	-	-	-	-	-

Global Overview

There are two main demand developments in this month's *Report*. Firstly, the 2016 global demand estimate is marginally higher; secondly, we have extended the forecast to 2017 (see *the show rolls on, into 2017*). With revised growth of 1.3 mb/d in 2016, the latest global demand estimate of 96.1 mb/d is 0.1 mb/d higher than the previous figure. Resurgent demand growth in the US, coupled with lower than anticipated declines in Japan account for the majority of the adjustment. Significant additions to Turkey, Poland and the Netherlands also played a role. India's ascendancy to the top of the volume growth league first occurred in 1Q16 propelled by rapid gains in road transport demand. In 2H16, India's demand will grow by an impressive +8.3% y-o-y but China's +3.3% demand growth will be greater in volume terms.

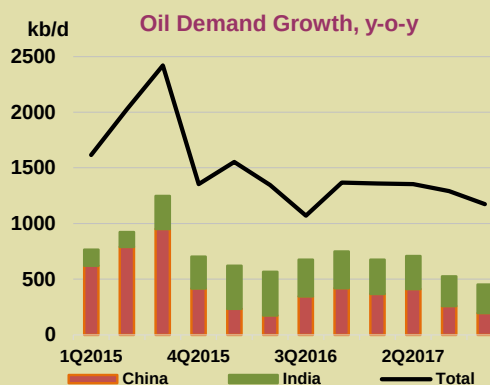


The latest demand statistics – largely March and April releases – show approximately 0.2 mb/d higher demand in both 1Q16 and 2Q16 than estimated in last month's *Report*, but the changes were not universally to the upside. Notably lower estimates emerged for Russia, Argentina, Iraq and Nigeria. Sharp declines were also seen in Kuwait, Mexico and Norway. In context, the solid 1Q16 demand growth of +1.6 mb/d is actually quite modest compared to mid-2015, when growth rallied to a five-year high of +2.4 mb/d in reaction to sharply falling crude oil prices.

The show rolls on, into 2017

This month's *Report* includes, for the first time, detailed forecasts of 2017 oil demand. At an estimated 97.4 mb/d in 2017, global oil demand is forecast to expand by 1.3 mb/d (or +1.3%). This assumes that global economic growth is 3.5% in 2017, as published in the International Monetary Fund's (IMF) April *World Economic Outlook*, which acts as the key determinant of 2017 global oil demand growth.

Non-OECD economies dominate demand growth in 2017, contributing 1.2 mb/d of the global 1.3 mb/d expansion. In the IMF's April *World Economic Outlook*, emerging market and developing economies carry a sizeable 130% economic growth premium to advanced economies. Non-OECD economies generally sit at an earlier, more heavily manufacturing-driven stage of their economic development path, requiring more oil per unit of GDP. OECD demand growth further lags the non-OECD in IEA forecasts as more stringent vehicle efficiency assumptions are built into our short-to-medium term models.



The risks to the demand forecast are evenly distributed. On the upside, the recent demand resilience shown in the US and some European countries could continue for longer, and economic growth could surprise to the upside – i.e. above the IMF's 3.2% 2016 forecast, rising to 3.5% in 2017. On the flipside, potentially higher crude oil prices over the remainder of the year could dampen momentum.

OECD

Oil demand increased in April by 0.7% y-o-y, the second consecutive month of growth, after March's 1.8% gain. For 2016 as a whole, OECD deliveries are forecast to total 46.3 mb/d, up 145 kb/d y-o-y or 0.3%. Korea, the US and Turkey will post stronger gains, but 2H16 growth slowdowns are envisaged under the influence of higher oil prices and a cloudy macroeconomic outlook. Elsewhere, there will be demand falls in Japan, France, Canada and Italy, and weak conditions in Germany and Spain. In 2017, total OECD oil deliveries are forecast to average 46.4 mb/d, very modestly up on 2016 (+65 kb/d), as gains in the US marginally offset ongoing declines in Japan, Canada and a number of European countries.

OECD Demand based on Adjusted Preliminary Submissions - April 2016

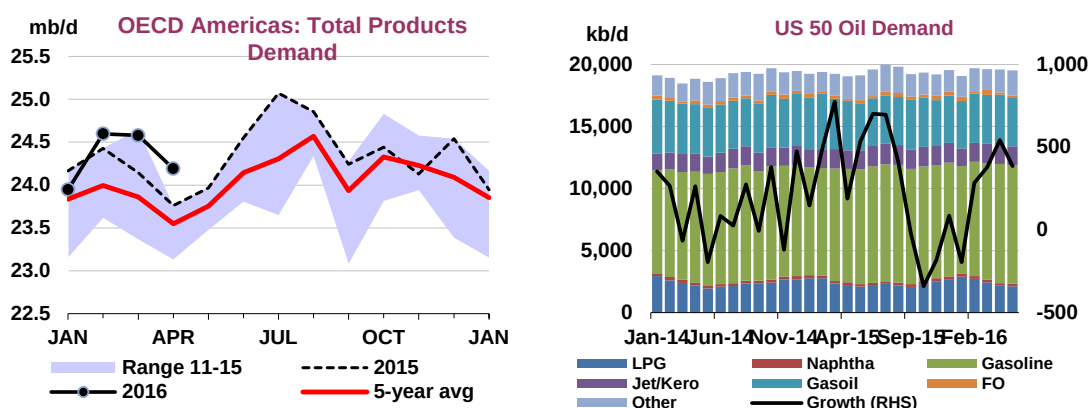
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.32	4.8	1.79	3.6	4.70	-1.0	0.47	8.3	0.40	5.6	5.51	-2.84	24.19	1.8
US50	9.62	5.3	1.54	4.0	3.84	0.2	0.19	18.6	0.16	9.1	4.22	-1.19	19.58	2.8
Canada	0.79	1.4	0.12	-3.2	0.28	-15.1	0.21	7.7	0.04	-21.3	0.72	-0.90	2.17	-2.1
Mexico	0.79	2.8	0.07	9.7	0.37	-1.2	0.05	-16.1	0.12	38.7	0.48	-16.88	1.88	-2.6
OECD Europe	1.94	-2.5	1.31	0.9	4.87	2.3	1.39	3.8	0.84	-1.7	3.37	-2.54	13.72	0.1
Germany	0.44	0.7	0.17	-11.7	0.82	7.1	0.34	18.5	0.11	-1.7	0.45	-22.10	2.34	-1.7
United Kingdom	0.29	-3.5	0.32	-0.2	0.52	2.8	0.13	-7.5	0.02	14.7	0.31	12.09	1.60	1.8
France	0.17	-5.3	0.15	0.3	0.71	-2.9	0.23	0.1	0.03	-7.1	0.34	-3.94	1.63	-2.8
Italy	0.21	-6.5	0.10	1.9	0.46	-2.9	0.09	1.3	0.07	-17.6	0.36	-4.83	1.28	-4.3
Spain	0.11	0.7	0.12	4.1	0.46	2.3	0.15	2.5	0.15	-1.8	0.26	3.04	1.24	2.0
OECD Asia & Oceania	1.53	0.0	0.78	-0.3	1.33	0.9	0.50	3.0	0.61	-6.5	3.22	-2.63	7.98	-1.3
Japan	0.88	-1.7	0.42	-4.7	0.41	-3.0	0.37	1.5	0.29	-23.2	1.66	-4.73	4.03	-5.0
Korea	0.22	2.0	0.17	4.4	0.40	4.0	0.11	11.0	0.28	18.2	1.30	-0.41	2.48	3.2
Australia	0.30	1.7	0.14	5.6	0.42	0.9	0.00	-18.3	0.03	7.5	0.17	-1.34	1.06	1.5
OECD Total	14.79	3.3	3.88	1.9	10.90	0.7	2.36	4.5	1.85	-1.9	12.10	-2.70	45.88	0.7

* Including US territories

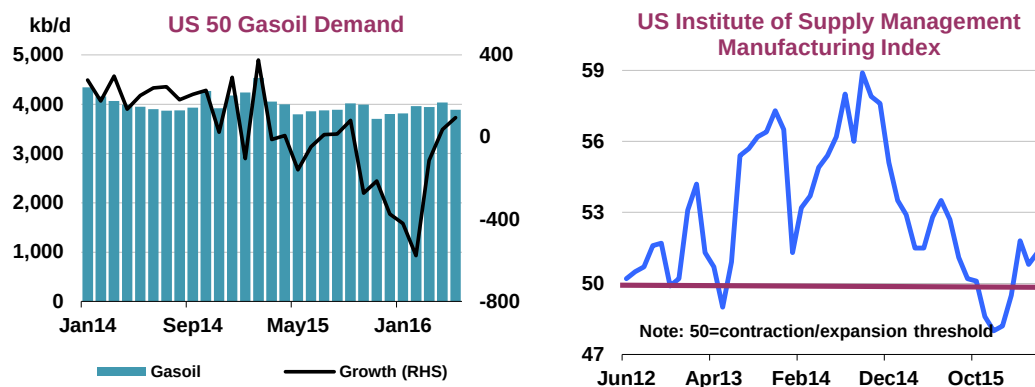
Americas

Weak growth in Canada, alongside recent declines in Mexico and Chile, contrast with the resilience seen in the US oil demand data. Oil deliveries across the OECD Americas averaged 24.6 mb/d in March, up 435 kb/d on last year. Preliminary April numbers suggest a similarly sized y-o-y gain, to 24.2 mb/d, underpinned by strong gains in US gasoline and a possible halt to the decline in US gasoil/diesel demand. For 2016, deliveries in the OECD Americas average 24.5 mb/d, 150 kb/d up on 2015. In 2017, the pace slows when deliveries average 24.6 mb/d, up 110 kb/d versus 2016.

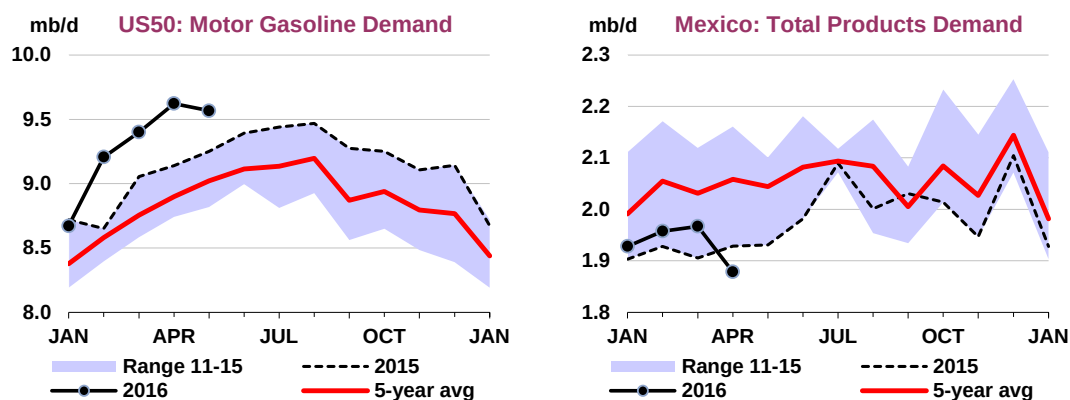


In the **US**, growth petered out towards the end of 2015 but has now renewed vigour. In March, data showed roughly 19.6 mb/d of oil product demand, 0.4 mb/d or 2.0% up on last year. Prior to February's 0.3 mb/d y-o-y bounce, the previous five-month average was -0.1 mb/d y-o-y due to warm winters. Preliminary indicators of April and May demand, based on the latest weekly statistics from the US Energy Information Administration, show US oil product demand rising by a further 0.5 mb/d on average y-o-y.

The latest uptick in US demand growth is mainly attributable to strength in gasoline, partly offset by lower rates of decline in industrial oil use. US industrial production fell by 1.1% y-o-y in April, according to the US Federal Reserve, whereas the average decline through the previous five months was closer to 2%. The potential rebound for industrial fuels becomes more apparent with a closer examination of the Institute for Supply Management's Manufacturing Purchasing Managers' Index (PMI). Having plunged to a multi-year low of 48.0 in December 2015, it rebounded to 51.3 in May. The index has been in optimistic territory since March, tentatively implying rising industrial oil use through the latter stages of 2016.



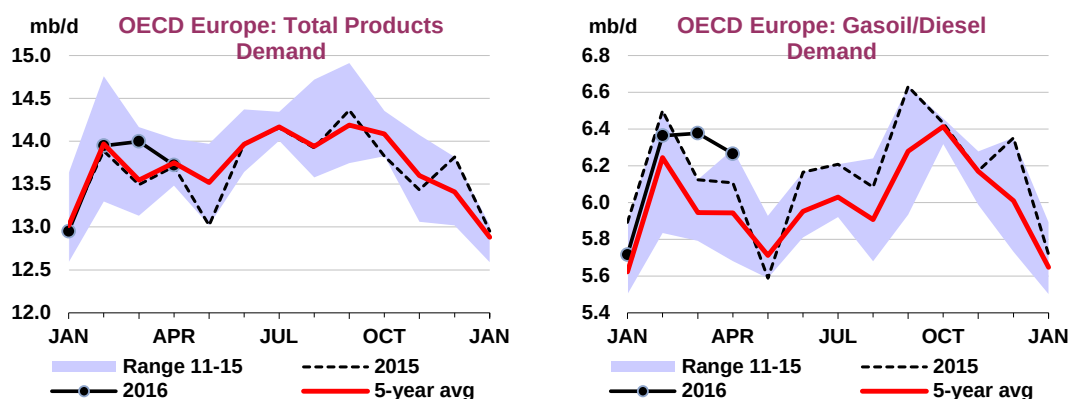
US gasoline demand was 9.4mb/d in March and is forecast to rise to 9.6 mb/d in April-May, equivalent to a robust 0.4 mb/d y-o-y growth rate. Lower 1H16 US pump prices are supportive of robust transport demand growth. In evidence of this, the Department of Transport's Federal Highway Administration reported a 5.0% y-o-y gain in US vehicle miles travelled in March, after gains of 5.6% in February and 2.0% in January. As pump prices in the US will likely rise in the rest of 2016 and into 2017, growth momentum for gasoline should ease back to +2.1% in 2H16. This follows an estimated gain of +3.6% in 1H16. Into 2017, growth will decelerate further as drivers potentially face higher prices. A relatively modest +45 kb/d gain in US gasoline demand is forecast for 2017. For 2016, US oil demand growth of approximately 1.1% is foreseen, as deliveries average 19.6 mb/d, decelerating to +0.6% in 2017, taking average US demand up to 19.7 mb/d.



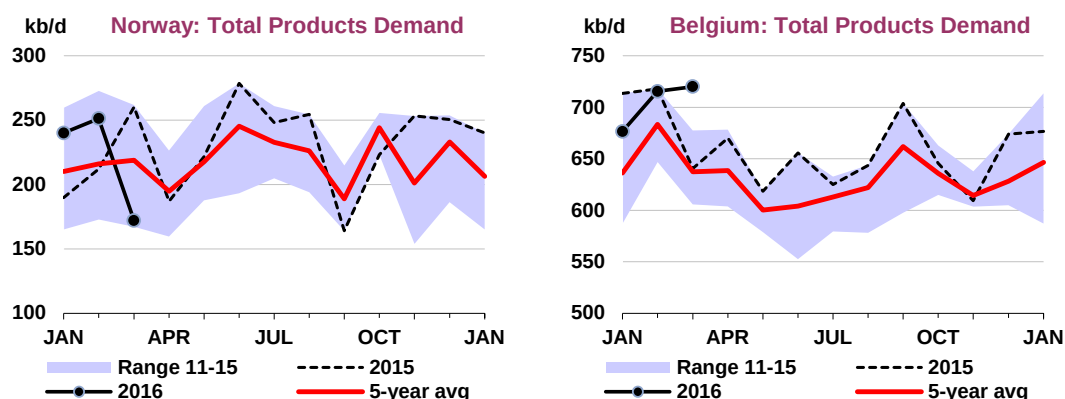
Reversing its previous four-month rising trend, **Mexican** oil demand fell in April, down by 50 kb/d compared to the year earlier to an estimated 1.9 mb/d. Pulled down by a combination of falling LPG, gasoil/diesel and naphtha demand, overall Mexican deliveries saw their sharpest decline for nearly a year. Industrial oil use was affected by a fall in industrial production in March of 2%, according to the Instituto Nacional de Estadística y Geografía, the first such slide in ten months. In 2016 as a whole, Mexican oil demand is forecast to average 2.0 mb/d, roughly flat on 2015, before modestly increasing in 2017 by 15 kb/d as underlying economic activity picks up. The IMF's April *World Economic Outlook* cited GDP growth of 2.6% for Mexico in 2017.

Europe

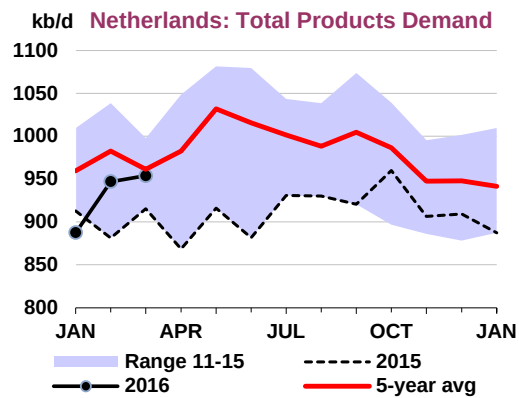
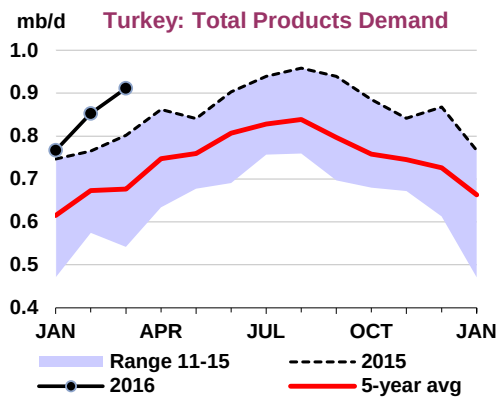
Despite ongoing economic gloom and higher temperatures, European oil product demand continues to surprise to the upside. In 1Q16, OECD European demand averaged 13.6 mb/d, up by 180 kb/d on the year earlier. Lower oil prices and some slightly more positive economic news particularly stimulated industrial oil use. European residual fuel oil demand rose by 55 kb/d y-o-y in 1Q16, with sizeable gains also seen in gasoil/diesel, LPG (includes ethane), naphtha and jet/kerosene demand.



The recent European demand picture, however, is not uniformly positive, with declines seen in many countries recently, e.g. Norway, the Czech Republic and Finland. Much reduced LPG demand in **Norway** in March, alongside declines in gasoline, gasoil/diesel and residual fuel oil, pulled the overall 1Q16 Norwegian demand number down to a near one-and-a-half year low of 220 kb/d. As the Norwegian economy struggles with a combination of persistently lower oil prices and sharply falling industrial activity, average deliveries are forecast to flat-line at around 230 kb/d in 2016, before modestly increasing (+0.6%) as the economic backdrop improves. Statistics Norway cited industrial activity across the economy as a whole down by 4% in March, compared to the year earlier, its sixth consecutive monthly y-o-y decline.

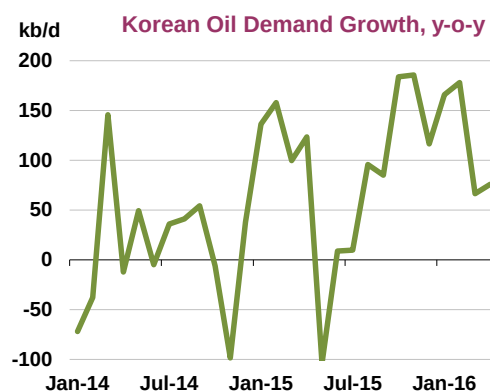
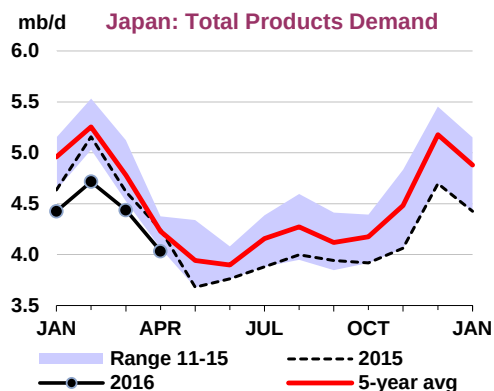


Rising more rapidly than initially projected, **Belgium's** oil product deliveries added roughly 80 kb/d in March, compared to the year earlier, supported by sharp gains in gasoil/diesel (+35 kb/d y-o-y), residual fuel oil (+25 kb/d) and 'other products' (+15 kb/d). Oil demand growth picked up as underlying industrial activity solidified, with Statistics Belgium citing y-o-y industrial activity up by 8.1% in February and 1.7% in March. Deliveries are forecast to average 670 kb/d in 2016, 10 kb/d up on 2015, with roughly flat demand anticipated in 2017. Other European countries that posted surprisingly strong recent demand data include **Turkey**, where deliveries rose by 70 kb/d on a y-o-y basis in 1Q16, the Netherlands (+25 kb/d) and Poland (+25 kb/d). This rapid 1Q16 gain in **Poland**, with a similar sized jump seen in the preliminary numbers for April, is underpinned by strong gains across the industrial fuels, fortified by industrial activity across the Polish economy as a whole that surged 6.0% y-o-y higher in April, according to data from the Central Statistical Office of Poland.



Asia Oceania

Down by 135 kb/d y-o-y in 1Q16, to 8.6 mb/d, OECD Asia Oceania bucked the trend of generally rising OECD demand, pulled down by persistent sharp contractions in Japan. The most sizeable drops were in the LPG, residual fuel oil and 'other products'. The former due to milder temperatures reducing the heating requirement – where kerosene is a major fuel – the latter as power sector demand ebbed. The latest data for **Japan** showed demand falling by just under 5% in April after a decline of 3.9% in March. For 2016 as a whole, Japanese oil deliveries are forecast to average 4.1 mb/d, 110 kb/d down on 2015, before easing by around 80 kb/d in 2017 to average 4.0 mb/d.



Supported by persistently strong demand growth, in **Korea** April deliveries came in at an estimated 2.4 mb/d, 75 kb/d or 3.2% up on the year earlier. This marks the ninth consecutive month of plus 65 kb/d y-o-y growth, supported by rapid gains in the petrochemical and industrial sectors. Gasoil/diesel deliveries surged by 25 kb/d y-o-y and residual fuel oil, LPG and 'other products' also posted strong gains. For the year as a whole, Korean oil deliveries are forecast to average 2.5 mb/d, 105 kb/d up on 2015; a relatively strong forecast attributable to the significantly lower oil-import bill and persistently robust economic activity.

Non-OECD

The latest non-OECD demand data depicts stable oil product demand growth at +1.4 mb/d (or +2.9%) y-o-y in both 4Q15 and 1Q16. Slower growth conditions are envisaged for the remainder of the year: early indicators of 2Q16 Chinese demand show deceleration, and this is true also for many commodity-dependent regions e.g. Middle East, Former Soviet Union and Latin America. On a sectoral-basis, the greatest recent strength was reserved for the petrochemical and transport sectors: on a product-by-product basis, LPG (includes ethane), naphtha and gasoline provided the majority of non-OECD demand growth.

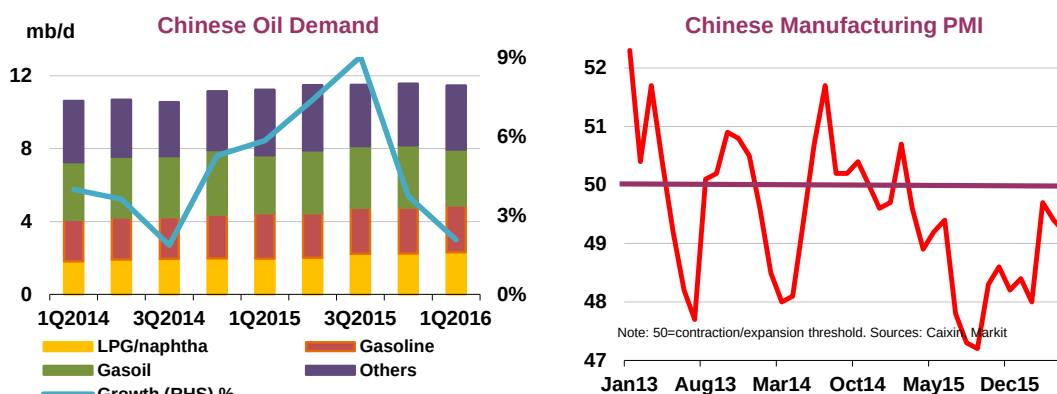
Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q15	4Q15	1Q16	4Q15	1Q16	4Q15	1Q16
LPG & Ethane	5,423	5,526	5,660	265	395	5.0	7.5
Naphtha	3,019	3,045	3,075	113	141	3.8	4.8
Motor Gasoline	10,581	10,735	10,641	495	372	4.8	3.6
Jet Fuel & Kerosene	3,151	3,115	3,108	86	11	2.8	0.4
Gas/Diesel Oil	14,421	14,690	14,068	290	274	2.0	2.0
Residual Fuel Oil	5,200	5,089	5,202	-242	-8	-4.5	-0.2
Other Products	7,228	6,983	6,803	389	192	5.9	2.9
Total Products	49,022	49,182	48,558	1,395	1,377	2.9	2.9

China

Restrained by persistent weakness across the Chinese industrial complex, oil product demand in China averaged 11.5 mb/d in 1Q16, up by 0.2 mb/d compared to the year earlier. Big declines in gasoil/diesel and residual fuel oil demand provided the greatest offset to otherwise robust Chinese petrochemical and gasoline demand. The National Bureau of Statistics (NBS) cited Chinese industrial activity rising by 6.0% on a y-o-y basis in April, after gains of 6.8% in March and 5.4% in January-February, while the Caixin Manufacturing PMI has generally shown pessimistic readings since early 2015.



China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,120	1,248	1,301	128	53	11.4	4.3
Naphtha	997	1,053	1,079	56	26	5.7	2.5
Motor Gasoline	2,499	2,653	2,817	153	165	6.1	6.2
Jet Fuel & Kerosene	629	663	697	34	34	5.3	5.1
Gas/Diesel Oil	3,350	3,307	3,301	-44	-6	-1.3	-0.2
Residual Fuel Oil	280	181	158	-99	-23	-35.3	-12.8
Other Products	2,566	2,630	2,690	64	60	2.5	2.3
Total Products	11,442	11,735	12,043	293	308	2.6	2.6

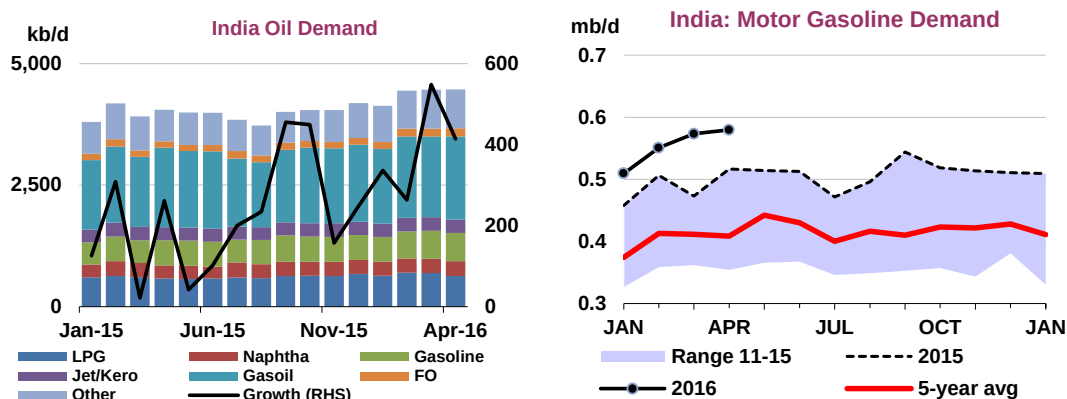
Rising by approximately 70 kb/d in 1Q16, Chinese gasoline demand averaged 2.6 mb/d, supported by strong vehicle sales. The Chinese Association of Automobile Manufacturers reported car sales growth of 6.5% y-o-y in April, with SUV sales up by one-third on the year earlier.

Preliminary April numbers show Chinese oil demand at 11.8 mb/d, 100 kb/d, or 1%, up on the year earlier level. Growth is underpinned by strong gains in the petrochemical and road transport sectors,

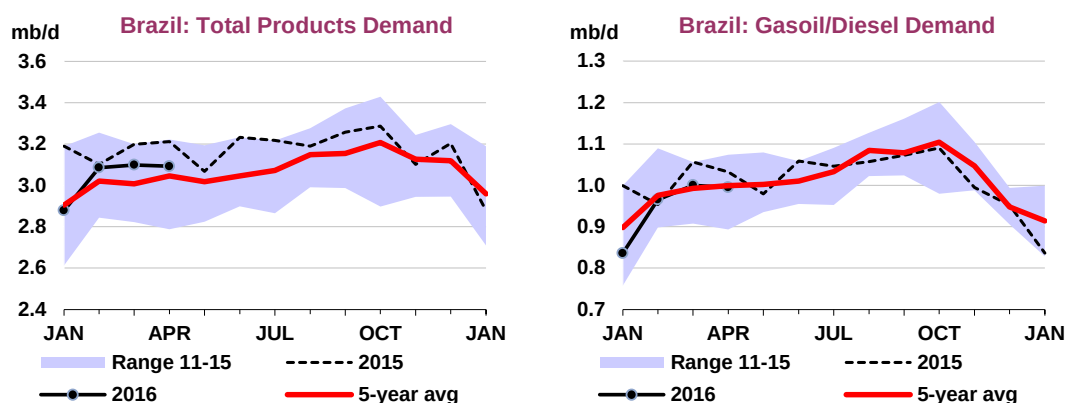
offsetting persistent weakness in industrial fuel use. For the year as a whole, deliveries are forecast to average 11.7 mb/d, 0.3 mb/d, or 2.6%, up on the year earlier. This rate of progress should be repeated in 2017 when deliveries will average 12.0 mb/d.

Other Non-OECD

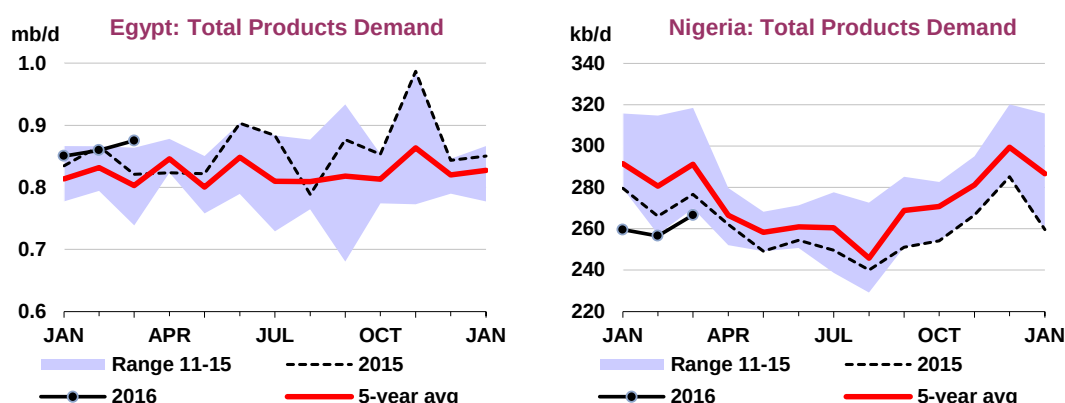
The latest **Indian** demand figures remain exceptionally strong – March deliveries rose by around 0.5 mb/d y-o-y – but they have been modestly curtailed, since last month's *Report*, on the release of a more complete official data set. The latest numbers, from the Ministry of Petroleum & Natural Gas, trimmed 30 kb/d from the earlier estimate of March deliveries, to 4.5 mb/d. Gasoil/diesel and 'other products' account for the majority of the revision, albeit both products are still growing strongly, up 220 kb/d and 95 kb/d y-o-y respectively. A further gain of approximately 0.4 mb/d is anticipated for April, according to preliminary data from the Petroleum Planning and Analysis Cell. This will keep deliveries at an estimated 4.5 mb/d. Strong gains in the transport and petrochemical sectors will underpin India's demand growth at 0.4 mb/d in 2016, likely to be the biggest global volume growth. In 2017, we provisionally expect India's rate of demand growth to moderate to +0.3 mb/d as the stimuli from lower crude oil prices potentially wanes. In volume terms the projected deceleration, trims about 75 kb/d from the likely level of demand.



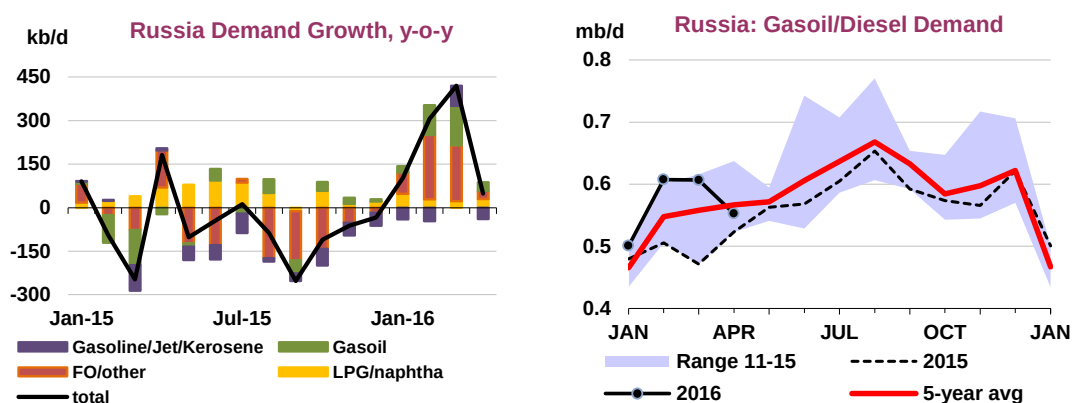
Brazilian oil deliveries fell less than expected in April, down by 120 kb/d y-o-y (or 3.7%), to 3.1 mb/d. Brazil has posted ten consecutive months of falling y-o-y demand spread across the major products. With both the Instituto Brasileiro de Geografia e Estatística's industrial activity index (-7.2% y-o-y in April) and Markit's Manufacturing PMI (41.6 in May) suggesting continued industrial weakness for some time to come, our demand forecast shows sharp contractions. Projected to fall by 70 kb/d in 2016, Brazilian oil demand will average 3.1 mb/d, and the outlook for 2017 remains precarious. In its *World Economic Outlook*, published in April, the IMF sees flat GDP in 2017 after a decline of 3.8% in 2016.



Buoyed by robust industrial oil use, **Egyptian** oil demand rose by an estimated 55 kb/d y-o-y in March to 875 kb/d. Despite ongoing economic problems, tentative signs of a recovery, at least in oil demand, are emerging. For example, economic growth accelerated to 4% on a quarter-on-quarter (q-o-q) basis in 4Q15, one whole percentage point higher than 3Q15, as exports surged 25.6% benefiting from recent reductions in the value of the Egyptian currency and imports fell by 3.7%. Egyptian oil demand in the corresponding quarter surged 8.4% higher y-o-y, or +5.2% on a q-o-q basis. In 1Q16 growth eased (to +2.6% y-o-y), strong March growth offsetting weak February data. Residual fuel oil and gasoil/diesel contributed the most to growth in March. For the year as a whole, demand growth of 2.7% is foreseen, lower than the projected GDP growth of 3.3% cited by the IMF in April's *World Economic Outlook*. A further acceleration in Egyptian oil demand growth is foreseen for 2017, to +2.9%, supported by a further uptick in economic growth, to +4.3% according to the IMF.



With the latest **Nigerian** demand numbers from the Joint Organisations Data Initiative (JODI) coming out below prior expectations, against a swiftly weakening economic background, we have reduced our 1Q16 Nigerian demand estimate. At 260 kb/d in 1Q16, roughly 20 kb/d has been shaved off our forecast, chiefly attributable to much reduced middle distillate demand. With Nigeria's GDP falling by an estimated 0.4% in 1Q16, the risk of recession builds by the day, as the unemployment rate surges to a six-year high. The Minister of Information, Alhaji Lai Mohammed, recently admitted, "Nigeria is broke, pure and simple". A combination of the precarious macroeconomic backdrop and higher petrol prices means that next to no oil demand growth will be possible in Nigeria this year.



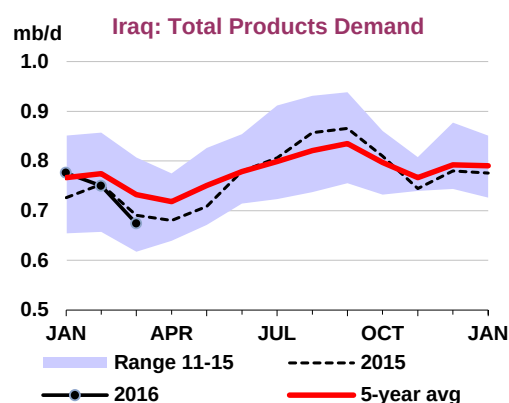
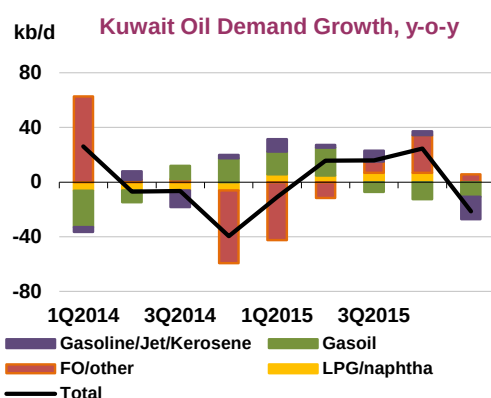
The recent demand strength shown in **Russia** eased back considerably in April, as slower gains in gasoil/diesel and residual fuel oil, coupled with absolute y-o-y declines in gasoline and jet/kerosene, pulled overall growth back to a four-month low of +50 kb/d (or 1.4%). Having risen by 275 kb/d y-o-y (or +8.2%) as recently as 1Q16, April's 50 kb/d gain is a notable deceleration but does not significantly change the forecast for the year as a whole (+1.6% in 2016 to 3.7 mb/d). Demand growth of just below 1% is foreseen in 2017, supported by marginally higher economic activity. Much stronger Russian oil

demand growth is not looking likely through the remainder of the decade, as forecasters such as the IMF, in their *World Economic Outlook* dated April 2016, do not see GDP growth rising significantly above 1.5% anytime soon.

Non-OECD: Demand by Region

	(thousand barrels per day)						
	Demand		Annual Chg (kb/d)			Annual Chg (%)	
	3Q15	4Q15	1Q16	4Q15	1Q16	4Q15	1Q16
Africa	4,027	4,193	4,235	210	112	5.3	2.7
Asia	23,786	24,390	24,503	1,077	956	4.6	4.1
FSU	5,053	4,977	4,857	-73	280	-1.4	6.1
Latin America	6,853	6,789	6,501	-125	-121	-1.8	-1.8
Middle East	8,595	8,121	7,759	277	124	3.5	1.6
Non-OECD Europe	709	711	703	28	27	4.2	3.9
Total Products	49,022	49,182	48,558	1,395	1,377	2.9	2.9

Falling by 15.9% in March – a near two-and-a-half year low in y-o-y terms – **Kuwaiti** oil deliveries slipped to their lowest level since 2009. A combination of weak industrial demand, depressed oil prices and economic reform acted to curb oil demand to an average 370 kb/d in March. The sharpest declines were seen in the industrial fuels – gasoil/diesel and residual fuel oil – and gasoline. Only LPG, of the major product categories, resisted y-o-y declines. For the year as a whole, deliveries are forecast to average 455 kb/d, roughly flat on 2015, restrained by the recent weakening of demand trend and projections of relatively weak economic activity across the year as a whole. Momentum should then modestly pickup in 2017 (+1.4%), as underlying economic activity also picks up (+2.6% in the IMF's *World Economic Outlook*).

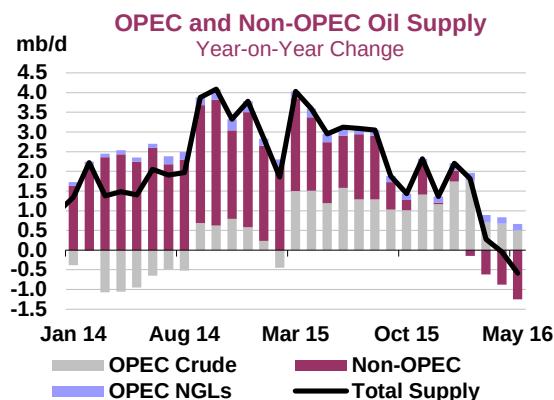
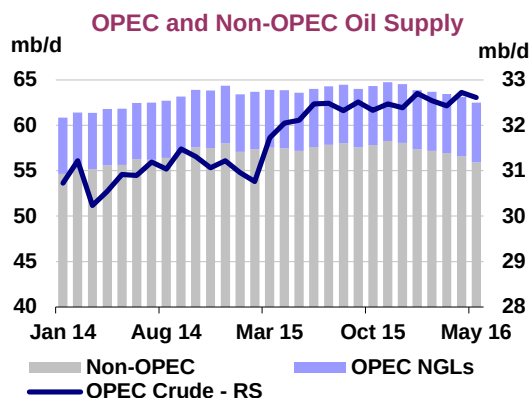


Restrained by weak industrial oil use, the latest **Iraqi** demand numbers show only a modest 10 kb/d y-o-y gain to 735 kb/d in 1Q16. Ongoing fighting, coupled with relatively low crude oil prices, continue to hamper the economy. Given the latest demand data, a roughly flat trajectory is foreseen in 2016-17 with Iraqi oil deliveries forecast to average 0.8 mb/d in the period 2015-17.

SUPPLY

Summary

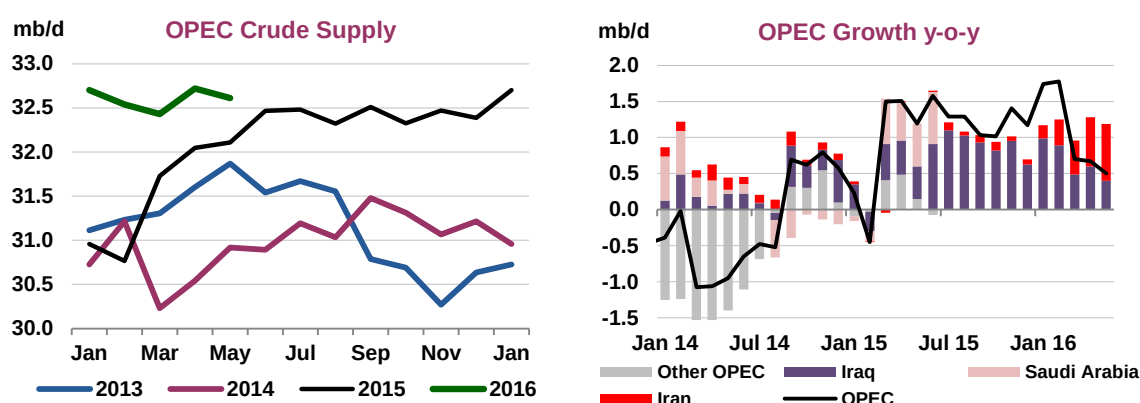
- **Supply disruptions cut global oil production by nearly 0.8 mb/d in May, with declines in both OPEC and non-OPEC countries.** At 95.4 mb/d, output stood 590 kb/d below a year earlier - the first significant decline since the start of 2013 – as spending cuts and outages sank non-OPEC output by 1.3 mb/d compared with one year earlier.
- **After declining by 0.9 mb/d in 2016, non-OPEC supply growth is expected to return in 2017, albeit at a modest 0.2 mb/d, lifting output from 56.8 mb/d in 2016 to 57 mb/d in 2017.** Gains will be almost entirely accounted for by Canada and Brazil, where growth was stymied by unscheduled outages in 2016. Declines in mature regions continue following hefty spending cuts in 2015 and 2016. Small production increases are also expected from Ghana and the Republic of the Congo.
- **US lower 48 onshore crude oil production continues to decline, with the latest official estimates showing a 75 kb/d m-o-m drop in March to 7 mb/d, or 750 kb/d less than a year earlier.** Robust Gulf of Mexico (GoM) and natural gas liquids output supports total US oil output, however, posting gains of 230 kb/d and 330 kb/d, respectively. Tight oil production is expected to slip by 500 kb/d this year and a further 190 kb/d in 2017, despite an expected return to growth by mid-2017.
- **Non-OPEC oil supplies are estimated to have plunged by more than 650 kb/d in May, as a devastating wildfire in Alberta slashed Canadian oil sands production.** At 55.9 mb/d, total non-OPEC supplies were nearly 1.3 mb/d below the year earlier, with declines stemming primarily from the US, Canada, China, Colombia, Italy and Ghana.
- **OPEC crude output fell by 110 kb/d in May to 32.61 mb/d as big losses in Nigeria due to oil sector sabotage more than offset higher output from the Middle East.** Output in May stood 500 kb/d above a year ago. At their meeting on 2 June, OPEC ministers chose not to re-instate a production ceiling leaving members free to pump at will.
- **Iran has clearly emerged as OPEC's fastest source of supply growth this year, with an anticipated annual gain of nearly 700 kb/d.** Crude output in May climbed by 80 kb/d to 3.64 mb/d - the highest since June 2011. Production this year is projected to average slightly below 3.6 mb/d and in 2017 it could run just above 3.7 mb/d. The only other substantial increase from OPEC in 2017 could be from Nigeria, should security issues in the Niger Delta be resolved.



All world oil supply data for May discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary May supply data.

OPEC crude oil supply

OPEC crude output dropped by 110 kb/d in May to 32.61 mb/d as deepening outages in Nigeria outweighed significantly higher production from Kuwait, Iran and the UAE. *Force majeure* on four key export grades cut Nigerian supply by 250 kb/d to 1.37 mb/d - the lowest in nearly three decades (see *Nigeria's plunge*). Power cuts in southern Iraq reduced flows by 90 kb/d, while a marketing dispute in Libya clipped production by 80 kb/d. Kuwait posted the biggest increase, with supplies rebounding by 120 kb/d following a short-lived workers' strike in mid-April. Output from Iran, OPEC's biggest source of 2016 growth, rose by 80 kb/d to reach 3.64 mb/d - a level last pumped in June 2011 before the imposition of more rigorous sanctions. Iranian crude oil exports in May rose by more than 130 kb/d to 2.1 mb/d - just a touch below pre-sanctions rates. Supply from the UAE climbed by 70 kb/d after oil fields returned from scheduled maintenance. Saudi production edged up to 10.25 mb/d.



While crippling militant attacks have cut Nigerian flows by roughly 500 kb/d since the start of the year, Iranian oil fields released from sanctions have ramped up by 730 kb/d. As a group, OPEC's 13 members during May pumped 500 kb/d above the previous year. OPEC's "effective" spare capacity was 2.24 mb/d, with Saudi Arabia accounting for 87% of the cushion. Production from OPEC during June could climb towards, and possibly exceed, the 33 mb/d mark were Iraqi and Libyan supplies to increase and if Saudi output rises to cover the requirements of peak summer demand.

OPEC Crude Production

(million barrels per day)

	Mar 2016 Supply	Apr 2016 Supply	May 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs May 2016 Supply	1Q16 Crude Supply
Algeria	1.11	1.09	1.09	1.12	0.03	1.10
Angola	1.80	1.75	1.75	1.81	0.06	1.77
Ecuador	0.55	0.53	0.54	0.55	0.01	0.54
Indonesia	0.73	0.73	0.74	0.74	0.00	0.71
Iran	3.26	3.56	3.64	3.65	0.01	3.15
Iraq	4.19	4.36	4.27	4.40	0.13	4.28
Kuwait ²	2.83	2.73	2.85	2.87	0.02	2.83
Libya	0.34	0.35	0.27	0.40	0.13	0.36
Nigeria	1.68	1.62	1.37	1.85	0.48	1.76
Qatar	0.67	0.66	0.66	0.67	0.01	0.66
Saudi Arabia ²	10.19	10.21	10.25	12.20	1.95	10.21
UAE	2.73	2.82	2.89	2.93	0.04	2.81
Venezuela ³	2.35	2.31	2.29	2.40	0.11	2.36
Total OPEC	32.43	32.72	32.61	35.59	2.98	32.56
<i>(excluding Iraq, Nigeria, Libya)</i>					2.24	

1 Capacity levels can be reached within 90 days and sustained for an extended period.

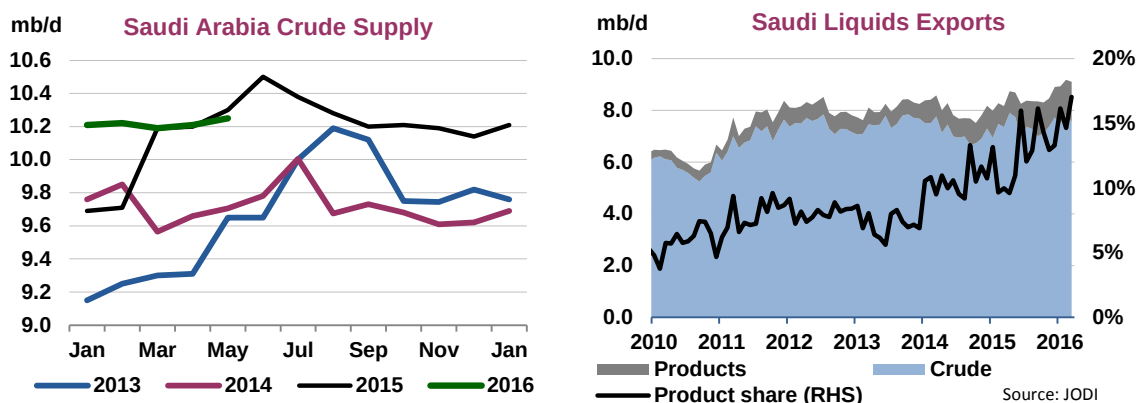
2 Includes half of Neutral Zone production.

3 Includes upgraded Orinoco extra-heavy oil assumed at 440 kb/d in May.

OPEC oil ministers met on 2 June and chose not to re-instate an output ceiling, leaving members free to produce at will. When they meet again in November, it will mark an entire year with no official supply target. Since the end of 2014, OPEC members have essentially left the market to rebalance itself. The meeting was also noteworthy for the unanimous election of Mohammed Barkindo, former head of the Nigerian National Petroleum Corp., as OPEC secretary-general. Ministers also re-admitted Gabon to the group from 1 July. Saudi Arabia's new energy minister, Khalid al-Falih assuaged concerns over a shift in Saudi policy: "We will be very gentle in our approach and make sure we don't shock the market in any way," he said. "There is no reason to expect that Saudi Arabia is going to go on a flooding campaign."

Crude oil output in **Saudi Arabia** edged up 40 kb/d to 10.25 mb/d during May to meet slightly higher domestic demand. Sales of crude oil to world markets in May held relatively steady, according to preliminary tanker tracking data. Data from the Joint Organisations Data Initiative (JODI) show Saudi Aramco shipped an average 7.64 mb/d of crude during 1Q16, up 70 kb/d on the same period a year ago. A substantial boost in product shipments pushed up exports of total liquids, excluding condensates and NGLs, to an average 9.05 mb/d in 1Q16 – a rise of 660 kb/d on the first three months of 2015.

Saudi Aramco plans to raise oil output from the recently expanded Shaybah oil field and is offering additional Arab Extra Light barrels to customers in Asia. Additions at Shaybah, where a 250 kb/d project has lifted capacity to 1 mb/d, as well as at Khurais will hold overall production capacity comfortably above 12 mb/d. The 300 kb/d project at the Arab-Light producing Khurais oil field, due to boost capacity to 1.5 mb/d, is expected to be finished in 2018.



Crude oil production in June could meanwhile rise in order to cover increased requirements for power generation during the sweltering summer months. From June through August 2015, Saudi power plants burned more than 800 kb/d of crude oil – twice the amount used during the rest of the year. This summer, however, power plants could consume at least 100 kb/d less crude once the 2.5 billion cubic feet per day Wasit gas plant starts to ramp up.

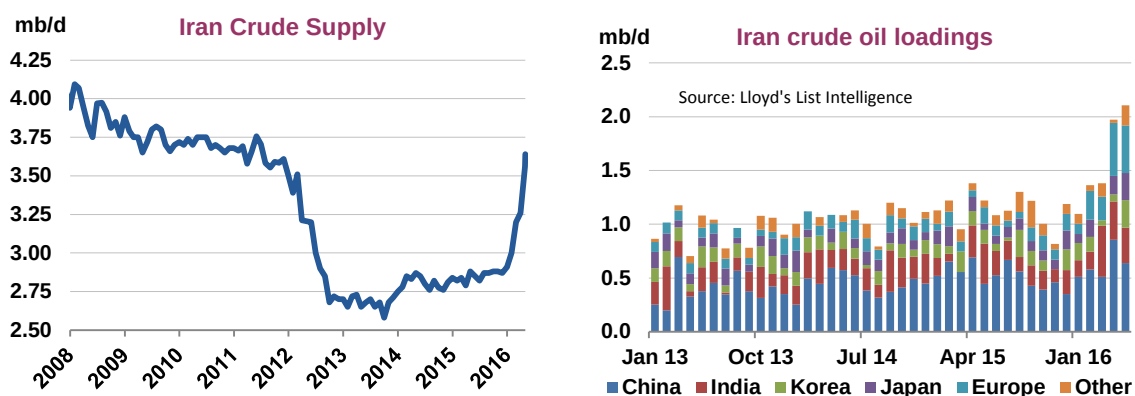
Kuwait turned in the largest production increase during May, with crude supplies rebounding by 120 kb/d to 2.85 mb/d following a short-lived strike by oil workers the previous month. In the **UAE**, following the completion of maintenance work at the Murban complex, production increased 70 kb/d to 2.89 mb/d. **Qatari** output held steady at 660 kb/d. Six international oil companies - BP, Royal Dutch Shell, Maersk, Total, Chevron and Conoco Phillips – have reportedly bid to operate Qatar's largest offshore oil field, the 300 kb/d al-Shaheen field. Maersk currently runs the field under a 25-year production sharing contract that expires in mid-2017. The new contract is expected to be awarded during 2H16.

Oil fields in **Iran** churned out 3.64 mb/d during May – 80 kb/d higher than in April and up 730 kb/d since the start of the year when international sanctions were eased. In line with our *Medium Term Oil Market Report (MTOMR)* forecast, Iran is on track to post an annual gain of roughly 700 kb/d in 2016, with output averaging just below 3.6 mb/d. Average crude supply in 2017 is expected to rise above 3.7 mb/d.

Iran is making every effort to reclaim lost market share. Exports of crude oil in April were just under 2 mb/d, nearly double the volume at the start of the year. Crude oil sales rose to 2.1 mb/d in May, nearly touching pre-sanctions levels. Provisional loading schedules for June indicate that recent levels are being maintained with crude shipments of more than 2 mb/d.

Before sanctions were tightened in mid-2012, Iran's crude oil exports totalled about 2.2 mb/d, with Europe accounting for around 600 kb/d. Just four months after sanctions were eased, the National Iranian Oil Co (NIOC) is making progress towards regaining its European market share. Liftings of some 445 kb/d in May were slightly below April due to reduced purchases from France, which was in the midst of a refining strike. Regular lifters include Total, Tupras, Cepsa, Lukoil, Iplom and Motor Oil Hellas. Shell, which had been one of NIOC's main customers before the EU banned Iranian crude imports in mid-2012, is also set to resume oil purchases and is due to load its first cargo in July. Shell paid off 1.77 billion euros (\$2 billion) it owed to NIOC for previous supplies in March.

China's purchases from Iran slowed in May to around 640 kb/d, after record liftings of nearly 900 kb/d the month before. Japan loaded roughly 250 kb/d in May, up from about 175 kb/d the previous month. Shipments to India eased by around 25 kb/d to 330 kb/d, while exports to South Korea quadrupled to 255 kb/d. Shipments of condensates slowed to 120 kb/d from 250 kb/d in April. Iran is storing 44 million barrels of ultra-light oil from Iran's South Pars gas project at sea.

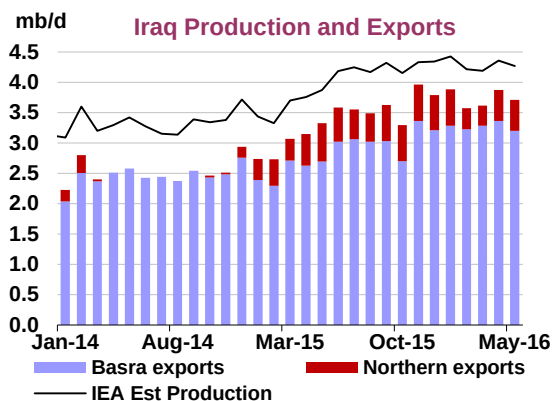


Iranian Oil Minister Bijan Zanganeh says that production has already risen to 3.8 mb/d. To boost capacity towards an official target of 4.8 mb/d by 2021, the government is seeking to lure at least \$70 billion worth of investment under its new Iran Petroleum Contract (IPC). As reported in the *MTOMR*, our high-case assessment is that Iranian capacity could reach 4.1 mb/d by 2021 assuming that there is no re-imposition of sanctions and a significant influx of foreign cash and technology.

Iraqi crude oil production, including the Kurdistan Regional Government (KRG), dropped to 4.27 mb/d during May, down 90 kb/d m-o-m, after power outages at pumping stations restricted southern exports that ran close to record highs in April. Overall exports, including from the KRG, fell to 3.71 mb/d in May – with the south accounting for the entire 160 kb/d drop on the previous month.

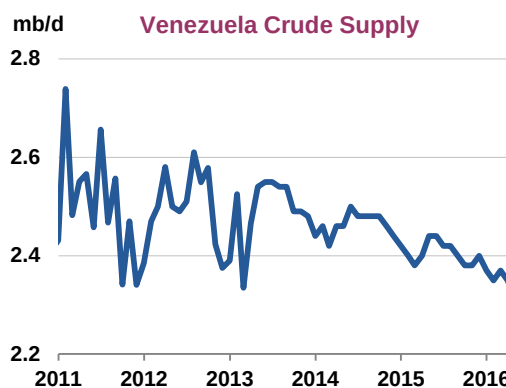
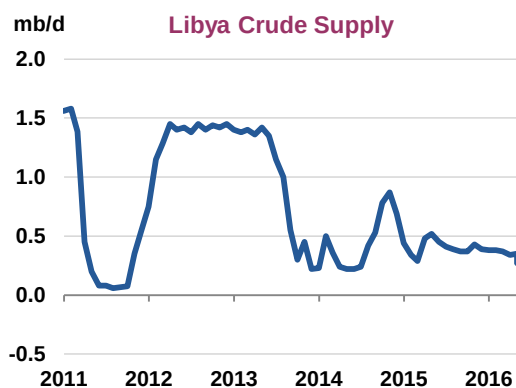
A recovery in international oil prices meant that lower exports of southern Basra crude (3.2 mb/d vs 3.36 mb/d) earned \$3.745 billion – \$400 million more than in April. Oil exports from the Kurdistan region through Turkey held steady at around 510 kb/d. Shipments were running at around 600 kb/d at the start of the year, but dropped after Baghdad's North Oil Co (NOC) reclaimed part of the giant Kirkuk oil field. Revenue from the KRG's exports from Ceyhan totalled \$390 million in May compared to \$376 million the previous month.

Iraq is working to sustain record output rates to keep revenues as high as possible. The battle against the Islamic State of Iraq and the Levant (ISIL) is very costly and the government has struggled to keep up payments to the international oil companies at work in the prized oil fields of the south. Late payments could lead to a drop in output in 2017 because contractors are cutting investment and slowing down drilling programmes. Iraq's State Oil Marketing Organisation (SOMO) has reportedly increased its June loading schedule by 6 million barrels. After posting the biggest output gain in OPEC in 2015 (660 kb/d), Iraq's production profile is likely to stay flat at around 4.3 mb/d this year and next.



Supply from **Angola** and **Algeria** held steady in May at 1.75 mb/d and 1.09 mb/d respectively. Angolan President Jose Eduardo dos Santos has appointed his daughter Isabel as head of Sonangol as part of a restructuring. Sonangol is struggling with low oil prices and reduced revenue which have caused its debt to foreign oil companies pile up. Output crept up 10 kb/d in **Ecuador** and **Indonesia** to 540 kb/d and 740 kb/d, respectively. Production in Indonesia has risen steadily since the start of the year with flows at the ExxonMobil operated Banyu Urip oil field now close to full capacity of 185 kb/d.

Libyan output fell by 80 kb/d to 270 kb/d in May after a marketing tussle between rival governments in the west and east prevented loadings at the eastern Marsa al-Hariga port for three weeks. Exports restarted on 19 May after the two National Oil Corporations reached an initial deal to unite. Production had risen above 300 kb/d by the end of May and Libyan officials say supplies could rise towards 700 kb/d by the end of the year, provided the eastern ports of Ras Lanuf and Es Sider are re-opened. Earlier this year militants attacked the strategic terminals – closed since December 2014 – that can handle nearly 600 kb/d of exports between them. A near-term production increase would be likely to come from the core, southwestern oil fields of Es Sharara and Elephant, that are now shut in. While 700 kb/d would be more than double what Libya is pumping now, it is a small fraction of the 1.6 mb/d produced prior to the fall of the Gaddafi regime in 2011.



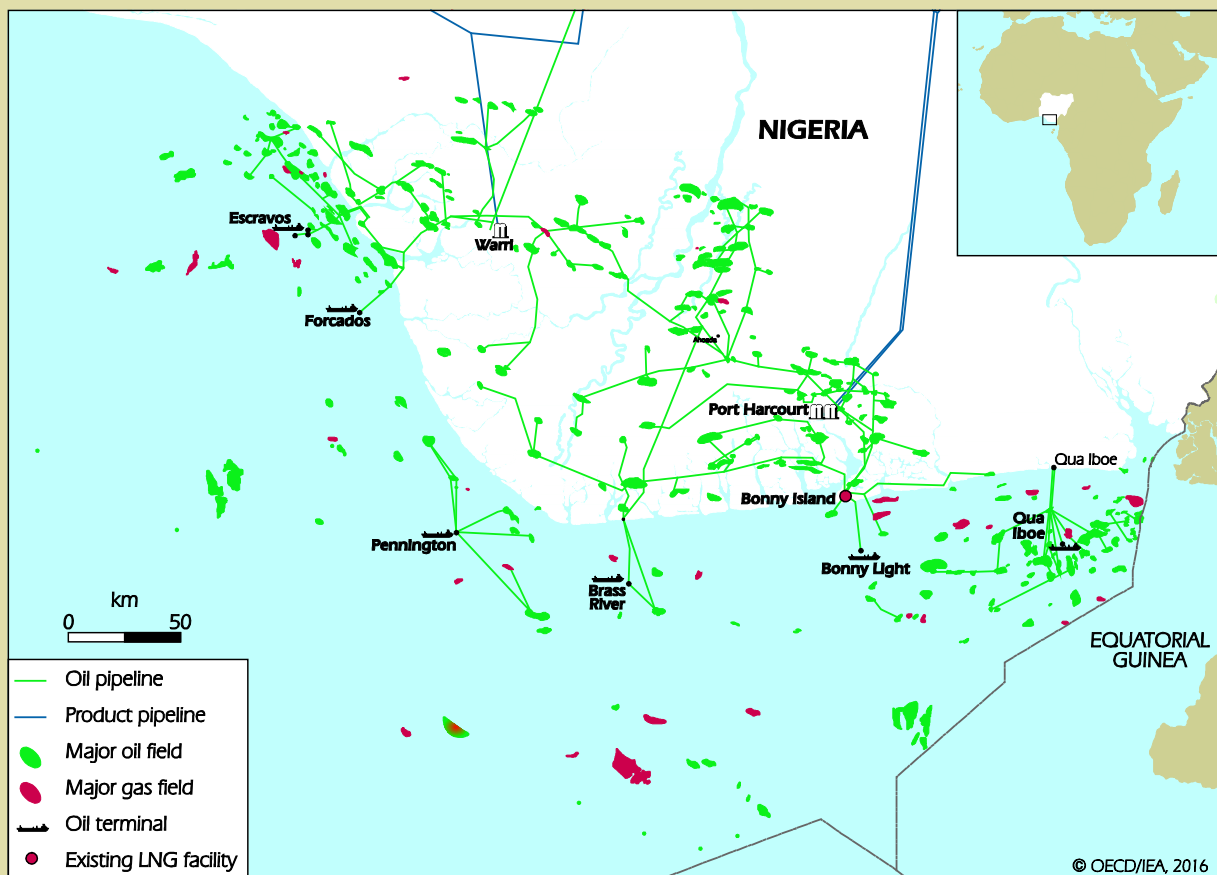
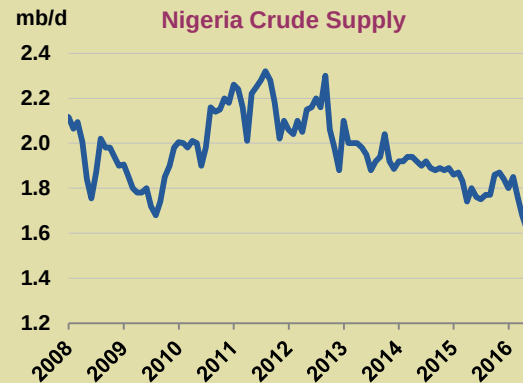
Operational issues and loading difficulties further slowed **Venezuelan** output in May, with supplies dipping 20 kb/d m-o-m to 2.29 mb/d – the lowest since November 2009. Venezuela's acute economic crisis is making it difficult for Petroleos de Venezuela (PDVSA) to pay international companies and sustain output, which in May was running 150 kb/d below a year ago. An annual decline of at least 100 kb/d in 2016 is all but inevitable as foreign oil service companies exit the country. International oil companies involved in the country say daily operational challenges are mounting at oil fields and export terminals. Payment issues and malfunctioning loading arms at Jose, Venezuela's main crude port, backed up exports during May and could have curtailed production.

Nigerian plunge

Nigerian President Muhammadu Buhari's first year in office has been marked with an oil production collapse and an economy tilting towards recession due to a prolonged period of lower oil prices. Crippling militant attacks have cut crude output by roughly 500 kb/d since the start of the year and the Niger Delta Avengers (NDA) have vowed to sink production to "zero". Supply during May fell 250 kb/d m-o-m to 1.37 mb/d, the lowest level since July 1988, with four key export streams under force majeure. The disruptions and slower output have – for three months running – allowed Angola to overtake Nigeria as Africa's biggest producer.

Foreign companies involved in Nigeria say the stepped-up militant attacks – targeting oil wells and pipelines – are growing more sophisticated. President Buhari has vowed to crack down on pipeline saboteurs in the Delta region, which pumps most of the country's oil. Militant strikes have disrupted three of the country's key export streams – Bonny Light, Forcados and Brass River – while a fourth, Qua Iboe, was out during much of May due to technical issues. ExxonMobil, which operates Qua Iboe – Nigeria's largest export stream – lifted the force majeure in early June. Foreign operators such as Chevron and Shell were forced to remove staff. Shell is reportedly repairing the sub-sea pipeline to its Forcados terminal, which was damaged by an attack in February. Prior to the outage, Forcados shipments were running at around 250 kb/d.

The Nigerian government has established a team to engage with the NDA, but the rebel group rejected the offer, saying they want a larger cut of oil revenues. The government has also announced plans to reduce the heavy military presence in the restive Delta and President Buhari has attempted to pacify the rebels by extending an amnesty signed with militants in 2009.

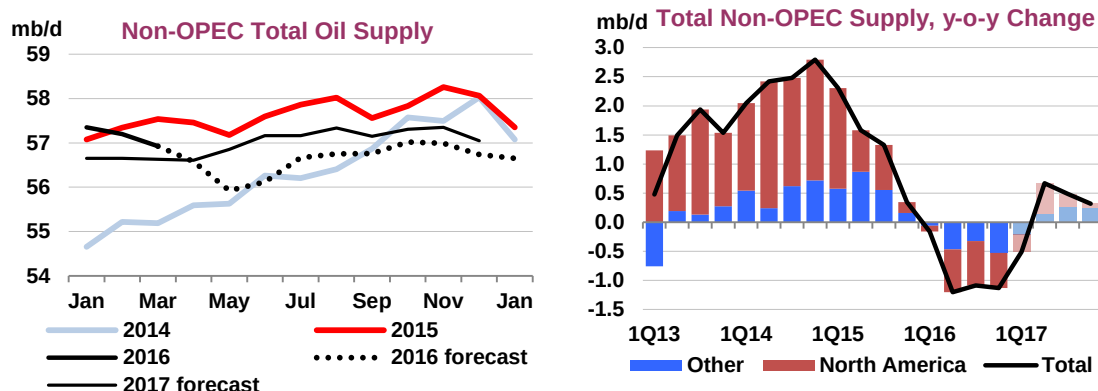


This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

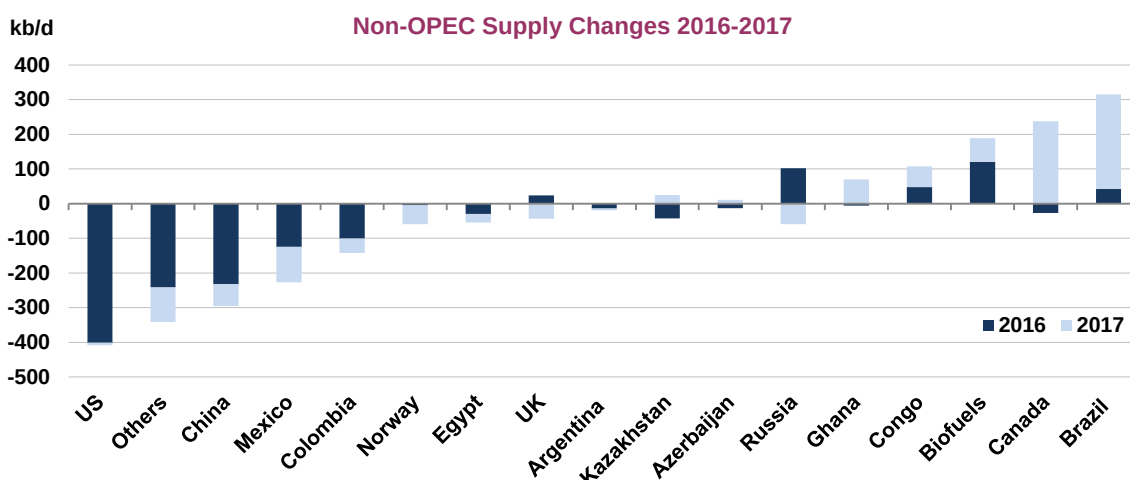
The non-OPEC supply overview this month focuses on the roll out of our forecast through 2017. Several of the themes underpinning this analysis are based on the IEA's Medium Term Oil Market Report 2016, (MTOMR) published in February. Readers should consult the MTOMR for more detailed discussion of factors affecting supply in 2017 and beyond.

Non-OPEC overview

Non-OPEC oil supply is estimated at 55.9 mb/d in May, a hefty 650 kb/d below April and 1.25 mb/d below a year earlier. The bulk of the decline came from Canada, where, at their peak, the devastating wildfires in Alberta saw 1.5 mb/d of production capacity taken offline. The Canadian disruption, along with production problems in Brazil and elsewhere, have caused us to trim our forecast of non-OPEC supply in 2016 by 0.1 mb/d since last month's Report. We now expect non-OPEC output to average 56.8 mb/d this year, a drop of 0.9 mb/d compared to 2015.



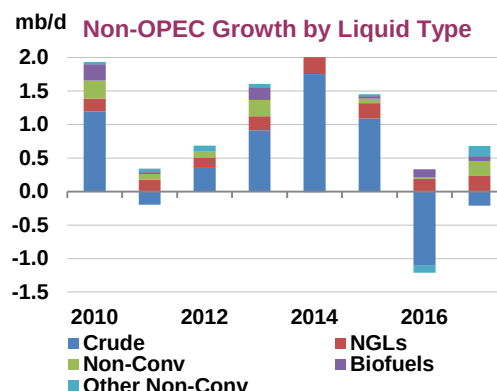
Non-OPEC supply growth is expected to resume in 2017 albeit only by a modest 240 kb/d. At 57 mb/d, forecast output next year is unchanged from our estimate presented in the MTOMR. Canada and Brazil will account for nearly all growth next year, with smaller gains expected from the Republic of Congo, Ghana and in global biofuels production.



While US LTO output is forecast to only marginally pick up by mid-2017, and decline by 190 kb/d for the year as a whole, increased NGLs and Gulf of Mexico production will leave total US supplies unchanged at around 12.5 mb/d. Russian oil production is expected to hold relatively steady, as companies have increased spending and drilling activity to stem decline at mature fields and new projects are commissioned.

After posting solid production gains in 2015 and early 2016, the North Sea is expected to see renewed declines next year, despite the start-up of several new projects. The biggest drops in output, however, are forecast for Mexico, China and Colombia, extending steep losses seen in 2016. Over the first four months of 2016, total oil production in these three countries slipped by a combined 320 kb/d from a year earlier, with further declines expected.

In terms of different supply sources, liquids growth next year will be made up of NGLs, biofuels and Canadian synthetic crude production (classified as non-conventional supply in our databases), as output from Alberta's upgraders rebounds from fire-affected levels. Conventional crude production, including LTO, will see continued declines.



Non-OPEC Supply

(million barrels per day)

	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	19.9	19.9	18.9	19.3	19.5	19.4	19.6	19.4	19.5	19.6	19.5
Europe	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.3	3.2	3.4	3.3
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	23.9	23.9	22.7	22.9	23.3	23.2	23.4	23.1	23.1	23.4	23.3
Former USSR	14.0	14.2	14.0	13.9	14.0	14.0	14.0	14.0	13.9	14.1	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0
Other Asia	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.6	4.4	4.4	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.7
Middle East	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Africa	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	29.3	29.1	28.7	28.8	29.0	28.9	29.0	29.0	28.9	29.1	29.0
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.5	2.7	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.6	57.2	56.2	56.7	56.9	56.8	56.6	56.9	57.2	57.2	57.0
Annual Chg (mb/d)	1.4	2.1	0.4	0.2	-0.8	-0.9	-0.5	0.7	0.5	0.3	0.2
Changes from last OMR (mb/d)	-0.2	0.0	0.0	0.0	0.0	-0.1					

OECD

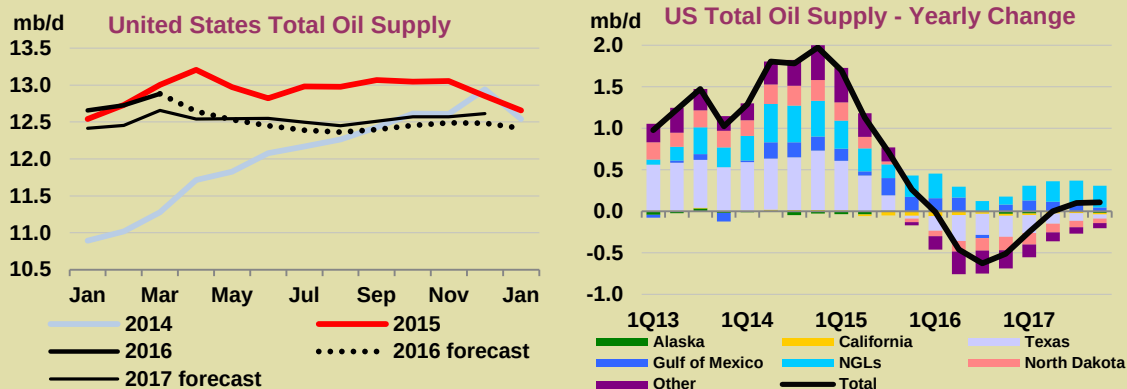
North America

US –May Alaska actual, others estimated: Total US oil supplies posted a surprise increase in March, the latest data for which complete official statistics are available. Coming in at nearly 12.9 mb/d, production was 155 kb/d higher than the February average. The monthly increase, stemming entirely from higher natural gas liquids (NGL) production and increased output from the Gulf of Mexico (GoM), masks steep declines in onshore crude production. NGL production reached a new all-time high above 3.5 mb/d in March, nearly 330 kb/d higher than a year ago. Output in the GoM increased 65 kb/d from a month earlier to 1.64 mb/d, or 225 kb/d above one year earlier.

Other supplies, meanwhile, continue to decline. The latest official estimates show US lower 48 onshore oil production, dominated by light tight oil developments, slipping by 75 kb/d m-o-m in March, to just shy of 7 mb/d, or 750 kb/d less than a year earlier. Oil production from Texas accounted for more than half the decline, slipping 40 kb/d, to 3.3 mb/d – down 370 kb/d y-o-y. Output in North Dakota and Oklahoma is also on a clear downward trend, falling 80 kb/d and 66 kb/d compared with a year earlier, respectively.

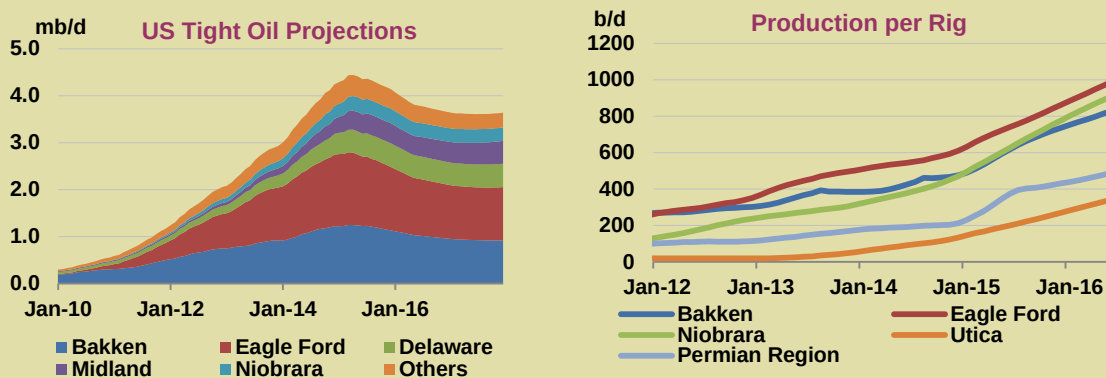
US oil production to turn corner in 2017

Taking a first detailed look at 2017 supply and demand balances, a major uncertainty is the fate of US light tight oil production (LTO). While the pace of decline and the timing and speed of the recovery remains uncertain, this *Report* maintains its view that output will start to recover by mid-2017. The rebound will, however, only truly pick up speed beyond the 2017 forecast horizon of this *Report*.



According to our estimates, US LTO production dropped another 60 kb/d in March, to 3.94 mb/d, or 500 kb/d below a year earlier. Following the plunge in the number of active US oil rigs since the end of 2014, the number of new well completions dropped to around 400 in March, from nearly 1 200 a year earlier according to Rystad data. For the year as a whole, we forecast a total of 5 000 wells to be completed in the primary tight oil plays, down from more than 14 000 at the peak in 2014 and 10 000 last year.

Following the recovery in oil prices to \$50/bbl currently, and a tighter market balance next year, we expect a slight uptick in completion activity through 2016 and into 2017. Indeed, while US producers removed another 16 rigs from active service in May, signs that the steep falls have ended might be emerging. In the week ending 3 June, nine rigs were brought back into service, five of which were added in the prolific Permian Basin. Furthermore, the backlog of drilled but uncompleted wells (DUCs) will also likely continue to shrink, which could spur production growth ahead of an increase in drilling activity.



Source: EIA Drilling Productivity Report

The Permian Midland has seen a remarkable productivity improvement. IEA analysis of Rystad well data shows that average initial production (IP) from new wells increased by more than 50% in 2015, to nearly 550 b/d, underpinning LTO's impressive resilience last year. Wells in Permian Delaware saw more modest increases in IP rates to around 400 kb/d in peak month production. We expect modest, if any, additional productivity gains in 2017 without further technological breakthroughs. Average well productivity in the Bakken and Eagle Ford plays, for instance, seem to have already stalled, posting similar levels in 2014 and 2015. Output per rigs, published in EIA's *Drilling Productivity Report*, suggest companies continue to drill more wells per rig.

As discussed in the last *Report*, the increase in activity is expected to be restricted by a number of factors, most notably the dire financial situation of most US independent players. Access to capital and the need to repair balance sheets will cap any upside in the near term. The speed at which the industry can re-staff and prepare equipment for the return to service will likely be at least six months and most probably even longer.

US oil production to turn corner in 2017 (continued)

As a result we are forecasting only a modest uptick in completion rates from the second half of 2017, to less than 5 300 wells on average for the year. Such a modest increase is not enough to offset declines at already producing wells, however, and LTO output will see further declines next year, of around 200 kb/d, following a decline of 500 kb/d in 2016.

Annual average US LTO production estimates (kb/d)

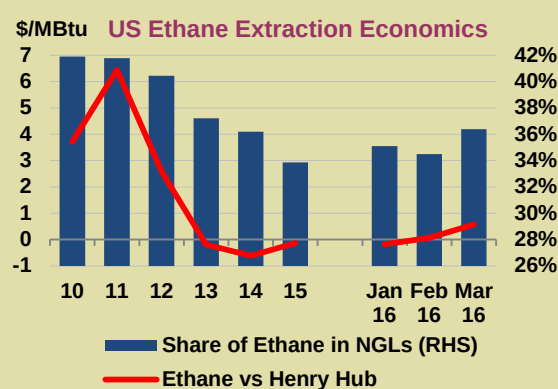
	2010	2011	2012	2013	2014	2015	2016	2017
Bakken	252	388	644	838	1080	1208	1025	929
Eagle Ford	41	230	579	966	1348	1468	1217	1129
W. Texas	69	108	183	328	596	897	907	951
Niobrara	4	19	59	119	219	305	297	288
Other LTO	53	112	205	295	406	436	365	323
US LTO (kb/d)	419	857	1670	2546	3648	4314	3811	3619
Annual Change		439	812	876	1102	666	-503	-192

Continued growth in NGL and GoM output is expected to provide an offset next year, however, leaving total US oil supplies unchanged from the 2016 average of 12.5 mb/d. After adding 140 kb/d to supplies in 2015, US GoM output is on track to expand by an average of 80 kb/d and 90 kb/d over 2016 and 2017, respectively. Growth will come from projects such as Anadarko's 80 kb/d Heidelberg, which started up in January this year, as well as Shell's Stones, Exxon's Julia and Walter Oil & Gas' Coalecanth projects - all scheduled to start up before the end of 2016. Thunder Horse and Jack/St Malo expansions will also add to supplies.

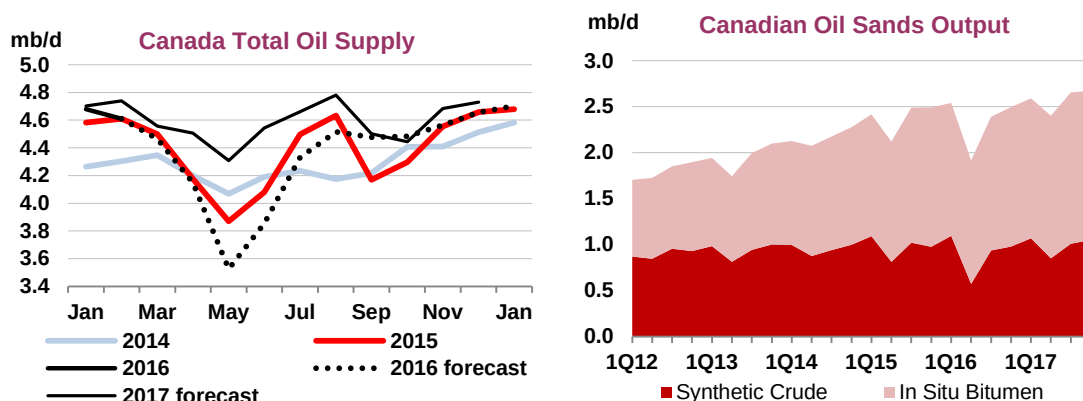
Despite a market slowdown in marketed natural gas production growth from 5.2% in 2015 to -0.8% in 2016 and 0.9% in 2017 (see the IEA's *Medium Term Gas Market Report 2016*, (MTGMR) released on 8 June 2016). NGL output, which grew by 9% in 2015, is expected to expand by 5% in 2016 and 7% in 2017 – or volumetric growth of 160 kb/d and 240 kb/d, respectively. The bulk of the increase will come from higher ethane production as new petrochemical and export capacity provides new outlets for supply, allowing more ethane to be recovered from raw natural gas.

The MTGMR discussed the NGL impact on shale gas economics in the US and estimated the volumes of ethane rejection. In 2010, an average US NGL barrel yielded 42% ethane, versus only 34% in 2015. Assuming no change in the composition of the rich gas mix at the wellhead since 2010, ethane rejection in 2015 amounted to 400 kb/d, about 3% of the US total oil output. This was due to negative frac spreads, an indicator showing the margin from the extraction and realisation of natural gas liquids vs the market price of natural gas. The frac spread turned negative at the end of 2012, which means it makes more commercial sense to sell the rich gas stream at the natural gas prices than to fractionate and sell the NGL products.

The negative frac spread is almost entirely an ethane story. Ethane has just one mainstream demand sector: the petrochemical industry. In the United States, petrochemical crackers have tried to accommodate growing ethane supplies by switching to ethane from other feedstocks or increasing utilisation rates, yet some 170 kb/d of demand growth from 2010 to 2015 was not enough to absorb all incremental volumes. Indeed the downtrend in ethane yields has followed the trend in ethane margins. This year though, the ethane margins have improved and this has already had an impact on ethane yields, which in the first quarter were up by 1.3% point to 35.3%, though still far below the 42% of 2010. This contributed an additional 50 kb/d to US total output. If the frac spreads, and especially ethane margins continue strengthening, there is a possibility of higher ethane extraction, buffering US total oil output. US started exporting ethane to Norway in March this year. Reliance is also expected to start offtaking US ethane in December for its cracker in Jamnagar. Both export outlets and possible completions of petrochemical projects in the near term point to increased ethane demand – and supply as a result.



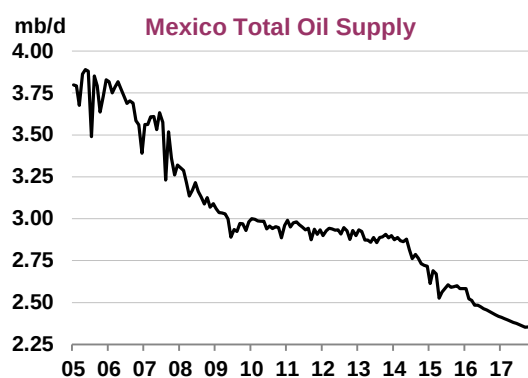
Canada – Newfoundland April actual, Alberta March actual, others February actual: The wildfires raging across Alberta since late April slashed Canadian oil production to only 3.5 mb/d in May, its lowest level since June 2012. At its peak in early May, a total of 1.3 mb/d of production was shut in, and an estimated 865 kb/d of output disrupted on average for the month. According to preliminary information, Albertan oil sands output was already running at reduced rates in April, in line with normal seasonal maintenance trends. During the course of May and in early June, most companies had resumed operations or were in the process of starting up, however, with no damage reported to production facilities or other infrastructure. We expect a gradual ramp up in output over June, and a return to normal output by mid-July, when Syncrude is also expected to ramp up production following completion of the scheduled turnaround.



These prolonged and extensive shutdowns are expected to erase previously anticipated supply growth in Canada this year. Total output is now forecast to average slightly less than 4.4 mb/d, largely unchanged from 2015. In contrast, as output resumes and new projects are commissioned and ramp up towards capacity, supply growth in 2017 still looks to be on track. Indeed, Canada emerges as the largest source of non-OPEC supply growth next year, expanding by 240 kb/d to 4.6 mb/d.

Growth is forecast from a number of new start-ups. Amongst others, ConocoPhillips' Surmont 2 project, which was completed last year, will continue to ramp up towards its 118 kb/d capacity through 2017. Canada Natural Resources will complete phase 2B and 3 of its Horizon expansion program, in October 2016 and by end 2017 respectively, lifting capacity by a total of 125 kb/d to around 250 kb/d. Cenovus, meanwhile, will add 50 kb/d of capacity to its Christina Lake and 30 kb/d to its Foster Creek in situ projects later this year. Towards the end of 2017, Suncor plans to commission its Fort Hills mining project. The company has announced it expects the project to deliver roughly 180 kb/d of bitumen within 12 months of start-up. The Exxon operated Hebron oil field, located offshore Newfoundland and Labrador, holds more than 700 mb of recoverable resources and targeting output of around 150 kb/d. Production is due to start by the end of 2017.

Mexico - April actual, May preliminary: Mexican total oil production fell by 30 kb/d in April, with declines across all production systems. Standing just shy of 2.5 mb/d, supplies were nevertheless only marginally lower than a year earlier, when output was curbed by a fire at an offshore production installation, and in contrast with annual declines of 130 kb/d over the previous 12 months. Mexico's mature fields are expected to continue to decline through 2016 and 2017, by an average 124 kb/d and 100 kb/d respectively, to reach 2.37 mb/d in 2017, of which 2.08 mb/d is crude. NGL production, averaging 325 kb/d in 2015, is set to drop to 280 kb/d in 2017.

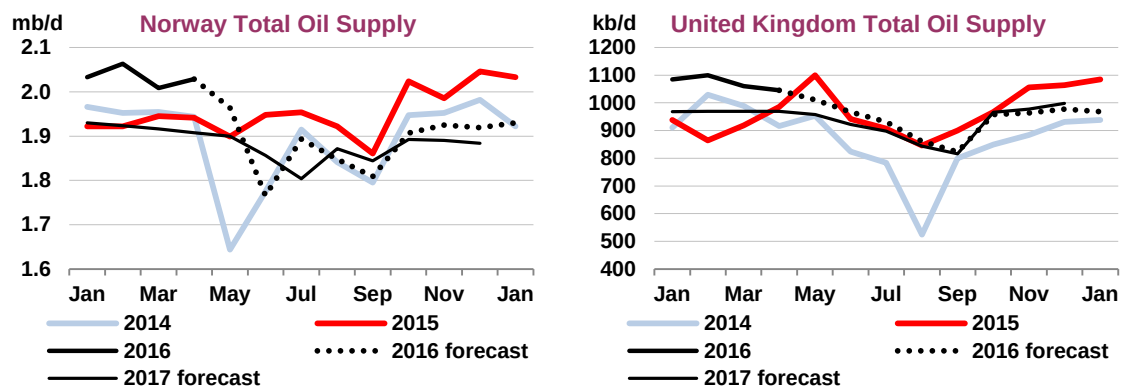


North Sea

North Sea production increased by an average of 215 kb/d compared with a year earlier over the first four months the year, on a number of new field start-ups. Loadings data, compiled by Retuers suggest output dipped in June, as maintenance at Conoco's Ekofisk field on the Norwegian Shelf started on a major maintenance work. UK's largest field, Buzzard is expected to start maintenance in September.

Norway – March preliminary, April provisional: Norwegian oil production exceeded expectations in April, inching up 20 kb/d from a month earlier. As 2.03 mb/d, total oil output was nearly 90 kb/d higher than a year earlier, largely in line with gains seen so far this year, underpinned by the start-up of new fields. Most notably, the 80 kb/d Edvard Grieg field, which started producing in December, had ramped up to 60 kb/d by March, the latest month for which field level data are available. Eni's 100 kb/d Goliat field, meanwhile, produced 27 kb/d in March, its first month of production. The steady increase in flows towards capacity of these two fields is expected to support Norwegian production in 2016, with output forecast to average 1.94 mb/d, only marginally lower than in 2015.

New fields will also prop up output in 2017. Det Norske targets first oil from its Ivar Aasen project by December this year, and the field is expected to produce an average of 40 kb/d of oil in 2017. Early next year, Statoil is planning to launch its Gina Krog field, which is expected to yield 60 kb/d of oil at its peak. Total Norwegian oil production is nevertheless forecast to slip by 55 kb/d in 2017, to 1.9 mb/d, as output from new fields no longer offset decline at mature fields and a number of marginal fields will be decommissioned. Statoil is preparing to dismantle the Njord platform over the coming months, before revamping or replacing the installation and its storage vessel in three to four years' time. Statoil is also planning to terminate its Volve field (which produced 9 kb/d in March) in the third quarter this year. Jotun and Vette will cease production in October while Repsol will shut its Varg field (4 kb/d) in August.



UK –March actual, April Preliminary: While slipping marginally over March and April, to 1.05 mb/d in the latest month, UK oil production continues to post robust year-on-year gains. Standing 60 kb/d above last year, April marked the thirteenth consecutive month of annual gains. Output is expected to fall off seasonally through September, when the large Buzzard field is scheduled to undertake maintenance. Given the recent high output, we forecast a slight increase in UK output for this year of around 25 kb/d.

While UK production is set to return to its declining trend in 2017, the start-up of a number of large projects could see output surprise to the upside yet again. BP is on track to commission its Quad 204 project, designed to extend the life of the Schiehallion and Loyal fields, located west of Shetland by the end of 2016. The Quad 204 project includes a new floating, production, storage and offloading (FPSO) vessel, the Glen Lyon, expected to add 105 kb/d in 2017. Towards the end of 2017, BP is also poised to launch its Clair Ridge project, a second-phase development to the Clair field, which has been producing since 2005. In 2017, EnQuest's Kraken field and Premier Oil's Catcher, both with capacity of around 50 kb/d is also expected to start-up.

Non-OECD

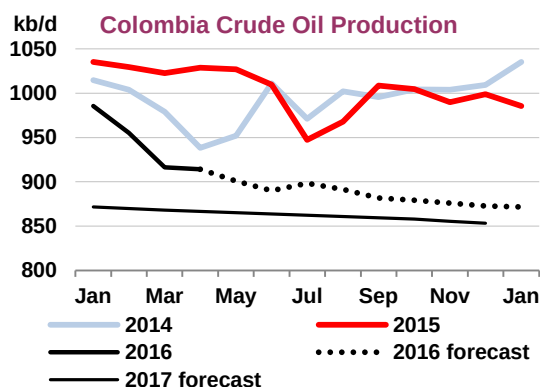
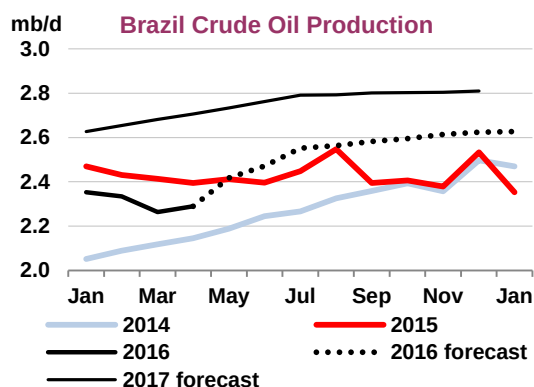
Latin America

Brazil – April actual: Maintenance and production problems early this year look set to stymie Brazilian output growth in 2016, with production now expected to inch up only 40 kb/d from the 2015 average. As issues are resolved and new production units progressively ramp up, growth is expected to resume in 2017, adding 270 kb/d, to reach 2.8 mb/d.

The latest production figures released by ANP, the national oil industry regulator, show Brazilian crude oil output continued to lag year-earlier levels in April, inching up only 20 kb/d from the month prior. At 2.3 mb/d, output was more than 100 kb/d below a year ago, extending year-on-year declines seen since the start of the year. Output from the Marlim fields in the Campos basin recovered last month, rising by 50 kb/d to 410 kb/d. Flows from the Albacora field, which had slipped to only 9 kb/d in March as Petrobras completed corrective maintenance at the FPSO operating the field, recovered to 54 kb/d. The latest month saw a 120 kb/d drop in output from the prolific Lula field (to stand on par with the previous year at 308 kb/d). Supplies from Saphinoa, meanwhile, reached a new high of 230 kb/d, 40 kb/d above a year earlier.

Output is expected to recover quickly as maintenance is terminated and production ramps up from new units. At the end of May, the newly converted Cidade de Saquarema FPSO was heading for the Lula field. The FPSO, which has oil-processing capacity of 150 kb/d, is set to start producing from the giant field in the Santos basin in 3Q16.

By the end of 2017, Petrobras is scheduled to add another seven FPSOs in the Santos basin, including three in the Lula field, two in the Buzios field, one in the Lapa field and one at the giant Libra area. Reports suggest that four of these floaters — the replica FPSOs meant for Lula South and Lula Extreme South plus the P-74 and P-76 destined for Buzios — experienced major problems during their construction phase suggesting commissioning of some of the units could well be delayed beyond 2017.



Colombia – April actual: Hefty spending cuts are having a marked impact on Colombian oil production. The latest data released by the Ministry of Mines and Energy show crude oil output averaging 914 kb/d in April, largely unchanged from a month earlier but 115 kb/d, or 11%, lower than one year ago.

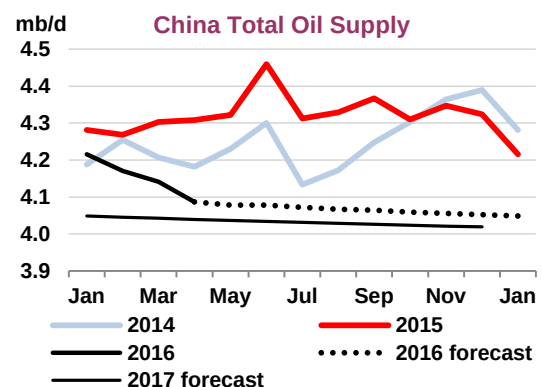
It is not clear to which extent the recent output drops are due to attacks on infrastructure by rebel groups. Colombian state-run player, Ecopetrol, suspended production at its Cano Limon-Covenas pipeline in the north-eastern part of the country after it was targeted by two bomb attacks earlier this year. FARC and Colombian rebel group National Liberation Army (ELN) have often targeted oil infrastructure, bombing pipelines and trucks carrying crude oil.

More importantly, the drop in oil prices since 2014 prompted Colombian oil producers to rationalise investments and shut in marginal high cost fields. The country's largest oil producer, state-run Ecopetrol, slashed spending this year by a hefty 40%, to \$4.8 billion, following a 26% cut in 2015. Colombia's largest private player, Pacific Production and Exploration Corp (previously Pacific Rubiales), meanwhile, cut its capital expenditures during 2015 by a massive \$1.7 billion, or 70%, to \$726 million. While the company has not published its business or spending plans for 2016-2017, capital expenditures during the first quarter of 2016 totalled \$19 million, \$207 million lower than the \$226 million spent in the first quarter of 2015. In its investor update the company writes, "in light of the current weak commodity price environment, since the second half of 2015 our capital expenditure programs have been cut back significantly to approximately equal cash flow".

The spending cuts are clearly starting to affect production. Pacific reported an 11% decline in its Colombian oil and gas output in 1Q16, attributing the drop to the natural decline of the Llanos oil fields, which it said "have not been sustained by drilling activity". Ecopetrol is also seeing declines at mature fields and announced earlier this year it would shut in production at its onshore Akacias and Cano Sur fields due to low oil prices. We are projecting Colombian oil production to decline by 100 kb/d this year and a further 40 kb/d in 2017, to an average 870 kb/d.

Asia

China –April actual: China's oil production has seen sharp declines so far this year. The latest data shows output dropping another 55 kb/d in April. At 4.04 mb/d total Chinese domestic crude production was 220 kb/d below a year earlier. While little field level information is available, the latest data suggests year-on-year declines this year could be even greater than previously expected (see *China production slows* in OMR dated 14 April). We have reduced our 2016 production estimates by 70 kb/d since last month's Report, to 4.09 mb/d, or 230 kb/d below the 2015 average. Output is expected to decline further in 2017, but by a lesser extent, to average 4.03 mb/d.



Africa

New projects in Ghana and the Republic of Congo are set to drive growth in 2017. **Ghana's** oil output is expected to hold steady this year at around 100 kb/d, as new output from the Tweneboa-Enyenra-Ntomme (TEN) project offsets losses from the Jubilee field. Production at Jubilee was interrupted earlier this year due to technical problems but output resumed in May. First production at the new Tullow-operated TEN offshore field is expected in August. Similar to Jubilee, the development includes the use of an FPSO that has a facility production capacity of 80 kb/d that will be tied into subsea infrastructure across the field. In the **Congo**, meanwhile, Total is on track to ramp up production at its Moho Nord development. Total completed the first phase of the project, Moho Bilondo phase 1 bis at the end of 2015 and is expected to complete the second phase of the Moho Nord project in 2016. Once fully operational, output at Moho Nord is expected to plateau at 140 kb/d. **Gabon**, which produced 230 kb/d in 2014, the latest year for which official production data is available, will rejoin OPEC on 1 July.

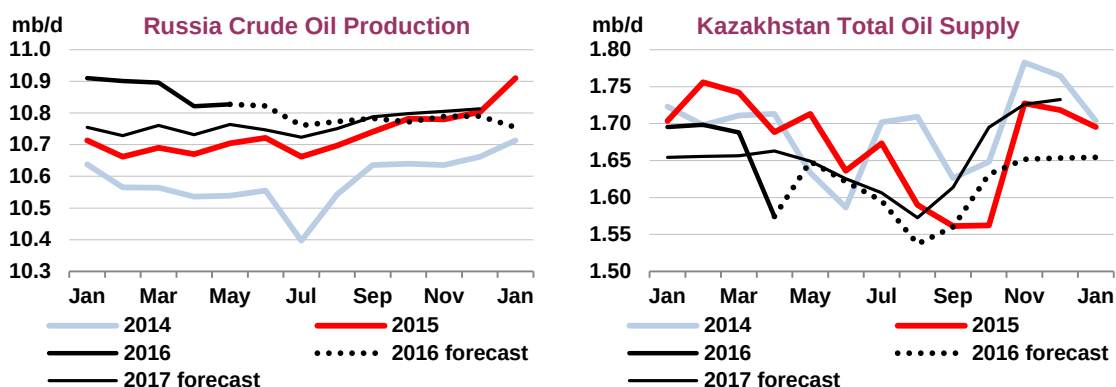
Former Soviet Union

Russia – April actual, May provisional: Russian oil production was largely unchanged in May from a month earlier, at 10.8 mb/d, according to preliminary government data. While output was marginally lower than a month earlier and the peak level above 10.9 mb/d reached at the start of the year, production was nevertheless some 120 kb/d higher than a year earlier. Smaller producers continued to

lead growth, with Bashneft, Tatneft, Gazprom Neft and Novatek posting notable gains. Russia's two largest producers, Rosneft and Lukoil, meanwhile, continue to see declines despite efforts to reverse output falls at mature fields. The two companies, which, combined, account for half of total Russian crude and condensate output, have so far this year recorded annual output declines of 1% and 5%, respectively, or a combined 100 kb/d.

During the presentation of its 1Q16 financial results, Lukoil announced that it expects its production to be marginally reduced this year, which will be offset by new fields once they come onstream. In contrast to its peers, who have increased ruble spending on development drilling by 32% y-o-y, Lukoil, slashed drilling spending by 26% during the quarter. Lukoil is preparing to launch two new fields this year, the Filanovsky in the Caspian in September and the northern Pyakyakhinskoye field during 4Q16. Output from Filanovsky is expected to reach 120 kb/d by the end of 2017 and these new projects will help to offset declines at mature fields

Other gains are expected to come from Gazprom Neft's Novoport project as it progressively ramps up to its 110 kb/d capacity by 2018. The East Messoyakha (Rosneft & Gazpromneft) project is under way and production will ramp up to 110 kb/d during 2018. Around the Vancor cluster, Rosneft is expected to start production at Suzun in the coming weeks (target is 90 kb/d by 2017) and at Tagulskoe by year-end. Some additional production could also come from Labagan and Northern Chaivo on Sakhalin. As such, total crude and condensate production is set to average 10.82 mb/d in 2016, an increase of 100 kb/d from 2015 before dropping by around 55 kb/d next year, to 10.76 mb/d.



Kazakhstan – April actual: Kazakhstan's oil production dropped by a sharp 115 kb/d in April as output from the country's second largest producer, Karachaganak Petroleum Operating Company, run by Shell and Eni, saw its output slip by more than 30%, or roughly 100 kb/d, from a month earlier due to maintenance. Output from Kazakhstan's largest producer, Tengizchevroil, held steady around 575 kb/d.

For 2016 as a whole, Kazakh oil output is forecast to drop by 40 kb/d on average, to 1.6 mb/d. Output is forecast slightly higher in 2017 as volumes from the long delayed Kashagan mega-project, expected to come on stream later this year or in mid-2017, offset declines in mature fields. Kazakhstan's energy minister said earlier this month that he expects the project to be relaunched by the end of this year, with initial crude production at around 8 kb/d in December. The project is expected to ramp up gradually towards its first-phase capacity of 360 kb/d by 2019.

FSU net crude oil exports eased 150 kb/d in April, falling below the exceptional level of 7 mb/d seen in March. Total exports fell even though total flows through the Transneft system were at a 10-year high, propelled by exceptional shipments from Baltic port of Primorsk. Overall sailings from the Baltic were over 1.7 mb/d, the highest in more than two years. Both tanker tracking data and loading schedules suggest that May sailings remained flat on the month. Exports from Caspian Pipeline Consortium (CPC) were down more than 200 kb/d on the month, due to pipeline maintenance. Net product exports dipped by 260 kb/d from a month earlier, to 3.48 mb/d, on sharply lower gasoil shipments.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	2Q2015	3Q2015	4Q2015	1Q2016	Feb 16	Mar 16	Apr 16	Mar 15	Apr 15	Last month vs Mar 16	Apr 15
Crude													
Black Sea	1.62	1.64	1.56	1.59	1.60	1.82	1.72	1.96	1.64	1.84	1.59	-0.32	0.05
Baltic	1.33	1.45	1.45	1.38	1.51	1.54	1.60	1.53	1.75	1.44	1.56	0.22	0.19
Arctic/FarEast	1.14	1.41	1.41	1.41	1.47	1.57	1.54	1.61	1.63	1.38	1.43	0.02	0.20
BTC	0.60	0.62	0.61	0.61	0.61	0.70	0.77	0.63	0.59	0.61	0.58	-0.04	0.01
Crude Seaborne	4.69	5.12	5.03	4.98	5.20	5.62	5.64	5.73	5.62	5.26	5.16	-0.12	0.45
Druzhba Pipeline	1.01	1.07	1.08	1.06	1.08	1.04	1.09	1.03	1.06	1.14	1.10	0.03	-0.04
Other Routes	0.40	0.24	0.24	0.23	0.21	0.21	0.21	0.20	0.19	0.25	0.26	-0.02	-0.07
Total Crude Exports	6.14	6.43	6.35	6.27	6.49	6.87	6.91	7.01	6.86	6.65	6.52	-0.14	0.34
of which: Transneft ¹	3.88	4.19	4.16	4.08	4.23	4.32	4.27	4.41	4.64	4.31	4.36	0.22	0.28
of which: Russian crude	4.02	4.42	4.44	4.30	4.47	4.57	4.56	4.67	4.95	4.50	4.60	0.28	0.36
Products													
Fuel oil ²	1.72	1.49	1.51	1.31	1.48	1.35	1.08	1.35	1.28	1.60	1.75	-0.07	-0.47
of which: VGO	0.27	0.25	0.24	0.25	0.28	0.22	0.23	0.14	0.32	0.24	0.28	0.18	0.05
Gasoil	0.95	0.98	1.03	0.82	0.84	1.17	1.14	1.21	0.95	1.22	1.08	-0.25	-0.12
Other Products	0.57	0.66	0.69	0.58	0.66	0.71	0.76	0.63	0.69	0.75	0.65	0.07	0.04
Total Product	3.25	3.13	3.23	2.71	2.97	3.22	2.98	3.19	2.93	3.58	3.48	-0.26	-0.55
Total Exports	9.38	9.56	9.58	8.98	9.46	10.10	9.90	10.19	9.79	10.23	10.00	-0.40	-0.21
Imports	0.08	0.07	0.06	0.07	0.08	0.04	0.03	0.05	0.00	0.04	0.05	-0.05	-0.05
Net Exports	9.30	9.50	9.53	8.91	9.38	10.05	9.87	10.14	9.79	10.18	9.94	-0.35	-0.16

Sources: Argus Media Ltd, IEA estimates

¹Transneft data exclude Russian CPC volumes.²Includes Vacuum Gas Oil

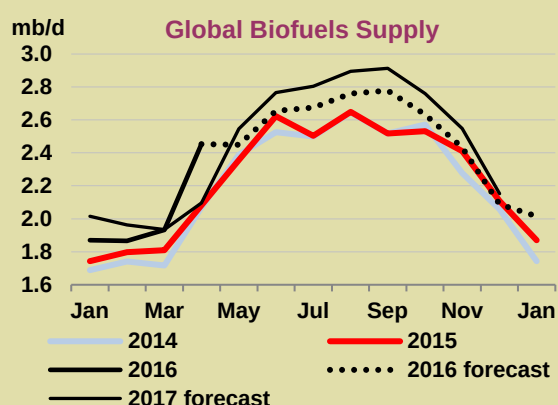
Biofuels

Biofuels skew monthly and annual changes

The seasonality of biofuels supply, in particular the production of ethanol from sugar cane in Brazil, sometimes masks the underlying changes in other liquids supplies. Brazilian ethanol production swings from practically zero in December and January to 900 kb/d at its seasonal peak in the northern hemisphere summer months. Due to this, very large seasonal swing the overall total non-OPEC supply changes from month to month can be misleading at first glance and care must be taken in analysing the data.

Moreover, variabilities in weather and the harvest season can also have significant impacts on year-on-year changes. Notably, in April, the latest month for which Brazilian biofuels production is reported by the National Agency of Petroleum, Natural Gas and Biofuels, output surged by nearly 500 kb/d, a month ahead of normal seasonal patterns. As a result, global biofuels, up 520 kb/d m-o-m and 370 kb/d y-o-y in April, capped declines in all other supplies, which slipped by a combined 860 kb/d and 1250 kb/d in that month. While it is possible that the entire Brazilian ethanol season has been advanced this year and May will see similar annual gains, we have in the Report assumed that output will return to trend from May and through the remainder of the year.

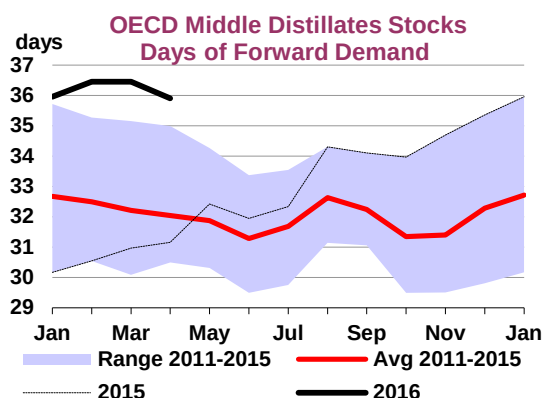
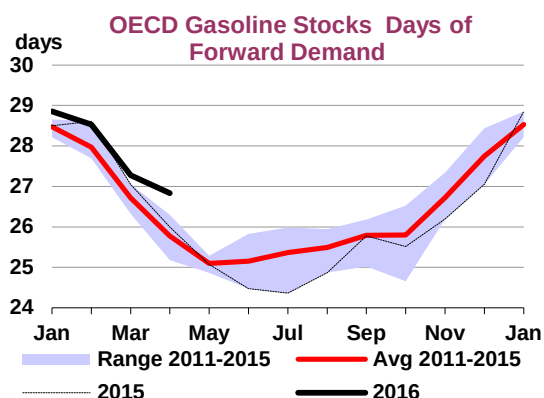
After posting modest growth of only 35 kb/d in 2015, global biofuels production is expected to expand by 120 kb/d in 2016 and a further 70 kb/d next year to an average of 2.45 mb/d.



STOCKS

Summary

- **Commercial inventories in the OECD rebounded from March levels by 14.4 mb to stand at 3 065 mb by end-April**, an impressive 222 mb above one year earlier. By end-month refined product cover stood at 32.9 days, 0.3 days below end-March.
- **As the US driving season kicks off, OECD gasoline inventories stand above average levels and last year in absolute and days of forward demand terms. There is a similar picture in China.** However, as refiners struggle to produce the required gasoline volumes, they could also push extra middle distillates onto already saturated markets and cause inventories of these products to swell further.
- **Preliminary data for May suggest that, compared to April, OECD inventories increased by 3.7 mb, far more modest than the 26.5 mb five-year average build for the month.** Stocks were higher in Japan and Europe, more than offsetting a counter-seasonal decrease in the US.
- **Chinese stock building has continued apace over recent months with volumes destined for both commercial and strategic storage.** Reports suggest that the 18 mb first phase of the Yangpu terminal in the southern province of Hainan was commissioned in May.
- **In the wake of further logistical bottlenecks, floating storage increased by 5 mb to stand at 94 mb by end-May, the highest since April 2009.** Much of the increase is offshore Qingdao, China, where tankers are moored waiting to offload crude destined for Chinese independent refiners.



Global overview

With the US driving season kicking off, it is pertinent to discuss whether gasoline stocks are comfortable heading into the peak demand season. Furthermore, considering recent strength in US and Chinese gasoline consumption highlighted by this *Report*, it is important to assess whether holdings can check a repeat of last year's gasoline tightness in key markets that saw global gasoline prices rise.

OECD gasoline stocks stand above last year in both absolute and days of forward demand terms. Moreover, in the key US Atlantic Coast market, stocks at end-May stood 7 mb (11 %) above year-earlier levels. Considering that last summer the delta between the peak and nadir in PADD 1 inventories was 6 mb, inventories there now appear comfortable. However, considering that there will be no annual growth in US refinery throughputs over coming months, this cushion could diminish rapidly. In China, the picture also appears more comfortable than last year. According to commercial data published by *China Oil, Gas and Petrochemicals (China OGP)*, at end-April Chinese gasoline inventories stood around 15 mb above one-year earlier.

On the flip side, as refiners struggle to produce the required volumes of gasoline they are also pushing middle distillates onto already saturated markets. In the OECD, middle distillate stocks remain significantly above last year in both absolute and days of forward demand terms due to high supply and the lack of a prolonged spell of cold weather in key consuming countries during the Northern Hemisphere winter. In Europe, stocks in independent storage in Northwest Europe have remained at close to tank tops for much of the past year. This enabled the transfer of diesel to France in response to the recent refinery strikes. In Asia, middle distillates markets are similarly weak. One factor behind this has been persistently high Chinese diesel exports that have approached 300 kb/d in recent months. Chinese refiners have been struggling to keep up with rampant gasoline demand and at the same time have had to deal with lacklustre domestic diesel demand as the economy shifts into a lower gear. The upshot is that they have looked further afield to market their products. Chinese refiners had some success in decreasing their domestic diesel inventories that stood 10 mb lower year-on-year at end-April, but China's diesel stocks have merely been transferred elsewhere in Asia.

OECD inventory position at end-April and revisions to preliminary data

Industry inventories in the OECD rebounded in April by 14.4 mb to stand at 3 065 mb by end-month. Since the build was more modest than the 20.5 mb five-year average, the surplus of inventories versus average levels narrowed to 357 mb from 363 mb one month earlier. Nonetheless, stocks still stood an impressive 222 mb above one year earlier.

Preliminary Industry Stock Change in April 2016 and First Quarter 2016

	April 2016 (preliminary)				First Quarter 2016			
	(million barrels)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	13.0	3.8	-2.1	14.6	0.43	0.13	-0.07	0.49
Gasoline	-2.6	-0.6	-0.7	-3.9	-0.09	-0.02	-0.02	-0.13
Middle Distillates	-9.8	-1.1	3.4	-7.6	-0.33	-0.04	0.11	-0.25
Residual Fuel Oil	-0.9	-2.0	-0.4	-3.3	-0.03	-0.07	-0.01	-0.11
Other Products	13.8	0.0	-1.9	11.9	0.46	0.00	-0.06	0.40
Total Products	0.5	-3.7	0.3	-2.9	0.02	-0.12	0.01	-0.10
Other Oils ¹	-0.1	-0.1	2.8	2.7	0.00	0.00	0.09	0.09
Total Oil	13.4	0.0	1.0	14.4	0.45	0.00	0.03	0.48

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

The monthly build was driven by rising crude oil holdings (+14.6 mb) as refinery throughputs remained constrained, especially in the US and Canada. Further upward momentum came from the restocking of propane in the US as the space heating demand season ended. Accordingly, holdings of 'other products' rose by 11.9 mb across the OECD. Meanwhile, stocks of NGLs and other feedstocks rose by a combined 2.7 mb.

Refined products stocks slipped by 2.9 mb, and on a forward cover basis, they covered 32.9 days at end-month, 0.3 days below end-March. However, when excluding the build in 'other products' – which largely bypass the refinery system – 'traditional' refined products drew by a combined 14.7 mb. Notably, middle distillates fell by 7.6 mb but remained a healthy 77 mb above average while motor gasoline inventories dropped by 3.9 mb to stand 26 mb above average.

Upon receipt of more complete data, OECD inventories were revised upwards by 5.8 mb in March. Together with a 6.3 mb upward adjustment in February, the 1.1 mb draw for March presented in last month's *Report* is now seen slightly steeper at 1.7 mb. The bulk of the March adjustment came in the Americas where US crude stocks were 5 mb higher than first assessed. Data for Asia Oceania came in 2.3 mb higher in March while European inventories remained stable.

Revisions versus May 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Feb-16	Mar-16	Feb-16	Mar-16	Feb-16	Mar-16	Feb-16	Mar-16
Crude Oil	0.6	5.0	2.9	1.4	0.0	-0.4	3.5	5.9
Gasoline	0.0	-0.8	0.6	-3.8	0.0	1.6	0.6	-3.1
Middle Distillates	0.0	-2.5	0.8	1.7	0.0	0.7	0.8	-0.1
Residual Fuel Oil	0.0	0.5	0.4	3.2	0.0	0.3	0.4	4.0
Other Products	0.0	-3.1	-0.3	-1.4	0.1	0.5	-0.2	-4.0
Total Products	0.0	-5.8	1.4	-0.3	0.1	3.0	1.6	-3.1
Other Oils ¹	1.4	4.3	-0.1	-1.1	0.0	-0.3	1.3	3.0
Total Oil	2.0	3.5	4.2	0.0	0.1	2.3	6.3	5.8

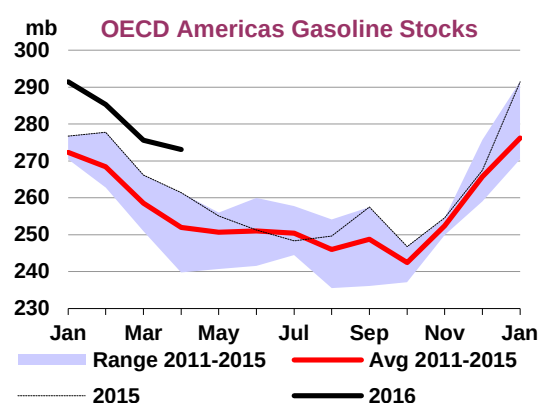
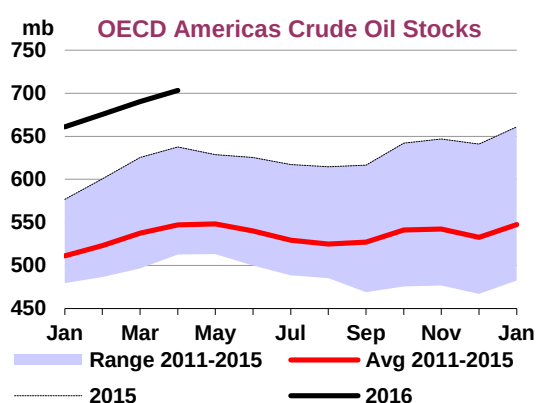
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Preliminary data for May suggest that OECD stocks rose by a weak 3.7 mb after being pressured upwards by Japanese (+5.5 mb) and European inventories (+2.0 mb) which offset a counter-seasonal fall in the US (-3.7 mb). On a product-by-product basis, refined products increased by 12.8 mb, after a further build in 'other products' in the US as the seasonal restocking of propane continues, offset draws in middle distillates (5.0 mb), motor gasoline (2.4 mb) and fuel oil (2.3 mb). As refinery throughputs in the US and Europe continue to ramp up, crude oil drew by 7.0 mb as a build in OECD Asia (where refinery throughputs fell), offset a counter-seasonal draw in the US.

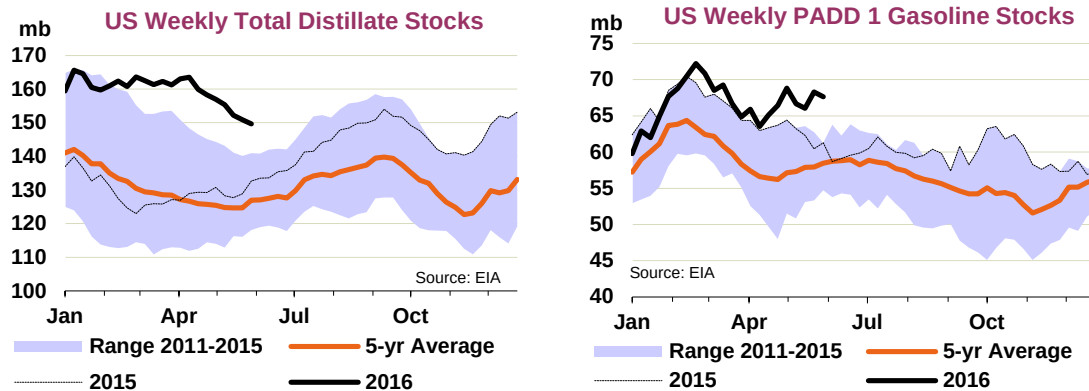
Recent OECD industry stock changes

OECD Americas

Commercial inventories in OECD Americas continue to drive total OECD stocks upwards. In April, they added a broadly seasonal 13.4 mb, a similar build to that posted in March. So far this year, they have increased by 47.1 mb to stand at 1 637 mb, 262 mb above average. The bulk of recent builds have been in crude oil as refiners undertook seasonal maintenance. Builds were further boosted by higher crude imports in the wake of narrow transatlantic spreads. In April, crude stocks built by 13.0 mb to stand 156 mb and 66 mb above average and last year, respectively.



Refined products inched up by 0.5 mb as a seasonal increase in 'other products' (led by seasonal propane restocking), more-than-offset draws in all main refined products. Output of these products was constrained as US refiners ran at their lowest April utilisation rates for three years. Middle distillates holdings dropped by a steep 9.8 mb as exports remained close to record levels. Motor gasoline stocks slipped by 2.6 mb but remained 21 mb and 12 mb above average and year earlier levels, respectively. Due to a stronger demand prognosis, the demand cover picture is slightly tighter, with motor gasoline stocks covering 24.1 days of forward demand at end-month, a slim 0.6 days above last year. All told, refined product inventories covered 31.1 days of forward demand at end-month, 0.2 days below end-March.



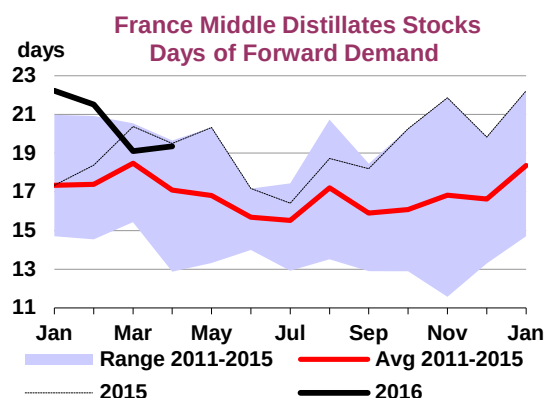
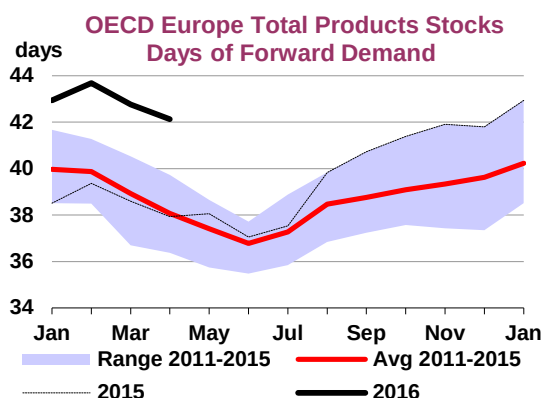
Weekly data from the US Energy Information Administration suggest that stock builds ended abruptly in May as inventories dropped counter-seasonally by 3.7 mb. The draw was centred on crude oil (-9.1 mb) as refinery demand soared following the end of turnarounds. This also saw NGLs and other feedstock inventories decrease counter-seasonally by 2.1 mb. Crude stocks also slipped in the wake of a decrease in imports from Canada as wildfires shut-in up to 1.3 mb/d of production capacity. The draw was centred on the US Gulf Coast – home to over 50% of US refinery capacity – where stocks dropped by 6.7 mb. Meanwhile, inventories in the midcontinent slipped by 2.9 mb. Levels at the Cushing, OK storage hub dropped by 0.4 mb and by end-month stood at 66 mb, nearly 90% of the working storage capacity.

Inventories of refined products posted a 7.4 mb rise, driven by the continued restocking of 'other products'. Despite the increase in refinery activity, stocks of the main refined products drew by a combined 9.7 mb. As with the previous month, falling stocks of middle distillates (-5.0 mb) accounted for the lion's share of the draw. Initial indications from the weekly data are that refiner's middle distillate yields have decreased slightly. Gasoline inventories extended recent draws and fell by 2.4 mb with inventories in the key PADD 1 (the Atlantic Coast) region remaining 10 mb and 9 mb above average and the previous year, respectively.

OECD Europe

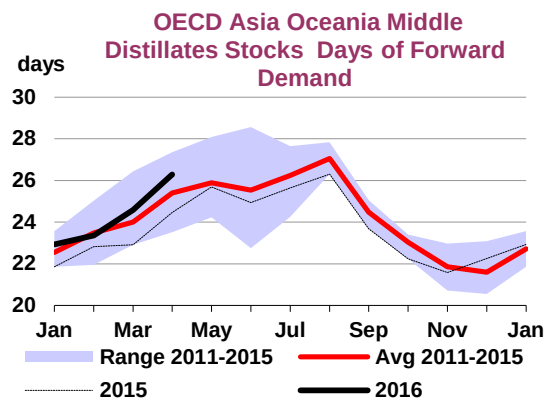
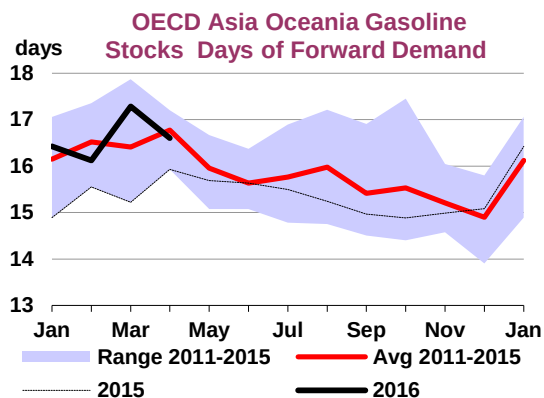
Commercial inventories in OECD Europe remained steady at 1 005 mb in April as draws of 3.7 mb and 0.1 mb in refined products and NGLs and feedstocks, respectively, were cancelled out by a 3.8 mb build in crude oil stocks. The build in crude oil likely resulted from relatively low refinery runs that, although higher versus March, were around 300 kb/d lower than one year earlier. On the products side, all categories bar 'other products' posted draws. Notably, fuel oil drew by 2.0 mb amid healthy trade to South East Asia. Motor gasoline fell by a muted 0.6 mb to leave stocks 6 mb and 5 mb above average and last year, respectively. Due to a more pessimistic European demand projection going forward, the picture is improved somewhat on a days of forward cover basis, with regional inventories covering 51 days of forward demand, 3 days above one year earlier. Moreover, at end-April, total refined products inventories covered 42.1 days, 0.6 days lower than end-March but 4.3 days above April 2015.

At the end of May France was hit by strikes at its refineries and by blockades of fuel depots. The French government authorised the release of strategic stocks. At present, little information is available on the volumes released, thought to be primarily transport fuels. Latest data for end-April suggest that in France total (government plus industry) stocks of gasoline covered 87 days of forward demand, while on the same basis stocks of middle distillates covered 79 days. Additionally, reports suggest that stocks of gasoline and gasoil held in independent storage in Northwest Europe declined at end-May as volumes were shipped southwards to France. Moreover, data from Euroilstock show a counter-seasonal draw in middle distillate stocks in May, centred in France. Overall Euroilstock data suggest that regional inventories defied seasonal trends in May and rose by 2.0 mb as a 2.1 mb increase in refined products offset a 0.1 mb decrease in crude oil.



OECD Asia Oceania

April saw commercial oil inventories in OECD Asia Oceania build (+1.1 mb m-o-m) for the first time this year. Despite this, at end-month stocks remained 12.4 mb lower than at end-2015. The build was driven by NGLS and feedstocks for which stocks rose seasonally by 2.9 mb as Japanese refiners and petrochemical producers increased their holdings. Meanwhile, as refinery throughputs remained steady, crude oil holdings drew by a seasonal 2.1 mb with the lion's share of the draw accounted for by Japan and Korea that posted draws of 0.8 mb apiece. Refined products inched up by 0.3 mb after a 3.4 mb increase in middle distillates more-than-offset draws of 2.0 mb, 0.7 mb and 0.4 mb in 'other products', motor gasoline and fuel oil, respectively. By end-month, regional gasoline holdings stood at 25 mb, 0.7 mb below average. Nonetheless, compared to one year earlier, gasoline inventories stood 0.9 mb higher on an absolute basis and 0.7 days higher on a forward demand cover basis. All told, refined product cover remained at 22.1 days at end-April, steady with one month earlier.



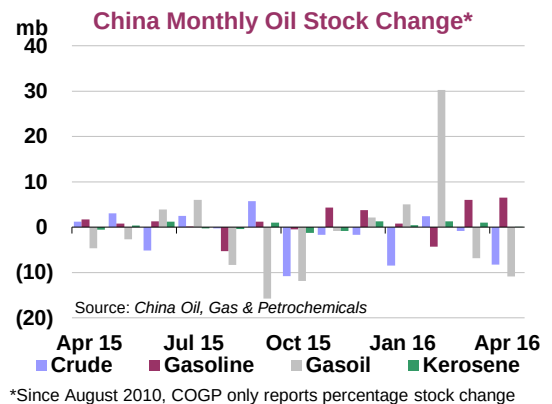
According to data from the Petroleum Association of Japan, commercial oil inventories added 5.5 mb in May. As refiners entered maintenance, stocks of crude oil built seasonally by 2.2 mb. However, the decrease in refinery output did not affect refined product stocks that increased by 3.3 mb, which suggests that product imports remained healthy. Indeed, only fuel oil (-0.5 mb) posted a draw with middle distillates, 'other products' and motor gasoline posting builds of 2.7 mb, 0.9 mb and 0.2 mb, respectively.

Recent developments in Non-OECD stocks

According to data from *China OGP*, Chinese commercial crude oil inventories dropped by 8.3 mb in April as an increase in refinery runs compounded the effect of a decrease in crude net imports. For products, stocks fell by an equivalent 4.3 mb. The decline was centred in gasoil / diesel stocks which dropped by 10.9 mb as exports remained close to record highs, offsetting lacklustre domestic demand. In contrast, gasoline holdings (+6.5 mb) remained on an upward trajectory as refiners continue to tweak their yields to

produce more to satisfy buoyant domestic demand. By end-April, gasoline stocks stood around 15 mb higher than one year earlier.

In May, Chinese stock building appears to be continuing apace with crude imports surging to 7.6 mb/d and, together with domestic production, outstripped refinery runs. This saw the implied stock build rise above 1 mb/d, with reports suggesting that volumes were heading to both commercial and strategic storage. Reports also suggest that the 18 mb first phase of the Yangpu terminal in the southern province of Hainan, has recently been commissioned. When complete, this terminal will have 76 mb of storage capacity and it is suggested that at least some tanks in Phase 1 will be used for the SPR. Shipping data suggest that seven vessels called at the port in May, three more than in April and offloaded an average of 260 kb/d of crude.

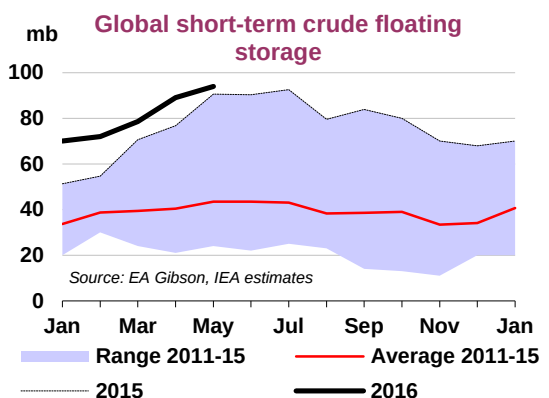


Data from International Enterprise indicate that land-based stocks of residual fuel oil attained a new record level exceeding 31 mb in late-May. Fuel oil markets remain weak globally due to the dramatic loss of market share in power generation. In China, less is imported by independent refiners now that they have access to crude import licences and less is used as marine fuel within North America and Northwest Europe. This has seen many regions, notably Europe, export excess fuel oil to South East Asia with stocks surging accordingly. As tanks have brimmed, many market participants have turned to floating storage. All told, by early-June, total land-based stocks of refined products stood at a record 58.2 mb, after surging by 6.8 mb during the month.

With stocks in Singapore persistently high and a flotilla of tankers storing products in the vicinity of the Malacca Straits, the recent commissioning of the 4.6 mb Karimun storage terminal in Indonesia is a welcome relief. The terminal, jointly operated by Oiltanking and Gunvor, will be used to store clean products, petrochemicals and fuel oil and has the capacity to receive VLCCs. Originally slated to start up at end-2015, the terminal reportedly received its first consignment of gasoline in the first week of June.

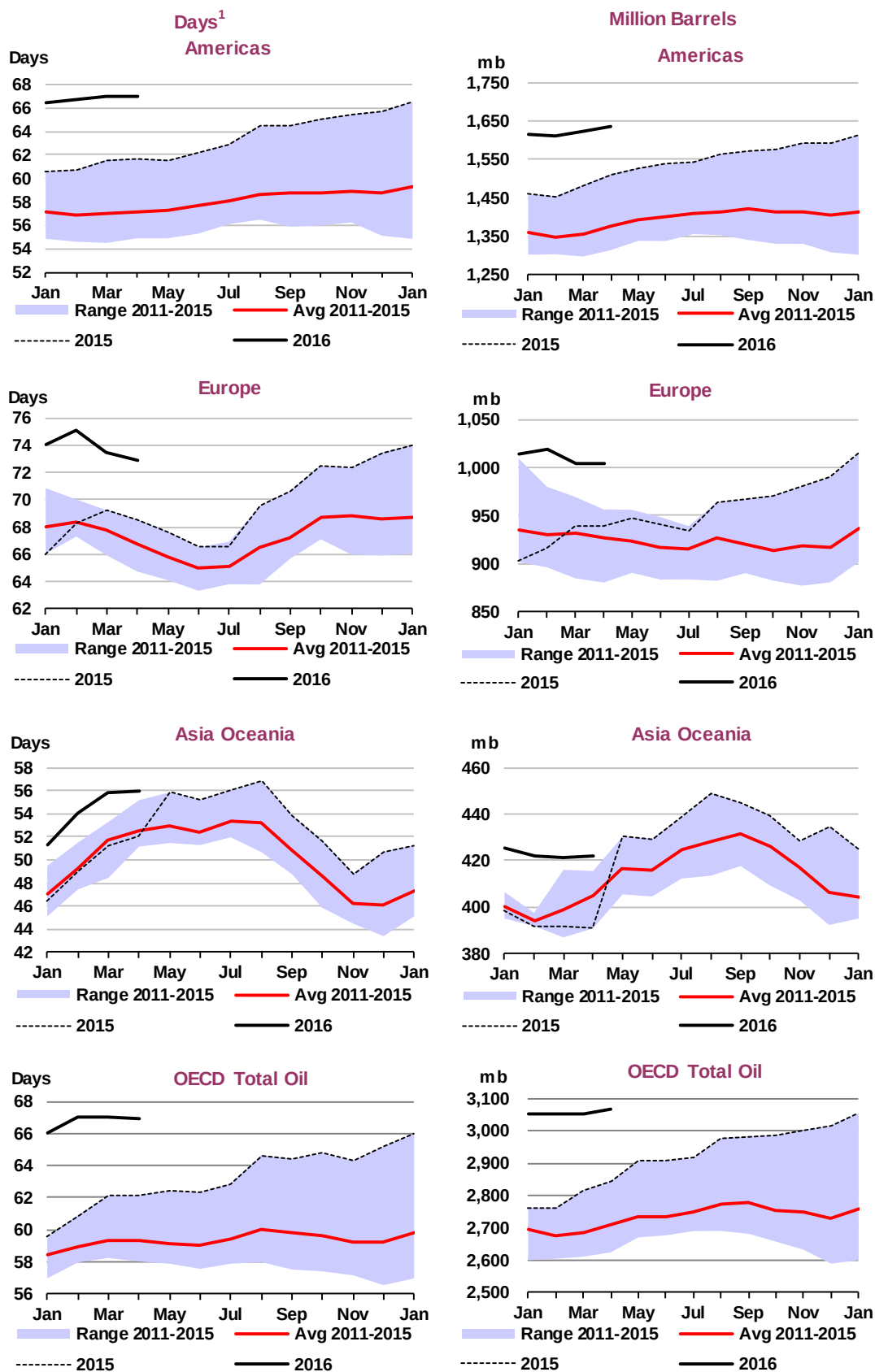
Recent developments in floating storage

Crude oil held in floating storage increased by 5 mb to stand at 94 mb by end-May, the highest level since April 2009. However, the key difference this time around is that volumes are not growing for speculative reasons. Instead, rising stocks are caused by logistical bottlenecks in the global oil supply chain. The largest regional increase came in Asia where volumes increased by 2.6 mb to 18 mb with a key factor being the large number of tankers moored off China's Qingdao terminal due to port congestion. The terminal serves the Shandong region where a number of independent refiners are located. They have started importing crude oil following the granting by the government of import licences. Elsewhere, volumes stored in the Middle East Gulf increased by 2 mb, with no contribution from Iranian volumes. Meanwhile, cargoes stored off Northwest Europe inched up by 0.5 mb, to 7 mb as market participants struggle to find on-land tank space in the ARA region.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

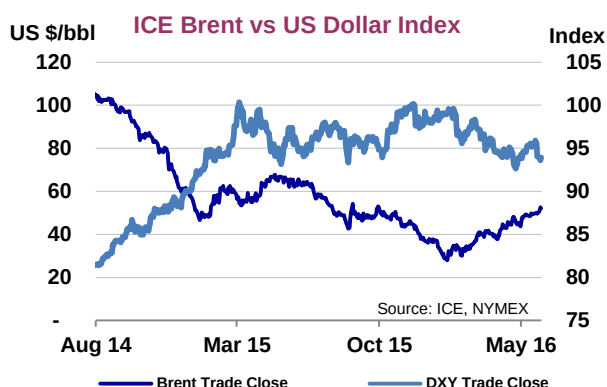
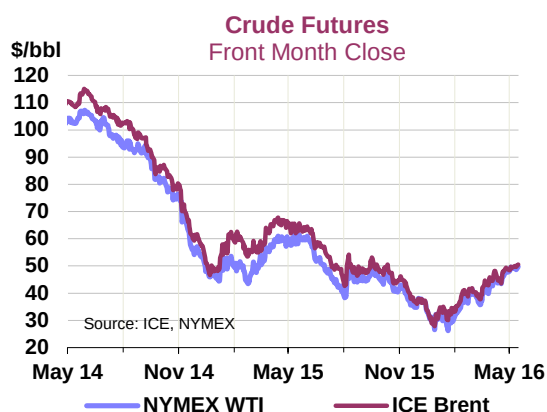


1. Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil prices rallied to a 2016 high above \$51/bbl in June, stoked by continuing outages in Nigeria and Canada as well as a steady decline in US production.** May marked the third straight month of average price rises in Brent and WTI futures.
- **Spot crude moved higher in May, buoyed by lengthy supply disruptions.** The shut-in of Nigerian output caused buyers to look elsewhere, keeping a lid on Nigerian prices. Dubai flipped into backwardation, reflecting an acceleration of demand from east of Suez buyers. Saudi Aramco raised monthly formula prices to Asia, but kept them lower than expected to stay competitive.
- **Spot product prices followed crude prices higher in May, but while products in the middle and bottom of the barrel posted double-digit rises in percentage terms, gains in light distillate prices were more modest.** Considering the recent strength in crude prices, cracks were mixed with only middle distillates showing consistent strength.
- **Freight rates for Suezmaxes on voyages from West Africa took a hit in May, as Nigerian outages sharply reduced cargo inquiries and rates collapsed below the \$10/mt mark – the weakest since September 2013.** Very-large-crude-carriers on the Middle East Gulf-Asia benchmark route seesawed throughout the month.



Market overview

Crude oil prices firmed into mid-June – reaching a 2016 high of more than \$51/bbl – as disruptions in Nigeria and Canada wiped roughly 1.5 mb/d off world supplies (see *Supply*). Crude futures have nearly doubled since January – stoked by supply outages and continuing falls in US oil production. A weaker US dollar also lent some support to prices as it makes purchases of dollar-denominated oil cheaper for countries using other currencies.

Regardless, ICE Brent's brief flirtation with backwardation came to an abrupt halt during May. The M1-M2 spread widened to a -\$0.48/bbl discount during May versus a premium of \$0.05/bbl in April due to expectations that heavy seasonal maintenance would tighten North Sea supplies.

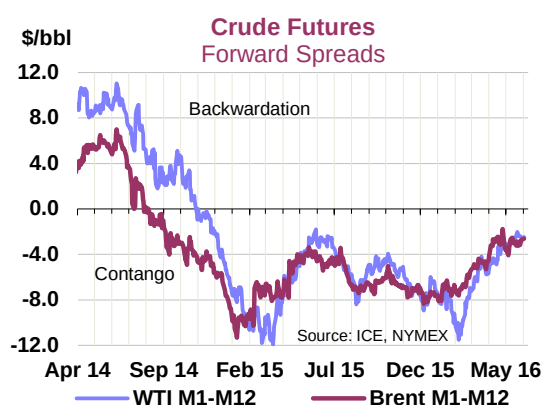
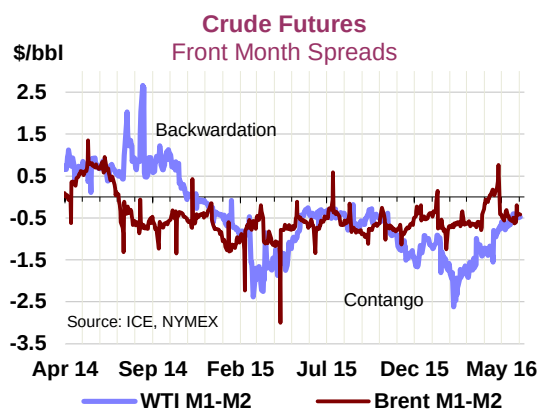
Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Mar	Apr	May	May-Apr Avg Chg	% Chg	Week Commencing:				
						09 May	16 May	23 May	30 May	06 Jun
NYMEX										
Light Sweet Crude Oil	37.96	41.12	46.80	5.68	13.8	45.45	48.03	49.01	48.97	49.69
RBOB	59.48	62.49	66.39	3.90	6.2	64.52	68.53	68.82	67.96	66.73
No.2 Heating Oil	50.11	52.46	59.66	7.21	13.7	57.27	61.82	62.78	62.93	63.13
No.2 Heating Oil (\$/mmbtu)	8.84	9.25	10.52	1.27	13.7	10.10	10.90	11.07	11.10	11.13
Henry Hub Natural Gas (\$/mmbtu)	1.81	2.01	2.08	0.07	3.4	2.14	2.04	2.03	2.37	2.47
ICE										
Brent	39.79	43.34	47.65	4.31	9.9	46.53	48.94	49.12	49.77	50.55
Gasoil	47.70	49.66	56.94	7.28	14.7	54.19	58.56	59.87	60.19	59.73
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-1.83	-2.22	-0.85	1.37		-1.08	-0.91	-0.11	-0.80	-0.86
NYMEX No.2 Heating Oil - WTI	12.15	11.34	12.86	1.53		11.82	13.79	13.77	13.96	13.44
NYMEX RBOB - WTI	21.52	21.37	19.59	-1.78		19.07	20.50	19.81	18.99	17.04
NYMEX 3-2-1 Crack (RBOB)	18.39	18.03	17.35	-0.68		16.66	18.27	17.80	17.31	15.84
NYMEX No.2 - Natural Gas (\$/mmbtu)	7.03	7.24	8.44	1.20		7.96	8.87	9.04	8.73	8.67
ICE Gasoil - ICE Brent	7.91	6.32	9.29	2.97		7.66	9.62	10.75	10.42	9.18

Source: ICE, NYMEX.

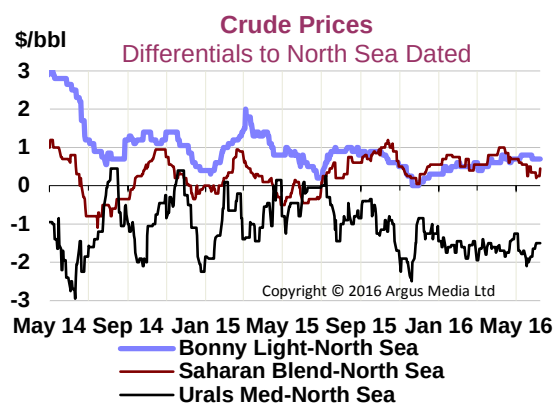
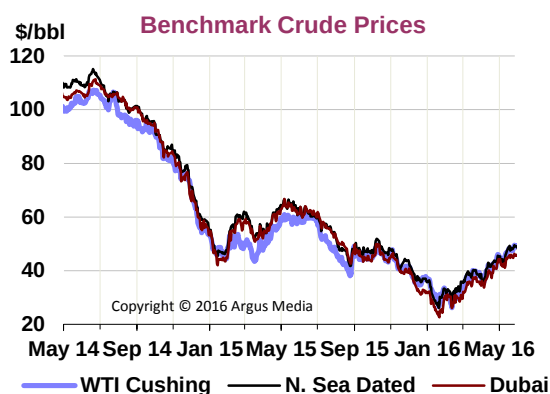
As for NYMEX WTI, with domestic supply tightening and stockpiles drawing down, the discount of prompt month to second month WTI narrowed to -\$0.59/bbl in May compared to -\$1.16/bbl in April. On forward curves, the WTI M1-M12 spread narrowed to -\$2.81/bbl in May from -\$4.36/bbl in April. By comparison, the Brent M1-M12 contract spread held relatively steady at -\$3.15 /bbl in May versus -\$3.07/bbl in April.



ICE Brent futures rose by \$4.31/bbl, or about 10%, from April to an average \$47.65/bbl during May. NYMEX WTI gained \$5.68/bbl to average \$46.80/bbl, up roughly 14% from April.

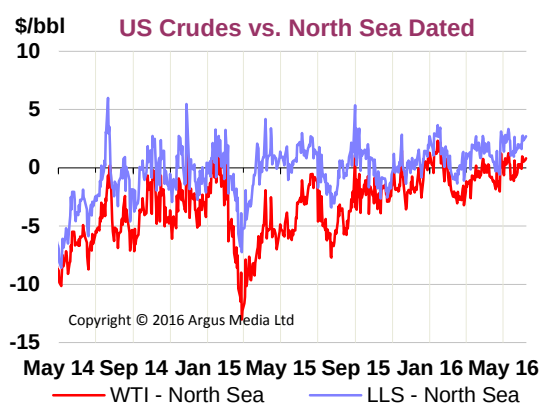
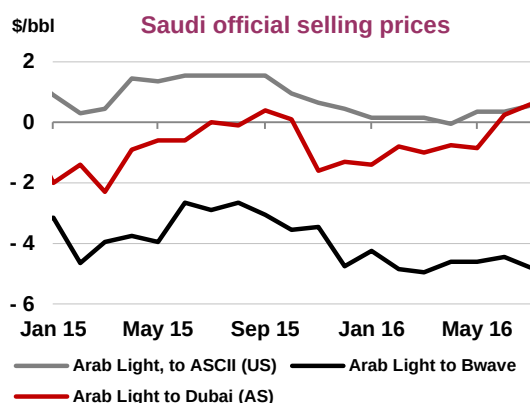
Spot crude oil prices

Prolonged supply disruptions in Nigeria and Canada pushed up spot crude prices during May. The lengthy and deepening outage of Nigerian supplies forced regular buyers in India, Indonesia and the US to look elsewhere, keeping a lid on Nigerian differentials to Dated Brent. Shipments of Qua Iboe are due to return to over 300 kb/d in July after *force majeure* was lifted on Nigeria's biggest export stream (see *Nigeria's plunge*). Angolan barrels, particularly lighter grades such as Nemba and Girassol, have strengthened on the back of the Nigerian disruption as well as a pick-up in demand from China. The flow of North Sea barrels to Asia resumed, with cargoes of Forties reportedly on the move. Loadings of the four BFOE grades – Brent, Forties, Oseberg and Ekofisk – are due to climb above 900 kb/d in July, a rise of nearly 20% on June's maintenance-reduced level.



The discount of Urals to Dated Brent in the Mediterranean firmed to around \$1.50/bbl towards the end of May after trading at around -\$2/bbl earlier in the month as the Urals fights to hold onto market share in Europe. Iran has moved swiftly to reclaim its European customers and Saudi Arabia and Iraq are also targeting the continent. The discount of Iraqi Basra Light to Dated Brent narrowed, with June-loading cargoes heading for the Mediterranean already placed. Saudi Aramco meanwhile lowered its monthly formula prices for July loadings of crude oil destined for Europe.

Of the global benchmarks, WTI posted the strongest month-on-month (m-o-m) performance in May, rising \$5.76/bbl to \$46.72/bbl as stockpiles were drawn down, Canadian outages persisted and domestic supply tightened. The LLS/Brent differential has traded at over \$1/bbl, which could lure imports during the summer. North Sea Dated Brent climbed \$5.31/bbl over April to average \$46.79 /bbl for the month. Middle East Dubai rose by a similar amount to average \$44.30/bbl in May. Russian Urals gained \$5.13 /bbl m-o-m to average \$44.30 /bbl in May.



Dubai crude flipped from a contango of -\$0.42/bbl during April to a \$0.20/bbl backwardation in May – the first time since August 2015 that prompt barrels traded at a premium to those farther out, reflecting stronger demand from Asia. Saudi Aramco raised monthly formula prices to Asia, but kept them lower than expected to stay competitive. The differentials on two of its benchmark grades – Arab Light and Arab Medium – for July loading were raised by only \$0.30-\$0.35/bbl versus a steep increase the previous month. Saudi prices to the US were strengthened for all grades except Arab Extra Light.

Wildfires in Canada took oil sands units offline in early May, cutting synthetic crude exports to the US and leading refiners in the midcontinent to search for alternatives. The premium of WTS, which can be a substitute, rose as a result as did the premium of pipeline Bakken crude versus WTI.

Spot Crude Oil Prices and Differentials

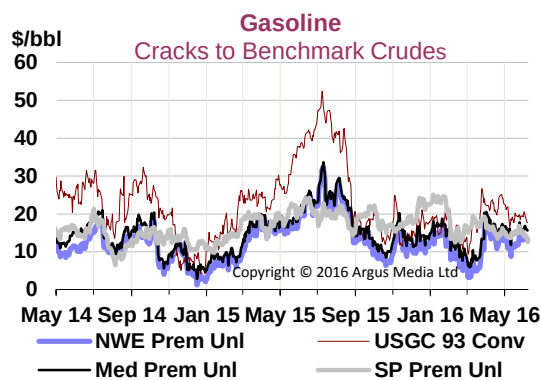
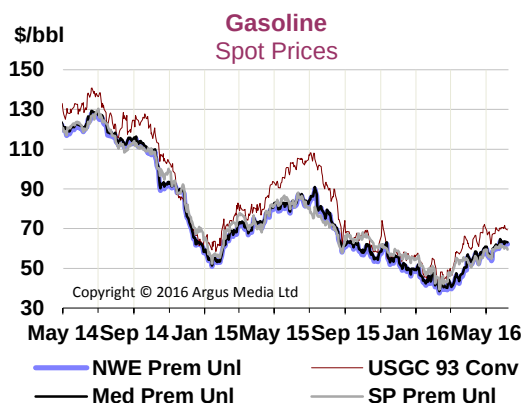
(monthly and weekly averages, \$/bbl)

	Mar	Apr	May	May-Apr Avg Chg	%	Week Commencing:				
						09 May	16 May	23 May	30 May	06 Jun
Crudes										
North Sea Dated	38.49	41.48	46.79	5.31	12.8	45.07	48.58	48.77	48.41	49.89
Brent (Asia) Mth 1	39.05	42.74	47.28	4.54	10.6	45.73	48.46	48.63	49.18	50.70
WTI (Cushing) Mth 1	37.76	40.95	46.72	5.76	14.1	45.45	48.03	48.68	48.98	50.18
Urals (Mediterranean)	36.85	39.89	45.01	5.13	12.9	43.32	46.61	46.96	46.90	48.33
Dubai	35.12	39.00	44.30	5.30	13.6	42.93	45.46	45.52	46.02	47.47
Tapis (Dated)	42.35	43.81	49.03	5.22	11.9	47.37	50.56	50.87	50.55	51.99
Differential to North Sea Dated										
WTI (Cushing)	-0.73	-0.53	-0.07	0.46		0.38	-0.55	-0.09	0.57	0.29
Urals (Mediterranean)	-1.64	-1.60	-1.78	-0.18		-1.75	-1.97	-1.81	-1.51	-1.56
Dubai	-3.37	-2.48	-2.49	-0.01		-2.14	-3.12	-3.25	-2.39	-2.42
Tapis (Dated)	3.85	2.33	2.24	-0.08		2.30	1.98	2.10	2.14	2.10
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.67	-0.36	-0.42	-0.06		-0.46	-0.40	-0.34	-0.60	-0.64
Forward WTI Cushing Mth1-Mth2	-1.59	-1.21	-0.61	0.60		-0.70	-0.63	-0.50	-0.47	-0.59
Forward Dubai Mth1-Mth2	-0.92	-0.42	0.21	0.62		0.30	0.24	0.11	0.12	0.16

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Spot product prices

Spot products followed crude prices higher in May, but while products in the middle and bottom of the barrel posted double-digit rises in percentage terms, gains in light distillate prices were more moderate. Crack spreads for all products remain significantly below year earlier with downward pressure coming from steadily strengthening crude prices but also as supply for all products remains ample. Indeed, data for the OECD and non-OECD Asia suggest that refined product inventories remain more than comfortable.



Although spot gasoline prices rose in all surveyed markets in May, increases were muted compared to those for middle distillates and fuel oil as supplies in all markets remained ample ahead of the summer peak demand season. In Northwest Europe, further negative momentum came from lower exports to Nigeria where the government hiked gasoline prices by 67% and the Naira remains exceptionally weak. Nonetheless, some strength came from an open arbitrage to move product to the US Atlantic Coast, amid low freight rates, and from localised supply tightness in the wake of French strikes. In the US Gulf, prices fell early in May as the arbitrage opportunity to ship product by tanker to the Atlantic Coast closed, although prices rebounded in mid-month as a number of regional gasoline producing units remained offline. In Singapore, robust exports from Northeast Asia saw light distillates stocks remain close to record levels. Following the muted spot prices rises which were outstripped by all benchmark crudes, gasoline cracks declined across all surveyed regions on a monthly average basis and by end-May they stood below year-ago levels.

Spot Product Prices

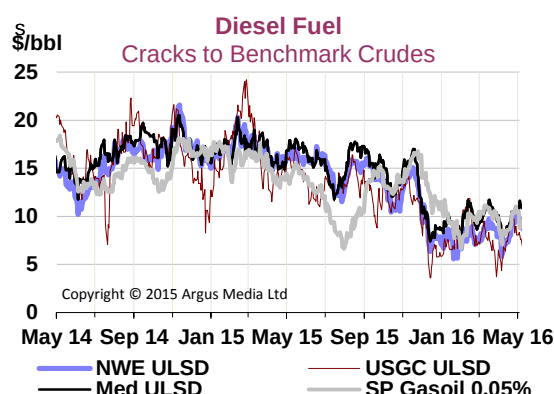
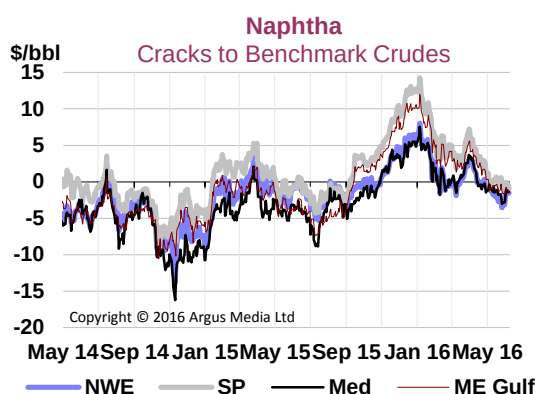
(monthly and weekly averages, \$/bbl)

	Mar	Apr	May	May-Apr Chg	%	09 May	16 May	23 May	30 May	06 Jun	Mar	Apr	May	Chg
Rotterdam, Barges FOB														
Premium Unl 10 ppm	45.60	55.51	58.93	3.42	6.2	56.13	60.13	62.07	62.07	62.10	7.11	14.03	12.14	-1.88
Naphtha	38.96	42.16	44.78	2.62	6.2	43.53	46.30	45.72	46.50	47.47	0.47	0.67	-2.01	-2.69
Jet/Kerosene	46.91	49.55	55.39	5.84	11.8	52.43	57.14	58.64	59.08	58.30	8.41	8.07	8.60	0.54
ULSD 10ppm	47.13	49.57	56.67	7.10	14.3	54.08	58.40	59.66	59.80	59.48	8.64	8.09	9.88	1.79
Gasoil 0.1%	45.55	48.79	55.91	7.12	14.6	53.29	57.63	58.78	58.98	58.57	7.06	7.31	9.12	1.81
LSFO 1%	24.71	27.56	33.02	5.46	19.8	31.83	33.98	34.66	35.44	36.00	-13.79	-13.92	-13.77	0.15
HSFO 3.5%	21.97	24.39	30.18	5.79	23.7	29.24	31.21	31.29	32.41	33.23	-16.52	-17.10	-16.61	0.48
Mediterranean, FOB Cargoes														
Premium Unl 10 ppm	46.79	56.82	60.19	3.37	5.9	57.41	61.42	63.29	63.17	63.20	9.94	16.94	15.18	-1.76
Naphtha	37.76	40.39	43.51	3.12	7.7	42.26	45.20	44.53	45.17	46.15	0.91	0.51	-1.50	-2.01
Jet Aviation fuel	45.96	48.01	54.44	6.43	13.4	51.51	56.32	57.75	58.13	57.37	9.10	8.12	9.43	1.30
ULSD 10ppm	47.33	49.25	56.93	7.68	15.6	54.23	58.83	59.90	60.14	59.65	10.48	9.36	11.91	2.55
Gasoil 0.1%	45.69	47.76	55.75	7.99	16.7	52.66	57.89	59.10	59.15	58.81	8.83	7.88	10.74	2.86
LSFO 1%	24.84	28.24	34.00	5.76	20.4	32.73	35.05	35.81	36.10	36.51	-12.02	-11.65	-11.01	0.63
HSFO 3.5%	23.99	26.91	32.66	5.74	21.3	31.73	33.51	33.95	34.95	35.62	-12.87	-12.97	-12.36	0.62
US Gulf, FOB Pipeline														
Super Unleaded	57.49	65.31	68.20	2.90	4.4	65.47	69.21	69.85	70.73	69.35	17.42	22.61	19.51	-3.10
Unleaded	51.03	58.77	62.10	3.33	5.7	59.87	63.48	64.79	66.34	64.99	10.97	16.07	13.40	-2.67
Jet/Kerosene	44.88	47.55	54.36	6.82	14.3	52.19	56.66	57.43	57.56	57.93	4.82	4.85	5.67	0.82
ULSD 10ppm	47.35	50.29	57.70	7.41	14.7	55.20	59.89	60.91	60.97	61.37	7.28	7.59	9.00	1.41
Heating Oil	40.53	45.07	52.26	7.19	16.0	50.03	54.49	55.41	55.85	56.36	0.47	2.38	3.57	1.19
No. 6 3%*	23.58	25.95	31.85	5.91	22.8	31.28	33.05	33.27	33.64	34.65	-16.48	-16.75	-16.84	-0.09
Singapore, FOB Cargoes														
Premium Unleaded	52.68	54.49	59.14	4.64	8.5	57.02	60.56	61.27	60.65	59.80	17.56	15.49	14.84	-0.65
Naphtha	39.20	42.52	44.20	1.68	4.0	42.98	45.67	45.28	45.33	45.79	4.08	3.52	-0.09	-3.61
Jet/Kerosene	47.40	49.51	55.18	5.67	11.5	52.59	56.32	57.87	58.23	58.23	12.27	10.51	10.89	0.38
Gasoil 0.05%	45.52	48.08	54.86	6.78	14.1	52.91	56.12	57.15	57.86	58.28	10.40	9.08	10.57	1.49
LSWR Cracked	28.10	31.17	36.54	5.37	17.2	35.56	37.37	37.51	38.08	39.18	-7.02	-7.83	-7.76	0.07
HSFO 180 CST	27.78	30.28	35.19	4.91	16.2	34.39	35.93	35.98	36.38	37.05	-7.34	-8.72	-9.10	-0.38
HSFO 380 CST 4%	27.51	29.65	34.58	4.93	16.6	33.95	35.36	35.21	35.50	36.30	-7.62	-9.36	-9.72	-0.36

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* Waterborne

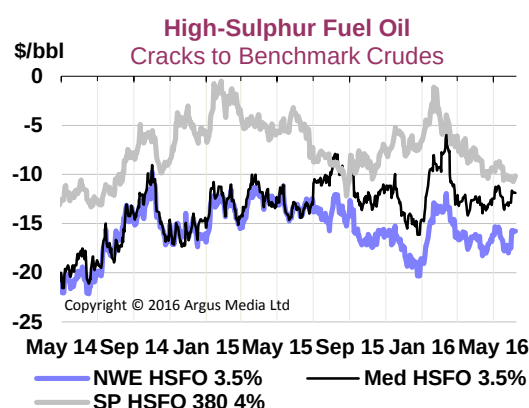
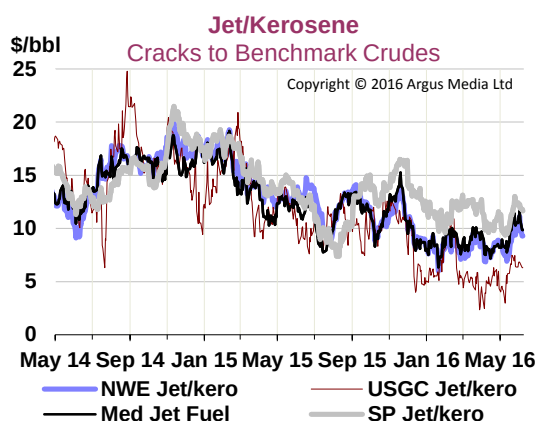
Naphtha markets remained weak in May with spot prices posting relatively subdued gains. Consequently, considering the strength in crude markets, naphtha cracks retreated into negative territory across all regions. In Europe, negative pressure came from lower gasoline blending and petrochemical demand and from the closure of the arbitrage window to ship product to Asia. Naphtha demand in Asia is suffering as multiple naphtha crackers remain under maintenance and as cheaper LPG continues to gain traction in the petrochemical sector. Furthermore, these two factors forced Singapore naphtha cracks back into the red during May and by early June they were at -\$0.95/bbl, the lowest since September 2015.



Middle distillates prices fared better than light products and posted double-digit increases across all markets. Northwest European diesel prices received a boost from lower US imports and from strikes in France that reportedly affected about 200 kb/d of diesel output. This saw stocks draw in the ARA region

as product moved southwards. In the Mediterranean, prices also firmed on a reported decrease in Turkish diesel and kerosene exports following an unscheduled refinery outage. In Singapore, prices remained relatively strong despite near-record Chinese gasoil exports and middle distillate inventories remaining high. Reports suggest that demand from India, Sri Lanka and Vietnam helped to tighten fundamentals. Although diesel cracks firmed across all surveyed markets on a monthly average basis, they remain significantly below year-ago levels as bloated inventories weigh heavily.

Despite posting the steepest price increases across surveyed products on a percentage basis, fuel oil markets remain very weak with HSFO cracks in Northwest Europe standing at -\$17/bbl with those in the Mediterranean slightly higher at -\$11/bbl. Although much of this difference is due to the relative strength of ICE Brent over Urals, prices in the Mediterranean received a boost from an uptick in demand for fuel oil in the North African power generation sector, while prices in both regions benefitted from lower Russian exports as refiners underwent heavy maintenance. Nonetheless, both Mediterranean and Northwest European fuel oil markets received no boost from exports to Asia in May as the arbitrage to ship product eastwards remained firmly shut as prices in Singapore increased at a slower clip than in Europe. Spot prices in Singapore came under pressure from bloated on-land inventories, which touched a record level during late-month. Additionally, a flotilla of VLCCs holding fuel oil remain moored in the vicinity of the Malacca Straits, with some reports suggesting that these volumes are approaching 50 mb.



Panama Canal expands: implications for global oil flows

The expanded Panama Canal is scheduled to open on 26 June, after almost nine years of construction and with an official price tag of \$5.25 billion, of which \$800 million were financed by the Japan Bank for International Cooperation, the biggest single lender of the project. Completion was originally due on the one hundredth anniversary of the canal in October 2014. The delay was caused first by a contractual dispute between the Panama Canal Authority and the consortium in charge of the construction, and, later, by water leakage in the Pacific locks. Earlier this year, the opening was threatened by low water levels caused by El Nino. On June 8, the restriction was been lifted and the opening is expected on time.

Table: Compatible carrier sizes before and after Canal expansion

	Max dimensions (m)		Typical carrier* dimensions (m)						
	Current	2016 expansion	Aframax/ LR2	Suezmax	VLCC	VLGC (LPG)	LNG standard	Q-Flex (LNG)	Q-Max (LNG)
length	294.3	366	245	275	333	230	280	315	345
beam	32.2	49	42.8	48.5	60	36.6	42	50	55
draft	12	15.24	14.9	17	22	11.5	11.3	12	12
cargo	65 000 mt	130 000 mt							

Source: IEA Research, EA Gibsons Ltd, Qatargas
* Built 2008 onwards

Legend

Compatible after expansion
Non compat. after exp.

Compatible half-laden
Unchanged

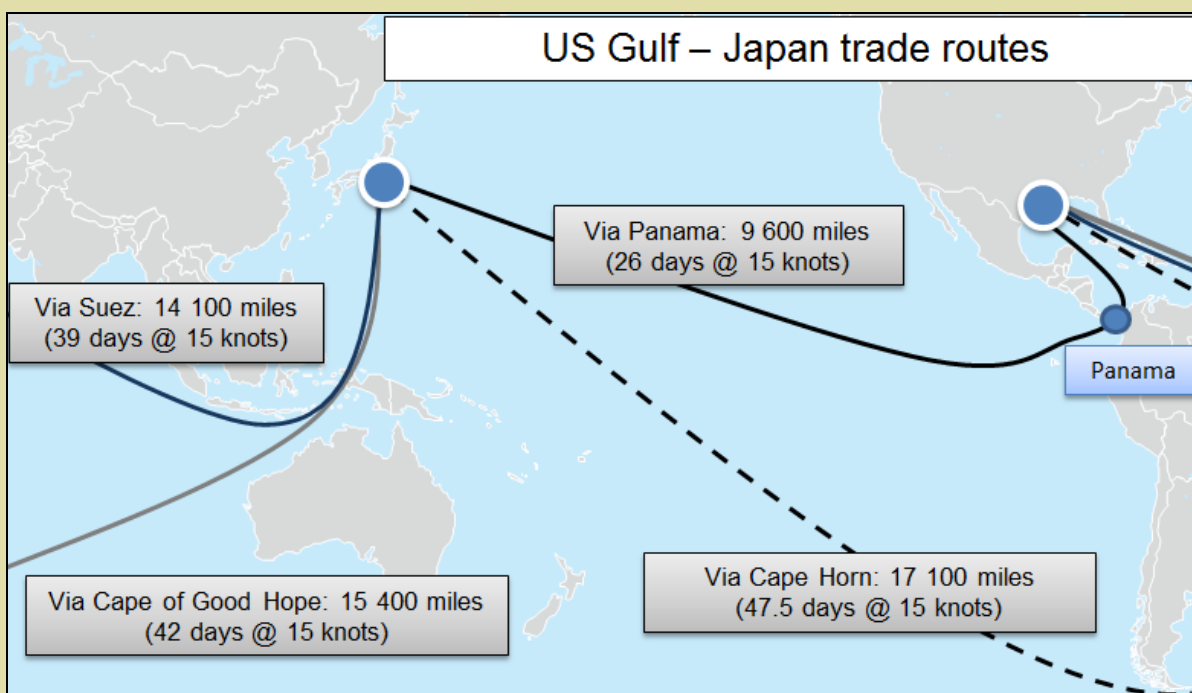
Panama Canal expands: implications for global oil flows (continued)

Meet the Neo Panamax. The expanded width of the canal allows for transit of larger tanker classes, namely Aframaxes, Long Range and Suezmaxes, the latter carrying 1 mb. The depth of the canal will not however accommodate a full laden Suezmax, although the extent of the load would depend on the gravity of the crude. According to shipbrokers Simpson, Spence and Young (SSY), a fully laden light oil or condensate Suezmax should be allowed to pass, giving easier access to Far East markets to US condensate and naphtha exports should exports pick up if supported by favourable economics.

Very large gas carriers (VLGCs), carrying LPG, and larger Liquefied Natural Gas (LNG) vessels will also be able to transit, with the exclusion of the larger Qatari sizes (Q Flex and Q Max).

Around the world: trade implications. In the short term, the impact on global oil flows appears limited. The biggest impact will be on American flows, chiefly US product exports headed to Pacific Latin America and the Far East. Larger clean product vessels (the Long Range class) will likely eat some share from smaller westbound Medium Range tankers, although the extent will be defined by port infrastructure and – for the US West Coast – by Jones Act restrictions. As an alternative to longer haul voyages from Europe to Asia, it will have to compete with the Atlantic/Indian Ocean route, either via Suez or via the Cape of Good Hope.

Caribbean crudes. For Latin America crude exporters, the Canal will widen the alternatives, although the typically low API of Caribbean crudes would make a Suezmax viable only if partially laden. An option would be to partially unload cargoes into the 800 kb/d Trans Panama pipeline, and then re-load the crude onto ships on the East Coast. However, the benefit of combining the canal and the pipeline, rather than simply using TransPanama with two VLCCs appears rather uncertain, and will hinge on several factors, such as pipeline usage, transit tariffs, traffic in the Canal, other than relative freight rates for different carrier sizes.



This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Gas shipments: freight matters. The impact on gas carriers appears to be far more significant. The expansion will allow very large gas carriers (VLGCs) and standard LNG carriers to transit. Propelled by the shale revolution, US propane exports to China and Japan have skyrocketed, reaching as high as 500 kb/d in February. However, even such routes where the canal would reduce the distance, currently depressed freight rates make circumnavigating Cape Horn a cheaper alternative to paying the Canal transit fee, reportedly just shy of \$195k for a VLGC. The latest month pickup in Pacific bound volumes is rather due to term contracts starting up, according to Argus Media reports.

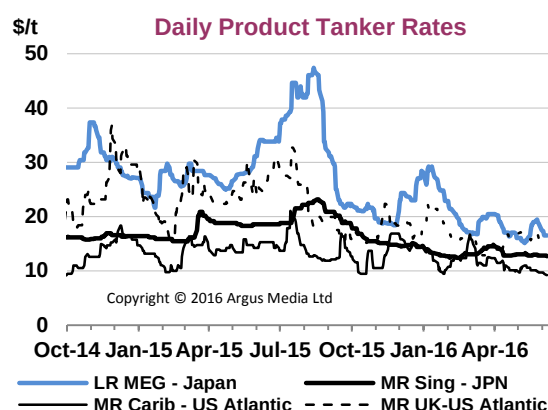
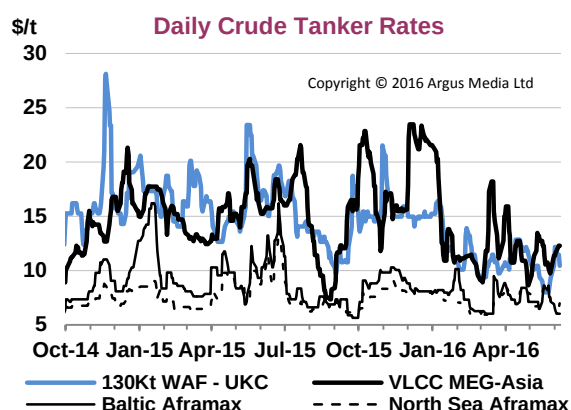
Panama Canal expands: implications for global oil flows (continued)

All in all, the impact of the Panama expansion is likely to be – for the moment – limited on oil flows, at least in the current low tanker rates environment. The impact on LPG flows will depend on freight economics and the resilience of the US gas industry.

Freight

Freight rates were mixed in May. **Very-large-crude-carriers (VLCCs)** on the benchmark MEG-Asia route seesawed throughout the month. A rush of fixing lifted rates to near \$13/mt mid-month, but levels retraced towards the end of the month as the loading programme was filled. By early June, activity picked up. Rates for **Suezmaxes** on voyages from West Africa took a hit in May, as Nigerian outages sharply reduced cargo inquiries and rates collapsed below the \$10/mt mark – the weakest since September 2013. Consequently, unemployed vessels reportedly ballasted to the Mediterranean and Black Sea, which tightened tonnage and buttressed rates.

Aframaxes in the North Sea and Baltic had a slow start to the month, but were supported by strong Russian loadings from Primorsk in mid-month (See 'Supply - FSU Exports'). However, such support was short-lived, as fundamentals weakened after Suezmaxes ex-West Africa moved to the Mediterranean.



Rates for product tankers overall had a subdued month. **Gasoline shipments** from Europe to US East coast remained strong and rates reacted accordingly, but abundant tonnage kept levels in check. No meaningful increase in freight rates was registered on the backhaul US Gulf – UK Continent route, shipping gasoil from the US Gulf to Europe. The rate remained firmly anchored around \$16.5/mt levels, as French strikes did not translate into a meaningful increase in fixtures, suggesting that abundant regional distillate stocks mitigated the impact.

In the **Far East**, the MEG – Japan product rate remained weak overall despite strengthening in mid-May. High distillate stocks put a lid on tanker inquiry, even as petrochemical demand for naphtha remains reasonable in Japan, Korea and China.

REFINING

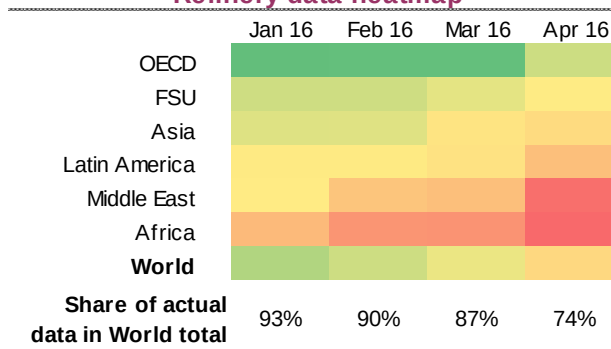
Summary

- **Refinery throughput growth in 2Q16 suffered from increased outages.** Runs are almost flat year-on-year (y-o-y), as refiners seem finally catching up with maintenance postponed from last year
- **The seasonal ramp-up to 3Q16 is expected to be the largest on record, surging by nearly 2.3 mb/d** quarter-on-quarter (q-o-q), up by 1.1 mb/d y-o-y, but in line with demand growth of 1.1 mb/d.
- **Changes in crude output and refinery runs in China, Russia and Brazil affects their import requirements and export availability,** with substantial impact on crude flows.

Global refinery overview

Throughput numbers for March are not finalised for many non-OECD countries, but the available updates lowered the estimate for 1Q16 runs by about 200 kb/d. This changed the implied balances for oil products as global oil demand is estimated to have grown by 1.6 mb/d y-o-y and refinery runs by 1.3 mb/d. Preliminary April data for OECD and the top four global refiners, as well as the available May data (weekly data for US, Japan and Canada and monthly data for Russia), point to subdued refining activity in 2Q16. The background to the revisions is discussed below: it is generally the heavier outages volume, including unplanned shutdowns, which lead to an almost flat y-o-y picture for 2Q16. With the extension of the forecast horizon to September the first glimpse into the full 3Q16 picture suggests a stronger than usual seasonal ramp-up from the second quarter by about 2.3 mb/d, (see *Seasonality of crude oil demand*) and a gain of 1.1 mb/d y-o-y.

Refinery data heatmap



Global Refinery Crude Throughput¹

(million barrels per day)

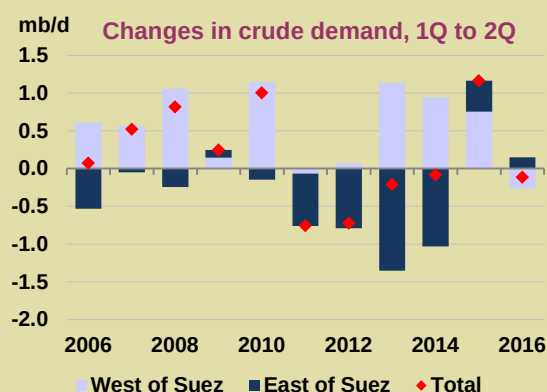
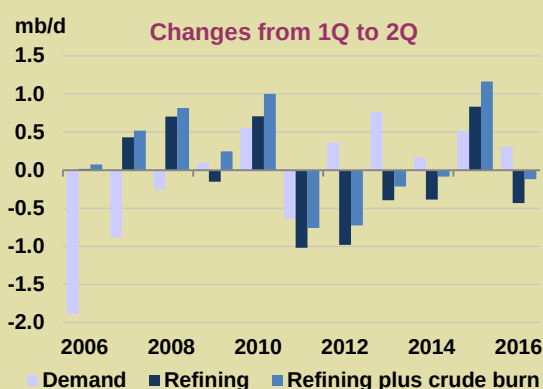
	Feb 16	Mar 16	1Q2016	Apr 16	May 16	Jun 16	2Q2016	Jul 16	Aug 16	Sep 16	3Q2016
Americas	18.8	19.1	19.0	18.9	19.0	19.4	19.1	19.8	19.6	19.2	19.5
Europe	11.7	11.5	11.8	11.5	11.6	11.6	11.6	12.3	12.4	11.7	12.2
Asia Oceania	7.3	7.0	7.1	6.8	6.6	6.2	6.5	6.9	6.9	7.0	6.9
Total OECD	37.8	37.6	37.8	37.3	37.2	37.2	37.2	39.0	39.0	37.9	38.6
FSU	6.9	6.8	6.9	6.6	6.5	6.6	6.6	6.7	6.6	6.5	6.6
Non-OECD Europe	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.6	10.6	10.6	10.9	10.5	10.7	10.7	11.0	10.7	10.7	10.8
Other Asia	10.2	10.2	10.2	10.2	10.3	10.6	10.4	10.6	10.6	10.4	10.5
Latin America	4.3	4.3	4.3	4.2	4.3	4.4	4.3	4.6	4.5	4.4	4.5
Middle East	6.9	6.9	6.9	6.9	7.0	7.1	7.0	7.3	7.3	7.3	7.3
Africa	2.1	2.1	2.1	2.1	2.0	2.2	2.1	2.3	2.3	2.2	2.3
Total Non-OECD	41.5	41.4	41.5	41.3	41.3	42.1	41.6	42.9	42.4	42.0	42.4
Total	79.3	79.0	79.3	78.6	78.4	79.4	78.8	81.9	81.3	79.9	81.1

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

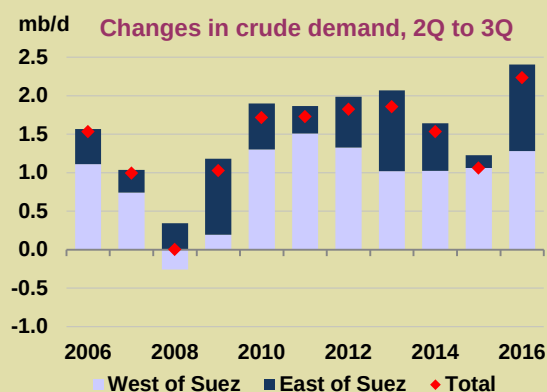
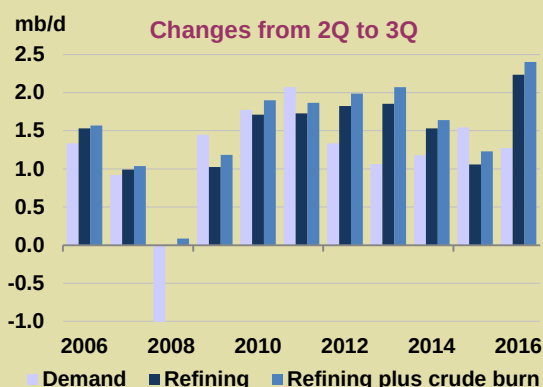
Seasonality of crude oil demand

Continuing the exploration of trends in seasonality in oil consumption, this time we look at crude oil demand. There are reasons why refinery throughput does not always follow the seasonal headline oil demand pattern. Refineries have to undergo periodic maintenance, the majority of which is scheduled for spring or autumn for various operational or logistical reasons.

As discussed in the *March Report*, global oil demand is ramping up in the second quarter, rather than declining as it used to. Interestingly, refinery throughputs have displayed the opposite trend, swinging from mainly growing to mainly declining, judging from the available history of seasonal runs. Zooming in the two hemispheric crude trading regions – East of Suez and the Atlantic basin, it becomes clear that the global 2Q decline pattern is driven by East of Suez refiners, both in OECD (Japan and Korea) and non-OECD countries, usually running at lower rates in 2Q compared to 1Q. In 2015, refinery ramp-ups in China and the Middle East more than offset traditional declines into 2Q, and, rather than counterbalancing Atlantic basin growth, added to it. This year, both scheduled and unscheduled outages weigh on refinery intake and set the seasonal change back into negative territory in 2Q16. However, it is not only refinery runs that define the demand for crude oil. Adding in Saudi crude burn volumes (with a large seasonal increase in 2Q), slows the decline in the global demand for crude oil coming from lower refining intake (combined with East of Suez refining intake in the following charts).



The change from 2Q to 3Q is a much more straightforward growth trend as refiners worldwide maximise runs to meet peak summer driving demand, but also build stocks before the autumn turnaround season, pre-Christmas seasonal freight demand and, in some regions, consumer stocking for the winter heating season. Further seasonal increases in crude burn add to the global demand for crude oil. This year, the ramp-up to 3Q is especially robust, with runs expected to increase by over 2 mb/d, with West of Suez demand slightly dominating. This coincides with supply disruptions from Canadian wildfires, Brazilian outages and Nigerian force majeure, on top of declining US output. Given that refineries, especially in Asia, typically secure crude contracts two months ahead, the recent crude price increase could well be partly explained by this seasonal tightness with increased refinery appetite for 3Q and lower availability in the Atlantic basin, which remains the centre of global crude pricing.



Margins

Although in many regions May margins came in lower than April's on a monthly average basis, by the end of the month and into early June they had rebounded from the lower levels seen earlier in the month, despite the \$5bbl increase in crude prices. In Europe, this was driven by French strikes; in North America, by heavy maintenance in the US and feedstock-related outages in Canada. In Singapore, the crude oil buying pressure from Chinese independent refiners remained high, although this is likely to ease as the region moves into maintenance season.

IEA/KBC Global Indicator Refining Margins¹

	(\$/bbl)									
	Monthly Average				Change	Average for week ending:				
	Feb 16	Mar 16	Apr 16	May 16	May 16-Apr 16	13 May	20 May	27 May	03 Jun	10 Jun
NW Europe										
Brent (Cracking)	3.66	2.80	4.37	4.05	↓	-0.32	3.43	3.49	4.78	4.46
Urals (Cracking)	5.15	4.24	5.48	5.28	↓	-0.20	4.67	4.87	5.87	5.42
Brent (Hydroskimming)	-0.76	-2.05	-1.40	-1.45	↓	-0.05	-1.73	-2.11	-1.03	-0.14
Urals (Hydroskimming)	-0.11	-1.47	-1.24	-1.14	↑	0.09	-1.35	-1.64	-1.00	-0.07
Mediterranean										
Es Sider (Cracking)	5.49	4.31	5.66	5.66	↓	0.00	4.97	5.32	6.26	6.02
Urals (Cracking)	5.35	4.34	4.95	5.38	↑	0.43	4.82	5.20	5.92	6.40
Es Sider (Hydroskimming)	1.69	-0.24	1.01	1.02	↑	0.01	0.62	0.57	1.41	1.99
Urals (Hydroskimming)	0.49	-1.38	-0.99	-0.58	↑	0.40	-0.71	-0.96	-0.45	0.20
US Gulf Coast										
50/50 HLS/LLS (Cracking)	3.93	5.02	7.65	6.64	↓	-1.01	5.65	6.98	7.84	8.08
Mars (Cracking)	3.13	3.78	5.41	4.30	↓	-1.11	3.88	4.34	4.96	5.19
ASCI (Cracking)	2.89	3.33	5.00	3.79	↓	-1.21	3.35	3.83	4.48	4.64
50/50 HLS/LLS (Coking)	5.77	7.37	10.19	9.11	↓	-1.07	8.02	9.45	10.44	10.66
50/50 Maya/Mars (Coking)	8.11	10.58	12.53	10.75	↓	-1.78	9.93	10.93	11.68	11.44
ASCI (Coking)	8.32	9.81	11.83	10.50	↓	-1.33	9.57	10.71	11.61	11.70
US Midcon										
WTI (Cracking)	4.15	9.19	12.05	12.95	↑	0.90	12.34	13.93	13.91	14.65
30/70 WCS/Bakken (Cracking)	2.39	6.99	10.26	10.48	↑	0.22	10.14	10.83	10.90	11.58
Bakken (Cracking)	3.14	9.01	12.72	13.44	↑	0.72	12.76	13.88	14.28	14.71
WTI (Coking)	5.91	11.73	14.85	15.84	↑	0.99	15.16	16.85	16.91	17.68
30/70 WCS/Bakken (Coking)	5.76	11.39	14.96	15.24	↑	0.28	14.69	15.73	15.89	16.60
Bakken (Coking)	3.91	10.18	14.01	14.76	↑	0.74	14.05	15.22	15.65	16.09
Singapore										
Dubai (Hydroskimming)	0.93	-0.16	-1.51	-1.83	↓	-0.32	-1.99	-2.04	-1.45	-1.95
Tapis (Hydroskimming)	1.51	0.89	0.27	0.96	↑	0.69	1.09	0.62	1.02	1.71
Dubai (Hydrocracking)	5.52	5.16	3.90	3.72	↓	-0.17	3.24	3.67	4.52	3.98
Tapis (Hydrocracking)	5.16	5.26	4.51	5.18	↑	0.67	5.11	4.93	5.48	6.03

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

Partly thanks to strikes in France that affected refining activity, and the summer ramp-up in middle distillates demand (see April Report), European diesel cracks finally crossed the \$10/bbl threshold for the first time since November 2015. French product demand is heavily skewed towards diesel, which accounts for almost 60% of the demand barrel, or about 960 kb/d. France normally imports about 400 kb/d of diesel, but higher imports during the refinery disruption were complicated by strikes affecting a number of ports and terminals. Interestingly, a few months ago Total made headlines by chartering a VLCC on a maiden voyage to ship diesel from Asia to Europe. The arrival of the 2 mb cargo, the largest ever for any clean product, was expected to put further pressure on diesel cracks, already in single digits. However, when the vessel arrived at Rotterdam at the end of May the markets had tightened.

OECD refinery throughput

North American throughput data for March was finalised with no visible change. Preliminary April numbers confirmed the first y-o-y drop for the **US** in three years, of 220 kb/d. Judging by the volume of outages, US refiners finally slowed down for maintenance, having run almost flat out for most of the past year. Unscheduled shutdowns, partly a sign of overstretched capacity, added to the planned closures. Preliminary data for May showed a flat y-o-y picture, and in June runs are forecast to be at best flat y-o-y, possibly with a small decline. This brings about the first quarterly y-o-y decline in four years: runs in 3Q16 will be flat y-o-y, but with a seasonal 260 kb/d increase from the second quarter.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

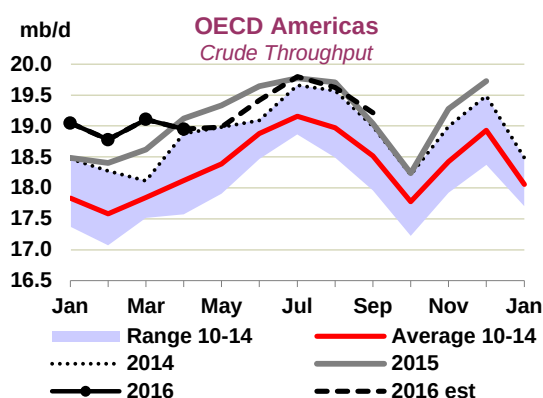
	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	Change from		Utilisation rate ¹	
							Mar 16	Apr 15	Apr 16	Apr 15
US ²	16.49	16.77	15.99	15.88	16.11	16.08	-0.03	-0.22	0.88	0.92
Canada	1.59	1.66	1.76	1.68	1.74	1.66	-0.08	0.05	0.84	0.81
Chile	0.14	0.17	0.17	0.17	0.17	0.16	0.00	0.02	0.72	0.65
Mexico	1.05	1.12	1.11	1.04	1.09	1.05	-0.04	-0.02	0.63	0.64
OECD Americas³	19.27	19.72	19.04	18.77	19.10	18.94	-0.16	-0.17	0.86	0.88
France	1.18	1.09	1.15	1.17	1.12	1.20	0.08	0.01	0.86	0.85
Germany	1.89	1.94	1.92	1.91	1.91	1.77	-0.13	-0.11	0.88	0.93
Italy	1.40	1.38	1.30	1.14	1.20	1.35	0.15	0.05	0.77	0.74
Netherlands	0.96	1.10	1.11	1.08	1.04	1.08	0.04	0.07	0.83	0.78
Spain	1.21	1.34	1.22	1.26	1.27	1.25	-0.03	-0.11	0.82	0.90
United Kingdom	1.18	1.17	1.14	1.00	0.94	1.12	0.18	0.00	0.81	0.81
Other OECD Europe	4.33	4.24	4.17	4.17	4.01	3.77	-0.24	-0.21	0.78	0.82
OECD Europe	12.15	12.27	12.02	11.74	11.50	11.53	0.03	-0.30	0.81	0.83
Japan	3.11	3.25	3.37	3.31	3.31	3.22	-0.09	-0.03	0.91	0.84
South Korea	2.73	2.98	2.97	3.14	2.89	2.85	-0.04	0.22	0.87	0.80
Other Asia Oceania	0.75	0.79	0.78	0.80	0.78	0.76	-0.02	-0.09	0.77	0.86
OECD Asia Oceania	6.60	7.02	7.12	7.26	6.98	6.84	-0.15	0.10	0.87	0.82
OECD Total	38.02	39.00	38.18	37.77	37.57	37.31	-0.27	-0.37	0.85	0.86

¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US50

³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

Canadian April throughput was in line with our initial estimate, but May weekly numbers indicate a sharp m-o-m drop, putting the monthly volume at its lowest in more than a decade at just under 1.4 mb/d (See *Canadian refining – feeling the heat*). This could largely be due to reduced crude supply. Runs are expected to recover as lost crude output comes back online.

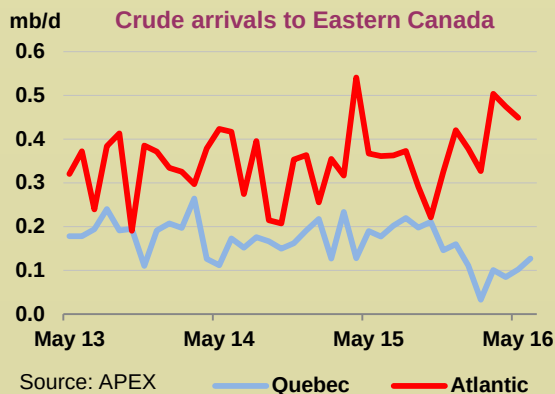
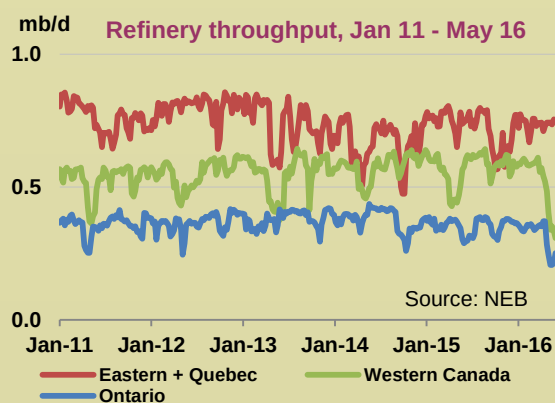


Mexican throughput in April stayed flat y-o-y, with the outlook also tentatively flat y-o-y. As part of its oil industry liberalisation programme the Mexican government has removed Pemex's monopoly on product imports, reportedly allocating some 1.25 mb/d of gasoline imports licences to international and local

trading firms. This is triple the 430 kb/d of imports in 2015. However, retail market liberalisation and infrastructure access is still a work in progress. A surge in imports could put local refineries in head-to-head competition with the US Gulf Coast refiners, thus threatening their position even more while domestic demand is growing.

Canadian refining – feeling the heat?

Imperial Oil's Strathcona refinery in Alberta was in scheduled maintenance since late April. In May an outage at Suncor's refinery, located in the same area, was also reported, for which the company later blamed the feedstock shortage due to the wildfires. May weekly data show total refinery output in Western Canada at just above half of normal rates, explaining the reported fuel shortages across the region. At the same time, refining volumes are sharply down in Ontario too, with refiners operating only at two thirds of their normal rate. Two Ontario refineries were reported out of action since end-April: Shell's Corunna plant had a benzene leak, and Imperial Oil's Sarnia refinery had its main boiler taken offline. Neither refinery, however, reported full or partial shutdown for repairs in that month. The drop in the throughput could well be located upstream, as Ontario is fully dependent on crude supplies from Western Canada. Refineries in these two regions collectively lost over 350 kb/d of output m-o-m, or about a fifth of total Canadian throughput.

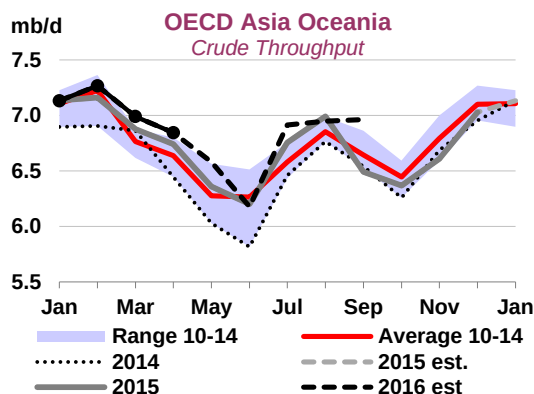


Refiners in Eastern Canada and Quebec, accounting for the bulk of the country's product supply, continued running normally. Eastern provinces depend on imported crudes, aside from a small volume of local production. Earlier this year, Quebec more than doubled the receipts of western Canadian crudes with the 300 kb/d Line 9B reversal starting in earnest at the end of last year, reducing the need for overseas crude. However, May actual and estimated June arrivals of seaborne crude to Quebec are now increased possibly due to lower flows on Line 9B. Canadian refining throughput is expected to follow the recovery of Albertan oil output. In the meantime, the product supply situation may remain tight as post-wildfire traffic and efforts to return to normal will have increased local demand for transport fuels.

In **Europe**, for the UK, Netherlands and the Czech Republic March throughput was finalised at lower numbers (between 30 kb/d and 55 kb/d), while April preliminary data revises our estimate downward by 250 kb/d, as more refineries went into shutdowns than previously assumed. Additional shutdowns for May and lower **French** throughput due to labour strikes revised the 2Q runs estimate for Europe down by 280 kb/d. Four French refineries were running normally by the time of writing, while full restart was being hindered at three of Total's refineries. May and June runs in France are estimated close to 1 mb/d and 875 kb/d respectively, versus last six months average of 1.15 mb/d. The more severe strikes in October 2010 'cost' some 800 kb/d in refinery runs, and caused a 9 mb draw in government stocks of middle distillates (equivalent to 10 days of consumption), while imports for that and subsequent months were not much higher than the seasonal increase due to maintenance and winter stocking. On 25 May the French transport minister announced in the media that the country had drawn from strategic stocks to reduce fuel supply disruption. Concerns about fuels availability are especially high as France is hosting the Euro 2016 football championship (see the back page of this *Report*). Once back online, refiners will need to run at full capacity to provide for the seasonal July uptick in diesel demand as France takes to the roads

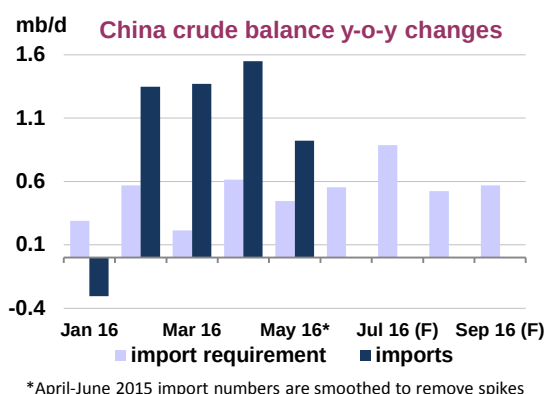
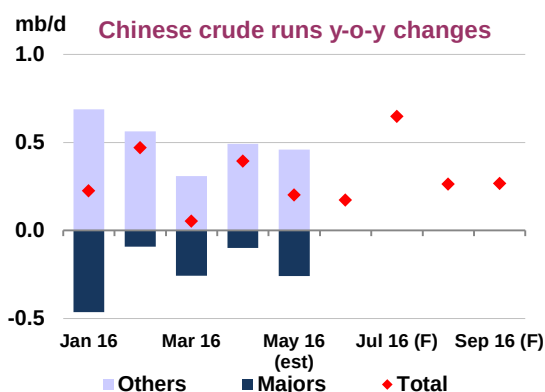
for the summer holidays. Still, Europe continues the y-o-y decline pattern in 3Q16, down by 230 kb/d, but up by 560 kb/d from 2Q16.

April preliminary data for **Korea** came in higher than our estimate, by 140 kb/d, due to lower scheduled maintenance. **Japan's** April data were not much different from the estimate in the previous Report, but weekly data for May indicate lower maintenance shutdowns than assumed, and consequently, more robust throughput. The trend of y-o-y gains in OECD Asia continues from 1Q16, with the two countries boosting runs by 100 kb/d in total in 2Q16. In 3Q16 it is Korea that leads the region to a 200 kb/d y-o-y gain, returning to operate at above 3 mb/d levels.



Non-OECD refinery throughput

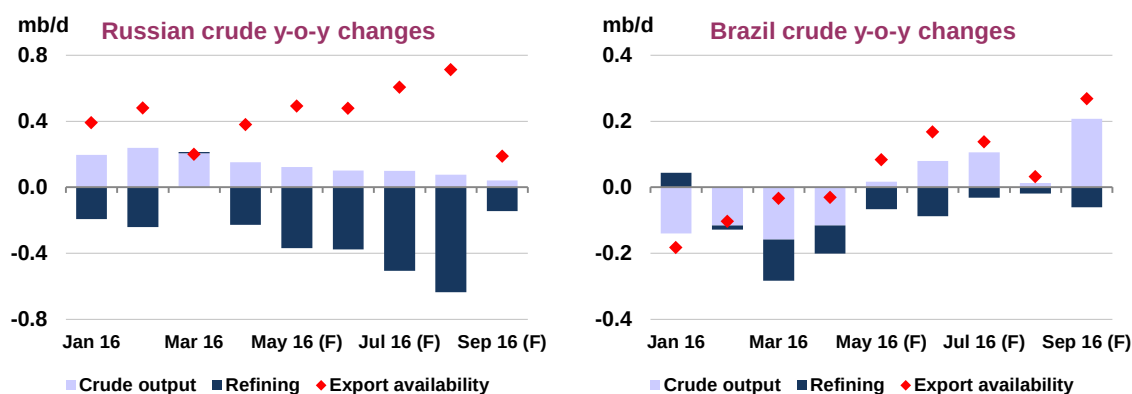
Chinese runs in April were higher than estimated in our previous Report, by about 200 kb/d, marking a new record level of 10.9 mb/d, up by 400 kb/d y-o-y. Petrochina and CNPC did not cut their runs as much as they did earlier in the year, and independents maintained strong throughput gains. May runs are estimated to have been lower by 345 kb/d m-o-m, due to maintenance shutdowns in Sinopec refineries. Year-to-date, independent refiners have increased their runs by about 500 kb/d y-o-y, or about 20%, while the two majors have decreased by 230 kb/d, or about 3%. In 2Q16 and 3Q16 runs in China are expected to reach record quarterly levels of around 10.7-10.8 mb/d. At these run rates, and given lower domestic crude output, Chinese import requirements of crude oil are expected to keep increasing y-o-y. Year-to-date, refinery runs were up by about 300 kb/d, but crude output was also down by half that amount. Of the average 1 mb/d crude import increase in y-o-y terms, 400 kb/d was processed, with the rest going into storage. The crude import requirement in 3Q16 is expected to increase by almost 700 kb/d y-o-y.



April throughput in **India**, as expected, slipped some 100 kb/d from the record level in March, to 4.9 mb/d. May volumes are expected to continue to decline m-o-m due to maintenance at a unit at Jamnagar, while operations at the Mangalore refinery were affected by water supply problems due the drought. Overall, the 2Q16 y-o-y gains of 400 kb/d accelerate to 525 kb/d in 3Q16, when runs are forecast to hold at 5 mb/d. Throughput in **Thailand** slipped y-o-y in February-March by 50 kb/d on average, and a prolonged shutdown is expected to similarly weigh on 2Q16 runs, down 30 kb/d y-o-y. In 3Q16, runs will inch up to a flat y-o-y level of 1.26 mb/d. In Chinese Taipei, despite the permanent shutdown of the Kaohsiung refinery last year, 1Q16 runs were 60 kb/d higher y-o-y, at 860 kb/d. In 2Q16 runs are estimated to have flipped into a decline by a similar amount, while 3Q16 will again see higher y-o-y processing volumes.

As expected, **Saudi** Arabia's throughput in March came down from the record levels seen in February, still up 660 kb/d y-o-y to almost 2.6 mb/d. In 2Q16 and 3Q16 growth rates are expected to slow to 400 kb/d and 350 kb/d respectively as the ramp-up effect wanes. The latest actual data for Iran's crude throughput is for January, for which runs are estimated to have risen by 60 kb/d y-o-y and are expected to grow during 2016. **Kuwaiti** runs were down in March due to planned maintenance, and 2Q16 will bear the effect of April's brief strike and maintenance work. In 3Q16 runs are also expected to be slightly lower y-o-y. **Iraq** has been the underperformer in the region, with runs down by 30 kb/d in the first quarter, and the declines accelerating into 2Q16 (70 kb/d and in 3Q16 to 90 kb/d. In **Egypt**, refiners are trying to catch up with demand growth as runs were up in 1Q16 to record seasonal levels of 560 kb/d, and are expected to continue growing into 2Q and 3Q16.

Russian refinery runs did not pick up in May as expected, with preliminary data coming in at 150 kb/d below our expectations, and down 370 kb/d y-o-y. Declines in 3Q16 are expected to accelerate to 430 kb/d on average. **Kazakhstan's** April data was surprisingly robust, up 100 kb/d, or by half versus previous months. Kazakh refiners, in a major crude oil exporter country, have mostly downstream constraints on utilisation rates, as unsold product inventories, especially the heavy fuels, tend to limit operating levels. The stocks clearance allows them to boost the runs in individual months.



Latest **Brazil** actuals (April) again come below our estimate, by about 200 kb/d to 1.9 mb/d, which is 85 kb/d lower y-o-y. While in 2013-2015 the throughput was usually at or above 2 mb/d, it has not reached that level since September 2015. Sluggish demand and higher biofuels use explain the unwillingness of Petrobras to continue running at full capacity levels. Year-to-date throughput is down 45 kb/d y-o-y. The recent declines in crude output, at an average 115 kb/d for Jan-April, mean that crude exports would have to be cut even further if refineries were to run at historically high utilisation rates. Brazil is too far from major trading hubs to become a steady product exporter. In 2Q16 and 3Q16 runs are expected to be lower than last year, although 3Q16 runs will manage to cross the 2 mb/d level again.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.1	24.1	24.2	24.1	24.7	24.4	24.4	24.4	24.4	24.8	24.5	24.5	24.4	24.5	24.9	24.7	24.6
Europe	13.6	13.5	13.4	13.6	14.1	13.7	13.7	13.6	13.7	13.9	13.6	13.7	13.5	13.8	14.0	13.5	13.7
Asia Oceania	8.3	8.1	8.8	7.7	7.8	8.3	8.1	8.6	7.7	7.8	8.3	8.1	8.6	7.6	7.8	8.2	8.1
Total OECD	46.0	45.7	46.4	45.3	46.7	46.3	46.2	46.6	45.8	46.5	46.3	46.3	46.6	45.9	46.7	46.4	46.4
NON-OECD DEMAND																	
FSU	4.7	4.9	4.6	4.9	5.1	5.0	4.9	4.9	4.9	5.0	5.0	5.0	4.8	5.0	5.1	5.1	5.0
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.7	11.2	11.5	11.5	11.6	11.4	11.5	11.6	11.8	12.0	11.7	11.8	12.1	12.1	12.2	12.0
Other Asia	11.7	12.0	12.3	12.5	12.3	12.8	12.5	13.0	13.2	12.9	13.4	13.1	13.7	13.7	13.4	13.9	13.7
Americas	6.6	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.7	6.9	6.8	6.7	6.5	6.7	6.9	6.8	6.7
Middle East	7.9	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.2	8.7	8.3	8.2	8.0	8.4	8.8	8.4	8.4
Africa	3.9	4.0	4.1	4.1	4.0	4.2	4.1	4.2	4.3	4.2	4.3	4.3	4.4	4.4	4.3	4.4	4.4
Total Non-OECD	45.9	47.2	47.2	48.8	49.0	49.2	48.6	48.6	49.7	50.2	50.5	49.7	49.9	51.0	51.4	51.6	51.0
Total Demand¹	91.9	92.9	93.6	94.1	95.7	95.5	94.7	95.2	95.5	96.7	96.9	96.1	96.5	96.8	98.0	98.0	97.4
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.0	19.6	20.1	20.1	19.9	19.9	18.9	19.3	19.5	19.4	19.6	19.4	19.5	19.6	19.5
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.3	3.2	3.4	3.3
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	21.0	22.9	23.8	23.5	23.9	24.2	23.9	23.9	22.7	22.9	23.3	23.2	23.4	23.1	23.1	23.4	23.3
NON-OECD SUPPLY																	
FSU	13.9	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.0	13.9	14.0	14.0	14.0	14.0	13.9	14.1	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0
Other Asia ²	2.6	2.6	2.8	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.7
Middle East	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Africa ²	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Total Non-OECD	28.6	28.9	29.5	29.3	29.1	29.3	29.3	29.1	28.7	28.8	29.0	28.9	29.0	29.0	28.9	29.1	29.0
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.5	2.7	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.8	56.3	57.3	57.4	57.8	58.0	57.6	57.2	56.2	56.7	56.9	56.8	56.6	56.9	57.2	57.2	57.0
OPEC																	
Crude	31.2	31.0	31.2	32.2	32.4	32.4	32.1	32.6									
NGLs	6.3	6.5	6.6	6.7	6.7	6.7	6.7	6.8	6.8	6.9	6.9	6.9	6.9	7.0	7.0	7.1	7.0
Total OPEC ²	37.5	37.5	37.7	38.9	39.1	39.1	38.7	39.3									
Total Supply⁴	91.3	93.7	95.1	96.3	97.0	97.2	96.4	96.5									
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.8	1.0	0.8	0.4	0.8	0.4									
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1									
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.5									
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2									
Miscellaneous to balance ⁵	-0.5	0.5	0.2	0.7	0.7	0.8	0.6	0.7									
Total Stock Ch. & Misc	-0.6	0.9	1.5	2.1	1.3	1.7	1.6	1.3	0.3								

Memo items:

Call on OPEC crude + Stock ch.⁶ 31.8 30.1 29.7 30.1 31.2 30.7 30.4 31.2 32.4 33.1 33.0 32.5 32.9 33.0 33.8 33.7 33.4

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning,

oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	0.2	0.1	-	-0.1	0.1					
Europe	-	-	-	-	-	-	-	0.1	-	-	-	-					
Asia Oceania	-	-	-	-	-	-	-	-	0.2	0.1	0.1	0.1					
Total OECD	-	-	-	-	-	-	-	0.4	0.3	0.1	-	0.2					
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-					
Europe	-	-	-	-	-	-	-	-	-	-	-	-					
China	-	-	-	-	-	0.1	-	-0.1	-0.1	0.1	0.1	-					
Other Asia	-	-	-	-	-	-	-	-0.1	-	-	-	-					
Americas	-	-	-	-	-	-	-	-	-	-	-	-					
Middle East	-	-	-	-	-	-	-	-	-	-	-	-					
Africa	-	-	-	-	-	-	-	-	-	-	-	-					
Total Non-OECD	-	-	-	-	-	-	-	-0.2	-0.1	-	-	-0.1					
Total Demand	-	-	-	-	-	-	-	0.2	0.2	0.1	0.1	0.1					
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	0.1	-0.2	0.1	0.1	-					
Europe	-	-	-	-	-	-	-	-	-	-0.1	-	-					
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-					
Total OECD	-	-	-	-	-	-	-	0.1	-0.3	-	0.1	-					
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-					
Europe	-	-	-	-	-	-	-	-	-	-	-	-					
China	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1					
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-					
Americas	-	-	-	-	-	-	-	-	-0.1	-	-	-					
Middle East	0.1	-	0.1	-	-	-	-	-	-	-	-	-					
Africa	-0.1	-	-	-	-	-	-	-	-	-	-	-					
Total Non-OECD	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-0.1					
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-					
Global Biofuels	-	-	-	-	-	-	-	-	0.1	-	-	-					
Total Non-OPEC Supply	-	-	-	-	-	-	-	0.1	-0.3	-0.1	-	-0.1					
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-					
NGLs	-	-	-	-	-	-	-	-	-	-	-	-					
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-					
Total Supply	-	-	-	-	-	-0.1	-	0.1									
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	0.1									
Government	-	-	-	-	-	-	-	-									
Total	-	-	-	-	-	-	-	0.1									
Floating storage/Oil in transit	-	-	-	-	-	-	-	-									
Miscellaneous to balance	-	-	-	-	-	-0.1	-	-0.2									
Total Stock Ch. & Misc	-	-	-	-	-	-0.1	-	-0.1									
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	0.1	-	0.1	0.5	0.1	0.1	0.2					

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.14	24.24	24.09	24.73	24.37	24.36	24.37	24.39	24.76	24.51	24.51	24.44	24.47	24.87	24.67	24.62
Europe	13.45	13.44	13.56	14.14	13.69	13.71	13.62	13.69	13.94	13.56	13.70	13.50	13.77	13.99	13.51	13.69
Asia Oceania	8.13	8.75	7.65	7.79	8.25	8.11	8.62	7.74	7.84	8.27	8.12	8.65	7.62	7.81	8.24	8.08
Total OECD	45.72	46.44	45.30	46.66	46.32	46.18	46.61	45.81	46.53	46.34	46.32	46.60	45.87	46.67	46.42	46.39
Asia	22.76	23.55	24.02	23.79	24.39	23.94	24.50	24.80	24.74	25.37	24.86	25.50	25.79	25.54	26.10	25.73
Middle East	8.03	7.63	8.34	8.60	8.12	8.18	7.76	8.22	8.66	8.29	8.23	7.98	8.36	8.81	8.42	8.40
Americas	6.80	6.62	6.76	6.85	6.79	6.76	6.50	6.72	6.87	6.84	6.73	6.53	6.72	6.88	6.85	6.75
FSU	4.92	4.58	4.89	5.05	4.98	4.88	4.86	4.93	5.05	4.98	4.96	4.85	4.96	5.12	5.06	5.00
Africa	3.97	4.12	4.11	4.03	4.19	4.11	4.24	4.27	4.18	4.33	4.25	4.36	4.41	4.30	4.45	4.38
Europe	0.67	0.68	0.69	0.71	0.71	0.70	0.70	0.71	0.72	0.72	0.71	0.71	0.73	0.73	0.74	0.73
Total Non-OECD	47.16	47.18	48.83	49.02	49.18	48.56	48.56	49.66	50.22	50.53	49.74	49.93	50.96	51.37	51.62	50.98
World	92.88	93.62	94.13	95.68	95.50	94.74	95.17	95.48	96.75	96.87	96.07	96.53	96.83	98.04	98.04	97.36
of which: US50	19.11	19.29	19.25	19.68	19.36	19.40	19.45	19.62	19.82	19.55	19.61	19.56	19.66	19.94	19.79	19.74
Europe 5*	8.00	8.03	7.99	8.34	8.09	8.11	8.14	7.99	8.14	8.00	8.07	8.03	8.01	8.15	7.93	8.03
China	10.75	11.23	11.47	11.50	11.56	11.44	11.46	11.65	11.84	11.98	11.74	11.83	12.06	12.10	12.18	12.04
Japan	4.35	4.79	3.89	3.94	4.23	4.21	4.52	3.78	3.87	4.24	4.10	4.50	3.64	3.79	4.17	4.02
India	3.76	3.95	4.01	3.86	4.09	3.98	4.34	4.40	4.19	4.42	4.34	4.65	4.70	4.45	4.68	4.62
Russia	3.66	3.38	3.63	3.76	3.62	3.60	3.65	3.64	3.73	3.59	3.65	3.62	3.64	3.78	3.69	3.68
Brazil	3.22	3.16	3.17	3.22	3.20	3.19	3.02	3.09	3.17	3.19	3.12	3.04	3.08	3.19	3.21	3.13
Saudi Arabia	3.14	2.88	3.46	3.58	3.21	3.29	2.93	3.34	3.58	3.23	3.27	3.03	3.34	3.62	3.26	3.31
Canada	2.40	2.36	2.26	2.38	2.34	2.34	2.31	2.22	2.33	2.29	2.29	2.26	2.20	2.33	2.24	2.26
Korea	2.34	2.48	2.32	2.39	2.54	2.43	2.62	2.48	2.49	2.56	2.54	2.65	2.51	2.53	2.60	2.57
Mexico	2.01	1.91	1.95	2.04	2.02	1.98	1.95	1.93	1.96	2.01	1.96	1.96	1.98	1.97	2.00	1.98
Iran	1.90	1.82	1.85	1.79	1.87	1.83	1.84	1.83	1.85	1.94	1.87	1.89	1.89	1.91	1.99	1.92
Total	64.63	65.28	65.25	66.47	66.13	65.79	66.24	65.96	66.97	67.01	66.55	67.03	66.71	67.74	67.73	67.30
% of World	69.6%	69.7%	69.3%	69.5%	69.2%	69.4%	69.6%	69.1%	69.2%	69.2%	69.3%	69.4%	68.9%	69.1%	69.1%	69.1%
Annual Change (% per annum)																
Americas	0.3	1.5	1.6	1.5	-0.8	0.9	0.5	1.3	0.1	0.6	0.6	0.3	0.3	0.5	0.7	0.5
Europe	-1.2	3.1	1.0	1.9	1.7	1.9	1.3	1.0	-1.5	-1.0	-0.1	-0.9	0.6	0.3	-0.4	-0.1
Asia Oceania	-2.5	-1.3	-0.3	1.4	-0.9	-0.3	-1.5	1.1	0.7	0.3	0.1	0.3	-1.4	-0.4	-0.4	-0.5
Total OECD	-0.7	1.4	1.1	1.6	-0.1	1.0	0.4	1.1	-0.3	0.0	0.3	0.0	0.1	0.3	0.2	0.1
Asia	3.0	4.1	5.3	6.7	4.6	5.2	4.1	3.2	4.0	4.0	3.8	4.1	4.0	3.2	2.9	3.5
Middle East	1.5	-1.0	2.2	2.5	3.5	1.8	1.6	-1.4	0.7	2.1	0.7	2.9	1.6	1.8	1.6	2.0
Americas	2.6	0.4	-0.1	-1.2	-1.8	-0.7	-1.8	-0.7	0.2	0.7	-0.4	0.5	0.0	0.2	0.1	0.2
FSU	4.4	-1.1	0.6	-1.8	-1.4	-1.0	6.1	0.8	-0.1	0.1	1.6	-0.2	0.5	1.4	1.6	0.8
Africa	2.1	2.8	2.5	3.7	5.3	3.6	2.7	3.8	3.9	3.2	3.4	3.0	3.3	2.7	2.8	3.0
Europe	2.6	4.1	3.4	2.5	4.2	3.5	3.9	2.7	1.1	1.3	2.2	0.5	2.5	1.3	3.1	1.8
Total Non-OECD	2.8	2.1	3.3	3.6	2.9	3.0	2.9	1.7	2.4	2.7	2.4	2.8	2.6	2.3	2.2	2.5
World	1.1	1.8	2.2	2.6	1.4	2.0	1.7	1.4	1.1	1.4	1.4	1.4	1.4	1.3	1.2	1.3
Annual Change (mb/d)																
Americas	0.07	0.36	0.37	0.35	-0.19	0.22	0.13	0.30	0.03	0.13	0.15	0.08	0.08	0.12	0.17	0.11
Europe	-0.16	0.41	0.13	0.27	0.22	0.26	0.18	0.13	-0.21	-0.14	-0.01	-0.12	0.08	0.05	-0.05	-0.01
Asia Oceania	-0.21	-0.11	-0.02	0.11	-0.08	-0.03	-0.13	0.08	0.05	0.02	0.01	0.03	-0.11	-0.03	-0.04	-0.04
Total OECD	-0.31	0.65	0.48	0.73	-0.04	0.45	0.18	0.51	-0.13	0.02	0.15	-0.01	0.05	0.14	0.08	0.06
Asia	0.67	0.93	1.21	1.49	1.08	1.18	0.96	0.78	0.96	0.98	0.92	1.00	0.99	0.80	0.73	0.88
Middle East	0.12	-0.08	0.18	0.21	0.28	0.15	0.12	-0.12	0.06	0.17	0.06	0.22	0.13	0.15	0.13	0.16
Americas	0.17	0.03	-0.01	-0.08	-0.13	-0.05	-0.12	-0.04	0.01	0.05	-0.03	0.03	0.00	0.01	0.01	0.01
FSU	0.21	-0.05	0.03	-0.09	-0.07	-0.05	0.28	0.04	0.00	0.01	0.08	-0.01	0.03	0.07	0.08	0.04
Africa	0.08	0.11	0.10	0.15	0.21	0.14	0.11	0.16	0.16	0.13	0.14	0.13	0.14	0.11	0.12	0.13
Europe	0.02	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.01	0.01	0.02	0.00	0.02	0.01	0.02	0.01
Total Non-OECD	1.28	0.96	1.54	1.69	1.40	1.40	1.38	0.83	1.20	1.35	1.18	1.37	1.30	1.15	1.09	1.23
World	0.97	1.62	2.03	2.42	1.35	1.85	1.55	1.35	1.07	1.37	1.33	1.36	1.35	1.29	1.17	1.30
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.12	-0.03	-0.05	0.05					
Europe	0.00	0.00	0.00	0.01	0.01	0.01	0.15	0.01	0.00	0.03	0.05					
Asia Oceania	0.00	0.01	0.01	0.01	0.00	0.00	0.05	0.19	0.08	0.06	0.09					
Total OECD	0.00	0.01	0.00	0.01	0.01	0.01	0.35	0.33	0.05	0.04	0.19					
Asia	0.00	0.00	0.00	0.00	0.01	0.00	-0.14	-0.13	0.03	0.04	-0.05					
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	-0.01	-0.01	-0.02					
Americas	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	-0.01	0.00	-0.01					
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.01					
Africa	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.01	0.00	0.00					
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Total Non-OECD	0.00	0.00	0.00	0.00	0.01	0.00	-0.19	-0.15	0.03	0.04	-0.07					
World	0.00	0.01	0.01	0.01	0.02	0.01	0.16	0.19	0.08	0.08	0.13					
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	-0.03	0.03	0.05	-0.01	0.01	0.15	0.18	0.07	0.06	0.11					

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	2Q15	3Q15	4Q15	1Q16	Jan 16	Feb 16	Mar 16 ²	Feb 16	Mar 15
Americas											
LPG and ethane	3.22	3.21	2.98	3.02	3.37	3.54	3.78	3.58	3.25	-0.33	0.05
Naphtha	0.35	0.34	0.31	0.33	0.36	0.35	0.37	0.34	0.35	0.00	0.02
Motor gasoline	10.64	10.88	10.97	11.16	10.90	10.84	10.41	10.94	11.17	0.23	0.45
Jet and kerosene	1.74	1.81	1.81	1.88	1.84	1.77	1.71	1.79	1.82	0.03	0.00
Gasoil/diesel oil	5.28	5.20	5.11	5.16	5.04	5.08	4.96	5.17	5.11	-0.06	-0.18
Residual fuel oil	0.58	0.55	0.44	0.63	0.62	0.58	0.58	0.44	0.71	0.27	0.17
Other products	2.32	2.37	2.47	2.56	2.25	2.21	2.15	2.33	2.16	-0.17	-0.08
Total	24.14	24.36	24.09	24.73	24.37	24.37	23.94	24.60	24.58	-0.02	0.43
Europe											
LPG and ethane	1.08	1.15	1.14	1.11	1.13	1.23	1.25	1.28	1.15	-0.12	-0.08
Naphtha	1.17	1.17	1.14	1.12	1.15	1.29	1.29	1.30	1.28	-0.02	0.05
Motor gasoline	1.91	1.92	1.98	2.02	1.90	1.79	1.67	1.83	1.86	0.03	0.04
Jet and kerosene	1.27	1.32	1.34	1.49	1.25	1.24	1.18	1.27	1.27	0.00	0.06
Gasoil/diesel oil	5.94	6.18	5.95	6.30	6.32	6.14	5.71	6.36	6.38	0.02	0.25
Residual fuel oil	0.92	0.87	0.86	0.86	0.88	0.93	0.92	0.92	0.95	0.03	0.07
Other products	1.16	1.10	1.15	1.22	1.06	1.01	0.92	0.98	1.11	0.13	0.12
Total	13.45	13.71	13.56	14.14	13.69	13.62	12.95	13.95	14.00	0.05	0.50
Asia Oceania											
LPG and ethane	0.85	0.79	0.73	0.75	0.78	0.85	0.77	0.91	0.87	-0.05	-0.01
Naphtha	1.88	1.97	1.88	1.95	2.00	2.00	2.06	2.11	1.84	-0.27	-0.13
Motor gasoline	1.55	1.56	1.52	1.62	1.57	1.52	1.47	1.55	1.56	0.01	0.02
Jet and kerosene	0.86	0.86	0.68	0.69	0.95	1.16	1.21	1.23	1.04	-0.18	0.07
Gasoil/diesel oil	1.77	1.81	1.76	1.76	1.88	1.87	1.74	1.93	1.93	0.00	0.06
Residual fuel oil	0.67	0.63	0.60	0.54	0.63	0.75	0.73	0.75	0.76	0.01	0.01
Other products	0.56	0.49	0.48	0.46	0.45	0.47	0.51	0.49	0.43	-0.07	-0.15
Total	8.13	8.11	7.65	7.79	8.25	8.62	8.49	8.97	8.42	-0.55	-0.12
OECD											
LPG and ethane	5.15	5.15	4.85	4.89	5.27	5.61	5.81	5.77	5.27	-0.50	-0.03
Naphtha	3.40	3.47	3.34	3.40	3.50	3.64	3.72	3.76	3.47	-0.29	-0.06
Motor gasoline	14.10	14.36	14.46	14.80	14.37	14.15	13.55	14.32	14.59	0.27	0.50
Jet and kerosene	3.87	3.99	3.83	4.06	4.04	4.17	4.10	4.28	4.14	-0.15	0.13
Gasoil/diesel oil	12.99	13.20	12.82	13.22	13.24	13.09	12.41	13.46	13.42	-0.04	0.14
Residual fuel oil	2.17	2.05	1.90	2.03	2.13	2.25	2.23	2.11	2.41	0.30	0.25
Other products	4.04	3.96	4.10	4.24	3.76	3.69	3.57	3.81	3.70	-0.11	-0.11
Total	45.72	46.18	45.30	46.66	46.32	46.61	45.39	47.51	46.99	-0.52	0.82

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils. North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	2Q15	3Q15	4Q15	1Q16	Jan 16	Feb 16	Mar 16 ²	Latest month vs.	
										Feb 16	Mar 15
United States³											
LPG and ethane	2.40	2.37	2.18	2.20	2.50	2.69	2.90	2.72	2.44	-0.28	0.09
Naphtha	0.23	0.22	0.20	0.22	0.24	0.22	0.22	0.22	0.21	-0.01	0.01
Motor gasoline	8.92	9.16	9.26	9.39	9.17	9.09	8.67	9.21	9.40	0.19	0.35
Jet and kerosene	1.48	1.55	1.55	1.59	1.58	1.51	1.45	1.53	1.55	0.02	0.00
Gasoil/diesel oil	4.04	3.98	3.88	3.93	3.83	3.90	3.82	3.96	3.94	-0.02	-0.11
Residual fuel oil	0.26	0.26	0.19	0.31	0.30	0.31	0.34	0.20	0.40	0.20	0.14
Other products	1.78	1.86	1.99	2.04	1.74	1.72	1.66	1.85	1.68	-0.17	-0.08
Total	19.11	19.40	19.25	19.68	19.36	19.45	19.06	19.68	19.62	-0.06	0.38
Japan											
LPG and ethane	0.50	0.45	0.42	0.41	0.42	0.49	0.43	0.54	0.49	-0.05	-0.06
Naphtha	0.75	0.80	0.75	0.79	0.81	0.81	0.86	0.79	0.76	-0.03	-0.04
Motor gasoline	0.92	0.91	0.89	0.97	0.92	0.87	0.84	0.88	0.91	0.03	0.01
Jet and kerosene	0.52	0.50	0.35	0.35	0.57	0.74	0.77	0.80	0.65	-0.15	0.03
Diesel	0.43	0.43	0.42	0.43	0.44	0.42	0.37	0.45	0.45	0.00	0.02
Other gasoil	0.38	0.36	0.33	0.32	0.38	0.42	0.38	0.45	0.43	-0.02	0.03
Residual fuel oil	0.41	0.36	0.34	0.31	0.32	0.38	0.36	0.39	0.39	0.00	-0.05
Other products	0.44	0.40	0.40	0.38	0.38	0.40	0.42	0.42	0.36	-0.07	-0.12
Total	4.35	4.21	3.89	3.94	4.23	4.52	4.43	4.71	4.44	-0.28	-0.18
Germany											
LPG and ethane	0.09	0.10	0.11	0.10	0.09	0.10	0.09	0.10	0.11	0.01	0.01
Naphtha	0.42	0.40	0.39	0.37	0.40	0.43	0.45	0.42	0.41	-0.01	-0.02
Motor gasoline	0.44	0.43	0.44	0.45	0.43	0.40	0.37	0.41	0.42	0.00	-0.01
Jet and kerosene	0.19	0.19	0.19	0.21	0.18	0.17	0.16	0.17	0.19	0.01	0.01
Diesel	0.73	0.77	0.76	0.81	0.79	0.74	0.67	0.76	0.79	0.03	0.03
Other gasoil	0.36	0.35	0.24	0.34	0.36	0.45	0.44	0.50	0.42	-0.08	0.04
Residual fuel oil	0.12	0.11	0.12	0.11	0.11	0.13	0.14	0.13	0.13	-0.01	0.01
Other products	0.05	0.05	0.05	0.07	0.05	0.01	0.00	0.00	0.03	0.03	0.01
Total	2.40	2.39	2.30	2.46	2.41	2.43	2.33	2.49	2.48	-0.01	0.08
Italy											
LPG and ethane	0.11	0.12	0.11	0.11	0.13	0.13	0.13	0.13	0.13	0.00	0.02
Naphtha	0.09	0.11	0.11	0.11	0.11	0.13	0.12	0.13	0.14	0.01	0.02
Motor gasoline	0.20	0.21	0.21	0.23	0.21	0.20	0.18	0.20	0.20	0.00	0.01
Jet and kerosene	0.09	0.09	0.10	0.11	0.08	0.08	0.07	0.09	0.09	0.00	0.01
Diesel	0.50	0.46	0.47	0.47	0.47	0.44	0.40	0.45	0.46	0.00	0.00
Other gasoil	0.04	0.09	0.09	0.10	0.10	0.09	0.08	0.10	0.09	-0.01	0.01
Residual fuel oil	0.06	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.07	0.00	0.00
Other products	0.14	0.13	0.14	0.13	0.13	0.10	0.09	0.11	0.11	0.00	-0.01
Total	1.22	1.30	1.31	1.35	1.31	1.25	1.15	1.29	1.30	0.01	0.05
France											
LPG and ethane	0.11	0.13	0.11	0.11	0.13	0.16	0.16	0.17	0.17	0.00	0.02
Naphtha	0.12	0.11	0.12	0.12	0.08	0.12	0.13	0.12	0.12	0.00	-0.01
Motor gasoline	0.16	0.16	0.17	0.18	0.16	0.15	0.13	0.15	0.16	0.01	0.01
Jet and kerosene	0.15	0.15	0.16	0.17	0.15	0.14	0.14	0.14	0.14	0.00	0.00
Diesel	0.70	0.70	0.71	0.72	0.71	0.67	0.60	0.69	0.71	0.02	0.02
Other gasoil	0.25	0.25	0.20	0.28	0.24	0.26	0.25	0.26	0.28	0.02	0.02
Residual fuel oil	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	-0.01	-0.01
Other products	0.12	0.10	0.12	0.10	0.08	0.10	0.09	0.10	0.10	0.00	0.01
Total	1.65	1.65	1.63	1.71	1.58	1.65	1.55	1.68	1.72	0.04	0.07
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.12	0.14	0.18	0.18	0.18	0.16	-0.01	0.03
Naphtha	0.02	0.03	0.02	0.03	0.04	0.03	0.04	0.04	0.03	0.00	0.01
Motor gasoline	0.30	0.29	0.30	0.30	0.29	0.28	0.27	0.29	0.28	-0.02	0.01
Jet and kerosene	0.31	0.31	0.30	0.31	0.30	0.33	0.31	0.34	0.33	-0.01	0.00
Diesel	0.48	0.50	0.50	0.50	0.51	0.49	0.45	0.54	0.49	-0.04	0.04
Other gasoil	0.13	0.13	0.14	0.14	0.13	0.12	0.11	0.11	0.13	0.02	0.00
Residual fuel oil	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00
Other products	0.12	0.12	0.11	0.13	0.12	0.11	0.11	0.11	0.11	0.00	0.00
Total	1.52	1.54	1.54	1.56	1.56	1.56	1.50	1.63	1.56	-0.06	0.09
Canada											
LPG and ethane	0.37	0.38	0.36	0.38	0.41	0.42	0.44	0.41	0.41	0.00	0.02
Naphtha	0.09	0.09	0.09	0.09	0.10	0.11	0.12	0.11	0.11	0.00	0.01
Motor gasoline	0.84	0.82	0.82	0.85	0.81	0.83	0.85	0.81	0.82	0.02	0.05
Jet and kerosene	0.13	0.14	0.13	0.16	0.13	0.13	0.13	0.13	0.13	0.00	0.00
Diesel	0.29	0.31	0.31	0.32	0.29	0.30	0.30	0.31	0.29	-0.03	-0.03
Other gasoil	0.30	0.26	0.24	0.26	0.26	0.23	0.22	0.24	0.22	-0.02	-0.02
Residual fuel oil	0.06	0.04	0.04	0.03	0.04	0.05	0.05	0.05	0.05	0.00	-0.02
Other products	0.30	0.29	0.26	0.31	0.30	0.25	0.25	0.26	0.25	-0.01	-0.01
Total	2.40	2.34	2.26	2.38	2.34	2.31	2.35	2.31	2.27	-0.04	0.00

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION

(million barrels per day)

	2015	2016	2017	1Q16	2Q16	3Q16	4Q16	1Q17	Mar 16	Apr 16	May 16
OPEC											
Crude Oil											
Saudi Arabia	10.13			10.21					10.19	10.21	10.25
Iran	2.86			3.15					3.26	3.56	3.64
Iraq	3.99			4.28					4.19	4.36	4.27
UAE	2.88			2.81					2.73	2.82	2.89
Kuwait	2.75			2.83					2.83	2.73	2.85
Neutral Zone	0.07			0.00					0.00	0.00	0.00
Qatar	0.66			0.66					0.67	0.66	0.66
Angola	1.76			1.77					1.80	1.75	1.75
Nigeria	1.80			1.76					1.68	1.62	1.37
Libya	0.40			0.36					0.34	0.35	0.27
Algeria	1.11			1.10					1.11	1.09	1.09
Ecuador	0.54			0.54					0.55	0.53	0.54
Venezuela	2.40			2.36					2.35	2.31	2.29
Indonesia	0.69			0.71					0.73	0.73	0.74
Total Crude Oil	32.05			32.56					32.43	32.72	32.61
Total NGLs ¹	6.67	6.86	6.99	6.77	6.83	6.89	6.94	6.94	6.77	6.83	6.83
Total OPEC²	38.73			39.33					39.20	39.55	39.44
NON-OPEC^{2,3}											
OECD											
Americas	19.93	19.38	19.51	19.89	18.87	19.28	19.48	19.58	19.86	19.28	18.55
United States	12.94	12.54	12.53	12.75	12.54	12.38	12.48	12.51	12.88	12.64	12.53
Mexico	2.60	2.48	2.37	2.54	2.48	2.45	2.43	2.40	2.51	2.48	2.48
Canada	4.39	4.36	4.60	4.58	3.84	4.44	4.57	4.66	4.47	4.15	3.53
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.46	3.41	3.32	3.63	3.39	3.21	3.41	3.40	3.59	3.54	3.43
UK	0.96	0.98	0.94	1.08	1.01	0.87	0.97	0.97	1.06	1.05	1.01
Norway	1.95	1.94	1.89	2.03	1.92	1.88	1.94	1.93	2.01	2.03	1.96
Others	0.56	0.48	0.50	0.51	0.46	0.46	0.50	0.50	0.52	0.46	0.46
Asia Oceania	0.46	0.43	0.44	0.44	0.43	0.42	0.42	0.42	0.43	0.44	0.43
Australia	0.38	0.35	0.36	0.36	0.35	0.34	0.34	0.34	0.35	0.36	0.35
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08
Total OECD	23.85	23.21	23.26	23.95	22.69	22.91	23.30	23.40	23.88	23.26	22.41
NON-OECD											
Former USSR	14.00	14.03	14.00	14.20	14.04	13.90	13.99	14.02	14.20	14.00	14.08
Russia	11.06	11.16	11.10	11.24	11.16	11.11	11.12	11.08	11.23	11.16	11.17
Others	2.94	2.87	2.90	2.96	2.88	2.79	2.86	2.94	2.96	2.84	2.91
Asia²	7.05	6.82	6.72	6.93	6.80	6.78	6.77	6.74	6.86	6.83	6.79
China	4.33	4.09	4.03	4.18	4.08	4.07	4.06	4.05	4.14	4.09	4.08
Malaysia	0.71	0.74	0.76	0.74	0.75	0.75	0.74	0.74	0.74	0.75	0.75
India	0.87	0.84	0.82	0.85	0.83	0.82	0.84	0.83	0.84	0.84	0.83
Others	1.15	1.14	1.11	1.16	1.15	1.14	1.13	1.12	1.14	1.16	1.14
Europe	0.14	0.14	0.13	0.14	0.14	0.14	0.13	0.13	0.14	0.14	0.14
Americas²	4.59	4.48	4.70	4.36	4.41	4.56	4.61	4.64	4.28	4.31	4.44
Brazil	2.53	2.57	2.85	2.40	2.49	2.67	2.73	2.78	2.35	2.37	2.52
Argentina	0.63	0.62	0.61	0.62	0.62	0.62	0.62	0.61	0.62	0.62	0.62
Colombia	1.01	0.91	0.87	0.96	0.91	0.89	0.88	0.87	0.92	0.92	0.90
Others	0.42	0.38	0.37	0.38	0.39	0.38	0.38	0.37	0.39	0.39	0.39
Middle East^{2,4}	1.28	1.24	1.18	1.26	1.23	1.23	1.23	1.19	1.24	1.23	1.23
Oman	0.99	0.99	0.93	1.01	0.98	0.98	0.97	0.94	0.98	0.98	0.97
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.23	2.18	2.25	2.17	2.12	2.19	2.23	2.26	2.12	2.09	2.12
Egypt	0.67	0.64	0.62	0.65	0.64	0.64	0.63	0.62	0.65	0.65	0.64
Gabon	0.23	0.22	0.21	0.22	0.22	0.21	0.21	0.21	0.22	0.22	0.22
Others	1.33	1.32	1.43	1.30	1.25	1.34	1.39	1.42	1.25	1.22	1.26
Total Non-OECD	29.29	28.89	28.98	29.05	28.73	28.81	28.96	28.98	28.84	28.60	28.79
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.27	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.38	2.45	1.89	2.52	2.74	2.38	1.97	1.93	2.45	2.45
TOTAL NON-OPEC	57.65	56.75	56.99	57.16	56.20	56.73	56.91	56.64	56.92	56.58	55.92
TOTAL SUPPLY	96.38			96.49					96.13	96.12	95.36

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 January 2016.

Total OPEC comprises all countries which were OPEC members at 1 January 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Dec2015	Jan2016	Feb2016	Mar2016	Apr2016*	Apr2013	Apr2014	Apr2015	2Q2015	3Q2015	4Q2015	1Q2016
OECD Americas												
Crude	641.1	660.9	675.5	690.4	703.4	532.9	537.4	637.7	0.00	-0.10	0.27	0.54
Motor Gasoline	267.5	291.5	285.3	275.6	273.0	258.1	253.9	261.4	-0.16	0.07	0.11	0.09
Middle Distillate	235.2	238.5	240.6	240.4	230.5	196.5	193.1	200.8	0.14	0.07	0.17	0.06
Residual Fuel Oil	49.6	50.4	52.2	50.8	49.9	49.1	44.7	46.4	0.03	-0.01	0.03	0.01
Total Products ³	773.1	779.7	765.4	760.4	760.9	676.0	655.1	704.4	0.43	0.31	0.11	-0.14
Total ⁴	1590.4	1614.0	1610.7	1624.1	1637.5	1363.6	1352.5	1511.7	0.59	0.37	0.21	0.37
OECD Europe												
Crude	361.3	357.8	353.7	350.5	354.3	334.1	319.3	350.0	0.00	-0.05	0.23	-0.12
Motor Gasoline	92.1	102.3	108.2	100.5	99.9	94.3	88.9	95.2	-0.18	0.04	0.03	0.09
Middle Distillate	301.9	313.5	309.8	308.9	307.8	243.3	252.5	261.8	0.20	0.26	0.00	0.08
Residual Fuel Oil	71.9	72.5	76.0	77.1	75.1	81.0	62.9	67.2	0.01	0.03	0.03	0.06
Total Products ³	563.2	588.6	593.0	584.7	581.1	516.8	494.8	520.0	0.00	0.36	0.06	0.24
Total ⁴	989.8	1014.7	1019.3	1004.7	1004.7	914.4	880.6	939.7	0.02	0.29	0.25	0.16
OECD Asia Oceania												
Crude	205.8	191.6	195.6	196.0	193.9	165.2	165.6	170.5	0.26	0.01	0.04	-0.11
Motor Gasoline	23.1	25.4	24.6	26.1	25.4	27.1	26.1	24.5	0.03	-0.02	0.00	0.03
Middle Distillate	65.9	64.5	59.4	59.0	62.3	62.0	56.2	57.9	0.06	0.06	-0.01	-0.08
Residual Fuel Oil	21.2	18.9	18.8	20.0	19.5	20.4	21.5	19.5	0.01	0.03	-0.01	-0.01
Total Products ³	165.9	167.2	163.1	166.1	166.4	171.2	157.7	158.0	0.14	0.11	-0.11	0.00
Total ⁴	434.7	425.2	421.7	421.3	422.3	414.0	390.9	391.1	0.41	0.17	-0.11	-0.15
Total OECD												
Crude	1208.2	1210.3	1224.8	1236.9	1251.5	1032.2	1022.3	1158.1	0.26	-0.14	0.54	0.32
Motor Gasoline	382.7	419.2	418.2	402.2	398.3	379.5	368.9	381.0	-0.32	0.09	0.13	0.21
Middle Distillate	603.0	616.4	609.8	608.3	600.7	501.8	501.7	520.4	0.40	0.40	0.15	0.06
Residual Fuel Oil	142.7	141.8	147.0	147.9	144.6	150.5	129.0	133.1	0.05	0.05	0.04	0.06
Total Products ³	1502.1	1535.5	1521.5	1511.2	1508.4	1364.0	1307.6	1382.4	0.57	0.79	0.06	0.10
Total ⁴	3014.9	3053.9	3051.7	3050.0	3064.5	2692.0	2624.0	2842.4	1.02	0.82	0.35	0.39

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Dec2015	Jan2016	Feb2016	Mar2016	Apr2016*	Apr2013	Apr2014	Apr2015	2Q2015	3Q2015	4Q2015	1Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	693.3	691.0	0.03	0.01	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.9	206.8	206.3	206.5	206.2	204.3	206.3	208.5	-0.02	0.01	-0.01	0.00
Products	262.0	264.4	265.0	266.4	263.8	258.3	259.9	260.9	0.02	-0.05	0.08	0.05
OECD Asia Oceania												
Crude	382.2	383.6	384.2	384.2	384.2	389.6	387.8	386.9	-0.01	-0.05	0.01	0.02
Products	34.2	34.2	34.4	35.2	35.2	23.1	30.5	32.6	0.00	0.01	0.01	0.01
Total OECD												
Crude	1284.2	1285.5	1285.6	1285.8	1285.5	1289.9	1287.4	1286.3	0.00	-0.02	0.00	0.02
Products	298.1	300.5	301.4	303.6	301.0	282.4	291.5	295.5	0.02	-0.04	0.08	0.06
Total ⁴	1586.6	1589.9	1590.7	1593.2	1589.5	1575.4	1582.8	1585.8	0.03	-0.06	0.08	0.07

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')³

	End March 2015		End June 2015		End September 2015		End December 2015		End March 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	182.8	81	175.6	74	182.5	78	188.4	81	184.7	-
Chile	11.3	33	11.8	36	11.0	33	10.6	32	11.3	-
Mexico	49.8	26	50.4	25	49.5	24	49.7	25	48.7	-
United States ⁴	1910.4	99	1973.2	100	2003.1	103	2016.8	104	2054.5	-
Total ⁴	2176.3	90	2233.2	90	2268.2	93	2287.5	94	2321.2	96
OECD Asia Oceania										
Australia	34.1	32	35.9	33	35.5	32	33.5	31	37.0	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	567.7	146	578.3	147	589.6	139	582.0	129	559.8	-
Korea	201.0	87	224.6	94	226.0	89	227.9	87	235.7	-
New Zealand	8.7	56	9.0	59	8.7	52	7.7	45	8.2	-
Total	811.6	106	847.9	109	859.7	104	851.1	99	840.7	111
OECD Europe⁵										
Austria	23.7	91	23.2	82	23.7	91	24.1	95	25.4	-
Belgium	42.9	66	47.7	73	51.3	80	50.4	72	52.6	-
Czech Republic	21.7	103	21.6	105	21.8	127	22.1	148	22.8	-
Denmark	28.8	186	28.4	178	28.6	186	31.8	211	32.4	-
Estonia	1.5	50	1.5	46	1.5	48	1.8	60	2.2	-
Finland	44.1	254	45.0	229	39.9	214	44.9	249	46.0	-
France	172.9	106	169.8	99	166.8	105	167.6	102	165.8	-
Germany	283.9	123	285.6	116	281.4	117	285.3	117	288.8	-
Greece	31.1	112	27.8	91	29.2	94	32.4	116	33.8	-
Hungary	20.0	137	20.5	130	20.6	129	22.0	161	20.8	-
Ireland	12.8	90	11.1	74	11.3	75	11.6	75	12.2	-
Italy	121.0	93	117.1	87	117.2	89	117.3	94	119.9	-
Luxembourg	0.7	12	0.6	12	0.6	10	0.7	13	0.7	-
Netherlands	136.4	153	140.2	151	153.1	165	158.8	171	157.7	-
Norway	23.2	101	25.9	120	25.1	100	26.7	121	24.9	-
Poland	62.7	115	62.6	110	63.9	118	69.4	130	67.4	-
Portugal	21.7	86	21.8	84	23.0	96	23.9	108	24.5	-
Slovak Republic	11.6	133	11.4	140	11.0	137	11.6	153	11.9	-
Slovenia	4.9	99	4.7	88	4.6	96	4.5	90	4.6	-
Spain	132.4	109	133.4	107	139.4	114	130.9	104	140.3	-
Sweden	32.3	103	31.0	100	33.3	118	35.2	119	34.9	-
Switzerland	37.3	172	37.2	165	36.3	149	34.4	171	36.1	-
Turkey	64.7	75	65.7	69	71.2	82	74.6	88	75.9	-
United Kingdom	76.3	50	77.2	49	78.8	51	80.7	52	79.8	-
Total	1408.7	104	1410.9	100	1433.8	105	1462.9	107	1481.3	108
Total OECD	4396.6	97	4492.1	96	4561.7	98	4601.5	99	4643.2	102
DAYS OF IEA Net Imports⁶ -	172	-	194	-	196	-	198	-	200	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End March 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
1Q2013	4259	1580	2680	93	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	57
1Q2014	4196	1585	2610	94	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4328	1578	2749	93	34	59
4Q2014	4318	1580	2738	93	34	59
1Q2015	4397	1583	2814	97	35	62
2Q2015	4492	1585	2907	96	34	62
3Q2015	4562	1579	2982	98	34	64
4Q2015	4601	1587	3015	99	34	65
1Q2016	4643	1593	3050	102	35	67

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 1Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	2Q15	3Q15	4Q15	1Q16	Jan 16	Feb 16	Mar 16	Year Earlier	
											Mar 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.65	0.57	0.72	0.74	0.80	0.68	0.72	0.63	0.09
Europe	0.79	0.84	0.78	0.77	0.77	0.69	0.72	0.85	0.72	0.58	0.86	-0.28
Asia Oceania	1.21	1.17	1.25	1.25	1.16	1.21	1.40	1.31	1.46	1.42	1.48	-0.06
Saudi Medium												
Americas	0.45	0.36	0.37	0.37	0.44	0.43	0.39	0.33	0.38	0.46	0.30	0.16
Europe	0.01	0.03	0.03	0.02	0.02	0.04	-	-	-	-	-	-
Asia Oceania	0.43	0.45	0.44	0.44	0.48	0.41	0.46	0.42	0.53	0.44	0.45	-0.01
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.20	0.09	0.29	0.21	0.13	0.23	0.28	-	-
Europe	0.25	0.50	0.72	0.48	0.95	0.94	0.75	0.98	0.77	0.51	0.47	0.04
Asia Oceania	0.31	0.24	0.41	0.31	0.42	0.49	0.47	0.36	0.63	0.45	0.44	0.01
Kuwait Blend												
Americas	0.28	0.27	0.13	0.21	0.11	0.07	0.13	-	0.39	-	-	-
Europe	0.10	0.09	0.13	0.08	0.16	0.18	0.20	0.19	0.25	0.16	0.03	0.14
Asia Oceania	0.64	0.62	0.65	0.61	0.62	0.69	0.71	0.63	0.73	0.75	0.64	0.12
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.11	0.07	0.10	0.09	0.04	0.11	0.12	0.09	0.03
Asia Oceania	0.00	0.01	0.01	-	0.02	-	0.02	0.01	0.05	0.01	0.01	-0.01
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.01	0.03	0.01	0.04	0.06	-	0.05	0.03	0.02
Asia Oceania	0.30	0.28	0.27	0.25	0.25	0.26	0.44	0.39	0.47	0.46	0.38	0.07
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.67	0.61	0.49	0.65	0.70	0.72	-0.02
Europe	0.07	0.08	0.09	0.09	0.07	0.10	0.06	0.08	0.04	0.07	0.09	-0.02
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.43	0.45	0.54	0.52	0.55	0.48	0.53	0.59	-0.06
Europe	0.14	0.14	0.15	0.13	0.19	0.11	0.15	0.11	0.13	0.19	0.15	0.04
Asia Oceania	-	-	0.01	0.01	0.02	0.02	0.02	0.03	0.01	0.02	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	1.81	2.02	1.94	2.10	2.15	2.11	2.03	1.83	0.20
Europe	-	0.00	0.01	0.01	0.01	0.01	0.01	0.02	-	-	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	-	0.01	0.02	0.02	-	0.02	0.02	0.03	-0.01
Europe	0.47	0.56	0.49	0.48	0.52	0.49	0.47	0.38	0.56	0.49	0.52	-0.03
Asia Oceania	0.06	0.07	0.06	0.09	0.02	0.09	0.09	0.07	0.18	0.03	0.02	0.01
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.51	1.64	1.74	1.54	1.48	1.61	1.53	1.51	0.02
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	0.01	-	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.60	0.59	0.65	0.71	0.79	0.60	0.73	0.69	0.04
Asia Oceania	0.00	0.02	0.06	0.02	0.12	0.06	0.05	0.04	0.05	0.06	0.03	0.03
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.23	0.22	0.25	0.15	0.09	0.14	0.23	0.22	0.01
Asia Oceania	0.03	0.02	0.01	0.02	-	-	0.02	0.02	0.01	0.04	-	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.01	0.03	0.02	0.07	-	0.18	0.05	-	-
Europe	0.53	0.55	0.57	0.53	0.55	0.58	0.44	0.49	0.52	0.33	0.54	-0.21
Asia Oceania	0.03	0.02	-	-	-	-	-	-	-	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	2Q15	3Q15	4Q15	1Q16	Jan 16	Feb 16	Mar 16	Year Earlier	
											Mar 15	% change
Crude Oil												
Americas	5130	4201	4022	4085	4075	4056	4284	4024	4236	4590	4114	12%
Europe	8926	8679	9503	9194	9605	9741	8974	9018	9161	8755	9639	-9%
Asia Oceania	6557	6381	6576	6426	6486	6526	6807	6425	7077	6935	6704	3%
Total OECD	20612	19261	20101	19704	20165	20323	20065	19468	20474	20280	20456	-1%
LPG												
Americas	17	12	10	12	5	12	10	9	10	11	11	-7%
Europe	382	427	412	361	408	404	404	428	460	328	538	-39%
Asia Oceania	546	531	517	535	491	506	590	531	578	660	592	11%
Total OECD	946	970	940	908	904	921	1004	969	1047	998	1142	-13%
Naphtha												
Americas	17	20	15	14	12	12	11	14	15	5	9	-48%
Europe	332	356	348	287	413	283	360	308	413	361	365	-1%
Asia Oceania	927	959	957	915	954	983	955	1082	890	890	919	-3%
Total OECD	1276	1335	1320	1217	1379	1278	1326	1404	1317	1255	1294	-3%
Gasoline³												
Americas	659	665	670	745	813	549	435	447	468	392	592	-34%
Europe	106	131	107	117	72	117	105	203	67	43	164	-74%
Asia Oceania	83	83	100	125	69	106	81	81	71	90	104	-13%
Total OECD	848	879	878	987	954	772	621	731	606	526	860	-39%
Jet & Kerosene												
Americas	81	100	141	152	132	133	154	175	134	151	162	-7%
Europe	445	454	442	426	586	392	462	358	480	548	386	42%
Asia Oceania	74	60	65	68	50	75	81	103	83	57	60	-5%
Total OECD	601	613	649	646	768	600	697	636	697	756	607	25%
Gasoil/Diesel												
Americas	58	95	76	40	46	63	57	21	111	43	152	-72%
Europe	1121	1097	1216	1314	1261	1178	1413	1291	1455	1497	1286	16%
Asia Oceania	162	181	186	188	169	222	205	188	219	209	139	50%
Total OECD	1341	1373	1478	1542	1476	1462	1676	1501	1785	1748	1578	11%
Heavy Fuel Oil												
Americas	165	132	116	113	139	91	163	180	102	202	121	67%
Europe	552	617	564	484	518	575	544	529	490	608	767	-21%
Asia Oceania	242	214	187	134	186	215	199	164	196	236	239	-1%
Total OECD	960	963	867	731	844	881	905	873	788	1047	1127	-7%
Other Products												
Americas	812	671	675	760	759	553	642	613	738	581	586	-1%
Europe	791	704	702	669	737	724	766	744	825	734	686	7%
Asia Oceania	386	374	322	306	343	320	354	330	413	323	323	0%
Total OECD	1989	1750	1698	1735	1839	1597	1762	1687	1976	1638	1596	3%
Total Products												
Americas	1810	1695	1703	1836	1906	1414	1472	1460	1578	1385	1634	-15%
Europe	3729	3786	3793	3658	3996	3672	4054	3861	4191	4118	4193	-2%
Asia Oceania	2421	2403	2334	2272	2263	2427	2465	2480	2448	2465	2377	4%
Total OECD	7960	7884	7829	7766	8164	7512	7991	7801	8217	7968	8204	-3%
Total Oil												
Americas	6940	5896	5725	5921	5980	5470	5757	5484	5815	5975	5749	4%
Europe	12655	12465	13296	12851	13601	13413	13028	12880	13352	12873	13831	-7%
Asia Oceania	8978	8783	8910	8698	8748	8952	9271	8905	9525	9400	9080	4%
Total OECD	28573	27144	27930	27470	28329	27835	28056	27269	28692	28248	28660	-1%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 12 August 2015), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 13 July 2016

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Oil Market Report

13 July 2016

HIGHLIGHTS

- **Global oil supplies rose by 0.6 mb/d in June to 96 mb/d after outages curbed OPEC and non-OPEC supplies in May.** World production was 750 kb/d below last year as higher OPEC output only partially offset non-OPEC declines. Non-OPEC supplies are set to drop by 0.9 mb/d in 2016, to 56.5 mb/d, before rising 0.2 mb/d in 2017.
- **Robust European demand supported 2Q16 global demand growth at around 1.4 mb/d y-o-y, momentum that will be roughly matched through the year as a whole.** A modest deceleration is foreseen in 2017, as growth eases to 1.3 mb/d taking average deliveries up to 97.4 mb/d.
- **Crude oil prices eased from an early June peak above \$52/bbl, and traded within a \$45-\$50/bbl range.** Growing uncertainty over the global economy and a stronger dollar weighed, but the downside was limited by further declines in US production and inventories.
- **OPEC crude output rose by 400 kb/d in June to an eight-year high of 33.21 mb/d, including newly re-joined Gabon.** Saudi Arabia ramped up to a near-record rate of 10.45 mb/d and Nigerian flows partially recovered from rebel attacks. Middle East producers sustained record levels, building market share and pushing OPEC's total output 510 kb/d above a year ago.
- **OECD commercial inventories built by 13.5 mb in May to end the month at a record 3 074 mb.** Preliminary information for June suggests that OECD stocks added a further 0.9 mb while floating storage has continued to build, reaching its highest level since 2009.
- **May global refinery throughput plunged by almost 1 mb/d from April and stood 1.5 mb/d lower year-on-year,** as heavy outages took a toll in many regions. This lowered the 2Q16 estimate for global refinery intake, to 78.5 mb/d – the first y-o-y drop in three years. Our forecast for 3Q16 throughput is more steady at 80.95 mb/d.

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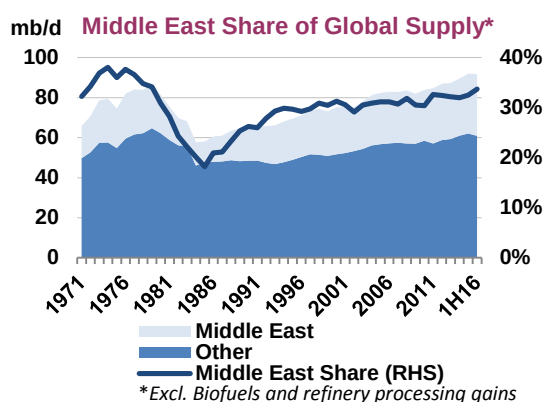
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BALANCING ACT – COULD IT TIP OVER?

After the drama we saw at the beginning of this year when prices were sliding daily, the fact that crude oil has in the past two months moved within a range in the high \$40s/bbl should be a relief for some producers. For some time now this *Report* has signalled a return to balance as being the big picture direction in which the market is heading. The adjustments to our data this month suggest that little has changed with the market showing an extraordinary transformation from a major surplus in 1Q16 to near-balance in 2Q16. In mid-summer 2016, although market balance is upon us, the existence of very high oil stocks is a threat to the recent stability of oil prices: in 1Q16 refinery runs growth was 60% higher than refined product demand growth. Despite the regular upwards revisions to demand that we have seen in recent *Reports* there are signs that momentum is easing; and, although stocks are close to topping out, they are at such elevated levels, especially for products for which demand growth is slackening, that they remain a major dampener on oil prices. With global refinery runs expected to fall by 0.8 mb/d in 2Q16 before surging by 2.4 mb/d in 3Q16, we may well see crude oil stocks fall back but there is a risk that, unless demand turns out to be stronger than we currently anticipate, products stocks could rise still further and threaten the whole price structure.

In China, for example, data for May suggests that year-on-year demand growth was only 130 kb/d, part of a recent trend of smaller increases. For the United States, estimated gasoline deliveries in April were up just 75 kb/d up on the year earlier and 410 kb/d below our expectations. Somewhat unexpectedly, the saving grace for oil demand has been Europe where, in 2Q16 y-o-y growth reached a five-quarter high. This is unlikely to last, though, with the ongoing precariousness of the European economies now dealing with added uncertainty following the result of the UK referendum on membership of the European Union.

On the supply side of the balance, our forecasts for non-OPEC production have proved to be accurate so far in 2016. Non-OPEC production remains on course to fall by 0.9 mb/d this year before staging a modest recovery in 2017. For low-cost Middle Eastern OPEC countries plus other regional producers, including Bahrain and Oman, production has grown steadily in recent years, with notable increases contributed by Iraq in 2015 and Iran in 2016. In the heady days when US shale production was moving upwards very fast it became fashionable to talk of lower reliance on traditional suppliers. Our chart shows that in fact oil output from the region rose to a record high in June, with production above 31 mb/d for the third month running. As such, the Middle East's market share of global oil supplies rose to 35%, the highest since the late 1970s and an eloquent reminder that even when US shale production does resume its growth, older producers will remain essential for oil markets.



Investment will also be important, as the IEA has regularly stated. Chevron's announcement that it is moving ahead with a \$37 billion expansion of the Tengiz field in Kazakhstan is good news, but the fact that the project will partly utilise existing infrastructure is key to making it viable at today's oil prices. There is still an ominous investment gap building up in the oil industry that might, depending on how quickly today's record high oil stocks are eroded, create the conditions for sharply higher prices over the medium term.

Our underlying message that the market is heading to balance remains on track, but the modest fall back in oil prices in recent days to closer to \$45/bbl is a reminder that the road ahead is far from smooth.

DEMAND

Summary

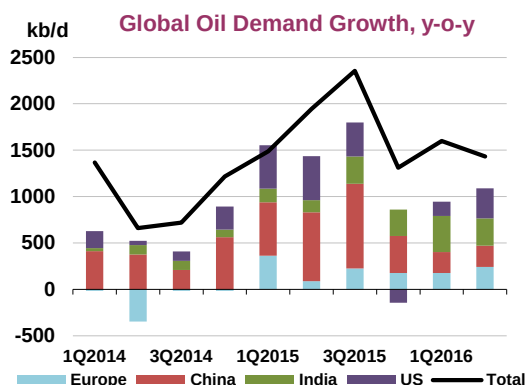
- **Estimates of global demand for 2016 have been raised by 0.1 mb/d** since last month's *Report*, to 96.1 mb/d, an upgrade largely attributable to Europe's resilience. Growth of approximately 1.4 mb/d is now envisaged in 2016.
- **Into 2017, global demand is forecast to rise by a further 1.3 mb/d** to 97.4 mb/d. The majority of the projected upside in 2017 is attributable to non-OECD consumers, chiefly in Asia, with India's demand forecast to be the world's most rapidly growing in 2017, rising by 280 kb/d, closely followed by China.
- **European oil consumers offered the biggest 2Q16 demand surprise** with preliminary data showing demand rising at a five-quarter high of 240 kb/d year-on-year (y-o-y) as relatively low crude oil prices continued to offer support.
- **Estimates of US oil demand have been modestly revised, with 25 kb/d added to the 2016 estimate and 35 kb/d for 2017.** Official data for April fell below expectations, but preliminary May-June demand numbers exceeded our forecasts while manufacturing business sentiment indicators posted surprising mid-year optimism.
- **Japanese consumers provide the biggest decline in demand in 2Q16**, with total Japanese demand falling by 205 kb/d y-o-y, pulled down mainly by oil's retreat from the power generation sector.
- **The recent deceleration in Chinese demand growth continued into May**, as y-o-y gains eased back to 130 kb/d (just over 1%), due to softness in gasoline and diesel demand.

Global Oil Demand (2015-2017)

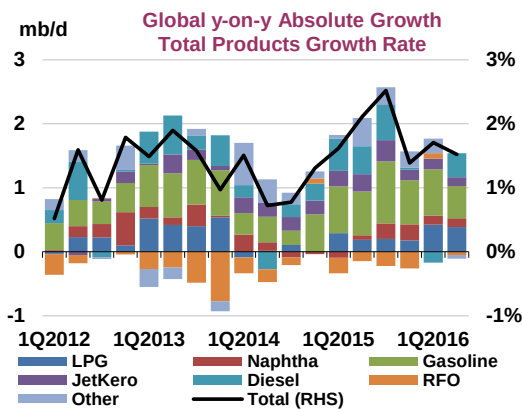
	(million barrels per day)														
	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.2	4.1	4.2	4.2	4.2	4.3	4.2	4.4	4.4	4.3	4.4	4.4
Americas	31.0	31.0	31.7	31.3	31.2	31.0	31.2	31.7	31.5	31.3	31.1	31.3	31.9	31.5	31.4
Asia/Pacific	32.2	31.5	31.5	32.5	31.9	33.1	32.4	32.4	33.4	32.8	34.0	33.2	33.1	34.2	33.6
Europe	14.1	14.3	14.9	14.4	14.4	14.3	14.5	14.9	14.4	14.5	14.3	14.6	14.9	14.4	14.6
FSU	4.6	4.9	5.1	5.0	4.9	4.9	5.0	5.1	5.0	5.0	4.9	5.0	5.1	5.1	5.0
Middle East	7.6	8.3	8.6	8.1	8.2	7.8	8.3	8.7	8.3	8.2	8.0	8.4	8.8	8.4	8.4
World	93.6	94.1	95.7	95.5	94.7	95.2	95.6	96.8	96.9	96.1	96.6	96.9	98.1	98.1	97.4
Annual Chg (%)	1.6	2.1	2.5	1.4	1.9	1.7	1.5	1.2	1.4	1.5	1.4	1.4	1.3	1.2	1.3
Annual Chg (mb/d)	1.5	1.9	2.4	1.3	1.8	1.6	1.4	1.2	1.4	1.4	1.4	1.3	1.3	1.2	1.3
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1

Global Overview

Rising by 1.4 mb/d in 2016, our global demand estimate has been hiked by 0.1 mb/d compared to last month's *Report* to 96.1 mb/d. Demand grew by 1.6 mb/d in 1Q16, and we have revised up our 2Q16 number to 1.4 mb/d, feeding through into the higher number for 2016 as a whole. Compared to the stellar growth for 2015 as a whole at 1.8 mb/d, 2016 is clearly seeing slower growth, but is still solid in historical terms. Growth in 2016 is underpinned by Europe and what seems to be solid strength in India.



On a product-specific basis, gasoline's previous dominance has waned recently, with its share of global oil demand growth declining from over a half in 4Q15, to 45% in 1Q16 and an estimated 35% in 2Q16.



Notably lower rates of decline in residual fuel oil demand proved a central catalyst, as did sharp upticks in LPG (including ethane), while additional gasoil/diesel demand also provided support in 2Q16. Although remaining substantial in 2Q16, global gasoline demand, 0.5 mb/d higher than the year earlier, is only equivalent to roughly half its 3Q15 gain. Sharply decelerating Chinese demand is the main factor slowing down gasoline, alongside significant slowdowns in Brazil, the US, Japan and Saudi Arabia.

The sharp declines in residual fuel oil demand that plagued 2015, with global deliveries averaging 0.2 mb/d less than the year earlier, were abated or reversed in 1H16 on easing European declines and rising US fuel oil deliveries. Additional demand in Europe and the US supported sharply accelerating LPG demand, as global 1H16 gains doubled compared to 3Q15. Only after a difficult 1Q16 – when demand eased by 0.2 mb/d – did global gasoil/diesel rebound, adding 0.4 mb/d y-o-y in 2Q16, as European demand significantly accelerated whereas the previous sharp declines in US diesel demand eased.

The moderation in global demand growth that has taken place since the peak mid-2015 looks set to continue through 2017, albeit decelerating only very modestly from early 2016. Prospective global oil demand growth eases to 1.3 mb/d in 2017, as global deliveries average 97.4 mb/d. Just over 90% of the 2017 global oil demand growth is attributable to non-OECD consumers, the rest in the much slower growing OECD. Potentially higher crude oil prices act as a break on the rate of future demand growth, although there is considerable uncertainty as to how fast – if at all – oil prices will rise. The result of the UK referendum on membership of the European Union has added to the uncertainty. At this stage, it is difficult to draw conclusions about the short-term impact on oil demand of the UK's decision to leave the EU. In the coming weeks we will be watching this issue closely to see if there is any impact on our 2016 and 2017 demand outlook.

Notable 2Q16 data upgrades, compared to the numbers in last month's *Report*, include Canada (+105 kb/d), France (+90 kb/d), the Netherlands (+35 kb/d), Australia (+60 kb/d) and Korea (+25 kb/d). Partially offsetting 2Q16 downgrades were seen in Japan (-180 kb/d), India (-100 kb/d), the US (-45 kb/d) and Belgium (-30 kb/d). Historical OECD baseline revisions, following the comprehensive updates from the IEA's statistical division, based on revised data from member countries, respectively added 85 kb/d and 35 kb/d to the 2014 (45.8 mb/d) and 2015 (46.2 mb/d) OECD demand estimates.

OECD

This month's story is all about the remarkable resilience of OECD oil demand, specifically in Europe. Total OECD oil product deliveries averaged a preliminary 45.9 mb/d in 2Q16, 0.6 mb/d up on the year earlier but perhaps most significantly 85 kb/d above the previously envisaged level. Rising by an estimated 240 kb/d y-o-y in 2Q16 to 13.8 mb/d, persistent strong gains in European oil product demand (chiefly gasoil/diesel) proved central to the overall OECD demand strength, alongside strong gains in the OECD Americas, 275 kb/d higher y-o-y at 24.5 mb/d. Even the previously sharply declining OECD Asia Oceania region rose, albeit modestly (+50 kb/d to 7.6 mb/d), in 2Q16, further furnishing the generally strong OECD demand gain.

OECD Demand based on Adjusted Preliminary Submissions - May 2016

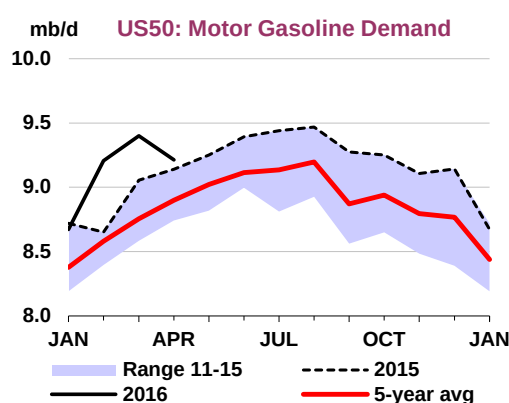
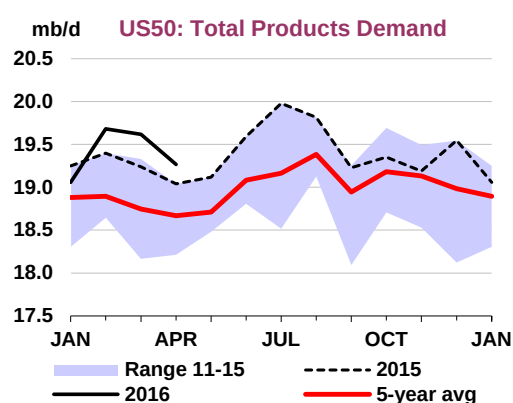
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.32	3.2	1.81	1.4	4.53	-0.7	0.45	-5.9	0.58	22.6	5.87	1.24	24.55	2.0
US50	9.57	3.5	1.53	0.4	3.64	-0.5	0.11	-13.5	0.29	23.0	4.48	3.89	19.63	2.7
Canada	0.82	-0.5	0.14	10.1	0.30	-1.7	0.27	-2.5	0.04	57.9	0.78	-0.42	2.33	0.3
Mexico	0.79	4.1	0.07	9.1	0.38	-4.8	0.05	-9.2	0.15	44.8	0.49	-15.82	1.92	-1.6
OECD Europe	1.93	0.8	1.33	0.9	4.76	6.3	1.21	13.2	0.87	-1.5	3.46	2.33	13.55	4.0
Germany	0.43	-0.1	0.19	3.0	0.76	7.7	0.27	36.7	0.13	9.0	0.46	-16.92	2.24	2.3
United Kingdom	0.28	-4.7	0.29	2.9	0.50	4.2	0.13	2.6	0.02	-35.0	0.29	10.54	1.52	2.4
France	0.18	11.8	0.15	-4.2	0.70	9.8	0.21	22.4	0.03	-29.3	0.41	7.72	1.67	8.4
Italy	0.20	1.2	0.11	2.2	0.44	3.1	0.07	1.9	0.07	-9.7	0.38	9.97	1.27	3.8
Spain	0.11	1.1	0.12	-3.8	0.46	5.7	0.13	5.4	0.15	-0.8	0.24	-1.71	1.21	1.9
OECD Asia & Oceania	1.52	1.0	0.71	12.6	1.30	3.1	0.45	5.6	0.52	-11.1	2.96	4.01	7.47	2.9
Japan	0.88	-0.5	0.36	19.1	0.37	-3.2	0.32	6.6	0.22	-31.9	1.29	-7.52	3.44	-4.2
Korea	0.21	4.9	0.15	4.3	0.38	10.7	0.11	3.3	0.25	18.1	1.41	18.08	2.51	14.1
Australia	0.30	0.7	0.15	7.5	0.46	1.9	0.00	0.0	0.03	10.8	0.18	-2.65	1.12	1.8
OECD Total	14.77	2.6	3.84	3.1	10.59	2.8	2.11	6.9	1.97	1.5	12.28	2.20	45.57	2.7

* Including US territories

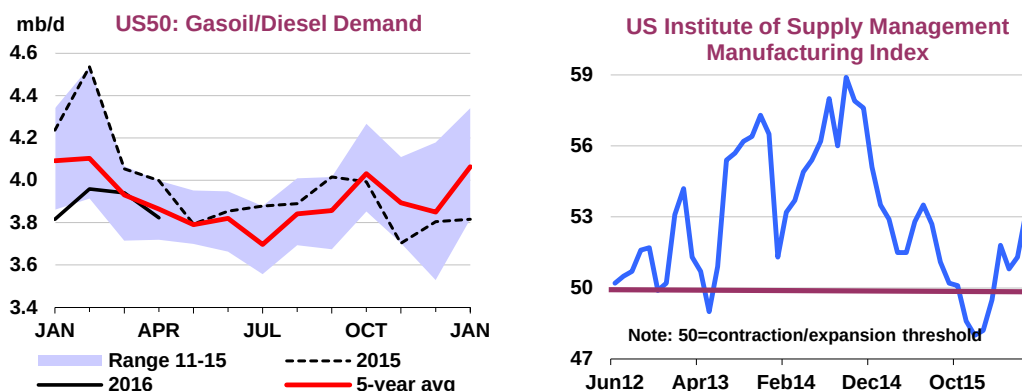
Americas

Rising by 275 kb/d or 1.1% y-o-y in 2Q16, the net OECD American demand estimate of 24.5 mb/d is 70 kb/d above our month-earlier forecast, chiefly attributable to baseline data revisions for Mexico, Canada and Chile. Indeed, the latest **US 2Q16** demand estimate, of 19.6 mb/d, is 45 kb/d below the month earlier forecast on the publication of 'soft' April data from the US Energy Information Administration (EIA). At 19.26 mb/d in April, the official EIA number was 315 kb/d less than previously envisaged, based on adjusted weekly data, bringing US demand growth down to a three-month low of 225 kb/d compared to the year earlier. Much lower than previously forecast gasoline demand proved to be the main laggard, as estimated US gasoline deliveries of around 9.2 mb/d were just 75 kb/d up on the year earlier and 410 kb/d below prior expectations. April's 0.8% y-o-y US gasoline demand growth significantly underperformed the latest miles travelled statistics from the US Department of Transport's Federal Highway Administration, as travel on all roads rose by an estimated 2.6% y-o-y (an additional 6.8 billion vehicle miles) in April.



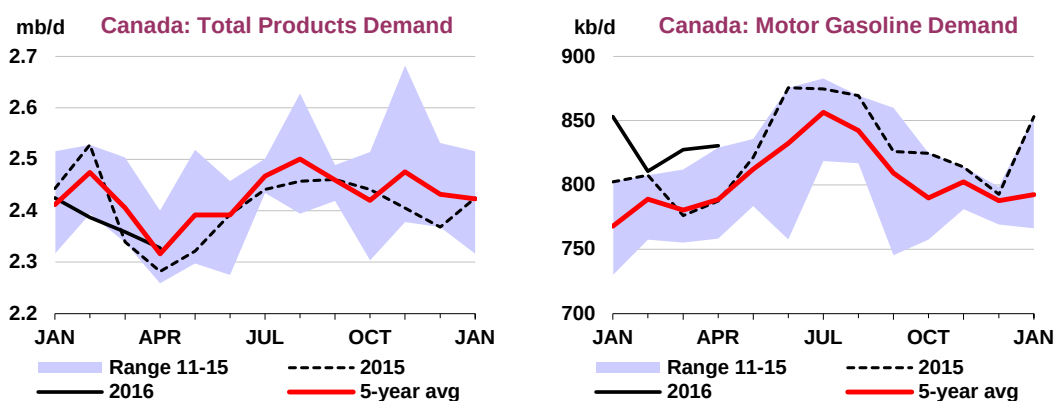
Weak gasoil/diesel demand, falling by 175 kb/d y-o-y in April or 4.4%, also played an important role restraining US oil demand growth, dampened by the ongoing US industrial malaise. The US Federal Reserve cited industrial activity falling by 1.4% y-o-y in May, a tenth successive monthly y-o-y decline. Having seen persistent declines since 3Q15, US gasoil demand should continue to decline through mid-2016 before tentatively picking up in 2H16, supported by cautiously recuperating manufacturing sentiment. The Institute for Supply Management's Manufacturing Purchasing Managers' Index (PMI)

bottomed-out at a heavily pessimistic 48 in December 2015-January 2016, but has since risen sharply back, to 53.2 in June 2016, highlighting the notable uptick in confidence that has since followed.



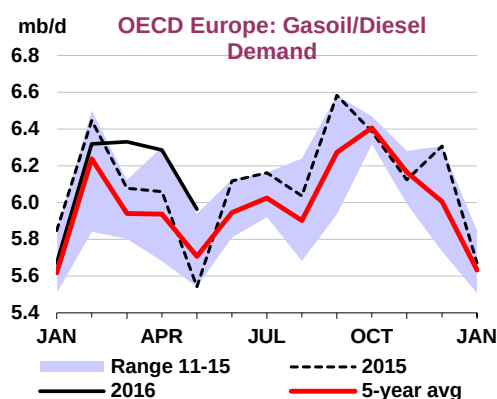
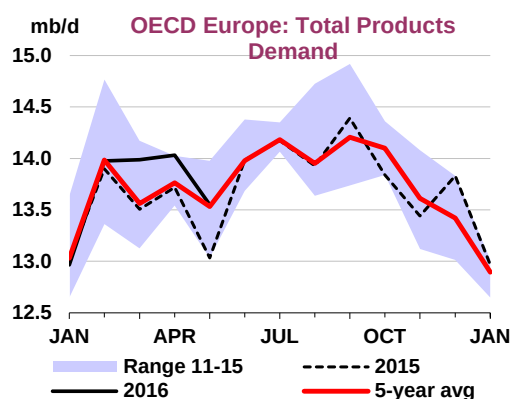
Estimated to average 19.6 mb/d in 2016 as whole, 240 kb/d or 1.2% up on the year, significant upside is envisaged in motor gasoline and LPG (includes ethane) while gasoil (although picking up in 2H16) acts a sizeable restraint. Despite 45 kb/d being trimmed from 2Q16 demand, compared to last month's *Report*, the forecast for the year as a whole carries a modest 25 kb/d premium as preliminary estimates of May-June demand, based on EIA weekly statistics, coupled with continued gains in business confidence furnish a still relatively robust US demand forecast. Growth is forecast to decelerate in 2017, to 0.7%, curbed most significantly by slower gains in gasoline and jet fuel, as their underlying retail prices potentially edge higher.

Historical baseline revisions to the **Canadian** demand data added roughly 70 kb/d to the 2015 estimate, to an upwardly revised 2.4 mb/d – essentially flat on the year earlier. The majority of the baseline adjustments were seen in the 'other products' category, which came out at an upwardly revised 355 kb/d in 2015. Not only was the baseline data revised up but also the latest data point came out significantly above prior forecasts, at 2.3 mb/d, 45 kb/d up on the year earlier, led higher by strong gains in gasoil and gasoline. Incorporating these changes, the forecast for 2016 as a whole has been revised up to 2.4 mb/d, 75 kb/d above the prior estimate but 45 kb/d below 2015.

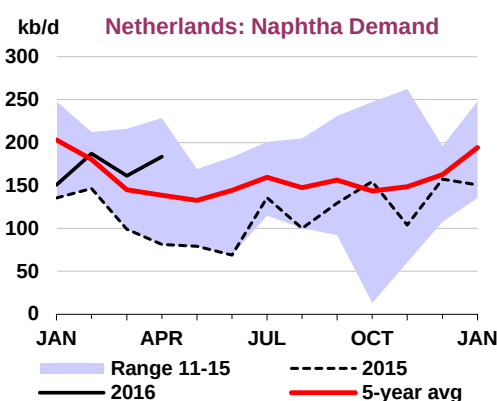
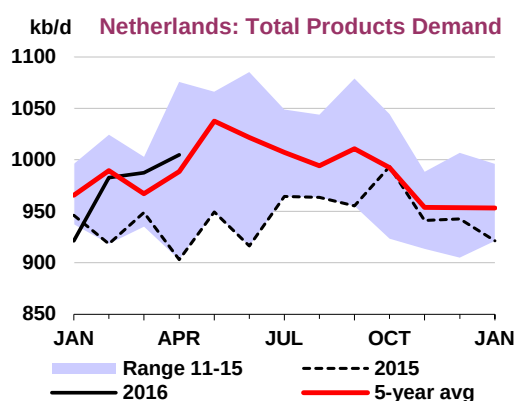


Europe

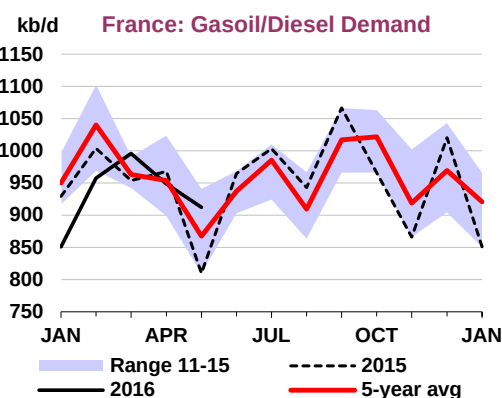
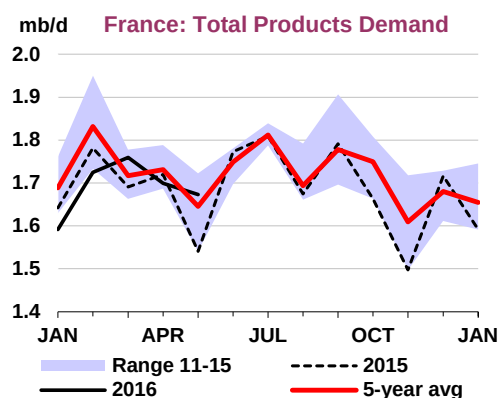
Rising by a much stronger than expected 240 kb/d y-o-y in 2Q16, European growth reached a five-quarter high. At 13.8 mb/d, 2Q16 demand stood at its highest level since 3Q15, when global growth peaked at a near five-year high. European deliveries were 125 kb/d higher than estimated in last month's *Report* as consumers continued to binge on relatively low prices and an improving macroeconomic backdrop. Across OECD Europe, the Netherlands, France, Spain, Finland and Greece accounted for the majority of the forecast upgrade, counteracting lower 2Q16 demand data for Belgium and Poland.



Surging by a heady 100 kb/d y-o-y in April, the latest demand figures from the **Netherlands** showed deliveries of exactly 1.0 mb/d, supported by strong gains in the petrochemical sector. We have accordingly revised up the 2016 Dutch demand forecast to 985 kb/d for the year as a whole, 4.1% up on the year. Growth then decelerates in 2017, to 1.0%, as projections for the volume of goods exported – a key for a heavily trade-dependent economy like the Netherlands – ease back (the IMF anticipating that the volume of export growth eases to 1.9% in 2017, from 3.7% in 2016, according to their latest *World Economic Outlook*).

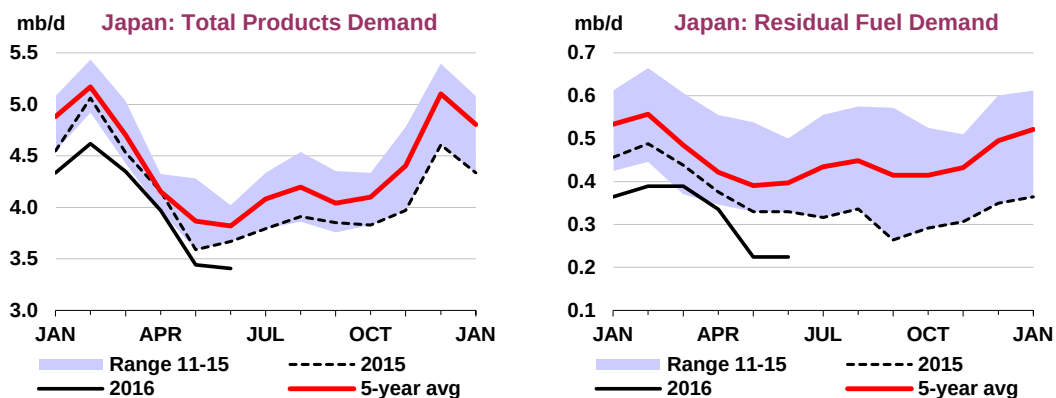


Historical **French** data additions raised the 2015 demand estimate by 45 kb/d to 1.7 mb/d, an upgrade largely attributable to higher baseline naphtha and 'other products'. Coupling these additions with some surprisingly robust y-o-y growth figures for May, the 2016 French demand forecast has been raised by 65 kb/d, compared to last month's *Report*, to 1.7 mb/d – essentially on a par with 2015. A very modest decline is then foreseen in 2017, as underlying prices potentially edge higher once again. Having fallen by 20 kb/d in April, y-o-y, growth re-emerged with vengeance in May, rising by 130 kb/d y-o-y, as pre-emptive buying ahead of strike-action added a short-term premium to French demand.

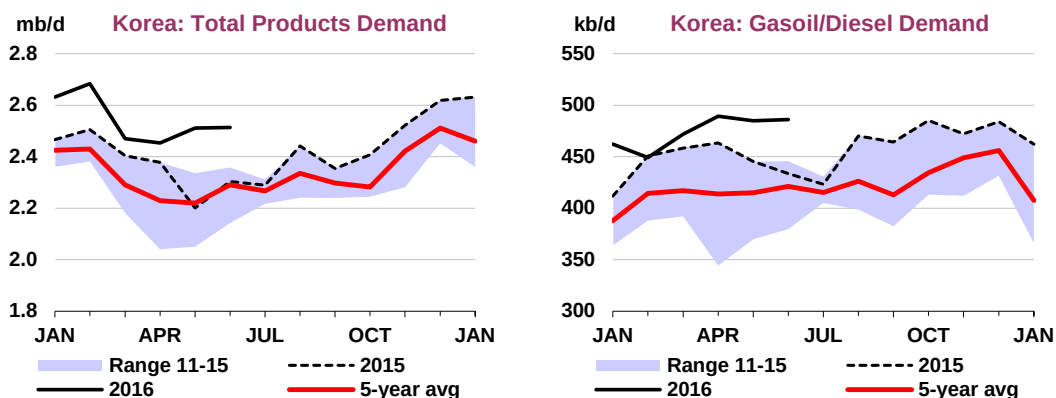


Asia Oceania

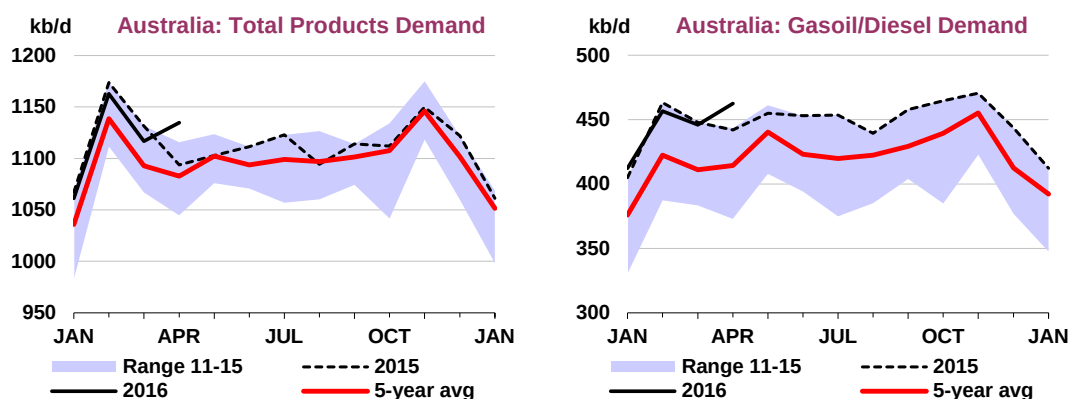
Easing back below 4.0 mb/d in April, **Japanese** oil product deliveries not only fell to a four-month low (in absolute terms) but they also contracted by 185 kb/d compared to the year earlier. With a similarly sized (150 kb/d) decline envisaged in May, to 3.4 mb/d, Japanese oil deliveries fell to their lowest level since our monthly records began. Two key product categories lay at the heart of the sharp declines: residual fuel oil and 'other products', respectively falling in y-o-y terms by 40 kb/d and 120 kb/d in April and 105 kb/d and 110 kb/d in May, as ongoing switching out of oil in the power sector continues. With both April and May demand estimates coming out significantly below prior forecasts, alongside some sizeable annual data revisions (-80 kb/d in 2014 and -90 kb/d in 2015, to 4.1 mb/d), the 2016 demand estimate has been revised down accordingly (-160 kb/d), to 3.9 mb/d, equivalent to an annual decline of 175 kb/d. A more modest decline, of 85 kb/d, is then foreseen for 2017, to 3.9 mb/d still, as the potential for further power-sector demand switching, out of oil, has been suppressed.



Surging by approximately 310 kb/d, or 14.1% on the year earlier, **Korean** demand averaged 2.5 mb/d in May. With particularly strong gains registered in the petrochemical and industrial sectors, the sharpest gains were seen in LPG, naphtha, gasoil and residual fuel oil, this despite overall industrial output declining compared to the year earlier as persistent low prices proved a greater stimuli. Statistics Korea cited a 2.8% y-o-y decline in April industrial activity, a second consecutive decline, while manufacturing sentiment (as tracked by the Nikkei South Korean Manufacturing PMI) struggled to get back into neutral territory at 50.1 in May.



Ratcheted up on significant baseline data revisions, the latest **Australian** demand estimate for the first four months of 2016 had deliveries averaging 1.1 mb/d, 55 kb/d higher than the estimate cited in last month's *Report*. Similarly sized upgrades were applied through the Australian data running back four years, as the IEA's annual data service found significant upgrades in estimates of Australian gasoil and 'other product' demand. Also, at 1.1 mb/d in April, the latest demand estimate carried a 40 kb/d gain on the corresponding month in 2015, supported by particularly sharp gains in gasoil/diesel (+20 kb/d).



Non-OECD

Having surged up by just over 1.4 mb/d y-o-y in 1Q16, preliminary indicators of 2Q16 non-OECD oil product demand imply a slowdown, with a 2Q16 gain of 0.9 mb/d y-o-y now envisaged. This slowdown is caused mainly by sharp deteriorations in China and Saudi Arabia. Asia continues to dominate non-OECD demand growth, rising by 1.0 mb/d y-o-y in 1Q16 and 0.8 mb/d in 2Q16, gains largely attributable to additional Indian and Chinese demand. Rising by 0.3 mb/d y-o-y in 1Q16, extra Russian deliveries also played a major role, but this is likely to vanish in 2Q16 as momentum fades. Similar deteriorations are likely in Saudi Arabia, as April data suggest the strong demand gains of 2015 have ended. Decelerations in the rate of gasoline, gasoil/diesel, LPG and 'other products', combined with absolute declines in non-OECD residual fuel oil demand, trim back non-OECD demand growth to a two-and-a-half year low. The outlook brightens, post-2Q16, as many non-OECD economies benefit from a marginally stronger macroeconomic situation, while Chinese gasoline demand growth likely rebounds from a dire 2Q16.

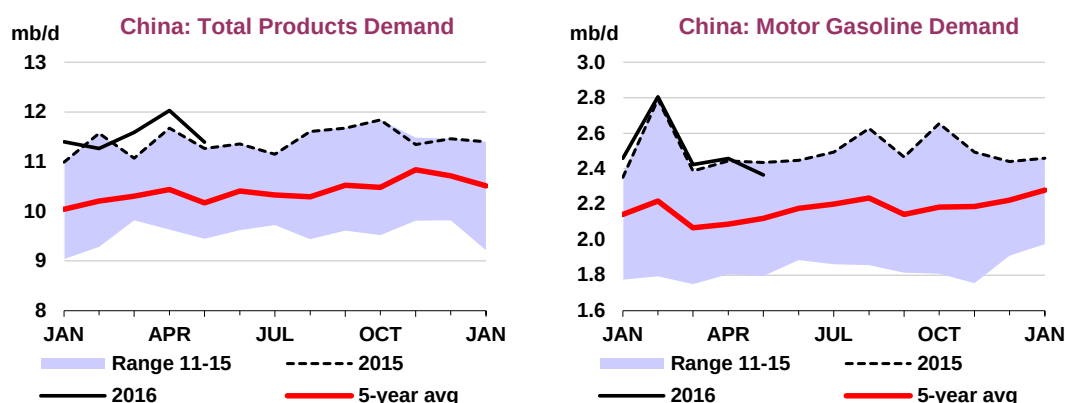
Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	4Q15	1Q16	2Q16	1Q16	2Q16	1Q16	2Q16
LPG & Ethane	5,527	5,653	5,629	386	304	7.3	5.7
Naphtha	3,043	3,066	3,020	131	121	4.5	4.2
Motor Gasoline	10,732	10,632	10,707	364	290	3.5	2.8
Jet Fuel & Kerosene	3,114	3,115	3,137	19	44	0.6	1.4
Gas/Diesel Oil	14,697	14,071	14,828	272	197	2.0	1.3
Residual Fuel Oil	5,100	5,205	5,229	-8	-165	-0.1	-3.1
Other Products	6,970	6,824	7,107	255	72	3.9	1.0
Total Products	49,182	48,566	49,656	1,420	863	3.0	1.8

China

Restrained by the ongoing downturn in the Chinese economy, demand stuttered severely in May – rising by just over 1% on the year earlier – with momentum undermined by particular weaknesses in gasoil/diesel and bitumen. Perhaps most surprisingly, and with potential implications for the sustainability of our relatively robust Chinese demand forecast, was the drop in apparent Chinese gasoline demand, as the previously strongly rising trend lost steam.



Weakening Chinese gasoline tallies with a high net-export position: Chinese gasoline imports all but vanished in May, according to the latest Customs Data, while nearly 800 thousand tonnes were exported, producing a heady net-export position of roughly 210 kb/d. As a key component in our Chinese apparent demand calculation – i.e. refinery throughput plus net-product imports minus product stock additions – higher gasoline exports equate, with all else being equal, to a lower estimate for Chinese domestic demand. Further trimming the May gasoline demand estimate were reports, from the Xinhua news agency's *China OGP*, of gasoline stocks being built by 30 kb/d.

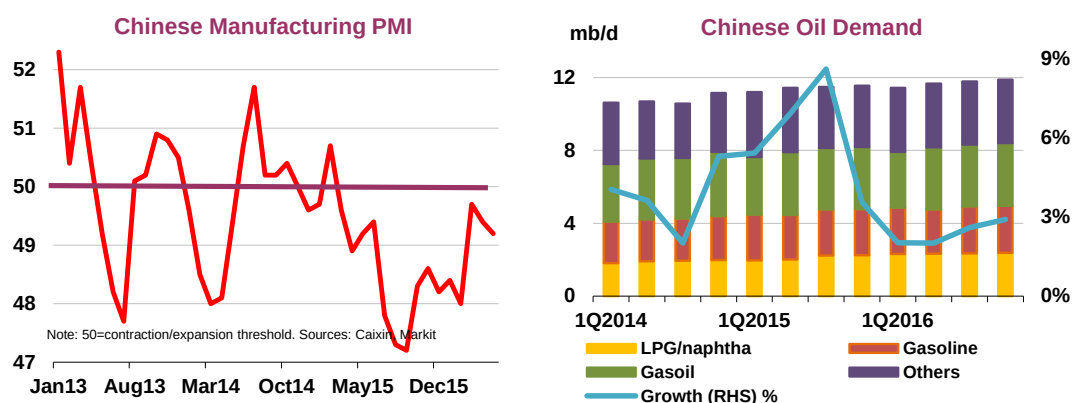
China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,122	1,287	1,370	165	83	14.7	6.4
Naphtha	996	1,053	1,078	57	26	5.7	2.4
Motor Gasoline	2,499	2,538	2,677	39	138	1.6	5.4
Jet Fuel & Kerosene	628	665	699	37	34	5.9	5.1
Gas/Diesel Oil	3,352	3,327	3,312	-26	-14	-0.8	-0.4
Residual Fuel Oil	285	215	159	-70	-56	-24.5	-25.9
Other Products	2,529	2,599	2,662	69	63	2.7	2.4
Total Products	11,411	11,684	11,958	273	274	2.4	2.3

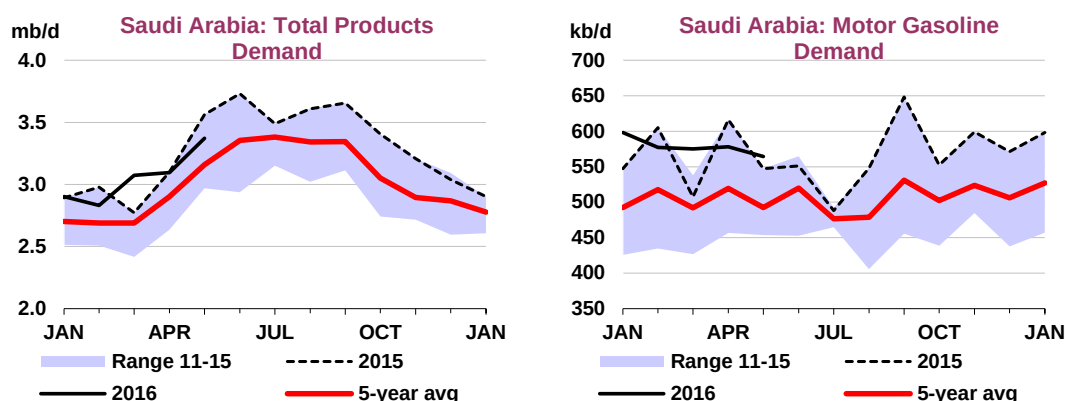
The main restraint on recent Chinese demand data continues to be the weakening of the domestic economy, with official estimates of economic growth easing to 6.7% on a y-o-y basis in 1Q16, a third successive quarter of lower growth and the lowest reported number since the Great Recession of 2009. Industrial fuels, such as gasoil and bitumen, have been the major Chinese demand laggards, as reported industrial activity eased to +6.0% y-o-y in May, significantly below March's recent 6.8% high. Forward-looking indicators, such as Caixin's Manufacturing PMI, eased to a three-month low of 49.2 in May, dampening the outlook for 2H16.

Given the recent weakening in Chinese demand growth, coupled with the deteriorating macroeconomic situation, our 2016 Chinese demand forecast has been trimmed to 11.7 mb/d, 50 kb/d below the estimate cited in last month's *Report*. This lower estimate amounts to a 275 kb/d or 2.4% gain on the previous year. Given the widely-held belief amongst economists, that a further (modest) deceleration will occur in Chinese economic growth in 2017 – the IMF trimming a further 0.3 percentage points – Chinese oil demand growth likely eases further, to 2.3%, in 2017. Furthermore, the IMF's April's *World Economic Outlook* cited that it expected no more than a 1.6% gain in the volume of Chinese exports in 2017 – dampening a previous staple of China's economic strength.



Other Non-OECD

Pulled down by subdued transport fuel demand, **Saudi Arabian** oil products demand growth all but disappeared in April (y-o-y), as deliveries averaged an estimated 3.1 mb/d. The weakening macroeconomic backdrop, coupled with much-reduced transport subsidies, triggered respective y-o-y declines of 40 kb/d and 60 kb/d in gasoline and gasoil/diesel. Having risen rapidly in 2014-15, when growth averaged 160 kb/d, Saudi Arabian oil deliveries are expected to fall in 2016, down by approximately 20 kb/d to an average 3.3 mb/d, a modest uptick is then foreseen in 2017 (+35 kb/d) largely dependent upon higher oil prices.



Non-OECD: Demand by Region

	(thousand barrels per day)						
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	4Q15	1Q16	2Q16	1Q16	2Q16	1Q16	2Q16
Africa	4,202	4,226	4,244	99	126	2.4	3.0
Asia	24,371	24,518	24,767	1,011	797	4.3	3.3
FSU	4,986	4,853	4,960	276	62	6.0	1.3
Latin America	6,789	6,501	6,700	-120	-64	-1.8	-1.0
Middle East	8,123	7,767	8,262	131	-86	1.7	-1.0
Non-OECD Europe	711	700	723	23	29	3.5	4.1
Total Products	49,182	48,566	49,656	1,420	863	3.0	1.8

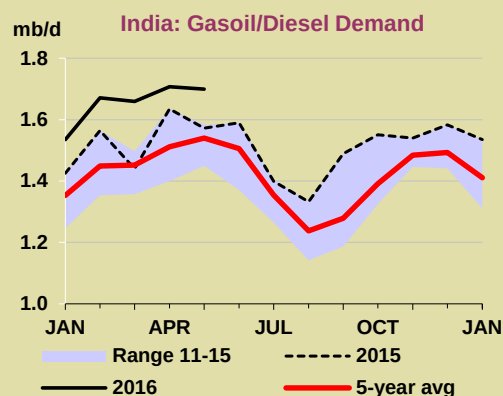
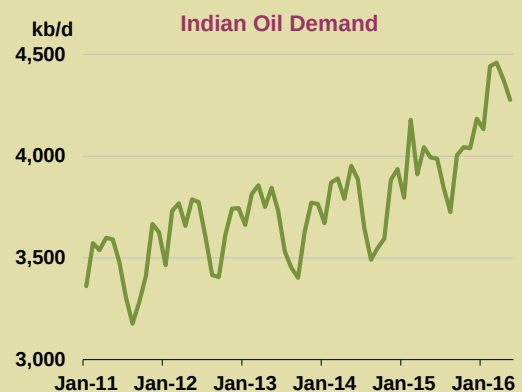
The **Indian** demand story of rapid growth continues, albeit not at the breakneck pace seen in recent months, with Indian oil deliveries up roughly 7% y-o-y in May. Having posted average growth of nearly 9% y-o-y in the preceding four months, May's deceleration is not insubstantial but there is little doubt that structural demand for oil remains strong. The most rapid gains remain those linked to the transport sector – with gasoline rising by over 13% y-o-y and both bitumen and diesel posting near 8% gains – as domestic vehicle sales continue to rise sharply. The Society of Indian Automobile Manufacturers (SIAM)

reported just over 230 thousand domestic vehicles sales in May, 6.3% up on the year earlier. Gasoline continues to outpace diesel, a trend that has been in place in percentage terms since 4Q15, as even stronger gains in the overwhelmingly gasoline-powered two-wheeler sector lead the way, rising by just under 10% y-o-y in May. Momentum is forecast to ease in 2H16, as recent vehicle sales growth has decelerated – SIAM reported domestic vehicle sales growth of 11.0% in April, alongside two-wheeler sales growth of 21.2% – leaving an average gain of approximately 7.6% for 2016 as a whole, easing to 6.5% in 2017. Total Indian oil demand is accordingly forecast to average 4.3 mb/d in 2016 and 4.6 mb/d in 2017.

The entrenched seasonality of Indian oil demand

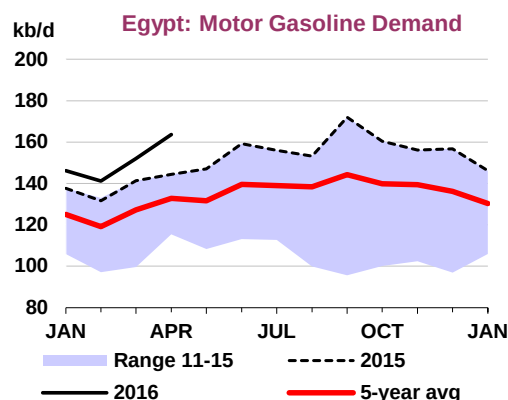
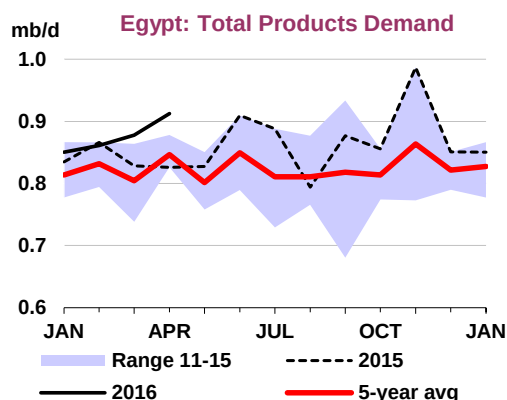
India's oil demand shows significant seasonal changes. After peaking in May, demand drastically declines to August, before traditionally ramping up again in September-November, forming a "V" shape pattern. The five-year average decline rate is approximately 10%.

This seasonal change is largely due to the cyclical nature of Indian gasoil/diesel, which accounts for nearly 40% of total oil demand. Gasoil is mostly used in goods transportation and agricultural operations, and agricultural demand is seasonal. Five-year (2011-15) average data shows that from May to August, gasoil demand drops significantly by 19.6%. Such a seasonal decrease also appears in the demand for 'other products', with an average decline rate May-to-August of 11.4%. Other major oil products like gasoline and LPG do not show distinct seasonal changes.

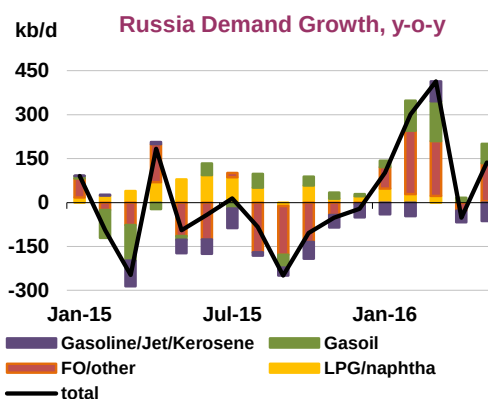
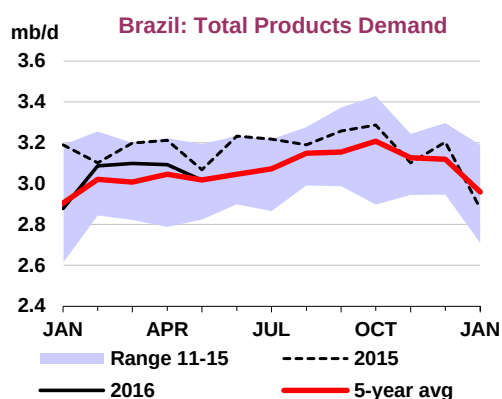


The reason for this seasonality is mainly the monsoon rainfall season from late-May to September, which heavily reduces the use of gasoil for irrigation in agriculture and may also affect some transportation. Although India is now promoting the substitution of gasoil with gasoline in transportation, the push to develop manufacturing will keep gasoil demand on a high level, and the seasonal change in oil demand will continue. Assuming, as we are, that relatively normal seasonal trends continue, both our gasoil/diesel and 'other product' demand forecasts ease by a combined 290 kb/d between May and August 2016, with a traditional fourth quarter rebound to come.

Rising by an estimated 85 kb/d y-o-y in April, the latest oil product demand data for **Egypt** show resurgent gains in gasoil/diesel and gasoline, as transport sector demand rebounded supported by a tentative recovery in consumer demand and the fact that Egypt is now roughly one-and-a-half years into a period of sharply reduced subsidies. At an estimated 165 kb/d in April, Egyptian gasoline demand posted its most rapid y-o-y gain in seven months, while gasoil surged by a five-month high. Total deliveries are forecast to average 880 kb/d in 2016, up by 20 kb/d on the year earlier or 2.4%, accelerating in 2017 – up by 30 kb/d to 910 kb/d – as the underlying macroeconomic situation likely solidifies. The IMF forecast, in April's *World Economic Outlook*, Egyptian economic growth of 4.3% in 2017 after a gain of 3.3% in 2016.



Falling to a four-month low of just over 3 mb/d in May, **Brazilian** demand came out 50 kb/d below the year earlier. The drop was chiefly attributable to sharp declines in gasoil/diesel and residual fuel oil demand, themselves pulled down by ailing Brazilian industrial activity. The Instituto Brasileiro de Geografia e Estatística quoted industrial production falling by 7.8% y-o-y in May, squeezing industrial oil use with 30 kb/d y-o-y declines seen in both gasoil and residual fuel oil. Forecast to average 3.10 mb/d in 2016, Brazilian oil deliveries will lose roughly 85 kb/d or 2.7% on the year earlier, before stabilising in 2017 on the assumption that the economy itself flattens as expected by the IMF.

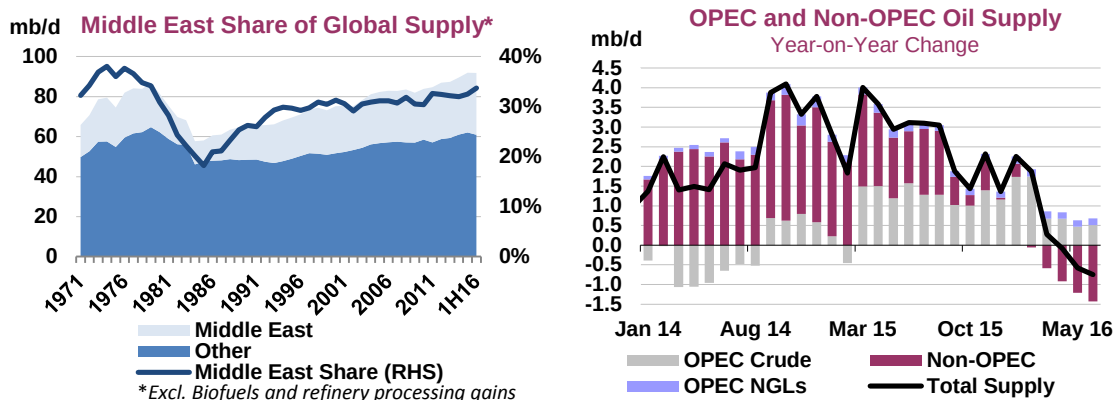


Supported by surprisingly robust gains across the majority of the industrial fuels, albeit restrained by weak consumer demand, **Russian** oil product demand rose by 135 kb/d, or 3.8%, compared to the year earlier. At 3.77 mb/d in May, sharp gains were seen in gasoil/diesel (+65 kb/d), residual fuel oil (+95 kb/d) and 'other products' (+35 kb/d), momentum that was supported by the recent uptick in industrial activity. The Federal State Statistics Service of Russia reported y-o-y industrial output gains in three of the four months through May, and a 0.7% gain in May, ending the generally declining trend of 2015. With forward-looking industrial output measures such as Markit's Manufacturing PMI even turning upbeat mid-year to 51.5 in June having previously been sub-50 December-through-May, the outlook for 2H16 is for modest industrial oil product demand growth. Projected gains in Russian industrial oil use support potential oil demand growth of approximately 70 kb/d in 2016, averaging 3.67 mb/d, with the momentum trimmed by ongoing weakness in both Russian gasoline and jet fuel.

SUPPLY

Summary

- **Global oil supplies rose by 0.6 mb/d in June, to 96 mb/d, after outages curbed OPEC and non-OPEC supplies in May.** World production was 750 kb/d below a year-earlier as robust output in the low-cost Middle East was not enough to offset declines elsewhere. Middle Eastern oil production rose to a record-high of 31.5 mb/d in June, lifting its market share to 35%, the highest since the late 1970s.
- **OPEC crude output rose by 400 kb/d in June to an eight-year high of 33.21 mb/d, including newly re-joined Gabon. Saudi Arabia ramped up to a near-record rate of 10.45 mb/d and Nigerian flows partially recovered from rebel attacks.** Middle East producers sustained record pumping rates, consolidating market share and pushing OPEC's total output 510 kb/d above a year ago.
- **Iran has made swift post-sanctions gains, with production in June up by 750 kb/d since the start of the year. By contrast, supply in cash-strapped Venezuela is declining fast.** Output in June slipped to 2.18 mb/d – down 240 kb/d on the previous year.
- **Non-OPEC oil production is estimated to have increased by 205 kb/d in June, to 55.9 mb/d, following a partial recovery in Canadian oil production and seasonally higher biofuels output.** Total supplies nevertheless stood more than 1.4 mb/d below a year earlier, with notable declines in the US, Canada, China and Colombia.
- **The forecast for non-OPEC supply is essentially unchanged since last month's Report, with supplies declining by 0.9 mb/d in 2016 to 56.5 mb/d, before a slight recovery lifts output by 0.2 mb/d - to 56.8 mb/d in 2017.** A tentative improvement in business sentiment and activity supports our view that output declines will ease in the coming months before growth returns in 2017.

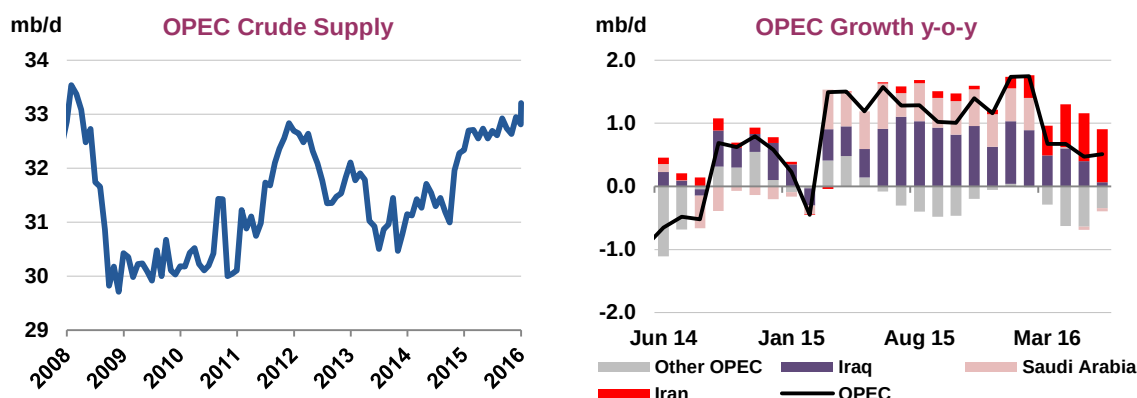


All world oil supply data for June discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary June supply data.

OPEC crude oil supply

OPEC crude output rose by 400 kb/d in June to 33.21 mb/d – including Gabon, whose membership was re-activated at the group's 2 June meeting. Supply from Saudi Arabia rose by 200 kb/d to 10.45 mb/d – just shy of last June's all-time high - as domestic power plants burned more fuel to cover peak summer cooling demand. Nigeria also posted a notable increase – a rise of 140 kb/d to 1.58 mb/d – after repairs and a pause in rebel attacks allowed for a partial recovery. Repeated attacks on Nigeria's oil network have pushed crude oil production down by 170 kb/d compared to June 2015. Libya's oil sector has also

been under siege, but the re-opening of the Marsa al-Hariga export terminal allowed supply to rise by 30 kb/d during June. Iranian output climbed still higher during June and flows of 3.66 mb/d were up 840 kb/d on a year ago.



Middle East members saw record supply in June, pushing total OPEC crude oil output 510 kb/d above a year ago. Output from the group's 14 members during June was at the highest level since July 2008. OPEC's "effective" spare capacity was 2.11 mb/d, with Saudi Arabia accounting for 83% of the cushion.

OPEC Crude Production

(million barrels per day)

	Apr 2016 Supply	May 2016 Supply	Jun 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Jun 2016 Supply	1H16 Crude Supply
Algeria	1.09	1.09	1.11	1.12	0.01	1.10
Angola	1.75	1.72	1.72	1.81	0.09	1.75
Ecuador	0.54	0.55	0.55	0.55	0.00	0.55
Gabon	0.22	0.22	0.22	0.22	0.00	0.22
Indonesia	0.73	0.74	0.74	0.74	0.00	0.73
Iran	3.56	3.61	3.66	3.70	0.04	3.38
Iraq	4.36	4.27	4.25	4.40	0.15	4.29
Kuwait ²	2.73	2.85	2.87	2.87	0.00	2.82
Libya	0.35	0.28	0.31	0.40	0.09	0.34
Nigeria	1.62	1.44	1.58	1.85	0.27	1.66
Qatar	0.66	0.66	0.66	0.67	0.01	0.66
Saudi Arabia ²	10.22	10.25	10.45	12.20	1.75	10.26
UAE	2.82	2.91	2.91	2.95	0.04	2.85
Venezuela	2.30	2.22	2.18	2.35	0.17	2.29
Total OPEC	32.95	32.81	33.21	35.83	2.62	32.88
<i>(excluding Iraq, Nigeria, Libya)</i>					2.11	

¹ Capacity levels can be reached within 90 days and sustained for an extended period.

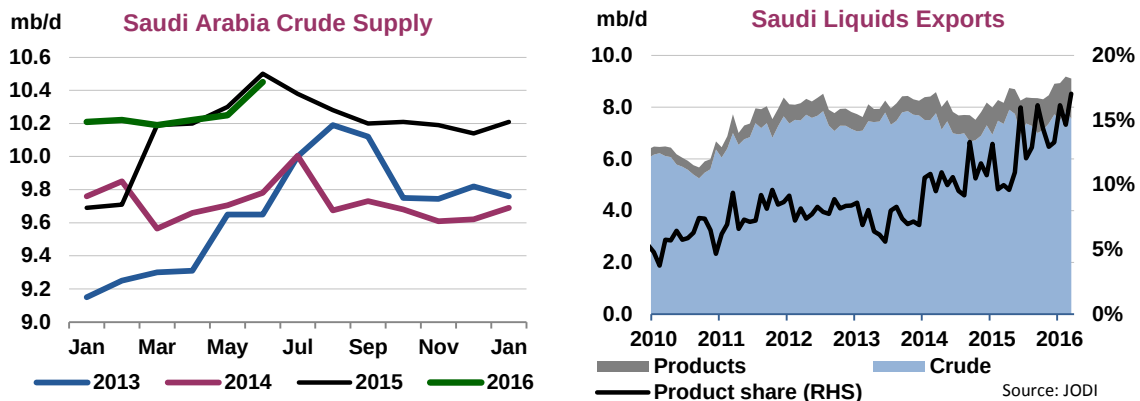
² Includes half of Neutral Zone production.

While Iran is clearly OPEC's biggest source of supply growth this year, Venezuela is notching up the largest decline. A severe economic crisis is taking a toll on Venezuelan production, which has fallen by 170 kb/d since the start of the year. Output in June slipped to 2.18 mb/d - the lowest since February 2003 in the aftermath of an oil workers' strike. The worst may be over for now - from April to June supply fell by 120 kb/d - but further declines are expected during 2H16 - resulting in a year-on-year drop of around 200 kb/d (see *Venezuelan spiral*). Iraqi supply edged lower for a second month.

Crude oil supply in **Saudi Arabia** rose by 200 kb/d during June to a near-record level of 10.45 mb/d in order to meet increased domestic needs. The Kingdom burns more crude in its power plants during the

sweltering summer months (typically twice the amount used the rest of the year) to meet a surge in air conditioning requirements. The latest data from the Joint Organisations Data Initiative (JODI) show that 500 kb/d of crude oil was used during April for power generation.

Last year Saudi power plants consumed an average 860 kb/d from June through August out of roughly 10.4 mb/d of crude produced. This year, the ramp up of the 2.5 billion cubic feet per day Wasit gas plant is expected to reduce the crude burned at power plants by around 100 kb/d. Saudi Energy Minister Khalid al-Falih has said that once the Wasit facility is fully up and running, about 300 kb/d of crude could be spared from direct burning in power plants.



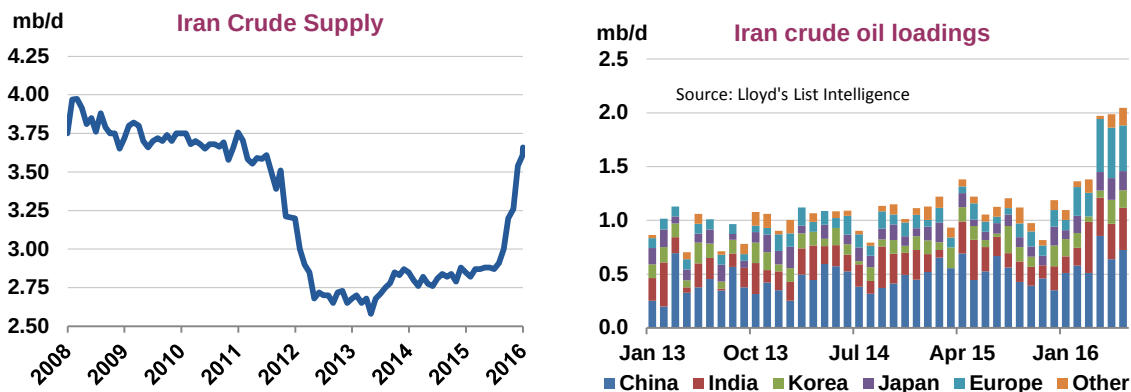
As for crude oil exports, shipments held relatively steady during June, according to preliminary tanker tracking figures. JODI data show Saudi Aramco shipped roughly 7.6 mb/d of crude oil during the first four months of this year, keeping a steady pace on the same period in 2015. The ramp up of new capacity at the Kingdom's domestic refineries pushed exports of total liquids, excluding condensates and NGLs, to an average 9 mb/d during the first four months of 2016, up 570 kb/d on a year ago. Saudi Arabia also drew down crude stocks at an average rate of 285 kb/d during January-April compared to an average draw of 40 kb/d during the same period in 2015, according to JODI data.

Production from neighbouring Gulf countries held relatively steady month-on-month (m-o-m). **Kuwaiti** output edged up 20 kb/d in June to 2.87 mb/d – the highest rate so far this year. In a bid to raise its production capacity, Kuwait has awarded service contracts for oil field development projects. BP has won an enhanced technical service agreement (ETSA) for Burgan, one of the world's biggest oil fields, while Royal Dutch Shell reportedly has secured an ETSA for the Ratqa oil field. A planned water injection scheme at Burgan is expected to hold output steady at 1.7 mb/d beyond 2020.

Supply in the **UAE** and **Qatar** held steady in June at 2.91 mb/d and 660 kb/d, respectively. In Qatar, Total has won a 30% stake in a new 25-year contract to run al-Shaheen – the country's largest oil field. Qatar Petroleum (QP) will hold the remaining 70% in the new joint venture. Total plans to invest more than \$2 billion in developing the offshore field that now pumps around 300 kb/d. Six international oil firms, including BP and Shell, had bid to operate the field. The deal is a setback for Maersk, which operates the field under a 25-year production sharing contract that expires in mid-2017.

Iranian output rose to 3.66 mb/d during June, up 50 kb/d on May and up 750 kb/d since sanctions were eased at the start of the year. Exports of crude oil also continue to edge higher, with shipments in June around 2.1 mb/d - near pre-sanctions levels. Iran's drive to regain market share has seen exports nearly double since January. The National Iranian Oil Co (NIOC) has been placing roughly 2 mb/d of crude to customers in Asia and Europe since April, which suggests that higher production rates can be sustained.

Iran was shipping around 2.2 mb/d before sanctions were tightened in mid-2012, with Europe lifting around 600 kb/d. NIOC has gone some way to regain its European market share, with exports of nearly 500 kb/d during April and May. Shipments in June were lower at 430 kb/d, according to preliminary data. Repsol and Polish refiner Grupa Lotos have meanwhile joined the list of European buyers that includes Total, Tupras, Cepsa, Lukoil and Shell.

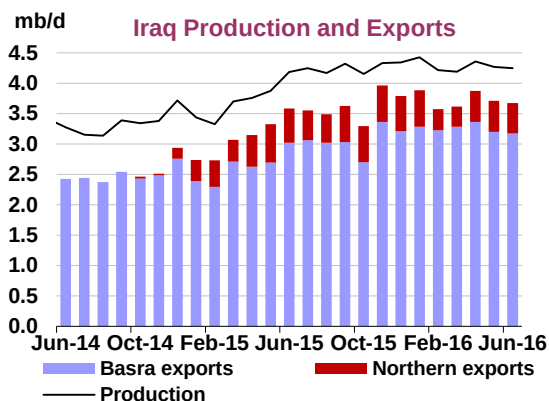


Purchases from China, Iran's biggest customer, rose in June to 725 kb/d from around 640 kb/d in May. Buying from Japan dipped by 25 kb/d in June to roughly 175 kb/d. Shipments to India climbed by 60 kb/d to 390 kb/d, while exports to South Korea fell to 165 kb/d from 220 kb/d in May. Shipments of condensates slowed to 140 kb/d from 185 kb/d in May. Iran is storing 44 million barrels of ultra-light oil from Iran's South Pars gas project at sea.

Iran is meanwhile considering developing its oil fields using the former buy-back model that was unpopular with foreign companies due to its tight returns, rigidity and limited time-span. Iran had been hoping to attract at least \$70 billion worth of investment under a new Iran Petroleum Contract (IPC), an improved version of the buy-back model that offered more flexible terms.

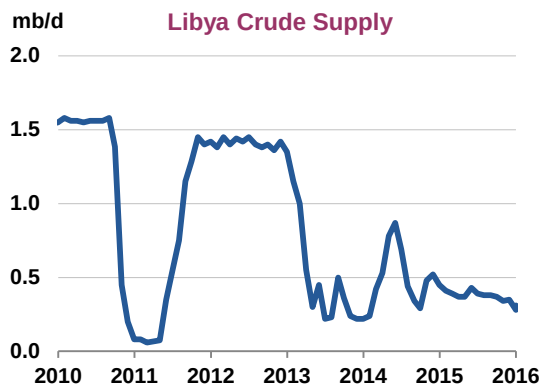
Newly-appointed managing director of NIOC Ali Kardor was quoted as saying oil fields could be developed either through buy-backs or on an engineering, procurement, construction and financing (EPCF) basis. Kardor was one of the architects of the IPC in his previous position as NIOC's deputy director of investment and financing. Iran's Supreme Leader Ayatollah Ali Khamenei has said that no new contracts would be awarded to international oil companies without necessary reforms.

Iraqi crude oil production, including the Kurdistan Regional Government (KRG), edged down 20 kb/d to 4.25 mb/d during June. Although slightly up – 65 kb/d – on a year ago, production in June was sharply lower than the record rate of 4.43 mb/d scaled in January.



Ongoing power outages and higher domestic consumption restricted exports from the south. Overall exports, including from the KRG, eased to 3.68 mb/d in June, with the south slipping by 25 kb/d and shipments from Kurdistan through Turkey dipping 10 kb/d to 500 kb/d. Oil's rally during June meant that slightly lower exports of southern Basra crude (3.175 mb/d versus 3.2 mb/d in May) earned the federal government \$3.845 billion, up roughly \$100 million on May. A second month of export declines from the south saw June exports down by 190 kb/d from near record rates reached in April. Iraqi officials say higher domestic demand has limited the amount of crude available for export. In the meantime, the first 2,000 tonne cargo of LPG was shipped from Khor al-Zubair in the Gulf.

Output in **Libya** rose by 30 kb/d to 310 kb/d in June following the reopening of the Marsa al Hariga export terminal. During much of May, exports from the eastern terminal were blocked by a marketing feud between rival governments in the west and east. In a positive step, the National Oil Corp (NOC) agreed in early July to merge with a competing company that was set up in the east. Mustafa Sanalla, the



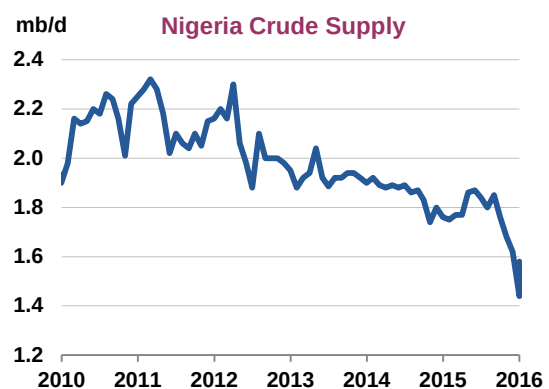
current NOC chairman, will stay at the helm and former eastern NOC chief Nagi el-Maghrabi will join the united NOC board. NOC is working with the UN-backed government of national accord, which is seeking to restore unity between competing factions that have been battling to run the country.

Offering further hope of an output recovery, Libya's Petroleum Facilities Guard (PFG) said it was preparing to reopen oil fields that have been shut in. The PFG controls the eastern ports of Ras Lanuf and Es Sider that have been closed since December 2014. If reopened, these vital terminals could handle nearly 600 kb/d of

exports between them. A re-start could take time, however, as repeated attacks by Islamist militants have damaged some of the infrastructure. As a result, Libya is now producing only a small fraction of the 1.6 mb/d pumped before the fall of the Gaddafi regime in 2011.

Nigeria posted a substantial gain in June, an increase of 140 kb/d, after repairs and fewer militant attacks allowed for a partial recovery of production that had sunk near 30-year lows. Output rose to 1.58 mb/d in June from an upwardly revised 1.44 mb/d in May, when more complete data showed that flows were not as badly set back by industry sabotage as initially assumed. The rebound, however, may prove short-lived. A 30-day ceasefire struck between militants and the Nigerian government in mid-June was broken in early July after rebels in the restive Delta region claimed a round of fresh attacks.

Despite the setback, Shell Nigeria on 7 July lifted a *force majeure* on exports of Bonny Light crude oil that had been in place for nearly two months. Two other Nigerian crude streams, Brass River and Forcados, are still under *force majeure*. Nigeria depends on crude oil sales for roughly 70% of its state revenue and most of its oil is pumped from the Delta region. Militants want a greater share of the country's oil wealth. Adding to Nigeria's woes, a trade union representing oil workers began a strike on 7 July.



Nigerian President Muhammadu Buhari meanwhile replaced Oil Minister Emmanuel Ibe Kachikwu as group managing director of the Nigerian National Petroleum Corp (NNPC) as part of a wide-ranging revamp. Maikanti Kacalla Baru, previously group executive director for exploration and production, will take over from Kachikwu, who will remain on the board as chairman.

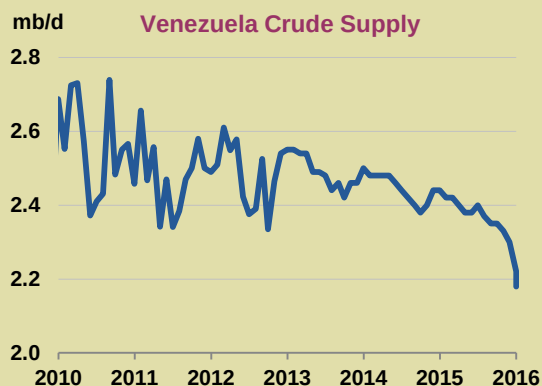
Supply from **Angola** held steady in June at 1.72 mb/d, while **Algerian** production edged up 20 kb/d to 1.11 mb/d. Output in **Gabon** was stable at around 220 kb/d. Output held steady in **Ecuador** and **Indonesia** at 550 kb/d and 740 kb/d, respectively. In a sign of deepening cooperation with Iran, Indonesia's Pertamina plans to sign a memorandum of understanding with the National Iranian Oil Co to develop oil and gas blocks in Iran. Pertamina is also planning to import a 1-million-barrel cargo of Iranian Light crude oil during 3Q16 to test the grade at its Cilacap refinery in Central Java.

Venezuelan spiral

Lower oil prices and sliding production are a double whammy for Venezuela, which is caught in the grip of an economic and political crisis. Since the start of the year, supply has fallen by 170 kb/d to reach 2.18 mb/d in June. Although the worst may be over - electricity shortages that sparked a 120 kb/d decline in the April-June period have eased - further losses are expected in 2H16. A year-on-year drop of around 200 kb/d looks unavoidable as foreign oil service companies reduce their activity and international oil companies face repayment issues and daily operational challenges.

The biggest production losses are in the mature fields in the east. Fields in the west around Lake Maracaibo are also suffering. Even when oil was above \$100/bbl, these ageing oil fields were already struggling due to years of under-investment and poor reservoir management. Natural declines have accelerated due to the power crisis and cash crunch. Even production in the southeast Orinoco Belt is starting to dip due to a lack of light crude for blending and reduced investment from foreign partners. Venezuela has hoped to increase production from the vast Orinoco Belt, which accounts for roughly half the country's production, to counter output losses in mature oil fields.

China has meanwhile sprung to Venezuela's financial aid by reportedly stretching out payments due under a previous oil-for-loans deal. The sharp decline in oil prices cut 2015 revenues at Petroleos de Venezuela (PDVSA) by 41% from the previous year. Revenue fell to \$72.2 billion from \$121.9 billion in 2014. As the cash crunch deepens, there is growing concern that acute shortages of food and medicine could trigger nationwide rioting. In turn, Venezuelan President Nicolas Maduro has piled pressure on PDVSA to boost crude oil production immediately, cut costs and repair refineries.

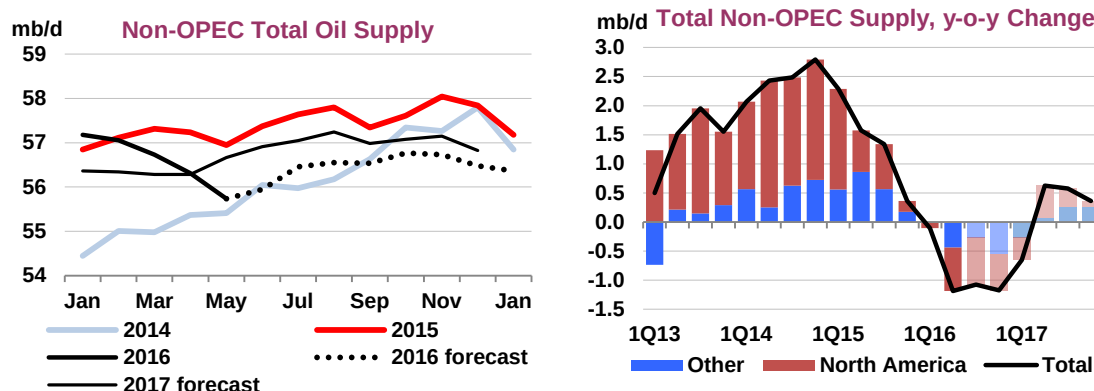


This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Non-OPEC overview

The outlook for non-OPEC production is essentially unchanged since last month's *Report*, with supplies declining by 0.9 mb/d in 2016, before a slight recovery lifts output by 0.2 mb/d - to 56.8 mb/d in 2017. Gabon, which re-joined OPEC effective from 1 July, is excluded from non-OPEC aggregates from this month's *Report*.

In June, a partial recovery in Canadian oil supplies – affected by wildfires since early May - as well as seasonally increasing biofuels output is estimated to have lifted non-OPEC output by around 0.2 mb/d from May's level. Technical problems in Ghana were also resolved with output at Tullow's Jubilee field recovering to near pre-outage levels. Elsewhere, production continues on a downtrend trend. Scheduled maintenance curbed North Sea supplies last month, while more structural declines following hefty investment cuts continue to drag down output in a number of countries such as China, Colombia and, most prominently, the US.



US oil production readings for April, the latest month for which comprehensive statistics are available, show total supplies, including crude oil, natural gas liquids and additives dropping 160 kb/d from March to just over 12.6 mb/d. While the overall output figure was in line with our previous forecast, the decline in crude oil production slightly exceeded expectations. Crude oil production fell by 220 kb/d, its largest monthly decline since 2008. At 8.9 mb/d, US crude oil output was 760 kb/d less than a year ago.

While we expect US crude production to continue falling into 2017, the *rate* of decline is expected to ease. Declines from already producing legacy wells are diminishing, and companies are reporting ever-higher output per rig and better performance of new wells. Signs that activity might start picking up are also emerging. According to Baker Hughes, US producers added rigs in five of the past six weeks. A survey of 152 energy firms conducted by the Federal Reserve Bank of Dallas suggests that business activity improved in the second quarter and that production declines eased compared with 1Q16. Respondents were also more positive on oil prices and spending levels in 2017.

It is not only in the US where operators are taking a slightly more optimistic view. In Colombia, state-run Ecopetrol, the country's largest producer, is taking over operations of the Rubiales and Cusiana fields and has pledged to increase drilling – if prices stay above \$45/bbl - in a bid to maintain production levels. Over the first five months of 2016, Colombian crude output has plunged by an average of 90 kb/d, or nearly 10%.

Although there will be no impact on supply until after 2020, Chevron and its affiliate TengizChevroil (TCO) took a long-delayed final investment decision to expand the Tengiz field in Kazakhstan. TCO will spend nearly \$37 billion to lift the project's capacity by 260 kb/d. The investment is the single largest since the downturn of 2014, and the first investment of more than \$10 billion this year.

Non-OPEC Supply

(million barrels per day)

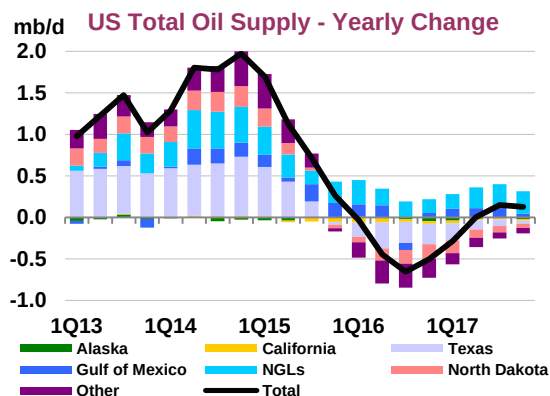
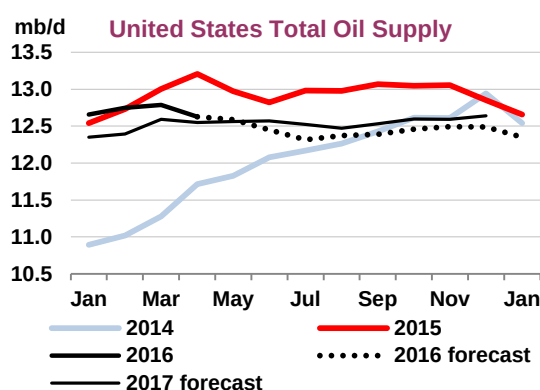
	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	19.9	19.9	18.9	19.2	19.5	19.4	19.5	19.4	19.6	19.6	19.5
Europe	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.4	3.2	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total OECD	23.9	24.0	22.7	22.9	23.3	23.2	23.3	23.2	23.2	23.4	23.3
Former USSR	14.0	14.3	14.0	14.0	14.0	14.1	14.0	14.0	14.0	14.1	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0	4.0
Other Asia	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.7
Latin America	4.6	4.4	4.4	4.6	4.6	4.5	4.7	4.7	4.7	4.7	4.7
Middle East	1.3	1.3	1.3	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0
Total Non-OECD	29.1	28.9	28.5	28.6	28.7	28.7	28.7	28.7	28.7	28.8	28.7
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.5	2.7	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.4	57.0	56.0	56.5	56.7	56.5	56.3	56.6	57.1	57.0	56.8
Annual Chg (mb/d)	1.4	-0.1	-1.2	-1.1	-1.2	-0.9	-0.7	0.6	0.6	0.4	0.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.0	0.0

OECD

North America

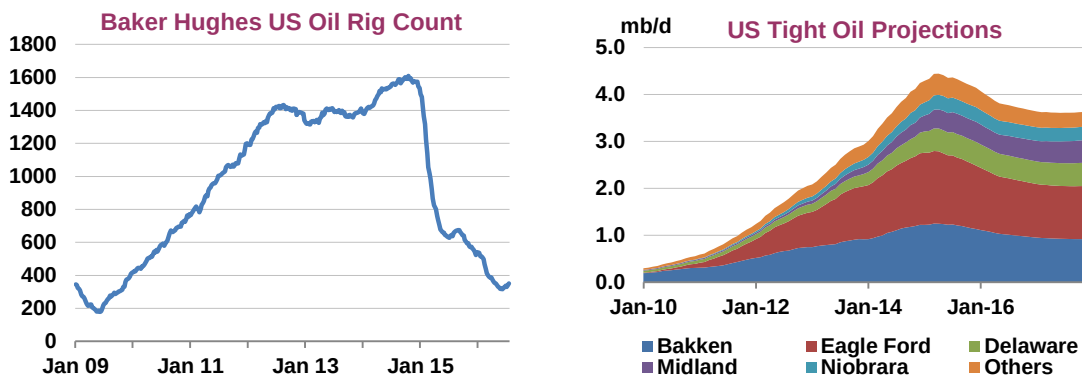
US – April actuals, Alaska – June actuals: US crude oil production dropped by 220 kb/d to 8.9 mb/d in April, the latest month for which comprehensive oil statistics are available, with output down across the lower 48, Gulf of Mexico and Alaska. Lower 48 onshore output fell by 140 kb/d, mostly because of weaker North Dakota and Texas production, which slid by 65 kb/d and 45 kb/d, respectively. The decline recorded for Bakken production in North Dakota in April was in part due to state-imposed road restrictions rather than well decline rates, suggesting output likely saw a rebound in May. Well level data from Rystad Energy also show that completion activity increased by 50% from April to May, spurred on by improved market conditions, while declines in already producing wells were lower than a month earlier.

Output in the Gulf of Mexico saw a 50 kb/d drop in April, although production is expected to have rebounded in May and June. In July, however, the shut-in of production at the Thunder Hawk and Delta House offshore platforms resulting from a fire at a natural gas processing facility in Pascagoula, MI, likely curbed output once again. Natural gas liquids output, meanwhile, continues to flow at robust levels. Production hovered around 3.5 mb/d in April, roughly 190 kb/d higher than a year earlier.



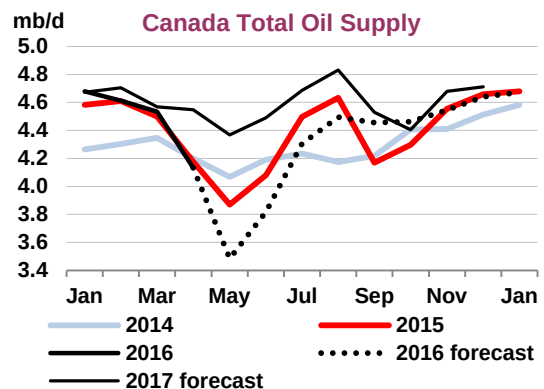
While the decline in light tight oil (LTO) production is not expected to reverse course until mid-2017, signs are that the pace of decline is easing. After plunging from a high of 1,609 in in October 2014, the rig

count has started to inch up; suggesting producers are once again boosting spending. US crude prices since late May have traded in a narrow \$45-50/bbl range, high enough for some producers to return to the well-pad. Companies added rigs in five out of the past six weeks, augmenting the total number by 35 over the period. Over the past two weeks, through 8 July, 21 new rigs were put into operation. As such, the total rig count stood at 351 in early July, compared with 645 a year ago, according to Baker Hughes data. In the Permian basin in West Texas, the number of rigs rose by 21 over the past six weeks to 158, its highest since February. The current oil price however, is likely not high enough to restore growth and LTO output is expected to continue to decline through mid-2017. In all, US LTO production is forecast to decline by 500 kb/d in 2016 and a further 200 kb/d next year.



Another sign of improved business sentiment came from the Federal Reserve Bank of Dallas' survey of 152 energy firms in June, which showed business activity up 2Q16 at 13.8, from -42.1 in 1Q16¹. Exploration and production (E&P) firms reported that oil and natural gas production fell again in the second quarter, but at a slower pace than in the first. The oil production index was -19.7, up from -49.4, while the natural gas production index rose 23 points to -24.7. Capital spending declines also moderated in the second quarter, particularly among services firms. The aggregate capital expenditures index came in at -9.3, compared with -46.6 last quarter. Outlooks six months out improved, particularly among E&P firms, with the index coming in at 19.0, a pronounced reversal from -24.5 seen in 1Q16. Reflecting this, the index of expected E&P capital spending in 2017 jumped 40 points to 25.4, suggesting producers have revised upward their expenditure estimates for next year.

Canada – Alberta April actual, others estimated: Albertan oil production dropped by 330 kb/d in April, with synthetic crude oil output taking a hit from scheduled maintenance at several of the region's upgraders. Synthetic crude oil output dropped from 990 kb/d in March to only 615 kb/d, its lowest since May 2011. Total Canadian oil supplies are estimated to have fallen by a further 650 kb/d in May, to 3.5 mb/d, as the entire area surrounding Fort McMurray had to be evacuated due to wildfires. At its peak, the wildfires shut in 1.5 mb/d of production capacity. During June, operators in the affected areas returned to work, gradually ramping up output. By early July, around 350 kb/d of capacity was still offline at the joint venture Syncrude project and Suncor Energy's Mackay River thermal plant. Syncrude said it expects a full ramp up of production following completion of scheduled maintenance by mid-July.

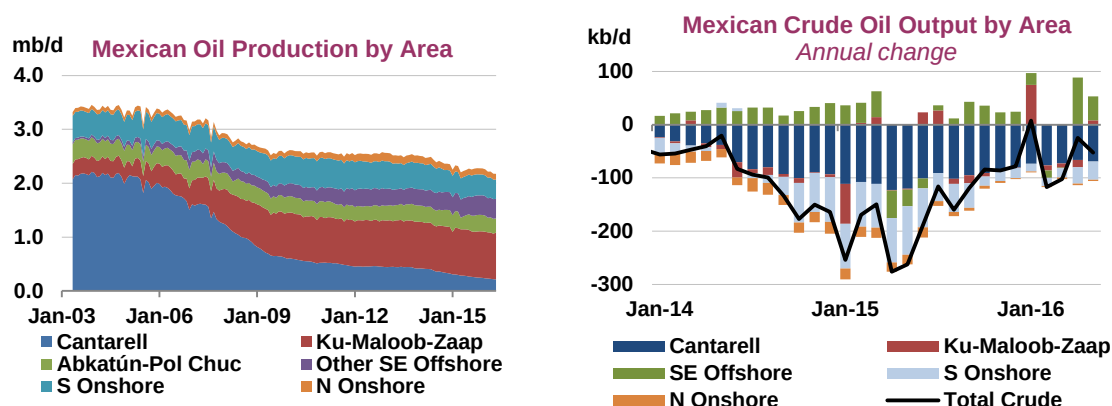


¹ <http://www.dallasfed.org/microsites/research/surveys/des/2016/1602/des1602.cfm>

Each index is calculated by subtracting the percentage of respondents reporting a decrease from the percentage reporting an increase. When the share of firms reporting an increase exceeds the share of firms reporting a decrease, the index will be greater than zero, suggesting the indicator increased over the prior period.

Changes to the official methodology to calculate and classify oil flows have clouded the supply picture for Canada since the start of the year. In its June monthly oil statistics submission to the IEA, Canada includes pentanes plus in its crude production numbers, rather than in natural gas liquids as was previously the case. A new more comprehensive source for imports of NGLs from the US is also used. Until historical data based on the new methodology is available, we will continue to include pentanes plus with other NGLs in this *Report*.

Mexico - May actual, June Preliminary: Mexican crude production held steady in May, just shy of 2.2 mb/d and in line with our previous forecast. Production stood 50 kb/d below a year earlier, driven lower by continued output drops in Cantarell. The legacy field is currently seeing annual decline rates of around 25%, and was last producing 215 kb/d. Preliminary data show production little changed in June.

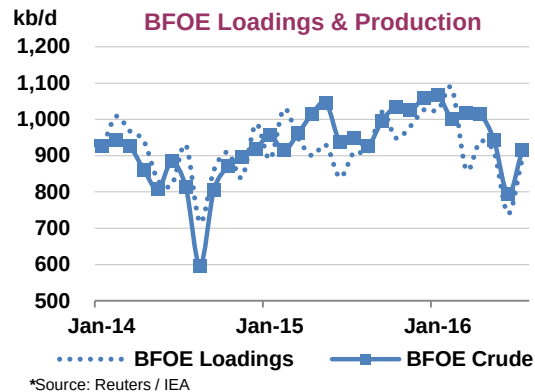
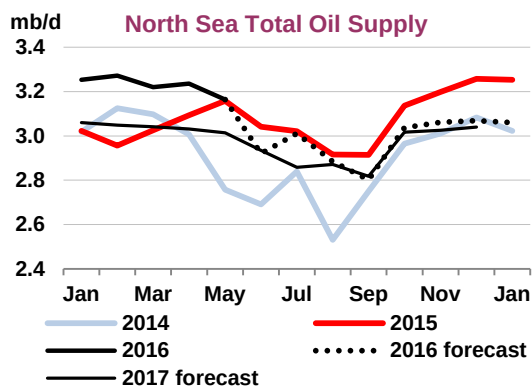


In early June, as part of the reform to open the country's oil sector, Pemex's board approved a proposal to advance the company's first-ever farm-out, which would offer a stake in the deep-water Trion field in the Gulf of Mexico's Perdido fold-belt. Mexico's energy reform requires new Pemex partnerships to be adjudicated via an open public bid round. Regulators and the country's finance ministry will consider the request, with full details expected to be revealed by the end of July. The farm-out tender will be realised in parallel with bids for the fourth phase of Mexico's Round 1 public auction for deep-water blocks opened on 5 December. The area is estimated to hold resources of 485 million barrels of oil equivalent and require investment of around \$11 billion. Pemex said that other farm-outs, proposed in a total of ten fields in areas including onshore, shallow water and heavy oil, were expected in due course.

Pemex also awarded an engineering, procurement, construction and installation contract to build and commission the Abkatun-A2 platform and associated structures to replace a platform destroyed last year in a deadly explosion. The deal, estimated at \$454 million, is for an eight-legged, three-deck platform and bridge infrastructure to tie into other platforms in the Abkatun-Pol-Chuc area. The platform will have a maximum capacity of 220 kb/d of oil and 352 million cubic feet of natural gas and is to be delivered in the fourth quarter of 2018.

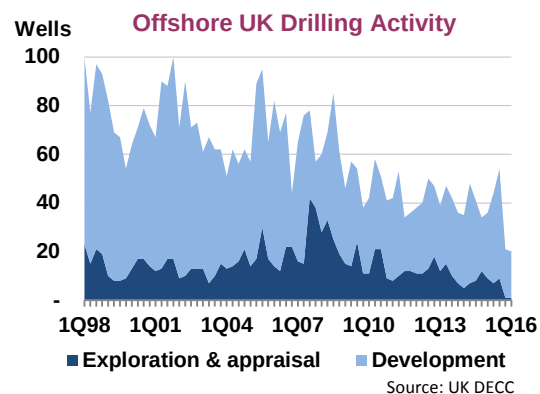
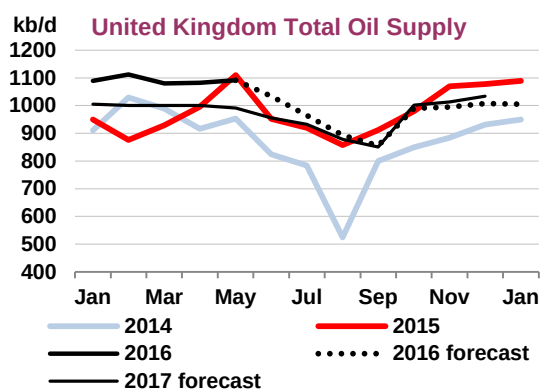
North Sea

North Sea oil production continues to exceed expectations, with output for the first five months of 2016 up by an average 180 kb/d compared with the same period a year earlier. Growth stems both from Norway and the UK. While no official output figures for June were available at the time of writing, loading data compiled by Reuters suggests that production fell sharply in June, confirming reports that Conoco would start its three-yearly maintenance cycle at the Ekofisk field. Output is on track to rebound in July, as Norwegian operators and unions agreed terms during labour negotiations averting strikes and output curbs.



Norway – April actual, May provisional: Norwegian oil production inched up by 25 kb/d in April, to 2.03 mb/d. Total output was 90 kb/d higher than a year earlier, of which crude oil accounted for 50 kb/d and NGLs another 40 kb/d. As in recent months, gains stemmed primarily from new fields. Most notably, Knarr, which started pumping last March are currently producing around 40 kb/d. Edvard Grieg, which started up last December produced 62 kb/d in April. Goliat, which saw first oil in March, had ramped up to 30 kb/d in the latest monthly data.

UK – April actual, May preliminary: UK total oil production stood at 1.08 mb/d in April, unchanged from a month earlier but 85 kb/d above the year prior. In comparison, output in 1Q16 was 175 kb/d higher than a year ago on average. Preliminary data for May, as submitted to the Joint Oil Data Initiative (JODI) suggest crude production increased a further 23 kb/d in May. EOG's Conwy field, which started up in March and Premier Oil's Solan field, started up in April, likely contributed. The Solan field reportedly achieved rates as high as 14 kboe/d from the first producer well. Output is expected to rise to around 25-28 kboe/d by midyear once a second well comes on line. Meanwhile, output at the Ninian South platform in the UK North Sea was temporarily shut in late June due to a small fire.



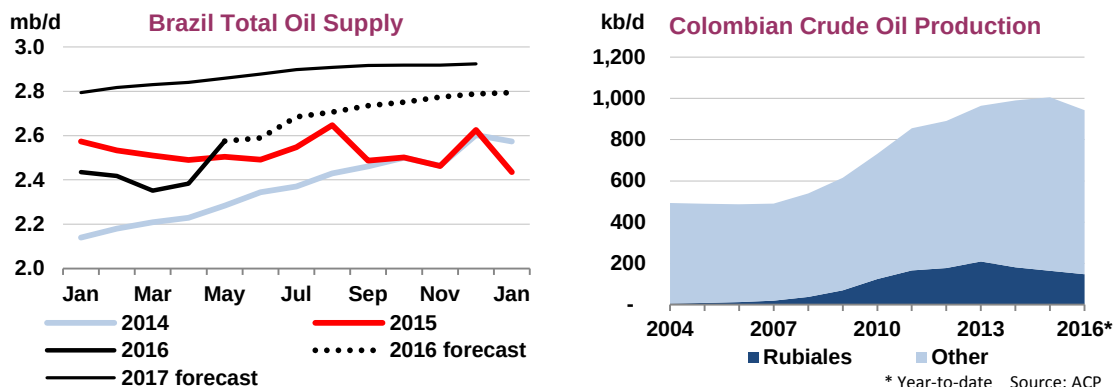
While a number of new project developments are still underway, the outlook for UK supply growth looks fragile. Data released by the Department of Energy & Climate Change show drilling figures for 1Q16 plunging to unprecedented lows. Only one exploration and appraisal well was started in 1Q16, compared with nine in the equivalent period in 2015. The number of development wells drilled offshore fell to 19, compared to 27 a year ago – and the lowest since at least 1998, when the DECC data series started.

Non-OECD

Latin America

Brazil – May actual: Brazilian oil production rebounded in May, after planned and unplanned outages had sharply curbed output so far this year. Production jumped 190 kb/d from April's level, to nearly

2.6 mb/d. A particularly large increase was recorded from the Lula field, where maintenance curbed output in April. Production was up 130 kb/d from a month earlier and 140 kb/d above the previous year. A 55 kb/d increase also came from the Peregrino field, which had seen output drop the previous month. Brazilian independent OGPAr, meanwhile, resumed output at its marginal Tubarao Martelo field in the Campos basin after shutting the field on 6 March due to low productivity and weak oil prices.



Colombia – May actual: Colombian crude oil production averaged 904 kb/d in May, only slightly below April's level but nearly 12% lower than a year earlier. Field level data through April as published by ACP, the Colombian Petroleum Association, show that during the course of the first four months of 2016, total Colombian output fell by 85 kb/d on average from the same period a year earlier. The biggest drops came from the country's largest field, Rubiales, which has been in decline since 2013.

In an attempt to increase its overall oil output by 60 kb/d and to stem declines, Colombia's largest producer, Ecopetrol, announced in June that it would take over full operations of the Rubiales field. Ecopetrol is taking over a 43% stake previously held by Canada's Pacific Exploration. Output at Rubiales has fallen from a peak of more than 210 kb/d in 2013 to around 140 kb/d currently. The company's president said Ecopetrol plans to drill hundreds of new wells in a bid to stem declines and that the field will be profitable as long as prices do not fall below \$45/bbl. Ecopetrol is also taking over operations at the light oil and gas condensate Cusiana field after ending a long-term contract with partners Equion Energy and Emerald. The field reached its peak production in late 1998 with more than 300 kb/d of output, which at the time represented more than 37% of all Colombian production, but is currently only producing around 5 kb/d.

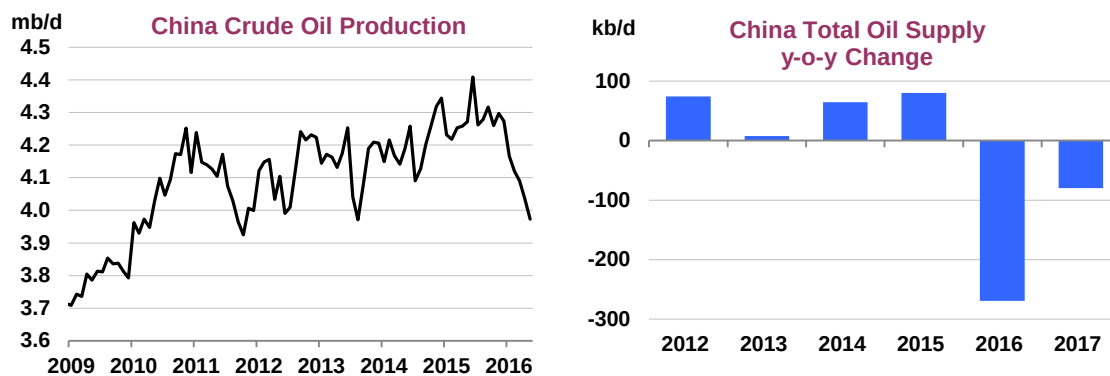
Africa

In **Ghana**, UK independent Tullow Oil plc announced in its latest operational update on 30 June that its Tweneboa, Enyenra and Ntomme (TEN) project remains on schedule and that oil is expected to flow in coming weeks. The company targets a gradual ramp-up in oil production towards the FPSO capacity of 80 kb/d by the end of 2016, with output for the year averaging 23 kb/d. Production at the company's Jubilee field meanwhile had recovered to around 90 kb/d in June after issues with the FPSO turret resulted in an extended shut down period in April into early May. In its latest update, the operator said it expects production from the Jubilee field to average 85 kb/d in the second half of 2016. Tullow also announced that the FPSO will need to be shut down for 8-12 weeks during the first half of 2017.

Asia

China – May actual: Chinese crude supplies slipped to their lowest level in nearly three years in May as hefty spending cuts by major producers continue to impact. According to the latest data from the National Bureau of Statistics, China produced 3.97 mb/d of crude oil in May, a drop of 65 kb/d from April, and 300 kb/d lower than a year earlier. China's leading producer, CNPC, is targeting crude output of

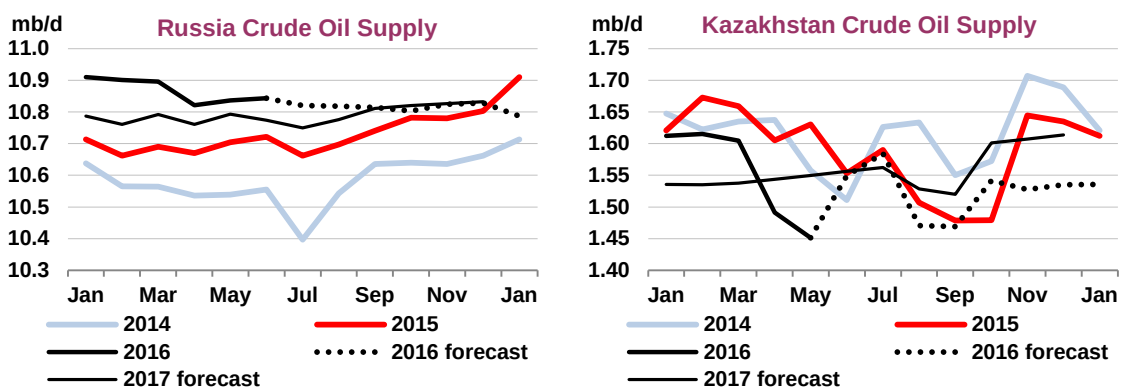
2.53 mb/d in 2016, a drop of nearly 5% from last year. Sinopec is also expecting its crude oil production to fall by around 5%, or 50 kb/d, this year, to just over 0.9 mb/d while CNOOC is targeting supplies of around 1.3 mb/d this year compared with output of around 1.35 mb/d on average in 2015. The drop in domestic supplies had contributed to a sharp increase in crude oil imports into China this year. At 7.62 mb/d, crude oil imports in May were slightly lower than the all-time high of 7.96 mb/d reached in April. Over the first five months of the year, Chinese net crude imports averaged 7.5 mb/d, an increase of 1.05 mb/d or 16% from the same period a year earlier. For the year as a whole, crude oil production is expected to decline by 270 kb/d, to 4 mb/d, with output dropping by 90 kb/d next year to 3.9 mb/d.



Viet Nam's crude oil output continues to lag year earlier levels. The government estimated June output at 308 kb/d, a drop of 45 kb/d, or 13%, from a year earlier. Actual crude oil production in May was reported at 305 kb/d, largely in line with preliminary estimates. The country's crude oil exports during the first six months of this year averaged 144 kb/d, a decline of 23% compared with 2015, the government said in its latest update. Planned maintenance at the joint production area of Malaysia and Vietnam will reduce Bunga crude export in August according to press reports.

Former Soviet Union

Russia – May actual, June provisional: Russian crude and condensate output was largely unchanged month-on-month in June, at 10.84 mb/d, but up 120 kb/d from a year prior. So far in 2016, Russian oil output has averaged 175 kb/d more than in 1H15, with growth largely accounted for by Bashneft, PSA ventures and Novatek. Output at Russia's largest producer Rosneft continues to lag year-earlier levels despite increased drilling at Yuganskneftegas and Vankor. Lukoil output is similarly declining compared to the previous year.



Kazakhstan – May preliminary: Kazakhstan's crude production plunged to a 45-month low of 1.45 mb/d in May as year-on-year declines accelerated to 180 kb/d, their steepest level since at least 2000. Volumes at the Karachaganak field were lower, due to maintenance that started in late April and reduced CPC

loadings in June. Kazakh oil production is expected to get a boost later this year or in 2017, once the giant Kashagan field resumes production. Further ahead, additional volumes are set to come from the Tengiz field. Chevron announced on 5 July that its 50% owned affiliate, Tengizchevroil (TCO), has finally approved a major expansion project that will increase production by about 260 kb/d to over 850 kb/d. The Future Growth Project is currently estimated to cost nearly \$37 billion.

Azerbaijan – May actuals; Azeri oil production was largely unchanged in May, at just over 900 kb/d. Supplies nevertheless bounced 100 kb/d above year earlier levels when the Guneshli platform suffered from output losses due to a fire. Output at the BP operated ACG complex was unchanged in 1Q16 at around 650 kb/d.

FSU net exports were largely unchanged in May, inching down by just 40 kb/d from a month earlier, as both crude and product posted small changes on April. Shipments from the Black Sea slipped on pipeline maintenance into the Novorossiysk port, and were offset by higher Caspian Azeri light crude volumes. Preliminary June data, based on tanker tracking and IEA calculations, points to a slight decrease in crude shipments, led by easing Baltic and BTC volumes. The Arctic Gateway terminal, located in the Murmansk region in Northern Russia, has officially opened on 25 May. The terminal has a capacity of 90 kb/d, and handles Gazpromneft's Novy Port Light crude exports.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	2Q2015	3Q2015	4Q2015	1Q2016	Feb 16	Mar 16	Apr 16	May 16	Jun 16 ³	May 16 vs Apr 16 May 15	
Crude													
Black Sea	1.62	1.64	1.56	1.59	1.60	1.82	1.72	1.96	1.64	1.49	1.64	-0.15	-0.07
Baltic	1.33	1.45	1.45	1.38	1.51	1.54	1.60	1.53	1.75	1.65	1.59	-0.10	0.33
Arctic/FarEast	1.14	1.42	1.41	1.42	1.48	1.66	1.65	1.73	1.78	1.82	1.68	0.03	0.38
BTC	0.60	0.62	0.61	0.61	0.61	0.70	0.77	0.63	0.59	0.78	0.64	0.18	0.18
Crude Seaborne	4.69	5.13	5.03	4.99	5.21	5.71	5.74	5.85	5.77	5.74	5.54	-0.03	0.83
Druzhba Pipeline	1.01	1.07	1.08	1.06	1.08	1.04	1.09	1.03	1.06	1.07	1.07	0.01	-0.06
Other Routes	0.40	0.24	0.24	0.23	0.21	0.21	0.21	0.20	0.19	0.18	0.18	0.00	-0.07
Total Crude Exports	6.14	6.43	6.35	6.28	6.50	6.96	6.91	7.01	6.86	6.79	6.78	-0.07	0.50
of which: Transneft ¹	3.88	4.19	4.16	4.08	4.23	4.32	4.27	4.41	4.64	4.41	4.27	-0.23	0.32
of which: Russian crude	4.02	4.42	4.44	4.30	4.47	4.57	4.56	4.67	4.95	4.87	4.81	-0.08	0.50
Products													
Fuel oil ²	1.72	1.49	1.51	1.31	1.48	1.35	1.08	1.35	1.28	1.24		-0.04	-0.23
of which: VGO	0.27	0.25	0.24	0.25	0.28	0.22	0.23	0.14	0.32	0.23		-0.09	0.00
Gasoil	0.95	0.98	1.03	0.82	0.84	1.17	1.14	1.21	0.95	0.95		-0.01	-0.08
Other Products	0.57	0.66	0.69	0.58	0.66	0.71	0.76	0.63	0.69	0.77		0.08	-0.02
Total Product	3.25	3.13	3.23	2.71	2.97	3.22	2.98	3.19	2.93	2.95		0.03	-0.33
Total Exports	9.38	9.56	9.58	8.98	9.46	10.10	9.90	10.19	9.79	9.75		-0.04	0.17
Imports	0.08	0.07	0.06	0.07	0.08	0.04	0.03	0.05	0.04	0.04		0.00	-0.01
Net Exports	9.30	9.50	9.53	8.91	9.38	10.05	9.87	10.14	9.75	9.70		-0.04	0.18

Sources: Argus Media Ltd, IEA estimates, Bloomberg, Lloyd's List Intelligence

¹Transneft data exclude Russian CPC volumes.

²Includes Vacuum Gas Oil

³Preliminary tanker data and IEA calculations

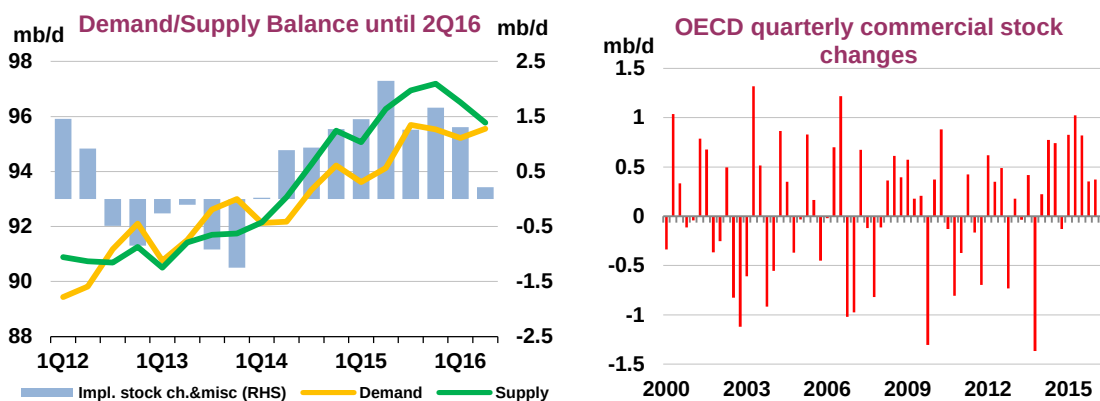
Middle East

Oman – May actual: Omani crude production hit a record 910 kb/d in May, while condensate output added another 90 kb/d, for a total of 1 mb/d of supplies. So far this year, crude and condensate output has averaged 998 kb/d, exceeding the government's target for the year of 990 kb/d. Most of the growth is stemming from Oman's largest producer Petroleum Development Oman (PDO), which in 2015 accounted for two thirds of the country's output, or a total of 670 kb/d. PDO, which produced 589 kb/d of crude last year, is targeting output levels of 600 kb/d in 2016, three years ahead of an earlier schedule. Figures from oilfield services firm Baker Hughes show the number of active oil rigs averaged 57 for the first six months of the year, compared with 54 in the same period last year.

STOCKS

Summary

- **Global stock builds have recently slowed as markets move towards equilibrium.** Preliminary data suggest that OECD inventory builds have slowed to less than three quarters of their previous pace while volumes held in floating storage have also risen. This therefore implies that inventories in the non-OECD have started to draw.
- **OECD commercial inventories built by 13.5 mb in May to end the month at a record 3 074 mb.** However, since this build was only approximately half of the seasonal build for the month, the surplus of inventories against the five-year average narrowed to 340 mb, from 353 mb at end-April.
- **OECD Stock builds in May were led by refined products which rose across all OECD regions.** By end-May, refined products covered 33.0 days of forward demand, level with end-April but 2.3 days and 3.3 days above last year and the five-year average, respectively.
- **Preliminary data indicate that OECD inventories inched up counter-seasonally by 0.9 mb in June after draws in crude, NGLs and other feedstock were offset by a build in refined products.** This suggests that OECD stock builds have slowed to 0.28 mb/d in 2Q16 from 0.4 mb/d in both 1Q16 and 4Q15.
- **Short-term crude floating storage rose to the highest level since 2009 by end-June.** However, unlike 2009 when volumes held at sea increased due to the economics of a steep contango, today it is driven by logistical and marketing issues with time spreads in crude and product markets insufficient to cover storage costs.



Global Overview

As more data for 2Q16 become available, indications are that global stock builds have slowed as the market moves towards equilibrium. Global supply and demand balances put this figure at 0.3 mb/d, a rapid deceleration from the 1.3 mb/d posted in 1Q16 and significantly less than the 2.2 mb/d posted one year ago. Although preliminary readings are open to revision, recent data suggest that OECD stocks inched up 0.28 mb/d over 2Q16, a slowdown on the 0.4 mb/d posted in both 1Q16 and 4Q15. Additionally, floating storage increased by 180 kb/d in the second quarter. This implies that stocks in the non-OECD countries have drawn. Data suggest that Chinese stocks continued to rise over 2Q16, implying that offsetting stock draws occurred elsewhere.

OECD inventory position at end-May and revisions to preliminary data

OECD commercial inventories built by 13.5 mb in May to end the month at a record 3 074 mb. However, since this build was only approximately half of the seasonal build for the month, the surplus of inventories against the five-year average dropped to 340 mb, from 353 mb at end-April. The increase was led by refined products that added a steep 19.7 mb with all OECD regions posting stock builds. The largest build (8.4 mb) was located in the OECD Americas, although this came against the continued seasonal re-stocking of propane in the US that largely bypasses the refinery system. Moreover, this build offset draws in all other product categories that pass through the refinery system. This came amid relatively low refinery activity in the OECD Americas, which constrained product output.

The majority of refined product builds in Europe (5.5 mb) and Asia Oceania (5.8 mb) were composed of products passing through refineries. While runs in Europe remained lower than a year earlier, those in Asia Oceania posted year-on-year growth. By end-month, OECD refined product holdings covered 33.0 days of forward demand, level with end-April but 2.3 days and 3.3 days above last year and the five-year average, respectively.

All told, although OECD throughputs remained lower than one year earlier, they did post month-on-month growth. Consequently, OECD crude oil holdings slipped by 0.6 mb as an 11.0 mb decline in the Americas was offset by builds of 8.9 mb and 1.6 mb in Asia Oceania and Europe, respectively. Additionally, NGLs and feedstocks dropped by a combined 5.7 mb with stocks falling in all OECD regions.

Revisions versus June 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Mar-16	Apr-16	Mar-16	Apr-16	Mar-16	Apr-16	Mar-16	Apr-16
Crude Oil	-1.3	-12.3	0.0	2.4	0.0	6.3	-1.3	-3.5
Gasoline	-0.1	0.6	0.0	0.0	0.0	-0.5	-0.1	0.1
Middle Distillates	0.1	1.0	0.1	5.2	0.1	-0.7	0.3	5.5
Residual Fuel Oil	0.0	0.6	0.3	-2.4	-0.1	-0.4	0.2	-2.2
Other Products	-0.1	-1.8	0.1	-0.1	0.0	-1.6	-0.1	-3.5
Total Products	-0.2	0.4	0.5	2.7	0.0	-3.2	0.3	-0.1
Other Oils ¹	0.1	2.6	0.0	0.6	0.0	-3.9	0.1	-0.7
Total Oil	-1.4	-9.2	0.5	5.7	0.0	-0.8	-0.9	-4.3

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Following the receipt of more complete data, OECD inventories were adjusted downwards by 4.3 mb in April. Together with a 0.9 mb downwards revision to March data, the 14.4 mb stock build for April presented in last month's *Report* was adjusted to a slimmer 11.1 mb build. April data for the OECD Americas were revised lower by 9.2 mb as crude stock levels came in 12.3 mb lower than first assessed. Meanwhile, inventories in Asia Oceania were revised down by a slim 0.8 mb while some offset came from a 5.7 mb upward adjustment to European holdings.

Preliminary Industry Stock Change in May 2016 and First Quarter 2016

	May 2016 (preliminary)								First Quarter 2016			
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	-11.0	1.6	8.9	-0.6	-0.36	0.05	0.29	-0.02	0.53	-0.12	-0.11	0.30
Gasoline	-2.6	0.8	0.4	-1.4	-0.08	0.02	0.01	-0.04	0.09	0.09	0.03	0.21
Middle Distillates	-3.6	1.6	2.6	0.7	-0.12	0.05	0.09	0.02	0.06	0.08	-0.08	0.06
Residual Fuel Oil	-2.9	1.3	-0.2	-1.8	-0.09	0.04	-0.01	-0.06	0.01	0.06	-0.01	0.06
Other Products	17.4	1.8	3.0	22.2	0.56	0.06	0.10	0.72	-0.30	0.01	0.06	-0.23
Total Products	8.4	5.5	5.8	19.7	0.27	0.18	0.19	0.64	-0.14	0.24	0.00	0.10
Other Oils ¹	-2.4	-1.3	-2.0	-5.7	-0.08	-0.04	-0.06	-0.18	-0.03	0.05	-0.04	-0.03
Total Oil	-5.0	5.7	12.8	13.5	-0.16	0.18	0.41	0.43	0.36	0.17	-0.15	0.37

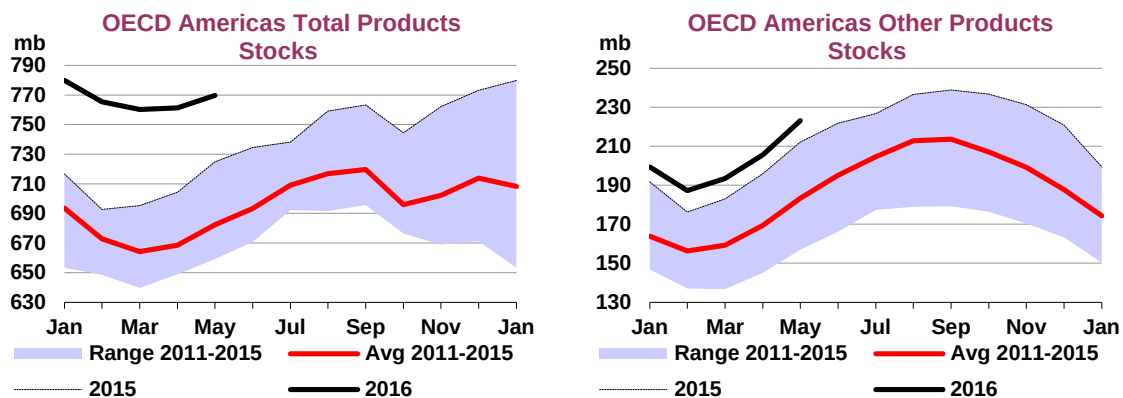
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Preliminary data for June suggest that OECD inventories inched up counter-seasonally by 0.9 mb in June after a combined 10.2 mb draw in crude, NGLs and other feedstock was offset by an 11.1 mb build in refined products. Crude oil holdings fell by 11.6 mb, centred on the Americas and Europe where refinery runs ramped up as maintenance continued to wind down. In contrast, Asia Oceanian crude stocks rose as refinery runs fell month-on-month. As in May, the rise in refined products was led by 'other products' which surged by 21.8 mb on propane restocking in the US. Motor gasoline stocks dropped by 1.6 mb but still stood 30.7 mb above average. Subject to confirmation by subsequent, more complete data, preliminary data indicate that OECD stock builds have continued to slow over the second quarter, falling to 0.28 mb/d, compared to 0.4 mb/d posted during both 1Q16 and 4Q15.

Recent OECD industry stock changes

OECD Americas

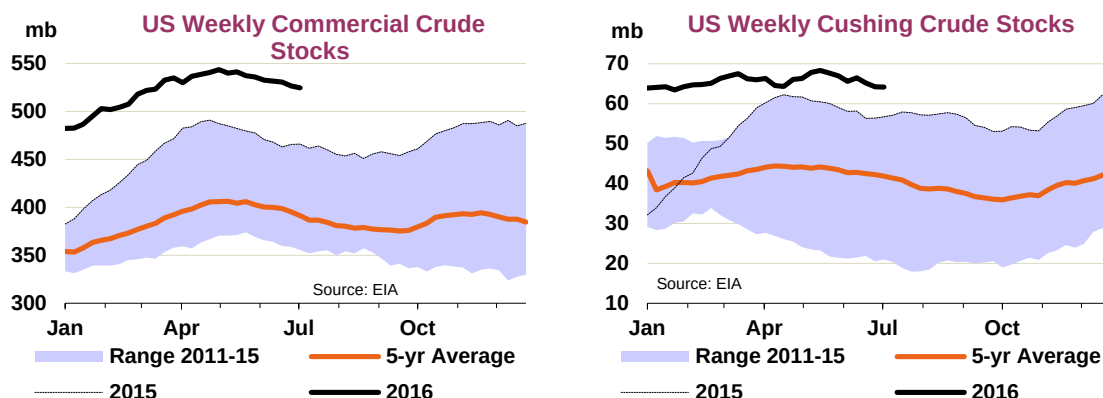
Industrial oil inventories in the OECD Americas slipped counter-seasonally by 5.0 mb in May as draws in crude oil (11.0 mb) and NGLs (2.4 mb) and other feedstocks offset an 8.4 mb build in refined products. These came as regional refinery throughputs remained close to their lows for the year as an increase in US runs was offset by lower runs elsewhere. The build in refined products was entirely centred on 'other products' (+17.5 mb m-o-m), stocks of which were boosted by the continued seasonal re-stocking of propane in the US. This build more than offset draws in products that pass through the refinery system that totalled 9.0 mb. As the US driving season ramped up, regional motor gasoline holdings dropped seasonally by 2.6 mb while middle distillates drew by 3.6 mb and fuel oil slipped by 2.9 mb. Despite these draws, by end-month all product stock levels remained above average in both absolute and days of forward demand terms. As regional gasoline demand is forecast to increase over the coming months, motor gasoline holdings covered 23.8 days of forward demand at end-May, 0.3 days below end-April but one day above one year earlier. Total regional refined products stocks covered 31.1 days of forward demand at end-month, 0.1 day below end-April but 1.9 days above one year earlier.



Weekly data from the US Energy Information Administration (EIA) indicate that US commercial inventories rose by 8.3 mb during June as builds in refined products (18.5 mb) more than offset a combined 10.2 draw in crude oil and NGLs and other feedstocks. As in May, the build in refined products was entirely centred on 'other products' (+23.8 mb) which surged as propane holdings continue to increase seasonally while NGL production remains elevated. In contrast, other product categories which pass through refineries drew by a combined 5.4 mb as refinery activity continues to remain subdued amid less-than-healthy margins.

Motor gasoline inventories inched down by 0.3 mb at a national level. However, holdings in the key PADD 1 (Atlantic Coast) market rose by 3.8 mb to stand at approximately 72 mb at end month, around 12 mb above one-year earlier. Despite these stocks amounting to less than 75% of working storage capacity in PADD 1, reports suggest that a number of gasoline-carrying vessels are moored in New York

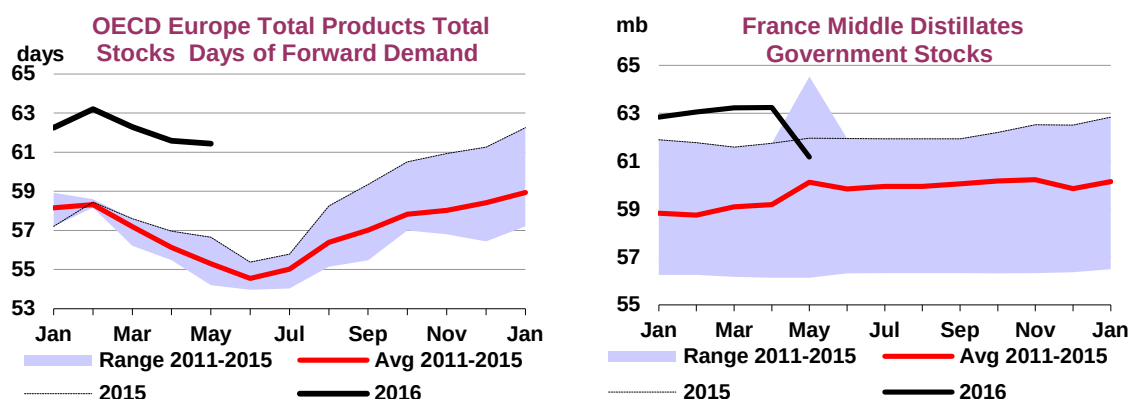
Harbour due to the high utilisation of terminals in the area. As with last year's logistical bottlenecks in the ARA region, this could result from market participants leasing terminal space but not necessarily utilising it.



US crude stocks remain comfortable despite falling seasonally by 9.5 mb as refinery activity ramped up. Crude inventories exceeded 530 mb at end-month (according to IEA methodology), 126 mb and 52 mb above average and last year, respectively. The June draw was centred on PADD 2 (Midcontinent) where inventories declined by 5.7 mb. About half of this draw came at the Cushing, OK, storage hub where stocks declined to about 64 mb at end-month, their lowest since the last week of January. Nonetheless, capacity at the hub remains under pressure as at end-month stock levels stood at around 86% of working capacity that in turn has seen WTI remain under downward pressure.

OECD Europe

Commercial oil holdings in OECD Europe rose counter-seasonally by 5.7 mb in May as builds in crude oil (1.6 mb) and refined products (5.5 mb) more-than-offset a 1.3 mb draw in NGLs and other feedstocks. The increase in crude oil came as refinery throughputs hit a seasonal low. This suggests that the rise in refined products came more from strong product imports rather than being domestically produced. All product categories posted builds; other products, middle distillates and fuel oil rose by 1.8 mb, 1.6 mb and 1.3 mb, respectively, while motor gasoline posted a more modest rise of 0.8 mb. At end month, all products stood at surplus to average levels. On a days of forward demand basis, refined products inventories covered 42.4 days, 0.1 days above end-April and 4.4 days higher than one year earlier.

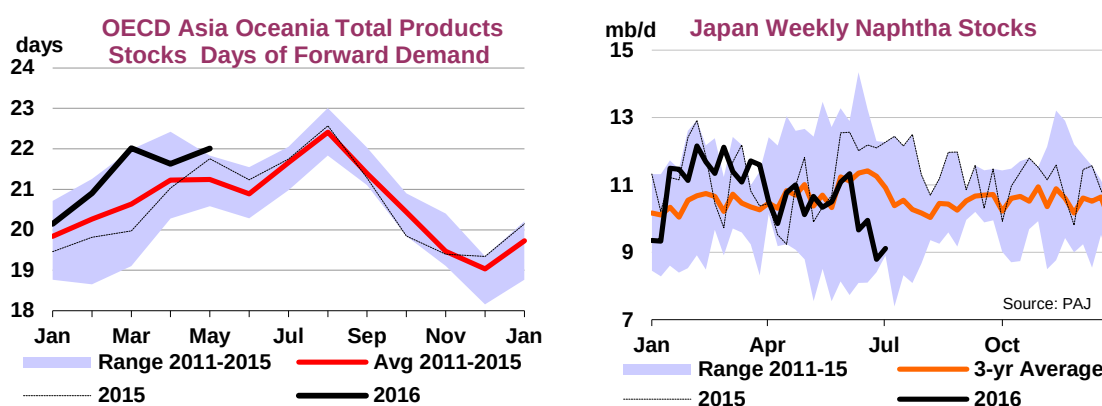


Considering that France was gripped by refinery strikes through late May, data suggest that commercial oil stocks were not adversely affected. However, data show that government holdings of middle distillates and motor gasoline were released during the month. On a days of forward demand basis, French total (government plus commercial) product inventories covered 65.6 days at end-May, 0.6 days below end-April but 1.5 days higher than one year earlier.

Preliminary data from Euroilstock suggest that European inventories sank seasonally by 6.8 mb in June. As regional refinery activity surged by 400 kb/d, crude oil holdings drew by 2.1 mb. On the other hand, despite the increase in runs, refined product holdings fell by 4.7 mb. Draws of 2.1 mb, 1.8 mb and 1.2 mb were posted by motor gasoline, fuel oil and middle distillates, respectively, with only 'other products' (+0.4 mb) increasing.

OECD Asia Oceania

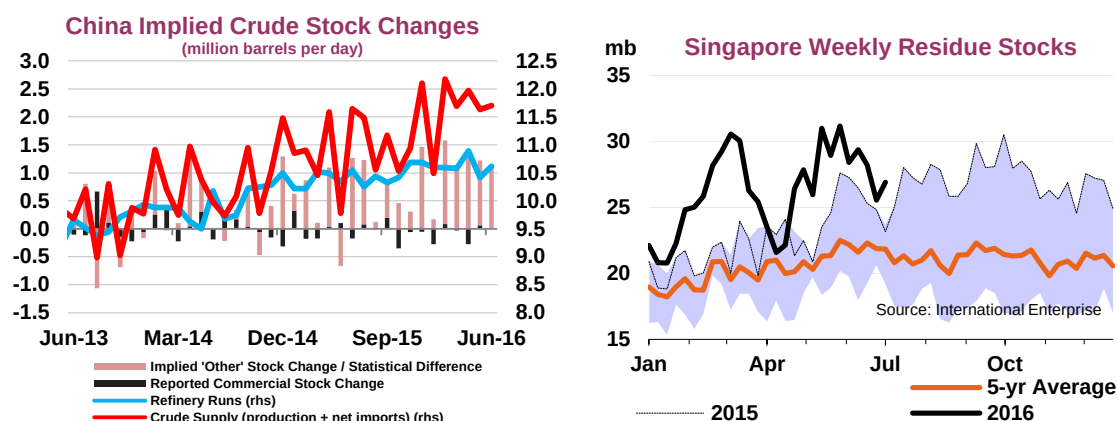
OECD Asia Oceania inventories built seasonally by 12.8 mb in May as both crude and product holdings rose. Accordingly, refined product cover rose by 0.4 days on the month to 22.0 days at end-June, 0.3 days above one year earlier. The monthly build was centred on Japan where both crude (+5.0 mb) and products (+5.6 mb) posted increases. While the crude build was in line with the prevailing seasonal trend, as maintenance saw 400 kb/d of refining capacity taken offline, the rise in products was steeper than average. Much of this came from a steep 3.2 mb rise in 'other products' (largely naphtha) with this likely to have been driven by high imports, particularly from the Middle East and Europe. Preliminary June data from the Petroleum Association of Japan (PAJ) suggest that commercial Japanese inventories slipped seasonally by 0.6 mb in June. Stocks were led lower falling naphtha stocks that drew sharply in June amid healthy petrochemical demand as reports suggest that a number of crackers came out of maintenance.



Recent developments in non-OECD stocks

According to data published by *China Oil, Gas and Petrochemicals*, Chinese refined product holdings slipped by an equivalent 2.9 mb in May as gasoil stocks drew by 5.0 mb amid high exports. On the other hand, gasoline and kerosene inventories added 0.9 mb and 1.1 mb, respectively. Chinese commercial crude stocks rose by an equivalent 1.9 mb (0.9%) in May. However, the implied unreported stock change calculated by comparing crude supply (net imports plus domestic production) with refinery crude demand suggests that stocks built for a fourth successive month as imports remained significantly above year-ago levels. Reports also suggest that much of the recent building has been by independent refiners as they have switched their feedstocks to crude oil from fuel oil. Additionally, some other volumes have likely been added at the recently completed Yangpu storage terminal. Initial indications are that stocks have continued to rise in June buoyed by high crude imports.

The National Energy Administration (NEA) has recently released draft regulations for the strategic petroleum reserve that state that for the first time private companies are obliged to build compulsory stocks. Reports from China also indicate that the storage capacity of China's private oil companies is 1679 mb, nearly ten times government storage capacity.



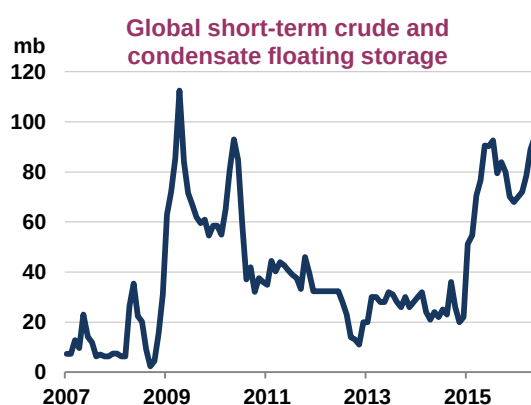
In Singapore, record high bunker sales and decreasing imports in June led to a draw in residual fuel oil stocks, which make up roughly half of the country's inventories. Shipments from North Western Europe eased from exceptionally high 1Q16 levels, as the world's largest bunkering hub remains well supplied. However, even with a \$4/bbl differential, fuel oil, loaded on VLCCs, still keeps flowing from Europe, helped by depressed freight rates. Ten VLCCs were reportedly fixed from NWE in late June, and the latest weekly stock data shows signs of a rebound. May bunker consumption data, compiled by the Singapore Maritime Authority, for the largest part heavy fuel oil, shows a strong increase in bunker sales, due to the per vessel intake rather than increased traffic, suggesting that shippers are choosing to stock up as much as possible, in expectation of higher prices ahead.

Recent developments in floating storage

Short-term crude floating storage inched up by about 1 mb in June to stand at 95 mb at end month, the highest level since 2009. However, unlike 2009, when volumes increased due to the economics of a steep contango market, which made the holding of oil on ships profitable, today volumes are primarily driven by logistical and marketing issues with time spreads in crude and product markets insufficient to cover storage costs.

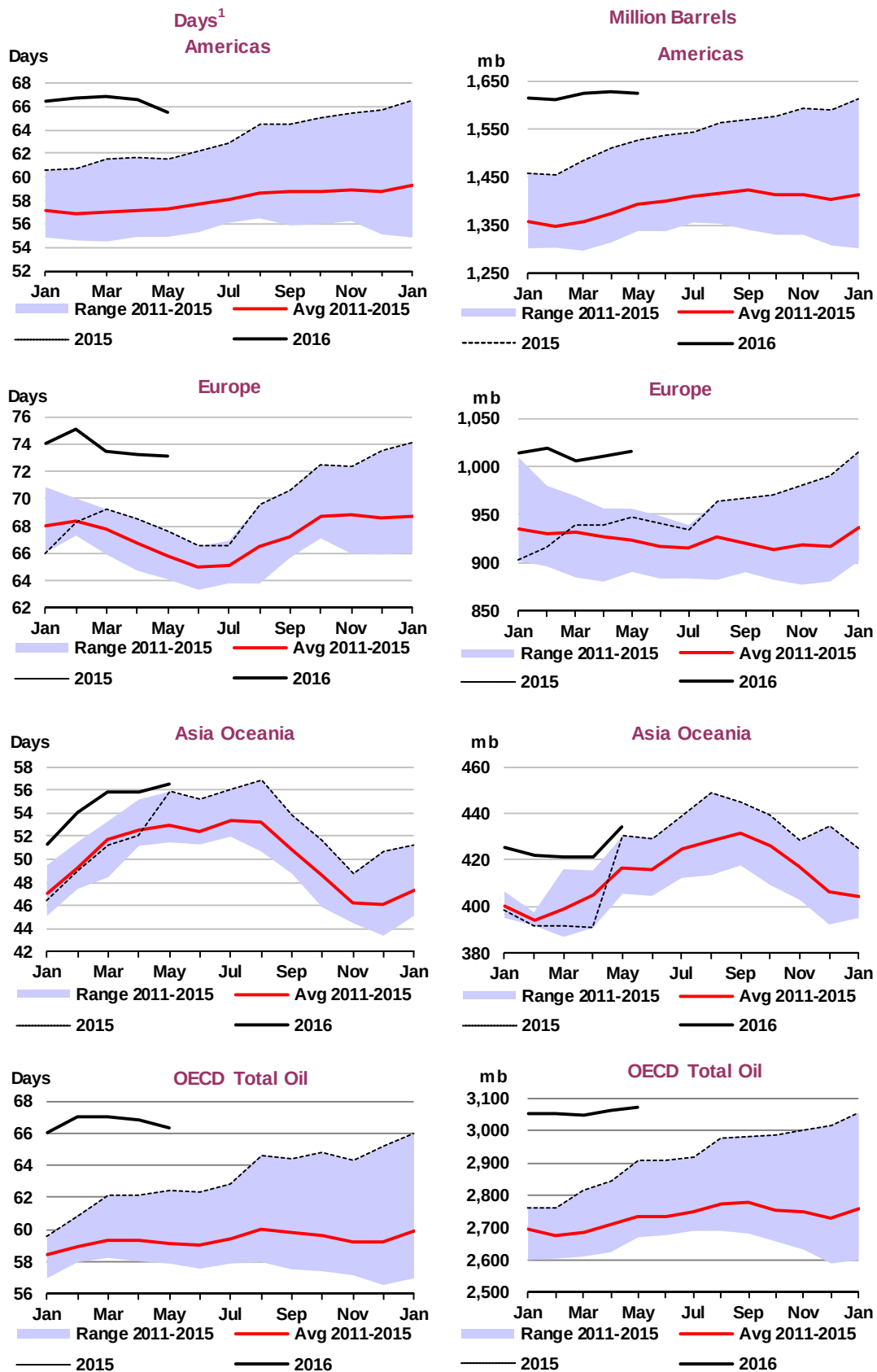
During June, the global distribution of floating storage changed considerably over the month. Volumes in the Middle East Gulf dropped by 2 mb as a VLCC previously storing crude in the region shipped the oil elsewhere. Meanwhile, the fleet of NITC vessels storing Iranian condensate remained stable at 21, carrying a combined 42 mb of oil. Two vessels storing crude off Northwest Europe offloaded volumes there so floating storage fell by 3 mb to 4 mb at end-month. However, in Asia, volumes rose by 6 mb to 24 mb. Expectations are that volumes held off Asia should grow in coming months with reports indicating that two international oil traders

have leased VLCCs in recent weeks to store crude in the region. Product storage continues to be driven by cargoes of fuel oil moored off Singapore as market participants struggle with brimming onshore inventories and sluggish regional demand as Chinese independent refiners continue to switch from running fuel oil to crude oil. Reports have also started to emerge of clean products being held offshore of key terminals in the Atlantic basin, notably in the ARA and New York Harbour regions, as land-based inventories, notably of gasoline, in these areas remain extremely high.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

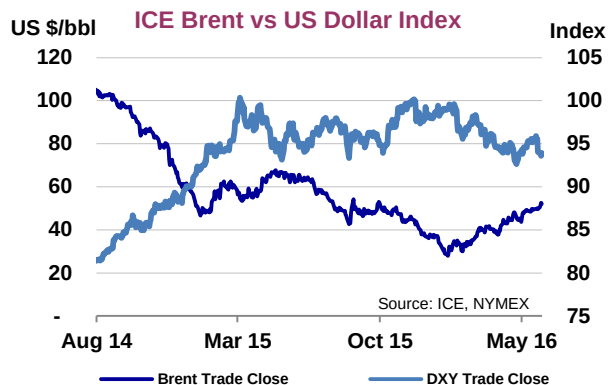
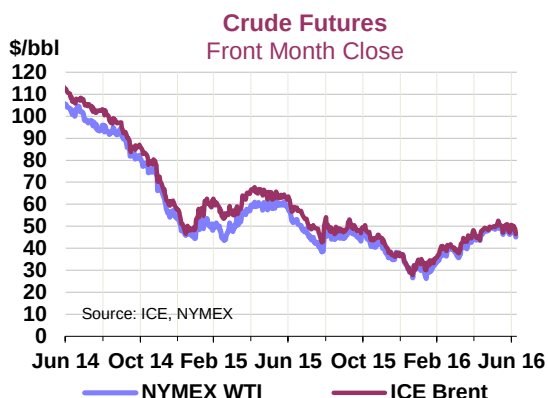


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil prices eased from an early June peak above \$52/bbl, but traded within a \$45-\$50/bbl range. Growing uncertainty over the global economy and the related dollar strength weighed, but the downside was limited by further declines in US production and inventories.** Supply disruptions in Canada and Nigeria began to ease, but ongoing militant attacks in Nigeria made for a fragile recovery.
- **Spot crude markets also eased from earlier highs, as a partial recovery in Nigerian and Canadian production added pressure.** Dubai flirted with contango as refiners in Asia geared up for seasonal maintenance, potentially dampening demand. Saudi Aramco cut monthly formula prices to Asia and the Mediterranean to stay competitive versus other Middle East producers.
- **Spot product prices continued to strengthen in June in line with crude prices that firmed month-on-month (m-o-m). Nonetheless, there appears little chance of a repeat of last year's spike in gasoline cracks, as price increases for gasoline were less than for other products due to high stocks and concerns over gasoline demand in key markets.** Moreover, as diesel prices increased relatively strongly in June, European and Asian gasoline and diesel cracks traded at parity for the first time in more than a year.
- **Freight rates for very large crude carriers on the Middle East to Asia route hit their lowest in more than a year** as tanker supply was abundant and weather delays in the Far East eased.



Market overview

Crude oil prices eased from a 2016 high above \$52/bbl reached in early June, as an upheaval in financial markets and growing economic uncertainty following the UK's vote to leave the EU weighed. A stronger US dollar also pressured prices. Prices stayed locked within a \$45-\$50/bbl range as the downside was capped by lingering supply disruptions in Nigeria and Canada and emerging signs of deeper declines in US domestic production and inventories that have fallen for almost two months running. June marked the fourth straight month of average price rises in Brent and WTI futures. ICE Brent futures climbed by \$2.28/bbl, or nearly 5%, from May to an average \$49.93/bbl during June. NYMEX WTI rose by \$2.05/bbl to average \$48.85/bbl, up around 4% on May.

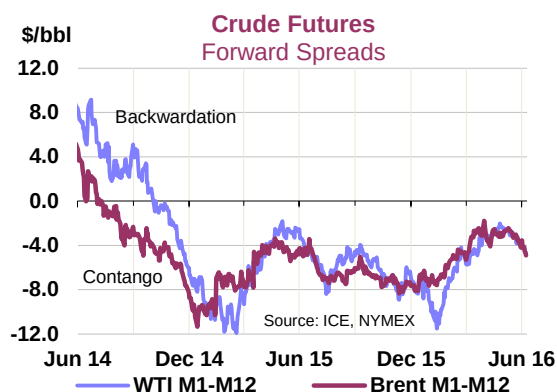
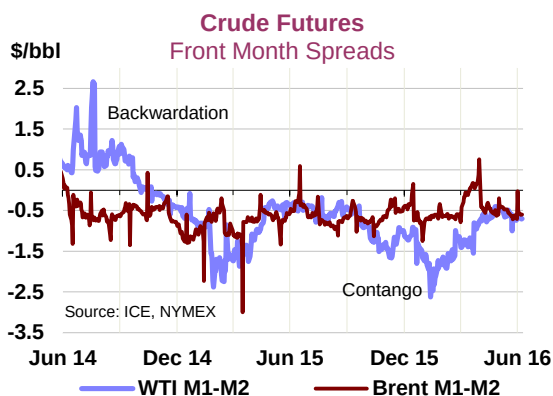
Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Apr	May	Jun	Jun-May Avg Chg	% Chg	Week Commencing:				
						06 Jun	13 Jun	20 Jun	27 Jun	04 Jul
NYMEX										
Light Sweet Crude Oil	41.12	46.80	48.85	2.05	4.4	50.18	47.91	49.02	48.28	46.14
RBOB	62.49	66.39	65.42	-0.97	-1.5	66.98	63.25	66.30	63.22	58.75
No.2 Heating Oil	52.46	59.66	63.04	3.38	5.7	64.53	62.15	63.21	62.41	60.27
No.2 Heating Oil (\$/mmbtu)	9.25	10.52	11.12	0.60	5.7	11.38	10.96	11.15	11.01	10.63
Henry Hub Natural Gas (\$/mmbtu)	2.01	2.08	2.62	0.54	26.0	2.52	2.60	2.71	2.88	2.78
ICE										
Brent	43.34	47.65	49.93	2.28	4.8	51.40	49.10	50.09	49.28	48.00
Gasoil	49.66	56.94	59.70	2.75	4.8	61.34	58.88	59.81	58.42	56.28
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-2.22	-0.85	-1.08	-0.23		-1.22	-1.19	-1.07	-1.00	-1.86
NYMEX No.2 Heating Oil - WTI	11.34	12.86	14.19	1.33		14.35	14.24	14.19	14.13	14.13
NYMEX RBOB - WTI	21.37	19.59	16.57	-3.02		16.80	15.34	17.28	14.94	12.61
NYMEX 3-2-1 Crack (RBOB)	18.03	17.35	15.77	-1.57		15.98	14.97	16.25	14.67	13.12
NYMEX No.2 - Natural Gas (\$/mmbtu)	7.24	8.44	8.49	0.05		8.87	8.36	8.44	8.13	7.85
ICE Gasoil - ICE Brent	6.32	9.29	9.77	0.47		9.94	9.78	9.72	9.14	8.28

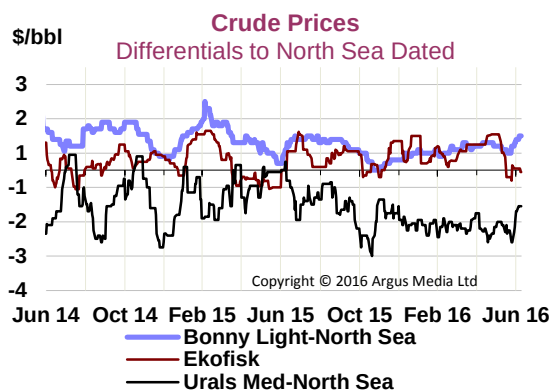
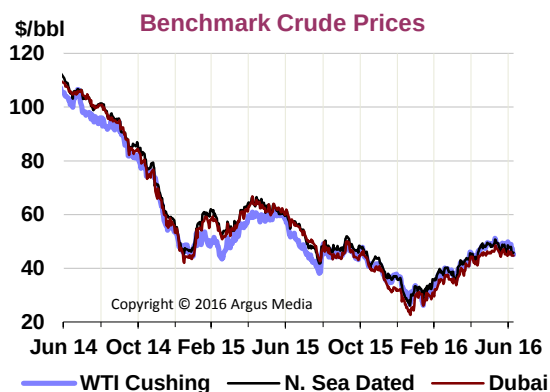
Source: ICE, NYMEX.

ICE Brent's contango structure held steady during June, with the M1-M2 spread at a -\$0.53/bbl discount compared to -\$0.48/bbl in May. A similar picture emerged on NYMEX WTI, with the discount of prompt month to second month at -\$0.62/bbl in June versus -\$0.59/bbl in May. By early July, however, the contango widened and, together with low freight rates, could lead to further building of onshore storage. On forward curves, the WTI M1-M12 spread widened to -\$3.13/bbl in June from -\$2.79/bbl in May. The Brent M1-M12 contract spread was stable at -\$3.13 /bbl in June versus -\$3.15/bbl in May.



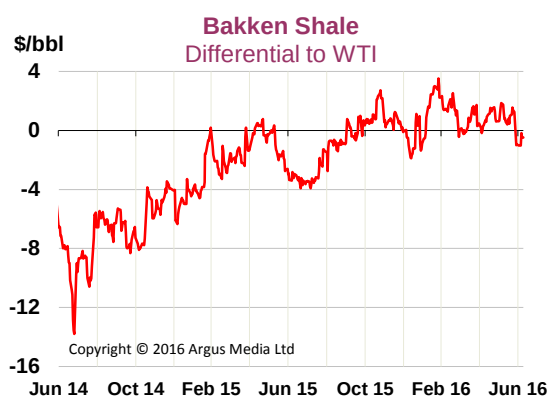
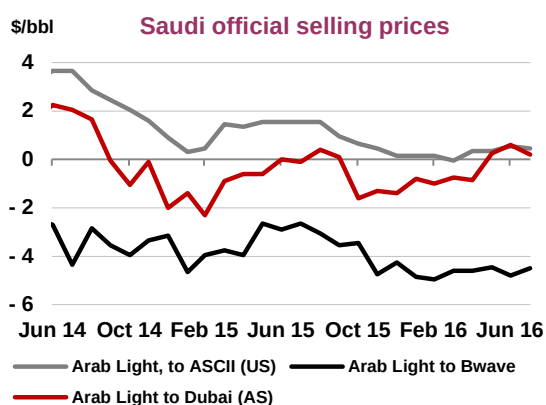
Spot crude oil prices

Spot crude markets eased from earlier highs reached in June, as a partial recovery in Nigerian and Canadian production piled on pressure. Hefty volumes of West African crude are set to move into India and China during July. Militant attacks on Nigeria's oil sector have disrupted loadings of Nigerian crude in recent months and eroded buying interest as customers sought more secure sources of supply. With *force majeure* being lifted on Bonny Light, buyers are starting to regain confidence in supply. Abundant supply put North Sea grades under pressure. Ekofisk dropped to a discount to Dated Brent. With North Sea crude under pressure, the arbitrage window to Asia is wide open.



Urals prices in Northwest Europe and the Mediterranean are diverging. The Urals differential to Dated Brent in the Mediterranean has firmed to around $-\$1.05/\text{bbl}$ – the narrowest since the end of last year due to a short July loading programme, while differentials in Northwest Europe are around $-\$2.15/\text{bbl}$. As a result, the arbitrage window has opened between Northwest Europe and the Mediterranean and an armada of cargoes is expected to add to an already well-supplied market. Caspian CPC Blend rose to a $\$0.70/\text{bbl}$ premium to Dated Brent as refiners sought to blend the barrels with Basra crude to make an alternative to Urals. The sour crude market share battle in Europe is meanwhile heating up between Russia, Iran, Iraq, Saudi Arabia and Kuwait. A cargo of Iranian crude was sold into Poland, where Saudi Arabia has already made inroads. Saudi Aramco lowered its monthly formula prices for August loadings of crude oil destined for the Mediterranean Europe and rival Middle East producers are expected to follow suit.

Of the global benchmarks, WTI posted the strongest month-on-month (m-o-m) performance in June, rising $\$2.02/\text{bbl}$ to $\$48.74/\text{bbl}$ as domestic supply tightened, inventories declined and Canadian outages lingered. North Sea Dated Brent rose $\$1.49/\text{bbl}$ over May to average $\$48.28/\text{bbl}$ for the month. Middle East Dubai gained $\$1.95/\text{bbl}$ to average $\$46.25/\text{bbl}$ in June. Russian Urals climbed $\$1.59/\text{bbl}$ m-o-m to average $\$46.60/\text{bbl}$ in June.



Reflecting weakening market sentiment, the front-month Dubai structure flirted with contango in early July. Dubai has weakened as refiners in Asia gear up for seasonal maintenance, which could dampen demand. An average $\$0.20/\text{bbl}$ backwardation held during June, but by July, Dubai had flipped into a $\$0.50/\text{bbl}$ contango. A steady flow of North Sea barrels into Asia has hit shorter-haul crudes such as ESPO Blend and Murban.

Saudi Aramco cut monthly crude oil formula prices for shipments to Asia, the US and the Mediterranean – with a notable reduction for Arab Extra Light. Saudi Aramco intends to boost output from the recently expanded Shaybah oil field and is offering additional barrels of Arab Extra Light.

In the US, with Canadian output improving, the differentials for Canadian crude are weakening. The discount of Canadian Heavy widened from -\$12/bbl towards -\$14/bbl and Canadian syncrude is seeing its premium decrease. In the Midwest, the Bakken differential to WTI has moved back to a discount, and at about -\$1/bbl is at the weakest since mid-April.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Apr	May	Jun	Jun-May		Week Commencing:				
				Avg Chg	%	06 Jun	13 Jun	20 Jun	27 Jun	04 Jul ¹
Crudes										
North Sea Dated	41.48	46.79	48.28	1.49	3.2	49.89	47.46	48.38	47.36	45.92
Brent (Asia) Mth 1	42.74	47.28	49.41	2.13	4.5	50.70	48.58	49.65	48.70	48.32
WTI (Cushing) Mth 1	40.95	46.72	48.74	2.02	4.3	50.18	47.91	48.53	48.28	46.15
Urals (Mediterranean)	39.89	45.01	46.60	1.59	3.5	48.33	45.70	46.42	45.91	44.84
Dubai	39.00	44.30	46.25	1.95	4.4	47.47	45.62	46.34	45.41	44.59
Tapis (Dated)	43.81	49.03	50.13	1.09	2.2	51.99	49.56	50.08	48.56	46.39
Differential to North Sea Dated										
WTI (Cushing)	-0.53	-0.07	0.46	0.53		0.29	0.45	0.14	0.92	0.23
Urals (Mediterranean)	-1.60	-1.78	-1.68	0.10		-1.56	-1.76	-1.96	-1.45	-1.08
Dubai	-2.48	-2.49	-2.03	0.46		-2.42	-1.84	-2.04	-1.94	-1.34
Tapis (Dated)	2.33	2.24	1.85	-0.40		2.10	2.10	1.70	1.20	0.47
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.36	-0.42	-0.60	-0.18		-0.64	-0.57	-0.57	-0.63	-0.66
Forward WTI Cushing Mth1-Mth2	-1.21	-0.61	-0.64	-0.03		-0.59	-0.56	-0.81	-0.69	-0.70
Forward Dubai Mth1-Mth2	-0.42	0.21	0.18	-0.02		0.16	0.25	0.12	0.04	-0.55

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Spot product prices

Spot product prices continued to strengthen in June in line with crude prices that firmed m-o-m. Although gasoline prices posted month-on-month gains, these were weighed down by brimming inventories and concern over demand strength in key markets. This saw gasoline cracks change course in mid-June and fall. In contrast, middle distillate prices performed relatively well as stock draws helped to propel prices higher with cracks firming across all markets. The different paths of gasoline and diesel cracks saw these approach parity in Europe and Asia by early-July.

Despite gasoline spot prices increasing in the wake of firmer crude prices in June, they were weighed down by brimming inventories and concerns over the strength of gasoline demand in key markets. Consequently, cracks in all markets remained significantly below the year-ago levels. The weakness was acutely illustrated in the US where prices remained weak in the face of record inventories in the key PADD 1 (Atlantic Coast) market following a plethora of transatlantic imports. Moreover, stocks are so high that market participants have been forced to turn to floating storage in the New York Harbour area. Accordingly, by early July US cracks stood below \$13/bbl, approximately \$25/bbl below twelve months ago.

In Asia and Europe, the picture was similarly weak with gasoline cracks in both markets standing about \$10/bbl lower than a year earlier in July. In Asia, spot gasoline prices actually fell on a monthly average basis as prices came under pressure from high Chinese exports with reports suggesting that Chinese independent refiners have begun to export product. In Europe, prices largely reflected the weak US market, which limited the opportunity to ship European gasoline westwards. This also saw product stock levels increase at key Northwest European terminals.

Spot Product Prices

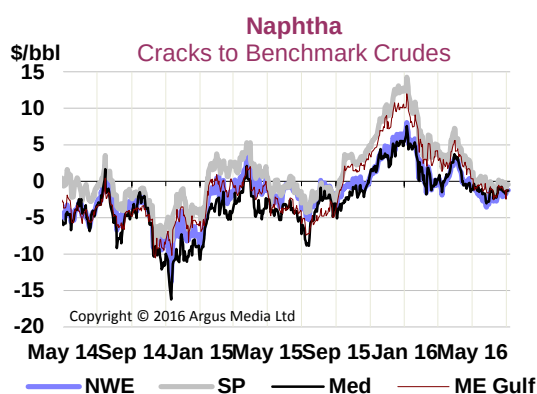
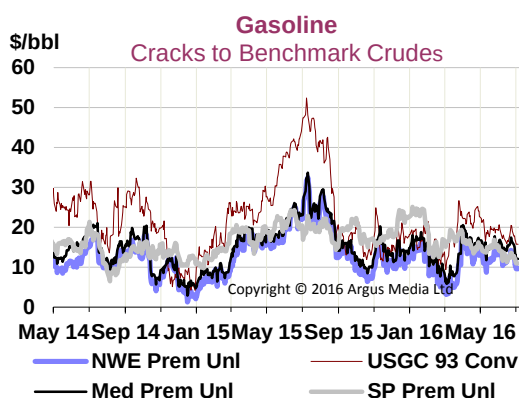
(monthly and weekly averages, \$/bbl)

	Apr	May	Jun	Jun-May		Week Commencing:					Apr	May	Jun	Chg
				Chg	%	06 Jun	13 Jun	20 Jun	27 Jun	04 Jul				
Rotterdam, Barges FOB														
	Differential to Dated Brent													
Premium Unl 10 ppm	55.51	58.93	60.60	1.67	2.8	61.59	59.18	61.69	58.45	54.97	14.03	12.14	12.32	0.18
Naphtha	42.16	44.78	46.40	1.63	3.6	47.71	45.51	46.68	45.62	44.38	0.67	-2.01	-1.88	0.13
Jet/Kerosene	49.55	55.39	58.37	2.98	5.4	59.68	57.24	58.57	57.50	56.15	8.07	8.60	10.09	1.48
ULSD 10ppm	49.57	56.67	59.37	2.70	4.8	60.97	58.69	59.50	57.92	56.40	8.09	9.88	11.09	1.21
Gasoil 0.1%	48.79	55.91	58.69	2.77	5.0	60.10	58.20	58.98	57.10	55.44	7.31	9.12	10.41	1.28
LSFO 1%	27.56	33.02	36.78	3.76	11.4	37.04	36.00	37.25	38.17	37.95	-13.92	-13.77	-11.50	2.27
HSFO 3.5%	24.39	30.18	33.23	3.05	10.1	33.91	32.00	33.52	34.40	33.88	-17.10	-16.61	-15.05	1.56
Mediterranean, FOB Cargoes														
	Differential to Urals													
Premium Unl 10 ppm	56.82	60.19	61.77	1.57	2.6	62.71	60.35	62.88	59.68	56.21	16.94	15.18	15.16	-0.02
Naphtha	40.39	43.51	45.11	1.60	3.7	46.39	44.23	45.40	44.33	43.13	0.51	-1.50	-1.50	0.01
Jet Aviation fuel	48.01	54.44	57.36	2.92	5.4	58.70	56.27	57.52	56.42	55.09	8.12	9.43	10.76	1.33
ULSD 10ppm	49.25	56.93	59.36	2.43	4.3	60.99	58.61	59.24	58.01	56.53	9.36	11.91	12.75	0.84
Gasoil 0.1%	47.76	55.75	58.64	2.88	5.2	60.17	57.88	58.82	57.20	55.32	7.88	10.74	12.03	1.29
LSFO 1%	28.24	34.00	37.28	3.28	9.6	37.60	36.62	37.57	38.62	38.60	-11.65	-11.01	-9.32	1.69
HSFO 3.5%	26.91	32.66	35.40	2.74	8.4	36.22	33.51	35.85	36.76	36.37	-12.97	-12.36	-11.21	1.15
US Gulf, FOB Pipeline														
	Differential to LLS													
Super Unleaded	65.31	68.20	68.60	0.39	0.6	69.68	66.27	69.59	67.06	63.64	22.61	19.51	18.00	-1.51
Unleaded	58.77	62.10	64.11	2.01	3.2	65.23	61.50	64.94	62.89	59.78	16.07	13.40	13.51	0.11
Jet/Kerosene	47.55	54.36	58.16	3.79	7.0	59.27	57.27	58.43	58.13	55.98	4.85	5.67	7.56	1.89
ULSD 10ppm	50.29	57.70	61.24	3.54	6.1	62.78	60.36	61.30	60.73	58.51	7.59	9.00	10.64	1.64
Heating Oil	45.07	52.26	56.21	3.95	7.6	57.66	55.26	56.43	55.61	53.13	2.38	3.57	5.61	2.05
No. 6 3%*	25.95	31.85	35.11	3.25	10.2	35.84	34.39	35.56	35.66	34.46	-16.75	-16.84	-15.49	1.35
Singapore, FOB Cargoes														
	Differential to Dubai													
Premium Unleaded	54.49	59.14	59.05	-0.09	-0.1	60.45	57.68	59.40	57.26	55.47	15.49	14.84	12.80	-2.04
Naphtha	42.52	44.20	45.56	1.36	3.1	46.20	44.80	46.22	44.85	44.89	3.52	-0.09	-0.69	-0.59
Jet/Kerosene	49.51	55.18	58.27	3.09	5.6	59.38	57.70	58.47	57.34	57.82	10.51	10.89	12.03	1.14
Gasoil 0.05%	48.08	54.86	58.14	3.27	6.0	59.53	57.30	58.14	57.60	58.12	9.08	10.57	11.89	1.32
LSWR Cracked	31.17	36.54	39.95	3.41	9.3	40.16	38.87	40.54	41.84	43.24	-7.83	-7.76	-6.29	1.46
HSFO 180 CST	30.28	35.19	37.88	2.69	7.6	38.11	36.78	38.54	39.46	39.82	-8.72	-9.10	-8.36	0.74
HSFO 380 CST 4%	29.65	34.58	37.27	2.69	7.8	37.52	36.16	38.03	38.73	39.03	-9.36	-9.72	-8.97	0.74

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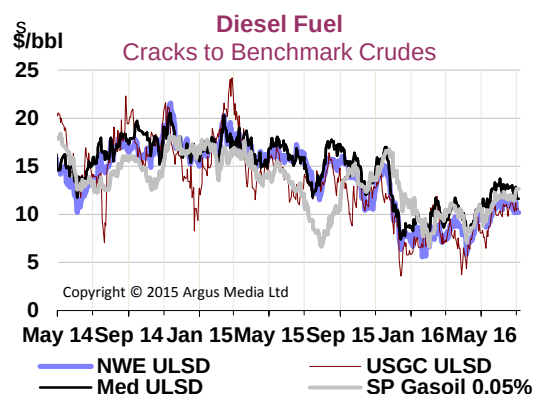
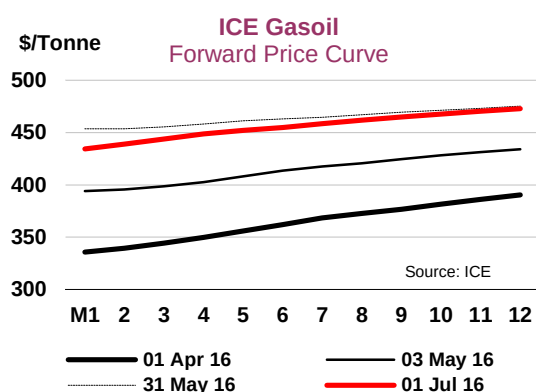
* Waterborne

Naphtha markets remain weak with spot prices closely tracking crude prices. In Asia, cracks continued to sink further into negative territory as naphtha demand continues to remain lacklustre with competing LPG continuing to be a cheaper feedstock in regional steam crackers. In contrast, European cracks turned the corner and firmed for the first time since March after spot prices rose as some upward momentum came from regional gasoline blending demand and an open arbitrage to ship product to Asia.

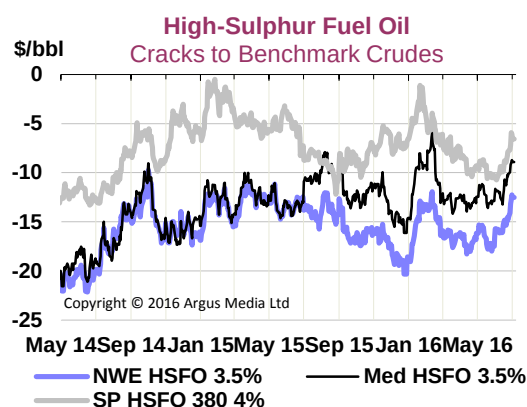
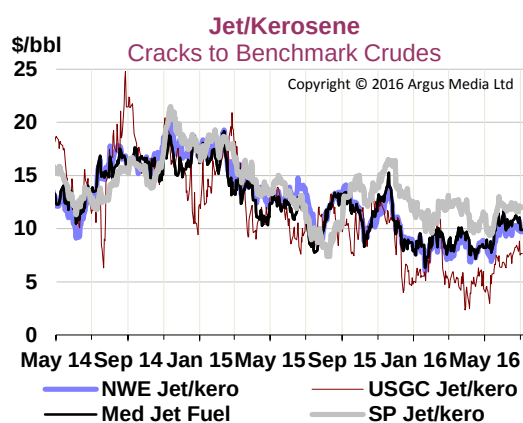


Middle distillates spot prices in all surveyed regions rose strongly in June, as stock draws in a number of key producing and consuming countries added to bullish sentiment. Despite the increase in diesel prompt prices, the ICE Gasoil market remained in contango during June. Indeed, the contango steepened, particularly over the first three months where time spreads increased to about \$3.20/tonne from \$2.80/tonne one month earlier. In the US Gulf Coast market, ULSD cracks firmed by \$1.64/bbl,

however, these were outstripped by heating oil cracks that increased by over \$2.00/bbl on an increase in exports to Latin America where colder weather has arrived and a number of refineries, particularly in Venezuela, are experiencing outages. In Europe, middle distillate cracks firmed by less than the US amid high inflows from the FSU and the Middle East. However, some upward momentum came as US flows were diverted to Latin America. Both Northwest Europe and the Mediterranean saw jet kerosene cracks rise at a faster clip than diesel due to seasonal demand peaking.



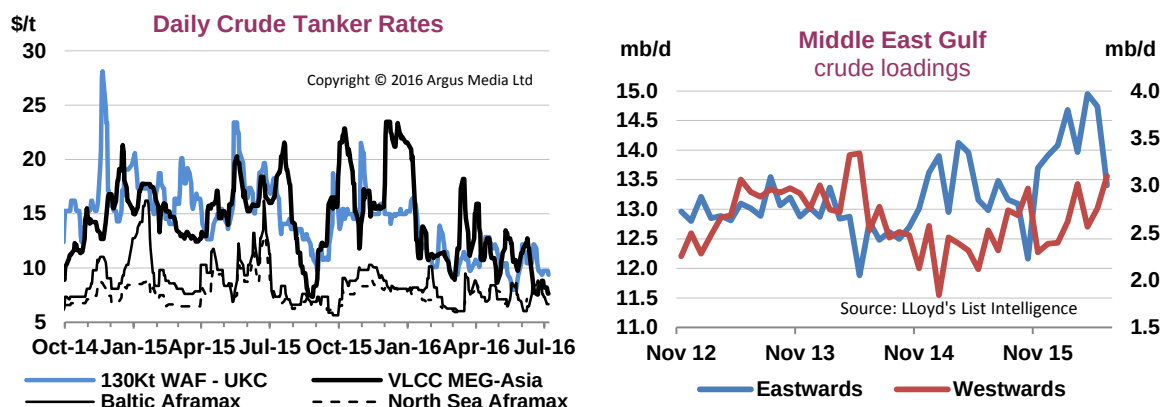
Fuel oil cracks in Europe and Singapore increased steeply in late-June on tightening fundamentals as a fall in Russian supplies combined with an uptick in Asian demand. By early-July, both HSFO and LSFO cracks stood at their highest levels since end-February, although they remained in negative territory in all markets. Asian prices were supported by healthy bunker activity with latest data for the Singapore region showing that sales are comfortably above one-year earlier levels. Further upward momentum came as on-land inventories declined steeply although a number of cargoes currently remain in floating storage. In Europe, spot prices and cracks strengthened in the wake of the strong Asian markets with the arbitrage to ship product to Asia further boosted by low VLCC freight rates. Mediterranean prices also remain above those in Northwest Europe on exports to North Africa where fuel oil is also being run as a feedstock and used for power generation.



Freight

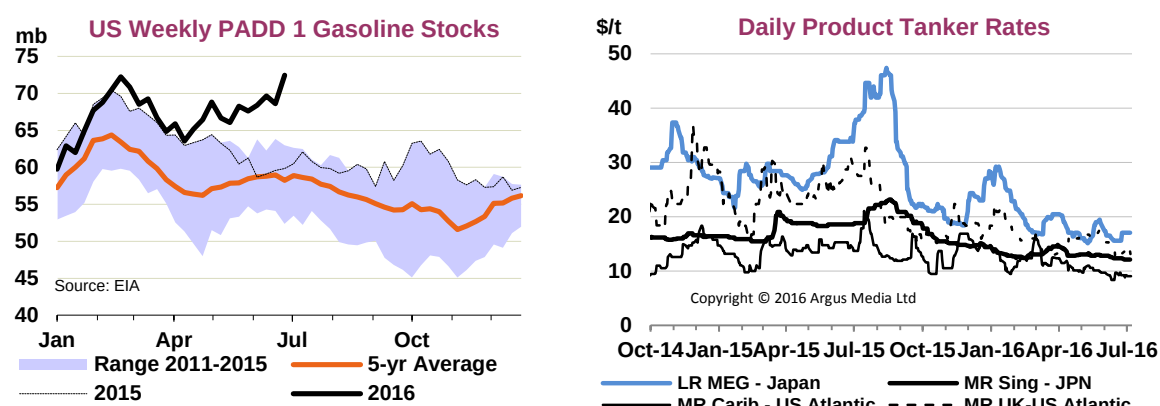
Freight rates had a subdued month across the board in June. Rates for **very-large-crude-carriers** (VLCCs) on the Middle East to Asia route hit their lowest in more than one year, as tanker supply remained abundant and weather delays eased in the Far East.

Suezmaxes on the West Africa – UK Continent route saw some strength mid-month but ultimately receded, as Nigerian loadings remain subdued despite some improvement in fixtures. **Aframaxes** in the North Sea and Baltic showed some improvement but then eased again, as tonnage caught in French ports was reportedly released into the market after the strikes. Rates were even weaker in the Caribbean, falling to the lowest since 2009, on lower cargoes and ample tonnage supply.



Surveyed product freight rates saw further weakness in June. In the Atlantic Basin, Medium-Range (MR) rates were pressured by building US gasoline stocks in PADD1, and the backhaul US Gulf – UKC diesel route suffered from ample distillate inventories in Europe.

East of Suez, chartering activities on the larger **Long-Range** (LR) vessels was subdued, as the Far East remained generally well-stocked in naphtha, even as petrochemical activity remains robust. Preliminary data from the Petroleum Association of Japan (PAJ), shows a naphtha draw in early July (see 'OECD stocks'), which could inject some life into July cargo inquiry if crackers activity doesn't recede.



REFINING

Summary

- **May global refinery throughput plunged by almost 1 mb/d on a month-on-month (m-o-m) basis, down 1.5 mb/d year-on-year (y-o-y)**, as heavy outages took their toll in many regions. This lowered 2Q16 estimate for global refinery intake, to 78.54 mb/d – the first y-o-y drop in three years.
- **Our forecast for 3Q16 throughput is more steady at 80.95 mb/d**, up on the previous quarter by 2.4 mb/d, the largest-ever seasonal ramp-up, and by 1 mb/d y-o-y.
- **Refinery throughput growth is decoupling from demand growth**, both seasonally, and structurally, resulting in the need for a more nuanced interpretation of headline oil demand numbers.

Global refinery overview

The latest estimate for April refinery runs is lower by 145 kb/d as the US data is revised down by 130 kb/d compared to the preliminary data, and Saudi Arabian crude intake continued to decline after seeing record levels in February. Only about 60% of Middle East and Latin American throughput is actualised for April, with the rest still estimated. The situation with reported data is better in other non-OECD regions, however, further revisions to April numbers cannot be ruled out.

Global Refinery Crude Throughput¹
(million barrels per day)

	Mar 16	1Q2016	Apr 16	May 16	Jun 16	2Q2016	Jul 16	Aug 16	Sep 16	3Q2016	Oct 16
Americas	19.1	19.0	18.8	18.8	19.3	19.0	19.7	19.6	19.2	19.5	18.6
Europe	11.5	11.8	11.4	11.3	11.7	11.4	12.3	12.5	12.2	12.3	11.8
Asia Oceania	7.0	7.1	7.0	6.8	6.4	6.7	6.8	6.9	6.8	6.8	6.5
Total OECD	37.6	37.8	37.2	36.8	37.4	37.1	38.8	39.0	38.1	38.7	36.8
FSU	6.8	6.9	6.5	6.5	7.0	6.7	6.7	6.8	6.7	6.7	6.3
Non-OECD Europe	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.6	10.6	10.9	10.4	10.7	10.7	10.7	10.8	10.6	10.7	10.8
Other Asia	10.2	10.2	10.2	10.1	10.4	10.2	10.5	10.5	10.4	10.5	10.0
Latin America	4.3	4.3	4.2	4.1	4.3	4.2	4.5	4.4	4.4	4.4	4.4
Middle East	6.9	6.9	6.8	7.1	7.1	7.0	7.3	7.1	7.1	7.2	7.0
Africa	2.1	2.1	2.1	1.9	2.2	2.1	2.3	2.3	2.2	2.3	2.2
Total Non-OECD	41.4	41.5	41.3	40.7	42.3	41.4	42.4	42.5	42.0	42.3	41.3
Total	79.0	79.3	78.5	77.5	79.6	78.5	81.3	81.5	80.1	80.9	78.1

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Flat y-o-y, April's unimpressive refining activity was only a prelude to a more dramatic May, when some major refining regions performed worse than expected. Global throughput in May is now estimated to be down by 1.5 mb/d y-o-y, a third of which, though, is due to force-majeure in France and Canada, where, respectively, labour strikes and wildfires curtailed refinery runs. In terms of m-o-m trends too, May's performance stood out as the usual seasonal increase was replaced by an estimated drop of almost 1 mb/d. This coincided with a temporary tightening in crude oil markets due to the Canadian wildfires and the Nigerian shutdowns, which explained why there was not much appetite for refiners unaffected by maintenance or force majeure to ramp up runs to compensate for outages elsewhere.

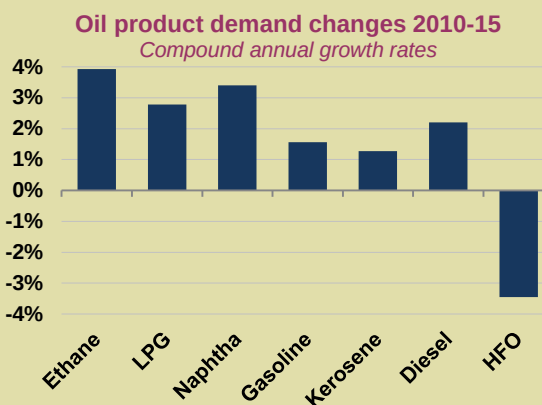
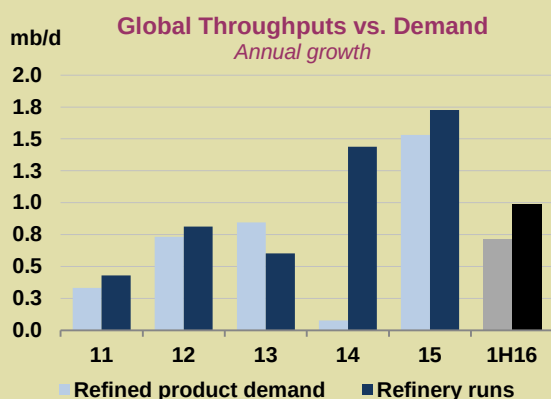
Thus, after 1Q16's 1.3 mb/d gain, the refining sector is taking a breather and dipping some 330 kbd/ y-o-y in 2Q16 despite the estimated 1.4 mb/d increase in demand. In theory, this would imply substantial

stock draws. In practice, a certain degree of decoupling of total demand from refined product demand has emerged over the last few years that limits the need to increase refinery output as more and more products are supplied outside the refining sector (See *The burden of the light-hearted demand growth*)

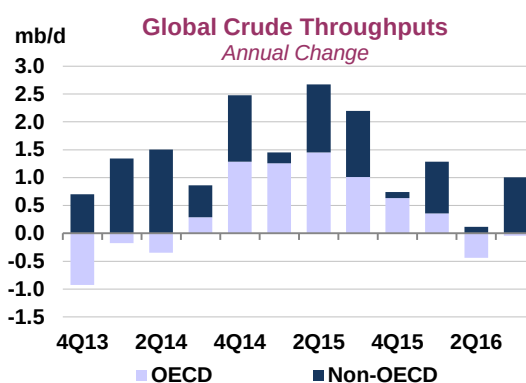
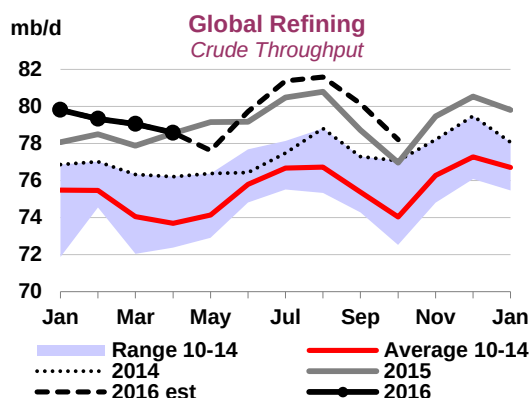
The burden of the light-hearted demand growth

As discussed above, our latest estimate for 2Q16 runs indicates a y-o-y drop of some 330 kb/d while demand growth is at 1.4 mb/d. At the same time, OECD product stock draws between January and May (latest available data) have failed to impress. In the non-OECD, China has turned into a major regional exporter, Brazil manages to export products even at lower crude throughput rates, and Saudi Arabia is sending more products overseas. How do these conflicting developments tie up?

The explanation lies in the gradual decoupling of the headline oil demand growth from the refined product demand growth. Currently, there is a gap of 15-16 mb/d between global demand and refinery runs, as some product supply bypasses refineries. Biofuels account for over 2 mb/d of this gap, and refinery processing gains amount to another 2 mb/d. A small proportion is taken up by fuels produced in gas-to-liquids and coal-to-liquids processes, while the biggest share comes from natural gas liquids (NGL) such as LPG, ethane and light naphtha (pentanes plus). These light products are not only finding a natural home in the globally expanding petrochemical sector, but increasing their market share in residential heating and cooking, and also in road fuels. Lower oil prices help LPG become a fuel of choice in developing regions with low-income population, in their effort to decrease the reliance on highly polluting traditional biomass for cooking. In India, for example, prime-minister Modi declared 2016 “Year of the LPG consumer” when launching a programme to make the fuel available to all households by 2018.



Our estimates of net refined product demand and refinery run growth show that since 2014 refinery runs growth has exceeded refined product demand growth. Even with 2Q16's expected y-o-y decline in refinery runs, refined products stocks will not necessarily draw in the first half of this year, as the 1Q16 runs growth was 60% higher than refined product demand growth. Indeed, since 2010, the growth rates of light products from natural gas liquids (ethane, LPG, naphtha) have been double the rates of the main refined products demand growth (gasoline, kerosene, diesel).



Our runs forecast for 3Q16 is also revised slightly lower, by 120 kb/d, primarily due to weaker Chinese and Brazilian throughput. Still, the non-OECD is entirely driving 3Q16's y-o-y gain of 1 mb/d, towards a new record level of quarterly run rates. In our first look into 4Q16, expectations for October are at a relatively robust 1.2 mb/d y-o-y change, once again, all the net increase comes from non-OECD refiners.

Margins

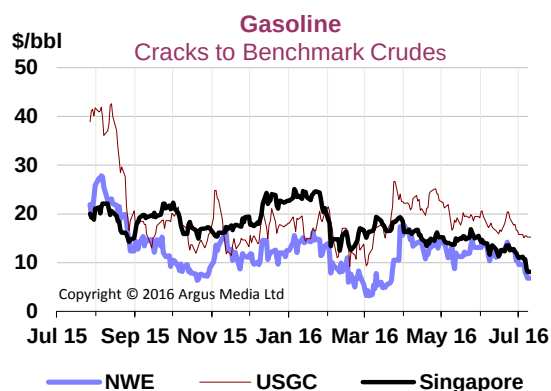
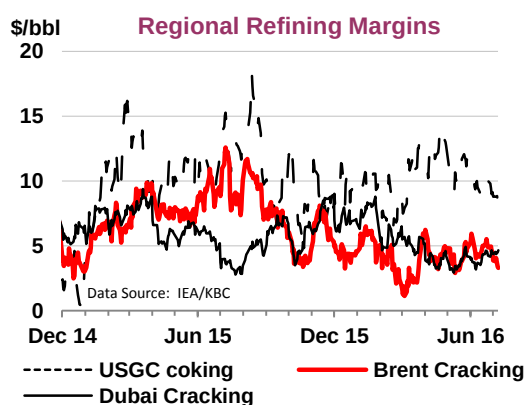
The French disruption helped European margins in June move to their highest levels since January, and the dynamic in other refining centres too was overwhelmingly positive even as crude oil prices strengthened further. Interestingly, the same counterintuitive correlation between crude price and refinery margin movement continued into July as lower crude prices coincided with lower margins. This is possible with gasoline cracks behaving counter-seasonally and hitting the lowest levels across all refining centres since February. In Europe and Singapore, they are now down to single digits. Diesel cracks, that were supported by European tightness in June, are also sliding lower in July. Stock draws implied by US weekly data are well in line with seasonal levels, which means that the overhang is not disappearing yet, and starts acting as a firm lid on gasoline cracks even at the seasonal demand ramps up.

IEA/KBC Global Indicator Refining Margins¹

	(\$/bbl)									
	Monthly Average				Change	Average for week ending:				
	Mar 16	Apr 16	May 16	Jun 16	Jun 16-May 16	10 Jun	17 Jun	24 Jun	01 Jul	08 Jul
NW Europe										
Brent (Cracking)	2.80	4.37	4.05	4.85	↑ 0.79	4.38	4.58	5.17	4.57	3.65
Urals (Cracking)	4.24	5.48	5.28	5.98	↑ 0.70	5.41	5.72	6.33	5.90	4.94
Brent (Hydroskimming)	-2.05	-1.40	-1.45	-0.25	↑ 1.20	-0.91	-0.41	0.01	0.19	-0.08
Urals (Hydroskimming)	-1.47	-1.24	-1.14	-0.20	↑ 0.95	-0.87	-0.47	0.06	0.44	0.09
Mediterranean										
Es Sider (Cracking)	4.31	5.66	5.66	6.44	↑ 0.78	6.01	6.41	6.58	6.38	6.02
Urals (Cracking)	4.34	4.95	5.38	6.04	↑ 0.66	5.52	5.85	6.50	5.84	5.07
Es Sider (Hydroskimming)	-0.24	1.01	1.02	2.01	↑ 0.98	1.37	2.05	2.15	2.50	2.57
Urals (Hydroskimming)	-1.38	-0.99	-0.58	0.19	↑ 0.77	-0.47	-0.23	0.71	0.68	0.32
US Gulf Coast										
50/50 HLS/LLS (Cracking)	5.02	7.65	6.64	6.94	↑ 0.30	6.67	5.97	7.82	6.29	5.95
Mars (Cracking)	3.78	5.41	4.30	4.39	↑ 0.09	4.06	3.58	4.96	4.30	4.26
ASCI (Cracking)	3.33	5.00	3.79	3.95	↑ 0.15	3.55	3.18	4.63	3.81	3.80
50/50 HLS/LLS (Coking)	7.37	10.19	9.11	9.27	↑ 0.16	9.00	8.23	10.16	8.52	8.07
50/50 Maya/Mars (Coking)	10.58	12.53	10.75	9.78	↓ -0.97	9.64	8.91	10.14	9.24	8.68
ASCI (Coking)	9.81	11.83	10.50	10.35	↓ -0.15	10.10	9.44	10.97	9.84	9.50
US Midcon										
WTI (Cracking)	9.19	12.05	12.95	14.39	↑ 1.44	18.28	14.71	12.63	10.90	10.31
30/70 WCS/Bakken (Cracking)	6.99	10.26	10.48	12.14	↑ 1.66	15.18	12.45	10.23	10.57	9.90
Bakken (Cracking)	9.01	12.72	13.44	14.95	↑ 1.51	18.68	15.32	12.51	13.01	11.79
WTI (Coking)	11.73	14.85	15.84	17.24	↑ 1.40	21.45	17.58	15.30	13.43	12.75
30/70 WCS/Bakken (Coking)	11.39	14.96	15.24	16.75	↑ 1.51	20.29	17.03	14.57	14.63	13.91
Bakken (Coking)	10.18	14.01	14.76	16.24	↑ 1.48	20.14	16.62	13.69	14.12	12.84
Singapore										
Dubai (Hydroskimming)	-0.16	-1.51	-1.83	-1.28	↑ 0.55	-2.09	-1.47	-0.68	-0.22	0.27
Tapis (Hydroskimming)	0.89	0.27	0.96	1.63	↑ 0.67	1.28	1.86	1.47	1.66	2.64
Dubai (Hydrocracking)	5.16	3.90	3.72	4.03	↑ 0.30	3.50	3.87	4.47	4.40	4.52
Tapis (Hydrocracking)	5.26	4.51	5.18	5.44	↑ 0.26	5.31	5.67	5.19	4.81	5.15

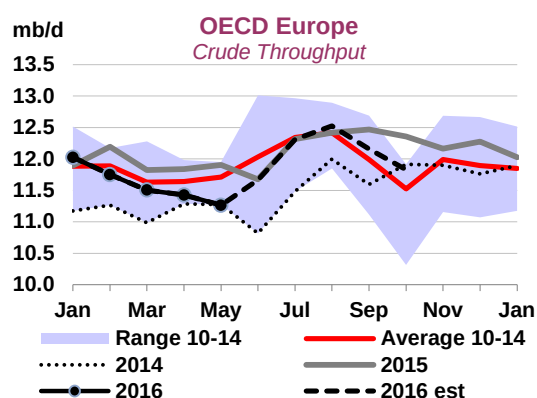
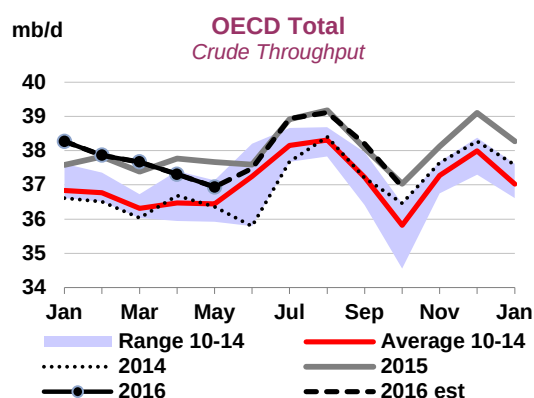
¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)



OECD refinery throughput

April refinery throughput in OECD was finalised with small revisions to preliminary numbers: lower US and European numbers were not fully offset by higher Japanese throughput. Thus, April is confirmed to have seen the first y-o-y drop in total OECD runs in two years, to the tune of 460 kb/d. It is the European refiners that first started running out of steam earlier this year. For some time though, the overall OECD y-o-y- trend remained positive, until the US joined in reducing throughput.



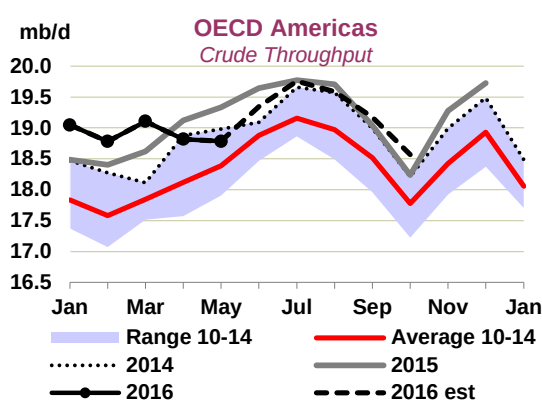
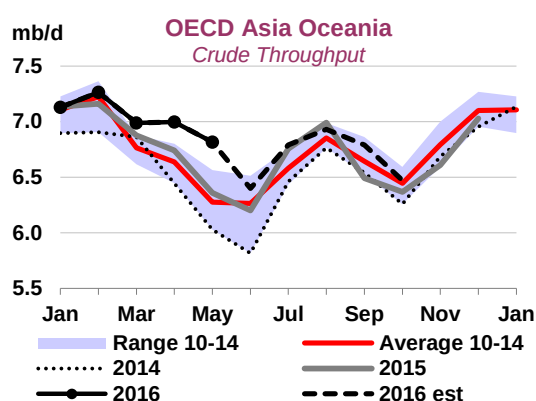
May preliminary numbers came in some 330 kb/d lower than our estimate, following the same pattern of lower than expected North American and European runs with higher OECD Asia Pacific throughput. The disruption from labour strikes in France was some 100 kb/d higher than our estimate, with runs down to 900 kb/d from 1.2 mb/d in average. Spanish throughput in May was unexpectedly 220 kb/d lower from April, which most likely indicates refinery maintenance, rather than substantial run cuts. European capacity utilisation rates dropped below 80% in May, with runs down 640 kb/d y-o-y. At the same time, Korean and Japanese throughput exceeded expectations by a combined 240 kb/d. Currently, OECD Asia has the highest utilisation rate in the OECD, at 87%, which puts it ahead of many other regions in the world. This is largely thanks to the Japanese measures to address overcapacity by implementing mandated shutdowns.

In total, May OECD throughput was down 740 kb/d y-o-y to some 36.8 mb/d, the lowest level since October 2014. The June throughput estimate is also weighed down primarily due to the higher expected impact of the French strikes that continued well into the month, with two of Total's refineries reported as fully back online only during the first week of July. US and Canadian weekly data indicated a slightly worse performance in June than expected, while Japanese weekly data came in stronger than our previous forecast that was weighed down by heavy maintenance plans. Overall, the estimate for 2Q16 OECD throughput is now lowered by 90 kb/d.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Change from		Utilisation rate ¹	
							Apr 16	May 15	May 16	May 15
US ²	16.77	15.99	15.88	16.11	15.94	16.24	0.29	-0.20	0.89	0.93
Canada	1.66	1.76	1.68	1.74	1.66	1.36	-0.30	-0.26	0.69	0.82
Chile	0.17	0.17	0.17	0.17	0.16	0.17	0.01	0.00	0.75	0.74
Mexico	1.12	1.11	1.04	1.09	1.05	1.01	-0.04	-0.10	0.61	0.67
OECD Americas³	19.72	19.04	18.77	19.10	18.81	18.77	-0.03	-0.55	0.85	0.89
France	1.09	1.16	1.17	1.12	1.20	0.89	-0.31	-0.23	0.64	0.80
Germany	1.94	1.92	1.91	1.91	1.77	1.83	0.05	-0.19	0.90	1.00
Italy	1.38	1.30	1.14	1.20	1.35	1.26	-0.09	-0.17	0.72	0.81
Netherlands	1.10	1.11	1.08	1.04	1.07	1.04	-0.03	-0.07	0.81	0.86
Spain	1.34	1.23	1.26	1.27	1.25	1.11	-0.14	-0.22	0.73	0.88
United Kingdom	1.17	1.14	1.00	0.94	1.06	1.13	0.07	0.08	0.82	0.77
Other OECD Europe	4.24	4.17	4.18	4.01	3.71	4.00	0.29	0.15	0.83	0.80
OECD Europe	12.27	12.02	11.74	11.50	11.42	11.26	-0.16	-0.64	0.79	0.84
Japan	3.25	3.37	3.31	3.31	3.35	3.13	-0.22	0.22	0.88	0.75
South Korea	2.98	2.97	3.14	2.89	2.85	2.97	0.12	0.22	0.90	0.84
Other Asia Oceania	0.79	0.78	0.80	0.78	0.79	0.71	-0.08	0.02	0.71	0.69
OECD Asia Oceania	7.02	7.12	7.26	6.98	6.99	6.81	-0.18	0.46	0.87	0.78
OECD Total	39.00	38.17	37.77	37.57	37.21	36.83	-0.38	-0.74	0.84	0.85

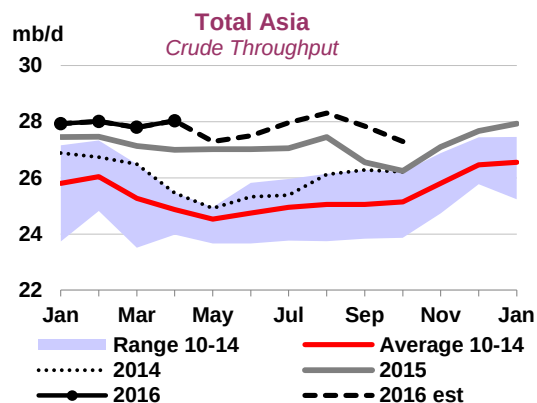
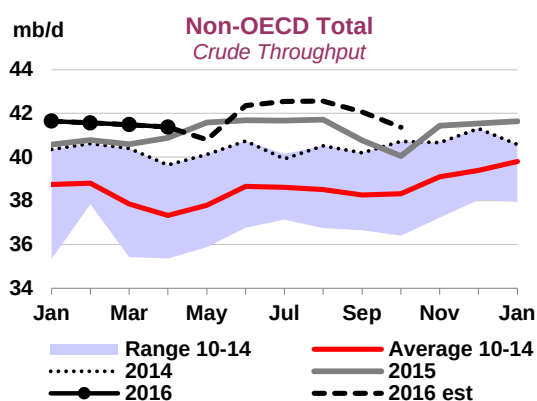
¹ Expressed as a percentage, based on crude throughput and current operable refining capacity² US\$0³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

The forecast for 3Q16 throughput is largely unchanged, with downward revisions for North America and Asia, and upward revisions for Europe. US runs are forecast to be slightly down y-o-y, by 60 kb/d as the start of the gasoline season has failed to impress, with the stocks overhang not easing and cracks dwindling lower. European runs are down by about the same amount y-o-y, a much more modest decline compared to the average 280 kb/d negative change since the start of the year. Thanks to 130 kb/d y-o-y growth in Korean runs OECD Asia Oceania is also overall higher y-o-y.

In October, European runs are expected to resume serious y-o-y losses, at about 530 kb/d, while North American and OECD Asia runs are forecast to be 330 kb/d and 100 kb/d higher y-o-y respectively.

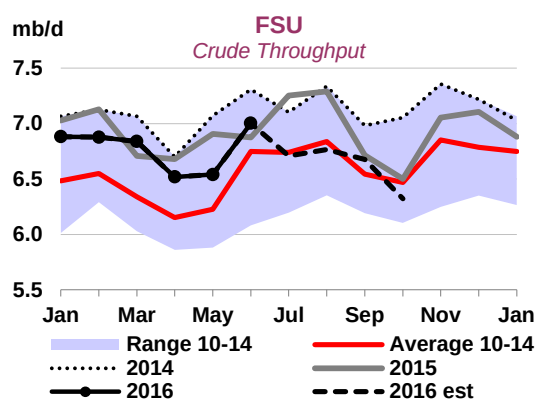
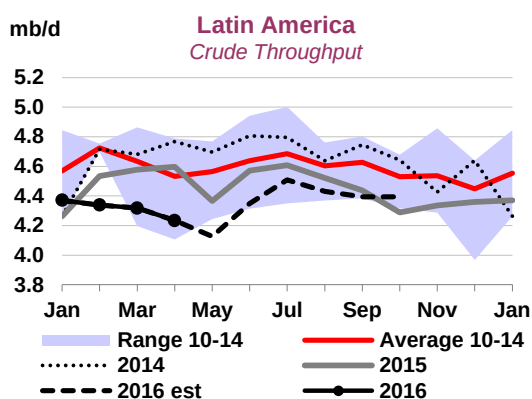
Non-OECD refinery throughput

While the non-OECD as a whole is now firmly driving global throughput gains, in reality, it is only the East of Suez that is growing, while Latin American, African and FSU throughput has mostly seen declines this year. In April, for example, the latter three regions registered a combined 620 kb/d drop y-o-y, more than offset by 780 kb/d growth shared equally between China and other Asia, and 230 kb/d growth from the Middle East.



Chinese and Indian May actual throughput numbers came in 130 kb/d and 150 kb/d lower than the forecast due to more extensive shutdowns than expected. Chinese 2Q16 growth estimate is now lowered by 60 kb/d to 200 kb/d y-o-y, still at the record quarterly throughput level at 10.66 mb/d. Our forecast for 3Q16 is also revised down by 70 kb/d to 10.73 mb/d, for a y-o-y gain of 390 kb/d. The Chinese government recently halved the product export quota allocations for the third quarter to just over 0.5 mb/d, to match the volumes refiners actually exported during 2Q16. Indian 2Q16 runs were revised down by 66 kb/d, seasonally lower than 1Q. Our forecast for 3Q16 implies the highest ever quarterly run rate for India of 4.96 mb/d, up almost 500 kb/d y-o-y. This growth rate will persist until at least October.

In the Middle East, April throughput in Saudi Arabia was down for a second consecutive month to 2.5 mb/d, still a robust 290 kb/d y-o-y increment. For the region as a whole, our 2Q16 runs estimate is unchanged, while 3Q16 is revised down by 100 kb/d to 7.2 mb/d, up 520 kb/d y-o-y. October throughput is forecast to see a substantial 380 kb/d annual gain.



In Latin America, Brazil's runs did not pick up from the low April levels, with finalised May numbers some 180 kb/d lower than our forecast, and showing a drop of 250 kb/d y-o-y. The expectations of higher runs before the summer Olympics did not materialise. This either implies a shutdown for regular maintenance or for additional conditioning work on the new units that came online last year, or, that, quite simply,

Petrobras is keen to maintain crude export levels with domestic oil output experiencing declines, diverting crude away from domestic refining. Due to these potential factors, we have revised down our 3Q16 forecast by 100 kb/d, with throughput now not expected to reach 2 mb/d throughout the forecast horizon to October.

Crude runs in Russia in June were a big surprise, exceeding our forecast by 440 kb/d, and reaching 5.7 mb/d. After having registered an average 200 kb/d y-o-y decline in the January-May period runs were up by 60 kb/d y-o-y. Our forecast for 3Q16 throughput is now revised higher by 150 kb/d, to an average of just under 5.5 mb/d, still down some 290 kb/d y-o-y. October runs will seasonally decline to 5.2 mb/d.

Russian downstream responds to fiscal changes

Just before the recent Libyan conflict, in 2010, Russia exported almost as much fuel oil as Libya did crude oil. Fuel oil yields in some Russian refineries were reaching 40%, and a multitude of small topping plants had sprung up in the country to benefit from the export tax arbitrage, whereby product exports were taxed at lower rates than crude oil, making the domestic refining -- especially the most unsophisticated form of it -- a rather profitable business. Partly thanks to this, Russian domestic refining volumes grew in line with crude output growth, eating away at crude exports. In the five years to 2014, the record Russian throughput year, refinery runs increased by 1 mb/d, while crude production was up by about 150 kb/d.

Last year, finally, the tax legislation was amended to introduce punitive taxes on fuel oil exports, and lower crude oil export duties, with a view to encouraging, or forcing, domestic refiners to increase the yields of higher value light and middle distillate products, as well as to supply transport fuels meeting new specifications set to gradually tighten. The financial incentive for the necessary investments into upgrading units, and, simultaneously, the disincentive for continuing to run topping operations, seem to be working now. Many refiners have already launched the range of heavy residue cracking, coking and gasoline component units that had been stuck in the planning stage for years. This has resulted in a clear emphasis of the refinery yields towards middle and light distillates.

Fuel oil yields are down by 6% percentage points, to 19%, which is still high compared to the global average. Middle distillate and gasoline yields have gained 1% point each. Thus, in January-May, while refinery runs were down 200 mb/d y-o-y, fuel oil output was down by 260 kb/d to 1 mb/d, while diesel lost only 35 kb/d. As a result, fuel oil exports are down by third y-o-y to 700 kb/d. Given the tightening sulphur specifications in its main export market – bunkers – the loss of high-sulphur Russian fuel oil volumes has not been very dramatic. Moreover, as Chinese teapots – the smaller independent refiners – change their feedstock from imported fuel oil to crude oil, residual fuel oil markets remain well-supplied.

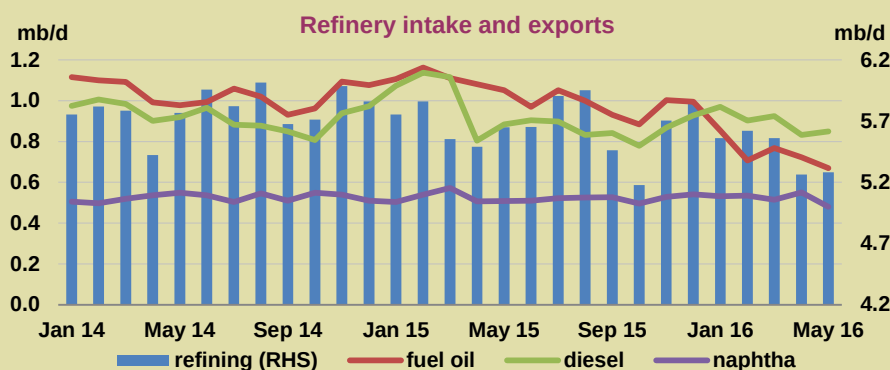


Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.2	24.2	24.3	24.2	24.8	24.5	24.5	24.5	24.5	24.8	24.6	24.6	24.6	24.6	25.0	24.7	24.7
Europe	13.6	13.5	13.5	13.6	14.2	13.7	13.7	13.6	13.8	14.2	13.7	13.8	13.6	13.9	14.2	13.7	13.8
Asia Oceania	8.3	8.1	8.7	7.6	7.7	8.2	8.0	8.5	7.6	7.7	8.2	8.0	8.6	7.6	7.7	8.2	8.0
Total OECD	46.1	45.8	46.5	45.3	46.7	46.3	46.2	46.6	45.9	46.7	46.5	46.4	46.7	46.1	46.9	46.6	46.6
NON-OECD DEMAND																	
FSU	4.7	4.9	4.6	4.9	5.1	5.0	4.9	4.9	5.0	5.1	5.0	5.0	4.9	5.0	5.1	5.1	5.0
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.8	11.2	11.4	11.5	11.5	11.4	11.4	11.7	11.8	11.9	11.7	11.8	11.9	12.0	12.1	12.0
Other Asia	11.7	12.0	12.3	12.5	12.3	12.8	12.5	13.1	13.1	12.9	13.4	13.1	13.7	13.7	13.4	13.9	13.7
Americas	6.6	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7
Middle East	7.9	8.0	7.6	8.3	8.6	8.1	8.2	7.8	8.3	8.7	8.3	8.2	8.0	8.4	8.8	8.4	8.4
Africa	3.9	4.0	4.1	4.1	4.0	4.2	4.1	4.2	4.2	4.2	4.3	4.2	4.4	4.4	4.3	4.4	4.4
Total Non-OECD	45.9	47.2	47.1	48.8	49.0	49.2	48.5	48.6	49.7	50.1	50.4	49.7	49.9	50.8	51.2	51.5	50.9
Total Demand¹	92.0	93.0	93.6	94.1	95.7	95.5	94.7	95.2	95.6	96.8	96.9	96.1	96.6	96.9	98.1	98.1	97.4
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.0	19.6	20.1	20.1	19.9	19.9	18.9	19.2	19.5	19.4	19.5	19.4	19.6	19.6	19.5
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.4	3.2	3.4	3.4
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total OECD	21.0	22.9	23.8	23.5	23.9	24.2	23.9	24.0	22.7	22.9	23.3	23.2	23.3	23.2	23.2	23.4	23.3
NON-OECD SUPPLY																	
FSU	13.9	13.9	14.0	14.0	13.9	14.1	14.0	14.3	14.0	14.0	14.0	14.1	14.0	14.0	14.0	14.1	14.0
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0	4.0
Other Asia ²	2.6	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.6	4.6	4.5	4.7	4.7	4.7	4.7	4.7
Middle East	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa ²	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0
Total Non-OECD	28.4	28.7	29.2	29.0	28.9	29.1	29.1	28.9	28.5	28.6	28.7	28.7	28.7	28.7	28.7	28.8	28.7
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.5	2.7	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.6	56.0	57.1	57.2	57.6	57.8	57.4	57.0	56.0	56.5	56.7	56.5	56.3	56.6	57.1	57.0	56.8
OPEC																	
Crude	31.4	31.2	31.4	32.4	32.7	32.6	32.3	32.8	33.0								
NGLs	6.3	6.5	6.6	6.7	6.7	6.7	6.7	6.8	6.8	6.9	6.9	6.9	6.9	7.0	7.0	7.1	7.0
Total OPEC ²	37.8	37.7	38.0	39.1	39.4	39.4	39.0	39.5	39.8								
Total Supply⁴	91.3	93.8	95.1	96.3	97.0	97.2	96.4	96.5	95.8								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.8	1.0	0.8	0.4	0.8	0.4									
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1									
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.4									
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2									
Miscellaneous to balance ⁵	-0.6	0.4	0.2	0.7	0.7	0.7	0.6	0.7									
Total Stock Ch. & Misc	-0.6	0.8	1.5	2.2	1.3	1.7	1.6	1.3	0.2								

Memo items:

Call on OPEC crude + Stock ch. ⁶	32.1	30.4	29.9	30.3	31.4	31.0	30.7	31.5	32.7	33.4	33.3	32.7	33.3	33.3	34.0	34.0	33.7

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Europe	-	0.1	-	-	-	-	-	-	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Asia Oceania	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Total OECD	0.1	0.1	-	-	-	-	-	-	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Total Demand	0.1	0.1	-	-	-	-	-	-	0.1	0.1	-	0.1	0.1	0.1	0.1	-	0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	-	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	-	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-0.1	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-0.1	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	0.1	0.1	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.2	0.1	-	-	0.1

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.20	24.34	24.19	24.83	24.47	24.46	24.48	24.46	24.85	24.65	24.61	24.56	24.59	25.01	24.72	24.72
Europe	13.51	13.46	13.57	14.16	13.71	13.73	13.63	13.81	14.15	13.69	13.82	13.62	13.90	14.15	13.67	13.84
Asia Oceania	8.10	8.67	7.57	7.70	8.17	8.03	8.54	7.62	7.73	8.16	8.01	8.56	7.57	7.72	8.17	8.00
Total OECD	45.81	46.47	45.33	46.69	46.35	46.21	46.65	45.90	46.73	46.49	46.44	46.74	46.06	46.89	46.56	46.56
Asia	22.76	23.51	23.97	23.76	24.37	23.90	24.52	24.77	24.64	25.26	24.80	25.45	25.65	25.42	26.02	25.64
Middle East	8.03	7.64	8.35	8.60	8.12	8.18	7.77	8.26	8.67	8.28	8.25	7.97	8.40	8.81	8.40	8.39
Americas	6.80	6.62	6.76	6.85	6.79	6.76	6.50	6.70	6.84	6.81	6.71	6.50	6.68	6.85	6.82	6.71
FSU	4.92	4.58	4.90	5.06	4.99	4.88	4.85	4.96	5.06	5.01	4.97	4.87	4.99	5.14	5.07	5.02
Africa	3.97	4.13	4.12	4.03	4.20	4.12	4.23	4.24	4.17	4.32	4.24	4.35	4.39	4.29	4.44	4.37
Europe	0.67	0.68	0.69	0.71	0.71	0.70	0.70	0.72	0.72	0.72	0.72	0.71	0.73	0.73	0.74	0.73
Total Non-OECD	47.16	47.15	48.79	49.00	49.18	48.54	48.57	49.66	50.11	50.40	49.69	49.85	50.85	51.23	51.50	50.86
World	92.97	93.62	94.13	95.69	95.53	94.75	95.21	95.56	96.84	96.89	96.13	96.59	96.90	98.12	98.06	97.42
of which: US50	19.11	19.29	19.25	19.68	19.36	19.40	19.45	19.57	19.88	19.65	19.64	19.61	19.70	20.00	19.77	19.77
Europe 5*	8.05	8.03	7.99	8.34	8.09	8.12	8.14	8.11	8.24	8.03	8.13	8.09	8.08	8.21	8.00	8.09
China	10.75	11.19	11.43	11.47	11.55	11.41	11.42	11.66	11.77	11.88	11.68	11.80	11.93	11.99	12.11	11.96
Japan	4.27	4.70	3.80	3.85	4.14	4.12	4.43	3.60	3.69	4.06	3.94	4.33	3.48	3.63	4.01	3.86
India	3.76	3.95	4.01	3.86	4.09	3.98	4.34	4.30	4.12	4.36	4.28	4.59	4.64	4.39	4.62	4.56
Russia	3.66	3.38	3.63	3.76	3.63	3.60	3.65	3.67	3.74	3.62	3.67	3.64	3.67	3.80	3.70	3.70
Brazil	3.22	3.16	3.17	3.22	3.20	3.19	3.02	3.07	3.15	3.17	3.10	3.02	3.06	3.17	3.19	3.11
Saudi Arabia	3.14	2.88	3.47	3.58	3.22	3.29	2.94	3.34	3.58	3.21	3.27	3.01	3.36	3.61	3.23	3.30
Canada	2.41	2.43	2.33	2.45	2.40	2.41	2.39	2.32	2.39	2.35	2.36	2.34	2.28	2.39	2.30	2.33
Korea	2.35	2.46	2.29	2.36	2.52	2.41	2.59	2.51	2.51	2.58	2.55	2.69	2.56	2.57	2.64	2.62
Mexico	2.04	1.94	1.97	2.07	2.05	2.01	1.98	1.93	1.94	1.99	1.96	1.95	1.98	1.97	2.00	1.97
Iran	1.90	1.82	1.85	1.79	1.87	1.83	1.84	1.83	1.85	1.94	1.87	1.89	1.89	1.91	1.99	1.92
Total	64.66	65.23	65.19	66.43	66.11	65.75	66.19	65.90	66.87	66.85	66.46	66.95	66.62	67.64	67.56	67.19
% of World	69.5%	69.7%	69.3%	69.4%	69.2%	69.4%	69.5%	69.0%	69.1%	69.0%	69.1%	69.3%	68.7%	68.9%	68.9%	69.0%
Annual Change (% per annum)																
Americas	0.2	1.7	1.7	1.6	-0.6	1.1	0.6	1.1	0.1	0.7	0.6	0.4	0.5	0.7	0.3	0.5
Europe	-0.7	2.8	0.7	1.6	1.3	1.6	1.3	1.8	-0.1	-0.1	0.7	-0.1	0.6	0.0	-0.1	0.1
Asia Oceania	-2.8	-2.2	-0.8	0.8	-1.4	-0.9	-1.6	0.7	0.3	-0.2	-0.2	0.2	-0.8	-0.1	0.2	-0.1
Total OECD	-0.6	1.2	1.0	1.5	-0.2	0.9	0.4	1.3	0.1	0.3	0.5	0.2	0.3	0.3	0.2	0.3
Asia	3.0	3.9	5.1	6.5	4.5	5.0	4.3	3.3	3.7	3.6	3.7	3.8	3.6	3.2	3.0	3.4
Middle East	1.6	-1.1	2.2	2.6	3.5	1.8	1.7	-1.0	0.9	1.9	0.8	2.6	1.6	1.6	1.5	1.8
Americas	2.6	0.4	-0.1	-1.2	-1.8	-0.7	-1.8	-1.0	-0.2	0.3	-0.6	0.0	-0.2	0.1	0.1	0.0
FSU	4.4	-1.1	0.7	-1.7	-1.3	-0.9	6.0	1.3	0.2	0.6	1.9	0.3	0.5	1.5	1.2	0.9
Africa	2.1	2.9	2.8	3.9	5.6	3.8	2.4	3.0	3.5	2.9	3.0	2.9	3.5	2.8	2.7	3.0
Europe	2.6	4.1	3.4	2.5	4.2	3.5	3.5	4.1	1.5	1.5	2.6	1.6	1.5	0.8	2.6	1.6
Total Non-OECD	2.8	2.0	3.2	3.5	2.9	2.9	3.0	1.8	2.3	2.5	2.4	2.6	2.4	2.2	2.2	2.4
World	1.1	1.6	2.1	2.5	1.4	1.9	1.7	1.5	1.2	1.4	1.5	1.4	1.4	1.3	1.2	1.3
Annual Change (mb/d)																
Americas	0.04	0.40	0.41	0.40	-0.15	0.26	0.14	0.28	0.02	0.18	0.15	0.09	0.13	0.16	0.08	0.11
Europe	-0.10	0.36	0.09	0.23	0.18	0.21	0.18	0.24	-0.01	-0.02	0.10	-0.01	0.09	0.00	-0.02	0.02
Asia Oceania	-0.23	-0.19	-0.06	0.06	-0.11	-0.07	-0.13	0.05	0.02	-0.02	-0.02	0.02	-0.06	-0.01	0.02	-0.01
Total OECD	-0.29	0.57	0.44	0.69	-0.09	0.40	0.18	0.57	0.04	0.14	0.23	0.09	0.16	0.16	0.08	0.12
Asia	0.67	0.89	1.16	1.45	1.06	1.14	1.01	0.80	0.89	0.89	0.89	0.94	0.89	0.78	0.77	0.84
Middle East	0.12	-0.08	0.18	0.22	0.27	0.15	0.13	-0.09	0.07	0.15	0.07	0.20	0.13	0.14	0.12	0.15
Americas	0.17	0.03	-0.01	-0.08	-0.13	-0.05	-0.12	-0.06	-0.01	0.02	-0.04	0.00	-0.02	0.01	0.01	0.00
FSU	0.21	-0.05	0.04	-0.09	-0.06	-0.04	0.28	0.06	0.01	0.03	0.09	0.01	0.03	0.08	0.06	0.05
Africa	0.08	0.12	0.11	0.15	0.22	0.15	0.10	0.13	0.14	0.12	0.12	0.12	0.15	0.12	0.12	0.13
Europe	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	1.28	0.92	1.51	1.67	1.40	1.38	1.42	0.86	1.11	1.22	1.15	1.29	1.19	1.12	1.09	1.17
World	0.99	1.49	1.95	2.35	1.31	1.78	1.60	1.43	1.15	1.36	1.38	1.38	1.35	1.28	1.17	1.29
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.06	0.10	0.10	0.10	0.10	0.10	0.11	0.07	0.09	0.14	0.10	0.12	0.12	0.14	0.05	0.11
Europe	0.06	0.01	0.01	0.02	0.01	0.01	0.01	0.13	0.21	0.13	0.12	0.12	0.13	0.17	0.16	0.14
Asia Oceania	-0.03	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08	-0.11	-0.11	-0.12	-0.10	-0.09	-0.06	-0.08	-0.07	-0.08
Total OECD	0.09	0.03	0.03	0.03	0.03	0.03	0.04	0.09	0.20	0.15	0.12	0.14	0.19	0.22	0.15	0.18
Asia	0.00	-0.04	-0.05	-0.03	-0.02	-0.04	0.02	-0.04	-0.10	-0.11	-0.06	-0.05	-0.14	-0.12	-0.07	-0.09
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.01	-0.01	0.01	-0.02	0.04	0.00	-0.02	0.00
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.03	-0.03	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03
FSU	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.01	0.02
Africa	0.00	0.00	0.01	0.00	0.01	0.01	-0.01	-0.02	-0.01	0.00	-0.01	-0.01	-0.02	-0.01	-0.01	-0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	-0.04	-0.04	-0.02	0.00	-0.02	0.01	-0.01	-0.10	-0.13	-0.06	-0.08	-0.12	-0.14	-0.13	-0.12
World	0.09	0.00	0.00	0.01	0.03	0.01	0.05	0.08	0.09	0.02	0.06	0.06	0.07	0.08	0.02	0.06
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.02	-0.13	-0.08	-0.07	-0.04	-0.08	0.05	0.09	0.08	-0.01	0.05	0.02	-0.01	-0.01	0.00	0.00

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	2Q15	3Q15	4Q15	1Q16	Feb 16	Mar 16	Apr 16 ²	Mar 16	Apr 15
Americas											
LPG and ethane	3.22	3.21	2.98	3.02	3.37	3.55	3.60	3.28	2.98	-0.30	-0.06
Naphtha	0.35	0.33	0.31	0.32	0.35	0.35	0.34	0.34	0.34	0.00	0.00
Motor gasoline	10.61	10.89	10.98	11.17	10.90	10.85	10.95	11.18	10.95	-0.23	0.14
Jet and kerosene	1.74	1.82	1.81	1.89	1.85	1.78	1.80	1.83	1.82	-0.01	0.09
Gasoil/diesel oil	5.28	5.19	5.09	5.15	5.03	5.06	5.16	5.10	5.01	-0.09	-0.15
Residual fuel oil	0.58	0.55	0.45	0.63	0.62	0.58	0.45	0.71	0.74	0.02	0.35
Other products	2.40	2.45	2.56	2.65	2.34	2.30	2.43	2.25	2.25	0.00	-0.14
Total	24.20	24.46	24.19	24.83	24.47	24.48	24.71	24.70	24.09	-0.61	0.23
Europe											
LPG and ethane	1.10	1.14	1.13	1.11	1.12	1.22	1.27	1.15	1.17	0.02	0.03
Naphtha	1.13	1.12	1.09	1.07	1.10	1.24	1.25	1.23	1.18	-0.05	0.04
Motor gasoline	1.92	1.92	1.98	2.03	1.90	1.79	1.83	1.86	1.94	0.09	-0.05
Jet and kerosene	1.27	1.32	1.34	1.49	1.25	1.24	1.27	1.27	1.33	0.06	0.03
Gasoil/diesel oil	5.94	6.14	5.90	6.26	6.27	6.10	6.31	6.33	6.29	-0.04	0.23
Residual fuel oil	0.95	0.91	0.89	0.90	0.92	0.96	0.96	0.96	0.92	-0.04	0.03
Other products	1.21	1.18	1.23	1.30	1.14	1.08	1.07	1.19	1.20	0.01	0.01
Total	13.51	13.73	13.57	14.16	13.71	13.63	13.97	13.99	14.03	0.04	0.31
Asia Oceania											
LPG and ethane	0.82	0.77	0.71	0.74	0.76	0.83	0.89	0.85	0.86	0.02	0.09
Naphtha	1.88	1.96	1.88	1.95	1.99	2.00	2.10	1.83	1.85	0.02	-0.15
Motor gasoline	1.55	1.56	1.51	1.62	1.57	1.52	1.54	1.56	1.52	-0.03	-0.01
Jet and kerosene	0.87	0.87	0.69	0.70	0.96	1.17	1.24	1.05	0.84	-0.21	0.05
Gasoil/diesel oil	1.76	1.78	1.73	1.73	1.84	1.83	1.89	1.90	1.80	-0.09	0.03
Residual fuel oil	0.68	0.64	0.61	0.55	0.64	0.75	0.76	0.76	0.67	-0.09	0.01
Other products	0.56	0.45	0.44	0.43	0.42	0.44	0.45	0.39	0.38	-0.01	-0.09
Total	8.10	8.03	7.57	7.70	8.17	8.54	8.88	8.34	7.94	-0.40	-0.06
OECD											
LPG and ethane	5.13	5.13	4.83	4.87	5.25	5.60	5.76	5.27	5.01	-0.26	0.06
Naphtha	3.36	3.41	3.28	3.34	3.45	3.59	3.70	3.41	3.37	-0.04	-0.11
Motor gasoline	14.08	14.37	14.47	14.81	14.37	14.16	14.32	14.60	14.42	-0.18	0.08
Jet and kerosene	3.88	4.01	3.85	4.08	4.06	4.19	4.31	4.15	4.00	-0.16	0.17
Gasoil/diesel oil	12.98	13.11	12.72	13.13	13.14	12.99	13.36	13.33	13.10	-0.23	0.11
Residual fuel oil	2.21	2.10	1.95	2.08	2.18	2.29	2.16	2.44	2.32	-0.11	0.39
Other products	4.16	4.09	4.23	4.37	3.89	3.82	3.95	3.83	3.84	0.01	-0.22
Total	45.81	46.21	45.33	46.69	46.35	46.65	47.57	47.02	46.06	-0.97	0.48

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils. North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	2Q15	3Q15	4Q15	1Q16	Feb 16	Mar 16	Apr 16 ²	Latest month vs.	
										Mar 16	Apr 15
United States³											
LPG and ethane	2.40	2.37	2.18	2.20	2.50	2.69	2.72	2.44	2.26	-0.19	0.03
Naphtha	0.23	0.22	0.20	0.22	0.24	0.22	0.22	0.21	0.22	0.01	0.00
Motor gasoline	8.92	9.16	9.26	9.39	9.17	9.09	9.21	9.40	9.21	-0.19	0.07
Jet and kerosene	1.48	1.55	1.55	1.59	1.58	1.51	1.53	1.55	1.57	0.02	0.08
Gasoil/diesel oil	4.04	3.98	3.88	3.93	3.83	3.90	3.96	3.94	3.82	-0.12	-0.18
Residual fuel oil	0.26	0.26	0.19	0.31	0.30	0.31	0.20	0.40	0.48	0.08	0.33
Other products	1.78	1.86	1.99	2.04	1.74	1.72	1.85	1.68	1.71	0.03	-0.11
Total	19.11	19.40	19.25	19.68	19.36	19.45	19.68	19.62	19.26	-0.35	0.23
Japan											
LPG and ethane	0.49	0.43	0.40	0.39	0.40	0.47	0.52	0.47	0.48	0.01	0.00
Naphtha	0.74	0.78	0.73	0.78	0.80	0.79	0.78	0.75	0.80	0.05	-0.02
Motor gasoline	0.92	0.91	0.89	0.97	0.92	0.87	0.88	0.91	0.88	-0.02	-0.01
Jet and kerosene	0.52	0.50	0.35	0.35	0.57	0.74	0.80	0.65	0.47	-0.18	0.03
Diesel	0.41	0.41	0.40	0.41	0.42	0.41	0.43	0.44	0.40	-0.04	-0.01
Other gasoil	0.36	0.35	0.32	0.30	0.36	0.40	0.43	0.42	0.34	-0.08	-0.01
Residual fuel oil	0.42	0.36	0.34	0.31	0.32	0.38	0.39	0.39	0.34	-0.05	-0.04
Other products	0.41	0.37	0.37	0.35	0.35	0.37	0.39	0.33	0.27	-0.06	-0.12
Total	4.27	4.12	3.80	3.85	4.14	4.43	4.62	4.35	3.97	-0.38	-0.19
Germany											
LPG and ethane	0.09	0.10	0.11	0.10	0.08	0.10	0.10	0.11	0.11	0.00	0.00
Naphtha	0.41	0.40	0.39	0.37	0.40	0.42	0.42	0.41	0.36	-0.05	-0.09
Motor gasoline	0.43	0.42	0.43	0.44	0.42	0.39	0.41	0.41	0.43	0.02	0.00
Jet and kerosene	0.18	0.18	0.19	0.20	0.18	0.17	0.17	0.18	0.19	0.01	0.01
Diesel	0.71	0.75	0.75	0.79	0.77	0.72	0.74	0.77	0.83	0.05	0.07
Other gasoil	0.37	0.35	0.24	0.34	0.37	0.46	0.50	0.42	0.35	-0.08	0.05
Residual fuel oil	0.12	0.12	0.12	0.12	0.11	0.14	0.14	0.13	0.14	0.01	0.02
Other products	0.06	0.05	0.05	0.08	0.05	0.01	0.00	0.03	0.07	0.04	0.05
Total	2.37	2.37	2.29	2.44	2.39	2.42	2.47	2.47	2.47	0.01	0.12
Italy											
LPG and ethane	0.10	0.11	0.10	0.10	0.12	0.12	0.12	0.12	0.10	-0.02	0.00
Naphtha	0.07	0.09	0.09	0.09	0.09	0.11	0.11	0.12	0.13	0.02	0.04
Motor gasoline	0.20	0.21	0.21	0.23	0.21	0.20	0.20	0.21	0.21	0.00	-0.02
Jet and kerosene	0.09	0.10	0.10	0.12	0.08	0.09	0.09	0.09	0.11	0.02	0.01
Diesel	0.48	0.44	0.45	0.45	0.45	0.42	0.44	0.44	0.44	0.00	-0.02
Other gasoil	0.09	0.09	0.08	0.09	0.10	0.08	0.09	0.08	0.08	0.00	0.00
Residual fuel oil	0.07	0.08	0.08	0.08	0.08	0.07	0.08	0.07	0.07	0.00	-0.01
Other products	0.15	0.15	0.16	0.15	0.15	0.12	0.13	0.13	0.15	0.02	-0.02
Total	1.27	1.27	1.27	1.32	1.28	1.21	1.26	1.27	1.30	0.03	-0.01
France											
LPG and ethane	0.13	0.13	0.12	0.11	0.13	0.17	0.17	0.17	0.15	-0.02	0.02
Naphtha	0.13	0.13	0.14	0.13	0.09	0.14	0.14	0.13	0.13	-0.01	-0.01
Motor gasoline	0.16	0.16	0.17	0.18	0.16	0.15	0.15	0.16	0.17	0.01	-0.01
Jet and kerosene	0.15	0.15	0.16	0.17	0.15	0.14	0.14	0.14	0.15	0.01	0.01
Diesel	0.70	0.71	0.71	0.72	0.72	0.67	0.70	0.72	0.72	0.00	-0.02
Other gasoil	0.25	0.25	0.20	0.28	0.23	0.26	0.26	0.28	0.23	-0.05	0.00
Residual fuel oil	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.00	0.00
Other products	0.12	0.12	0.14	0.12	0.10	0.12	0.12	0.12	0.12	0.00	0.00
Total	1.69	1.69	1.68	1.76	1.63	1.69	1.72	1.76	1.70	-0.06	-0.02
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.12	0.14	0.18	0.18	0.16	0.17	0.01	0.03
Naphtha	0.02	0.03	0.02	0.03	0.04	0.04	0.04	0.03	0.03	0.00	0.01
Motor gasoline	0.30	0.29	0.30	0.30	0.29	0.28	0.29	0.28	0.29	0.02	-0.01
Jet and kerosene	0.31	0.31	0.30	0.32	0.30	0.33	0.34	0.33	0.31	-0.03	-0.01
Diesel	0.48	0.50	0.50	0.50	0.51	0.49	0.54	0.49	0.53	0.04	0.03
Other gasoil	0.13	0.13	0.14	0.14	0.13	0.12	0.11	0.13	0.14	0.01	0.00
Residual fuel oil	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00
Other products	0.12	0.12	0.11	0.13	0.12	0.11	0.11	0.11	0.13	0.01	0.01
Total	1.52	1.55	1.54	1.57	1.56	1.57	1.63	1.56	1.63	0.06	0.06
Canada											
LPG and ethane	0.36	0.38	0.36	0.38	0.41	0.43	0.41	0.43	0.36	-0.07	-0.01
Naphtha	0.09	0.09	0.09	0.09	0.10	0.11	0.11	0.11	0.11	0.00	0.01
Motor gasoline	0.81	0.82	0.83	0.86	0.81	0.83	0.81	0.83	0.83	0.00	0.04
Jet and kerosene	0.14	0.14	0.14	0.16	0.14	0.13	0.13	0.14	0.13	-0.01	0.00
Diesel	0.29	0.31	0.31	0.32	0.29	0.30	0.31	0.29	0.31	0.02	-0.02
Other gasoil	0.30	0.26	0.24	0.26	0.26	0.22	0.24	0.22	0.25	0.03	0.06
Residual fuel oil	0.05	0.04	0.03	0.02	0.03	0.05	0.05	0.04	0.04	-0.01	-0.01
Other products	0.36	0.35	0.33	0.37	0.36	0.32	0.33	0.31	0.30	-0.01	-0.02
Total	2.41	2.41	2.33	2.45	2.40	2.39	2.39	2.36	2.33	-0.03	0.05

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2015	2016	2017	1Q16	2Q16	3Q16	4Q16	1Q17	Apr 16	May 16	Jun 16
OPEC											
Crude Oil											
Saudi Arabia	10.13			10.21	10.31				10.22	10.25	10.45
Iran	2.86			3.15	3.61				3.56	3.61	3.66
Iraq	3.99			4.28	4.29				4.36	4.27	4.25
UAE	2.88			2.81	2.88				2.82	2.91	2.91
Kuwait	2.75			2.83	2.82				2.73	2.85	2.87
Neutral Zone	0.07			0.00	0.00				0.00	0.00	0.00
Qatar	0.66			0.66	0.66				0.66	0.66	0.66
Angola	1.76			1.77	1.73				1.75	1.72	1.72
Nigeria	1.80			1.76	1.55				1.62	1.44	1.58
Libya	0.40			0.36	0.31				0.35	0.28	0.31
Algeria	1.11			1.10	1.10				1.09	1.09	1.11
Ecuador	0.54			0.54	0.55				0.54	0.55	0.55
Venezuela	2.40			2.34	2.23				2.30	2.22	2.18
Indonesia	0.69			0.71	0.74				0.73	0.74	0.74
Gabon	0.23			0.22	0.22				0.22	0.22	0.22
Total Crude Oil	32.28			32.76	32.99				32.95	32.81	33.21
Total NGLs ¹	6.67	6.86	6.99	6.77	6.83	6.89	6.94	6.94	6.83	6.83	6.83
Total OPEC²	38.95			39.54	39.81				39.77	39.63	40.03
NON-OPEC^{2,3}											
OECD											
Americas	19.93	19.36	19.50	19.88	18.86	19.24	19.46	19.50	19.25	18.56	18.77
United States	12.94	12.53	12.53	12.73	12.56	12.36	12.48	12.45	12.63	12.59	12.45
Mexico	2.60	2.48	2.37	2.54	2.49	2.45	2.43	2.40	2.48	2.48	2.49
Canada	4.39	4.35	4.60	4.61	3.81	4.42	4.55	4.65	4.13	3.48	3.82
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.48	3.43	3.35	3.64	3.43	3.23	3.43	3.43	3.57	3.48	3.24
UK	0.97	1.02	0.97	1.09	1.07	0.90	1.00	1.00	1.08	1.09	1.03
Norway	1.95	1.94	1.89	2.03	1.91	1.87	1.94	1.93	2.03	1.94	1.76
Others	0.56	0.47	0.49	0.51	0.45	0.45	0.49	0.50	0.46	0.45	0.44
Asia Oceania	0.46	0.42	0.42	0.43	0.42	0.41	0.40	0.41	0.42	0.42	0.42
Australia	0.38	0.34	0.35	0.36	0.34	0.33	0.33	0.33	0.34	0.34	0.34
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.07	0.08
Total OECD	23.87	23.21	23.28	23.96	22.71	22.87	23.29	23.33	23.24	22.46	22.42
NON-OECD											
Former USSR	14.00	14.07	14.02	14.26	14.04	13.99	14.00	14.05	14.05	14.02	14.06
Russia	11.06	11.18	11.14	11.24	11.17	11.16	11.16	11.12	11.16	11.18	11.18
Others	2.94	2.89	2.88	3.02	2.87	2.83	2.84	2.93	2.89	2.85	2.88
Asia²	7.04	6.76	6.63	6.91	6.74	6.69	6.70	6.64	6.78	6.73	6.70
China	4.33	4.06	3.98	4.18	4.04	4.01	4.00	3.99	4.09	4.02	4.02
Malaysia	0.71	0.72	0.72	0.73	0.72	0.72	0.72	0.70	0.71	0.72	0.72
India	0.87	0.84	0.83	0.85	0.84	0.83	0.85	0.84	0.84	0.85	0.82
Others	1.14	1.14	1.10	1.15	1.14	1.13	1.13	1.11	1.15	1.13	1.13
Europe	0.14	0.14	0.13	0.14	0.14	0.14	0.13	0.13	0.14	0.14	0.14
Americas²	4.59	4.51	4.71	4.36	4.43	4.59	4.64	4.67	4.31	4.50	4.49
Brazil	2.53	2.60	2.88	2.40	2.52	2.71	2.77	2.81	2.38	2.57	2.59
Argentina	0.63	0.62	0.61	0.62	0.62	0.62	0.62	0.61	0.62	0.62	0.62
Colombia	1.01	0.91	0.86	0.96	0.91	0.89	0.87	0.87	0.92	0.91	0.90
Others	0.42	0.38	0.37	0.38	0.39	0.38	0.38	0.37	0.39	0.39	0.38
Middle East^{2,4}	1.28	1.25	1.21	1.26	1.25	1.25	1.24	1.22	1.25	1.26	1.25
Oman	0.99	1.00	0.96	1.01	1.00	1.00	0.99	0.97	1.00	1.01	1.00
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.00	1.96	2.04	1.95	1.92	1.98	2.01	2.02	1.87	1.91	1.96
Egypt	0.67	0.64	0.62	0.65	0.65	0.64	0.63	0.63	0.65	0.64	0.64
Others	1.10	1.10	1.21	1.08	1.05	1.12	1.16	1.18	1.00	1.05	1.10
Total Non-OECD	29.06	28.69	28.74	28.87	28.52	28.64	28.71	28.73	28.41	28.56	28.60
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.27	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.38	2.45	1.89	2.50	2.74	2.38	1.97	2.39	2.45	2.65
TOTAL NON-OPEC	57.43	56.54	56.77	56.98	56.00	56.51	56.66	56.33	56.31	55.74	55.94
TOTAL SUPPLY	96.38			96.52	95.81				96.09	95.37	95.97

1 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

2 Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

3 Comprises crude oil, condensates, NGLs and oil from non-conventional sources.

4 Includes small amounts of production from Jordan and Bahrain.

5 Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jan2016	Feb2016	Mar2016	Apr2016	May2016*	May2013	May2014	May2015	2Q2015	3Q2015	4Q2015	1Q2016
OECD Americas												
Crude	660.9	675.5	689.1	691.1	680.1	530.9	541.5	628.8	0.00	-0.10	0.27	0.53
Motor Gasoline	291.5	285.3	275.5	273.6	271.1	256.0	252.8	255.1	-0.16	0.07	0.11	0.09
Middle Distillate	238.5	240.7	240.5	231.6	228.0	196.0	194.6	209.2	0.14	0.07	0.17	0.06
Residual Fuel Oil	50.4	52.2	50.8	50.6	47.7	47.1	47.8	48.3	0.03	-0.01	0.03	0.01
Total Products ³	779.7	765.4	760.3	761.3	769.8	682.8	676.1	724.7	0.43	0.31	0.11	-0.14
Total ⁴	1614.0	1610.7	1622.7	1628.3	1623.3	1368.9	1383.3	1527.5	0.59	0.37	0.21	0.36
OECD Europe												
Crude	357.8	353.7	350.5	356.7	358.3	331.8	328.8	343.7	0.00	-0.05	0.23	-0.12
Motor Gasoline	102.3	108.1	100.5	99.9	100.7	85.0	87.8	92.0	-0.18	0.04	0.03	0.09
Middle Distillate	313.5	309.8	309.1	313.0	314.6	240.0	253.0	281.0	0.20	0.26	0.00	0.08
Residual Fuel Oil	72.7	76.2	77.4	72.7	74.0	76.0	69.5	65.5	0.01	0.03	0.03	0.06
Total Products ³	588.8	593.1	585.2	583.8	589.3	496.7	502.5	533.2	0.00	0.36	0.07	0.24
Total ⁴	1014.9	1019.5	1005.1	1010.4	1016.1	890.7	900.4	947.9	0.02	0.29	0.25	0.17
OECD Asia Oceania												
Crude	191.6	195.6	196.0	200.2	209.1	172.2	170.4	198.3	0.26	0.01	0.04	-0.11
Motor Gasoline	25.4	24.6	26.1	25.0	25.4	27.3	25.2	25.1	0.03	-0.02	0.00	0.03
Middle Distillate	64.5	59.4	59.0	61.6	64.2	57.5	58.8	61.5	0.06	0.06	-0.01	-0.08
Residual Fuel Oil	18.9	18.7	19.9	19.2	18.9	20.7	22.6	20.9	0.01	0.03	-0.01	-0.01
Total Products ³	167.2	163.1	166.1	163.2	169.0	164.2	164.5	167.6	0.14	0.11	-0.11	0.00
Total ⁴	425.2	421.7	421.3	421.5	434.3	410.6	405.5	430.3	0.41	0.17	-0.11	-0.15
Total OECD												
Crude	1210.3	1224.7	1235.6	1248.0	1247.4	1034.9	1040.6	1170.8	0.26	-0.14	0.54	0.30
Motor Gasoline	419.2	418.0	402.1	398.5	397.1	368.3	365.8	372.1	-0.32	0.09	0.13	0.21
Middle Distillate	616.4	609.9	608.5	606.2	606.9	493.5	506.4	551.7	0.40	0.40	0.15	0.06
Residual Fuel Oil	142.0	147.2	148.1	142.4	140.6	143.8	139.8	134.7	0.05	0.05	0.05	0.06
Total Products ³	1535.7	1521.6	1511.6	1508.3	1528.0	1343.6	1343.1	1425.5	0.57	0.79	0.07	0.10
Total ⁴	3054.1	3051.9	3049.1	3060.2	3073.7	2670.2	2689.3	2905.7	1.02	0.82	0.35	0.37

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jan2016	Feb2016	Mar2016	Apr2016	May2016*	May2013	May2014	May2015	2Q2015	3Q2015	4Q2015	1Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	691.0	692.4	0.03	0.01	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.8	206.3	206.5	206.2	206.1	204.6	207.9	208.3	-0.02	0.01	-0.01	0.00
Products	264.4	265.0	266.4	265.7	264.2	256.6	261.2	260.6	0.02	-0.05	0.08	0.05
OECD Asia Oceania												
Crude	383.6	384.2	384.2	384.2	385.5	389.5	387.7	385.1	-0.01	-0.05	0.01	0.02
Products	34.2	34.4	35.2	35.2	35.2	23.1	30.5	32.6	0.00	0.01	0.01	0.01
Total OECD												
Crude	1285.5	1285.6	1285.8	1285.5	1286.7	1290.1	1286.6	1285.7	0.00	-0.02	0.00	0.02
Products	300.5	301.4	303.6	302.9	301.4	280.7	292.7	295.3	0.02	-0.04	0.08	0.06
Total ⁴	1589.9	1590.7	1593.2	1591.4	1590.8	1575.1	1583.3	1584.8	0.03	-0.06	0.08	0.07

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')³

	End March 2015		End June 2015		End September 2015		End December 2015		End March 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	182.8	78	175.6	72	182.5	76	188.4	79	183.3	-
Chile	11.3	32	11.8	36	11.0	33	10.6	32	11.3	-
Mexico	49.8	25	50.4	24	49.5	24	49.7	25	48.7	-
United States ⁴	1910.4	99	1973.2	100	2003.1	103	2016.8	104	2054.5	-
Total ⁴	2176.3	90	2233.2	90	2268.2	93	2287.5	93	2319.8	96
OECD Asia Oceania										
Australia	34.1	31	35.9	32	35.5	31	33.5	30	37.0	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	567.7	149	578.3	150	589.6	143	582.0	131	559.8	-
Korea	201.0	88	224.6	95	226.0	90	227.9	88	235.7	-
New Zealand	8.7	57	9.0	59	8.7	52	7.7	45	8.2	-
Total	811.6	107	847.9	110	859.7	105	851.1	100	840.7	111
OECD Europe⁵										
Austria	23.7	90	23.2	82	23.7	90	24.1	94	25.4	-
Belgium	42.9	67	47.7	74	51.3	81	50.4	73	52.7	-
Czech Republic	21.7	103	21.6	106	21.8	127	22.1	148	22.8	-
Denmark	28.8	186	28.4	178	28.6	186	31.8	211	32.4	-
Estonia	1.5	55	1.5	50	1.5	53	1.8	66	2.2	-
Finland	44.1	242	45.0	219	39.9	205	44.9	237	46.0	-
France	172.9	103	169.8	97	166.8	103	167.6	99	165.8	-
Germany	283.9	124	285.6	117	281.4	118	285.3	118	288.7	-
Greece	31.1	111	27.8	91	29.2	94	32.4	115	33.8	-
Hungary	20.0	133	20.5	127	20.6	126	22.0	157	20.9	-
Ireland	12.8	91	11.1	74	11.3	75	11.6	75	12.2	-
Italy	121.0	95	117.1	89	117.2	92	117.3	97	119.9	-
Luxembourg	0.7	12	0.6	12	0.6	10	0.7	13	0.7	-
Netherlands	136.4	148	140.2	146	153.1	160	158.8	165	157.7	-
Norway	23.2	106	25.9	126	25.1	105	26.7	127	24.9	-
Poland	62.7	116	62.6	111	63.9	119	69.4	131	67.4	-
Portugal	21.7	87	21.8	85	23.0	97	23.9	109	24.5	-
Slovak Republic	11.6	131	11.4	137	11.0	134	11.6	150	11.9	-
Slovenia	4.9	99	4.7	88	4.6	96	4.5	90	4.6	-
Spain	132.4	109	133.4	106	139.4	113	130.9	104	140.3	-
Sweden	32.3	106	31.0	103	33.3	120	35.2	122	34.9	-
Switzerland	37.3	172	37.2	165	36.3	149	34.4	171	36.1	-
Turkey	64.7	75	65.7	70	71.2	82	74.6	88	75.9	-
United Kingdom	76.3	50	77.2	49	78.8	51	80.9	52	80.0	-
Total	1408.7	104	1410.9	100	1433.8	105	1463.0	107	1481.8	108
Total OECD	4396.6	97	4492.1	96	4561.7	98	4601.6	99	4642.3	102
DAYS OF IEA Net Imports⁶ -	172	-	194	-	196	-	198	-	200	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End March 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled Millions of Barrels	Industry	Total	Government ¹ controlled Days of Fwd. Demand ²	Industry
1Q2013	4259	1580	2680	93	35	59
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	56
1Q2014	4196	1585	2610	93	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4328	1578	2749	93	34	59
4Q2014	4318	1580	2738	93	34	59
1Q2015	4397	1583	2814	97	35	62
2Q2015	4492	1585	2907	96	34	62
3Q2015	4562	1579	2982	98	34	64
4Q2015	4602	1587	3015	99	34	65
1Q2016	4642	1593	3049	102	35	67

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 1Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	2Q15	3Q15	4Q15	1Q16	Feb 16	Mar 16	Apr 16	Year Earlier	
											Apr 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.65	0.57	0.72	0.74	0.68	0.72	0.78	0.81	-0.03
Europe	0.79	0.84	0.78	0.77	0.77	0.69	0.72	0.72	0.58	0.70	0.83	-0.13
Asia Oceania	1.21	1.17	1.25	1.25	1.16	1.21	1.40	1.46	1.42	1.51	1.31	0.20
Saudi Medium												
Americas	0.45	0.36	0.37	0.37	0.44	0.43	0.39	0.38	0.46	0.42	0.35	0.07
Europe	0.01	0.03	0.03	0.02	0.02	0.04	-	-	-	-	0.02	-
Asia Oceania	0.43	0.45	0.44	0.44	0.48	0.41	0.46	0.53	0.44	0.48	0.46	0.02
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.20	0.09	0.29	0.21	0.23	0.28	0.42	0.15	0.27
Europe	0.25	0.50	0.72	0.48	0.95	0.94	0.75	0.77	0.51	0.69	0.55	0.14
Asia Oceania	0.31	0.24	0.41	0.31	0.42	0.49	0.47	0.63	0.45	0.64	0.18	0.46
Kuwait Blend												
Americas	0.28	0.27	0.13	0.21	0.11	0.07	0.13	0.39	-	0.15	0.28	-0.13
Europe	0.10	0.09	0.13	0.08	0.16	0.18	0.20	0.25	0.16	0.16	0.09	0.06
Asia Oceania	0.64	0.62	0.65	0.61	0.62	0.69	0.71	0.73	0.75	0.62	0.61	0.01
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.11	0.07	0.10	0.09	0.11	0.12	0.12	0.09	0.03
Asia Oceania	0.00	0.01	0.01	-	0.02	-	0.02	0.05	0.01	-	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.01	0.03	0.01	0.04	-	0.05	0.16	-	-
Asia Oceania	0.30	0.28	0.27	0.25	0.25	0.26	0.44	0.47	0.46	0.26	0.20	0.05
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.67	0.61	0.65	0.70	0.61	0.78	-0.18
Europe	0.07	0.08	0.09	0.09	0.07	0.10	0.06	0.04	0.07	0.09	0.14	-0.05
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.43	0.45	0.54	0.52	0.48	0.53	0.67	0.44	0.22
Europe	0.14	0.14	0.15	0.13	0.19	0.11	0.15	0.13	0.19	0.17	0.11	0.06
Asia Oceania	-	-	0.01	0.01	0.02	0.02	0.02	0.01	0.02	0.03	0.03	0.00
Canada Heavy												
Americas	1.49	1.71	1.90	1.81	2.02	1.94	2.12	2.11	2.08	1.88	1.95	-0.06
Europe	-	0.00	0.01	0.01	0.01	0.01	0.01	-	-	0.02	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	-	0.01	0.02	0.02	0.02	0.02	0.02	-	-
Europe	0.47	0.56	0.49	0.48	0.52	0.49	0.47	0.56	0.49	0.44	0.45	-0.01
Asia Oceania	0.06	0.07	0.06	0.09	0.02	0.09	0.09	0.18	0.03	0.09	0.00	0.08
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.51	1.64	1.74	1.54	1.61	1.53	1.93	1.48	0.45
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	0.01	-	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.60	0.59	0.65	0.71	0.60	0.73	0.79	0.43	0.36
Asia Oceania	0.00	0.02	0.06	0.02	0.12	0.06	0.05	0.05	0.06	-	0.04	-
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.23	0.22	0.25	0.15	0.14	0.23	0.17	0.24	-0.07
Asia Oceania	0.03	0.02	0.01	0.02	-	-	0.02	0.01	0.04	-	0.02	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.01	0.03	0.02	0.07	0.18	0.05	0.08	-	-
Europe	0.53	0.55	0.57	0.53	0.55	0.58	0.44	0.52	0.33	0.44	0.65	-0.21
Asia Oceania	0.03	0.02	-	-	-	-	-	-	-	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	2Q15	3Q15	4Q15	1Q16	Feb 16	Mar 16	Apr 16	Year Earlier	
											Apr 15	% change
Crude Oil												
Americas	5130	4201	4022	4085	4075	4056	4350	4193	4751	4454	3887	15%
Europe	8926	8679	9503	9194	9605	9741	8974	9161	8755	8943	9345	-4%
Asia Oceania	6537	6371	6572	6422	6482	6522	6802	7072	6931	6825	6152	11%
Total OECD	20592	19251	20097	19700	20161	20319	20127	20427	20437	20222	19384	4%
LPG												
Americas	17	12	10	12	5	12	10	10	11	32	19	66%
Europe	382	427	412	361	408	404	404	460	328	444	380	17%
Asia Oceania	547	532	518	536	491	506	590	578	660	607	565	7%
Total OECD	946	971	940	908	904	921	1004	1048	999	1083	965	12%
Naphtha												
Americas	17	20	15	14	12	12	11	15	5	8	24	-69%
Europe	332	356	348	287	413	283	360	413	361	358	301	19%
Asia Oceania	920	953	951	909	948	977	948	883	883	899	962	-7%
Total OECD	1269	1328	1313	1210	1372	1271	1319	1310	1248	1264	1287	-2%
Gasoline³												
Americas	659	665	670	745	813	549	458	477	412	768	678	13%
Europe	106	131	107	117	72	117	105	67	43	69	121	-43%
Asia Oceania	75	76	93	118	61	98	73	63	83	113	96	17%
Total OECD	841	871	870	979	946	765	637	607	538	950	895	6%
Jet & Kerosene												
Americas	81	100	141	152	132	133	152	134	151	120	123	-2%
Europe	445	454	442	426	586	392	462	480	548	460	467	-2%
Asia Oceania	73	60	64	67	49	74	79	82	53	109	56	93%
Total OECD	600	614	648	645	768	599	693	697	752	688	646	6%
Gasoil/Diesel												
Americas	58	95	76	40	46	63	57	111	43	66	38	73%
Europe	1121	1097	1216	1314	1261	1178	1413	1455	1497	1477	1267	17%
Asia Oceania	141	159	164	166	147	200	180	197	178	279	176	58%
Total OECD	1319	1352	1457	1520	1455	1441	1651	1763	1718	1821	1481	23%
Heavy Fuel Oil												
Americas	165	132	116	113	139	91	163	102	202	124	106	17%
Europe	552	617	564	484	518	575	543	490	607	476	448	6%
Asia Oceania	232	203	176	123	176	204	188	184	226	175	122	44%
Total OECD	949	953	856	721	833	870	894	777	1035	775	676	15%
Other Products												
Americas	812	671	675	760	759	553	644	738	582	702	747	-6%
Europe	791	704	702	669	737	724	766	825	734	835	566	48%
Asia Oceania	426	408	352	337	373	351	384	445	353	294	318	-8%
Total OECD	2029	1784	1729	1766	1870	1627	1795	2008	1668	1831	1631	12%
Total Products												
Americas	1810	1695	1703	1836	1906	1414	1495	1587	1405	1819	1735	5%
Europe	3729	3786	3793	3658	3996	3672	4054	4191	4118	4118	3551	16%
Asia Oceania	2414	2391	2318	2256	2246	2411	2444	2431	2436	2474	2295	8%
Total OECD	7953	7872	7813	7750	8148	7496	7993	8209	7959	8411	7582	11%
Total Oil												
Americas	6940	5896	5725	5921	5980	5470	5846	5780	6156	6273	5622	12%
Europe	12655	12465	13296	12851	13601	13413	13028	13352	12872	13061	12896	1%
Asia Oceania	8951	8762	8890	8677	8728	8932	9246	9504	9367	9299	8448	10%
Total OECD	28545	27123	27910	27449	28309	27815	28120	28636	28395	28633	26966	6%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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Next Issue: 11 August 2016

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Oil Market Report

11 August 2016

HIGHLIGHTS

- **Crude oil prices eased to around \$45/bbl in August as a global supply overhang weighed and demand growth weakened.** Brent crude had threatened to break below \$40/bbl at the end of July.
- **Global oil demand growth is expected to slow from 1.4 mb/d in 2016 to 1.2 mb/d in 2017**, as underlying support from low oil prices wanes. The 2017 forecast – though still above-trend – is 0.1 mb/d below our previous expectations due to a dimmer macroeconomic outlook. The 2016 outlook is unchanged from last month's *Report*.
- **Global oil supply rose by about 0.8 mb/d in July, as both OPEC and non-OPEC production increased.** Output was 215 kb/d lower than a year earlier, as declines from non-OPEC more than offset an 840 kb/d annual gain in total OPEC liquids. Non-OPEC production is forecast to drop by 0.9 mb/d this year before rebounding by 0.3 mb/d in 2017.
- **OPEC crude oil output rose by 150 kb/d to 33.39 mb/d in July as Saudi Arabia pushed output to the highest ever and Iraq pumped more.** Robust Middle East production lifted total OPEC crude supply 680 kb/d above a year ago and held output at an eight-year high.
- **Global refinery throughput in 3Q16 is expected to rise by 2.2 mb/d from a weak 2Q16 to a record 80.6 mb/d.** At only 0.6 mb/d above a year earlier, 3Q16 runs will lag expected demand growth, eroding some of the product stock cushion built up since mid-2015. Runs are forecast to decline seasonally to below 80 mb/d in 4Q16.
- **An OECD inventory overhang continued to shift from crude into products during June, with commercial stocks swelling by 5.7 mb to a record 3 093 mb.** Declines in crude oil holdings were offset by an above average product build of 15.9 mb, with big volumes of US propane and other NGLs moving into storage.

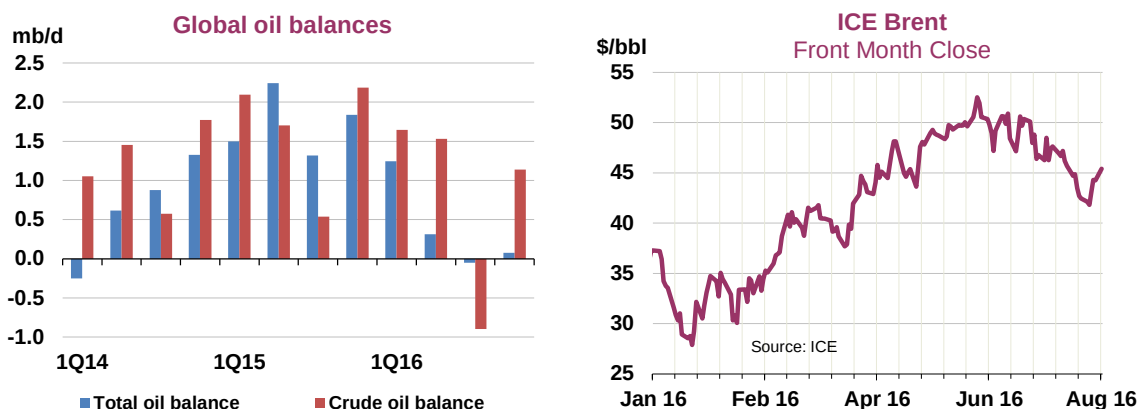
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NO PAIN, NO GAIN

Oil's \$7/bbl drop from a mid-June peak above \$52/bbl has put the "glut" back into the headlines even though our balances show essentially no oversupply during the second half of the year. Moreover, our crude oil balance indicates a hefty draw in 3Q16 after a lengthy stretch of uninterrupted builds. When it comes to the recent price decline, the dynamics of the crude oil market hold the key. Crude oil - still the largest part of the global oil market - has its own fundamentals that are not necessarily in sync with the total liquids market (including biofuels and natural gas liquids that not only never see a refinery but also compete with refined products).

Oil rallied during May and June, just as most refiners were buying their crude to process during the third quarter, when we expect to see record high runs. So why have prices trended lower? Refinery throughput in 4Q16 is due to decline seasonally as autumn maintenance cuts runs, while supply sees a quarter-on-quarter increase. Oil prices could now be pricing in the fundamentals of at least the first part of a relatively looser 4Q16 crude market. The massive overhang of stocks is also keeping a lid on prices, with both newly produced and stored crude competing for market share in an increasingly volatile refinery margin environment.



Oil price rallies this year would have extended more if not for the resistance from product prices. Product markets, too, have been in oversupply since late 2014 as refinery runs increased more than demand for refined products. As crude prices rose, refinery margins fell, dampening appetite for crude. Hence, in 2Q16 refinery throughput declined 0.5 mb/d year-on-year, the first annual drop of this scale since the Great Recession of 2008-2009. Even in China, the world's second largest oil consumer, rapidly expanding independent refinery runs forced oil majors Sinopec and Petrochina to cut throughput as markets could not absorb the product oversupply.

We expect the global refined product stock draw that started in 2Q16 to carry on. Despite the record high crude intake that we expect in 3Q16, year-on-year growth is still lower than total oil demand growth. The same goes for 4Q16.

Thus we expect more subdued growth in refining activity, with runs lagging total oil demand growth for all but the first quarter this year - hardly good news for the crude oil market in the short term. But there is no gain without some pain. The resulting product stock draw will increase refiners' appetite for crude oil and help pave the way to a sustained tightening of the crude oil balance.

DEMAND

Summary

- **Global oil demand growth of 1.4 mb/d for 2016, unchanged from last month's Report, is expected to slow to 1.2 mb/d in 2017 as underlying support from low oil prices wanes.** The 2017 forecast – still above-trend – is 0.1 mb/d below our previous Report due to a dimmer macroeconomic outlook.
- **A near-complete 2Q16 data set confirms our forecast for a slowdown, with world oil demand growth easing to 1.4 mb/d year-on-year (y-o-y)** after rising by 1.6 mb/d in 1Q16. A further deceleration to 1.2 mb/d is expected in 3Q16 before demand growth quickens to 1.5 mb/d in the fourth quarter, assuming normal winter temperatures in the northern hemisphere. The 3Q16 y-o-y growth projection is just over 1 mb/d less than in 3Q15, when growth hit a recent peak.
- **The rapid pace of Indian demand growth has eased dramatically** in recent months – as predicted in last month's Report – due to June's sharp slowdown in gasoline and diesel demand growth as well as stuttering petrochemical use during May.
- **Sharp upgrades to fuel oil demand estimates in Singapore due to a bullish bunker market have significantly raised the non-OECD 2016 demand estimate.** Weak fuel oil demand in competing bunkering destinations, such as Hong Kong, provided a partial offset.
- **Baseline data revisions raised the 2014 non-OECD demand estimate by 230 kb/d** to 47.4 mb/d. The availability of this comprehensive annual data follows the publication of the 2016 editions of both the IEA's *World Energy Balances* and the IEA's *World Energy Statistics*. This 230 kb/d non-OECD addition – 0.5% of non-OECD demand – eroded roughly two-thirds of the previous 2014 'miscellaneous to balance' estimate (see Table 1).

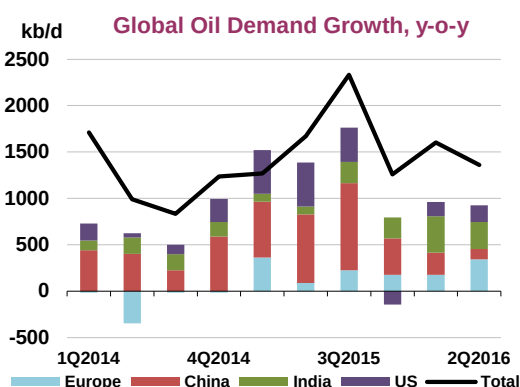
Global Oil Demand (2015-2017)

(million barrels per day)

	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.4	4.3	4.4	4.4
Americas	30.9	30.9	31.7	31.2	31.2	31.0	31.1	31.8	31.5	31.3	31.1	31.3	31.9	31.5	31.4
Asia/Pacific	32.2	31.5	31.5	32.5	31.9	33.1	32.3	32.3	33.4	32.8	33.9	33.2	33.1	34.1	33.6
Europe	14.1	14.2	14.8	14.4	14.4	14.3	14.6	14.9	14.4	14.6	14.3	14.6	14.9	14.4	14.6
FSU	4.7	4.9	5.1	5.0	4.9	4.9	5.0	5.1	5.1	5.0	4.9	5.0	5.2	5.1	5.1
Middle East	7.8	8.5	8.8	8.3	8.3	7.8	8.4	8.8	8.4	8.3	8.1	8.5	8.9	8.5	8.5
World	93.8	94.2	95.8	95.5	94.8	95.4	95.6	97.0	97.0	96.3	96.7	97.0	98.2	98.1	97.5
Annual Chg (%)	1.4	1.8	2.5	1.3	1.8	1.7	1.5	1.2	1.6	1.5	1.4	1.4	1.2	1.1	1.3
Annual Chg (mb/d)	1.3	1.7	2.3	1.3	1.6	1.6	1.4	1.2	1.5	1.4	1.3	1.4	1.2	1.1	1.2
Changes from last OMR (mb/d)	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Global Overview

After rising by 1.6 mb/d on a y-o-y basis in 1Q16, the strongest take-away from this month's data was to show that global oil demand growth eased to 1.4 mb/d in 2Q16, confirming the 2016 slowdown we had been anticipating. A further deceleration to 1.2 mb/d y-o-y is forecast for 3Q16 because of a notable easing of momentum in the OECD. The 3Q16 projection is 1.1 mb/d less than in 3Q15, when y-o-y growth hit a recent peak.



Downward adjustments for 2Q16 were already incorporated into our earlier forecasts for key countries such as the US, China and India. Other countries where growth slowed - for example, Japan and Mexico - experienced less of a 2Q16 decline than was anticipated, while Europe surprised to the upside.

The biggest adjustment, the downward revision in the US, had been partially projected in our previous analysis. At just over 1 mb/d less than implied by the weekly numbers from the US Department of Energy's Energy Information Administration (EIA), the May US demand estimate of 19.2 mb/d spooked some market watchers. The average gap between the EIA's weekly and monthly data was 350 kb/d over the six months through April, thus potentially discounting roughly one-third of May's initial overestimate. Our own month-earlier forecast trimmed a further third, resulting in a downward adjustment of only 430 kb/d compared with last month's *Report*.

Our outlook for world oil demand for 2016 is for a rise of 1.4 mb/d, leaving the growth estimate essentially unchanged. Some momentum will be lost in 2017 due to downgrades in economic growth projections, but the forecast expansion of 1.2 mb/d is still above-trend. The International Monetary Fund (IMF) trimmed its global economic growth forecast by one-tenth of a percentage point to 3.4% in the July edition of its *World Economic Outlook*. The subtitle of the July - report – *Uncertainty in the aftermath of the UK Referendum* – encapsulated the spirit of the update: “the outcome of the UK vote, which surprised global financial markets, implies the materialisation of an important downside risk for the world economy”. As a result, the global outlook for 2016-17 has worsened. The UK suffers the most, with 0.9 percentage points trimmed from its 2017 economic growth outlook to 1.3%, but the rest of Europe will also be hit as trade prospects and confidence (business and consumer) suffer, with the GDP forecast for the euro area trimmed by one-fifth of a percentage point to 1.4%.

The associated downside risks to the forecast, both for economic activity and prospective oil demand, have also been raised. The IMF outlined two key alternative scenarios related to the UK's decision to leave the EU: ‘downside’ and ‘severe’. “Under the downside scenario, it is assumed that financial conditions are tighter and that business and consumer confidence are lower than in the baseline, both in the UK and the rest of the world... Accordingly, the impact on global growth would be a further slowdown for the remainder of 2016 and 2017 relative to the baseline”. Under the IMF's ‘severe’ scenario, a sharper tightening of financial conditions is anticipated, triggering “a more significant (global) slowdown for the remainder of 2016 and 2017.”

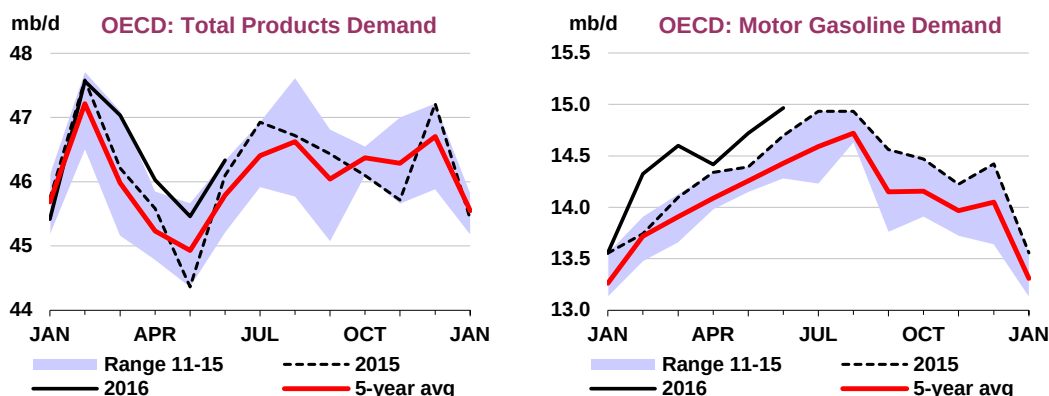
OECD Demand based on Adjusted Preliminary Submissions - June 2016

(million barrels per day)														
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.42	2.4	1.93	0.2	4.62	0.0	0.41	-9.5	0.54	12.8	5.93	-1.32	24.86	0.8
US50	9.59	2.2	1.66	1.6	3.72	-0.4	0.08	-29.6	0.23	33.4	4.53	-0.22	19.82	1.2
Canada	0.88	0.4	0.13	-19.3	0.31	-0.3	0.26	-2.7	0.04	36.1	0.77	1.19	2.38	-0.7
Mexico	0.81	7.3	0.08	10.0	0.39	2.7	0.05	-3.3	0.17	-0.2	0.51	-13.17	2.00	-0.3
OECD Europe	2.03	-0.2	1.42	0.1	4.95	0.4	1.16	-1.6	0.89	-1.4	3.54	1.01	14.00	0.1
Germany	0.44	0.8	0.20	1.5	0.84	9.1	0.25	7.3	0.11	-15.2	0.54	-0.99	2.38	2.9
United Kingdom	0.31	2.7	0.30	-0.7	0.54	3.1	0.15	11.6	0.03	8.1	0.28	1.57	1.60	2.8
France	0.17	-3.9	0.14	-11.7	0.69	-9.6	0.16	-20.6	0.04	-0.5	0.40	-4.13	1.61	-8.9
Italy	0.21	-5.4	0.12	12.0	0.47	-0.1	0.09	1.9	0.08	-4.4	0.36	5.81	1.31	1.4
Spain	0.12	3.7	0.14	6.4	0.47	0.7	0.13	1.0	0.15	4.0	0.26	7.28	1.28	3.3
OECD Asia & Oceania	1.51	0.3	0.66	3.5	1.30	-0.2	0.45	5.5	0.56	-1.9	2.98	-1.02	7.47	0.1
Japan	0.87	-0.9	0.31	-0.9	0.39	-5.8	0.32	3.0	0.28	-16.5	1.30	-8.09	3.47	-5.3
Korea	0.21	2.3	0.15	10.5	0.36	4.7	0.10	18.0	0.25	23.0	1.41	5.89	2.48	7.6
Australia	0.31	2.0	0.15	5.0	0.45	0.5	0.00	-71.6	0.03	0.3	0.19	-0.26	1.12	1.2
OECD Total	14.96	1.8	4.02	0.7	10.88	0.2	2.02	-1.9	1.99	1.9	12.46	-0.59	46.33	0.5

* Including US territories

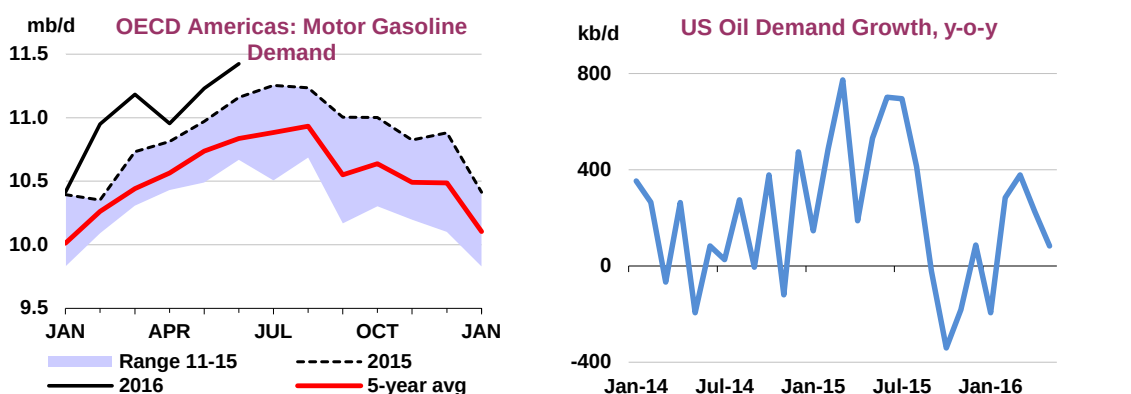
OECD

Rising for a fourth consecutive month in June, the OECD oil demand trend continues to surprise to the upside, supported by strong gains in transport and industrial oil use in 2Q16. Rising by an estimated 0.6 mb/d to 45.9 mb/d in 2Q16, the upside came mostly from gasoline, followed by residual fuel oil, gasoil/diesel and jet/kerosene. On a region-specific basis, surprisingly robust European oil demand growth dominated, although significant gains were also seen in the OECD Americas and OECD Asia Oceania.



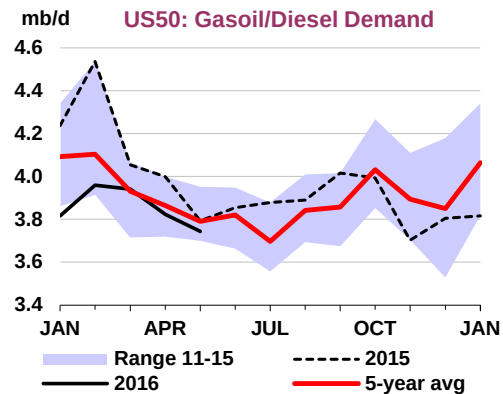
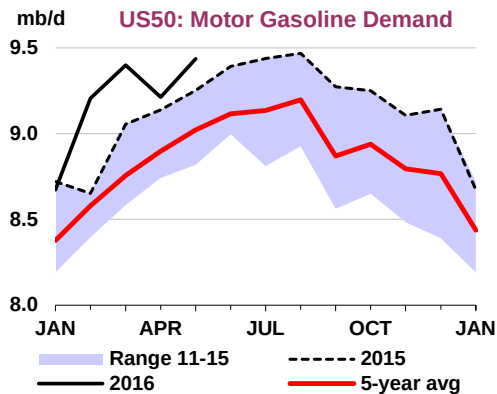
Americas

Although up by 185 kb/d compared to the year earlier, the latest 2Q16 OECD American demand estimate of 24.4 mb/d is still 90 kb/d less than carried in last month's *Report*, mostly due to sizeable US demand revisions. Relatively robust gains in gasoline and residual fuel oil continue to underpin OECD American 2Q16 growth, offsetting declines in gasoil, LPG and 'other products'. At 19.2 mb/d in May, the latest official monthly **US** demand number is 430 kb/d below the estimate carried in last month's *Report* and over 1 mb/d below that demonstrated by the EIA weeklies with US gasoline, diesel and 'other product' demand all revised sharply lower.

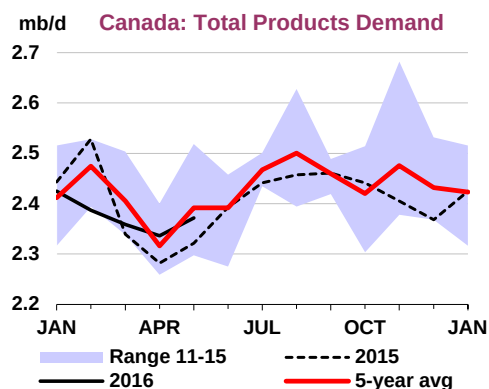
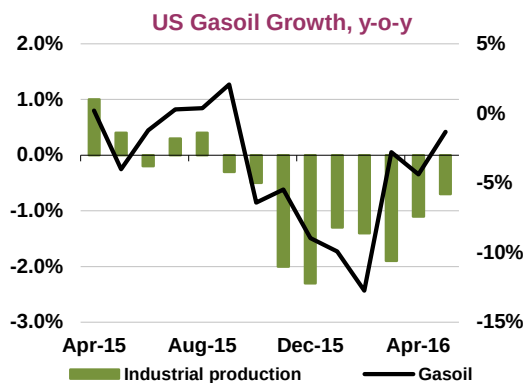


Despite this sizeable downgrade, US May oil deliveries still stand nearly 85 kb/d above year earlier levels, with gasoline, jet, naphtha, LPG (including ethane) and residual fuel oil demand all higher than 2015, just offsetting big declines in gasoil and 'other products'. US gasoline demand rose to 9.4 mb/d in May, a nine-month high and 2.0% up on the year earlier as US drivers continued to put more miles on the

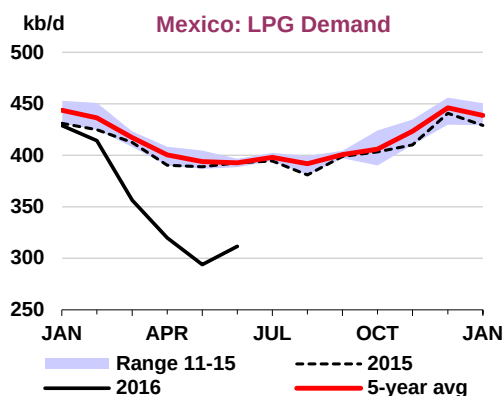
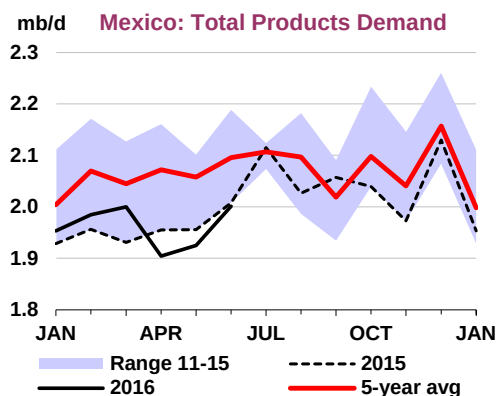
proverbial clock. The US Department of Transport's Federal Highway Administration cited a perfectly matched 2.0% y-o-y gain in US vehicle miles travelled in May, suggesting only limited evolution in the efficiency of the US vehicle fleet. The strongest 'vehicle miles travelled' gains were on urban interstate and rural interstate routes, respectively higher by 2.7% and 2.6%. The weakest were on urban other arterial - 1.4% higher y-o-y.



Persistent weakness in industrial oil use continued to drag down US oil demand, with gasoil/diesel demand of 3.7 mb/d at a six-month low and 50 kb/d (or 1.3%) below year earlier levels. Having endured a similarly contracting trend, October 2015-May 2016, a potential US industrial oil use turn-around is foreseen post-1H16, supported by an impending uptick in US industrial activity as alluded to in the latest Institute of Supply Management's Manufacturing survey data. With optimistic business sentiment post-February 2016, this largely forward-looking manufacturing indicator tallies with predictions of US industrial output growth returning in 2H16, which in-turn would support renewed gasoil demand growth. For the year as a whole, total US oil deliveries are forecast to average 19.6 mb/d, 215 kb/d or 1.1% up on the year, with momentum easing to around 120 kb/d or 0.6% in 2017 as higher crude oil prices potentially dampen US demand growth.

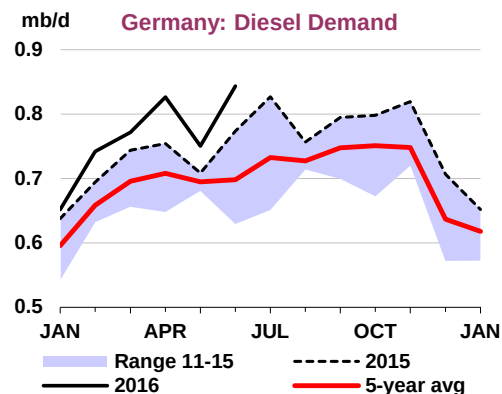
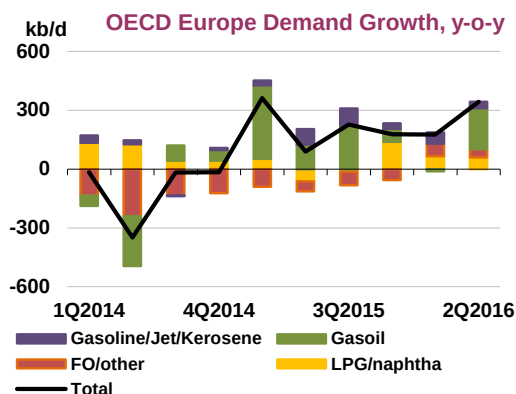


Underpinned by sharp gains in gasoline and naphtha, **Canadian** oil product deliveries rose above year earlier levels from March through June. Having fallen by an average 75 kb/d in the December-through-February period, y-o-y growth returned in March and rose 50 kb/d in May to 2.4 mb/d, with gasoline providing most of the gains. A near mirror-image was seen in **Mexico**, where growth started the year strong and then flipped into contraction during 2Q16.

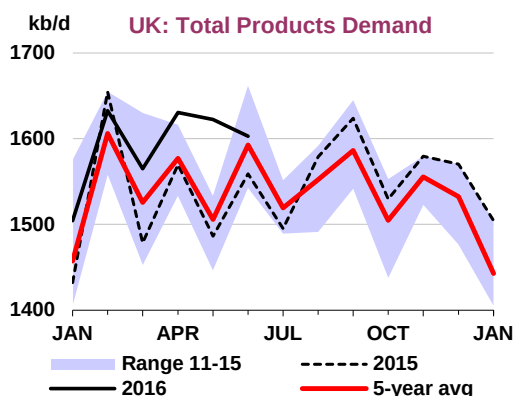


Europe

Europe has surprised to the upside, with robust 2Q16 growth in Germany, Spain, the UK and the Netherlands more than offsetting declines in Portugal, Belgium and the Czech Republic. **Germany**, for example, saw demand growth climb to a three-year high of 4.2% y-o-y, underpinned by particularly rapid gains in diesel demand.



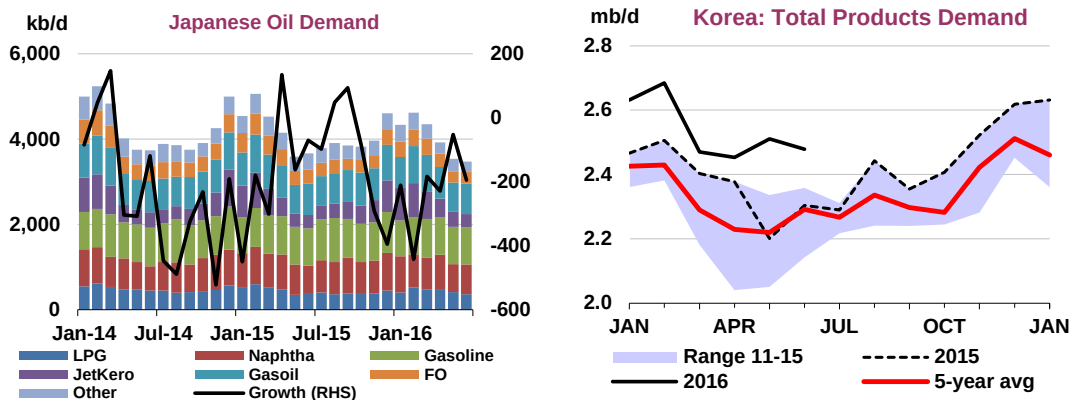
The latest **UK** oil product demand data remain remarkably robust, although these statistics are still free of potential post-Brexit vote woes. Annual growth of 50 kb/d (or 3.2%) in 1Q16 accelerated to 80 kb/d (or 5.3%) in 2Q16, supported by particularly strong gains in the petrochemical and road transport sectors. Support for road diesel demand was underpinned by robust UK passenger vehicle registrations, which rose to a three-month high in June. The worry for 2H16, moving into 2017, is that Brexit uncertainty dampens spending decisions – business and consumer – dragging down prospective UK oil demand. Indeed, the latest outlook from the IMF explicitly trims nearly one whole percentage point from the 2017 UK economic growth outlook (to +1.3%) putting additional pressure from our own UK oil demand forecast of 1.6 mb/d, 10 kb/d down on the year earlier.



Asia Oceania

Rising almost exactly as forecast in last month's *Report* – 60 kb/d up on the year earlier to 7.6 mb/d – the latest estimate of 2Q16 demand in OECD Asia Oceania was underpinned by strong gains in the petrochemical and transport sectors. Strong gains in Korea, New Zealand and Australia offset declines in Japan. The pace at which **Japanese** oil product demand is declining continues to ease, with y-o-y declines

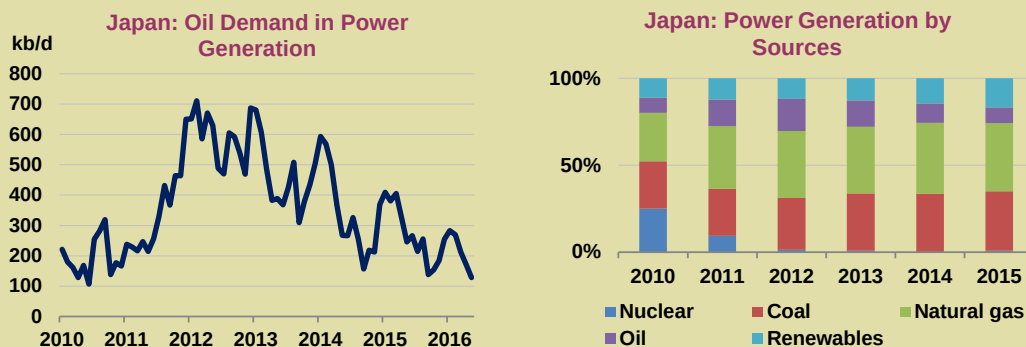
of 255 kb/d and 270 kb/d posted in 4Q15 and 1Q16, easing to 160 kb/d in 2Q16. This is not to say that the Japanese demand forecast has turned bullish, as absolute declines still hold, but the Japanese demand contraction is now of a reduced scale.



Korea's recent demand strength continued into June, but not at the heady pace seen in May. Rising by 175 kb/d y-o-y or 7.6% in June to 2.5 mb/d, Korean growth sat at roughly half of May's intoxicating 310 kb/d pace. This relative climb-down was chiefly attributable to one-off factors from May 2015's very low petrochemical deliveries.

Japan's oil demand post Fukushima

The Fukushima Daiichi nuclear disaster in March 2011 drastically altered Japan's power system, causing nearly 30% of the country's electricity generation capacity to shut down. The energy gap triggered a significant increase of oil use, leading the share of oil-based power generation to jump to 18% in 2012 from 9% in 2010, while the share of nuclear declined to 1% from 25%. Japan in general uses four types of oil products to generate electricity: residual fuel oil, LPG, diesel and 'other products' (mainly crude oil). Residual fuel oil and crude oil contribute the most, together accounting for around 90%. In 2012, Japan's total oil demand in power generation reached a peak of 590 kb/d, 73% or 250 kb/d higher than 2011, with fuel oil and crude oil increasing by 78% and 65% respectively, to 270 kb/d and 265 kb/d.

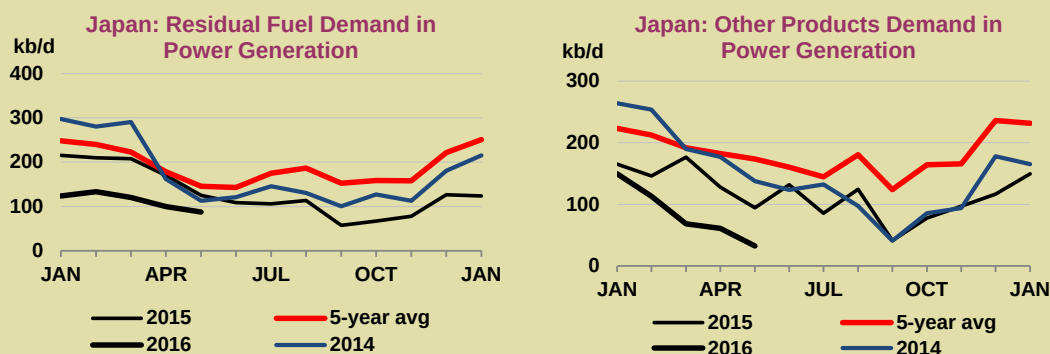


Since 2013, Japan's oil consumption in power generation has been falling, at an average annual rate of 23%. High levels of dependence on oil-fired power generation led to economic and environmental concerns, as oil-fired power generation can substantially raise the cost of energy supply, drive up electricity prices and produce more greenhouse gas emissions. Recoveries of coal power plants damaged by earthquake/tsunami and increased capacities in gas-fired power plants and renewables helped Japanese power systems to save cash and/or emit less carbon dioxide. In 2015, the restart of two nuclear reactors put an end to the "zero nuclear" period in Japan and, as a result, oil consumption in power generation dropped to 270 kb/d. The share of oil in the power generation fuel mix fell back to 9%, the same level as before Fukushima disaster.

In Japan's Strategic Energy Plan, nuclear power is considered to be an important baseload and low carbon power source. The Japanese government and electric utilities are keen to reboot the nuclear plants, and are

Japan's oil demand post Fukushima (continued)

gradually closing down oil-fired power stations. TEPCO, the largest electricity company in Japan, announced that it will shut down all oil-fired power plants by the end of 2018. Kyushu Electric Power closed five oil-fired generation units in 2015. Even the main crude oil consumer, Kansai Electric, is expected to largely cut oil use if it restarts two of its nuclear reactors. Since both fuel oil and crude oil used in power generation account for nearly a half of their total consumption, such a decrease will strongly impact the total demand. We forecast Japan's total fuel oil and 'other products' (which includes the crude oil direct burn) demand to be 305 kb/d and 285 kb/d respectively in 2016.



In addition to the declining trend, Japan's oil demand for power generation is also losing its seasonality. According to the five-year average data (2011-15), Japan's fuel oil consumption for power generation shows a clear "W" shape, reaching peaks in August and January as climate extremes trigger peak cooling and heating demand in summer and winter. Crude oil, although less obvious, shows a vague "W" pattern which also peaks in summer and winter months. Total demand data of both products reveal the same pattern. However, in recent years, the summer demand peaks began to diminish, as the growing use of solar PVs took the place of oil in seasonal peak power generation. Japan's solar PV capacity increased nearly 10-fold since 2010, and was one of the three largest solar installation markets in both 2014 and 2015. Such robust growth in solar PV is expected to continue making seasonal peaks in Japan's oil demand smaller in the future.

Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	4Q15	1Q16	2Q16	1Q16	2Q16	1Q16	2Q16
LPG & Ethane	5,557	5,653	5,668	366	322	6.9	6.0
Naphtha	3,028	3,051	3,048	129	160	4.4	5.5
Motor Gasoline	10,801	10,731	10,711	394	234	3.8	2.2
Jet Fuel & Kerosene	3,096	3,123	3,113	55	38	1.8	1.2
Gas/Diesel Oil	14,811	14,214	14,865	132	31	0.9	0.2
Residual Fuel Oil	5,028	5,136	5,086	11	-208	0.2	-3.9
Other Products	6,860	6,805	7,194	334	235	5.2	3.4
Total Products	49,181	48,713	49,684	1,419	812	3.0	1.7

Non-OECD

Sharply weaker demand growth in many of the key non-OECD demand centres – most notably China and India – pulled the regional y-o-y growth estimate down to a year-low of around 1.7% in 2Q16, or 810 kb/d. Although such compressed gains are unlikely to be repeated through this *Report's* forecasting time horizon, i.e. to 2017, non-OECD demand growth is likely to remain range-bound between 1 mb/d and 1.3 mb/d, 3Q16-4Q17, as a timid macroeconomic outlook restrains progress. Persistently lower commodity prices are a key forecast-constraint, restraining the potential spending power of many non-OECD economies, particularly across Africa, Latin America and the Middle East. The ongoing structural shift in the Chinese economy away from its earlier reliance on heavy-industrial/exports towards a more

consumer-focused economy will also temper growth. Having averaged roughly 49.8 mb/d in 2016, total non-OECD oil deliveries are forecast to rise to 50.9 mb/d in 2017, a 2.3% gain largely attributable to additional non-OECD Asian demand.

Non-OECD baseline demand revisions

Once a year the IEA publishes its comprehensive annual data work, offering a better annual series plus improvements to the older historical numbers. This month sees the publication of the 2016 editions of both the IEA's annual *World Energy Balances* and *World Energy Statistics*. Previous estimates of 2014 non-OECD demand were based on national source statistics, JODI numbers, internal demand estimates and other reports and journals.

Only a modest 230 kb/d of additional non-OECD oil demand has been found in 2014, compared to last month's *Report*, revising the non-OECD total to 47.4 mb/d, equivalent to 0.5% of total non-OECD 2014 deliveries. Russia, Iran, Iraq, Saudi Arabia, the UAE, India and Libya accounted for the largest additions, offsetting notable downside adjustments to Egypt, Indonesia, Singapore and Kazakhstan. Of the major 2014 demand revisions, the 140 kb/d Iranian addition draws particular attention, as the extra 2014 volume follows a similarly sized 2013 addition. Previously underestimated levels of oil used in the transport sector – both gasoil/diesel and fuel oil – played a key role as did previous underestimates of road and industrial oil use. The 2016 edition of the IEA's annual *World Energy Balances* and *World Energy Statistics* shows much higher levels of Iranian gasoline, gasoil/diesel, LPG and 'other product' demand in 2014, compared to last month's *Report*, coupled with lower levels of jet/kerosene.

Revisions to the historical non-OECD demand series also added 30 kb/d to the 2013 non-OECD demand estimate of 45.9 mb/d. Additional Iranian, Russian and Colombian volumes just offset downward revisions to Egypt, Singapore and Syria.

China

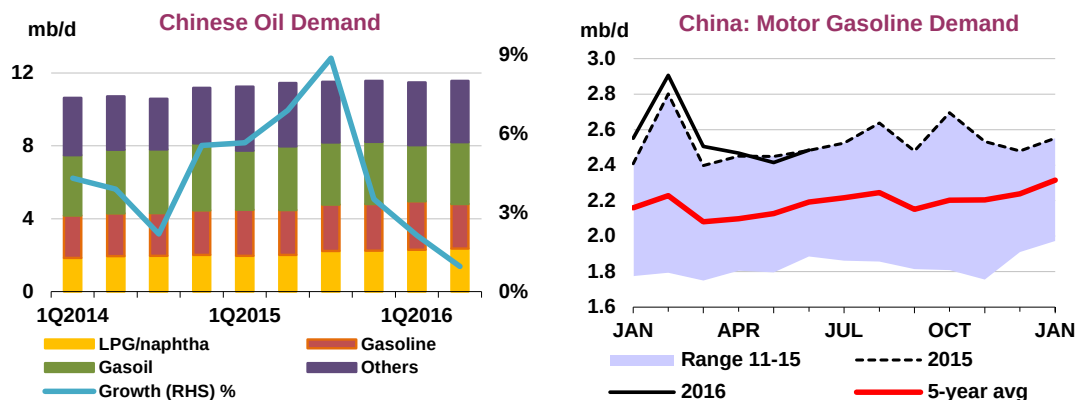
Chinese oil demand edged higher by 75 kb/d (y-o-y) or 0.6% in June, to 11.5 mb/d, as the ongoing macroeconomic slowdown restrained consumption. This relative weakness came about despite record Chinese refinery runs, at 45.08 million tonnes (or just shy of 11 mb/d) according to the National Bureau of Statistics (NBS) as the other key determinant of apparent demand – net product imports – was close to one-third lower than a year ago. Upside support came from reports by the Xinhua news agency's *China OGP* that product stocks fell by 170 kb/d in June. Estimates of gasoil/diesel demand were somewhat supported as China reportedly trimmed gasoil/diesel inventories by 185 kb/d in June.

China: Demand by Product

	(thousand barrels per day)						
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,117	1,282	1,362	165	80	14.7	6.3
Naphtha	994	1,060	1,086	66	25	6.7	2.4
Motor Gasoline	2,527	2,588	2,729	62	141	2.4	5.4
Jet Fuel & Kerosene	620	658	691	38	33	6.1	5.1
Gas/Diesel Oil	3,389	3,336	3,310	-53	-26	-1.6	-0.8
Residual Fuel Oil	319	186	136	-133	-50	-41.8	-26.7
Other Products	2,476	2,527	2,569	51	42	2.1	1.7
Total Products	11,441	11,637	11,883	196	246	1.7	2.1

Chinese gasoline demand growth eased in mid-2016, restrained by export flows which tested levels not previously having been seen since the Great Recession. Rising by a relatively muted 0.1% y-o-y in June, after gains of 5.4% in 4Q15 and 4.8% in 1Q16, Chinese gasoline demand is forecast to average 2.6 mb/d in 2016 as a whole, 60 kb/d or 2.4% up on the year earlier; notably above the recent potential nadir as persistently strong vehicle sales provide ongoing support. The China Association of Automobile

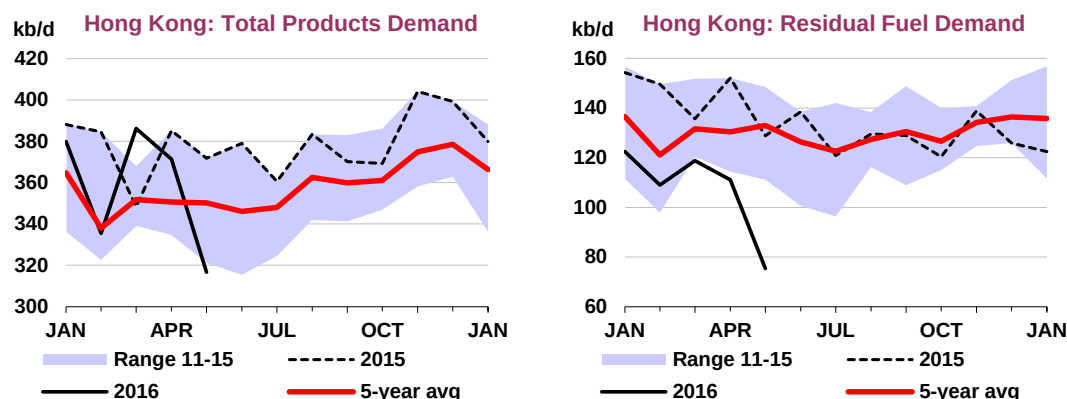
Manufacturers reported that 11 million passenger vehicles were sold in the first half of 2016, a y-o-y gain of 9.2%, with 1.8 million specifically sold in June alone, +17.7% y-o-y. Proving particularly supportive of ongoing Chinese gasoline demand growth is the fact that less fuel-efficient sports utility vehicles (SUVs) make up a very large fraction of total Chinese passenger vehicle sales, at 41% in June, thus providing a legacy of less fuel-efficient vehicles that will support relatively plump Chinese oil demand into the future.



For the year as a whole, Chinese oil deliveries are forecast to average 11.6 mb/d, 195 kb/d or 1.7% up on the year earlier. Underlying momentum has been restrained by weak industrial oil use and also by stuttering consumer confidence which affects Chinese driving decisions – a factor that is forecast to fade in 2H16 as the supportive impact from robust vehicle sales returns. Momentum is then likely to pick up further in 2017, to +245 kb/d or 2.1% when demand averages 11.9 mb/d, as the underlying economic situation is likely to remain net-supportive. The IMF's July *World Economic Update* cited Chinese economic growth of 6.2% in 2017, unchanged on its previous (April 2016) forecast.

Other Non-OECD

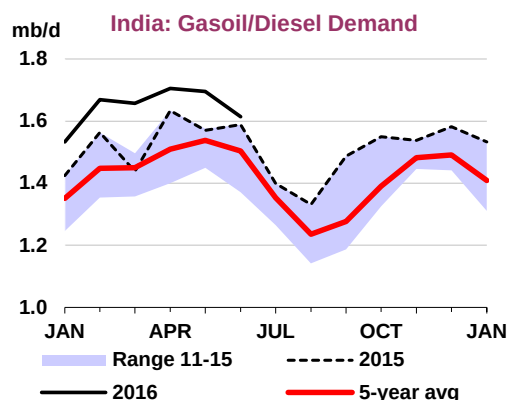
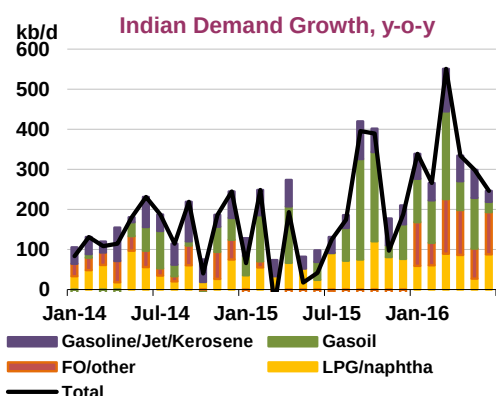
Very weak residual fuel oil demand in **Hong Kong**, potentially a consequence of shippers refuelling at alternative destinations such as Singapore (which has seen very strong bunker sales), pulled overall deliveries down by 55 kb/d y-o-y in May to 375 kb/d. Hong Kong gasoil and residual fuel oil demand fell by a combined 60 kb/d y-o-y in May, more than offsetting the modest gains otherwise seen in jet/kerosene. Such weakness dampened the demand outlook for 2016, with a modest 15 kb/d average decline to 365 kb/d foreseen.



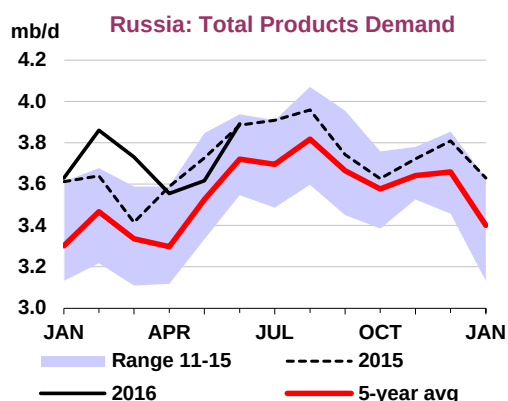
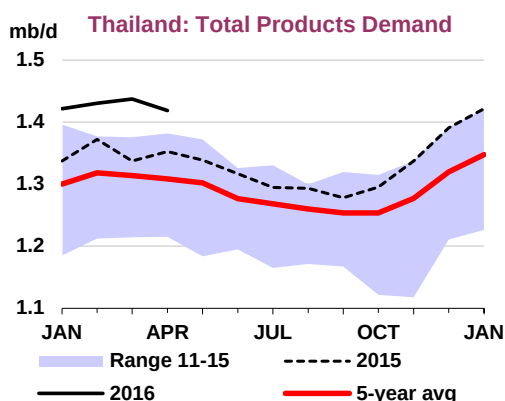
Countering the weak fuel oil demand numbers in Hong Kong, **Singapore** has seen sharp growth, with the Maritime and Port Authority of Singapore showing bunker sales in 1H16 up 12.9% compared to a year ago. Assuming a sharp deceleration for 2H16, it is fair to envisage at least 8% growth in Singapore's bunker fuel sales in 2016 as a whole. Under this scenario, Singapore bunker fuel sales average 835 kb/d,

supporting total residual fuel oil deliveries of approximately 875kb/d, 60 kb/d up on the year earlier. Compared with Hong Kong, the 50 kb/d residual demand loss since the end of last year is more likely to be matched with a gain in Singapore (+75 kb/d, December 2015-through-May 2016).

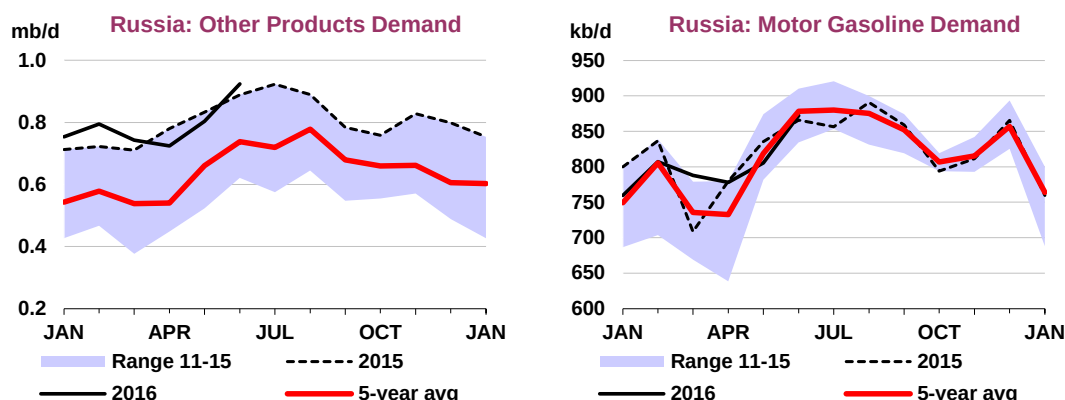
Having risen sharply in the first four months of 2016, **Indian** growth stuttered mid-year, as a combination of weaker transport gains, subdued temperatures and heavy monsoon rains trimmed diesel demand growth. Rising by a y-o-y average 375 kb/d in the first four months of 2016, growth in the next two months eased to a still strong 275 kb/d. As previously strong growth in the road transport sector paused for breath, growth in gasoline demand also eased back to a two-year low of 4.6% y-o-y in June. Relative softness in the Indian petrochemical market further dampened mid-year momentum, particularly in May as both naphtha and LPG deliveries fell (y-o-y). Still carrying a near 0.3 mb/d gain compared to a year earlier, the Indian demand forecast for the year as a whole, at 4.3 mb/d in 2016, is 45 kb/d less than previously forecast on the severity of the mid-year slowdown, with an average 75kb/d trimmed from the May-June forecast. Forecast growth then slows to 275 kb/d in 2017, modestly below the previous forecast triggered by the IMF's marginally less upbeat macroeconomic outlook for the country. In July's update of its *World Economic Outlook*, the IMF cited that the Indian economy would expand by 7.4% in both 2016 and 2017, one-tenth of a percentage point below their forecast published in April.



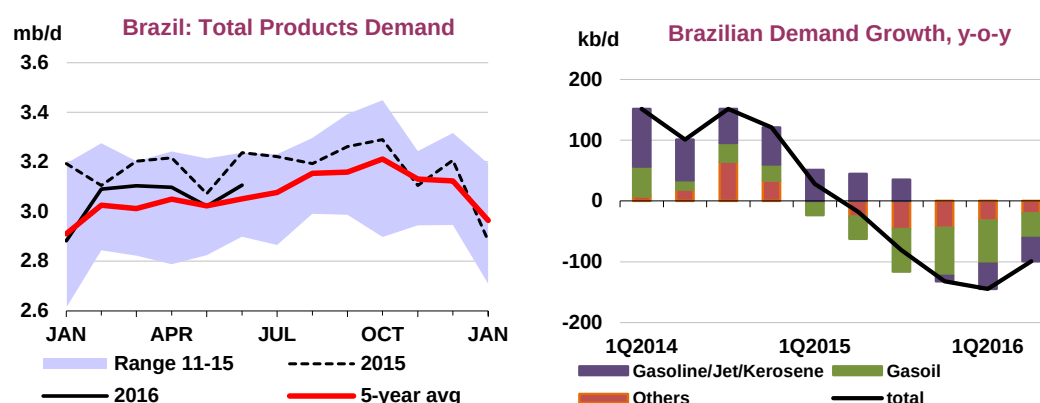
Oil deliveries in **Thailand** continued to rise strongly through the first four months of 2016, supported by strong gains in gasoline, diesel and 'other products'. April oil deliveries rose by 65 kb/d compared to the year earlier, to average 1.4 mb/d, as persistently compressed prices coexisted alongside the tentative economic recovery. Industrial output, for example, posted y-o-y gains of 2.2% in March and 0.9% in April (accelerating to 2.7% in May), according to the Office of Industrial Economics in Thailand. For the year as a whole, Thai demand will average 1.39 mb/d, 60 kb/d up on the year earlier, momentum underpinned by robust gains in gasoline and diesel, a further 30 kb/d of additional deliveries being added in 2017.



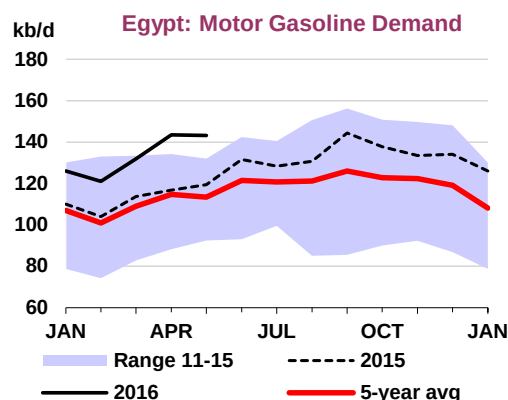
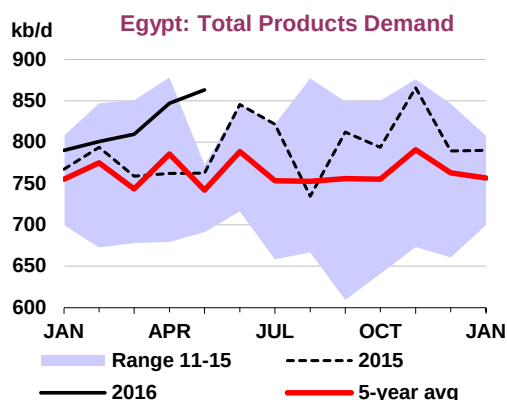
The latest **Russian** demand data, at 3.9 mb/d in June, was essentially unchanged on the year. Oil demand in Russia is struggling to find direction after a year-and-a-half of declining economic activity. Having fallen in y-o-y terms throughout the majority of a difficult 2015, the volatility of 2016 shows a clearly evolving Russian oil consumer. The average decline of 55 kb/d posted in 2015, rebounded sharply at the beginning of 2016, as growth averaged 185 kb/d in 1Q16, before declining sharply April-May and flattening in June. The average 70 kb/d April-May y-o-y decline was chiefly attributable to sharp drops in jet/kerosene and 'other products', while June's flattening came as something of a surprise, supported by resurfacing gains in gasoline, diesel and 'other product' demand growth. Baseline data revisions, meanwhile, added 115 kb/d to the 2014 Russian demand estimate, of 3.8 mb/d, and 40 kb/d to the 2013 number of 3.5 mb/d.



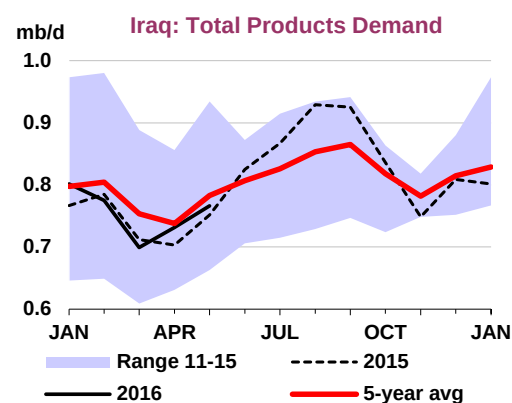
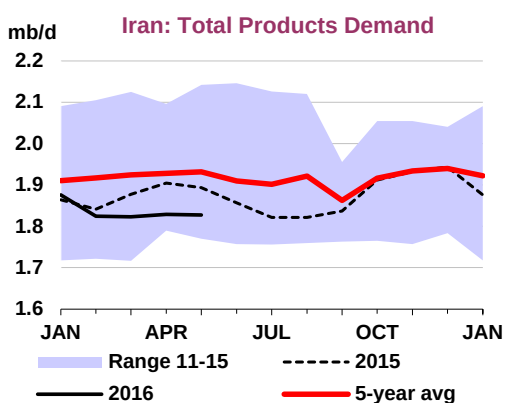
Declining by a hefty 130 kb/d y-o-y (or 4%) in June, the latest demand data for **Brazil** points towards an economy still very much in trouble, resulting in 12 consecutive months of negative y-o-y demand growth. At a confirmed 3.1 mb/d in June (as forecast in last month's *Report*), lower road transport and industrial oil use led the 130 kb/d contraction, marginally below the 1Q16's 145 kb/d drop. Downside revisions to May have also been seen as were sizeable upgrades of around 20 kb/d to the historical series for 2014 to 3.2 mb/d, following the publication of the 2016 edition of the IEA's annual *World Energy Statistics*.



Strong gains in transport sector demand since March supported a dramatic uptick in 2Q16 y-o-y growth but were not enough to support a higher absolute **Egyptian** demand number. Rising by 70 kb/d on a y-o-y basis, the 2Q16 estimate of 860 kb/d is still 25 kb/d below that cited in last month's *Report*. The 2016 edition of the IEA's annual *World Energy Statistics* shows falling Egyptian deliveries in the new base year of 2014 (-25 kb/d), in sharp contrast to the previous rising estimate from Joint Organisations Data Initiative (JODI) numbers. Egyptian demand was revised down (-165 kb/d in 2014) on lower transport and industrial oil use.



Large upgrades to the historical **Iranian** demand numbers, with the total 2014 estimate revised up by 140 kb/d to 2.04 mb/d, proved counter to the recent Iranian demand numbers that showed clear signs of weakening. Higher estimates of LPG, gasoline, gasoil/diesel and 'other products' proved the catalysts to the upgrade, while recent weaknesses in industrial fuels have proved central laggards in recent months.



Significant upgrades to the historical **Iraqi** demand series added approximately 95 kb/d to the 2014 estimate to 880 kb/d, led by big additions to gasoil/diesel and 'other products'. With growth of 25 kb/d or 3% now incorporated in the 2014 reportage following the publication of the 2016 edition of the IEA's annual *World Energy Statistics*, the severity of the conflict-infused slowdown of 2015 now looks even larger, at -75 kb/d or -8.7%. A more modest 10 kb/d decline is envisaged for 2016, when deliveries average 795 kb/d before returning to tentative growth territory once again in 2017, up 15 kb/d. The latest monthly estimate also has Iraqi demand averaging 765 kb/d in May 2016.

Non-OECD: Demand by Region

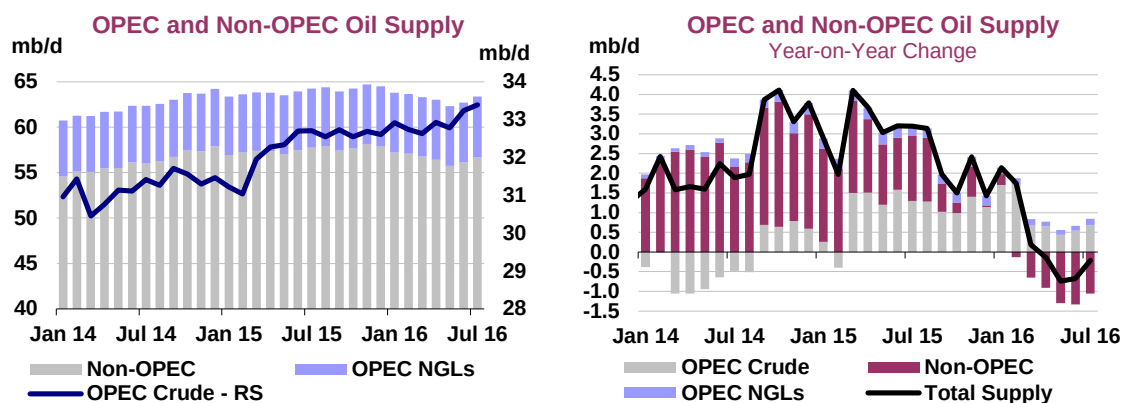
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	4Q15	1Q16	2Q16	1Q16	2Q16	1Q16	2Q16
Africa	4,140	4,202	4,236	115	159	2.8	3.9
Asia	24,342	24,557	24,714	1,066	739	4.5	3.1
FSU	4,986	4,926	4,963	256	49	5.5	1.0
Latin America	6,771	6,506	6,701	-101	-47	-1.5	-0.7
Middle East	8,253	7,846	8,365	62	-120	0.8	-1.4
Non-OECD Europe	688	675	704	22	32	3.4	4.8
Total Products	49,181	48,713	49,684	1,419	812	3.0	1.7

SUPPLY

Summary

- **Global oil supply rose by nearly 0.8 mb/d in July, as both OPEC and non-OPEC production increased.** Total output was 215 kb/d lower than a year earlier, as production declines from non-OPEC more than offset an 840 kb/d annual increase in total OPEC supplies (including NGLs).
- **OPEC crude oil supply rose by 150 kb/d in July to 33.39 mb/d as Saudi Arabia pushed output to the highest ever and Iraq pumped more.** Robust production from the Middle East – Saudi Arabia, Kuwait and the UAE all reached record levels – pushed total OPEC crude supply 680 kb/d above a year ago and held output at an eight-year high.
- **OPEC is providing the world with the fastest sources of supply growth, but is also notching up some of the biggest output losses.** Post-sanctions Iran and Iraq have made the biggest gains so far this year, adding 560 kb/d and 500 kb/d, respectively. By stark contrast, cash-strapped Venezuela and Nigeria - beset by militant attacks - have each racked up year-to-date declines of roughly 150 kb/d versus 2015.
- **Non-OPEC oil supply rebounded from recent lows in July as Canadian production recovered from wildfire outages and biofuels posted a seasonal increase.** Despite a 550 kb/d monthly increase, at 56.7 mb/d total non-OPEC output was nearly 1.1 mb/d below a year ago. Year-on-year (y-o-y) declines stemmed from the US, China, Canada and Mexico. Russia and Brazil, along with global biofuels were among the notable exceptions posting growth.
- **The 2016 forecast for non-OPEC growth is largely unchanged compared to last month's Report,** with supply declining by 0.9 mb/d from 2015 highs to 56.6 mb/d. The outlook for 2017, however, has been upgraded to a 0.3 mb/d gain, in large part due to an improved outlook for the start-up of the long-delayed giant Kashagan field in Kazakhstan. A review of historical data lifts the baseline by 0.1 mb/d.



All world oil supply data for July discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary July supply data.

OPEC crude oil supply

OPEC crude oil output rose by 150 kb/d in July to 33.39 mb/d – holding at an eight-year high – as Saudi Arabia produced at the highest ever and Iraq pumped harder. Production from Saudi Arabia reached a record 10.62 mb/d – up 120 kb/d month-on-month (m-o-m) – as Riyadh supplied more crude to domestic power plants to satisfy summer cooling requirements and increased exports to world markets. Iraqi output climbed 80 kb/d m-o-m after southern oil fields ramped up to boost exports and

meet higher domestic demand. It will prove a challenge for Iraq to sustain July's rate of 4.33 mb/d after militants struck the major Bai Hassan oilfield near Kirkuk at the end of July. Iranian output edged lower, but remained at the 3.6 mb/d mark for a third month running.

OPEC Crude Production

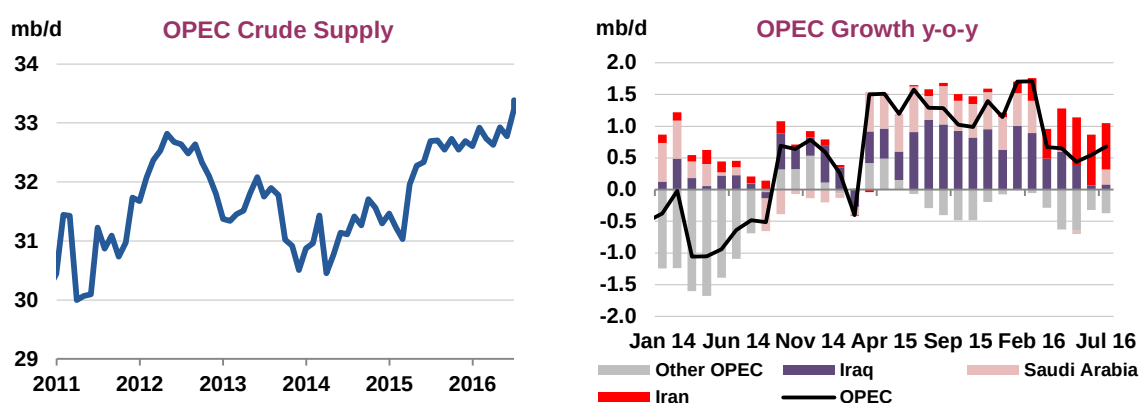
(million barrels per day)

	May 2016 Supply	Jun 2016 Supply	Jul 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Jul 2016 Supply	1H16 Crude Supply
Algeria	1.09	1.10	1.10	1.12	0.02	1.10
Angola	1.72	1.74	1.76	1.81	0.05	1.75
Ecuador	0.55	0.55	0.55	0.55	0.00	0.55
Gabon	0.22	0.22	0.22	0.22	0.00	0.22
Indonesia	0.74	0.74	0.74	0.74	0.00	0.73
Iran	3.60	3.62	3.60	3.65	0.05	3.37
Iraq	4.26	4.25	4.33	4.40	0.07	4.29
Kuwait ²	2.85	2.87	2.87	2.87	0.00	2.82
Libya	0.28	0.32	0.30	0.40	0.10	0.34
Nigeria	1.44	1.56	1.52	1.85	0.33	1.65
Qatar	0.66	0.66	0.66	0.67	0.01	0.66
Saudi Arabia ²	10.25	10.50	10.62	12.20	1.58	10.27
UAE	2.91	2.95	2.97	2.97	0.00	2.85
Venezuela	2.21	2.16	2.15	2.35	0.20	2.28
Total OPEC	32.78	33.24	33.39	35.80	2.41	32.87
<i>(excluding Iraq, Nigeria, Libya)</i>					1.91	

1 Capacity levels can be reached within 90 days and sustained for an extended period.

2 Includes half of Neutral Zone production.

Robust production from the Middle East - Kuwait and the UAE also pumped at their highest ever - pushed crude supply from the group's 14 members to 680 kb/d above a year ago. OPEC's "effective" spare capacity was 1.91 mb/d, with Saudi Arabia accounting for 83%.

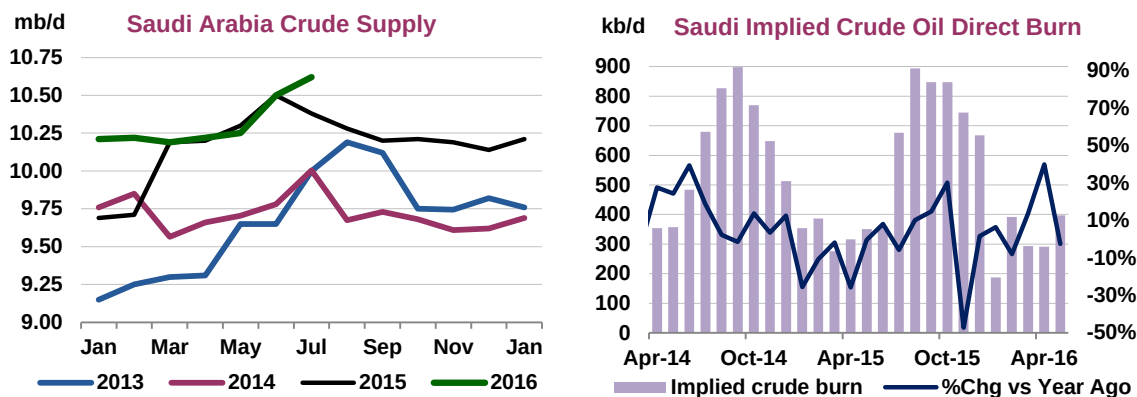


As low-cost producers in the Middle East boost output, Iran and Iraq have emerged as the world's biggest sources of supply growth. Iran – relieved of sanctions since January – has ramped up by 560 kb/d so far this year, while Iraq has added 500 kb/d compared to the first seven months of 2015.

Crude oil supply in **Saudi Arabia** reached a record 10.62 mb/d in July – up 240 kb/d on a year ago - as Riyadh covered higher domestic requirements and increased oil sales to world markets. Additional export volume estimated at more than 100 kb/d was mainly destined for Asia, the Kingdom's biggest market, according to preliminary tanker tracking data. In a bid to stay competitive in the region, Saudi Aramco cut the monthly formula price for Arab Light for September loadings to Asia by \$1.30/bbl.

Shipping data indicate that Saudi crude exports have held well above 7 mb/d so far this year. The latest official data from the Joint Organisations Data Initiative (JODI) show crude oil exports running at 7.53 mb/d from January through May, versus 7.48 mb/d during the same period a year ago.

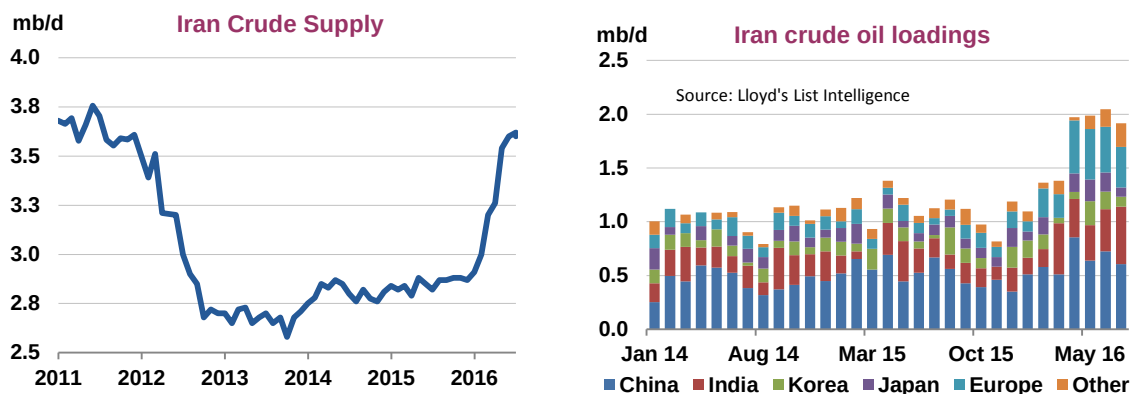
The Kingdom is also cranking out more oil to satisfy increased demand from domestic power plants during the summer when air conditioning usage soars. Last year an average 860 kb/d was burned in Saudi power plants from June through August 2015 out of around 10.4 mb/d of crude produced.



Neighbouring Gulf countries Kuwait and the UAE also produced at all-time highs in July. **Kuwaiti** output held at 2.87 mb/d, while supply from the **UAE** edged up to 2.97 mb/d. **Qatari** output was stable at 660 kb/d. Kuwait intends to follow Saudi Arabia's lead and privatise parts of its oil sector in a bid to ease the strain of lower oil prices. Khalifa Hamada, Kuwait's finance ministry undersecretary, said a portion of Kuwait Petroleum Corp (KPC) would be offered to the public.

Iranian output dipped 20 kb/d m-o-m during July – the third straight month with production at or above the 3.6 mb/d mark. This suggests that higher production rates, up about 700 kb/d since the start of the year when sanctions were eased, can be sustained.

Exports of crude oil edged lower during July to just under 2 mb/d, according to preliminary tanker tracking data. The National Iranian Oil Co (NIOC) has moved swiftly to increase market share and has been shipping around 2 mb/d to customers in Asia and Europe since April. Iran was exporting about 2.2 mb/d before sanctions were tightened in mid-2012, with Europe accounting for almost 30%. During July, NIOC shipped just under 400 kb/d to Europe, down slightly from June but far below April and May export levels of nearly 500 kb/d.



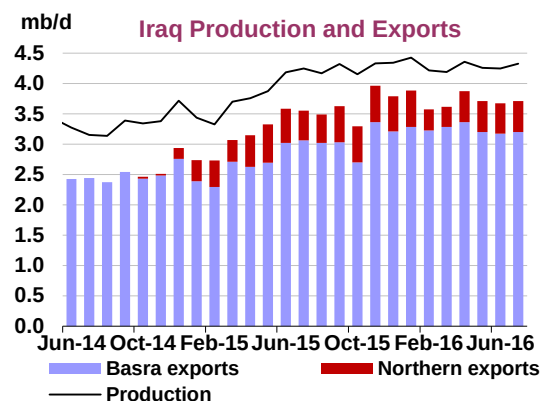
As for Asia, purchases from China, Iran's biggest customer, fell to 605 kb/d in July from 725 kb/d the previous month. Loadings to India surged to 530 kb/d from 390 kb/d during June. Japan purchased

90 kb/d less in July versus loadings of 175 kb/d in June. Exports to South Korea fell to 95 kb/d from 165 kb/d in June. Shipments of condensates were broadly steady versus June at around 175 kb/d. Iran is storing 42 million barrels of ultra-light oil from Iran's South Pars gas project at sea.

On the upstream front, the Iranian cabinet ratified an amended draft of the country's new upstream contract in early August. The parliament needs to give the green light to the new contract – revised in response to criticism that the terms gave too much away to foreign firms – before the oil ministry and NIOC can formalise the Iran Petroleum Contract (IPC). NIOC hopes to launch the IPC, an improved version of the former buy-back model that offers more flexible terms, within the next six months.

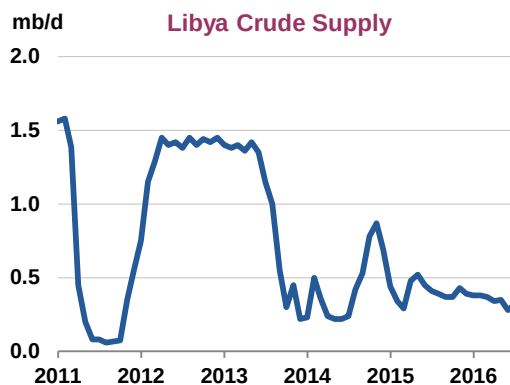
Iraqi crude production rose by 80 kb/d to 4.33 mb/d during July as southern fields cranked out more oil to meet higher domestic consumption and boost exports from the Gulf. Overall exports, including from the KRG, edged up to 3.71 mb/d in July, with the south rising by 25 b/d and shipments from Kurdistan through Turkey inching up 10 kb/d to 510 kb/d.

An attack by militants from the Islamic State of Iraq and the Levant (ISIL) on the core Bai Hassan field near Kirkuk at the end of July is likely to reduce northern production and exports during August. Around 70 kb/d from the Bai Hassan south complex is now shut in and the region's refineries have been shut temporarily to prioritise exports. Flows along the northern pipeline to the Mediterranean have also been interrupted due to technical issues at a pumping station in Turkey.



The KRG took charge of the 170 kb/d Bai Hassan and Kirkuk's Avana dome in June 2014 after ISIL swept through northern Iraq and declared Mosul its de facto capital in Iraq. Militants also reportedly sabotaged the 10 kb/d Qayara oilfield and refinery – the largest Iraqi oil asset in the hands of ISIL – as they fled from Iraqi forces and coalition air strikes that are seeking to drive ISIL from territory in northern Iraq.

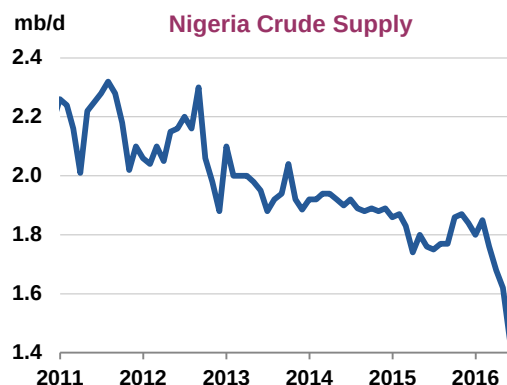
Output in **Libya** slipped by 20 kb/d to 300 kb/d in July due to temporary export disruptions at the Marsa el-Hariga terminal. August could see higher flows after a deal was struck between Libya's UN-backed government and the Petroleum Facilities Guard (PFG) to reopen three eastern terminals. The strategic ports of Ras Lanuf and Es Sider, closed since December 2014, could ship nearly 600 kb/d between them, but returning to full capacity will take time. Repeated attacks by Islamist militants have damaged infrastructure. Zueitina, the third port due to be reopened, can handle about 150 kb/d.



Once the ports are reopened, production is expected to rise gradually with an increase of 100-200 kb/d targeted in the first two weeks, according to Mustafa Sanalla, the chairman of the National Oil Corp (NOC). Two years of conflict and oil sector attacks have led to the repeated shutdown and restart of terminals and oil fields. As a result, Libya is now producing only a fraction of the 1.6 mb/d pumped before the fall of the Gaddafi regime. NOC, which is aiming for output of 900 kb/d by the end of the year, is also negotiating with local groups to restart the major oil fields of El Sharara and El Feel, which before the shutdowns had the capacity to produce 450 kb/d between them.

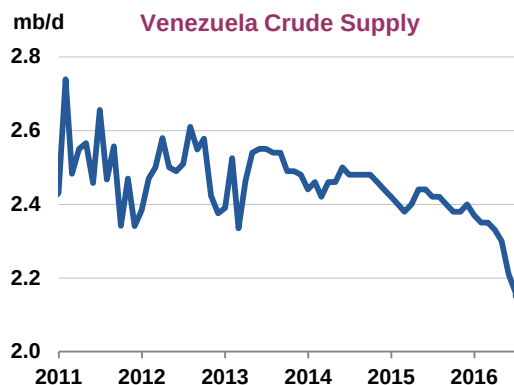
Nigeria posted the biggest decline in July, a decrease of 40 kb/d, after militant attacks kept crude streams under *force majeure*. Repeated sabotage of Nigeria's oil sector since February has sunk output near 30-year lows. After a brief pause during June, the attacks picked up again during July, with production of 1.52 mb/d down 250 kb/d on a year ago. *Force majeure* on Qua Iboe, Nigeria's largest crude stream, and Forcados is likely to be in place through August. Shipments of Forcados have been disrupted since February, following an attack by the Niger Delta Avengers (NDA) on an underwater pipeline.

The Nigerian government has meanwhile resumed monthly payments to former rebel groups under an amnesty programme in a bid to regain control of the restive Niger Delta that pumps most of the country's oil. Nigeria depends on crude oil sales for roughly 70% of its state revenue and most of its oil is produced in the Delta region. Militants want a greater share of the country's oil wealth.



Supply from **Angola** edged up to 1.76 mb/d during July. Output has stayed relatively flat since 2014 due to curbed investment and operational challenges at its costly offshore oil fields. A prolonged period of low oil prices has forced Angola to halve its 2016 economic growth forecast and to cut spending. The country's economy is expected to grow 1.3% this year versus a previous forecast of 3.3%. Government spending will be reduced to \$24 billion from the original \$30 billion that was projected in the 2016 budget. Production from **Gabon** and **Algeria** held steady at around 220 kb/d and 1.1 mb/d, respectively. Output was similarly stable m-o-m in **Ecuador** and **Indonesia**.

Production in **Venezuela** dipped to 2.15 mb/d during July and sank 270 kb/d below a year ago as foreign oil service companies scale back activity and international oil companies struggle with daily operational challenges.



The biggest output declines are in the mature fields in the east, but production in the southeast Orinoco Belt is also taking a hit due to a lack of light crude for blending and spending cuts from foreign partners. Venezuela had hoped to boost supply from the huge Orinoco Belt, which accounts for roughly half the country's production, to counter output losses in mature oil fields.

Petroleos de Venezuela (PDVSA) reportedly is lessening its dependence on drilling contractors and is using its own gear in extra-heavy crude projects in the Orinoco belt. As a result, PDVSA says it has increased Orinoco production in recent months.

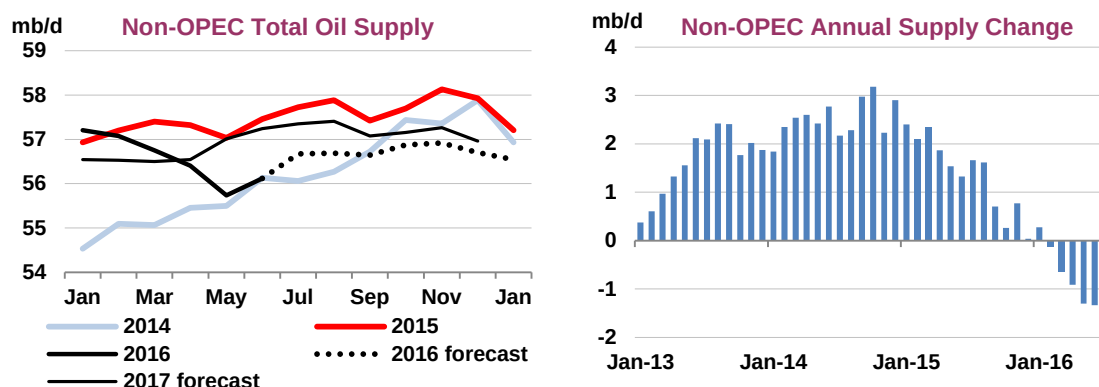
Non-OPEC overview

Non-OPEC oil supplies rebounded by nearly 550 kb/d in July. The bulk of the increase stemmed from Canada, where wildfires had curtailed operations since early May. Seasonally higher biofuels production also contributed. The impact of lower prices and spending cuts over the past 18 months is being felt, however, with total non-OPEC output nearly 1.1 mb/d below a year ago.

The US is still posting the largest declines after producers scaled back activity by 80% (as measured by the number of active oil rigs) in an effort to stem financial losses and improve balance sheets. US crude oil production was nearly 0.6 mb/d below a year earlier in May, the latest month for which

comprehensive oil statistics are available. Preliminary data suggest output continued to fall through August. Drilling is meanwhile picking up in the US shale patch, but many producers want oil near \$60/bbl before they materially boost activity (see *US producers boost activity but cautious on outlook*).

Declines are not limited to the US. China, the world's seventh largest producer, has seen output plunge by 5% on average over the first half of 2016, with output in June more than 8% below a year ago. High production costs at key fields have led companies to scale back investment, which has accelerated declines at mature fields. Colombia and Mexico are also seeing significant output losses this year.



By contrast, Russia has shrugged off lower prices, international sanctions and financing difficulties to become non-OPEC's largest source of supply growth. While the decline of the ruble and Russia's tax system have sheltered producers from oil's prolonged decline, companies have also skilfully accessed capital by pre-selling crude or divesting assets. This has allowed them to increase ruble spending and drilling and boost crude and condensate supply by 180 kb/d over the first seven months of the year.

Non-OPEC Supply

(million barrels per day)

	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	19.9	19.9	18.9	19.2	19.4	19.3	19.4	19.4	19.5	19.4	19.4
Europe	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.3	3.2	3.3	3.3
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total OECD	23.9	24.0	22.8	22.8	23.2	23.2	23.3	23.2	23.1	23.2	23.2
Former USSR	14.0	14.2	14.0	14.0	14.1	14.1	14.2	14.2	14.2	14.3	14.2
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.1	4.0	4.0	4.1	4.0	4.0	4.0	3.9	4.0
Other Asia	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Latin America	4.6	4.4	4.5	4.6	4.7	4.5	4.7	4.7	4.8	4.7	4.7
Middle East	1.3	1.3	1.3	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	29.1	28.9	28.6	28.8	29.0	28.8	29.0	29.0	29.0	29.1	29.0
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.5	57.0	56.1	56.7	56.8	56.6	56.5	56.9	57.3	57.1	57.0
Annual Chg (mb/d)	1.4	-0.2	-1.2	-1.0	-1.1	-0.9	-0.5	0.8	0.6	0.3	0.3
Changes from last OMR (mb/d)	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.2

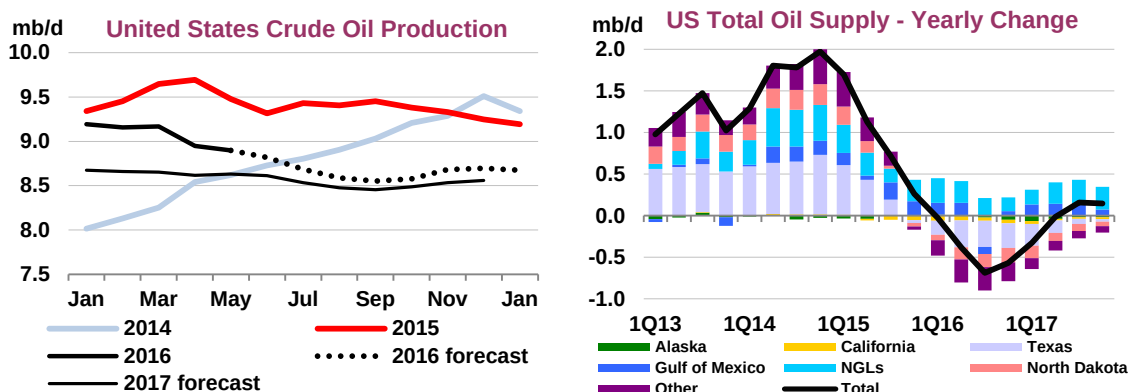
Despite numerous challenges and production set-backs at the start of the year, Brazilian oil supplies are again growing, with output reaching an all-time high in June (see *Brazil bounces back*). The tide might also be turning in Kazakhstan. Chevron announced in early July that it will move ahead with the \$37 billion expansion of the Tengiz field, which is due to lift output by 260 kb/d towards the end of the decade. At the giant offshore Kashagan field, production is set to restart by October and ramp up rapidly towards a 370 kb/d target plateau, according to operator Eni. If all goes to plan, Kazakhstan could become a core contributor to growth next year - earlier than previously assumed.

The North Sea has also surprised to the upside, posting impressive gains in this low price environment. Operators have managed to stem declines in Norway and the UK and have ramped up output by a combined 140 kb/d on average so far this year.

OECD

North America

US – July Alaska actual, others estimated: While US crude oil production fell in line with expectations in May, NGL output continued to post faster-than-expected growth. As such, total US oil supply was largely unchanged month-on-month at around 12.6 mb/d. Crude and condensate output dropped by 50 kb/d from a month earlier to just below 8.9 mb/d. Declines once again centred on PADD 3, particularly in Texas and the Eagle Ford. The EIA's *Drilling Productivity Report (DPR)* showed Eagle Ford output dropped by 50 kb/d in May, sinking production 390 kb/d below a year ago. Permian production stood 100 kb/d higher than a year earlier - the only shale play posting annual gains - and provided a slight offset to weakness elsewhere in PADD 3. Output in the Midcontinent (PADD 2) rose marginally to just below 1.7 mb/d, led by a slight recovery in North Dakota. State output nevertheless stood 160 kb/d below a year earlier due to sliding Bakken production.



Supply from the Gulf of Mexico (GoM) grew by 20 kb/d after production briefly dipped below 1.6 mb/d in April. Offshore output was 180 kb/d above a year earlier, with a number of new projects contributing to growth. Noble Energy announced in July that it had started up its deepwater Gunflint oil development, which is expected to add at least 20 kboe/d. Other field start-ups this year include Anadarko's Heidelberg field (January) and ExxonMobil's Julia field (April). Shell plans to start production at its deepwater Stones project later this year. In all, GoM production is forecast to expand by 65 kb/d this year and by 130 kb/d in 2017.

While notoriously prone to revisions, weekly data through early August suggest US crude production declines accelerated in June and July. Both months posted drops of around 140 kb/d. In the latest data, production fell by 55 kb/d to 8.46 mb/d. Alaska accounted for the entire drop, while production in the Lower 48 was stable at 8.03 mb/d. This is the first in 20 weeks that lower 48 production did not show a decline.

US producers boost activity but cautious on outlook

Drilling in the US is on the rise, but a substantial boost in activity may require oil prices nearer to \$60/bbl. US producers added 44 oil rigs in July, the most in any month since April 2014, and in early August a total of 381 rigs were active. While up by 65 from May's low, the number of rigs still stands roughly 75% below the peak hit in October 2014. As financial results from 1H16 trickle in and the recovery in crude prices falters, US oil and gas independents remain cautious about spending and drilling plans.

US oil producers boost activity but cautious on outlook (continued)

ConocoPhillips said it will focus on strengthening its balance sheet this year by cutting spending and costs further. **Hess Corporation**, which also reduced its 2016 capex guidance, said it would only begin to increase activity in the Bakken once oil prices approach \$60/bbl. That is also the price level required for **Anadarko Petroleum** to accelerate activity. **Continental** said its decision to maintain its rig count until oil prices reach \$60/bbl is unchanged. For **Occidental Resources** and **Whiting Petroleum**, a sustained price of \$50/bbl or higher would spark an increase in activity next year.

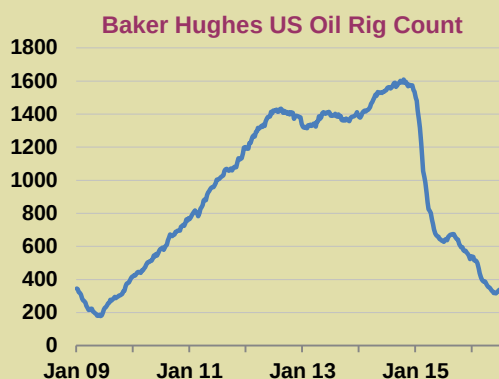
But not all companies need \$60/bbl oil to break-even.

EOG resources has said productivity in the Delaware sub-basin – the western part of the Permian – is so high that it has almost 20 years of premium drilling locations that yield at least a 30% return at \$40/bbl oil. Nevertheless, EOG said it believes the US horizontal oil industry as a whole needs a sustained \$60/bbl oil price to deliver moderate levels of growth.

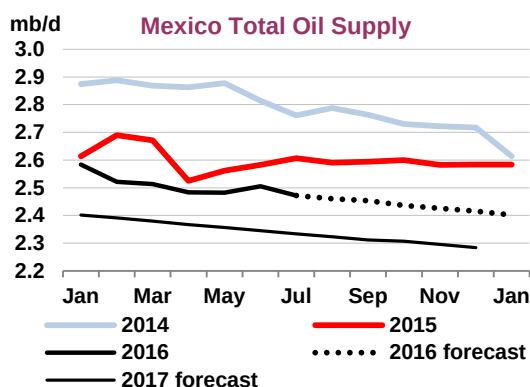
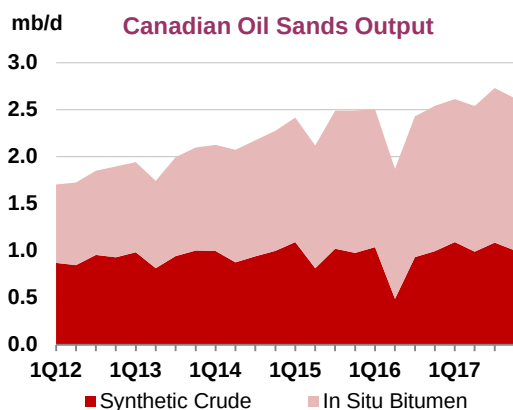
Pioneer Natural Resources is also prepared to step up its drilling operations, which are focused in the prolific Permian basin. The company says it has brought down production costs in the Permian Basin to about \$2/bbl and can reportedly make a profit if prices are above \$19/bbl. Its CEO said the company may be better off with oil between \$50-\$55/bbl, a range that would keep service costs down.

Service companies do not necessarily agree. Schlumberger's CEO argues that producers have sent an "unsustainable pricing shock throughout the entire oil industry supply chain". Despite the lower production costs, there has been little to no fundamental change in technology, quality or efficiency he says. The service industry argues that "service costs have to recover and as it does it will consume a large part of the E&P investment increases intended for additional activity".

While further increases in rig additions might be limited this year, it is clear the industry is able to do more with less. According to Halliburton, drilling rigs have gotten almost 30% faster, enabling them to drill more wells per rig per year. Companies are continuing to target only their most prolific assets, with the Permian and the Scoop and Stack plays in Oklahoma attracting a higher share of fresh capital. We maintain our forecast that US LTO production will decline by roughly 0.5 mb/d this year, to 3.9 mb/d, on an expected 50% decline in the number of completed wells compared with 2015. A further 0.2 mb/d drop is expected in 2017.



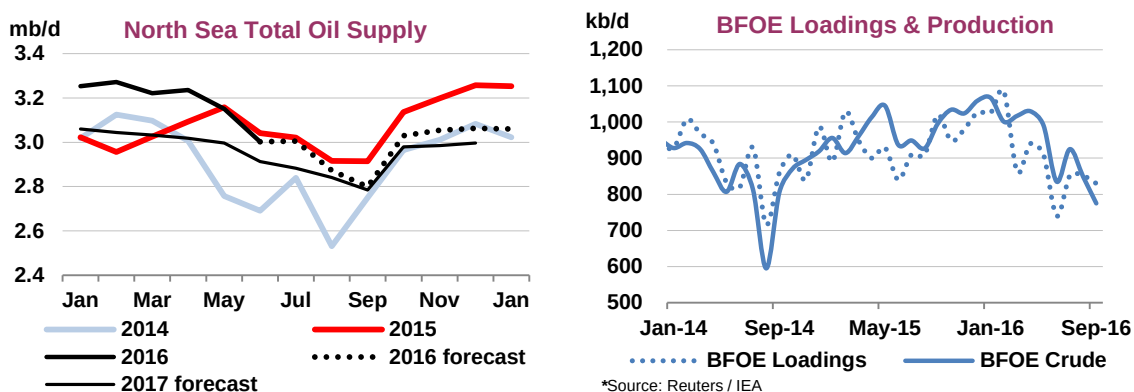
Canada – Newfoundland June actual, Alberta May actual, others April actual: Canadian oil production made a near full recovery in July after devastating wildfires had curbed output since early May. Data released by the Alberta Energy Regulator at the end of July show the province's oil output, including conventional crude, bitumen and synthetic crude oil, fell to just over 2 mb/d in May, from 2.6 mb/d a month earlier, largely in line with our estimates. The output of synthetic crude oil dropped to only 350 kb/d, compared with 615 kb/d in April and 1.04 mb/d in 1Q16. For the year as a whole, Canadian oil production is forecast to drop by 50 kb/d, to 4.3 mb/d, before growing a substantial 260 kb/d in 2017.



Mexico - June actual; July preliminary: Mexican crude production held steady in June at just shy of 2.2 mb/d, in line with preliminary estimates. Weekly data for July suggest output dipped by around 20 kb/d, increasing year-on-year declines to 115 kb/d, from 70 kb/d a month earlier. Year to date, Mexican crude production has lost about 70 kb/d compared with the same period a year earlier, a sharp improvement on 2015, when production fell by an average 160 kb/d.

North Sea

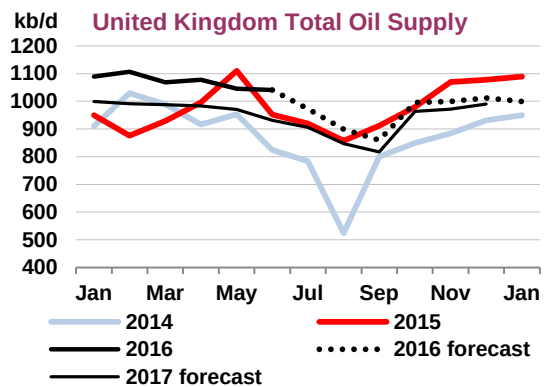
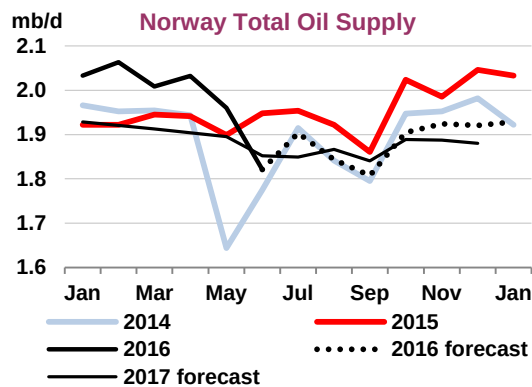
North Sea oil production dipped seasonally in June by 150 kb/d to 3 mb/d. The bulk of the decline stemmed from Norway, where ConocoPhillips was conducting a planned triannual maintenance shutdown at the Ekofisk system. Overall volumes were 40 kb/d below those of a year earlier, marking the first substantial year-on-year decline since March 2015.



North Sea loading schedules suggest output recovered in July, with liftings up 110 kb/d from the previous month. A dip in Brent loadings more than offset a return of Ekofisk barrels. Another round of maintenance shutdowns in August was set to curb output again, however, with supplies at the Statfjord and Grane platforms particularly affected. Further ahead, BFOE loadings scheduled for September were down 20 kb/d from August to 830 kb/d. Despite the start of maintenance at the 180 kb/d Buzzard field in September, the Forties stream is still scheduled to load some 360 kb/d next month (down from an average of 445 kb/d in 1H16), with much of the maintenance seen impacting loadings for October. BFOE output is also expected to be affected by the closure of the Brent Pipeline System (BPS) for two weeks of maintenance in mid-October. The BPS runs between the Cormorant Alpha platform and the UK's Sullom Voe terminal. Crude from a number of fields moves to Sullom Voe through the pipeline, including the Cormorant, Eider and Brent fields.

Members of the UK's Unite union, working at a number of Shell's North Sea platforms voted to extend strike action in August, after staging a 24-hour walkout on 26 July. The dispute between the Unite members and oil service provider Wood Group revolves around a proposed pay cut and working conditions. Unite members work at eight of Shell's North Sea platforms. Crude production at the eight sites was around 50 kb/d at the start of the year.

Norway – May actual, June provisional: Norwegian total oil output dropped by 70 kb/d in May to 1.96 mb/d, largely in line with preliminary estimates. Output was still 60 kb/d above a year earlier. According to the Norwegian Petroleum Directorate, production fell by a further 140 kb/d in June to 1.82 mb/d. The decline was slightly less steep than anticipated in last month's *Report*, which forecast a drop of 180 kb/d as a faster-than-expected ramp up of output at new fields partly offset maintenance shutdowns at Ekofisk. According to company reports, Eni's Goliat field reached peak output of 100 kb/d, only months after starting up in March this year, while Lundin's Edvard Grieg field, which was commissioned at the end of 2015 reached nearly 80 kb/d in June, up from 65 kb/d in May. For the year as a whole, Norwegian oil production is expected to average just over 1.9 mb/d, largely unchanged from the previous year, before declining by 50 kb/d in 2017.



UK – May actual, June preliminary: UK oil supplies fell by 30 kb/d to 1045 kb/d in May, marking the first y-o-y decline in 14 months. Crude and condensate production was unchanged from a month earlier, while NGLs and non-biofuels additives saw smaller declines. Preliminary data for June, as reported through the Joint Oil Data Initiative (JODI), show crude and condensate production dropping another 20 kb/d, to 960 kb/d.

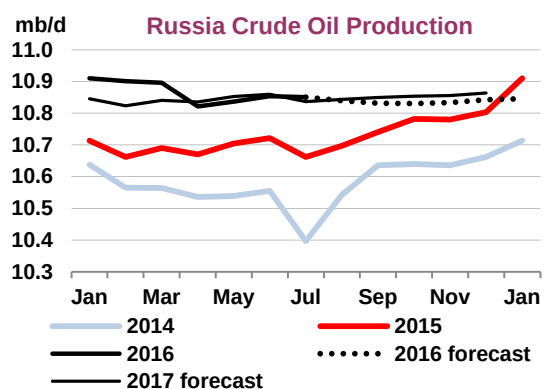
BP announced in early August it had completed the construction work at its West of Shetland Clair Ridge development. Clair Ridge, the second phase of development at Clair, was originally expected on stream this year. The development, owned by co-venture partners, BP, ConocoPhillips, Chevron and Shell, will produce an estimated 640 million barrels of oil over a 40-year period. Final hook-up and commissioning of the 120 kb/d installation is expected to be completed towards the end of 2017.

Italy- May actual: Italian crude oil production was flat month-on-month in May at just shy of 30 kb/d, as Eni's Val d'Agri field remained shut. Italian authorities seized plants and facilities amid alleged environmental crimes earlier this year, affecting about 80 kb/d of supplies. On 1 June, Italian authorities granted Eni a temporary repeal of the seizure, allowing it to perform certain plant upgrading intended to address claims made by the public prosecutor. Eni has since completed the plant upgrade and is expected to resume output in August.

Non-OECD

Former Soviet Union

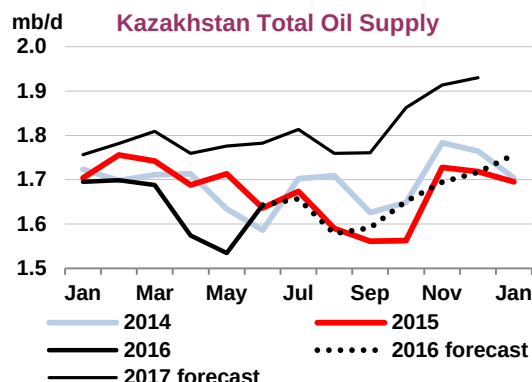
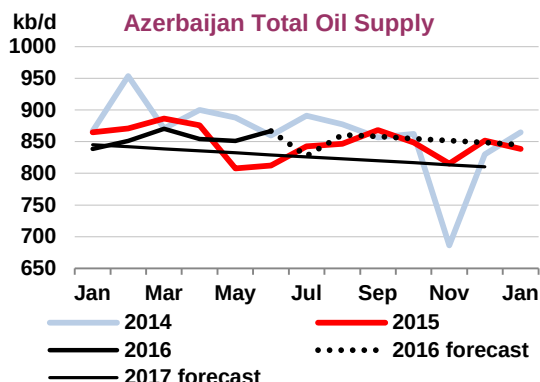
Russia – June actual, July provisional: Preliminary data for July show Russian crude and condensate production largely unchanged from the month earlier, averaging 10.85 mb/d. Output was 190 kb/d higher than a year ago. Crude production is expected to average just shy of 10.85 mb/d also for the year as a whole, up 135 kb/d compared with the previous year. As highlighted in previous *Reports*, growth is largely stemming from Novatek and Gazpromneft. Further growth will come from Lukoil's 120 kb/d Filanovsky field, which is scheduled to start-up later this year and Rosneft's Suzunskoye.



Output at Russia's mature fields in Western Siberia meanwhile continues to decline. Production at Lukoil's Western Siberian fields lost an average of 8.9% over the first half of 2016 compared with the previous year. Despite a significant increase in development drilling since the start of 2015, Rosneft saw oil production decline by nearly 1% over the same period. We expect output to hold largely unchanged in 2017 and 2018. Oil's recent decline and a strengthening rouble may however see renewed pressure to

put additional taxation on the sector, which could again undermine spending capabilities of Russian producers, if implemented.

Azerbaijan – June actual: Azeri crude output rose by around 15 kb/d in June to a 2016 high of 865 kb/d. Output was up 55 kb/d compared with a year earlier, but from a low 2015 base.

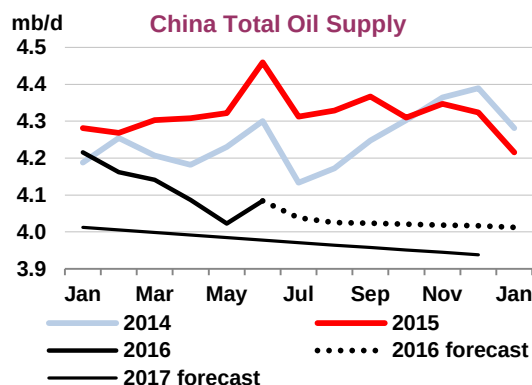


Kazakhstan – June actual: For the year as a whole, production in Kazakhstan, meanwhile, rose by nearly 110 kb/d in June, to 1.56 mb/d, roughly on par with a year earlier. Across 1H16, total Kazakh oil output dropped by 70 kb/d, its highest decline since 1994. CPC loadings are set to plunge by 0.3 mb/d m-o-m to a three-year low of 0.63 mb/d in August, due to works at the Tengiz field.

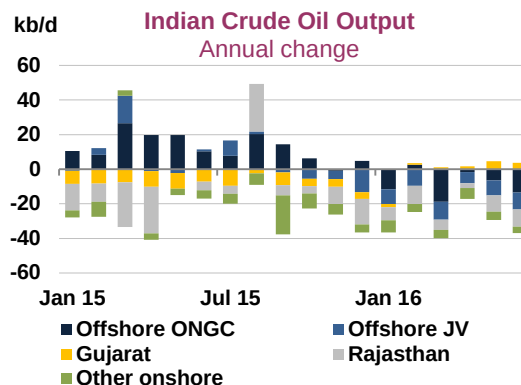
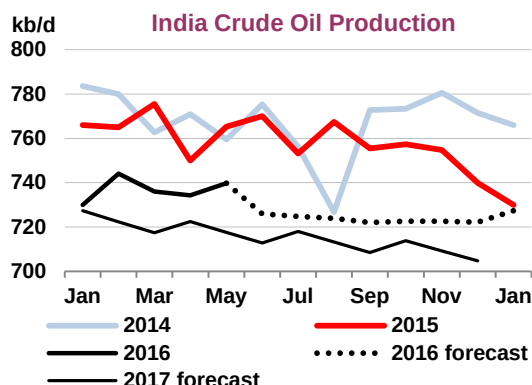
The expected re-start of the long-delayed Kashagan later this year should boost output. The oilfield is due to come on stream in October and could reach 230 kb/d by year-end and hit its initial plateau of 370 kb/d by mid-2017 – much swifter than previously expected. Operator Eni said work on replacing two offshore pipelines that sprang a leak three years ago has been completed ahead of schedule and the consortium is close to completing hydraulic tests on the pipes. Others involved in the project are less optimistic. In April, a senior executive at China National Petroleum Corp. said production was unlikely to resume before mid-2017. Kazakh Oil Minister Kanat Bozumbayev said the field would restart in December and contribute a token 250,000 barrels to national production in 2016.

Asia

China – June actual: Chinese crude production recovered by 60 kb/d in June to 4.08 mb/d. Output was 375 kb/d lower than a year earlier. Chinese operators have cut output at many of the country's largest oilfields. CNPC announced earlier this year that lower oil prices had caused its main onshore oilfield at Daqing to fall below its break-even price. According to CNPC's Daqing Oilfield Company, Daqing's production costs are currently around \$45/bbl. The field's profit fell last year by 54.2 billion yuan from 2014 to 10.2 billion yuan, and at the start of the year the field was losing money. Daqing's crude output fell by 32 kb/d to 768 kb/d last year due to sharp reserve depletion as well as high production costs. According to the company, Daqing has only 197 million tonnes of remaining oil reserves left for production, with about 92% of the original total having been produced. Water accounts for 95% of the liquids lifted from the reservoirs, with much of the current production maintained through polymer injection. Daqing, which started production 56 years ago, has cumulatively produced 2.27 billion tonnes of oil and 120 billion cubic metres of natural gas.



India – June actual: Indian crude output averaged 740 kb/d in June, largely unchanged from a month earlier. Production has been declining since the end of 2015, and in the latest month, output was 33 kb/d lower than a year earlier, with declines stemming from all main producing areas. Indian oil production was steady in 2015, with gains in ONGC's offshore projects offsetting onshore declines. Crude oil production is expected to drop by 30 kb/d this year and a further 10 kb/d in 2017, to 720 kb/d.

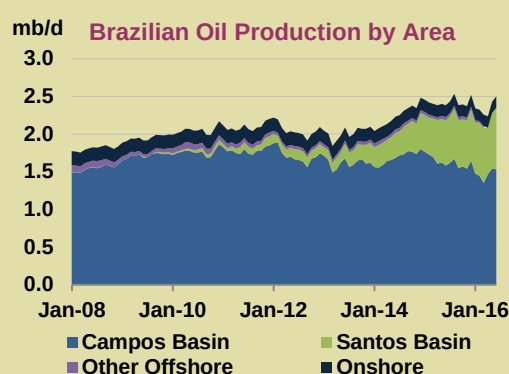
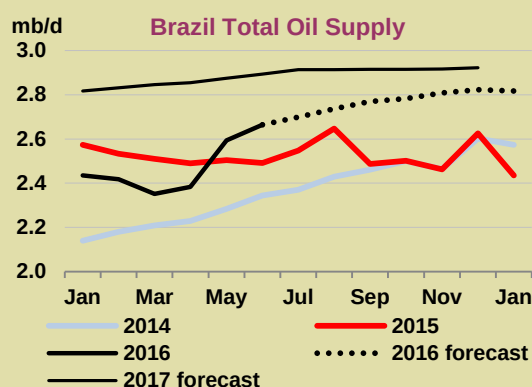


Latin America

Brazil bounces back

Faced by a massive corruption scandal, political uncertainties and huge debts, Petrobras has had to curb its long-term output targets. In addition, production disappointed early this year as outages eroded gains from new production facilities. But since May, supplies are back on track and output reached an all-time high in June. Moreover, both Petrobras and the government are taking steps to allow production to continue to grow in the future.

Crude and condensate output of 2.558 mb/d – up 70 kb/d - surpassed a previous record set in August 2015 and stood 160 kb/d higher than a year ago. As in previous months, it was production in the pre-salt area that saw the biggest gains. Oil output in the prolific fields climbed to nearly 1 mb/d, up from May's record 930 kb/d. Output in the Santos Basin, which holds the core Lula field, jumped 80 kb/d from a month earlier to a new record of nearly 820 kb/d – an impressive 220 kb/d gain in just one year. The more mature Campos Basin saw continued declines of around 50 kb/d y-o-y, though it is still pumping more than 1.5 mb/d or 60% of the nation's oil.

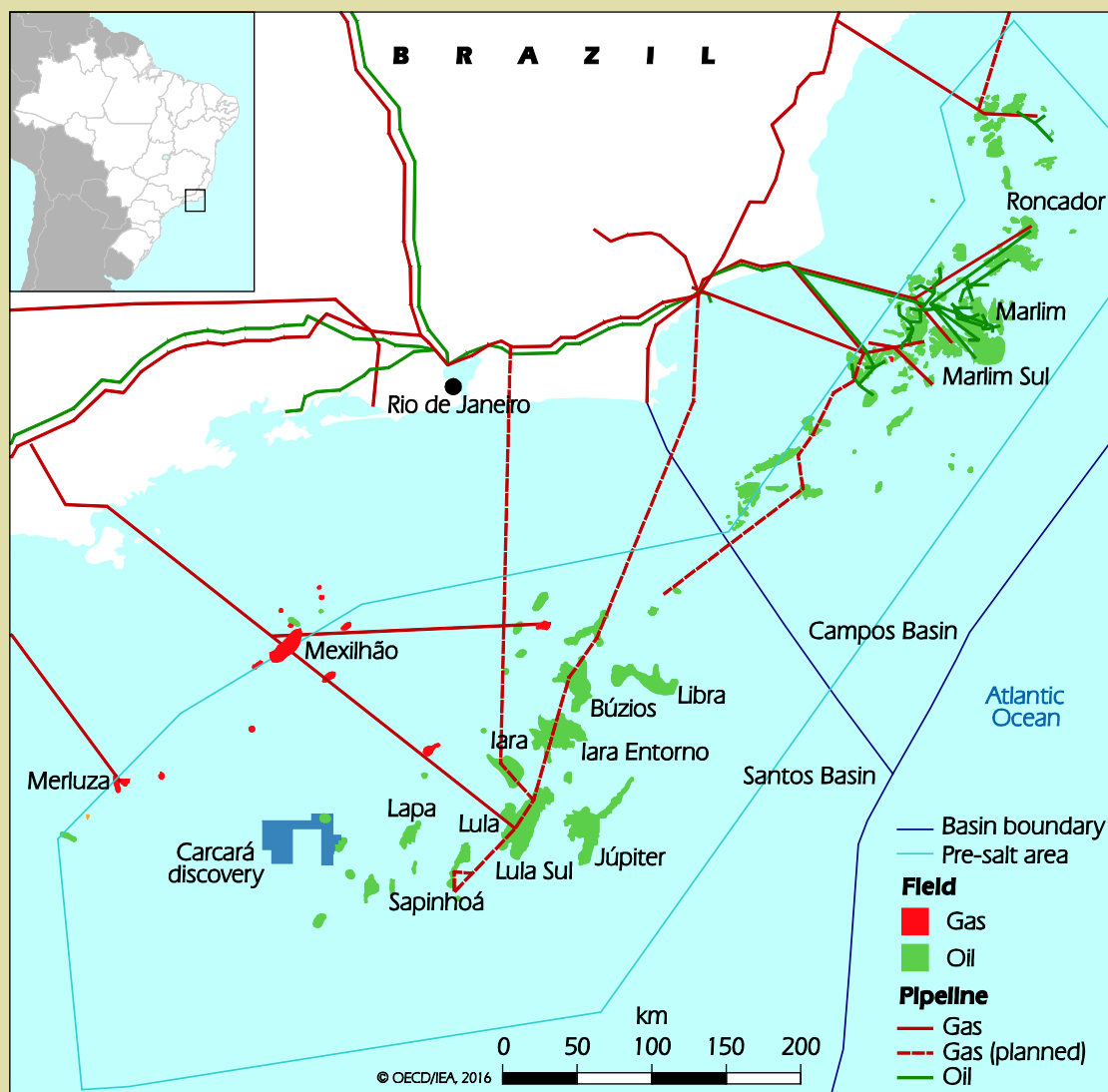


Petrobras, which posted a net loss of \$318 million in 1Q16, is working to improve its bottom line. Brazil's National Petroleum Agency, ANP, approved a request made by the company to temporarily shut 16 offshore platforms and 14 production concessions for up to a year. Petrobras made the request after crude prices plunged earlier this year and made output from the fields unprofitable. The company will not, however, completely shut down production but will reduce output during the 12-month period. Output from the platforms and fields represents less than 3% of Petrobras' total domestic crude output, which averaged 2.2 mb/d in June.

Brazil bounces back (continued)

Petrobras is also continuing its efforts to divest assets to improve its balance sheet. In July, it agreed to sell its 66% stake in the BM-S-8 offshore block – which includes the Carcará presalt discovery – to Statoil for \$2.5 billion. The deal marks the first time Petrobras sold off its stake in a pre-salt block and goes some way to meet the heavily indebted company's \$15 billion divestment target by year's end. Petrobras is the most leveraged oil company in the world, with debt totalling more than \$120 billion.

Its huge debts, the crippling corruption scandal and falling oil prices have forced Petrobras to cut its annual investment budget by 25% in 2015 and a further 23% this year, to \$14.7 billion. As a result, Petrobras no longer has capital to invest in new subsalt projects. The company's inability to finance new investments means Brazil risks losing out on future supply growth. The requirement that Petrobras needs to operate and hold a 30% stake in pre-salt projects has prevented the auction of key offshore rights, blocking about \$120 billion of potential investment in Brazil's oil industry, according to the IBP, the country's main oil industry association.



This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

But the government is also taking steps to revive stalled investment. A legislative initiative that would end the current requirement for Petrobras to operate all pre-salt projects and hold a 30% stake in them is pending. In early July, a committee of the lower house of Congress voted to recommend repealing the 2010-law. The bill, already passed by Brazil's Senate, will now move to the full lower house in Brasilia. If passed, the new rules will allow any qualified oil company to buy and operate new areas in the subsalt whether Petrobras is involved or not. Brazil plans to hold its second subsalt auction by mid-2017.

STOCKS

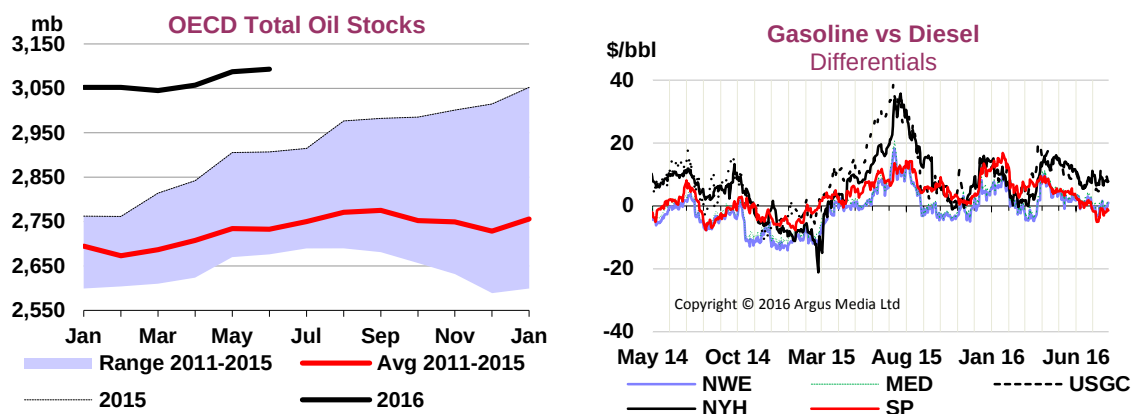
Summary

- **An OECD inventory overhang continued to shift from crude into products during June, with commercial inventories swelling by 5.7 mb to a record 3 093 mb.** Declines in crude oil stocks were offset by a products build of 15.9 mb, more than four times the seasonal average, with big volumes of US propane and other NGLs moving into storage.
- **Gasoline inventories piled up along with already high levels of gasoil as refiners on both sides of the Atlantic raised throughput.** Heavy ends such as fuel oil were also bulging, particularly in Europe, which encouraged record shipments from Rotterdam to Singapore.
- **Short-term crude floating storage declined by 17 mb by the end of July to 78.1 mb, the first drop in eight months, and the largest draw since 2010.** Cargoes in NWE, the US Gulf and Far East have finally offloaded and Iranian floating storage was reported down by one VLCC.

Latest member countries' submission to the IEA is May 2016. End-June and end-July preliminary data for major countries is estimated based on various sources, subject to availability: preliminary submissions, Euroilstock, JODI and national statistics.

Global overview

The OECD stock overhang continued to shift into the downstream, with OECD commercial inventories swelling by 5.7 mb in June to a record 3 093 mb. Declines in crude oil were offset by a products build of 15.9 mb, more than twice the seasonal norm, with big volumes of US propane and other NGLs moving into storage. Refiners ran harder on both sides of the Atlantic (See 'Refining'), causing gasoline inventories to pile up in Europe and the US along with already high volumes of gasoil in storage tanks. Heavy ends such as fuel oil were also brimming in the OECD, particularly in Europe, which spurred record shipments from Rotterdam to Singapore.



OECD inventory position at end-June and revisions to May preliminary data

Preliminary data indicate that total OECD oil inventories built by 5.7 mb in June, as opposed to a typical seasonal draw of just under 1 mb, pushing overall stocks to a record 3 093 mb. Increases in product stocks offset draws in crude oil that corresponded with the end of spring refinery maintenance in Europe and North America. In terms of forward cover, stocks were in alignment with the seasonal lull, down 0.1 days to 66.5 days, a healthy week of cover above the five-year average.

Crude oil draws followed seasonal patterns in all OECD regions, with closing levels in the Americas and Europe both down by about 7 mb as spring maintenance drew to a close. Asia Oceania built by 2.2 mb. Europe was the most surprising, as it usually draws by a much more modest 1.6 mb.

By contrast, products built by 15.8 mb, more than four times the seasonal average, propped up by 'Other Products', which is mostly US propane and other NGLs.

Preliminary Industry Stock Change in June 2016 and Second Quarter 2016

	June 2016 (preliminary)								Second Quarter 2016			
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	-7.0	-6.8	2.2	-11.5	-0.23	-0.23	0.07	-0.38	-0.08	0.06	0.10	0.08
Gasoline	0.6	-1.1	0.5	0.0	0.02	-0.04	0.02	0.00	-0.01	-0.02	0.00	-0.03
Middle Distillates	-6.1	-2.1	1.5	-6.7	-0.20	-0.07	0.05	-0.22	-0.19	0.02	0.08	-0.09
Residual Fuel Oil	-0.4	-2.7	0.4	-2.7	-0.01	-0.09	0.01	-0.09	-0.04	-0.06	-0.01	-0.11
Other Products	23.2	1.1	1.0	25.3	0.77	0.04	0.03	0.84	0.51	0.04	0.02	0.58
Total Products	17.3	-4.8	3.4	15.9	0.58	-0.16	0.11	0.53	0.26	-0.02	0.09	0.34
Other Oils ¹	-0.2	1.1	0.5	1.4	-0.01	0.04	0.02	0.05	0.09	0.01	0.02	0.11
Total Oil	10.0	-10.5	6.2	5.7	0.33	-0.35	0.21	0.19	0.27	0.05	0.21	0.53

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

May preliminary - April final revisions. May preliminary and April final inventory figures were adjusted following the receipt of more complete data. The most notable revision was for crude oil, which was adjusted upwards in OECD Americas after May monthly figures stood 9.1 mb above weekly data. Japanese crude stocks were revised downwards by about 6.5 mb for both April and May. Final data show that crude stocks built in May in line with seasonal patterns, as opposed to remaining flat, as shown previously.

On the products side, few revisions were made apart from the Americas 'Other Products', where US Propane and other processed gas liquids were adjusted downwards by 6.3 mb. The same amount was added to the 'Other Oils' category in the US, which includes NGLs, feedstocks and other hydrocarbons.

Revisions versus July 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Apr-16	May-16	Apr-16	May-16	Apr-16	May-16	Apr-16	May-16
Crude Oil	1.5	9.1	-3.2	2.8	-6.3	-6.5	-8.0	5.4
Gasoline	0.0	0.1	0.2	-0.6	0.0	-0.1	0.2	-0.6
Middle Distillates	0.0	1.0	0.1	-1.5	0.0	0.5	0.1	-0.1
Residual Fuel Oil	0.0	-0.3	-0.3	0.7	0.0	0.1	-0.3	0.4
Other Products	0.0	-6.3	-0.2	0.9	1.2	1.8	0.9	-3.7
Total Products	0.0	-5.6	-0.3	-0.6	1.2	2.2	0.9	-4.0
Other Oils ¹	0.2	8.0	0.0	0.2	3.9	4.2	4.1	12.3
Total Oil	1.7	11.5	-3.4	2.4	-1.2	-0.1	-3.0	13.8

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Recent OECD industry stock changes

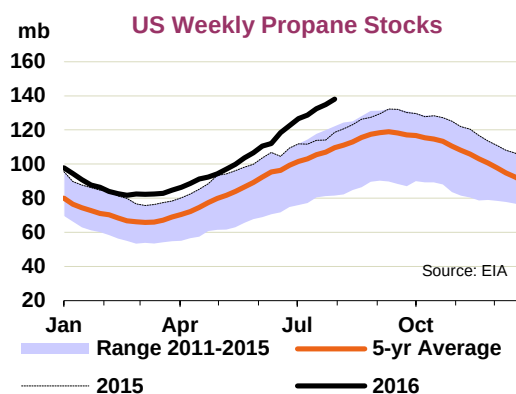
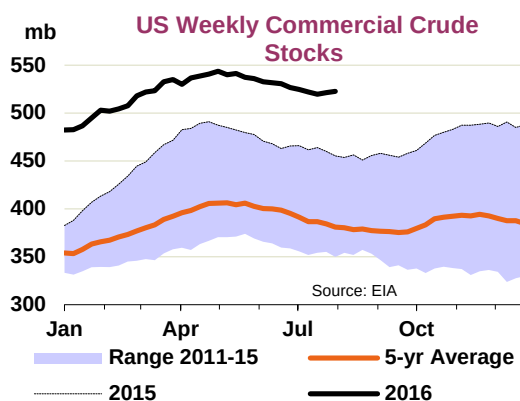
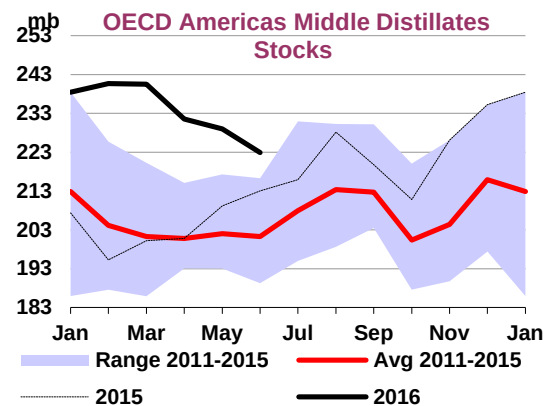
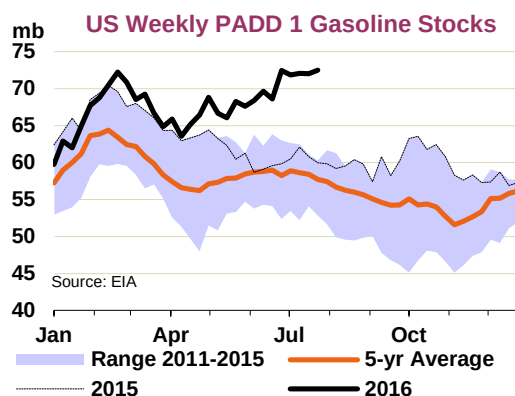
OECD Americas

Refinery runs and Canadian wildfires cut crude stocks. Crude stocks drew in the US as refiners returned from spring maintenance, preliminary June data show. In Canada, final May data show a steep counter-seasonal 4.5 mb draw, as domestic supplies were curbed sharply due to wildfires (See previous issue of this *Report*). July weekly data compiled by the US Energy Information Administration show that this trend continued, with crude drawing by a 1.8 mb.

US gasoline overhang moving East, gasoil steadies. Overall Americas gasoline stocks – for the most part in the US – remained roughly flat in June. This masks a diverging trend, however, particularly within the

US, where the overhang has shifted from the Midcontinent (PADD 2) and the Gulf Coast (PADD 3) to the East Coast (PADD 1) throughout the year. Stronger refinery runs during June did not limit product imports from Europe and the most recent July weekly EIA data show exceptional PADD 1 builds to levels more than 10 mb above the seasonal norm.

By contrast, distillate stocks have been reverting to a normal range, posting a counter-seasonal draw in both the US and Canada on the back of stronger industrial consumption (See 'Demand'). Preliminary July data shows US middle distillate stocks flat building by a seasonal 5 mb, and gasoline stocks on the whole US territory drawing by 0.7 mb, in line with its five-year-average.



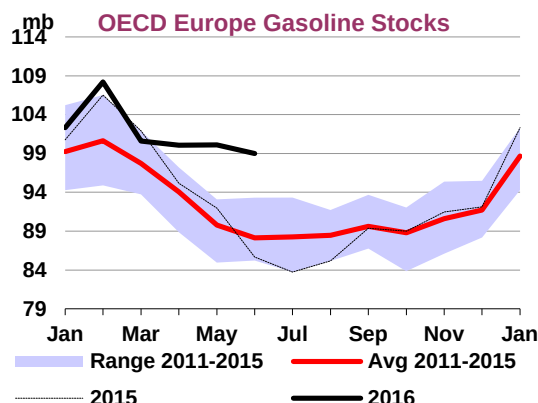
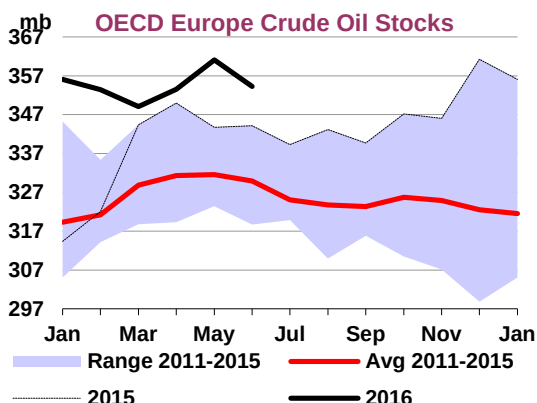
Petroleum gases restocking. Preliminary June data also show 'Other Products' – mostly US natural gas liquids - building strongly. Preliminary weekly data published by the US Energy Information Administration (EIA), based on a sample of companies, show a build in propane in June and July that exceeds the seasonal norm. During May, exports of propane reached a record 894 kb/d, which helped put a lid on the stock build, according to the latest monthly data. But arbitrage economics have since narrowed - with reports of liftings being cancelled – leading to higher builds.

OECD Europe

OECD Europe crude stocks drew by a hefty 6.8 mb in June, as refiners came back from spring maintenance, preliminary data show. The draw is three times steeper than usual, yet crude inventories remain well above their normal range.

Gasoline and diesel. Product inventories followed seasonal patterns and drew by 4.8 mb, which was nonetheless weaker than expected. Already-brimming distillate stocks show little sign of receding and the overhang in gasoline is growing as its main export outlet – the US East Coast – is increasingly saturated. Independent gasoline storage in North West Europe reportedly touched record highs in late

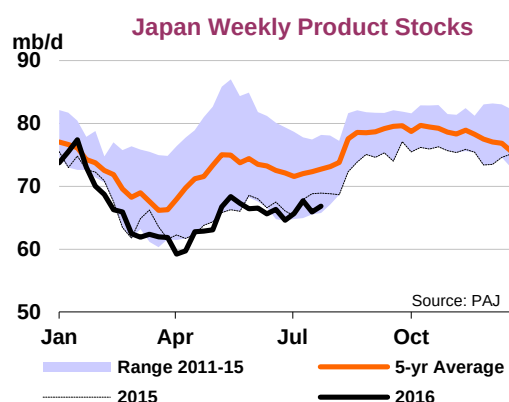
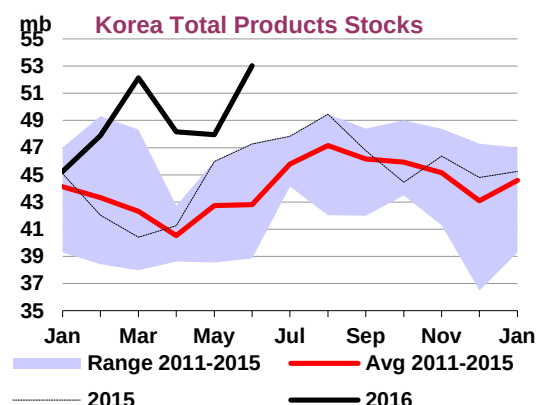
July, which also points to swelling stock levels. Market reports suggest that abundant light ends also spilled over to naphtha, amid easing price differentials to the Middle East.



OECD Asia Oceania

June data show OECD Asia Oceania crude stocks building by 3.2 mb as Japanese refiners reached the peak turnaround period. On the product front, stocks built strongly and counter seasonally - a solid 3.4 mb, versus a typical draw of 1.2 mb. Korea accounted for the entire build, as exports were weaker due to Chinese competition (See *Refining*).

Preliminary July data from the Petroleum Association of Japan (PAJ) show some seasonal restocking in products, as refiners began to return from spring maintenance.

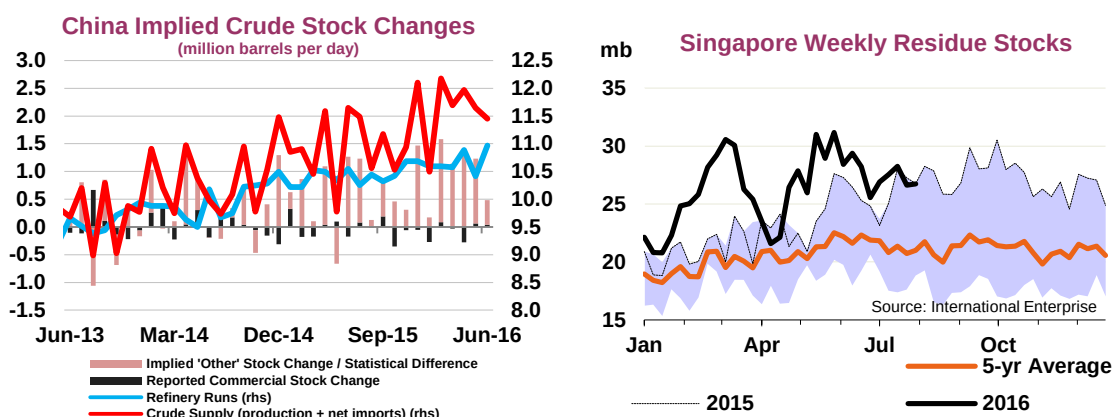


Recent developments in non-OECD stocks

China. Chinese end-June crude oil commercial inventories built by a modest 1.2 mb, according to data published by *China Oil, Gas and Petrochemicals*. Implied crude balances, directionally in line with official data, point to a much larger 500 kb/d build (the fifth consecutive monthly increase). This is, however, a smaller increase than previous months when implied builds were over 1 mb/d.

Net imports were down nearly 200 kb/d to the lowest since January and appear to be symptomatic of healthy crude stocks, particularly for independent refiners. The Shandong region, home to most independent refiners, has been strongly building in 1H16, according to reports. The high level of crude stocks reportedly encouraged independents to increase refinery runs in June.

Product inventories overall drew by 5 mb, as a 5.5 mb draw in gasoil more-than offset a 0.9 mb build in jet kerosene, while gasoline remained stable overall, drawing by 0.4 mb (a modest 0.5%).

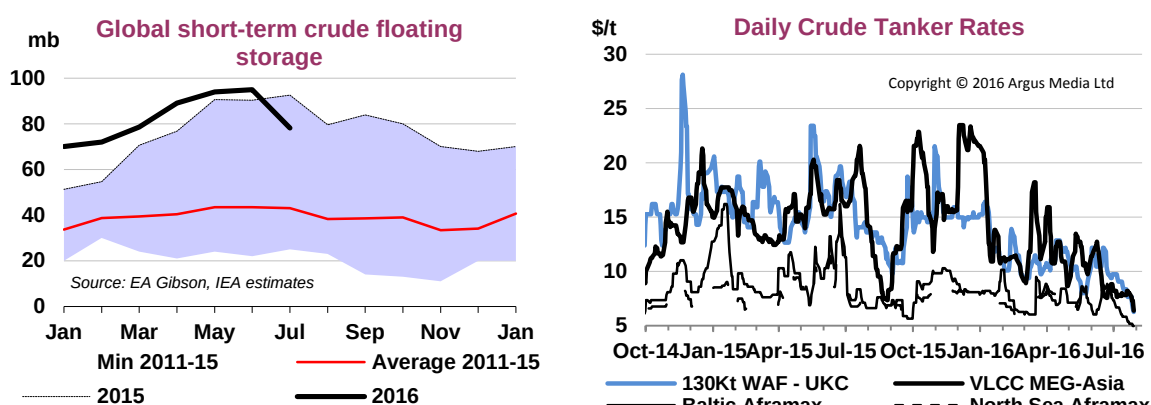


Singapore. Singapore stocks built in July, led by middle distillates, according to data compiled by International Enterprise, after drawing sharply a month earlier. Bunker sales have eased from May highs, but remain at very healthy levels, above the 900 kb/d mark, data from the Singapore Maritime Authority show. The world's largest bunkering hub saw an armada of cheap Russian fuel oil coming from Rotterdam in 1H16. Refinery maintenance in Russia rebalanced the situation, but only temporarily. As refiners came back from maintenance, fuel oil exports jumped 200 kb/d during June to just shy of 1.2 mb/d. Tanker data compiled by Lloyd's List Intelligence shows a record 300 kb/d of fuel oil bound for Singapore in July from Rotterdam.

Cheaper residual fuel makes Singapore bunkering more competitive with respect to its regional rivals, namely Hong Kong (see 'Demand'). Russia's Far East bunkering port of Vladivostok reportedly lost 30 kb/d in bunker sales, more than 70% down on the previous year, according to news reports.

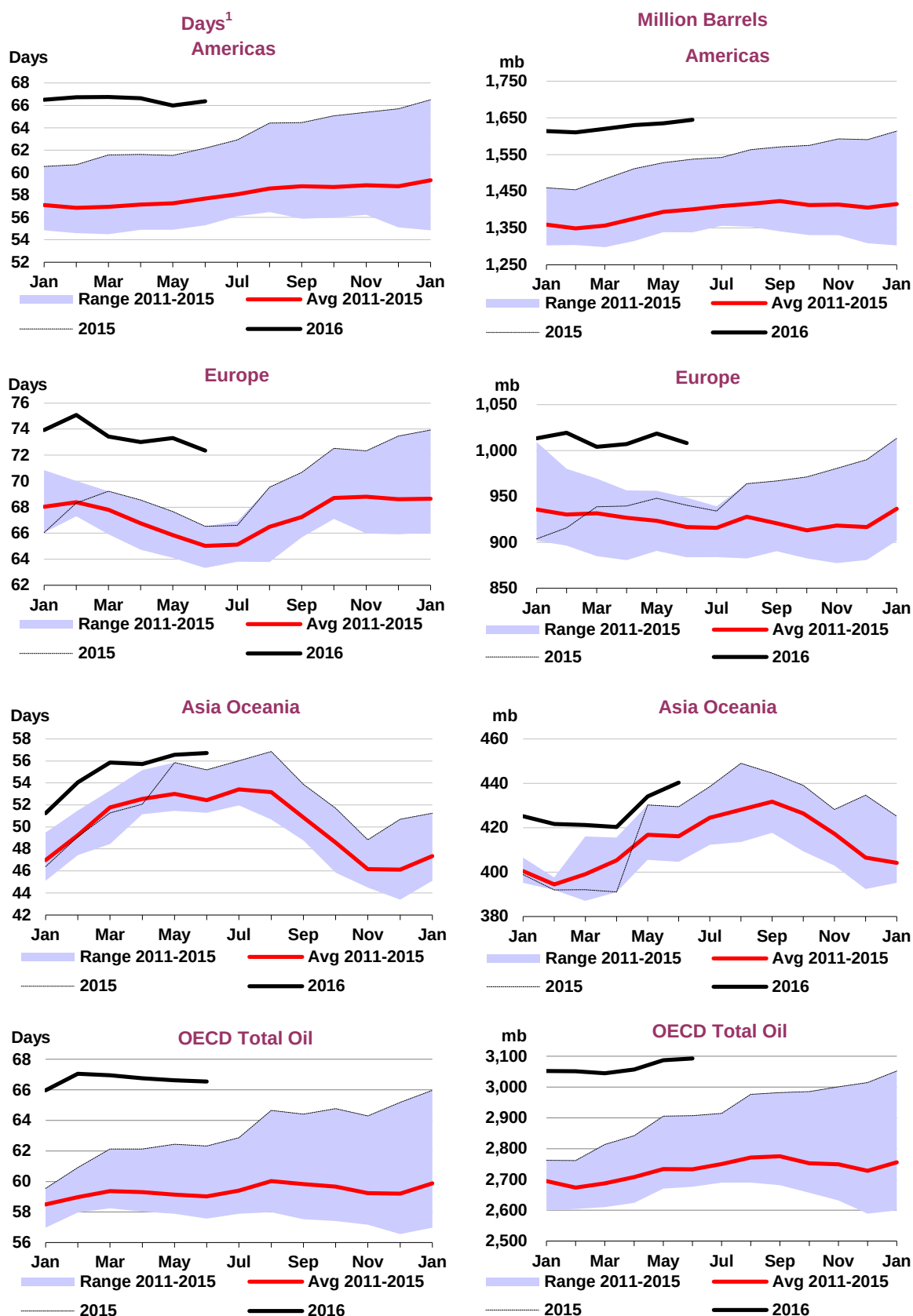
Recent developments in floating storage

July floating storage down seasonally. July data show a 17 mb drop in short-term crude oil floating storage to 78 mb, the first decline in eight months, and the largest draw since 2010. Cargoes in NWE, the US Gulf and Far East have finally offloaded and Iranian floating storage was reported down by one VLCC. The volume now in floating storage is really just oil in transit due to delays and short-term operational issues, rather than deliberate economic plays, as the current contango is not steep enough to support it.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)



1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Crude oil prices eased to around \$45/bbl as a global overhang weighed and demand growth weakened.** Brent crude had threatened to break below \$40/bbl at the end of July.
- **Product prices also weakened in July** and to a larger extent than crude prices, reducing crack spreads across the board except for the heaviest ends. Ultra-low-sulphur-diesel gained ground on gasoline and switched back to a premium in Europe and Singapore.
- **Freight rates collapsed to multi-year lows** as vessel oversupply persists. Rates for crude carriers were hit hardest, touching the lowest in more than a decade. Newer vessels were squeezed out of the market with older tonnage willing to fix at even lower rates.

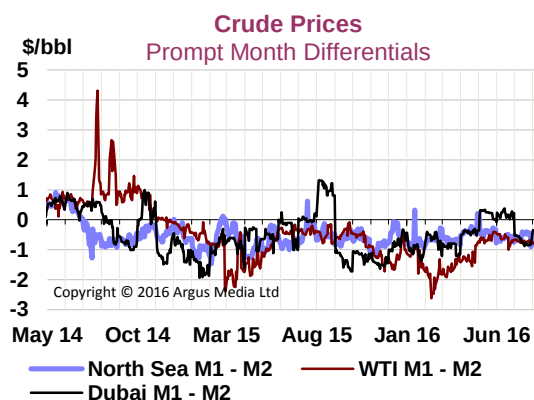
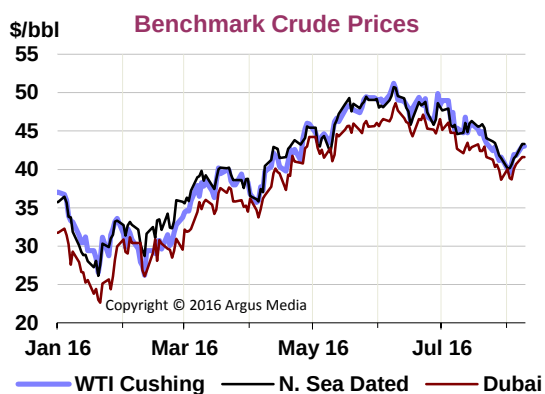
Due to exceptional circumstances, we have limited coverage of prices in this month's Report.

Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	May	Jun	Jul	Jul-Jun Avg Chg	% Chg	Week Commencing:				
						11 Jul	18 Jul	25 Jul	01 Aug	08 Aug
NYMEX										
Light Sweet Crude Oil	46.80	48.85	44.80	-4.05	-8.3	45.59	44.75	42.14	40.83	43.02
RBOB	66.39	65.42	57.98	-7.44	-11.4	59.04	57.48	55.67	56.36	57.20
No.2 Heating Oil	59.66	63.04	58.17	-4.87	-7.7	59.34	57.92	54.52	54.16	56.43
No.2 Heating Oil (\$/mmbtu)	10.52	11.12	10.26	-0.86	-7.7	10.47	10.21	9.62	9.55	9.95
Henry Hub Natural Gas (\$/mmbtu)	2.08	2.62	2.76	0.14	5.2	2.73	2.72	2.78	2.79	2.75
ICE										
Brent	47.65	49.93	46.53	-3.40	-6.8	47.19	46.54	43.64	43.12	45.39
Gasoil	56.94	59.70	54.36	-5.34	-8.9	54.89	54.42	51.05	48.79	51.54
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-0.85	-1.08	-1.73	-0.65		-1.60	-1.79	-1.50	-2.29	-2.37
NYMEX No.2 Heating Oil - WTI	12.86	14.19	13.37	-0.82		13.75	13.17	12.38	13.33	13.41
NYMEX RBOB - WTI	19.59	16.57	13.18	-3.39		13.45	12.73	13.53	15.53	14.18
NYMEX 3-2-1 Crack (RBOB)	17.35	15.77	13.24	-2.53		13.55	12.88	13.15	14.80	13.93
NYMEX No.2 - Natural Gas (\$/mmbtu)	8.44	8.49	7.50	-1.00		7.73	7.50	6.84	6.76	7.20
ICE Gasoil - ICE Brent	9.29	9.77	7.83	-1.94		7.70	7.88	7.41	5.67	6.15

Source: ICE, NYMEX.

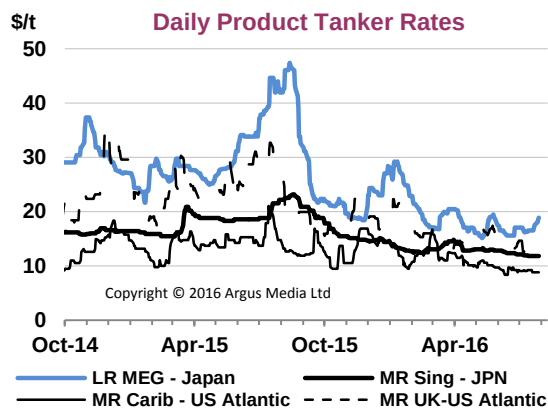
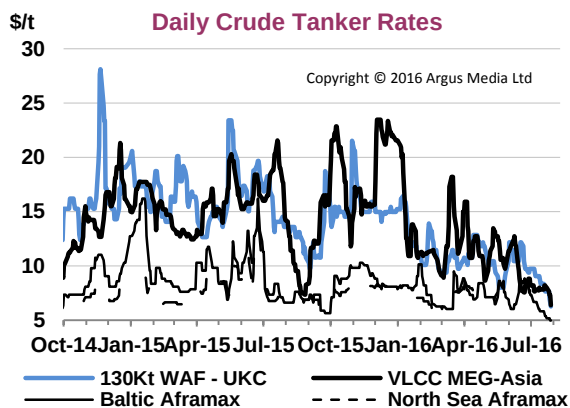
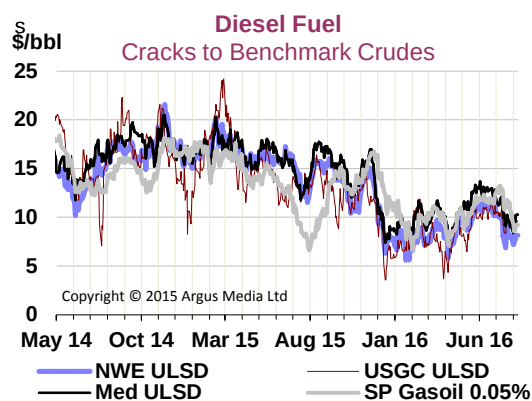
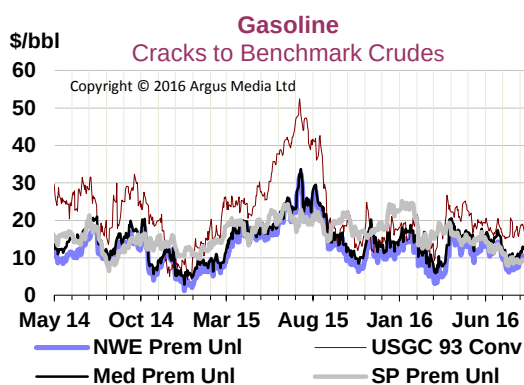


Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	May	Jun	Jul	Jul-Jun Avg Chg	%	Week Commencing:				
						11 Jul	18 Jul	25 Jul	01 Aug	08 Aug
Crudes										
North Sea Dated	46.79	48.28	45.00	-3.28	-6.8	45.59	45.32	42.62	40.84	43.33
Brent (Asia) Mth 1	47.28	49.41	46.22	-3.18	-6.4	46.31	46.43	43.70	42.43	44.52
WTI (Cushing) Mth 1	46.72	48.74	44.69	-4.05	-8.3	45.59	44.46	42.00	40.83	43.02
Urals (Mediterranean)	45.01	46.60	43.76	-2.84	-6.1	43.99	44.04	41.62	39.39	41.53
Dubai	44.30	46.25	42.54	-3.71	-8.0	42.76	42.52	40.16	39.67	41.61
Tapis (Dated)	49.03	50.13	44.69	-5.44	-10.8	45.39	44.96	41.52	39.20	41.33
Differential to North Sea Dated										
WTI (Cushing)	-0.07	0.46	-0.31	-0.77		0.00	-0.86	-0.62	-0.01	-0.31
Urals (Mediterranean)	-1.78	-1.68	-1.24	0.44		-1.60	-1.28	-1.00	-1.45	-1.80
Dubai	-2.49	-2.03	-2.46	-0.43		-2.82	-2.80	-2.46	-1.17	-1.72
Tapis (Dated)	2.24	1.85	-0.31	-2.15		-0.20	-0.36	-1.10	-1.64	-2.00
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.42	-0.60	-0.55	0.05		-0.52	-0.45	-0.57	-0.44	-0.41
Forward WTI Cushing Mth1-Mth2	-0.61	-0.64	-0.73	-0.09		-0.73	-0.76	-0.72	-0.77	-0.74
Forward Dubai Mth1-Mth2	0.21	0.18	-0.72	-0.91		-0.71	-0.82	-0.83	-0.36	-0.34

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Spot Product Prices

(monthly and weekly averages, \$/bbl)

	May	Jun	Jul	Jul-Jun Chg	%	11 Jul	18 Jul	25 Jul	01 Aug	08 Aug	May	Jun	Jul
Rotterdam, Barges FOB													
	Differential to Dated Brent												
Premium Unl 10 ppm	58.93	60.60	52.73	-7.87	-13.0	52.53	52.69	50.52	50.63	52.90	12.14	12.32	7.73
Naphtha	44.78	46.40	42.20	-4.20	-9.1	42.57	41.99	39.38	37.34	38.88	-2.01	-1.88	-2.80
Jet/Kerosene	55.39	58.37	54.17	-4.20	-7.2	54.94	54.27	51.01	49.00	51.16	8.60	10.09	9.17
ULSD 10ppm	56.67	59.37	53.84	-5.53	-9.3	54.25	53.65	50.62	48.48	51.48	9.88	11.09	8.84
Gasoil 0.1%	55.91	58.69	53.17	-5.51	-9.4	53.45	53.21	50.24	48.18	51.22	9.12	10.41	8.18
LSFO 1%	33.02	36.78	36.57	-0.21	-0.6	36.88	36.27	34.77	33.06	34.90	-13.77	-11.50	-8.43
HSFO 3.5%	30.18	33.23	33.19	-0.04	-0.1	33.65	33.18	31.80	30.39	31.56	-16.61	-15.05	-11.81
Mediterranean, FOB Cargoes													
	Differential to Urals												
Premium Unl 10 ppm	60.19	61.77	54.00	-7.77	-12.6	53.80	53.96	51.82	51.24	53.99	15.18	15.16	10.24
Naphtha	43.51	45.11	41.06	-4.05	-9.0	41.39	40.89	38.36	36.27	37.84	-1.50	-1.50	-2.70
Jet Aviation fuel	54.44	57.36	53.21	-4.15	-7.2	53.92	53.34	50.18	48.11	50.30	9.43	10.76	9.45
ULSD 10ppm	56.93	59.36	54.15	-5.21	-8.8	54.90	53.88	50.74	48.75	51.82	11.91	12.75	10.39
Gasoil 0.1%	55.75	58.64	52.62	-6.02	-10.3	53.76	52.13	48.79	46.51	49.77	10.74	12.03	8.86
LSFO 1%	34.00	37.28	37.16	-0.12	-0.3	37.77	36.79	35.06	33.39	35.25	-11.01	-9.32	-6.60
HSFO 3.5%	32.66	35.40	35.65	0.26	0.7	36.21	35.62	34.17	32.74	33.96	-12.36	-11.21	-8.11
US Gulf, FOB Pipeline													
	Differential to LLS												
Super Unleaded	68.20	68.60	62.89	-5.70	-8.3	64.17	62.76	60.64	61.12	61.72	19.51	18.00	16.47
Unleaded	62.10	64.11	58.66	-5.45	-8.5	59.14	58.32	57.08	57.90	58.83	13.40	13.51	12.24
Jet/Kerosene	54.36	58.16	52.82	-5.34	-9.2	53.89	52.11	49.00	48.44	50.83	5.67	7.56	6.40
ULSD 10ppm	57.70	61.24	56.00	-5.24	-8.6	57.03	55.39	52.73	51.90	54.17	9.00	10.64	9.58
Heating Oil	52.26	56.21	50.07	-6.14	-10.9	50.61	49.64	46.82	46.22	47.61	3.57	5.61	3.65
No. 6 3%*	31.85	35.11	33.87	-1.23	-3.5	34.83	34.20	31.70	30.35	32.30	-16.84	-15.49	-12.55
Singapore, FOB Cargoes													
	Differential to Dubai												
Premium Unleaded	59.14	59.05	51.87	-7.19	-12.2	51.70	51.78	49.32	48.66	50.80	14.84	12.80	9.33
Naphtha	44.20	45.56	41.74	-3.82	-8.4	42.09	41.77	38.70	36.84	37.75	-0.09	-0.69	-0.80
Jet/Kerosene	55.18	58.27	54.37	-3.91	-6.7	54.81	54.15	51.23	48.72	50.65	10.89	12.03	11.83
Gasoil 0.05%	54.86	58.14	54.27	-3.87	-6.6	54.85	53.80	50.83	48.53	50.85	10.57	11.89	11.74
LSWR Cracked	36.54	39.95	42.40	2.44	6.1	43.27	42.69	40.57	39.99	41.33	-7.76	-6.29	-0.14
HSFO 180 CST	35.19	37.88	38.13	0.25	0.7	38.98	38.10	35.78	34.32	35.69	-9.10	-8.36	-4.41
HSFO 380 CST 4%	34.58	37.27	37.06	-0.21	-0.6	37.90	36.97	34.64	33.29	34.70	-9.72	-8.97	-5.47

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* Waterborne

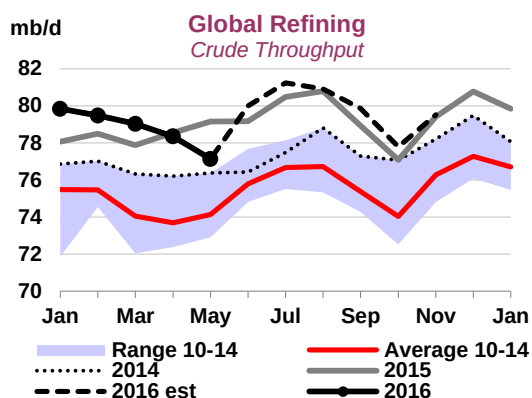
REFINING

Summary

- **Global refinery throughput in 3Q16 is expected to grow by 600 kb/d year-on-year (y-o-y) to a quarterly record of 80.6 mb/d.** Runs in 2Q16 sank by 480 kb/d y-o-y - a level of underperformance last seen during the Great Recession of 2008-09. Throughput in 4Q16 is forecast to decline seasonally to below 80 mb/d.
- **The increase in refinery intake from 2Q16 to 3Q16 is an estimated 2.2 mb/d, while total demand growth is a more modest 1.4 mb/d** (see *Cooler 3Q for crude demand?*). Refinery runs will continue to lag demand growth into 4Q16. Our October-November forecast rises only 400 kb/d y-o-y while demand growth is forecast at 1.5 mb/d.

Global refinery overview:

Our outlook for July refinery runs points to all-time monthly high throughput of 81.1 mb/d, with 3Q16 also forecast at a quarterly record level of 80.6 mb/d. Runs in 4Q16 are expected to decline seasonally to below 80 mb/d. For 2Q16, our global refinery numbers to date are exceptionally weak, with only the 2008-09 Great Recession underperforming relative to the 2Q16 poor results. Down by almost 0.5 mb/d y-o-y, the 2Q16 weakness was concentrated in May, which saw refinery runs plunge 2 mb/d below year earlier levels. This drop is 470 kb/d higher than our previous forecast, as finalised intake numbers for Middle East refiners, especially Saudi Arabia and Iran, came in significantly below our expectations. While OECD and non-OECD refiners contributed proportionately to the slowdown, it is interesting to note that the cause of the weaker OECD numbers was the unexpected shutdowns due to extraordinary factors (French strikes and Canadian wildfires), while a mixture of maintenance and a weak margin environment prompted a dial down in non-OECD capacity utilisation.



Global Refinery Crude Throughput¹
(million barrels per day)

	1Q2016	Apr 16	May 16	Jun 16	2Q2016	Jul 16	Aug 16	Sep 16	3Q2016	Oct 16	Nov 16
Americas	19.0	18.8	18.7	19.3	19.0	19.7	19.5	19.0	19.4	18.2	19.1
Europe	11.8	11.4	11.3	11.6	11.4	12.0	12.1	11.9	12.0	11.9	11.8
Asia Oceania	7.1	7.0	6.8	6.7	6.8	6.8	6.9	6.8	6.8	6.4	6.8
Total OECD	37.8	37.2	36.8	37.6	37.2	38.6	38.5	37.7	38.3	36.6	37.7
FSU	6.8	6.5	6.6	7.0	6.7	7.0	6.8	6.7	6.8	6.3	6.8
Non-OECD Europe	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.6	10.9	10.4	11.0	10.8	10.7	10.7	10.7	10.7	10.8	11.0
Other Asia	10.3	10.3	10.2	10.5	10.3	10.6	10.6	10.5	10.6	10.1	10.4
Latin America	4.4	4.2	4.1	4.3	4.2	4.5	4.4	4.4	4.4	4.3	4.3
Middle East	6.8	6.6	6.6	6.8	6.7	7.1	7.0	7.0	7.0	6.8	6.6
Africa	2.2	2.1	1.9	2.2	2.1	2.2	2.3	2.2	2.3	2.2	2.1
Total Non-OECD	41.5	41.1	40.3	42.3	41.2	42.6	42.3	42.0	42.3	41.1	41.8
Total	79.3	78.3	77.0	79.9	78.4	81.1	80.8	79.8	80.6	77.7	79.4

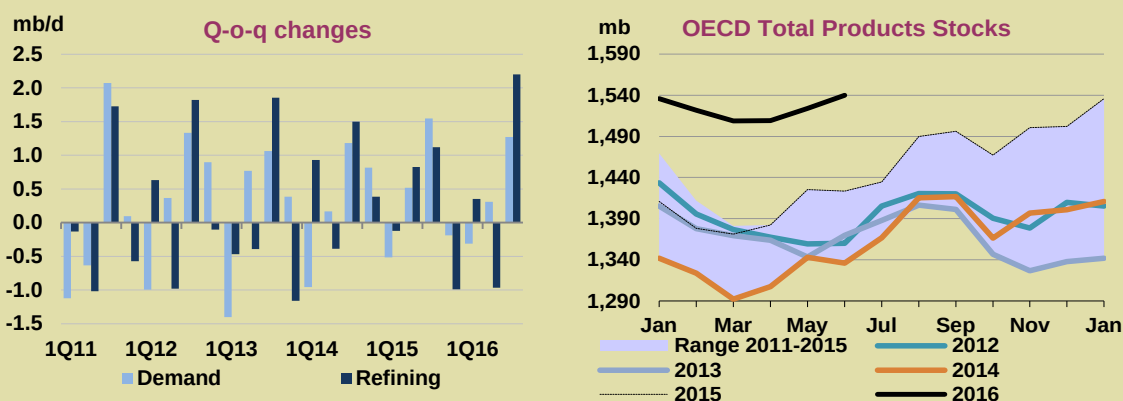
¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

June numbers are not yet finalised, with about a quarter of global throughput still estimated. Nevertheless, total intake for the month is assessed some 290 kb/d higher from the previous *Report*, and 830 kb/d higher y-o-y. This helps to minimise the impact of lower May runs on the overall 2Q16 performance, which is revised lower by 90 kb/d in this *Report*. The forecast for 3Q16 throughput is lower by 330 kb/d, at 80.6 mb/d, with runs up by 600 kb/d y-o-y.

Cooler 3Q for crude demand?

Our forecast for 3Q16 is for quarterly record throughput, crossing 80 mb/d for the first time with July marking the summit above 81 mb/d. This follows an established seasonal trend whereby third quarter throughput is traditionally stronger than other quarters as refineries run higher to meet summer driving demand and build stocks ahead of autumn maintenance and the winter heating season.

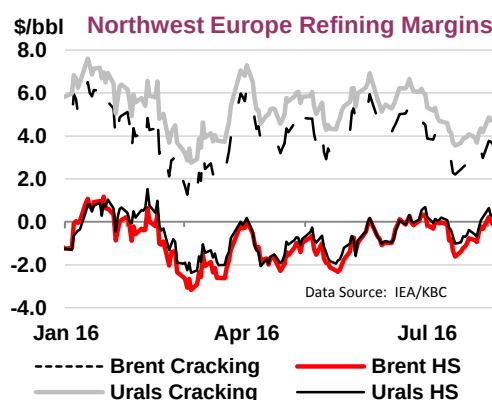
The quarter-on-quarter (q-o-q) increase in refinery intake from 2Q16 to 3Q16 is expected at 2.2 mb/d, while total demand growth is expected to rise by a more modest 1.4 mb/d. In other words, the market is expected to absorb a stock build of 0.8 mb/d (or possibly more, given the trend of lower refined product demand growth compared to total demand, see the more detailed discussion in July OMR). This scale of oversupply is quite high by historical standards. In the last five years, the positive gap between demand growth and refinery throughput growth has been higher only on two occasions, both occurring in the first quarter (2012 and 2014), possibly as a result of lower than expected heating demand combined with capacity ramp-up.



The expected stock build in 3Q16 follows seasonally high product stocks, a legacy of refiners' enthusiasm that started in 2H14. The stock overhang creates a very volatile margin environment with product cracks quicker to respond to localised oversupply. This could result in our 3Q16 forecast turning out to be too optimistic. However, depending on the crude oil supply situation, lower runs may put downward pressure on crude oil prices, which would then help cracks and margins rebound again. Refiners could be in for a margin roller-coaster over the next few months.

Margins

July average refining margins in the major hubs were predominantly lower from June, although crude oil's slide later in the month helped them to recover somewhat. Margins in Northwest Europe (NWE) saw yet another month when all the major cracks without exception were in single digits. This is quite an unusual phenomenon outside the crisis periods as normally either a middle distillate or the gasoline crack is above \$10/bbl, to support the overall refining margin. NWE refiners witnessed a somewhat similar situation in February and March this year as crude oil prices were recovering from January



lows. The only difference was the fuel oil cracks, which were in negative double digits until July, when the low-sulphur fuel oil cracks, used in our Brent cracking margin calculations, narrowed to single digits. The conclusion? July NWE margins were at least partly supported by the relative strength of fuel oil while the premium products such as gasoline and diesel were languishing. This has also helped the simple margins to venture into positive territory.

In the US Gulf Coast, July saw all of our benchmark margins in single digits, a clear sign of pressure from product stocks. In Singapore, simple margins were supported by narrower fuel oil cracks, as light-sulphur fuel oil was at parity with Dubai crude for the first time since early 2015, while the heavy-sulphur fuel oil crack sharply tightened in July.

IEA/KBC Global Indicator Refining Margins¹

	Monthly Average (\$/bbl)				Change	Average for week ending:				
	Apr 16	May 16	Jun 16	Jul 16	Jul 16-Jun 16	08 Jul	15 Jul	22 Jul	29 Jul	05 Aug
NW Europe										
Brent (Cracking)	4.37	4.05	4.85	3.02	↓ -1.82	3.65	2.69	2.63	2.94	3.73
Urals (Cracking)	5.48	5.28	5.98	4.29	↓ -1.69	4.94	4.04	3.90	4.06	4.77
Brent (Hydroskimming)	-1.40	-1.45	-0.25	-0.65	↓ -0.39	-0.08	-0.95	-1.10	-0.56	0.01
Urals (Hydroskimming)	-1.24	-1.14	-0.20	-0.29	↓ -0.10	0.09	-0.46	-0.66	-0.24	0.29
Mediterranean										
Es Sider (Cracking)	5.66	5.66	6.44	5.29	↓ -1.15	6.02	5.18	4.81	5.00	5.28
Urals (Cracking)	4.95	5.38	6.04	4.53	↓ -1.50	5.07	4.83	4.08	4.01	4.70
Es Sider (Hydroskimming)	1.01	1.02	2.01	1.94	↓ -0.07	2.57	1.84	1.41	1.84	2.12
Urals (Hydroskimming)	-0.99	-0.58	0.19	0.11	↓ -0.08	0.32	0.40	-0.31	-0.03	0.73
US Gulf Coast										
50/50 HLS/LLS (Cracking)	7.65	6.64	6.94	6.40	↓ -0.54	5.94	6.45	6.42	6.83	8.18
Mars (Cracking)	5.41	4.30	4.39	4.58	↑ 0.19	4.26	4.61	4.54	5.01	6.10
ASCI (Cracking)	5.00	3.79	3.95	4.19	↑ 0.24	3.80	4.20	4.17	4.67	5.68
50/50 HLS/LLS (Coking)	10.19	9.11	9.27	8.35	↓ -0.92	8.07	8.41	8.26	8.68	10.10
50/50 Maya/Mars (Coking)	12.53	10.75	9.78	8.64	↓ -1.14	8.67	8.58	8.28	9.00	10.94
ASCI (Coking)	11.83	10.50	10.35	9.55	↓ -0.81	9.49	9.51	9.28	9.93	11.14
US Midcon										
WTI (Cracking)	12.05	12.95	14.39	9.90	↓ -4.49	10.32	9.69	8.87	10.53	14.64
30/70 WCS/Bakken (Cracking)	10.26	10.48	12.14	9.80	↓ -2.34	9.90	9.74	8.47	11.12	15.94
Bakken (Cracking)	12.72	13.44	14.95	11.82	↓ -3.14	11.80	11.63	10.41	13.10	17.30
WTI (Coking)	14.85	15.84	17.24	12.10	↓ -5.14	12.75	11.89	10.87	12.64	17.08
30/70 WCS/Bakken (Coking)	14.96	15.24	16.75	13.37	↓ -3.39	13.91	13.30	11.73	14.62	20.22
Bakken (Coking)	14.01	14.76	16.24	12.72	↓ -3.52	12.84	12.53	11.20	13.95	18.36
Singapore										
Dubai (Hydroskimming)	-1.51	-1.83	-1.28	0.08	↑ 1.36	0.27	0.37	-0.12	-0.10	-1.14
Tapis (Hydroskimming)	0.27	0.96	1.63	1.23	↓ -0.41	2.64	1.18	0.81	0.57	0.80
Dubai (Hydrocracking)	3.90	3.72	4.03	4.06	↑ 0.03	4.52	4.18	3.81	3.75	2.63
Tapis (Hydrocracking)	4.51	5.18	5.44	3.36	↓ -2.08	5.15	3.16	2.84	2.50	2.53

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

OECD refinery throughput

May OECD throughput was finalised with few revisions, but preliminary June data was 180 kb/d higher than our forecast. Canadian throughput came back faster, running some 100 kb/d higher than our forecast, while lower European runs were more than offset by more robust OECD Asia Oceania throughput as the expected turnaround had somewhat lighter impact on Japanese and Korean runs.

Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

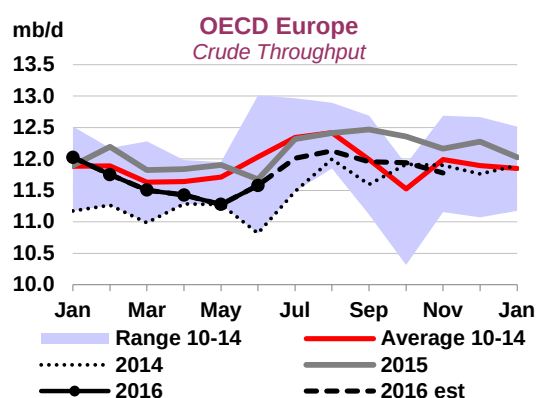
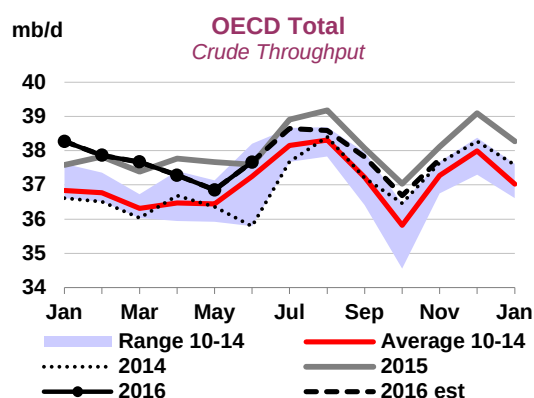
	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Change from		Utilisation rate ¹	
							May 16	Jun 15	Jun 16	Jun 15
US ²	15.99	15.88	16.11	15.94	16.24	16.49	0.26	-0.20	0.90	0.94
Canada	1.76	1.68	1.74	1.66	1.31	1.63	0.32	-0.07	0.82	0.86
Chile	0.17	0.17	0.17	0.16	0.17	0.17	0.00	0.01	0.75	0.72
Mexico	1.11	1.04	1.09	1.05	1.01	1.03	0.02	-0.05	0.62	0.65
OECD Americas³	19.04	18.77	19.10	18.81	18.73	19.32	0.59	-0.31	0.87	0.91
France	1.16	1.17	1.12	1.20	0.89	0.76	-0.13	-0.26	0.54	0.73
Germany	1.92	1.91	1.91	1.77	1.83	1.93	0.10	-0.03	0.96	0.97
Italy	1.30	1.14	1.20	1.35	1.26	1.25	0.00	-0.07	0.72	0.76
Netherlands	1.11	1.08	1.04	1.07	1.06	1.14	0.08	0.06	0.89	0.84
Spain	1.23	1.26	1.27	1.25	1.11	1.21	0.10	-0.05	0.80	0.83
United Kingdom	1.14	1.00	0.94	1.06	1.13	1.11	-0.02	0.11	0.81	0.73
Other OECD Europe	4.17	4.18	4.01	3.71	3.99	4.16	0.17	0.14	0.86	0.83
OECD Europe	12.02	11.74	11.50	11.42	11.27	11.57	0.30	-0.10	0.82	0.82
Japan	3.37	3.31	3.31	3.32	3.00	2.97	-0.03	0.45	0.84	0.65
South Korea	2.97	3.14	2.89	2.85	2.97	2.89	-0.08	-0.04	0.88	0.89
Other Asia Oceania	0.78	0.80	0.78	0.79	0.79	0.81	0.03	0.08	0.82	0.74
OECD Asia Oceania	7.12	7.26	6.98	6.96	6.76	6.67	-0.08	0.49	0.85	0.76
OECD Total	38.17	37.77	37.57	37.18	36.75	37.56	0.81	0.08	0.85	0.85

¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US\$0

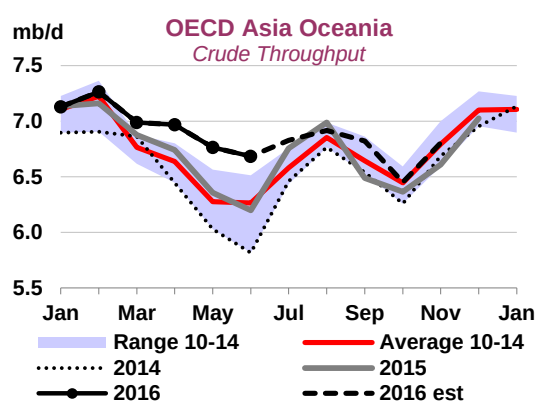
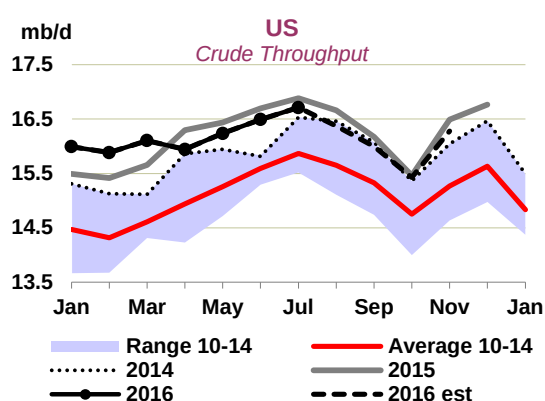
³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

July runs are expected to pick up substantially from June, adding 1 mb/d, but runs are down 260 kb/d y-o-y, as lower throughput in the US and Europe is partially offset by gains in Canada and OECD Asia. In Canada, preliminary weekly data point to an unusual 90 kb/d gain y-o-y, with refiners running at a multi-year high rate of 1.8 mb/d, most likely in an effort to make up for stocks drawn down during May-June wildfire shutdowns. For 3Q16 overall, OECD runs are down 365 kb/d y-o-y, and declines feed through to October-November.



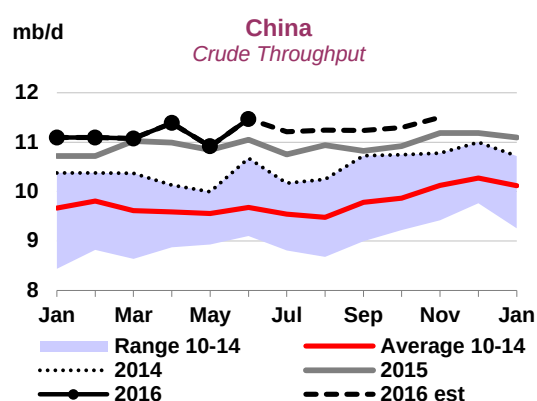
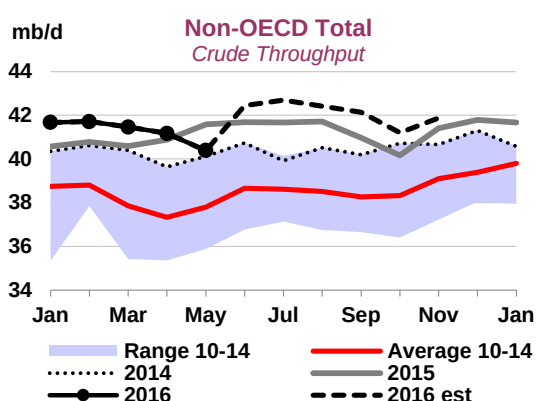
European refiners tried to minimise their monthly y-o-y losses during this summer, with runs down only 100 kb/d y-o-y in June. However, in our forecast, they resume dialling down the runs more substantially either due to maintenance or run cuts. In Europe, 1H16 refinery runs were down 300 kb/d, only a part of which could reasonably be due to delayed maintenance from last year and the French strikes in May-June, indicating that discretionary runcuts have already taken place. In 2H16 European throughput is expected to decline about 380 kb/d.

In the US, refiners ran a record first quarter close to 16 mb/d, up by almost 0.5 mb/d y-o-y, but slowed down the seasonal ramp-up into 2Q16. For the rest of the year US runs are not expected to show y-o-y growth in any month. In Asia, the OECD's consistently strong performer, South Korea, now sees a more realistic threat emerging from China's expanding independent refining sector that is competing more and more aggressively in the product exports markets.



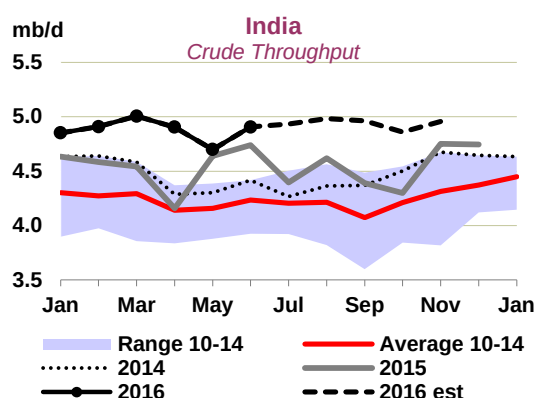
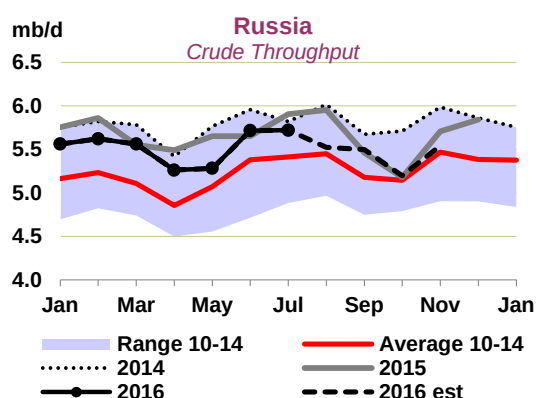
Non-OECD refinery throughput

The May non-OECD throughput estimate is revised down substantially, to a 1.2mb/d y-o-y loss – the heaviest decline since end-2008. In June, runs are estimated to have crossed the 42 mb/d for the first time ever, with higher Chinese and Russian actual data and the assumption of rebound in Middle East.

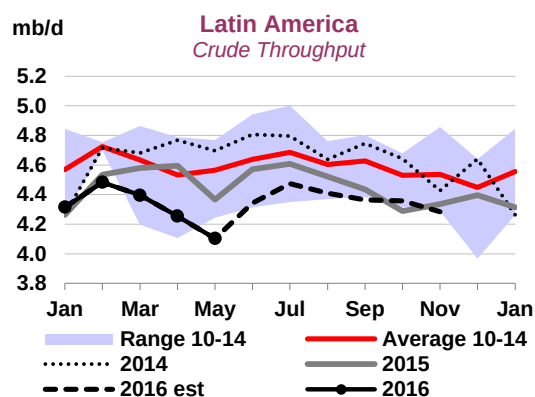
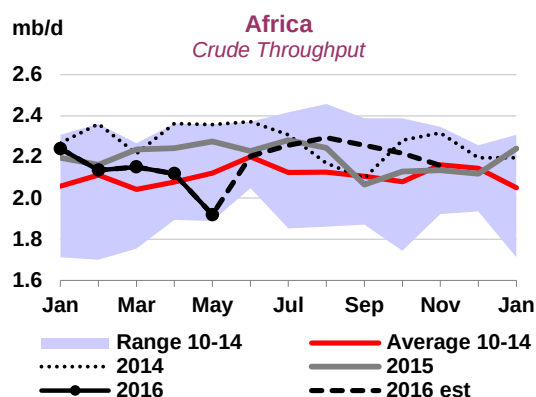


Chinese throughput reached a historical record in June at 10.97 mb/d, up by 420 kb/d y-o-y. It is expected to retreat slightly from these levels before reaching the firm 11 mb/d mark in November. Chinese independents are digesting more and more of this year's record crude oil import volumes, pushing the products surplus to overseas markets, while the majors are cutting runs relative to last year.

Russia resumed the y-o-y decline trend in July after the growth in June, but runs again came in higher than our forecast, holding at June's 5.7 mb/d levels rather than declining m-o-m. Still, 2Q16 was 180 kb/d down y-o-y, and 3Q16 runs are expected to decline by slightly more than that – 190 kb/d, with October-November also down by 70 kb/d in average. Indian refinery runs rebounded in June after maintenance and are expected to stay above 4.9 mb/d. Turnarounds in Thailand weigh on the throughput as 2Q16 is down 100 kb/d y-o-y with 3Q16 and October- November, also forecast slightly lower y-o-y.



In Saudi Arabia, May runs came 260 kb/d lower than our forecast, at 2.37 mb/d, dipping below year earlier levels some 50 kb/d, probably due to maintenance. 3Q16 is expected to resume y-o-y growth at about 290 kb/d and October- November also up by 390 kb/d in average. In Africa, May throughput was down some 360 kb/d y-o-y, as turnarounds in Algeria coincided with sharply lower runs in Egypt for the second consecutive month in the absence of reported shutdowns, and the still unresolved shutdown of Morocco's sole Mohammadia refinery.



In Latin America, Brazil June actuals offered no surprise as runs continue at below 2 mb/d levels. The first publication of 2016 official Colombian data through April shows the effect of Barrancabermeja's ramp-up as throughput is up 100 kb/d y-o-y. With continued problems in Venezuela, overall Latin American throughput is lower by about 120 kb/d y-o-y this year.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.2	24.2	24.3	24.2	24.8	24.5	24.5	24.5	24.4	24.9	24.7	24.6	24.6	24.6	25.0	24.7	24.7
Europe	13.6	13.5	13.5	13.6	14.2	13.7	13.7	13.6	13.9	14.2	13.7	13.9	13.6	13.9	14.2	13.7	13.8
Asia Oceania	8.3	8.1	8.7	7.6	7.7	8.2	8.0	8.5	7.6	7.7	8.1	8.0	8.6	7.6	7.7	8.2	8.0
Total OECD	46.1	45.8	46.5	45.3	46.7	46.3	46.2	46.6	45.9	46.8	46.5	46.5	46.8	46.1	46.9	46.6	46.6
NON-OECD DEMAND																	
FSU	4.8	4.9	4.7	4.9	5.1	5.0	4.9	4.9	5.0	5.1	5.1	5.0	4.9	5.0	5.2	5.1	5.1
Europe	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.8	11.2	11.4	11.5	11.6	11.4	11.5	11.6	11.7	11.8	11.6	11.7	11.9	11.9	12.0	11.9
Other Asia	11.7	12.0	12.3	12.5	12.3	12.8	12.5	13.1	13.2	12.9	13.4	13.1	13.7	13.7	13.5	13.9	13.7
Americas	6.6	6.8	6.6	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7
Middle East	8.0	8.4	7.8	8.5	8.8	8.3	8.3	7.8	8.4	8.8	8.4	8.3	8.1	8.5	8.9	8.5	8.5
Africa	3.8	3.8	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.4	4.3	4.4	4.4
Total Non-OECD	45.9	47.4	47.3	48.9	49.1	49.2	48.6	48.7	49.7	50.2	50.5	49.8	49.9	50.9	51.3	51.6	50.9
Total Demand¹	92.0	93.2	93.8	94.2	95.8	95.5	94.8	95.4	95.6	97.0	97.0	96.3	96.7	97.0	98.2	98.1	97.5
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.0	19.6	20.1	20.1	19.9	19.9	18.9	19.2	19.4	19.3	19.4	19.4	19.5	19.4	19.5
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.3	3.2	3.3	3.3
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total OECD	21.0	22.9	23.8	23.5	23.9	24.2	23.9	24.0	22.8	22.8	23.2	23.2	23.3	23.2	23.1	23.2	23.2
NON-OECD SUPPLY																	
FSU	13.8	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.0	14.0	14.1	14.1	14.2	14.2	14.2	14.3	14.2
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.1	4.0	4.0	4.1	4.0	4.0	4.0	3.9	4.0
Other Asia ²	2.7	2.7	2.8	2.7	2.7	2.8	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.5	4.6	4.7	4.5	4.7	4.7	4.8	4.7	4.7
Middle East	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Africa ²	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	28.4	28.8	29.3	29.1	29.0	29.2	29.1	28.9	28.6	28.8	29.0	28.8	29.0	29.0	29.0	29.1	29.0
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.6	56.1	57.2	57.3	57.7	57.9	57.5	57.0	56.1	56.7	56.8	56.6	56.5	56.9	57.3	57.1	57.0
OPEC																	
Crude	31.4	31.2	31.4	32.4	32.7	32.6	32.3	32.8	33.0								
NGLs	6.3	6.5	6.7	6.7	6.8	6.8	6.8	6.8	6.9	7.0	7.0	6.9	7.0	7.0	7.1	7.1	7.1
Total OPEC ²	37.7	37.7	38.1	39.2	39.5	39.5	39.0	39.6	39.8								
Total Supply⁴	91.3	93.8	95.3	96.4	97.1	97.4	96.6	96.6	95.9								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.8	1.0	0.8	0.4	0.8	0.3	0.5								
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1	0.0								
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.4	0.5								
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2									
Miscellaneous to balance ⁵	-0.6	0.2	0.2	0.8	0.7	0.9	0.7	0.6	-0.2								
Total Stock Ch. & Misc	-0.7	0.6	1.5	2.2	1.3	1.8	1.7	1.2	0.3								
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	32.1	30.6	29.9	30.2	31.3	30.8	30.6	31.5	32.7	33.4	33.2	32.7	33.1	33.0	33.8	33.9	33.5

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

2 Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

3 Net volumetric gains and losses in the refining process and marine transportation losses.

4 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

5 Includes changes in non-reported stocks in OECD and non-OECD areas.

6 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-0.1	0.1	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
NON-OECD DEMAND																	
FSU	-	-	0.1	-	-	-	-	0.1	-	0.1	0.1	0.1	0.1	-	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	0.1	-0.1	-0.1	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-0.1	-	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	0.1	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Africa	-0.1	-0.1	-	-	-	-0.1	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	0.2	0.1	0.1	0.1	-	0.1	0.1	-	-	0.1	0.1	-	-	0.1	0.1	0.1
Total Demand	-	0.2	0.1	0.1	0.1	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-	-0.1	-0.2	-0.1
NON-OECD SUPPLY																	
FSU	-0.1	-	-	-	-	-	-	-0.1	-	-	0.1	-	0.1	0.2	0.2	0.2	0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Non-OECD	-	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.3
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	0.1	0.1	0.1	-	-	0.1	-
Total OPEC	-	-	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	-	-	-	-	-	-
Total Supply	-	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-0.1	-	0.1	0.1	0.2	0.1	-	-	-	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-	-0.1	-	0.1	0.1	0.2	0.1	-0.1	0.1	-	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	0.1	-	-0.1	-0.1	-0.2	-0.1	0.1	-0.1	-0.1	-0.1	-	-0.2	-0.3	-0.2	-0.1	-0.2

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.20	24.34	24.19	24.83	24.47	24.46	24.48	24.37	24.93	24.68	24.62	24.58	24.60	25.00	24.71	24.72
Europe	13.51	13.46	13.57	14.16	13.71	13.73	13.63	13.93	14.17	13.70	13.86	13.63	13.90	14.16	13.69	13.85
Asia Oceania	8.10	8.67	7.57	7.70	8.17	8.03	8.54	7.63	7.74	8.14	8.01	8.56	7.59	7.72	8.16	8.01
Total OECD	45.81	46.47	45.33	46.69	46.35	46.21	46.65	45.93	46.84	46.52	46.49	46.78	46.09	46.88	46.57	46.58
Asia	22.79	23.49	23.97	23.77	24.34	23.90	24.56	24.71	24.55	25.24	24.77	25.37	25.58	25.38	25.98	25.58
Middle East	8.37	7.78	8.49	8.75	8.25	8.32	7.85	8.37	8.79	8.37	8.34	8.08	8.49	8.90	8.50	8.49
Americas	6.83	6.61	6.75	6.84	6.77	6.74	6.51	6.70	6.84	6.81	6.72	6.50	6.69	6.85	6.82	6.71
FSU	4.92	4.67	4.91	5.08	4.99	4.91	4.93	4.96	5.13	5.09	5.03	4.92	5.03	5.20	5.14	5.07
Africa	3.83	4.09	4.08	3.99	4.14	4.07	4.20	4.24	4.15	4.30	4.22	4.34	4.38	4.27	4.43	4.35
Europe	0.65	0.65	0.67	0.69	0.69	0.68	0.68	0.70	0.70	0.70	0.70	0.69	0.71	0.71	0.72	0.71
Total Non-OECD	47.39	47.29	48.87	49.12	49.18	48.62	48.71	49.68	50.16	50.51	49.77	49.89	50.88	51.30	51.58	50.92
World	93.20	93.76	94.20	95.81	95.53	94.83	95.36	95.62	96.99	97.03	96.25	96.67	96.97	98.18	98.15	97.50
of which: US50	19.11	19.29	19.25	19.68	19.36	19.40	19.45	19.43	19.91	19.66	19.61	19.59	19.66	19.95	19.72	19.73
Europe 5*	8.05	8.03	7.99	8.34	8.09	8.12	8.14	8.22	8.31	8.10	8.19	8.14	8.12	8.27	8.06	8.15
China	10.77	11.24	11.45	11.51	11.57	11.44	11.48	11.55	11.68	11.84	11.64	11.72	11.85	11.93	12.03	11.88
Japan	4.27	4.70	3.80	3.85	4.14	4.12	4.43	3.64	3.70	4.04	3.95	4.34	3.51	3.63	4.00	3.87
India	3.84	3.97	4.04	3.87	4.10	3.99	4.36	4.33	4.12	4.37	4.29	4.60	4.64	4.40	4.63	4.57
Russia	3.77	3.55	3.73	3.87	3.72	3.72	3.74	3.69	3.82	3.72	3.74	3.71	3.73	3.87	3.78	3.77
Brazil	3.24	3.17	3.17	3.22	3.20	3.19	3.02	3.07	3.15	3.17	3.11	3.02	3.06	3.17	3.19	3.11
Saudi Arabia	3.19	2.89	3.48	3.59	3.23	3.30	2.95	3.36	3.61	3.21	3.28	3.02	3.37	3.61	3.24	3.31
Canada	2.41	2.43	2.33	2.45	2.40	2.41	2.39	2.36	2.42	2.37	2.39	2.37	2.31	2.42	2.33	2.36
Korea	2.35	2.46	2.29	2.36	2.52	2.41	2.59	2.48	2.51	2.59	2.54	2.69	2.56	2.57	2.64	2.61
Mexico	2.04	1.94	1.97	2.07	2.05	2.01	1.98	1.94	1.95	2.00	1.97	1.95	1.99	1.98	2.01	1.98
Iran	2.04	1.86	1.88	1.83	1.93	1.88	1.84	1.83	1.86	1.95	1.87	1.90	1.89	1.91	2.00	1.93
Total	65.08	65.53	65.39	66.64	66.30	65.97	66.37	65.90	67.04	67.02	66.58	67.04	66.68	67.70	67.64	67.27
% of World	69.8%	69.9%	69.4%	69.6%	69.4%	69.6%	69.6%	68.9%	69.1%	69.1%	69.2%	69.3%	68.8%	69.0%	68.9%	69.0%
Annual Change (% per annum)																
Americas	0.2	1.7	1.7	1.6	-0.6	1.1	0.6	0.8	0.4	0.9	0.7	0.4	0.9	0.3	0.1	0.4
Europe	-0.7	2.8	0.7	1.6	1.3	1.6	1.3	2.6	0.0	0.0	1.0	0.0	-0.2	-0.1	-0.1	-0.1
Asia Oceania	-2.8	-2.2	-0.8	0.8	-1.4	-0.9	-1.6	0.8	0.5	-0.4	-0.2	0.3	-0.6	-0.2	0.3	-0.1
Total OECD	-0.6	1.2	1.0	1.5	-0.2	0.9	0.4	1.3	0.3	0.4	0.6	0.3	0.3	0.1	0.1	0.2
Asia	3.6	3.5	4.6	6.6	4.7	4.8	4.5	3.1	3.3	3.7	3.6	3.3	3.5	3.4	2.9	3.3
Middle East	4.4	-3.9	-0.4	0.6	1.0	-0.6	0.8	-1.4	0.5	1.4	0.3	2.9	1.5	1.2	1.6	1.8
Americas	2.7	0.0	-0.7	-1.8	-2.2	-1.2	-1.5	-0.7	0.1	0.6	-0.4	0.0	-0.2	0.1	0.1	0.0
FSU	3.6	0.6	0.8	-1.2	-1.0	-0.2	5.5	1.0	1.0	2.2	2.3	-0.2	1.4	1.3	0.9	0.9
Africa	0.0	3.9	5.3	7.4	9.3	6.5	2.8	3.9	3.8	3.9	3.6	3.2	3.3	3.1	2.9	3.1
Europe	-1.5	4.9	4.4	3.4	5.1	4.4	3.4	4.8	1.8	1.9	2.9	2.1	1.3	1.0	2.7	1.8
Total Non-OECD	3.2	1.5	2.6	3.5	2.8	2.6	3.0	1.7	2.1	2.7	2.4	2.4	2.4	2.3	2.1	2.3
World	1.3	1.4	1.8	2.5	1.3	1.8	1.7	1.5	1.2	1.6	1.5	1.4	1.4	1.2	1.1	1.3
Annual Change (mb/d)																
Americas	0.04	0.40	0.41	0.40	-0.15	0.26	0.14	0.18	0.11	0.21	0.16	0.10	0.22	0.07	0.03	0.11
Europe	-0.10	0.36	0.09	0.23	0.18	0.21	0.17	0.36	0.00	-0.01	0.13	0.00	-0.03	-0.01	-0.01	-0.01
Asia Oceania	-0.23	-0.19	-0.06	0.06	-0.11	-0.07	-0.13	0.06	0.03	-0.03	-0.02	0.02	-0.04	-0.02	0.03	0.00
Total OECD	-0.29	0.57	0.44	0.69	-0.09	0.40	0.18	0.60	0.15	0.17	0.27	0.13	0.15	0.04	0.05	0.09
Asia	0.78	0.80	1.05	1.47	1.09	1.10	1.07	0.74	0.78	0.89	0.87	0.81	0.87	0.83	0.74	0.81
Middle East	0.35	-0.31	-0.03	0.06	0.08	-0.05	0.06	-0.12	0.04	0.12	0.02	0.23	0.13	0.11	0.13	0.15
Americas	0.18	0.00	-0.05	-0.12	-0.16	-0.08	-0.10	-0.05	0.00	0.04	-0.03	0.00	-0.02	0.01	0.00	0.00
FSU	0.17	0.03	0.04	-0.06	-0.05	-0.01	0.26	0.05	0.05	0.11	0.11	-0.01	0.07	0.07	0.05	0.04
Africa	0.00	0.15	0.20	0.28	0.35	0.25	0.11	0.16	0.15	0.16	0.15	0.14	0.14	0.13	0.13	0.13
Europe	-0.01	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	1.48	0.70	1.23	1.64	1.35	1.23	1.42	0.81	1.03	1.33	1.15	1.18	1.20	1.15	1.07	1.15
World	1.19	1.27	1.67	2.33	1.26	1.63	1.60	1.41	1.18	1.51	1.42	1.31	1.35	1.19	1.11	1.24
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	0.08	0.04	0.01	0.02	0.01	-0.01	-0.01	0.00
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.01	0.01	0.03	0.01	0.00	0.01	0.02	0.01
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	-0.02	0.00	0.00	0.02	0.00	-0.01	0.00
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.11	0.03	0.04	0.04	0.03	-0.01	0.00	0.01
Asia	0.03	-0.01	0.01	0.02	-0.03	-0.01	0.04	-0.05	-0.10	-0.02	-0.03	-0.09	-0.07	-0.04	-0.04	-0.06
Middle East	0.34	0.15	0.14	0.15	0.13	0.14	0.08	0.10	0.12	0.09	0.10	0.11	0.10	0.09	0.10	0.10
Americas	0.02	-0.01	-0.02	-0.02	-0.02	-0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FSU	0.00	0.09	0.02	0.02	0.00	0.03	0.07	0.00	0.06	0.08	0.06	0.05	0.05	0.05	0.07	0.05
Africa	-0.14	-0.04	-0.04	-0.04	-0.06	-0.04	-0.02	-0.01	-0.03	-0.02	-0.02	-0.01	-0.02	-0.01	-0.01	-0.01
Europe	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
Total Non-OECD	0.23	0.15	0.08	0.12	0.00	0.09	0.15	0.03	0.04	0.11	0.08	0.04	0.04	0.07	0.09	0.06
World	0.23	0.15	0.08	0.12	0.00	0.09	0.15	0.06	0.15	0.15	0.12	0.08	0.07	0.06	0.09	0.07
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.20	-0.22	-0.27	-0.02	-0.05	-0.14	0.00	-0.02	0.03	0.15	0.04	-0.07	0.01	-0.09	-0.06	-0.05

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	2Q15	3Q15	4Q15	1Q16	Mar 16	Apr 16	May 16 ²	Apr 16	May 15
Americas											
LPG and ethane	3.22	3.21	2.98	3.02	3.37	3.55	3.28	2.99	2.94	-0.04	0.03
Naphtha	0.35	0.33	0.31	0.32	0.35	0.35	0.34	0.34	0.36	0.02	0.05
Motor gasoline	10.61	10.89	10.98	11.17	10.90	10.85	11.18	10.95	11.23	0.28	0.26
Jet and kerosene	1.74	1.82	1.81	1.89	1.85	1.78	1.83	1.82	1.83	0.01	0.05
Gasoil/diesel oil	5.28	5.19	5.09	5.15	5.03	5.06	5.10	5.01	4.98	-0.04	-0.07
Residual fuel oil	0.58	0.55	0.45	0.63	0.62	0.59	0.72	0.74	0.63	-0.11	0.15
Other products	2.40	2.45	2.56	2.65	2.34	2.30	2.25	2.25	2.20	-0.05	-0.38
Total	24.20	24.46	24.19	24.83	24.47	24.48	24.70	24.10	24.17	0.07	0.10
Europe											
LPG and ethane	1.10	1.14	1.13	1.11	1.12	1.22	1.15	1.17	1.17	0.00	0.09
Naphtha	1.13	1.12	1.09	1.07	1.10	1.24	1.23	1.18	1.11	-0.07	0.02
Motor gasoline	1.92	1.92	1.98	2.03	1.90	1.79	1.86	1.94	1.96	0.02	0.05
Jet and kerosene	1.27	1.32	1.34	1.49	1.25	1.24	1.27	1.33	1.39	0.06	0.08
Gasoil/diesel oil	5.94	6.14	5.90	6.26	6.27	6.10	6.33	6.29	5.94	-0.35	0.39
Residual fuel oil	0.95	0.91	0.89	0.90	0.92	0.96	0.96	0.92	0.90	-0.02	0.01
Other products	1.21	1.18	1.23	1.30	1.14	1.08	1.19	1.20	1.28	0.08	0.08
Total	13.51	13.73	13.57	14.16	13.71	13.63	13.99	14.04	13.75	-0.29	0.72
Asia Oceania											
LPG and ethane	0.82	0.77	0.71	0.74	0.76	0.83	0.85	0.87	0.80	-0.07	0.13
Naphtha	1.88	1.96	1.88	1.95	1.99	2.00	1.83	1.85	1.82	-0.03	0.04
Motor gasoline	1.55	1.56	1.51	1.62	1.57	1.52	1.56	1.52	1.53	0.01	0.02
Jet and kerosene	0.87	0.87	0.69	0.70	0.96	1.17	1.05	0.81	0.71	-0.10	0.08
Gasoil/diesel oil	1.76	1.78	1.73	1.73	1.84	1.83	1.90	1.81	1.73	-0.08	0.04
Residual fuel oil	0.68	0.64	0.61	0.55	0.64	0.75	0.76	0.65	0.56	-0.09	-0.02
Other products	0.56	0.45	0.44	0.43	0.42	0.44	0.39	0.38	0.38	0.00	-0.01
Total	8.10	8.03	7.57	7.70	8.17	8.54	8.34	7.89	7.54	-0.35	0.28
OECD											
LPG and ethane	5.13	5.13	4.83	4.87	5.25	5.60	5.27	5.02	4.91	-0.11	0.25
Naphtha	3.36	3.41	3.28	3.35	3.45	3.59	3.41	3.38	3.29	-0.09	0.11
Motor gasoline	14.08	14.37	14.47	14.81	14.37	14.16	14.60	14.42	14.72	0.30	0.33
Jet and kerosene	3.88	4.01	3.85	4.08	4.06	4.19	4.15	3.96	3.94	-0.03	0.21
Gasoil/diesel oil	12.98	13.11	12.72	13.13	13.14	12.99	13.33	13.11	12.64	-0.47	0.37
Residual fuel oil	2.21	2.10	1.95	2.08	2.18	2.30	2.44	2.30	2.09	-0.21	0.15
Other products	4.16	4.09	4.23	4.37	3.89	3.82	3.83	3.83	3.87	0.03	-0.31
Total	45.81	46.21	45.33	46.69	46.35	46.65	47.03	46.02	45.46	-0.57	1.10

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	2Q15	3Q15	4Q15	1Q16	Mar 16	Apr 16	May 16 ²	Latest month vs.	
										Apr 16	May 15
United States³											
LPG and ethane	2.40	2.37	2.18	2.20	2.50	2.69	2.44	2.26	2.23	-0.02	0.12
Naphtha	0.23	0.22	0.20	0.22	0.24	0.22	0.21	0.22	0.23	0.01	0.03
Motor gasoline	8.92	9.16	9.26	9.39	9.17	9.09	9.40	9.21	9.44	0.22	0.19
Jet and kerosene	1.48	1.55	1.55	1.59	1.58	1.51	1.55	1.57	1.57	0.00	0.04
Gasoil/diesel oil	4.04	3.98	3.88	3.93	3.83	3.90	3.94	3.82	3.74	-0.08	-0.05
Residual fuel oil	0.26	0.26	0.19	0.31	0.30	0.31	0.40	0.48	0.33	-0.15	0.10
Other products	1.78	1.86	1.99	2.04	1.74	1.72	1.68	1.71	1.66	-0.05	-0.35
Total	19.11	19.40	19.25	19.68	19.36	19.45	19.62	19.26	19.20	-0.06	0.08
Japan											
LPG and ethane	0.49	0.43	0.40	0.39	0.40	0.47	0.47	0.49	0.41	-0.07	0.07
Naphtha	0.74	0.78	0.73	0.78	0.80	0.79	0.75	0.80	0.66	-0.14	-0.06
Motor gasoline	0.92	0.91	0.89	0.97	0.92	0.87	0.91	0.88	0.88	0.00	0.00
Jet and kerosene	0.52	0.50	0.35	0.35	0.57	0.74	0.65	0.44	0.36	-0.08	0.06
Diesel	0.41	0.41	0.40	0.41	0.42	0.41	0.44	0.39	0.37	-0.03	-0.01
Other gasoil	0.36	0.35	0.32	0.30	0.36	0.40	0.42	0.35	0.31	-0.04	0.01
Residual fuel oil	0.42	0.36	0.34	0.31	0.32	0.38	0.39	0.32	0.27	-0.05	-0.06
Other products	0.41	0.37	0.37	0.35	0.35	0.37	0.33	0.26	0.29	0.02	-0.05
Total	4.27	4.12	3.80	3.85	4.14	4.43	4.35	3.93	3.54	-0.39	-0.05
Germany											
LPG and ethane	0.09	0.10	0.11	0.10	0.08	0.10	0.11	0.11	0.11	0.00	0.00
Naphtha	0.41	0.40	0.39	0.37	0.40	0.42	0.41	0.36	0.36	0.00	-0.02
Motor gasoline	0.43	0.42	0.43	0.44	0.42	0.39	0.41	0.43	0.43	0.00	0.00
Jet and kerosene	0.18	0.18	0.19	0.20	0.18	0.17	0.18	0.19	0.19	0.00	0.01
Diesel	0.71	0.75	0.75	0.79	0.77	0.72	0.77	0.83	0.75	-0.08	0.04
Other gasoil	0.37	0.35	0.24	0.34	0.37	0.46	0.42	0.35	0.26	-0.09	0.06
Residual fuel oil	0.12	0.12	0.12	0.12	0.11	0.14	0.13	0.14	0.13	-0.01	0.01
Other products	0.06	0.05	0.05	0.08	0.05	0.01	0.03	0.07	0.07	-0.01	0.00
Total	2.37	2.37	2.29	2.44	2.39	2.42	2.47	2.47	2.29	-0.18	0.10
Italy											
LPG and ethane	0.10	0.11	0.10	0.10	0.12	0.12	0.12	0.10	0.10	0.00	0.02
Naphtha	0.07	0.09	0.09	0.09	0.09	0.11	0.12	0.13	0.11	-0.02	0.01
Motor gasoline	0.20	0.21	0.21	0.23	0.21	0.20	0.21	0.21	0.21	0.01	0.02
Jet and kerosene	0.09	0.10	0.10	0.12	0.08	0.09	0.09	0.11	0.11	0.00	0.01
Diesel	0.48	0.44	0.45	0.45	0.45	0.42	0.44	0.44	0.44	0.00	0.02
Other gasoil	0.09	0.09	0.08	0.09	0.10	0.08	0.08	0.08	0.07	-0.01	0.00
Residual fuel oil	0.07	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.06	-0.02	-0.02
Other products	0.15	0.15	0.16	0.15	0.15	0.12	0.13	0.15	0.15	0.00	-0.01
Total	1.27	1.27	1.27	1.32	1.28	1.21	1.27	1.30	1.26	-0.04	0.04
France											
LPG and ethane	0.13	0.13	0.12	0.11	0.13	0.17	0.17	0.15	0.14	-0.01	0.03
Naphtha	0.13	0.13	0.14	0.13	0.09	0.14	0.13	0.13	0.13	0.00	-0.01
Motor gasoline	0.16	0.16	0.17	0.18	0.16	0.15	0.16	0.17	0.18	0.01	0.02
Jet and kerosene	0.15	0.15	0.16	0.17	0.15	0.14	0.14	0.15	0.15	-0.01	-0.01
Diesel	0.70	0.71	0.71	0.72	0.72	0.67	0.72	0.72	0.75	0.04	0.11
Other gasoil	0.25	0.25	0.20	0.28	0.23	0.26	0.28	0.23	0.20	-0.03	0.04
Residual fuel oil	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	-0.01	-0.02
Other products	0.12	0.12	0.14	0.12	0.10	0.12	0.12	0.12	0.12	0.00	-0.01
Total	1.69	1.69	1.68	1.76	1.63	1.69	1.76	1.70	1.71	0.01	0.17
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.12	0.14	0.18	0.16	0.17	0.17	0.00	0.04
Naphtha	0.02	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.03	0.01	0.01
Motor gasoline	0.30	0.29	0.30	0.30	0.29	0.28	0.28	0.29	0.29	0.00	0.00
Jet and kerosene	0.31	0.31	0.30	0.32	0.30	0.33	0.33	0.31	0.33	0.02	0.05
Diesel	0.48	0.50	0.50	0.50	0.51	0.49	0.49	0.53	0.49	-0.04	0.01
Other gasoil	0.13	0.13	0.14	0.14	0.13	0.12	0.13	0.15	0.14	-0.01	0.01
Residual fuel oil	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.01	0.00
Other products	0.12	0.12	0.11	0.13	0.12	0.11	0.11	0.13	0.13	0.00	0.03
Total	1.52	1.55	1.54	1.57	1.56	1.57	1.56	1.63	1.62	-0.01	0.14
Canada											
LPG and ethane	0.36	0.38	0.36	0.38	0.41	0.43	0.43	0.37	0.37	0.00	0.01
Naphtha	0.09	0.09	0.09	0.09	0.10	0.11	0.11	0.11	0.10	-0.01	0.01
Motor gasoline	0.81	0.82	0.83	0.86	0.81	0.83	0.83	0.83	0.86	0.03	0.04
Jet and kerosene	0.14	0.14	0.14	0.16	0.14	0.13	0.14	0.13	0.13	0.00	0.01
Diesel	0.29	0.31	0.31	0.32	0.29	0.30	0.29	0.31	0.30	-0.01	0.00
Other gasoil	0.30	0.26	0.24	0.26	0.26	0.22	0.22	0.25	0.28	0.03	0.01
Residual fuel oil	0.05	0.04	0.03	0.02	0.03	0.05	0.04	0.04	0.03	-0.01	0.01
Other products	0.36	0.35	0.33	0.37	0.36	0.32	0.31	0.30	0.30	0.00	-0.02
Total	2.41	2.41	2.33	2.45	2.40	2.39	2.36	2.34	2.37	0.04	0.05

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2015	2016	2017	1Q16	2Q16	3Q16	4Q16	1Q17	May 16	Jun 16	Jul 16
OPEC											
Crude Oil											
Saudi Arabia	10.13			10.21					10.25	10.50	10.62
Iran	2.86			3.15					3.60	3.62	3.60
Iraq	3.99			4.28					4.26	4.25	4.33
UAE	2.88			2.81					2.91	2.95	2.97
Kuwait	2.75			2.83					2.85	2.87	2.87
Neutral Zone	0.07			0.00					0.00	0.00	0.00
Qatar	0.66			0.66					0.66	0.66	0.66
Angola	1.76			1.77					1.72	1.74	1.76
Nigeria	1.80			1.76					1.44	1.56	1.52
Libya	0.40			0.36					0.28	0.32	0.30
Algeria	1.11			1.10					1.09	1.10	1.10
Ecuador	0.54			0.54					0.55	0.55	0.55
Venezuela	2.40			2.34					2.21	2.16	2.15
Indonesia	0.69			0.71					0.74	0.74	0.74
Gabon	0.23			0.22					0.22	0.22	0.22
Total Crude Oil	32.29			32.76					32.78	33.24	33.39
Total NGLs ¹	6.76	6.92	7.05	6.84	6.86	6.95	7.01	7.01	6.86	6.86	6.95
Total OPEC²	39.05			39.60					39.64	40.10	40.34
NON-OPEC^{2,3}											
OECD											
Americas	19.93	19.34	19.45	19.89	18.90	19.19	19.38	19.44	18.61	18.78	19.13
United States	12.94	12.52	12.51	12.73	12.62	12.32	12.42	12.41	12.66	12.52	12.38
Mexico	2.60	2.48	2.34	2.54	2.49	2.46	2.43	2.39	2.48	2.51	2.47
Canada	4.39	4.33	4.59	4.61	3.79	4.40	4.53	4.64	3.46	3.74	4.28
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.48	3.42	3.32	3.63	3.44	3.21	3.41	3.41	3.45	3.31	3.31
UK	0.97	1.01	0.95	1.09	1.05	0.91	1.00	0.99	1.05	1.04	0.97
Norway	1.95	1.93	1.89	2.03	1.94	1.85	1.92	1.92	1.96	1.82	1.90
Others	0.56	0.48	0.49	0.51	0.45	0.45	0.49	0.50	0.44	0.45	0.44
Asia Oceania	0.46	0.42	0.42	0.43	0.41	0.41	0.41	0.41	0.40	0.42	0.42
Australia	0.38	0.34	0.35	0.36	0.33	0.33	0.33	0.33	0.32	0.34	0.34
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.08	0.08
Total OECD	23.87	23.18	23.19	23.95	22.76	22.82	23.20	23.26	22.45	22.51	22.87
NON-OECD											
Former USSR	14.00	14.08	14.21	14.20	14.01	14.02	14.10	14.19	13.95	14.09	14.07
Russia	11.06	11.19	11.18	11.24	11.18	11.18	11.17	11.17	11.18	11.19	11.19
Others	2.94	2.89	3.03	2.96	2.83	2.84	2.92	3.01	2.77	2.89	2.87
Asia²	7.08	6.81	6.66	6.94	6.80	6.74	6.75	6.70	6.76	6.82	6.75
China	4.33	4.07	3.97	4.17	4.06	4.03	4.02	4.01	4.02	4.08	4.04
Malaysia	0.71	0.72	0.72	0.73	0.72	0.72	0.72	0.70	0.72	0.72	0.72
India	0.87	0.85	0.83	0.85	0.85	0.84	0.85	0.84	0.85	0.85	0.82
Others	1.18	1.17	1.13	1.18	1.17	1.17	1.16	1.15	1.17	1.17	1.17
Europe	0.14	0.14	0.13	0.14	0.14	0.13	0.13	0.13	0.14	0.14	0.14
Americas²	4.59	4.53	4.73	4.36	4.46	4.62	4.67	4.69	4.51	4.56	4.60
Brazil	2.53	2.62	2.88	2.40	2.55	2.73	2.80	2.83	2.59	2.66	2.70
Argentina	0.63	0.62	0.61	0.62	0.62	0.62	0.62	0.61	0.62	0.62	0.62
Colombia	1.01	0.91	0.86	0.96	0.91	0.89	0.87	0.87	0.91	0.89	0.89
Others	0.42	0.38	0.37	0.38	0.39	0.38	0.38	0.38	0.39	0.38	0.39
Middle East^{2,4}	1.28	1.25	1.21	1.26	1.25	1.25	1.24	1.22	1.26	1.25	1.26
Oman	0.99	1.00	0.96	1.01	1.00	1.00	0.99	0.97	1.01	1.00	1.00
Syria	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Yemen	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.05	2.02	2.09	2.00	1.97	2.03	2.06	2.07	1.97	2.01	2.02
Egypt	0.72	0.70	0.67	0.70	0.70	0.69	0.69	0.68	0.70	0.70	0.70
Others	1.33	1.32	1.42	1.30	1.27	1.34	1.37	1.39	1.27	1.32	1.32
Total Non-OECD	29.14	28.82	29.03	28.90	28.63	28.81	28.95	29.00	28.59	28.86	28.83
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.27	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.38	2.45	1.89	2.43	2.77	2.41	1.97	2.43	2.49	2.71
TOTAL NON-OPEC	57.51	56.65	56.97	57.01	56.09	56.67	56.83	56.53	55.74	56.12	56.67
TOTAL SUPPLY	96.56			96.61					95.38	96.22	97.01

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Feb2016	Mar2016	Apr2016	May2016	Jun2016*	Jun2013	Jun2014	Jun2015	3Q2015	4Q2015	1Q2016	2Q2016
OECD Americas												
Crude	675.5	689.3	692.6	689.1	682.2	519.8	531.9	625.5	-0.10	0.27	0.53	-0.08
Motor Gasoline	285.3	272.7	273.6	271.1	271.7	260.0	253.0	251.2	0.07	0.11	0.06	-0.01
Middle Distillate	240.7	240.5	231.6	229.0	222.9	195.7	192.0	213.0	0.07	0.17	0.06	-0.19
Residual Fuel Oil	52.2	50.8	50.6	47.4	46.9	46.0	44.8	48.4	-0.01	0.03	0.01	-0.04
Total Products ³	765.4	757.5	761.3	764.2	781.5	698.3	686.7	734.6	0.31	0.11	-0.17	0.26
Total ⁴	1610.7	1620.2	1629.9	1634.8	1644.8	1378.4	1387.0	1537.4	0.37	0.21	0.33	0.27
OECD Europe												
Crude	353.4	349.1	353.5	361.1	354.3	318.7	326.4	344.2	-0.05	0.23	-0.13	0.06
Motor Gasoline	108.2	100.6	100.1	100.1	99.0	88.0	85.2	85.7	0.04	0.03	0.09	-0.02
Middle Distillate	309.9	309.2	313.1	313.1	311.0	241.3	249.0	277.9	0.26	0.00	0.08	0.02
Residual Fuel Oil	76.4	77.6	72.4	74.7	72.0	76.3	66.5	66.7	0.03	0.03	0.06	-0.06
Total Products ³	593.3	585.4	583.5	588.7	583.8	504.2	492.3	523.8	0.37	0.06	0.24	-0.02
Total ⁴	1019.4	1003.9	1007.0	1018.5	1008.0	883.7	889.4	940.3	0.29	0.25	0.15	0.05
OECD Asia Oceania												
Crude	195.6	196.0	194.0	202.6	204.9	172.8	177.3	201.3	0.01	0.04	-0.11	0.10
Motor Gasoline	24.6	26.1	25.0	25.3	25.8	27.0	24.4	25.3	-0.02	0.00	0.03	0.00
Middle Distillate	59.4	59.0	61.6	64.7	66.2	61.3	53.8	61.2	0.06	-0.01	-0.08	0.08
Residual Fuel Oil	18.7	19.9	19.2	19.0	19.4	19.7	21.2	19.4	0.03	-0.01	-0.01	-0.01
Total Products ³	163.1	166.1	164.3	171.2	174.6	167.5	157.4	165.2	0.11	-0.11	0.00	0.09
Total ⁴	421.7	421.3	420.3	434.1	440.3	414.3	404.6	429.5	0.17	-0.11	-0.15	0.21
Total OECD												
Crude	1224.5	1234.4	1240.0	1252.8	1241.3	1011.3	1035.7	1171.0	-0.14	0.54	0.29	0.08
Motor Gasoline	418.2	399.4	398.6	396.5	396.5	374.9	362.7	362.2	0.09	0.13	0.18	-0.03
Middle Distillate	610.0	608.7	606.3	606.8	600.1	498.2	494.8	552.1	0.40	0.15	0.06	-0.09
Residual Fuel Oil	147.4	148.3	142.1	141.0	138.3	141.9	132.4	134.5	0.05	0.04	0.06	-0.11
Total Products ³	1521.8	1509.0	1509.2	1524.0	1539.9	1369.9	1336.3	1423.6	0.79	0.06	0.07	0.34
Total ⁴	3051.9	3045.3	3057.2	3087.4	3093.1	2676.4	2680.9	2907.1	0.82	0.35	0.33	0.53

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Feb2016	Mar2016	Apr2016	May2016	Jun2016*	Jun2013	Jun2014	Jun2015	3Q2015	4Q2015	1Q2016	2Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	691.0	693.9	0.01	0.00	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.3	206.5	206.4	206.0	205.7	206.8	207.1	207.4	0.01	-0.01	0.00	-0.01
Products	265.0	266.4	265.7	264.3	266.5	259.0	258.2	259.1	-0.05	0.08	0.05	0.00
OECD Asia Oceania												
Crude	384.2	384.2	384.2	385.4	385.4	386.1	387.6	385.6	-0.05	0.01	0.02	0.01
Products	34.4	35.2	35.2	35.2	35.2	23.1	31.0	32.8	0.01	0.01	0.01	0.00
Total OECD												
Crude	1285.6	1285.8	1285.7	1286.6	1286.2	1288.9	1285.7	1286.9	-0.02	0.00	0.02	0.00
Products	301.4	303.6	302.9	301.5	303.7	283.1	290.1	293.9	-0.04	0.08	0.06	0.00
Total ⁴	1590.7	1593.2	1591.6	1590.8	1592.6	1576.3	1579.7	1585.0	-0.06	0.08	0.07	-0.01

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')

	End June 2015		End September 2015		End December 2015		End March 2016		End June 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	175.6	72	182.5	76	188.4	79	183.6	-	-	-
Chile	11.8	36	11.0	33	10.6	32	11.3	-	-	-
Mexico	50.4	24	49.5	24	49.7	25	45.9	-	-	-
United States ⁴	1973.2	100	2003.1	103	2016.8	104	2054.5	-	-	-
Total ⁴	2233.2	90	2268.2	93	2287.5	93	2317.3	95	2341.9	94
OECD Asia Oceania										
Australia	35.9	32	35.5	31	33.5	30	37.0	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	578.3	150	589.6	143	582.0	131	559.8	-	-	-
Korea	224.6	95	226.0	90	227.9	88	235.7	-	-	-
New Zealand	9.0	59	8.7	52	7.7	45	8.2	-	-	-
Total	847.9	110	859.7	105	851.1	100	840.7	111	860.9	111
OECD Europe⁵										
Austria	23.2	82	23.7	90	24.1	94	25.4	-	-	-
Belgium	47.7	74	51.3	81	50.4	73	52.7	-	-	-
Czech Republic	21.6	106	21.8	127	22.1	148	22.8	-	-	-
Denmark	28.4	178	28.6	186	31.8	211	32.4	-	-	-
Estonia	1.5	50	1.5	53	1.8	66	2.2	-	-	-
Finland	45.0	219	39.9	205	44.9	237	46.0	-	-	-
France	169.8	97	166.8	103	167.6	99	165.8	-	-	-
Germany	285.6	117	281.4	118	285.3	118	288.7	-	-	-
Greece	27.8	91	29.2	94	32.4	115	32.9	-	-	-
Hungary	20.5	127	20.6	126	22.0	157	20.9	-	-	-
Ireland	11.1	74	11.3	75	11.6	75	12.2	-	-	-
Italy	117.1	89	117.2	92	117.3	97	119.9	-	-	-
Luxembourg	0.6	12	0.6	10	0.7	13	0.7	-	-	-
Netherlands	140.2	146	153.1	160	158.8	165	157.7	-	-	-
Norway	25.9	126	25.1	105	26.7	127	24.9	-	-	-
Poland	62.6	111	63.9	119	69.4	131	67.4	-	-	-
Portugal	21.8	85	23.0	97	23.9	109	24.5	-	-	-
Slovak Republic	11.4	137	11.0	134	11.6	150	11.9	-	-	-
Slovenia	4.7	88	4.6	96	4.5	90	4.6	-	-	-
Spain	133.4	106	139.4	113	130.9	104	140.3	-	-	-
Sweden	31.0	103	33.3	120	35.2	122	34.9	-	-	-
Switzerland	37.2	165	36.3	149	34.4	171	36.1	-	-	-
Turkey	65.7	70	71.2	82	74.6	88	75.9	-	-	-
United Kingdom	77.2	49	79.0	51	80.9	52	79.7	-	-	-
Total	1411.0	100	1433.9	105	1463.0	107	1480.6	108	1482.8	106
Total OECD	4492.1	96	4561.8	98	4601.6	99	4638.5	102	4685.6	101
DAYS OF IEA Net Imports⁶ -	194	-	196	-	198	-	200	-	-	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End June 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	56
1Q2014	4196	1585	2610	93	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4328	1578	2749	93	34	59
4Q2014	4318	1580	2738	93	34	59
1Q2015	4397	1583	2814	97	35	62
2Q2015	4492	1585	2907	96	34	62
3Q2015	4562	1579	2983	98	34	64
4Q2015	4602	1587	3015	99	34	65
1Q2016	4638	1593	3045	102	35	67
2Q2016	4686	1593	3093	101	34	67

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 2Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	2Q15	3Q15	4Q15	1Q16	Mar 16	Apr 16	May 16	Year Earlier	
											May 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.65	0.57	0.72	0.74	0.72	0.78	0.79	0.60	0.19
Europe	0.79	0.84	0.78	0.77	0.77	0.69	0.76	0.63	0.73	0.67	0.67	-0.01
Asia Oceania	1.21	1.17	1.25	1.25	1.16	1.21	1.40	1.42	1.51	1.42	1.34	0.09
Saudi Medium												
Americas	0.45	0.36	0.37	0.37	0.44	0.43	0.39	0.46	0.42	0.46	0.40	0.06
Europe	0.01	0.03	0.03	0.02	0.02	0.04	-	-	-	-	0.01	-
Asia Oceania	0.43	0.45	0.44	0.44	0.48	0.41	0.46	0.44	0.48	0.43	0.47	-0.04
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.20	0.09	0.29	0.21	0.28	0.42	0.46	0.27	0.19
Europe	0.25	0.50	0.72	0.48	0.95	0.94	0.90	0.74	0.83	0.71	0.36	0.35
Asia Oceania	0.31	0.24	0.41	0.31	0.42	0.49	0.47	0.45	0.64	0.36	0.31	0.04
Kuwait Blend												
Americas	0.28	0.27	0.13	0.21	0.11	0.07	0.13	-	0.15	-	0.22	-
Europe	0.10	0.09	0.13	0.08	0.16	0.18	0.20	0.16	0.16	0.05	0.01	0.04
Asia Oceania	0.64	0.62	0.65	0.61	0.62	0.69	0.71	0.75	0.62	0.75	0.71	0.04
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.11	0.07	0.10	0.09	0.12	0.12	0.19	0.15	0.04
Asia Oceania	0.00	0.01	0.01	-	0.02	-	0.02	0.01	-	0.01	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.01	0.03	0.01	0.04	0.05	0.19	0.16	-	-
Asia Oceania	0.30	0.28	0.27	0.25	0.25	0.26	0.44	0.46	0.26	0.61	0.32	0.29
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.67	0.61	0.70	0.61	0.63	0.60	0.03
Europe	0.07	0.08	0.09	0.09	0.07	0.10	0.06	0.07	0.09	0.03	0.06	-0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.43	0.45	0.54	0.52	0.53	0.67	0.38	0.39	-0.01
Europe	0.14	0.14	0.15	0.13	0.19	0.11	0.15	0.19	0.17	0.16	0.13	0.04
Asia Oceania	-	-	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	1.81	2.02	1.94	2.12	2.08	1.90	1.78	1.73	0.05
Europe	-	0.00	0.01	0.01	0.01	0.01	0.01	-	0.02	-	0.02	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	-	0.01	0.02	0.02	0.02	0.02	0.02	-	-
Europe	0.47	0.56	0.49	0.48	0.52	0.49	0.47	0.49	0.44	0.44	0.48	-0.04
Asia Oceania	0.06	0.07	0.06	0.09	0.02	0.09	0.09	0.03	0.09	-	0.13	-
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.51	1.64	1.74	1.58	1.59	1.95	1.68	1.65	0.04
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	0.01	-	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.60	0.59	0.65	0.76	0.79	0.88	0.62	0.82	-0.20
Asia Oceania	0.00	0.02	0.06	0.02	0.12	0.06	0.05	0.06	-	0.01	0.03	-0.03
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.23	0.22	0.25	0.16	0.25	0.17	0.13	0.27	-0.14
Asia Oceania	0.03	0.02	0.01	0.02	-	-	0.02	0.04	-	0.02	0.02	-0.01
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.01	0.03	0.02	0.07	0.05	0.08	0.03	0.03	0.00
Europe	0.53	0.55	0.57	0.53	0.55	0.58	0.44	0.33	0.44	0.44	0.43	0.01
Asia Oceania	0.03	0.02	-	-	-	-	-	-	-	0.03	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	2Q15	3Q15	4Q15	1Q16	Mar 16	Apr 16	May 16	Year Earlier	
											May 15	% change
Crude Oil												
Americas	5130	4201	4022	4085	4075	4056	4350	4751	4454	4929	4271	15%
Europe	8926	8679	9503	9194	9605	9741	8963	8721	8915	8536	9340	-9%
Asia Oceania	6537	6371	6572	6422	6482	6522	6802	6931	6772	6764	6976	-3%
Total OECD	20592	19251	20097	19700	20161	20319	20115	20403	20142	20230	20587	-2%
LPG												
Americas	17	12	10	12	5	12	29	16	38	51	12	335%
Europe	382	427	412	361	408	404	404	328	444	344	305	13%
Asia Oceania	547	532	518	536	491	506	590	660	606	500	498	1%
Total OECD	946	971	940	908	904	921	1024	1004	1088	895	814	10%
Naphtha												
Americas	17	20	15	14	12	12	11	5	8	4	10	-58%
Europe	332	356	348	287	413	283	360	361	355	215	260	-17%
Asia Oceania	920	953	951	909	948	977	948	883	859	900	892	1%
Total OECD	1269	1328	1313	1210	1372	1271	1319	1248	1222	1120	1162	-4%
Gasoline³												
Americas	659	665	670	745	813	549	460	417	766	850	755	13%
Europe	106	131	107	117	72	117	93	32	66	157	98	61%
Asia Oceania	75	76	93	118	61	98	73	83	99	74	146	-49%
Total OECD	841	871	870	979	946	765	626	532	932	1081	998	8%
Jet & Kerosene												
Americas	81	100	141	152	132	133	152	151	120	176	151	17%
Europe	445	454	442	426	586	392	462	548	472	463	340	36%
Asia Oceania	73	60	64	67	49	74	79	53	99	71	55	29%
Total OECD	600	614	648	645	768	599	693	752	691	710	546	30%
Gasoil/Diesel												
Americas	58	95	76	40	46	63	57	43	66	11	45	-76%
Europe	1121	1097	1216	1314	1261	1178	1407	1494	1457	1467	1312	12%
Asia Oceania	141	159	164	166	147	200	180	178	269	198	169	17%
Total OECD	1319	1352	1457	1520	1455	1441	1644	1715	1791	1675	1526	10%
Heavy Fuel Oil												
Americas	165	132	116	113	139	91	163	202	124	62	145	-58%
Europe	552	617	564	484	518	575	529	576	460	655	542	21%
Asia Oceania	232	203	176	123	176	204	188	226	174	118	118	0%
Total OECD	949	953	856	721	833	870	880	1003	758	835	806	4%
Other Products												
Americas	812	671	675	760	759	553	627	577	697	718	743	-3%
Europe	791	704	702	669	737	724	761	729	804	821	780	5%
Asia Oceania	426	408	352	337	373	351	384	353	305	392	302	30%
Total OECD	2029	1784	1729	1766	1870	1627	1772	1659	1806	1931	1824	6%
Total Products												
Americas	1810	1695	1703	1836	1906	1414	1499	1411	1818	1871	1861	1%
Europe	3729	3786	3793	3658	3996	3672	4015	4067	4058	4123	3637	13%
Asia Oceania	2414	2391	2318	2256	2246	2411	2444	2436	2411	2253	2178	3%
Total OECD	7953	7872	7813	7750	8148	7496	7958	7914	8287	8247	7676	7%
Total Oil												
Americas	6940	5896	5725	5921	5980	5470	5850	6162	6272	6801	6132	11%
Europe	12655	12465	13296	12851	13601	13413	12978	12788	12974	12660	12977	-2%
Asia Oceania	8951	8762	8890	8677	8728	8932	9246	9367	9183	9017	9154	-1%
Total OECD	28545	27123	27910	27449	28309	27815	28074	28317	28429	28477	28263	1%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 11 August 2016), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 13 September 2016

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Oil Market Report

13 September 2016

HIGHLIGHTS

- **Global oil demand growth is slowing at a faster pace than initially predicted. For 2016, a gain of 1.3 mb/d is expected** – a downgrade of 0.1 mb/d on our previous forecast due to a more pronounced 3Q16 slowdown. Momentum eases further to 1.2 mb/d in 2017 as underlying macroeconomic conditions remain uncertain.
- **World oil supplies fell by 0.3 mb/d in August, dragged lower by non-OPEC.** At 96.9 mb/d, global oil output was 0.3 mb/d below a year ago, but near-record OPEC supply just about offset steep non-OPEC declines. Non-OPEC supply is expected to return to growth in 2017 (+380 kb/d) following an anticipated 840 kb/d decline this year.
- **OPEC crude production edged up to 33.47 mb/d in August - testing record rates as Middle East producers opened the taps.** Kuwait and the UAE hit their highest output ever and Iraq lifted supplies. Output from Saudi Arabia held near a record, while Iran reached a post-sanctions high. Overall OPEC supply stood 930 kb/d above a year ago.
- The anaemic outlook for refining throughput extends further amid downward revisions to our 2H16 forecast. **Refinery runs in 2016 are set to grow at the lowest rate in a decade.**
- **OECD total inventories built by 32.5 mb in July to a fresh record of 3 111 mb.** As refinery activities reached a summer peak, crude oil inventories refused to decline until an exceptional storm-related draw hit the US in late August.
- **Oil prices rallied in early August, rising from four-month lows near \$42/bbl to briefly above \$50/bbl** amid peak summer demand for crude oil, which is expected to lead to the first quarterly crude stock draw in more than two years. At the time of writing, Brent futures had retreated to around \$48.45/bbl while WTI was at \$46.35/bbl.

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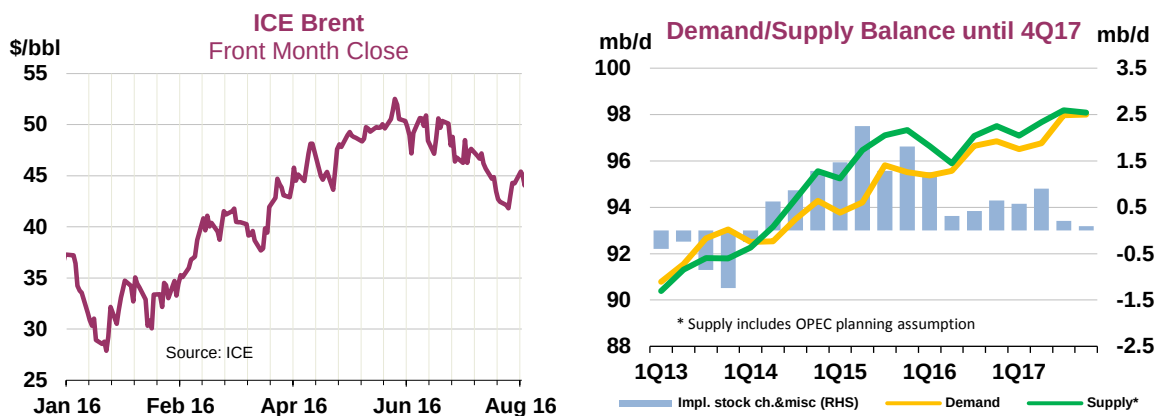
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WAITING GAME

When will the world oil market return to balance? That is the big question today. With the price of oil at current levels, one would expect supply to contract and demand to grow strongly. However, the opposite now seems to be happening. Demand growth is slowing and supply is rising. Consequently, stocks of oil in OECD countries are swelling to levels never seen before.

Our latest numbers provide some clues as to why. Recent pillars of demand growth – China and India – are wobbling. After more than a year with oil hovering around \$50/bbl, the stimulus from cheaper fuel is fading. Economic worries in developing countries haven't helped either. Unexpected gains in Europe have vanished, while momentum in the US has slowed dramatically.

The result has been a slump in oil demand growth from a robust 1.4 mb/d in the second quarter to a two-year low of 0.8 mb/d in the third. Even with a modest weather-related uptick forecast for the end of the year, oil demand growth in 2016 will struggle to get above 1.3 mb/d. Refiners are clearly losing their appetite for more crude oil. During the fourth quarter, they are expected to process only 0.1 mb/d more crude than a year ago.



The picture on the supply side is equally confounding. Despite oil's collapse and resulting investment cuts, global oil production is still expanding – although nowhere near the breakneck pace of 2015. High-cost non-OPEC producers have been hit particularly hard. Around 1.4 mb/d has been shut in since the end of 2014. The US – the former engine of non-OPEC supply growth – accounts for more than half the decline as investment cuts by independent producers have had an almost immediate impact.

However, the loss has been more than made up for by OPEC. Saudi Arabia and Iran have each raised oil output by over 1 mb/d since late 2014 when OPEC shifted strategy to defend market share rather than price. Saudi Arabia's vigorous production has allowed it to overtake the US and become the world's largest oil producer. Indeed, OPEC's low-cost Middle East producers - Saudi Arabia, Kuwait, the UAE and Iraq - are all at or near all-time highs, while Iran's post-sanctions ramp up has been swift.

Our forecast in this month's *Report* suggests that this supply-demand dynamic may not change significantly in the coming months. As a result, supply will continue to outpace demand at least through the first half of next year. Global inventories will continue to grow: OECD stockpiles in July smashed through the 3.1 billion barrel wall. As for the market's return to balance - it looks like we may have to wait a while longer.

DEMAND

Summary

- **Global oil demand is forecast to grow by 1.3 mb/d in 2016**, a downgrade of 0.1 mb/d on our previous forecast due to a more pronounced 3Q16 slowdown. Momentum eases further to 1.2 mb/d in 2017 as underlying macroeconomic conditions remain uncertain.
- **The severity of the 3Q16 slowdown has surprised, with year-on-year (y-o-y) growth plunging to 0.8 mb/d due to vanishing OECD growth and a marked slowdown in India and China.** Since peaking at a near five-year high of 2.3 mb/d in 3Q15, y-o-y global oil demand growth has steadily decreased – easing to 1.6 mb/d in 1Q16 and 1.4 mb/d in 2Q16 – an evolution forecast through a year of *Reports*.
- **One of the biggest 3Q16 downgrades is in Europe**, which sees its first y-o-y decline in one-and-a-half years due to a sharp slowdown in France, Austria, Finland and Italy.
- **A dramatic deceleration in China and India – which slowed non-OECD Asian 3Q16 growth to a two-year low – is the other major forecast change.** Chinese demand growth all but disappeared as the economy continued to restructure and slow, while heavy flooding curbed gains in road transport and ‘blue sky’ policies ahead of September’s G20 meeting restrained industrial demand. India’s expansion continued to slow sharply, with y-o-y growth easing to a 16-month low.
- **The latest US data show June deliveries 240 kb/d (or 1.2%) up on a year ago, closely matching our recent forecast.** This three-month US growth high was attained as the previously heavily declining US gasoil market appeared to bottom-out.
- **After three consecutive monthly y-o-y declines, Russian oil demand rebounded somewhat in July**, rising 50 kb/d (or 1.3%) compared to a year ago. Strong gains in industrial products are behind this potential recovery, an indication that the Russian economic slowdown may be nearing an end.

Global Oil Demand (2015-2017)

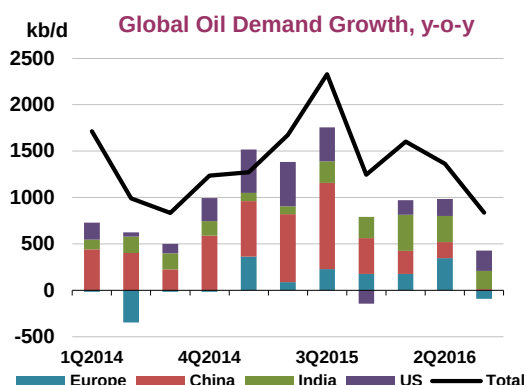
	(million barrels per day)														
	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.2	4.1	4.2	4.3	4.2	4.3	4.2	4.3	4.4	4.3	4.4	4.4
Americas	30.9	30.9	31.7	31.2	31.2	31.0	31.1	31.7	31.4	31.3	31.0	31.2	31.8	31.5	31.4
Asia/Pacific	32.2	31.5	31.5	32.5	31.9	33.1	32.3	32.0	33.3	32.7	33.9	33.1	33.0	34.0	33.5
Europe	14.1	14.2	14.8	14.4	14.4	14.3	14.6	14.8	14.3	14.5	14.3	14.6	14.8	14.4	14.5
FSU	4.7	4.9	5.1	5.0	4.9	4.9	4.9	5.2	5.1	5.0	4.9	5.1	5.2	5.2	5.1
Middle East	7.8	8.5	8.8	8.2	8.3	7.8	8.4	8.8	8.4	8.3	8.1	8.5	8.9	8.5	8.5
World	93.8	94.2	95.8	95.5	94.8	95.4	95.6	96.7	96.9	96.1	96.5	96.8	98.0	98.0	97.3
Annual Chg (%)	1.4	1.8	2.5	1.3	1.7	1.7	1.4	0.9	1.4	1.4	1.2	1.2	1.4	1.2	1.2
Annual Chg (mb/d)	1.3	1.7	2.3	1.2	1.6	1.6	1.4	0.8	1.3	1.3	1.1	1.2	1.3	1.1	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2

Global Overview

The anticipated slowdown in global demand growth – which we’ve been highlighting for more than a year in these *Oil Market Reports* – continues but at a faster pace than initially predicted. Since peaking at 2.3 mb/d in 3Q15, global y-o-y oil demand growth has steadily eased to 1.6 mb/d in 1Q16 and 1.4 mb/d in 2Q16, before plummeting to 0.8 mb/d in 3Q16. The sharp 3Q16 slowdown occurred as OECD growth all but vanished and the expansion in non-OECD Asia slowed markedly. Even with a modest northern-hemisphere weather-related uptick forecast for 4Q16 (see *Colder winter may spur northern hemisphere demand*), the 2016 global demand forecast has been reduced 0.1 mb/d to 1.3 mb/d in 2016. A further

modest deceleration in global demand is forecast for 2017, to 1.2 mb/d, as the global macroeconomic situation remains uncertain.

The key demand change in this *Report* is the erosion of 0.3 mb/d from the 3Q16 global demand estimate, and the resulting removal of 0.1 mb/d from the net 2016 forecast. The reductions are mainly due to lower 3Q16 demand estimates for China (-155 kb/d), Europe (-95 kb/d) and India (-55 kb/d). The Chinese demand estimate was lowered, particularly for industrial fuels, as the economy continues to slow, while many factories were asked to close ahead of September's G20 meeting in Hangzhou. Stuttering industrial expansions curbed growth in India and Europe. Heavy monsoon rains further trimmed Indian oil demand. In Europe, preliminary 3Q16 data point to a return of the previously long-entrenched trends of falling European demand.

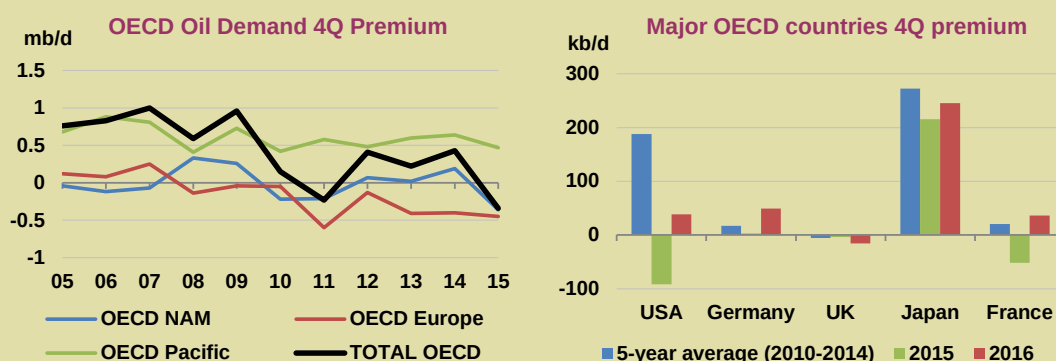


Having slowed significantly through mid-2016, a modest weather-related uptick is foreseen for 4Q16 (see *Colder winter may spur northern hemisphere demand*), particularly for Japan and the US. The 4Q15 northern-hemisphere winter was unusually mild, at least compared to the experience of 'normal' winter patterns. Until the trend for 4Q16 temperatures is more clear, we assume relative normality returns, which would raise the space heating requirement. A 0.2 mb/d 4Q16 demand premium is thus included, as global oil deliveries are forecast to rise from 96.7 mb/d in 3Q16 to 96.9 mb/d in 4Q16 – lifting the growth estimate to 1.3 mb/d y-o-y.

Colder winter may spur northern hemisphere demand

The traditional boost in fourth quarter northern hemisphere oil demand triggered by additional winter space heating may return this year following the sharp decline of 4Q15. Using OECD countries as a rough proxy for northern-hemisphere temperature extremes, recent data show average quarter-on-quarter (q-o-q) OECD oil demand growth of 240 kb/d in the fourth quarter of the year (2010-14), significantly below the previous five-year average of 820 kb/d. After the unusually mild winter of 4Q15 when OECD demand fell by 350 kb/d, more normal seasonal temperatures in 4Q16 should at least slow the pace of decline.

The slowing 4Q OECD demand pattern shows the largest contraction in Europe, where the winter premium all but disappeared. In the two largest European heating markets, Germany and UK, natural gas now plays a more dominant role, while gasoil – the primary liquid heating fuel – is mainly used in households in remote areas. The previous five-year average (2010-14), saw q-o-q gasoil demand growth in Germany and France of only 15 kb/d and 20 kb/d, respectively, while the UK saw an averaged decline of 5 kb/d.



The US and Japan, on the other hand, account for most of the growth in fourth quarter OECD oil demand, with gains in their major heating fuel markets averaging 185 kb/d and 345 kb/d respectively for US gasoil and US LPG demand and 275 kb/d for Japanese jet/kerosene, 2010-14. Compared to Japan, the winter weather in the US seems to have a more variable influence on oil demand. The abnormally warm winter in 2015 saw 4Q15 US gasoil demand drop for the first time below the third quarter – by 90 kb/d, a 275 kb/d

Colder winter may spur northern hemisphere demand (continued)

discrepancy from the previous five-year average. However, Japan, which also experienced a record warm winter, only saw 4Q15 jet/kerosene demand growth ease to +215 kb/d, just 55 kb/d below the previous five-year average.

After the warm winter El Niño reportedly brought in 2015, its counterpart La Niña might now have the opposite effect. If winter temperatures return to normal, or are even lower than normal seasonal lows, the demand patterns in the US and Japan could easily recover from the lows of 2015. Under such a return-to-normality scenario, 4Q16 US gasoil demand growth should return, while US LPG edges closer towards its previous five-year trend and more robust gains reappear in Japanese kerosene demand. Hence 4Q16 may see some temporary upside.

OECD Demand based on Adjusted Preliminary Submissions - July 2016

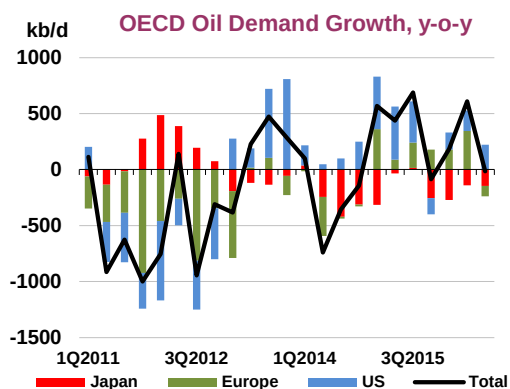
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.47	1.9	2.00	2.6	4.66	-0.1	0.37	-14.6	0.67	5.0	5.82	-6.68	24.98	-0.7
US50	9.64	2.1	1.70	3.7	3.77	0.3	0.06	-47.7	0.41	27.6	4.39	-6.70	19.97	0.0
Canada	0.89	2.3	0.15	-8.3	0.31	-3.9	0.23	-0.1	0.02	2.9	0.82	-1.49	2.42	-0.7
Mexico	0.80	-1.2	0.08	5.9	0.38	-6.6	0.05	-7.6	0.13	-29.1	0.49	-15.91	1.93	-8.7
OECD Europe	2.05	-1.4	1.49	2.4	4.91	-0.9	1.15	-4.7	0.90	-5.6	3.56	0.59	14.04	-0.9
Germany	0.44	-1.6	0.20	-0.7	0.81	-1.6	0.23	-14.3	0.11	-9.1	0.57	11.02	2.37	-0.6
United Kingdom	0.29	-0.8	0.30	7.7	0.51	2.9	0.14	8.7	0.02	-6.0	0.29	5.03	1.55	3.8
France	0.19	-3.8	0.17	-2.3	0.71	-8.4	0.20	-11.5	0.03	-28.3	0.39	-2.26	1.69	-6.8
Italy	0.22	-8.3	0.13	9.0	0.46	-7.4	0.09	-8.3	0.07	-17.4	0.34	-2.60	1.31	-5.6
Spain	0.13	-0.7	0.15	9.6	0.49	-1.0	0.13	0.1	0.15	1.1	0.25	4.08	1.31	1.5
OECD Asia & Oceania	1.60	-0.7	0.65	0.5	1.30	2.3	0.42	2.1	0.66	18.8	3.01	-2.77	7.64	0.6
Japan	0.95	-1.8	0.29	-6.5	0.40	0.9	0.31	5.1	0.34	8.7	1.40	-6.64	3.70	-2.4
Korea	0.21	1.6	0.15	10.8	0.35	3.8	0.08	-10.9	0.27	43.0	1.35	1.22	2.41	5.2
Australia	0.31	0.2	0.15	3.1	0.46	0.7	0.00	670.0	0.03	-15.9	0.18	-0.96	1.13	0.2
OECD Total	15.11	1.2	4.13	2.2	10.87	-0.2	1.94	-5.4	2.23	3.9	12.39	-3.74	46.66	-0.6

* Including US territories

OECD

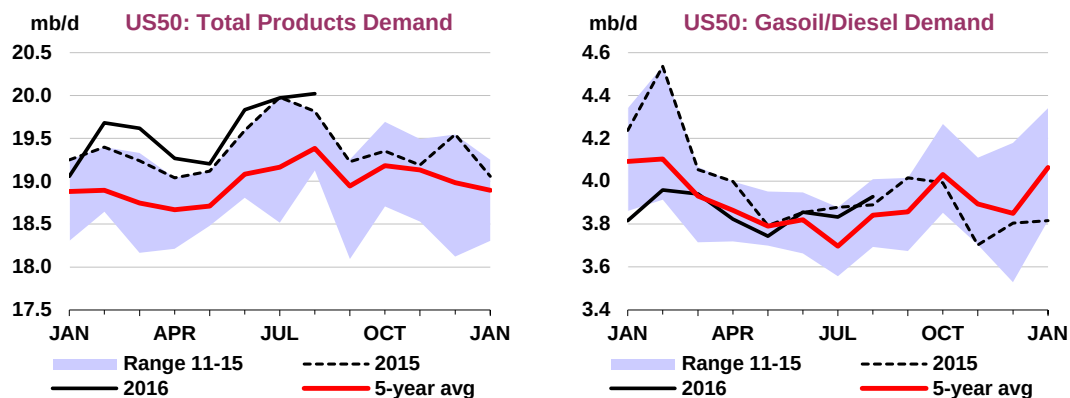
After rising through the past one-and-a-half years, preliminary 3Q16 OECD data suggest a levelling-off in y-o-y terms as growth all but vanished. The outlook in Europe turned gloomy as the weakening industrial backdrop triggered outright declines in gasoil/diesel and residual fuel oil demand. Although OECD oil deliveries are still forecast to return to y-o-y growth in 4Q16, only a modest expansion of around 35 kb/d is foreseen due to a still precarious macroeconomic situation. For the year as a whole, total OECD oil deliveries are forecast to average 46.4 mb/d, 205 kb/d up on the year earlier, supported by relatively strong gains in gasoline (chiefly in the US) and jet/kerosene (across the OECD). The pace of this expansion amounts to just half that achieved in 2015 when crude oil prices initially broke below \$50/bbl. OECD oil demand growth is forecast to virtually disappear in 2017, with persistent gains from the petrochemical sector offset by outright declines in residual fuel oil and 'other products'.



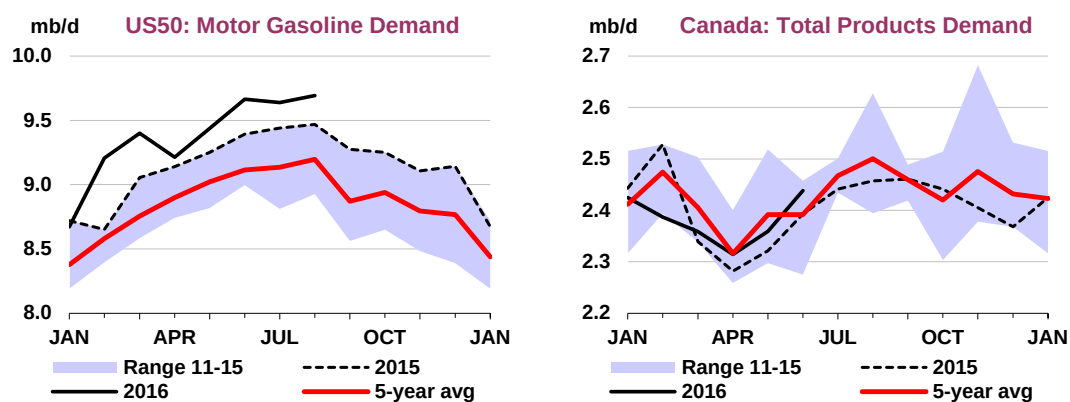
Americas

Oil deliveries across the OECD Americas continue to inch higher, up by around 80 kb/d on a y-o-y basis in 3Q16, to 24.9 mb/d. Demand growth attained its most recent peak, at 410 kb/d y-o-y in 2Q15, before plunging into negative territory (-150 kb/d) in 4Q15, pulled down by sharp declines in gasoil/diesel deliveries. Given the recovery that appears to be taking hold in US distillate markets a modest uptick is forecast for 4Q16.

US oil demand averaged roughly 19.8 mb/d in June – as forecast in last month's *Report* – equivalent to a y-o-y gain of 240 kb/d or 1.2%. Recovering gasoil demand lay behind June's acceleration, as alluded to in the April *Oil Market Report*: "we foresee the US gasoil market bottoming-out around the middle of the year". Essentially flattening out after eight consecutive months of heavy falls, US gasoil demand averaged 3.9 mb/d in June, 50 kb/d above the previous forecast.



US gasoline demand also remains strong, rising by 275 kb/d (or 2.9%) y-o-y in June, according to the most recent official monthly data. Preliminary estimates of July/August demand suggest continued gains of more than 200 kb/d in US gasoline deliveries, with US drivers increasingly taking to the roads. The latest data from the US Department of Transport's Federal Highway Administration cited seasonally adjusted US vehicle miles travelled rising by 2.9% y-o-y in June, and 0.5% up on May alone. For the year as a whole, total US oil deliveries are forecast to average 19.6 mb/d, 205 kb/d or 1.0% up on the year, with growth easing to around 85 kb/d or 0.4% in 2017 as higher crude oil prices potentially dampen US demand growth. Gasoline provides the majority of this forecast growth.

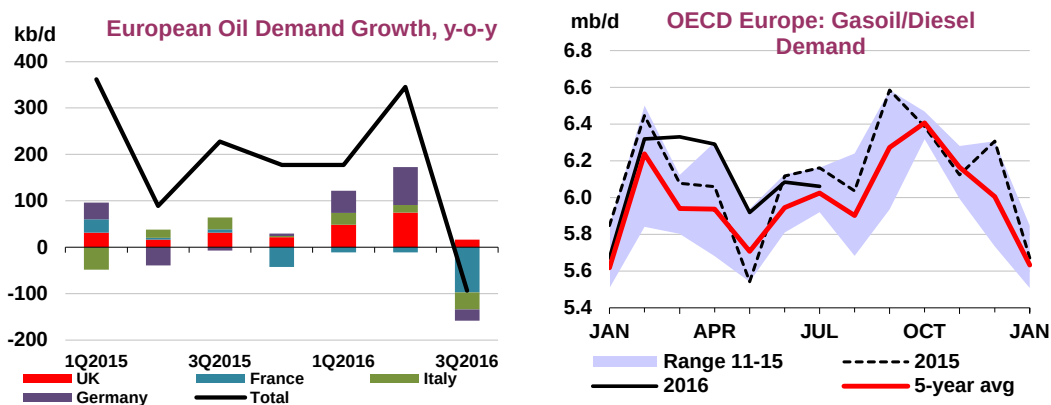


Supported by strong gains in gasoline, **Canadian** oil deliveries rose in each of the last four months of available Canadian demand data. Up by an average 40 kb/d y-o-y through this March-June period, Canadian gasoline demand accounted for the lion's share of total demand growth. Robust gasoline

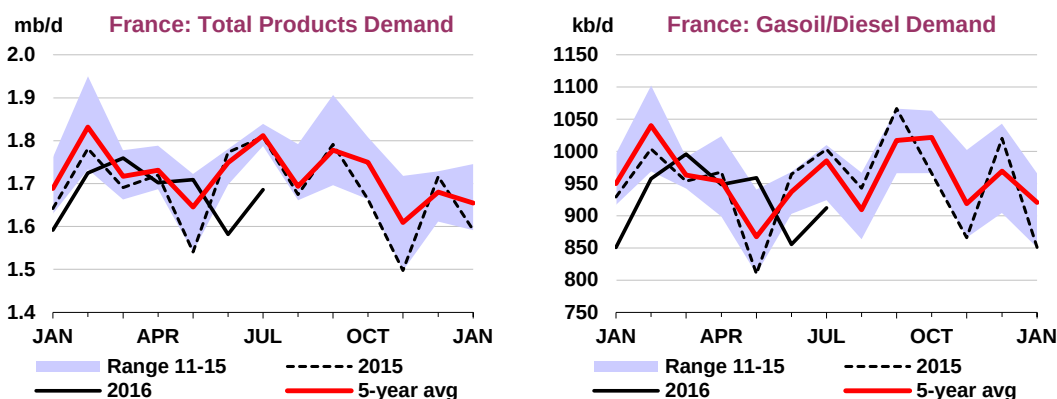
demand gains are due to relatively low pump prices and the reasonably benign state of the Canadian consumer sector, Statistics Canada cited retail sales growth of 2.7% across the economy as a whole in June.

Europe

Having held up remarkably well in June, preliminary European oil demand data point towards sharply deteriorating conditions in July. Particularly dramatic contractions have been seen in Italy, France, Austria and Finland. Oil deliveries in the region contracted by an estimated 130 kb/d (or 0.9%) y-o-y after a gain of 40 kb/d (or 0.3%) in June. The recent deceleration in Europe results in a 3Q16 demand estimate of 14.1 mb/d, 95 kb/d down on a year earlier. Total European oil deliveries are forecast to fall in 3Q16, led south by particularly sharp drops in gasoil/diesel (105 kb/d below the year earlier) and residual fuel oil (-25 kb/d), both products suffering from the weakening European industrial sector. The latest industrial output numbers from Eurostat show EU industrial activity barely growing May-June, bucking the previous 2% y-o-y gains seen since early 2015.

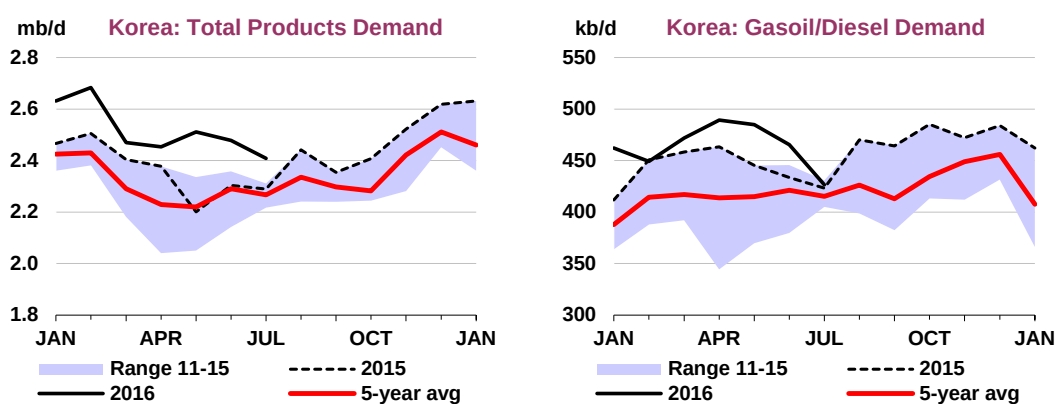


France posted the sharpest percentage point decline of any European country in June, with oil deliveries falling by 10.8% (or 190 kb/d) y-o-y to 1.6 mb/d. Weak industrial and transport fuel demand pull down the overall metric. French gasoline demand was down by 3.5% y-o-y in June, while gasoil/diesel deliveries declined by 11.3% and jet/kerosene demand fell by 9.0%. Preliminary estimates of July demand put the respective drops at 3.8%, 9.1% and 2.3%. Overall in 2016, French oil deliveries are forecast to average 1.7 mb/d, just 1.8% down on the year ago.

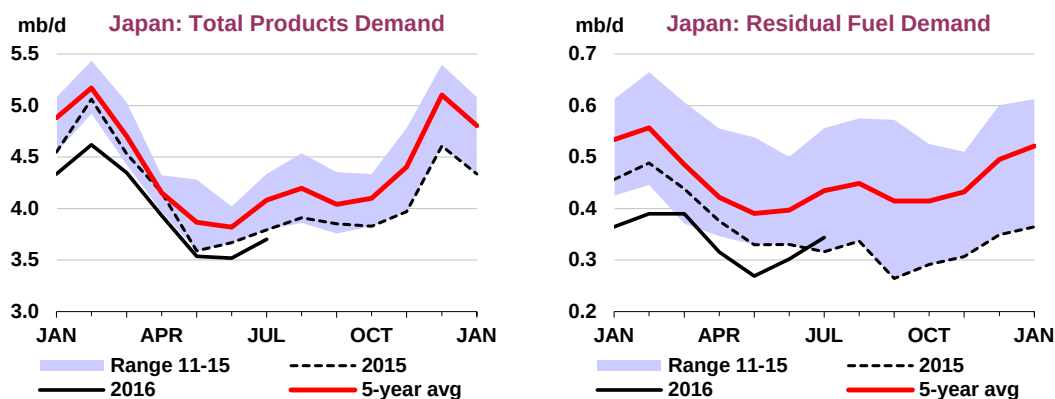


Asia Oceania

The latest data for OECD Asia Oceania, at 7.6 mb/d in July, were modestly up on a year ago (+50 kb/d, or 0.6%) but came out 50 kb/d below last month's *Report*, mainly due to a sharp slowdown in Korean demand. Indeed, the latest **Korean** estimate of 2.4 mb/d for July came out 75 kb/d below the prior forecast, showing a continuation of the recent slowing trend. Still up by 120 kb/d (or 5.2%) on the year earlier, it shows a notable deceleration from May's recent 310 kb/d (or 14.1%) peak, which had been underpinned by rapid gains in petrochemical feedstocks and industrial oil use. Korean growth has decelerated on less dramatic gains in gasoil/diesel. This distillate deceleration slowed to +0.7% y-o-y in July, from 8.9% in May, as Statistics Korea reported overall industrial activity gains easing over a respective period to 1.6% from +4.7%. The question naturally follows 'what happens next?' and with Markit showing the Korean Manufacturing Purchasing Managers' Index slipping into net-pessimistic territory in August (48.6), further decelerations look likely. We forecast total Korean oil deliveries averaging 2.5 mb/d in 2016, 130 kb/d up on the year, slowing to +70 kb/d in 2017 when deliveries are forecast at 2.6 mb/d.



Although still falling heavily mid-year, down by 150 kb/d y-o-y in June and -90 kb/d in July, the scale of recent **Japanese** demand declines was significantly below earlier expectations (on average 40 kb/d below those cited in last month's *Report*) as the power sector oil use surprised to the upside. As alluded to in last month's *Report* (see *Japan's oil demand post Fukushima*), Japanese oil demand in the power sector fell by on average 23% since 2013, but by mid-2016 had already fallen to such a low level that the downside momentum had to wane. July's near 30 kb/d y-o-y bounce in Japanese residual fuel oil demand, after 27 months of consecutive declines, does not per-se signify a change in direction but rather the near bottom for the now very small oil-use in Japan's power sector. The forecast for the year as a whole remains one of a falling residual fuel oil demand and overall Japanese oil demand, respectively down by 35 kb/d (to 320 kb/d) and 165 kb/d (to 4.0 mb/d). The downside eases further in 2017 to a respective -30 kb/d (to 290 kb/d) and -90 kb/d (to 3.9 mb/d).



Non-OECD

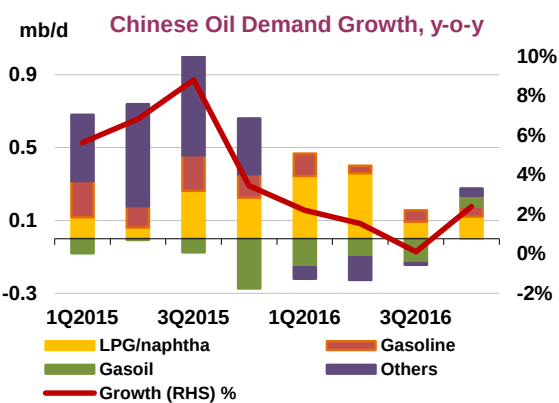
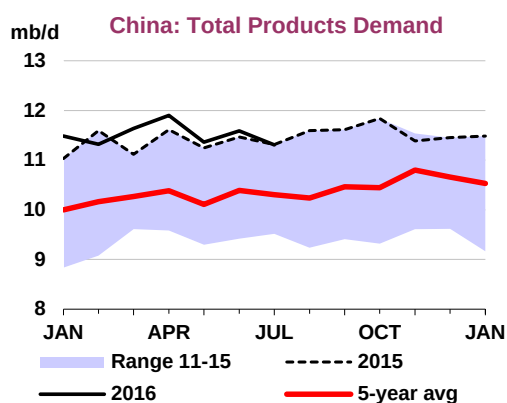
A dramatic deceleration in non-OECD deliveries has been the other major contributor to sharply slowing global oil demand growth. Since peaking at a recent +1.4 mb/d y-o-y (or 3.0%) in 1Q16, non-OECD demand growth has plummeted, to 755 kb/d (1.5%) in 2Q16 and 850 kb/d (1.7%) in 3Q16 mainly due to marked slowdowns in gasoil/diesel, naphtha and 'other products'.

Non-OECD: Demand by Product

	(thousand barrels per day)						
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
LPG & Ethane	5,651	5,654	5,671	311	226	5.8	4.1
Naphtha	3,058	3,042	2,996	156	-13	5.4	-0.4
Motor Gasoline	10,737	10,726	10,954	249	329	2.4	3.1
Jet Fuel & Kerosene	3,123	3,095	3,173	20	46	0.6	1.5
Gas/Diesel Oil	14,207	14,759	14,709	-67	87	-0.5	0.6
Residual Fuel Oil	5,134	5,115	5,190	-177	36	-3.3	0.7
Other Products	6,807	7,240	7,275	264	142	3.8	2.0
Total Products	48,717	49,631	49,969	756	852	1.5	1.7

China

China has been the major non-OECD decelerating influence, with preliminary estimates of 3Q16 oil demand showing the complete absence of y-o-y growth for the first time since the end of the Great Recession of 2008-09. Lower 3Q16 numbers are mostly due to government efforts to ensure 'blue skies' at September's G20 meeting in Hangzhou by encouraging factories nearby to cease production, which curbed industrial oil use. These factory closures, coupled with an ongoing economic slowdown and reports of heavy flooding, dented industrial oil use and transport fuel demand. Some of these such deterrents are likely to prove temporary, supporting at least a partial 4Q16 rebound. A 25 kb/d downside adjustment is applied to the overall 2016 Chinese demand forecast of 11.6 mb/d, 175 kb/d or 1.5% up on a year ago.



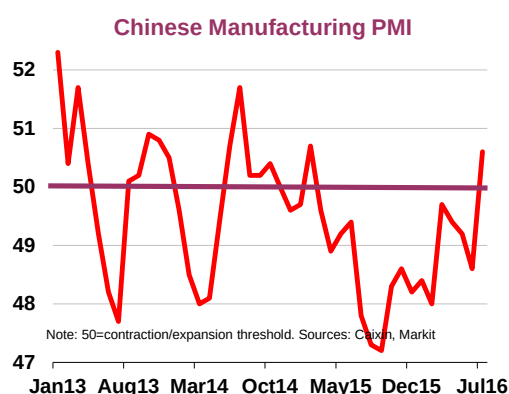
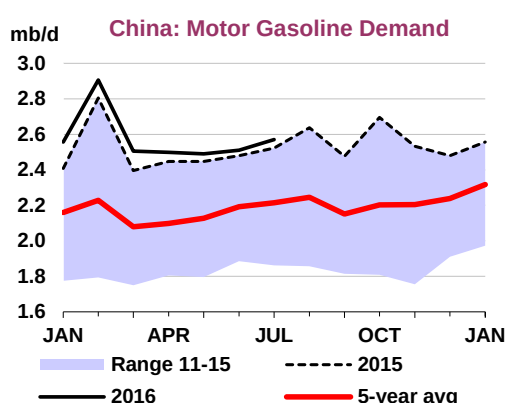
Preliminary July estimates reveal Chinese demand at 11.3 mb/d, essentially unchanged on the year earlier with upside momentum restrained by notable weakness in gasoil, naphtha and residual fuel oil demand. Subdued domestic demand also redirected large quantities of oil products from Chinese shores, driving net-product imports near five-year lows in July. Adjustments in the gasoline market particularly captured the evolution, as large quantities of blended gasoline appeared in domestic Chinese demand. Hence, the true level of Chinese gasoline demand is likely to have exceeded that implied by the official data. Chinese gasoline exports rose to 265 kb/d in July, just shy of June's 310 kb/d record, as large quantities of officially produced gasoline lost domestic market share to blended gasoline, forcing Chinese volumes abroad.

China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,114	1,273	1,353	159	80	14.3	6.3
Naphtha	994	1,063	1,088	69	25	6.9	2.4
Motor Gasoline	2,526	2,596	2,728	71	132	2.8	5.1
Jet Fuel & Kerosene	620	652	686	32	33	5.2	5.1
Gas/Diesel Oil	3,388	3,305	3,290	-83	-15	-2.5	-0.4
Residual Fuel Oil	317	191	140	-125	-51	-39.6	-26.9
Other Products	2,478	2,532	2,574	54	42	2.2	1.7
Total Products	11,436	11,613	11,859	177	246	1.5	2.1

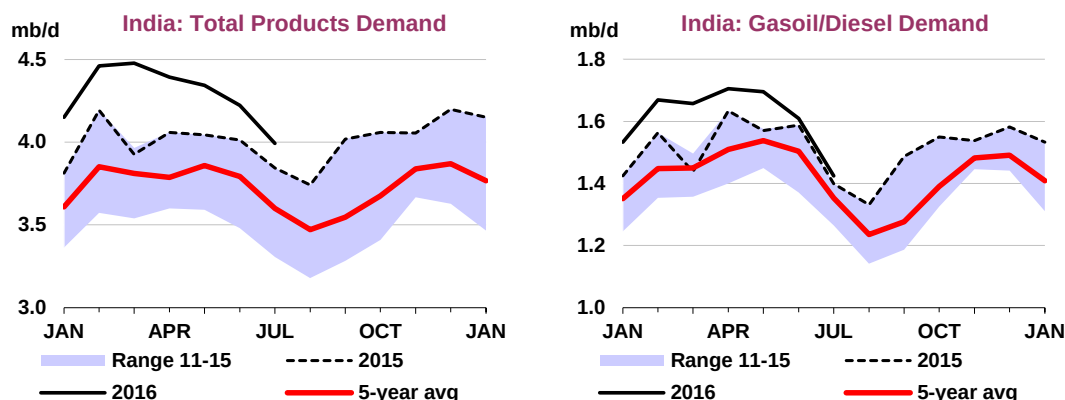
Bucking the otherwise weak recent Chinese demand data, jet fuel deliveries continue to rise sharply, underpinned by surging air traffic demand. The Civil Aviation Administration of China (CAAC) reported international air passenger numbers a quarter higher in the 1H16 compared to a year ago, while domestic-flight passenger numbers rose by a tenth.



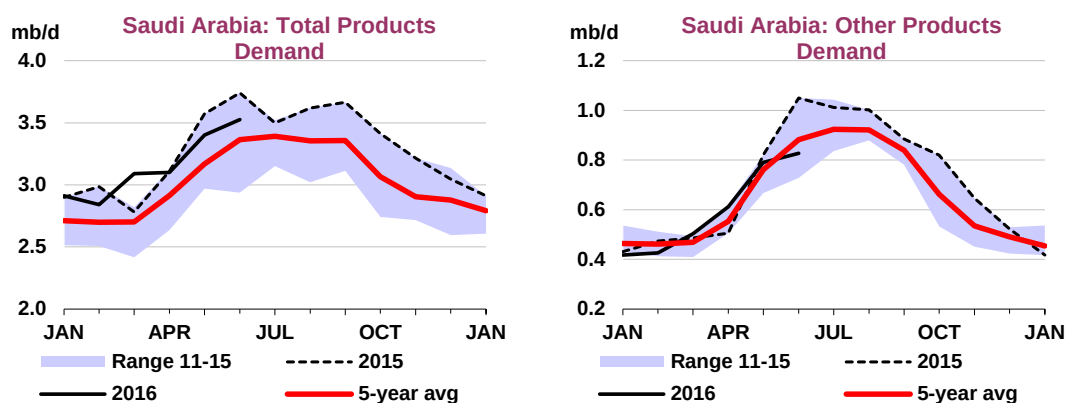
Rising by an estimated 275 kb/d or 2.4% in 4Q16, having flattened in y-o-y terms in 3Q16, our overall short-term Chinese oil demand forecast includes a layer of upside potential due to two key factors. Firstly, a large part of the mid-2016 slowdown is due to temporary factors, such as flooding and deliberate pre-G20 factory closures. Secondly, industrial business sentiment indicators have been suggesting a 4Q16 uptick for some time; with Caixin's Manufacturing PMI rising to a one-and-a-half year high of 50.6 in July, which will particularly support 4Q16 Chinese gasoil demand.

Other Non-OECD

Mid-year **Indian** oil demand growth continues to slow, with July's 3.9% y-o-y expansion at a 16-month low. A combination of heavy monsoon rains and stuttering industrial activity are behind the recent Indian slowdown. The latest month for which data on industrial activity is available shows a gain of just 2.1% y-o-y in June, according to the Ministry of Statistics and Programme Implementation, not far from the 1.4% y-o-y gain in Indian diesel demand (+1.8% in July). The recent weakening in growth has trimmed the overall Indian demand forecast for 2016 demand, to 4.3 mb/d. This is still 275 kb/d or 6.8% up on the previous year. A similarly sized gain is forecast for 2017, underpinned by predictions of plus 7% economic growth from the International Monetary Fund.



Exceptionally weak **Saudi Arabian** 'other product' demand in June saw total oil deliveries in the Kingdom fall by their widest y-o-y margin in three years, down by 215 kb/d or 5.7%. This low point occurred as the power sector, which traditionally uses more oil during the hotter summer months, burned somewhat less oil. The latest data from the Joint Oil Data Initiative (JODI) show that 705 kb/d of crude oil was used during June for power generation, 190 kb/d less than a year ago although still up by nearly 400 kb/d on February. The lower crude burn was due to a combination of high domestic power prices, efficiency measures and the ramp up of the huge 2.5 billion cubic feet per day Wasit gas plant. Last month's *Report* cited a 170 kb/d y-o-y total demand reduction in June, versus an actual drop of 215 kb/d. The forecast for 2016 has, however, modestly been curtailed on the potentially more rapid rate of oil-replacement in the power sector. Deliveries are now expected to average 3.3 mb/d in 2016, 30 kb/d down on 2015. In 2017 oil demand growth should return albeit tentatively.



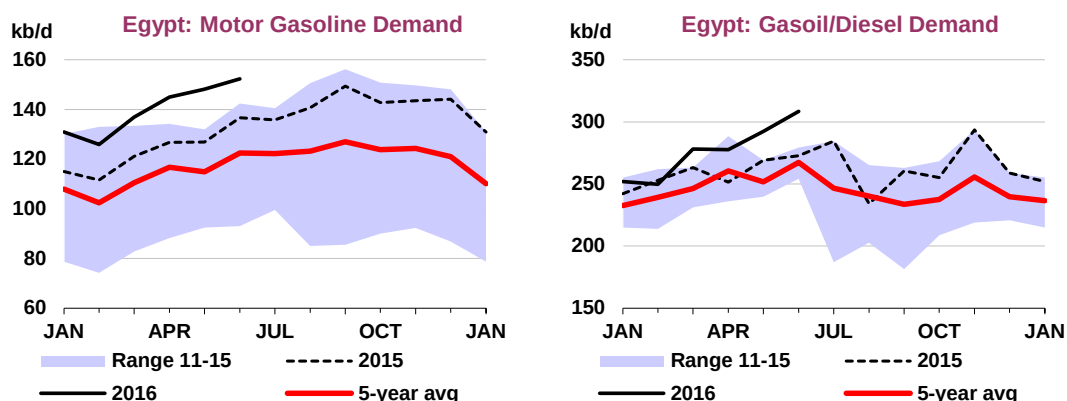
Non-OECD: Demand by Region

(thousand barrels per day)

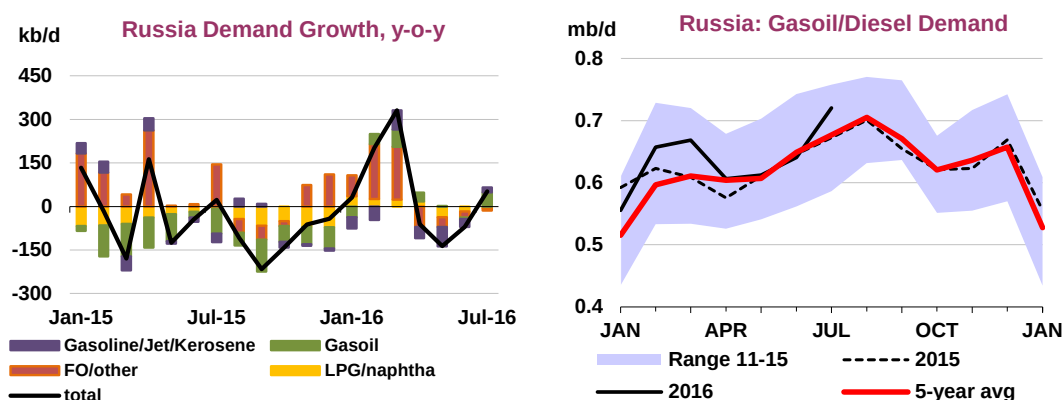
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
Africa	4,210	4,254	4,161	176	167	4.3	4.2
Asia	24,550	24,703	24,308	732	546	3.1	2.3
FSU	4,935	4,926	5,211	6	128	0.1	2.5
Latin America	6,507	6,690	6,828	-58	-9	-0.9	-0.1
Middle East	7,841	8,353	8,761	-133	9	-1.6	0.1
Non-OECD Europe	675	704	700	32	13	4.8	1.8
Total Products	48,717	49,631	49,969	756	852	1.5	1.7

Sharp upticks have been seen in **Egypt**, as oil deliveries in the African nation rose by 60 kb/d y-o-y in 1H16, to 850 kb/d. Strong gains in both Egyptian gasoil and gasoline led the upside, as the tentative economic recovery coincided with relatively low prices. The forecast for the year as a whole has been

hiked to show a gain of 65 kb/d or 8.4%, as deliveries average 870 kb/d. Momentum then eases to a still strong +40 kb/d in 2017, as the bounce from post-2015 lows eases.



Rebounding in July, **Russian** oil product demand growth returned after a three-month absence to post a near 50 kb/d y-o-y gain. Strong growth in industrial oil use led the upside, with Russian gasoil demand 50 kb/d higher and 'other products' 20 kb/d up, reflecting a potential end to the long bear run in Russian industrial activity. Markit's Manufacturing PMI broke back into optimistic territory, rising to 51.5 in June after six months of sub-50 net-pessimism. Similarly, industrial activity, as quoted by the Federal State Statistics Service, rose by 1.7% y-o-y in June, a sharp contrast to the near-4% per annum decline seen in 2H15. With July data heavily exceeding earlier forecasts (+185 kb/d), the projection for the year as a whole has been raised to show growth of 35 kb/d. A modest acceleration is then forecast for 2017, +50 kb/d, as underlying economic activity is likely to recovery.



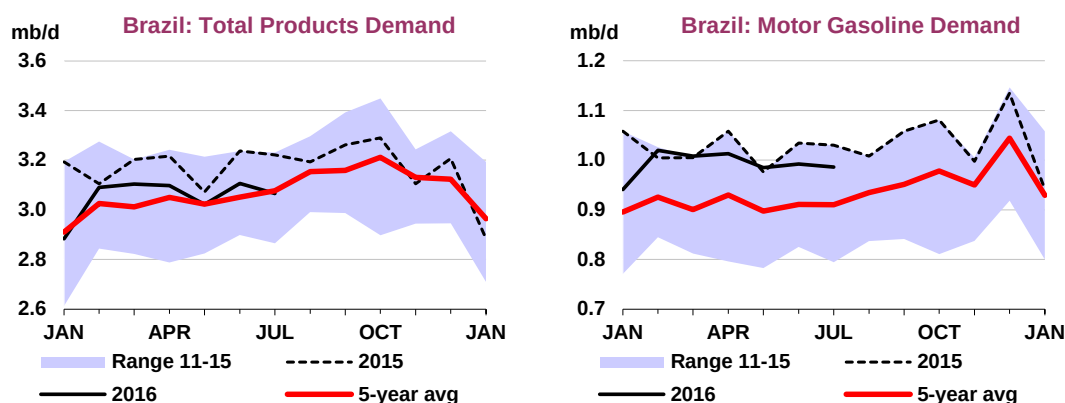
Russia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	419	436	445	17	9	4.1	2.1
Naphtha	504	496	509	-8	14	-1.7	2.8
Motor Gasoline	824	819	818	-5	-1	-0.6	-0.2
Jet Fuel & Kerosene	258	246	249	-13	3	-5.0	1.4
Gas/Diesel Oil	633	647	660	14	13	2.2	2.0
Residual Fuel Oil	273	306	317	33	11	11.9	3.7
Other Products	810	810	814	0	4	0.0	0.5
Total Products	3,722	3,759	3,812	37	52	1.0	1.4

Source: Petromarket RG, IEA

Ongoing softness in **Brazilian** oil data saw July oil deliveries fall by 155 kb/d (or 4.8%) compared to the previous year. Although July's y-o-y drop continued a trend of 13 consecutive declines, the scale of the fall exceeded our own earlier forecasts by 45 kb/d due to very weak Brazilian gasoline demand. With new vehicle sales down heavily compared to a year ago and retail sales falling sharply, gasoline deliveries eased by 4.3% y-o-y in July to 985 kb/d. Despite a modest Olympic-related uptick anticipated in August, for the year as a whole Brazilian oil deliveries are expected to average 3.1 mb/d, 90 kb/d or 2.9% down on the previous year before inching higher in 2017.



Brazil: Demand by Product

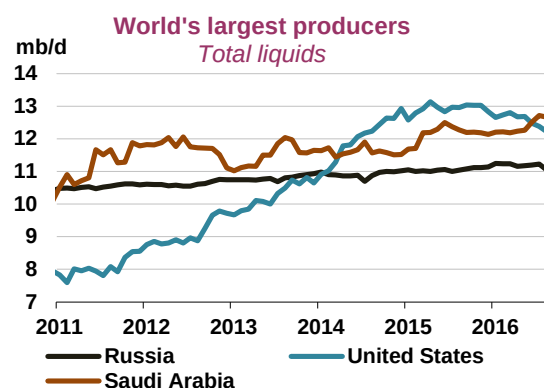
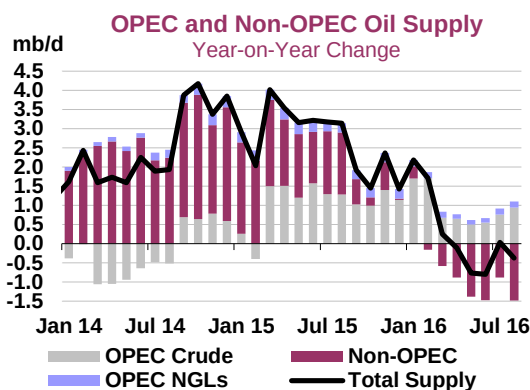
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	232	233	235	1	2	0.6	0.9
Naphtha	158	155	157	-3	1	-1.7	0.8
Motor Gasoline	1,038	1,015	1,024	-22	9	-2.2	0.9
Jet Fuel & Kerosene	128	119	117	-9	-2	-7.2	-1.4
Gas/Diesel Oil	1,026	990	989	-35	-1	-3.4	-0.1
Residual Fuel Oil	172	144	135	-28	-9	-16.1	-6.1
Other Products	440	444	440	5	-4	1.1	-0.9
Total Products	3,192	3,101	3,098	-91	-3	-2.9	-0.1

SUPPLY

Summary

- **After hefty gains in June and July, global oil supplies dropped by 0.3 mb/d in August on lower non-OPEC output.** At 96.9 mb/d, world oil production was 0.3 mb/d below a year ago, but near-record OPEC supply just about offset steep declines from non-OPEC. Including NGLs, OPEC production was an impressive 1.1 mb/d higher than a year earlier.
- **OPEC crude oil output edged up 30 kb/d in August to 33.47 mb/d - testing a record rate as Middle East producers turned up the taps.** Kuwait and the UAE pumped at unprecedented levels and Iraq lifted supplies. Output from Saudi Arabia held near an all-time high and production from Iran bumped up to 3.64 mb/d. Overall OPEC crude output stood 930 kb/d above a year ago.
- **Saudi Arabia's elevated oil production has allowed it to overtake the US and become the world's largest oil producer.** The US had held the top rank since April 2014 when the rapid rise of light tight oil saw it vault past Saudi Arabia. Since May, however, we estimate that the US has shut in 460 kb/d of high-cost production, while the low-cost oil fields of Saudi Arabia have cranked out an extra 400 kb/d.



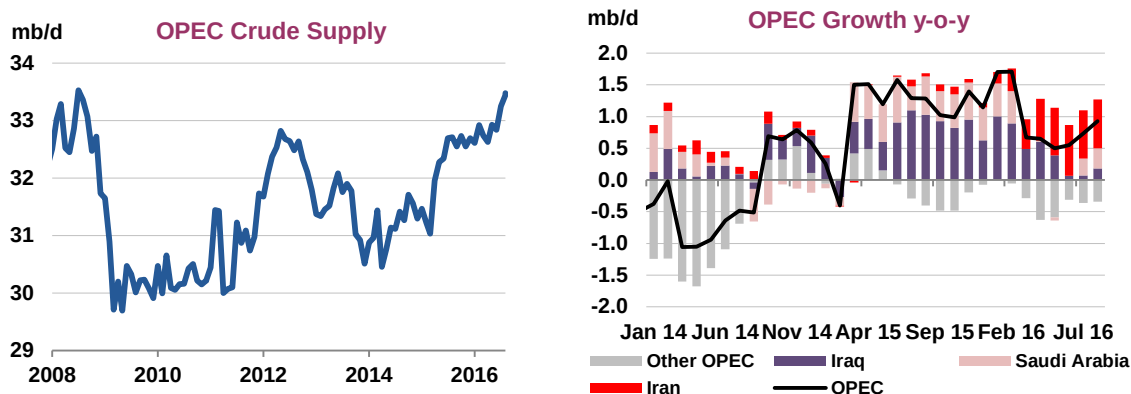
- **Non-OPEC oil production fell by 0.3 mb/d in August to 56.4 mb/d on weaker output from the US, Russia, Kazakhstan and the North Sea.** Total supplies stood 1.4 mb/d below the previous year with the US accounting for roughly half the annual loss. Other notable declines stemmed from China, Colombia, Mexico and Australia.
- **The 2017 non-OPEC supply forecast has been revised marginally higher** due to a strong performance from Norway and a slight adjustment to Russian output. Growth of 380 kb/d is expected in 2017 following this year's anticipated decline of 840 kb/d.
- **According to the new IEA *World Energy Investment -2016* report** - to be released on 14 September – major oil companies cut capital expenditure by 21% in 2016 and 19% in 2015, resulting in a \$60 billion reduction in upstream spending. While the drop is largely a function of significant cost deflation, a slowdown in activity and delay in projects are also factors.

All world oil supply data for August discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary August supply data.

OPEC crude oil supply

OPEC crude oil output rose towards unprecedented levels in August as Middle East producers ramped up and lifted overall supply to 33.47 mb/d. The biggest increases were from Kuwait and the UAE, which pumped at their highest ever. Modest gains were posted by Iraq, while Iran nudged output to a post-sanctions high of 3.64 mb/d. Saudi Arabia held output near a record 10.65 mb/d. Such vigorous Middle East production pushed overall OPEC crude oil supplies 930 kb/d above a year ago.

Since May, OPEC crude supply has risen by 640 kb/d led by higher flows from Saudi Arabia. Saudi Energy Minister Khalid al-Falih has said the Kingdom is pumping harder to cover rising seasonal domestic demand and to meet increased export requirements. Riyadh's record output has also allowed it to push past the US to become the world's largest oil producer. The US had held the top slot since April 2014 when the swift rise of light tight oil saw it overtake Saudi Arabia. Since May, however, we reckon some 460 kb/d of high-cost oil production has been shut down in the US, while the low-cost oil fields of Saudi Arabia have cranked out 400 kb/d more.



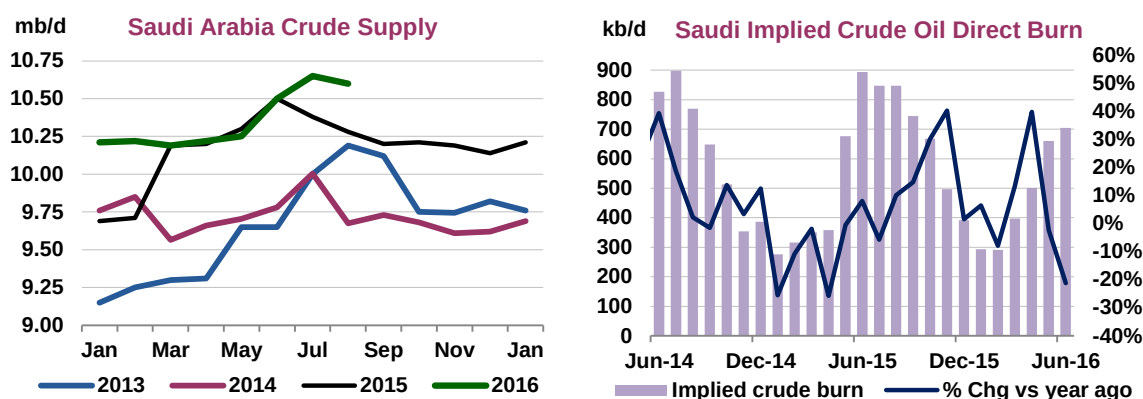
Top crude oil producers Saudi Arabia and Russia have meanwhile agreed to cooperate in an effort to stabilise oil prices. A joint statement – which offered no concrete steps to reduce the global inventory overhang – followed a meeting between Russian President Vladimir Putin and Saudi Deputy Crown Prince Mohammed bin Salman at a G20 gathering.

OPEC ministers will meet on the sidelines of the International Energy Forum in Algeria from 26-28 September, which may set the stage for OPEC's ministerial gathering in November.

Crude oil supply in **Saudi Arabia** dipped to 10.6 mb/d in August – holding near record rates as Riyadh met higher internal consumption and kept a steady pace on crude sales to world markets. So far this year, Saudi output has risen to an average 10.36 mb/d – up nearly 200 kb/d on January-August 2015. During much of this year, the Kingdom has drawn down its crude oil stockpiles to preserve exports and help cover growing demand from domestic refiners.

Saudi power plants also require more crude during the sweltering summer months when air conditioning usage peaks. During June, nearly 200 kb/d less crude oil was burned versus a year ago, according to the latest official data from the Joint Organisations Data Initiative (JODI). The crude burn figure of 704 kb/d marks the first year-on-year decrease during June since 2013.

Saudi Energy Minister Khalid al-Falih told the Saudi Press Agency the lower summer crude burn so far this year was due to energy efficiency measures as well as higher electricity and oil product prices that have slowed demand growth. He made no mention of the ramp up of the giant Wasit gas plant that had been expected to reduce crude burn by at least 100 kb/d. Al-Falih said in June that once the Wasit facility is fully up and running, about 300 kb/d of crude could be spared.



On the export front, Saudi crude shipments rose by 160 kb/d to reach 7.46 mb/d during June, according to JODI figures. Domestic refineries ran 2.38 mb/d of crude – up a touch on May. Crude oil stockpiles rose from 289.2 million barrels in May to 289.4 million barrels – the first build since October 2015.

Neighbouring Gulf countries **Kuwait** and the **UAE** turned in record-smashing performances during August. Kuwaiti output climbed 40 kb/d to 2.91 mb/d after the start-up of an early production facility in the northern oil fields. The UAE's higher flows were mostly due to rising output from the offshore Upper Zakum field, one of the world's largest. Zakum Development Co (Zadco), the joint venture that operates the field, is held 28% by ExxonMobil, 12% by Jodco and 60% by the Abu Dhabi National Oil Co. Exxon said at the end of July that aggregate gross production had reached about 670 kb/d and would hit 750 kb/d by 2018. **Qatari** output slipped to 650 kb/d.

OPEC Crude Production

(million barrels per day)

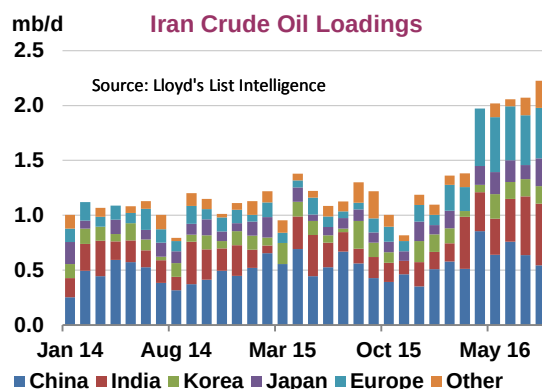
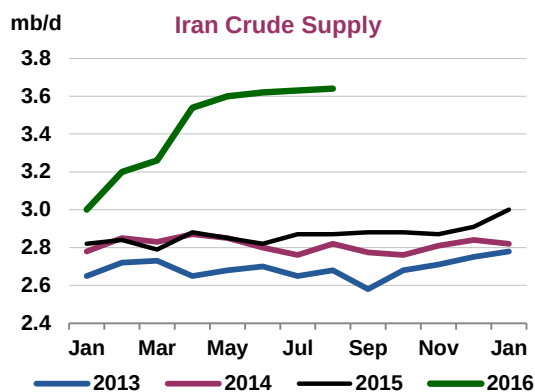
	Jun 2016 Supply	Jul 2016 Supply	Aug 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Aug 2016 Supply	YTD Average Supply
Algeria	1.10	1.11	1.11	1.12	0.01	1.10
Angola	1.74	1.76	1.76	1.78	0.02	1.76
Ecuador	0.55	0.55	0.55	0.55	0.00	0.55
Gabon	0.22	0.22	0.21	0.21	0.00	0.22
Indonesia	0.74	0.74	0.74	0.74	0.00	0.73
Iran	3.62	3.63	3.64	3.65	0.01	3.44
Iraq	4.25	4.32	4.35	4.40	0.05	4.30
Kuwait ²	2.87	2.87	2.91	2.91	0.00	2.84
Libya	0.32	0.30	0.28	0.40	0.12	0.33
Nigeria	1.51	1.46	1.46	1.70	0.24	1.60
Qatar	0.66	0.66	0.65	0.67	0.02	0.66
Saudi Arabia ²	10.50	10.65	10.60	12.20	1.60	10.36
UAE	3.01	3.03	3.07	3.09	0.02	2.92
Venezuela	2.16	2.15	2.14	2.20	0.06	2.25
Total OPEC	33.25	33.45	33.47	35.62	2.15	33.03
<i>(excluding Iraq, Nigeria, Libya)</i>					1.74	

¹ Capacity levels can be reached within 90 days and sustained for an extended period.

² Includes half of Neutral Zone production.

Iranian output edged up to 3.64 mb/d, with August marking the fourth straight month at or above the 3.6 mb/d mark, which suggests output is levelling off. Shipments of crude oil rose to 2.2 mb/d, the rate at which Iran was exporting before sanctions were tightened in mid-2012. At that time, Asia accounted for roughly 70% of the volume.

Since May, the National Iranian Oil Co (NIOC) has been selling more than 2 mb/d of crude. Europe has been lifting close to 500 kb/d, with shipments during August at around 460 kb/d, according to preliminary tanker tracking data that are regularly revised. Loadings to the Netherlands slumped to 30 kb/d from 65 kb/d, while exports to France dried up completely. Italy ramped up 80 kb/d to 145 kb/d and Turkey lifted 155 kb/d versus 140 kb/d the month before. Loadings for Greece and Spain held steady, with each lifting roughly 60 kb/d.

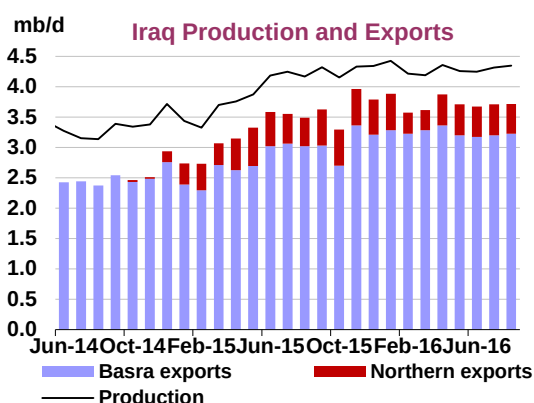


As for Asia, purchases from China, Iran's biggest customer, fell to 540 kb/d in August from 640 kb/d the previous month as Chinese domestic demand stumbled (see *Demand*). Loadings to India rose to 560 kb/d from 530 kb/d during July. Japan purchased 125 kb/d more in August versus loadings of 130 kb/d in July. Exports to South Korea held near 160 kb/d. Shipments of condensates slowed to around 160 kb/d from 230 kb/d during July. Iran is storing 42 million barrels of ultra-light oil from Iran's South Pars gas project at sea.

NIOC has meanwhile pushed back the debut of a new heavy sour crude to the end of this year to allow flows to ramp up from southwest fields such as Yadavaran and Azadegan. The West of Karun grade, which is expected to compete with Iraqi Basra Heavy, was due to be launched in the middle of this year.

As for the upstream, Iran intends to invite international oil companies in October to bid for oil field development projects using its new Iran Petroleum Contract (IPC). The onshore South Azadegan field that is shared with Iraq is likely to be first on the block, according to Ali Kardor, Managing Director of NIOC. The final version of the IPC has a 20-year lifespan and includes a per/barrel fee that would be paid to foreign partners. Iranian officials say production is expected to climb to 4 mb/d by the end of the year. Our assessment is that with the help of foreign cash and technology, Iran could push capacity up towards the 4 mb/d mark by the end of the decade.

Iraqi crude production rose by 30 kb/d to 4.35 mb/d during August as southern fields ramped up and raised shipments from the Gulf and covered higher domestic requirements.

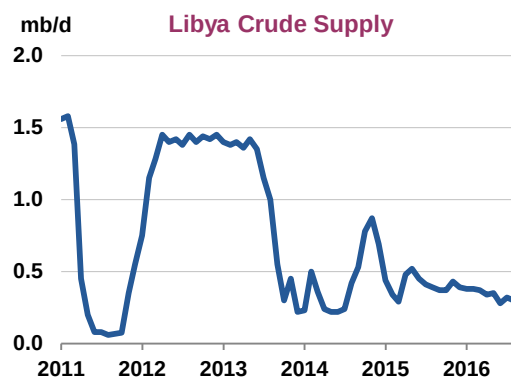


Overall exports, including from the Kurdistan Regional Government (KRG), edged up to 3.72 mb/d in August, with the south rising by 30 b/d and northern shipments from Kurdistan through Turkey dipping 20 kb/d to 490 kb/d. The KRG's oil exports slipped following an end-July attack on the core Bai Hassan field near Kirkuk, but volumes should get a boost in September following a new pact with Baghdad to split the proceeds from federally-controlled Kirkuk oil. Operations at the 70 kb/d Bai Hassan south complex restarted around 20 August.

The KRG took charge of the 170 kb/d Bai Hassan field and Kirkuk's Avana dome in June 2014 after the Islamic State of Iraq and the Levant (ISIL) swept through northern Iraq and declared Mosul its de facto capital. Iraq's North Oil Co (NOC) remains in control of Kirkuk's Baba dome and the adjacent Jambour field. NOC had been routing some 150 kb/d of Kirkuk through the KRG's pipeline to Turkey since mid-2014, when ISIL sabotaged the federal export pipeline to the Turkish Mediterranean.

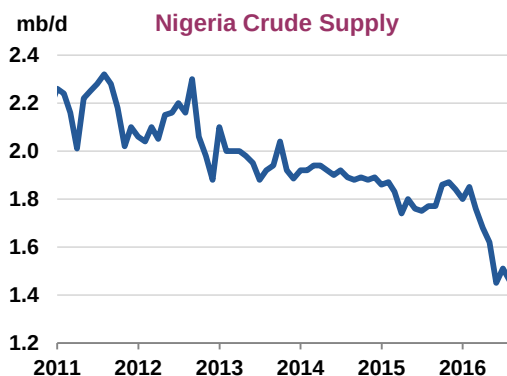
Tensions flared when the KRG began to market all the crude from mid-2015 and Baghdad called a halt to flows from March of this year. Iraq's new oil minister, Jabbar al-Luaibi, ordered the pumping to restart just days after assuming office in mid-August. Luaibi ran Iraq's South Oil Co (SOC) from 2003-2008 and led the rebuilding of the battered oil sector following the 2003 US-led invasion.

Output in **Libya** inched down by 20 kb/d to 280 kb/d in August and a potential recovery could be jeopardised after fighters loyal to an east Libyan commander seized strategic oil ports on 11 September. Khalifa Haftar's forces reportedly had full control of the eastern ports of Es Sider, Ras Lanuf, Zueitina and Brega. A deal had been struck in late July between Libya's UN-backed government and the Petroleum Facilities Guard (PFG) to reopen the terminals. Ras Lanuf and Es Sider - shut since December 2014 and damaged by repeated attacks by Islamist militants - can ship nearly 600 kb/d between them. Zueitina can handle about 150 kb/d.



Libya's National Oil Corp (NOC) has chartered two tankers to load crude from storage at Ras Lanuf for later in September, but it is unclear whether the liftings will take place.

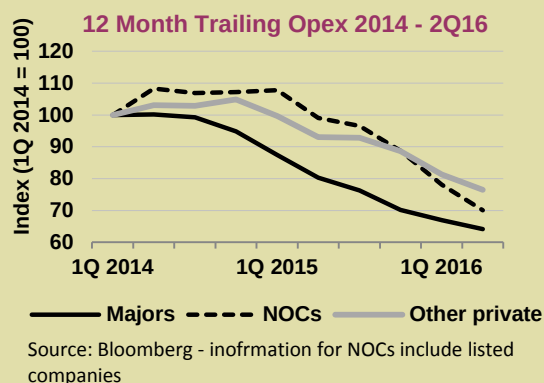
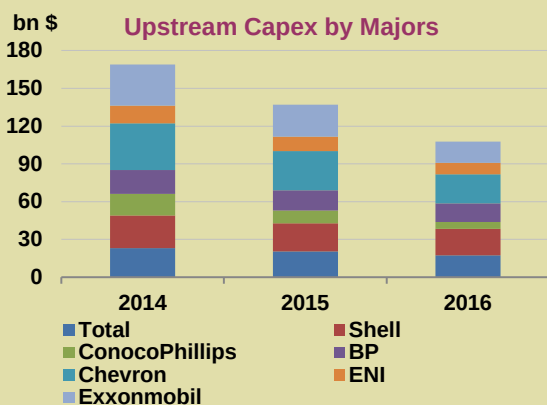
Output in **Nigeria** held steady in August at 1.46 mb/d as militant attacks continued to disrupt supplies. Production could bounce higher in September after Shell Nigeria said it lifted *force majeure* on Bonny Light from 6 September following the re-opening of the Nembe Creek Trunk Line. The key pipeline that feeds the 200 kb/d Bonny Light export terminal had been shut down in mid-August due to a leak.



Repeated sabotage of Nigeria's oil sector since February has sunk output to near 30-year lows and three major crude oil streams are still impacted. The Shell-operated Forcados export pipeline was bombed in mid-February, closing in more than 200 kb/d. Market participants expect Forcados loadings to restart towards the end of September. The Exxon-operated 330 kb/d Qua Iboe system, Nigeria's biggest stream, was hit in July. Brass River has been under *force majeure* since late May due to a pipeline attack.

Oil majors keep slimming down

Two years on from the start of oil's plunge, major oil companies are still cutting costs, maximising effective operations and improving efficiency. Their first response to lower oil prices was to make sharp reductions in upstream capital expenditure (capex). Estimated capex cuts of around one-fifth in both 2015 and 2016 have wiped \$60 billion off upstream investment in just two years. While this spending decline is largely due to significant cost deflation, a slowdown in activities and delays in projects are also factors that could impact supplies in the medium term.



Companies are also slashing operating costs (opex) - a significant component of their budgets. Since mid 2014, the majors have cut opex by more than 35%, with further reductions of around 5% targeted by the end of 2016.

Financial conditions have meanwhile deteriorated significantly and the cash flow generated from operations is not enough to cover investments and generous dividends. As a result, companies are relying more on external sources for financing. As of 2Q16, the majors had raised their debt by about \$100 billion, reaching a total of \$350 billion - a 40% increase since mid-2014. Although still much less leveraged versus other business sectors, their net debt to equity ratio has almost doubled.

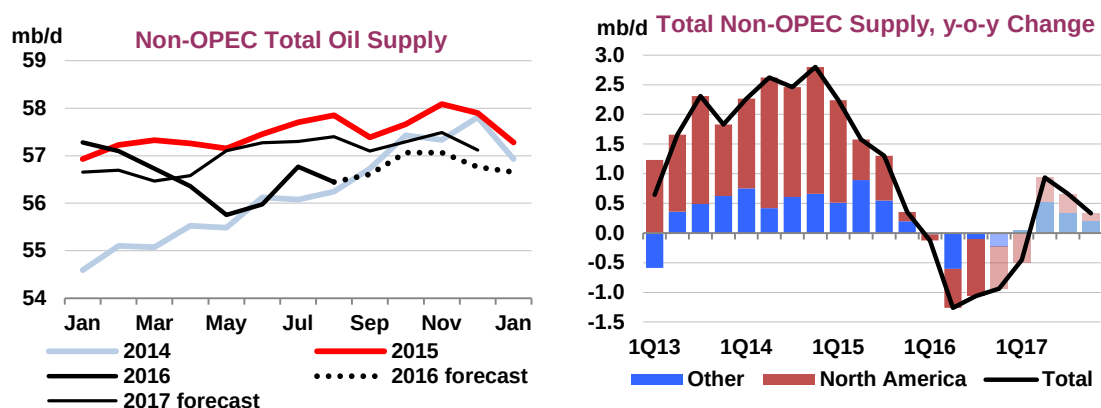
The new IEA Report "World Energy Investment -2016" details the state of investment across technologies, sectors and regions. It also includes analysis on investment in the oil and gas sector with a particular focus on upstream cost trends. See www.iea.org for more information.

Non-OPEC overview

After two consecutive months of rising supplies, total non-OPEC oil production declined by 0.3 mb/d in August to 56.4 mb/d. The US accounted for most of the loss, while maintenance at the Exxon-operated Sakhalin field dropped Russian output to its lowest in more than a year. The massive Tengiz field in Kazakhstan was also operating at reduced levels. North Sea loading schedules indicate that output eased after a bumper month in July.

US crude production dropped by 190 kb/d in June, the latest month for which official monthly data is available, as lower Gulf of Mexico (GoM) output added to onshore declines. Despite a recent uptick in drilling activity, with 98 new rigs added to the US shale patch since May, tight oil output is expected to continue to decline for months to come. While the actual drilling and completion time for horizontal wells in the US is rather short, the average time-lag between a rig entering operation and first oil flowing is normally between five and six months. US tight oil output is expected to bottom out in 3Q16, with annual growth resuming in the second half of 2017.

US oil supply is not only about tight oil. Output from the GoM and of natural gas liquids (NGLs) is more resilient to lower prices and spending cuts - at least in the short term. NGLs, which account for roughly 30% of total US oil output, increased by more than 9% y-o-y over 1H16. Output from the GoM has also posted strong growth so far this year, although shutdowns - including precautionary shut-ins of installations ahead of tropical storm Hermine in late August - have curbed output in recent months.



Despite sharp spending cuts and massive layoffs, Norwegian oil output surged more than 320 kb/d in July according to preliminary data from the Norwegian Petroleum Directorate (NPD). If confirmed, July saw the highest production since March 2011. While output is likely to have eased in August and September, the outlook seems to be improving. Operators are making concerted efforts to cut costs to make projects viable in a lower price environment (see *Norway does more with less*).

Non-OPEC Supply

(million barrels per day)

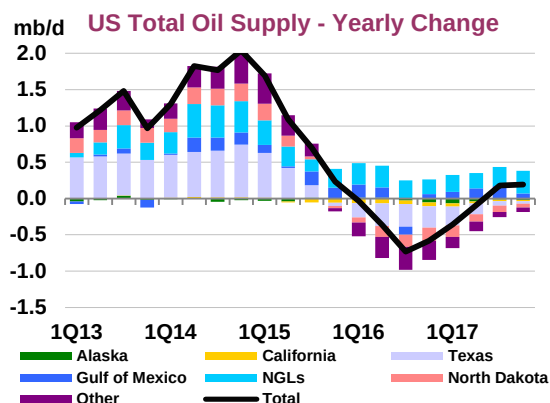
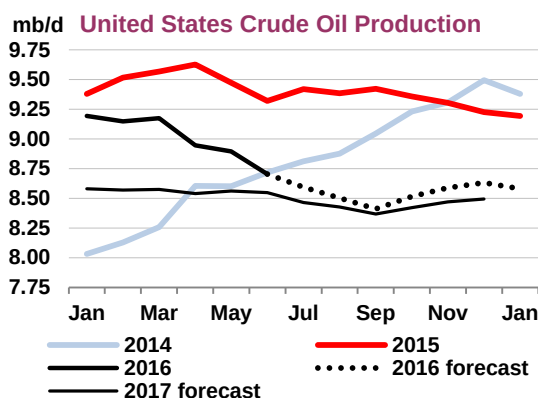
	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	19.9	19.9	18.9	19.1	19.3	19.3	19.4	19.3	19.4	19.5	19.4
Europe	3.5	3.6	3.4	3.4	3.5	3.5	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	23.9	24.0	22.8	22.9	23.3	23.2	23.3	23.2	23.1	23.3	23.2
Former USSR	14.0	14.2	14.0	13.9	14.1	14.1	14.2	14.2	14.2	14.4	14.3
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.1	4.0	4.0	4.1	4.0	4.0	3.9	3.9	4.0
Other Asia	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.6	2.6
Latin America	4.6	4.4	4.5	4.6	4.7	4.5	4.7	4.7	4.8	4.8	4.7
Middle East	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2
Africa	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	29.1	28.9	28.6	28.7	29.0	28.8	29.0	29.0	29.0	29.2	29.1
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.5	57.0	56.0	56.6	57.0	56.7	56.6	57.0	57.3	57.3	57.0
Annual Chg (mb/d)	1.4	-0.1	-1.3	-1.0	-0.9	-0.8	-0.4	1.0	0.7	0.3	0.4
Changes from last OMR (mb/d)	0.0	0.0	-0.1	-0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.1

OECD

North America

US – June actual: Total US oil supplies fell by 205 kb/d in June, the latest month for which actual production figures are available. At 12.5 mb/d, US oil output was 350 kb/d lower than a year earlier, with steep declines in crude oil output partly offset by higher production of natural gas liquids – mostly ethane - which increased 360 kb/d y-o-y.

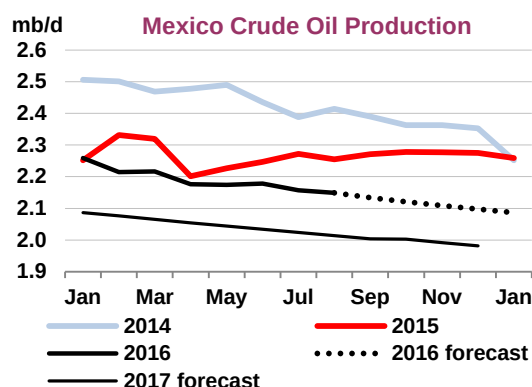
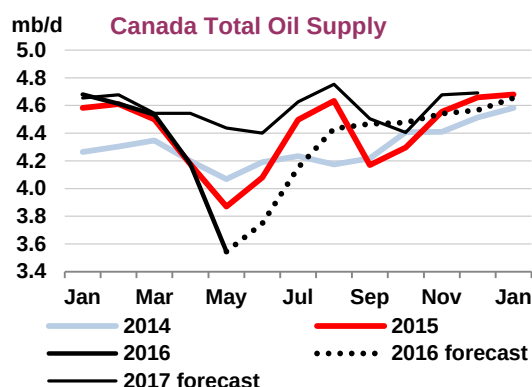
US crude production in June stood 615 kb/d below the previous year, dropping 190 kb/d on the month to 8.7 mb/d. While output was lower in all major producing regions, and tight oil production still accounts for the brunt of annual declines, it was the GoM, which recorded the largest monthly drop. GoM production, which fell by 70 kb/d, was – at 1.54 mb/d - nevertheless 130 kb/d above a year earlier. An explosion at Enterprise's 1.5 bcf/d Pascagoula Gas Processing Plant (PGP) in Mississippi on 27 June forced the closure of BP's Destin pipeline, lowering output by roughly 100 kb/d during July.



In August, the arrival of tropical storm Hermine in the Gulf of Mexico led several operators to evacuate staff and suspend operations at offshore installations. At its peak, on 30 August, the Bureau of Safety & Environmental Enforcement estimated that a total of 350 kb/d, or 22% of total GoM production was shut in. By 2 September, however, personnel were returning to affected platforms and operations resumed. In September, BP's Atlantis field (110 kb/d) will reportedly go offline for 35 days.

As for the onshore, output declines in Texas now amount to 290 kb/d compared with a year earlier, with lower conventional and Eagle Ford output only partly offset by continued gains from the Permian Basin. Producers continue to shift efforts from Bakken and Eagle Ford to Permian. Indeed, the Permian is the main onshore basin that is attracting capital, with 63 oil rigs added since mid-May out of a total of 98 rigs. Since the start of August, US producers added another 40 rigs – and had 414 active rigs by early September. Output is also under pressure in the Midwest, where North Dakotan output dropped another 21 kb/d, to 1.02 mb/d, in June to stand 180 kb/d below a year earlier.

Canada – Alberta, Newfoundland June actual, others estimated: Official data published by Statistics Canada largely confirm our earlier estimates of Canadian oil production at around 3.5 mb/d during May – more than 1 mb/d below the 1Q16 average. Preliminary data from the Albertan Energy Regulator show the province's oil output, including bitumen and synthetic crude oil, recovered by some 350 kb/d in June, to 2.4 mb/d – still 660 kb/d less than volumes achieved at the start of the year. Providing a partial offset however, production from fields offshore Newfoundland fell by 50 kb/d in June on lower volumes from the Terra Nova production facility. For the year as a whole, the Albertan wildfires are estimated to have curbed total Canadian oil production by an average 60 kb/d. Supplies are expected to rebound by 250 kb/d in 2017.

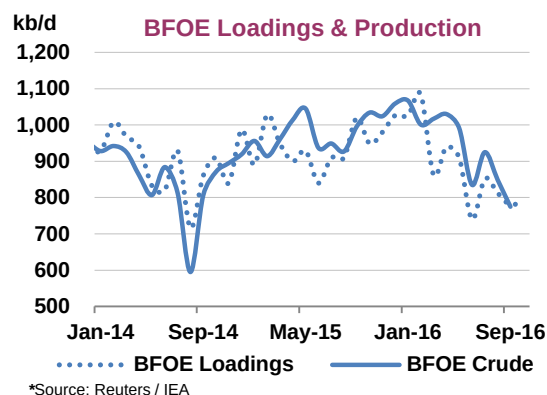


Mexico - July actual, August preliminary: Mexico's oil production was confirmed at 2.48 mb/d in July, 25 kb/d below June and 130 kb/d lower than the previous year. Preliminary data published by Pemex suggest production slipped marginally in August, indicating the continuation of annual declines of around

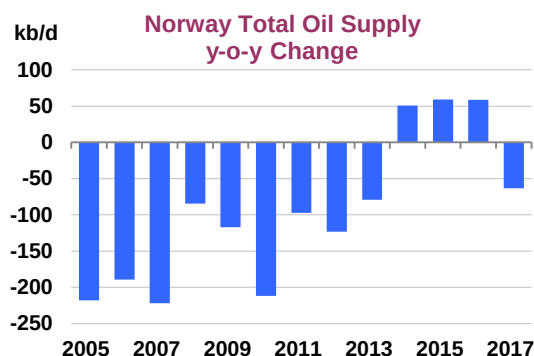
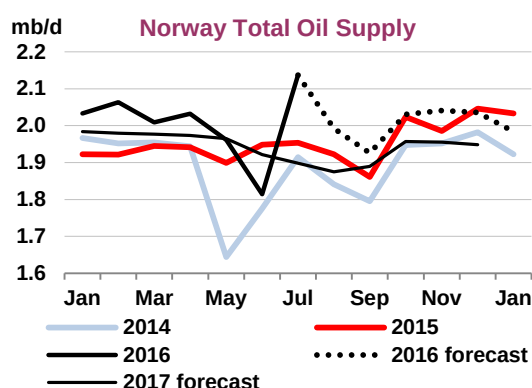
130 kb/d. For the year as a whole, Mexican oil production is expected to decline by 120 kb/d to 2.48 mb/d. In 2017, total output will drop a further 140 kb/d to 2.34 mb/d, of which 2.03 mb/d is crude.

North Sea

North Sea oil production surged in July to its highest level since April 2012, standing 270 kb/d above a year earlier. The 340 kb/d monthly increase was more than double the rise suggested by loading schedules as reported by Reuters, which indicated a 133 kb/d monthly increase. The same schedules show loadings eased in August on lower Statfjord, Asgard and Alvheim shipments. Loading programmes for Brent, Forties, Ekofisk and Oseberg (BFOE) suggest that the supply of the four North Sea crude oil grades that underpin the Brent oil benchmark will fall over the August-October period. BFOE output of will average just shy of 800 kb/d over the period, down from around 850 kb/d in July.



Norway – June actual, July provisional: Preliminary production figures show Norwegian output surging by 320 kb/d in July, after maintenance curbed output a month earlier. At 2.14 mb/d, total oil supply reached its highest in more than five years and stood some 180 kb/d above a year ago. The Norwegian Petroleum Directorate (NPD) attributed the large increase to many fields producing above expectations and to high output levels at the recently commissioned Goliat field – now Norway's fourth largest producer. In late August, however, Eni was forced to shut the platform due to a power failure. While power was quickly restored, the field remained shut while investigations were ongoing. Norwegian government officials were reported saying Eni can resume production at Goliat only after it can ensure operational safety. Despite the latest hiccups, the forecast for Norwegian oil output for 2016 and 2017 has been raised by 70 kb/d and 60 kb/d respectively on the latest stellar output levels, to 1.94 mb/d next year.



Norway does more with less

Statoil and partners are bringing down costs at the massive Johan Sverdrup field - the North Sea's largest oil discovery in more than three decades – and raising expectations on output. Statoil has cut costs by about 20%, with the first stage of the project estimated at 99 billion Norwegian crowns (\$11.96 billion). At the same time, output expectations for the first stage have been raised to 440 kb/d, well above the 315-380 kb/d initial estimate.

According to Statoil, the break-even price for the whole project is now below \$30/bbl - \$25/bbl for the first phase – with further gains possible. The overall cost of Sverdrup, including the second stage of the development, was lowered to a range of NOK 140 - 170 billion from NOK 170 - 220 billion. When fully developed, the field is expected to pump 660 kb/d.

Norway does more with less (continued)

While the industry's aggressive spending and cost-cutting drive has taken a toll on Norway's oil sector, the tide might be about to turn. Statoil said last month it has 30 offshore projects at the planning stage that could trigger NOK 280 billion (\$33.8 billion) in new investments. It has managed to cut the average break-even price for these projects to around \$40/bbl from \$70/bbl in 2013.

Cheaper equipment, simpler concepts and more efficient drilling have allowed offshore operators in Norway to push down development costs by more than 40% in the past two years, according to a study published in August by the Norwegian Petroleum Directorate (NPD).

Investment estimates for the Utgard, Oda, Zidane, Trestakk, Snilehorn, Johan Castberg, Snorre Expansion and Johan Sverdrup Phase 2 projects have fallen from about NOK 270 to 150 billion (\$18.1 billion), according to the NPD. Of the eight projects, only the Statoil-operated Utgard field has been given the formal go-ahead.

The biggest part of the cuts is the result of simpler development solutions. For instance, Statoil has opted for a subsea solution rather than a new platform at Snorre, and a FPSO instead of a platform and pipeline development at Johan Castberg. In addition, lower rig rates and simpler well design have pushed down drilling and well costs that normally account for about 30% of the overall development budget. Pipeline and cable spending will also drop because of lower material prices and simpler solutions and modifications, the NPD said.

Statoil's priority projects are the Johan Castberg and Askeladd developments in the Barents Sea, the Njord Future revamp in the Norwegian Sea, expansion of the North Sea Snorre facilities, the Troll Future project at the country's largest gas field, and the second phase of the giant Johan Sverdrup development.

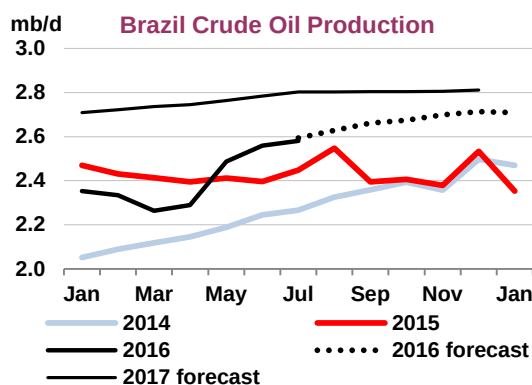
UK – June actual, July preliminary: Total UK oil production eased by 60 kb/d in June to 1.0 mb/d. Output was nevertheless 50 kb/d up on a year ago, contributing to an average annual 1H16 gain of 100 kb/d. Preliminary data suggest output recovered slightly during July ahead of maintenance that is expected to curb supplies in August and September. The UK's largest oil field – Buzzard – which contributes to the Forties stream, is due to be overhauled during September. UK production is expected to rise for a second consecutive year in 2016, reversing more than a decade of annual declines. Output is forecast to increase by 50 kb/d on average in 2016 to 1.02 mb/d, before declining by 60 kb/d in 2017. Steep spending cuts over the past few years and a material decline in drilling rates is likely to cause accelerated slowdown at mature fields – providing an offset to new field start-ups.

Non-OECD

Latin America

Brazil – July actual: Total Brazilian crude oil production inched up 20 kb/d to a record 2.58 mb/d in July, 130 kb/d more than a year earlier. According to the ANP, pre-salt production was roughly 1.06 mb/d from 65 wells. Brazilian output fell below year-earlier levels during the first four months of the year, as Petrobras carried out extensive maintenance and suffered from unscheduled outages. Since May, output has rebounded (see *Brazil bounces back* in August OMR) and more is coming.

Petrobras is planning to bring on 29 new offshore injection wells during 2H16, compared with 25 during 1H16. Oil from the new wells will start flowing in the coming months as wells are connected to floating production storage and offloading vessels (FPSOs). Following the commissioning of the FPSO Cidade de Saquarema, which started pumping crude from the Lula Central field in July, the FPSO Cidade de Caraguatatuba is currently being installed at the Lapa field. Another FPSO, the Cidade de Marica, installed in the Lula Alto field in February continues to ramp up, with full rates of



150 kb/d expected in early 2017. In all, Petrobras plans to bring on four new FPSOs in 2016 and another five units next year, though market intelligence suggest significant delays in the commissioning of several of these units until at least end-year if not to 2018. For instance, the hulls for the two floaters, P-74 and P-76, destined for the Buzio field just arrived in Brazil in August. Integration works are expected to take about a year and the units will likely only be ready towards the end of 2017. The P-66 and P-68 units, planned for the Lula field, have also faced delays and will most likely only be commissioned towards the very end of 2017 or in early 2018.

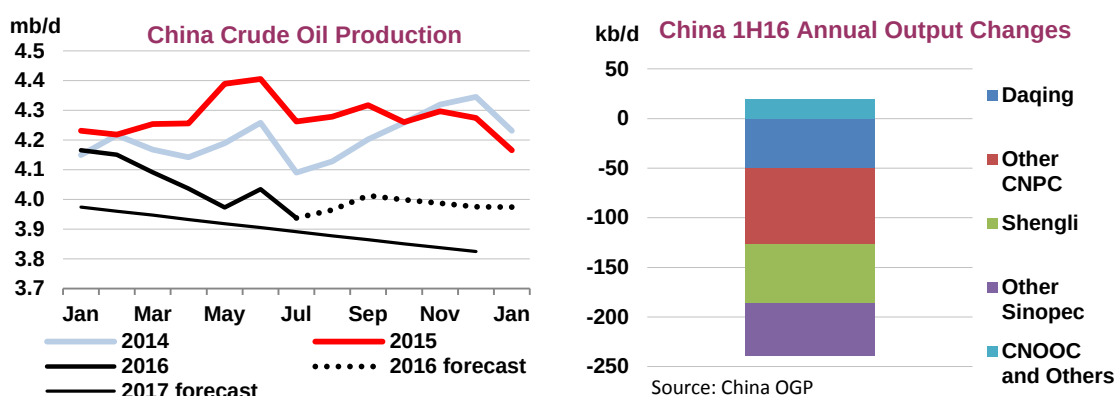
Total Brazilian oil output, including NGLs, is nevertheless forecast to grow by 85 kb/d, to an average 2.6 mb/d in 2016, before ramping up by another 290 kb/d in 2017 to an average 2.9 mb/d.

The impeachment and removal from office of President Dilma Rousseff on 31 August could accelerate reforms and an industry overhaul. That process has been at a standstill for the past two years after oil prices collapsed and the corruption scandal involving Petrobras, suppliers and government officials was uncovered in 2014. President Michel Temer, who has been sworn in for the remainder of the Presidential term until 1 January 2019, is expected to implement more business-friendly policies than the state-led model favoured by the Workers' Party since 2003. The Mines and Energy Ministry is planning to return to a schedule of regular bid rounds, after a five-year hiatus. As discussed in the August OMR, Brazil is also moving to change an obligation that Petrobras holds at least a 30% operating stake in all subsalt fields sold under the regime.

Colombia – July actual: Colombia produced an average 843 kb/d of crude oil in July, more than 100 kb/d less than a year earlier. Following hefty investment cuts and a priority towards protecting cash flow and capital discipline, state-owned Ecopetrol, which produces more than half of Colombia's oil, is gearing up to intensify exploration and drilling. The company plans to drill 80 more wells before the end of 2016, bringing its total for the year to 105. Ecopetrol cut its capex budget by \$1.8 billion earlier this year, to \$3-\$3.4 billion, but has already secured around 85% of its financing for 2016.

Asia

China – July actual: China's oil production continues to sink, with supplies falling by a further 100 kb/d in July. At 3.94 mb/d, Chinese crude output was 325 kb/d below a year earlier and at its lowest since October 2011. Some of July's loss was due to the precautionary shutdown of offshore oil installations during the passing of Typhoon Nepartak, which caused severe damage and flooding.



After a hiatus in the publication of monthly field level data since mid-2015, *China Oil Gas and Petrochemicals* (OGP) have released field-level output data for 1H16 and 2015. The data show that Daqing accounted for 40% of CNPC's total 125 kb/d output fall during the first half of this year compared with the same period a year earlier. Sinopec's Shengli made up more than half of its decline, losing 60 kb/d. Only CNOOC and 'other producers' reported gains, lifting Chinese production by 20 kb/d y-o-y. According to the data, total Chinese production was 220 kb/d lower than in 1H15.

Middle East

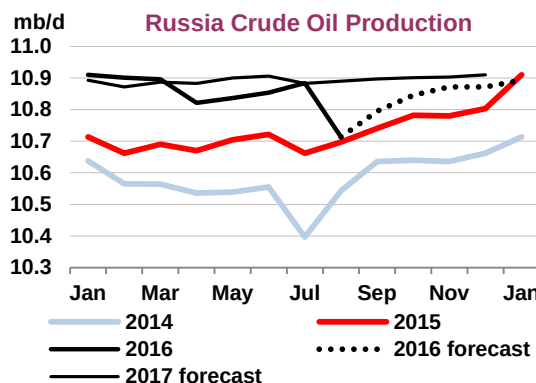
Oman – July actual: Oman's crude production, excluding condensates, hit a record 910 kb/d in July, lifting output 20 kb/d above a year ago. Including condensates, production of just over 1 mb/d was only a hair shy of a June record. Year-to-date, Omani oil supplies are up an average 28 kb/d compared to the same period a year ago.

In **Yemen**, meanwhile, the exiled government of President Hadi is making efforts to resume oil and gas production after all oil and gas projects were shut in early 2015 when war broke out. According to the state news agency *sabenew.net*, production from the Masila oil fields in the Hadramout province has already resumed, with oil delivered to the Aden refinery, which also resumed operations last month. According to statements from the country's oil minister, Yemen hopes to also resume production from the Shabwa and Marib oilfields, and is said to have contracted with a Saudi firm to rehabilitate the Hadramout oilfields that have resumed production. Yemen produced around 130 kb/d of crude in 2014.

Former Soviet Union

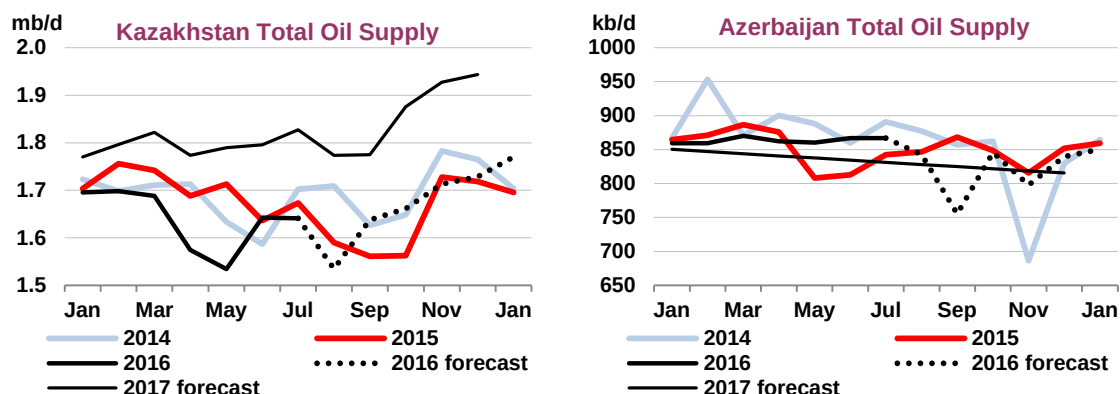
Russia – July actual, August provisional: Russian crude and condensate production dropped to the lowest level in more than a year in August, as Exxon and its joint venture partners shut the Sakhalin 1 field for 22 days of maintenance. At 10.71 mb/d, total crude output was still close to last year's level. Novatek and Gazpromneft lifted production by 80 kb/d and 64 kb/d y-o-y, respectively. Lukoil, Russia's second largest producer, held supply steady at 1.63 mb/d but recorded annual declines of around 80 kb/d, or 4.7%, as its mature fields in Western Siberia continued to drop. Rosneft also held output steady m-o-m. Increased drilling at two of its largest subsidiaries, Yuganskneftegaz and Samotlorneftegaz pushed up output at the mature fields by a respective 50 kb/d and 85 kb/d from a year ago.

Meanwhile, Russian Prime Minister Dmitry Medvedev announced in August that the privatisation of Bashneft had been postponed for an unspecified period of time. The planned sale of the state's stake in Bashneft had been expected to generate at least \$5 billion in revenues to help reduce Russia's 2016 budget deficit, which is on pace to exceed the government's 3% target for the year. Numerous reasons were cited for the privatisation postponement, including a proposal to sell a 19.5% state stake in Rosneft before proceeding with the Bashneft sell-off. Without any privatisation revenues from the sale of the Bashneft or Rosneft stakes, the pressure on the Government's Reserve Fund will continue to mount. The Fund is already being drawn down quickly to compensate for lower oil revenues and to maintain spending, and the Fund could be exhausted even before next year – when the Ministry of Finance is projecting that reserves will dwindle to zero – without a new influx of cash or a change in the government's approach.



The government has several options to fund its budget deficit, including: emitting bonds, reducing expenses, increasing taxation, drawing on the pension reserves, or pursuing further privatisations. An increase in the oil price could lead to the rouble strengthening further, which would not necessarily help the budget. The government might again resort to seek new revenues from the oil and gas sector by imposing higher taxes and postponing the tax manoeuvre. Russia's Finance Ministry plans to cut the oil export duty coefficient to 30 percent next year, from 42 percent currently, and to raise the mineral extraction tax (MET) for oil. The Russian government opted this year to postpone its plan to cut the oil export duty while raising the MET, increasing tax burden on the oil sector. According to the finance ministry, the MET will increase again in 2017.

Kazakhstan – July actual: Kazakh crude oil production held steady in July at around 1.56 mb/d, some 30 kb/d below a year earlier. Output is estimated to have dropped by roughly 100 kb/d in August as planned maintenance at the Tengizchevroil (TCO) oil fields cut CPC export loadings to the lowest in nearly three years. According to Reuters, CPC Blend oil exports were set at around 640 kb/d in August versus shipments of around 780 kb/d in July.



Azerbaijan – July actual: Azeri oil production in July was steady on the previous month, hovering around 870 kb/d - including condensates from the Shah Deniz gas field. Output is forecast to fall during 2H16 due to maintenance on the offshore Azeri-Chirag-Guneshli (ACG) platform. The maintenance will affect exports of BTC blend – which consists mainly of Azeri Light from ACG - with loadings dropping to 660 kb/d in September, the lowest since December. ACG operator BP began a month-long maintenance programme at the deepwater Guneshli platform on 1 September. In the first half of 2016, BTC – which also carries Turkmen and Kazakh volumes - exported an average 720 kb/d.

FSU net oil exports:

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	3Q2015	4Q2015	1Q2016	2Q2016	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Jul 16 vs Jun 16	Jul 15
Crude														
Black Sea	1.62	1.64	1.59	1.60	1.82	1.60	1.72	1.96	1.64	1.49	1.67	1.67	0.00	0.08
Baltic	1.33	1.45	1.38	1.51	1.54	1.65	1.60	1.53	1.75	1.65	1.56	1.55	-0.01	0.29
Arctic/FarEast	1.14	1.42	1.42	1.48	1.66	1.83	1.65	1.73	1.78	1.82	1.90	1.82	-0.08	0.40
BTC	0.60	0.62	0.61	0.61	0.70	0.70	0.77	0.63	0.59	0.78	0.73	0.74	0.01	0.02
Crude Seaborne	4.69	5.13	4.99	5.21	5.71	5.79	5.74	5.85	5.77	5.74	5.87	5.79	-0.07	0.80
Druzha Pipeline	1.01	1.07	1.06	1.08	1.04	1.05	1.09	1.03	1.06	1.07	1.02	1.09	0.07	0.05
Other Routes	0.40	0.24	0.23	0.21	0.21	0.18	0.21	0.20	0.19	0.18	0.18	0.19	0.01	-0.03
Total Crude Exports	6.14	6.43	6.28	6.50	6.96	7.02	6.91	7.01	6.86	6.79	6.81	6.81	0.01	0.56
of which: Transneft ¹	3.88	4.19	4.08	4.23	4.32	4.44	4.27	4.41	4.64	4.41	4.26	4.30	0.03	0.30
of which: Russian crud	4.02	4.42	4.30	4.47	4.57	4.89	4.56	4.67	4.95	4.87	4.83	4.71	-0.12	0.51
Products														
Fuel oil ²	1.72	1.49	1.31	1.48	1.35	1.33	1.08	1.35	1.28	1.24	1.46	1.34	-0.12	0.07
of which: VGO	0.27	0.25	0.25	0.28	0.22	0.27	0.23	0.14	0.32	0.23	0.27	0.34	0.08	0.08
Gasoil	0.95	0.98	0.82	0.84	1.17	0.96	1.14	1.21	0.95	0.95	0.99	0.87	-0.12	0.02
Other Products	0.57	0.66	0.58	0.66	0.71	0.71	0.76	0.63	0.69	0.77	0.68	0.65	-0.03	0.03
Total Product	3.25	3.13	2.71	2.97	3.22	3.00	2.98	3.19	2.93	2.95	3.13	2.86	-0.27	0.12
Total Exports	9.38	9.56	8.98	9.46	10.10	9.82	9.90	10.19	9.79	9.75	9.94	9.68	-0.26	0.68
Imports	0.08	0.07	0.07	0.08	0.05	0.05	0.04	0.06	0.05	0.06	0.05	0.05	0.00	-0.03
Net Exports	9.30	9.50	8.91	9.38	10.05	9.77	9.86	10.14	9.74	9.69	9.89	9.62	-0.26	0.70

Sources: Argus Media Ltd, IEA estimates

¹Transneft data exclude Russian CPC volumes.

²Includes Vacuum Gas Oil

STOCKS

Summary

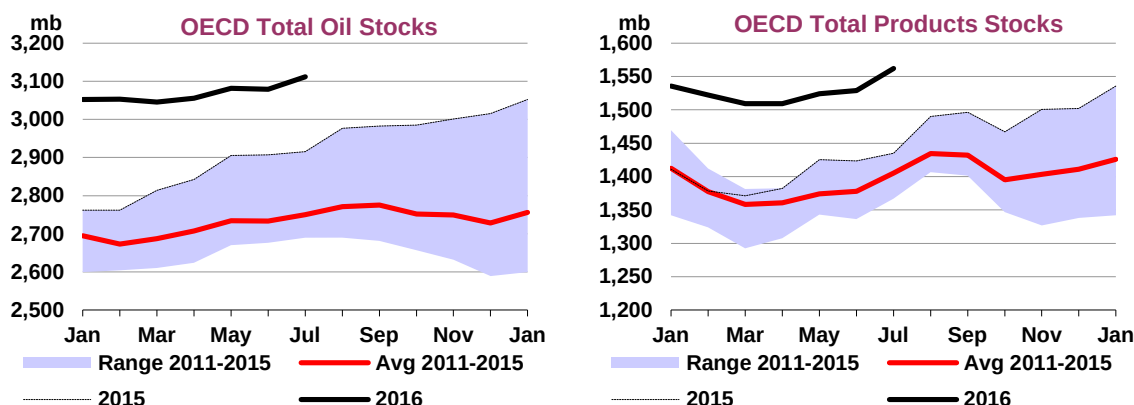
- **OECD total inventories built by 32.5 mb in July** to a fresh record of 3 111 mb. As refinery activities reached a summer peak, crude oil inventories refused to decline until an exceptional storm-related draw hit the US in late August.
- **Refined product markets are still on two tracks**, with gasoline starting the journey towards more normal levels, at least in the US, while the diesel overhang appears to have stopped growing in the west as barrels move eastwards.
- **LPG markets are in a glut of their own**, with 'other products', chiefly propane, struggling to find outlets in a globally oversupplied gas liquids market.
- **Chinese implied crude balances** showed another strong build in August, after having eased June-July, as customs data showed exceptionally high crude imports.

Latest member countries' submission to the IEA is June 2016. End-July and end-August preliminary data for major countries is estimated based on various sources, subject to availability: preliminary submissions, Euroilstock, JODI and national statistics.

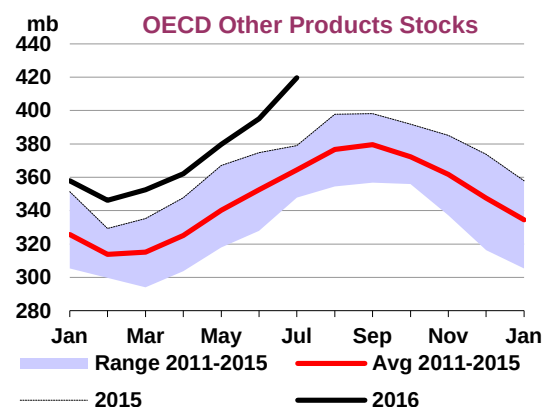
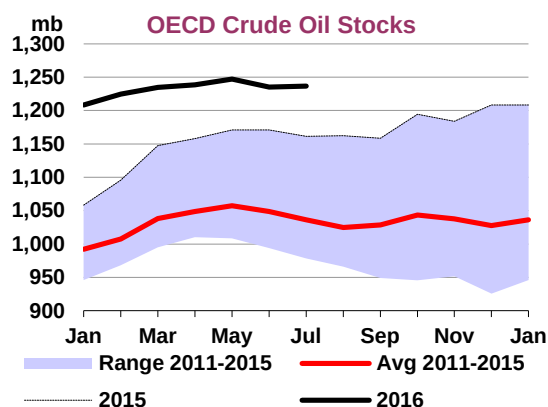
OECD inventory position at end-July

OECD total industry oil inventories built by a strong 32.5 mb in July, in line with seasonal trends but almost twice the usual build, according to preliminary data. Total inventory levels of 3 111 mb now sit at yet another record high.

Crude oil stock levels did not follow their usual draw, coinciding with the yearly peak of refinery activity in the OECD between spring and fall maintenance, and instead remained about flat, propped up by the US and Europe, notwithstanding draws in Korea and Japan.



In contrast to crude, products built strongly in all OECD regions - by over 33 mb - exceeding their seasonal norm. The usual dissection of crude versus products gives a misleading picture, as most of the exceptional build belongs to the 'other products' category composed mostly of gas liquids, and chiefly US propane. The build in refined liquid products, namely motor gasoline, middle distillates and fuel oil, amounts to a mere 8 mb out of the total 33 mb, and it is roughly half its seasonal norm.



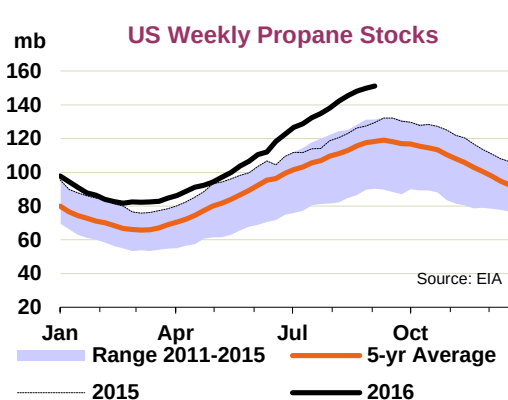
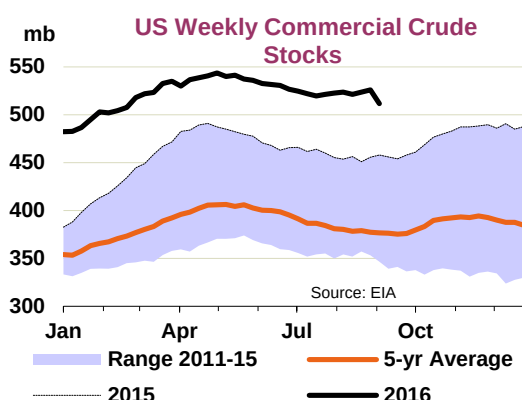
Preliminary Industry Stock Change in July 2016 and Second Quarter 2016

	July 2016 (preliminary)				(million barrels per day)				Second Quarter 2016			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	-0.2	8.0	-6.5	1.4	-0.01	0.26	-0.21	0.04	-0.14	0.08	0.07	0.01
Gasoline	-2.0	-0.8	-1.6	-4.4	-0.06	-0.03	-0.05	-0.14	0.01	-0.04	0.00	-0.03
Middle Distillates	4.6	4.5	5.2	14.3	0.15	0.15	0.17	0.46	-0.23	0.04	0.09	-0.10
Residual Fuel Oil	-1.2	-0.4	0.4	-1.2	-0.04	-0.01	0.01	-0.04	-0.04	-0.07	-0.01	-0.12
Other Products	17.5	1.9	5.2	24.6	0.56	0.06	0.17	0.79	0.44	0.01	0.02	0.47
Total Products	18.8	5.1	9.3	33.3	0.61	0.17	0.30	1.07	0.17	-0.06	0.10	0.21
Other Oils ¹	-1.5	-0.9	0.3	-2.1	-0.05	-0.03	0.01	-0.07	0.14	-0.01	0.02	0.14
Total Oil	17.2	12.2	3.1	32.5	0.55	0.39	0.10	1.05	0.17	0.01	0.18	0.36

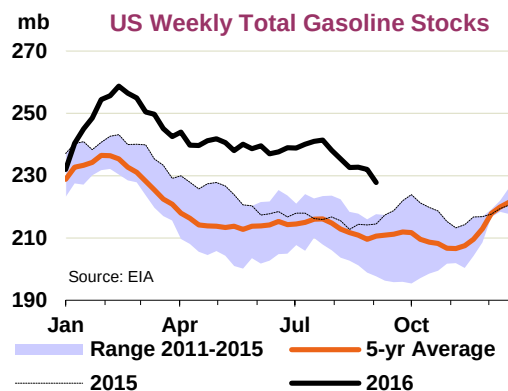
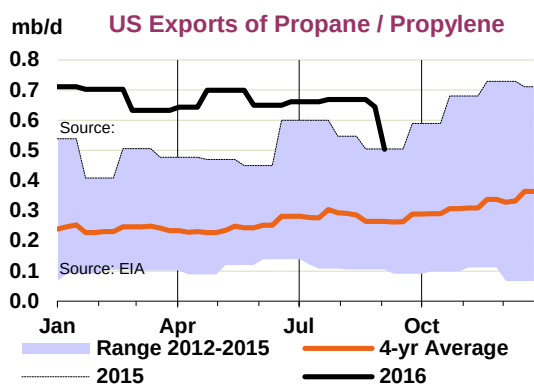
1. Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD Americas

Weekly July and August US data, compiled by the Energy Information Administration (EIA), show crude stocks stubbornly defying seasonal trends and refusing to draw, remaining basically unchanged until the end of August. At that point, inventories drew suddenly, by an exceptionally large 14 mb in a week, as many ships in the US Gulf were delayed by tropical Storm Hermine. This might be quickly reversed as cargoes unload after weather delays are over. July and August normally see a pronounced draw in the region of 16 mb, as Northern hemisphere refiners have not started fall turnarounds yet.



Stocks on the products' side, although still growing overall, are moving at different speeds for refined products and gas liquids. On one hand, for both July and August, gasoline draws have been steeper than seasonal, and diesel builds shallower than expected. On the other, the relentless build in propane has not stopped. US NGLs production has proven far more resilient than crude oil, growing by around 300 kb/d this year (see 'Supply'). At the same time propane export could not break above 700 kb/d in July-August, dropping to 500 kb/d in the latest EIA data due to weak arbitrage conditions. Some butane had reportedly found its way to European blenders, a rather unusual movement, supported by very low freight rates, but this was not enough to relieve the glut.

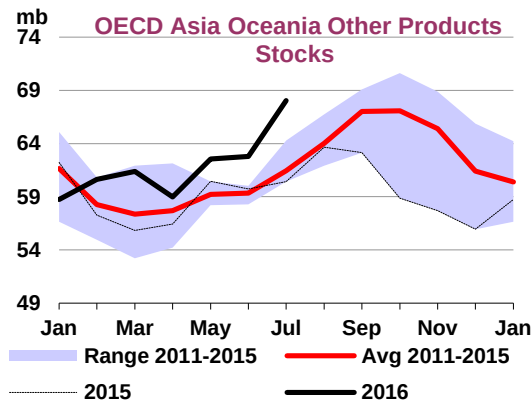
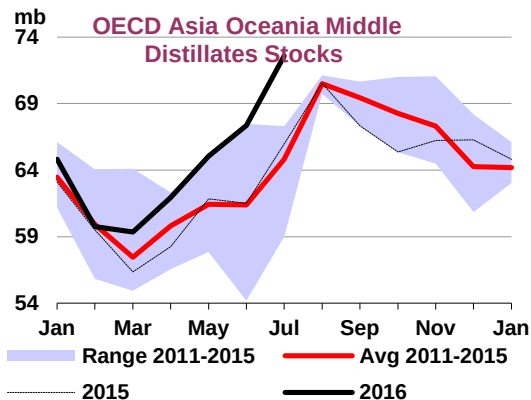


OECD Asia Oceania

Crude stocks drew in both Japan and Korea in July, as refinery runs rose between spring and fall turnarounds. Notwithstanding this, the draw was counter-seasonal, as imports usually more than offset higher throughputs.

In contrast to crude, refinery products were in line with the normal July patterns, with gasoline drawing and middle/heavy distillates building. The diesel build in OECD Asia Oceania particular stands out as the region reached its highest levels on record, breaking out of its historical range, which suggests the global diesel glut might be moving east.

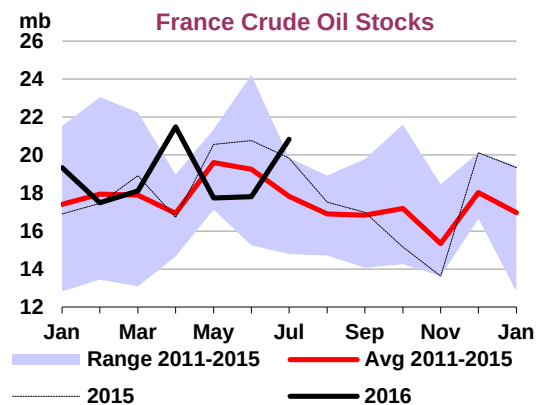
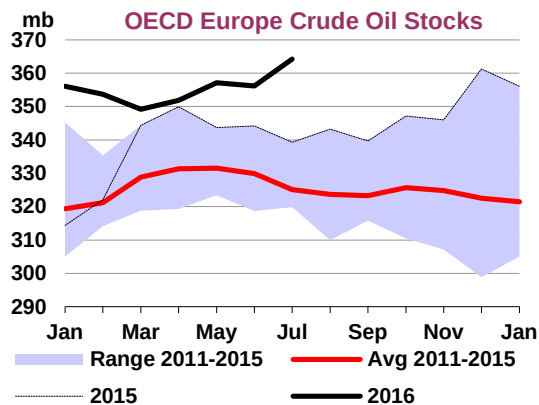
LPG inventories, included in 'other products', stand out. Preliminary Japanese and Korean data show LPG stock levels building well ahead of their seasonal fall peak.



OECD Europe

Europe total inventories built in July against seasonal trends, propped up by French crude oil, as deliveries bounced back after strikes blocked refining and port activity (See July Report). Outside of France, European countries followed the seasonal build in products as refinery activity reached a yearly peak. Overall, products built in line with July averages, but still sit at very high levels. Both middle distillates and gasoline have a whole week of extra cover above their seasonal norms.

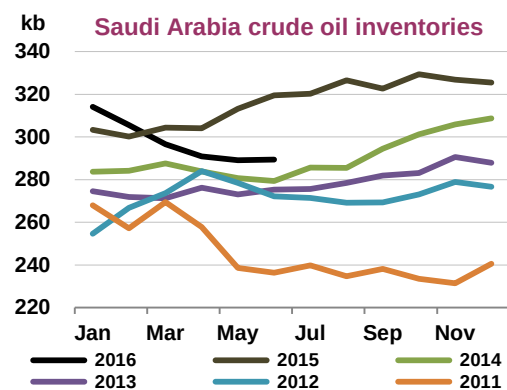
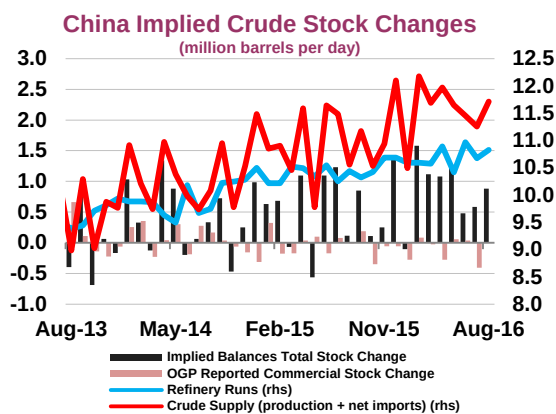
Preliminary August data from Euroilstocks show crude drawing together with higher throughputs, and diesel substantially unchanged against a seasonal 9 mb build, a tentative sign of relief which would need confirmation from final data.



Recent developments in non-OECD stocks

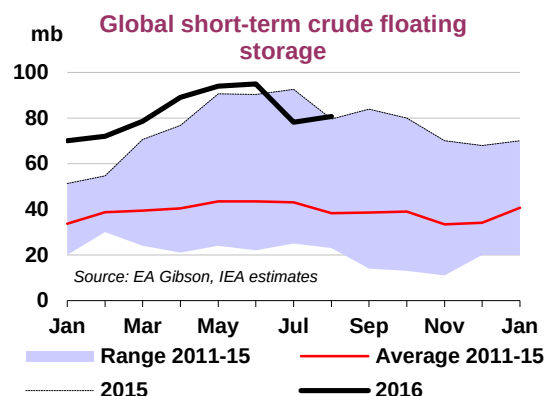
Chinese commercial crude stocks drew by a strong 5% in July, or 12.6 mb, according to official data from *China OGP*. Implied crude balances, calculated from import data, production and crude processing, however show a build as total refinery runs eased (See 'Refining') which – albeit slower than in previous months – suggests that independent refiners and perhaps strategic stocks are still drawing in crude. August showed a strong rise in deliveries, more-than-offsetting refinery activity, leading again to strong builds, just under 900 kb/d. On the product side, Chinese diesel stocks built by nearly 3 mb, after four months of draws, while gasoline drew by about 1.5 mb, on the back of strong exports (See 'Demand').

Saudi crude inventories built slightly in June, according to JODI data, after having drawn consistently by a cumulative 40 mb since October 2015, on average 5.7 mb per month, in line the Kingdom's strong exports (See 'OPEC Supply').



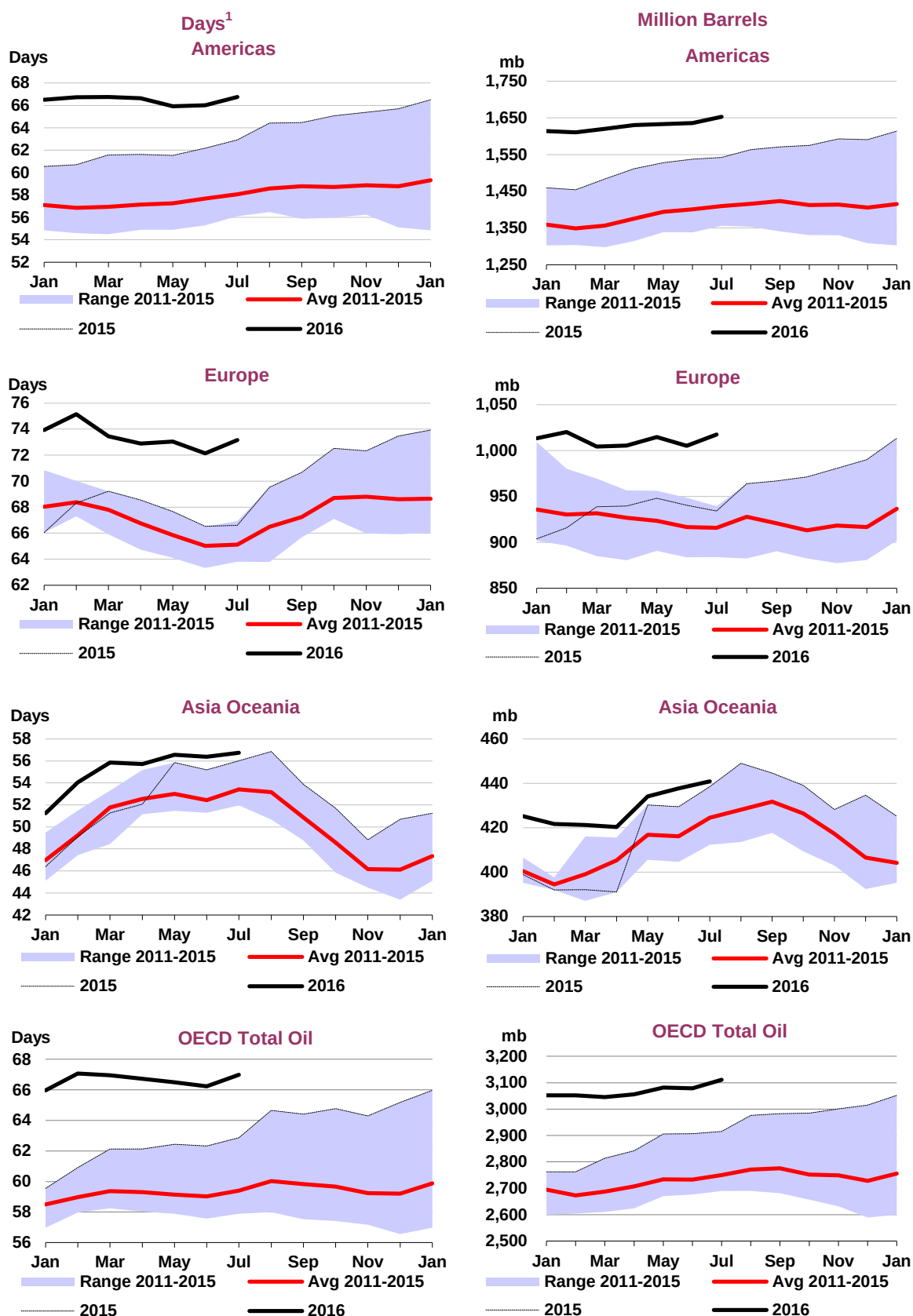
Floating storage

Short-term floating storage inched up by 2 mb in August to stand at 80.6 mb, just a touch above previous year levels. The increase is due to delays in Northwest Europe holding up tonnage carrying North Sea grades. Other regions posted little or no change, notably the Middle East and Asia Pacific, which remained flat on the month, after being the main drivers of July discharges. Economics suggest that storage in those regions is currently held for bottlenecks and delays in the supply chain, rather than deliberate speculative plays.



Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

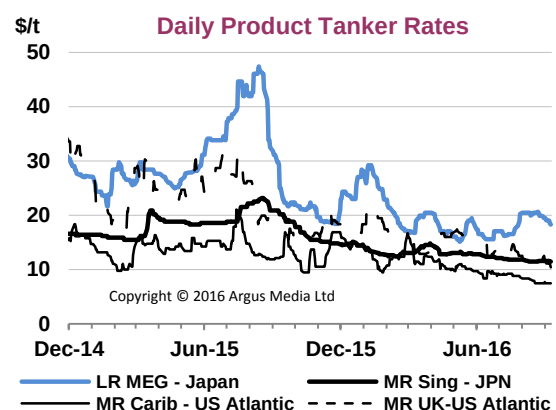
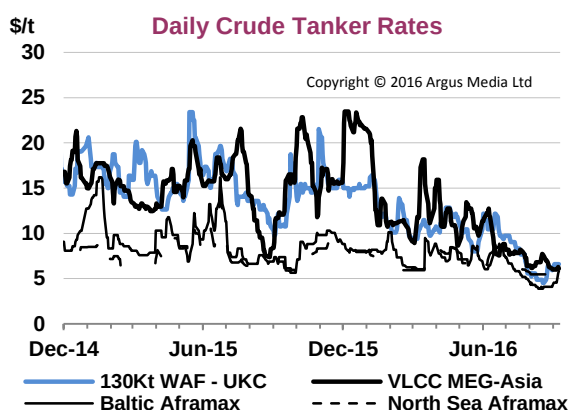
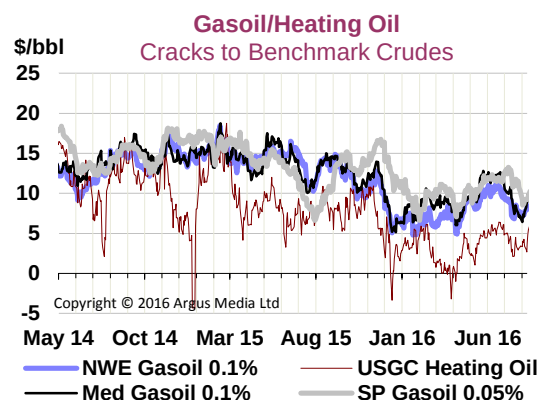
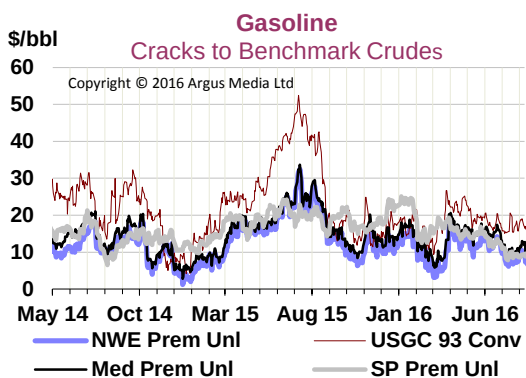
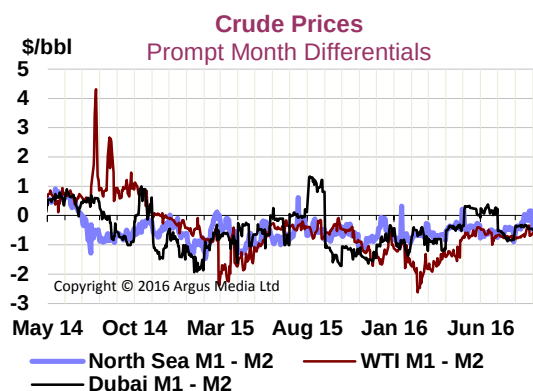
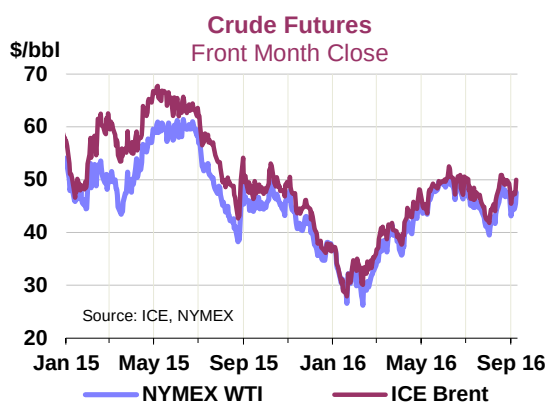


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Oil prices rallied in early August, rising from four-month lows near \$42/bbl to briefly above \$50/bbl** amid peak summer demand for crude oil, which is expected to lead to the first quarterly crude stock draw in more than two years. At the time of writing, Brent futures had retreated to around \$48.45/bbl while WTI was at \$46.35/bbl.
- **Product prices** were stronger in the US and Europe as refinery outages supported gasoline cracks. In the more oversupplied Asian markets, product cracks trended lower.
- **Freight rates** for crude and product carriers fell to deeper lows, as the tanker market remained oversupplied and abundant on-land stocks weighed on liftings.



Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Jun	Jul	Aug	Aug-Jul Avg Chg	%	Week Commencing:				
						08 Aug	15 Aug	22 Aug	29 Aug	05 Sep
Crudes										
North Sea Dated	48.28	45.00	45.68	0.68	1.5	43.81	48.63	48.92	46.17	47.51
Brent (Asia) Mth 1	49.41	46.22	46.72	0.50	1.1	44.43	48.92	49.25	47.80	48.14
WTI (Cushing) Mth 1	48.74	44.69	44.75	0.06	0.1	43.10	47.17	47.15	45.13	45.96
Urals (Mediterranean)	46.60	43.76	43.90	0.14	0.3	42.01	46.79	47.05	43.95	45.16
Dubai	46.25	42.54	43.67	1.13	2.7	41.61	45.98	45.94	44.30	44.59
Tapis (Dated)	50.13	44.69	44.25	-0.44	-1.0	41.92	46.93	47.42	45.15	46.01
Differential to North Sea Dated										
WTI (Cushing)	0.46	-0.31	-0.93	-0.62		-0.71	-1.46	-1.77	-1.05	-1.55
Urals (Mediterranean)	-1.68	-1.24	-1.78	-0.54		-1.80	-1.84	-1.87	-2.23	-2.35
Dubai	-2.03	-2.46	-2.02	0.45		-2.21	-2.65	-2.98	-1.87	-2.91
Tapis (Dated)	1.85	-0.31	-1.43	-1.13		-1.89	-1.70	-1.50	-1.02	-1.50
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.60	-0.55	-0.23	0.32		-0.37	-0.08	-0.01	-0.24	-0.25
Forward WTI Cushing Mth1-Mth2	-0.64	-0.73	-0.65	0.08		-0.73	-0.66	-0.43	-0.62	-0.63
Forward Dubai Mth1-Mth2	0.18	-0.72	-0.39	0.34		-0.35	-0.35	-0.43	-0.47	-0.60

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Spot Product Prices

(monthly and weekly averages, \$/bbl)

	Jun	Jul	Aug	Aug-Jul Chg	%	Week Commencing:					Jun	Jul	Aug
						08 Aug	15 Aug	22 Aug	29 Aug	05 Sep			
Rotterdam, Barges FOB											Differential to Dated Brent		
Premium Unl 10 ppm	60.60	52.73	54.45	1.72	3.3	52.49	118.81	128.43	118.80	114.02	12.32	7.73	8.77
Naphtha	46.40	42.20	40.97	-1.23	-2.9	39.09	104.74	111.57	102.67	91.66	-1.88	-2.80	-4.71
Jet/Kerosene	58.37	54.17	54.19	0.02	0.0	52.11	130.35	135.23	124.15	116.42	10.09	9.17	8.51
ULSD 10ppm	59.37	53.84	54.28	0.44	0.8	52.31	130.82	135.66	126.03	119.47	11.09	8.84	8.60
Gasoil 0.1%	58.69	53.17	53.88	0.70	1.3	51.94	128.85	133.64	122.40	115.58	10.41	8.18	8.20
LSFO 1%	36.78	36.57	37.27	0.71	1.9	35.47	100.79	104.97	97.93	93.26	-11.50	-8.43	-8.41
HSFO 3.5%	33.23	33.19	33.88	0.69	2.1	32.23	94.16	96.64	92.65	89.83	-15.05	-11.81	-11.80
Mediterranean, FOB Cargoes											Differential to Urals		
Premium Unl 10 ppm	61.77	54.00	55.66	1.67	3.1	53.58	119.56	129.10	119.48	115.10	15.16	10.24	11.76
Naphtha	45.11	41.06	39.93	-1.13	-2.8	38.05	101.67	108.57	99.83	89.04	-1.50	-2.70	-3.97
Jet Aviation fuel	57.36	53.21	53.33	0.12	0.2	51.26	128.86	133.85	122.91	115.05	10.76	9.45	9.43
ULSD 10ppm	59.36	54.15	54.72	0.58	1.1	52.88	130.24	134.51	125.20	117.43	12.75	10.39	10.82
Gasoil 0.1%	58.64	52.62	53.00	0.38	0.7	51.10	128.39	132.01	121.04	115.20	12.03	8.86	9.10
LSFO 1%	37.28	37.16	37.66	0.50	1.4	35.77	102.28	107.53	99.78	94.39	-9.32	-6.60	-6.23
HSFO 3.5%	35.40	35.65	36.18	0.53	1.5	34.61	93.41	96.55	92.04	88.82	-11.21	-8.11	-7.71
US Gulf, FOB Pipeline											Differential to LLS		
Super Unleaded	68.60	62.89	64.50	1.61	2.6	61.50	125.75	138.96	134.73	130.22	18.00	16.47	18.17
Unleaded	64.11	58.66	61.25	2.60	4.4	58.09	112.22	123.30	122.02	116.38	13.51	12.24	14.93
Jet/Kerosene	58.16	52.82	54.80	1.98	3.8	52.05	129.99	134.97	124.48	117.68	7.56	6.40	8.47
ULSD 10ppm	61.24	56.00	57.84	1.84	3.3	55.07	127.94	134.42	126.43	120.80	10.64	9.58	11.51
Heating Oil	56.21	50.07	51.98	1.90	3.8	48.69	125.83	131.15	121.65	114.05	5.61	3.65	5.65
No. 6 3%*	35.11	33.87	34.40	0.53	1.6	32.40	96.55	98.92	95.76	91.54	-15.49	-12.55	-11.92
Singapore, FOB Cargoes											Differential to Dubai		
Premium Unleaded	59.05	51.87	54.18	2.32	4.5	50.89	122.68	132.92	124.08	113.92	12.80	9.33	10.52
Naphtha	45.56	41.74	39.96	-1.77	-4.2	37.68	105.72	111.82	102.39	93.50	-0.69	-0.80	-3.70
Jet/Kerosene	58.27	54.37	53.55	-0.82	-1.5	50.96	128.18	133.72	123.53	116.22	12.03	11.83	9.88
Gasoil 0.05%	58.14	54.27	53.47	-0.80	-1.5	50.98	126.98	132.74	123.61	116.76	11.89	11.74	9.81
LSWR Cracked	39.95	42.40	43.56	1.16	2.7	41.30	109.12	112.50	110.37	105.15	-6.29	-0.14	-0.11
HSFO 180 CST	37.88	38.13	38.20	0.07	0.2	35.74	99.82	102.68	100.29	97.12	-8.36	-4.41	-5.47
HSFO 380 CST 4%	37.27	37.06	37.21	0.14	0.4	34.60	99.24	102.25	99.27	96.21	-8.97	-5.47	-6.46

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* Waterborne

REFINING

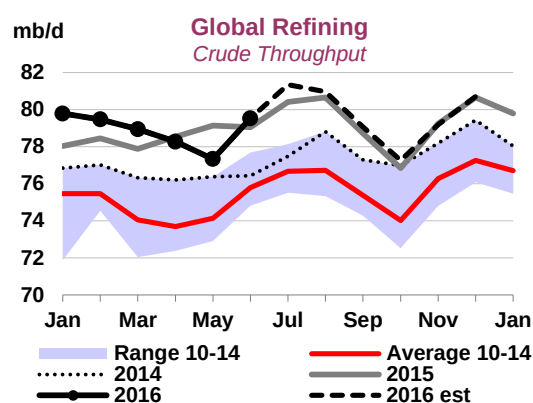
Summary

- The anaemic outlook for refining throughput extends further amid downward revisions to our 2H16 forecast. **Refinery runs in 3Q16 have been cut by 190 kb/d** since last month's *Report* due to newly announced planned and unplanned outages in the US and Europe.
- Output in 4Q16 is forecast to rise by 80 kb/d year-on-year (y-o-y) at 78.9 mb/d following a seasonal decline pattern.** More outages were announced for the autumn following already heavy 2Q16 maintenance.
- Refinery runs in 2016 are forecast to grow at the lowest rate in a decade**, excluding the 2008-09 recession, up only 340 kb/d y-o-y. This masks a wide discrepancy in OECD/non-OECD trends as the former sees runs reduced by almost 300 kb/d after a 1 mb/d gain last year, while the latter sees steady growth of 600 kb/d - about the same as last year.

Global refinery overview

Finalised June data for the non-OECD and revisions to preliminary OECD data led to another 450 kb/d downward revision compared with earlier estimates. Combined with an upward revision for May of 190 kb/d, 2Q16 global refinery crude intake is now assessed at 78.3 mb/d, down 540 kb/d y-o-y.

The 3Q16 throughput estimate is also revised lower by 190 kb/d as newly announced maintenance outages in Europe and the US coincide with a temporary slowdown in the Middle East. Still, 3Q16 runs are up by 550 kb/d y-o-y.



Global Refinery Crude Throughput¹
(million barrels per day)

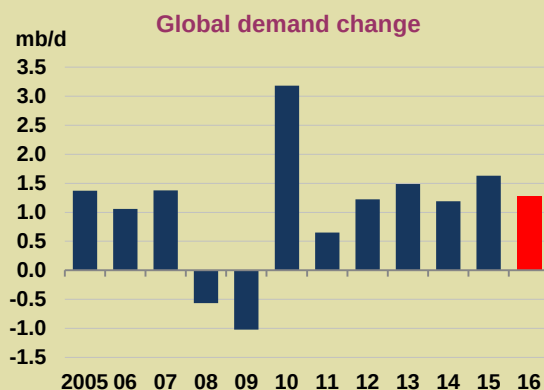
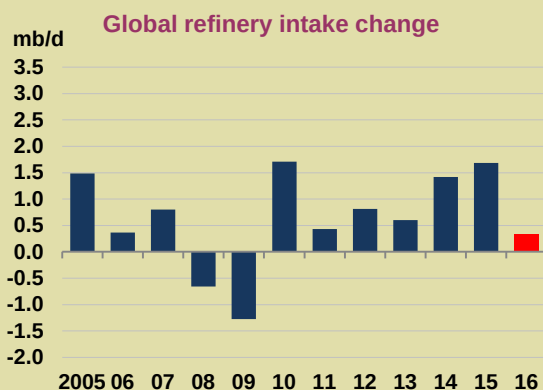
	1Q2016	2Q2016	Jul 16	Aug 16	Sep 16	3Q2016	Oct 16	Nov 16	Dec 16	4Q2016	2016
Americas	19.0	18.9	19.6	19.7	18.7	19.3	18.1	19.1	19.5	18.9	19.0
Europe	11.8	11.4	12.3	12.0	11.8	12.0	11.8	11.8	12.0	11.8	11.8
Asia Oceania	7.1	6.7	6.9	6.9	6.7	6.9	6.4	6.7	7.1	6.7	6.9
Total OECD	37.8	37.1	38.8	38.6	37.2	38.2	36.3	37.6	38.5	37.5	37.6
FSU	6.8	6.7	7.0	7.2	6.7	6.9	6.3	6.8	6.9	6.7	6.8
Non-OECD Europe	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
China	10.6	10.8	10.7	10.8	10.8	10.8	10.8	10.9	10.8	10.9	10.7
Other Asia	10.3	10.3	10.7	10.5	10.4	10.5	10.1	10.4	10.5	10.3	10.4
Latin America	4.4	4.2	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.5	4.4
Middle East	6.8	6.6	7.0	6.8	6.9	6.9	6.5	6.2	6.8	6.5	6.7
Africa	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1
Total Non-OECD	41.5	41.2	42.4	42.3	41.8	42.2	40.7	41.4	42.1	41.4	41.6
Total	79.3	78.3	81.2	80.8	79.0	80.4	77.1	79.0	80.6	78.9	79.2

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

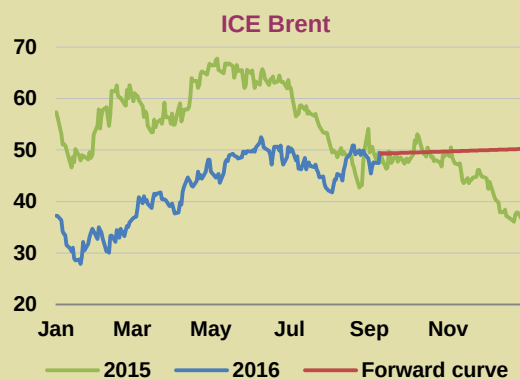
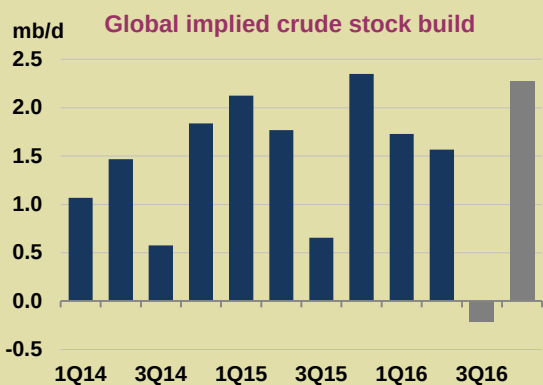
Forecast growth of only 100 kb/d for 4Q16 shows the lowest annual gain this year due to newly announced maintenance shutdowns. After heavy outages in 2Q16, we had expected lower-than-average autumn maintenance.

Anorexic refining offers slim hope for crude rebalancing

With this *Report* introducing a forecast for December 2016 refinery throughput, the performance for 2016 can now be analysed in a historical context. Data are actualised through June 2016, with 2H16 almost entirely still a forecast. As it now stands, refinery runs in 2016 are estimated at the lowest growth rate in a decade (excluding the demand-driven declines in the 2008-09 recession).



With the continued decoupling of refined product demand from headline demand growth, refinery runs growth will lag behind total demand growth. However, the gap this year can be explained both by a higher supply of non-refined products (mostly petrochemical feedstocks from NGLs) and a product stock overhang from earlier periods. In both 2014 and 2015, refining output growth exceeded refined product demand growth, resulting in large product stock builds. Some of the build was for operational and logistical purposes, but the discretionary inventory builds are now acting as a real pressure on margins. This, in turn, affects refiners' appetite for crude and delays the rebalancing in crude oil markets. With our more pessimistic outlook for 2H16 refining activity and revisions to crude supply, the expected draws in 3Q16 are now lower, while the build in 4Q16 is higher.



For operational purposes, crude stocks should keep building while oil demand grows and refining capacity expands. But a succession of oversized quarterly builds indicates a market in a prolonged glut. Major crude producers such as Russia, Iran, Iraq and Brazil are worsening the crude glut in more than one way. Not only are they increasing crude output, they are also reducing their domestic refinery intake.

The onus is thus on importers to clear the stock overhang. More than half the implied global stock build of 1.6 mb/d in 1H16 was absorbed by China, most likely, in its strategic reserves. OECD countries, too, increased crude stocks at a rate of about 200 kb/d, while floating storage added another 100-150 kb/d (see *Stocks*). The remaining 300-400 kb/d of stocks could have been easily absorbed by other non-OECD importers or even crude exporters themselves.

To keep building discretionary or even strategic stocks, the price incentive is crucial. This explains why, for more than a year, \$50/bbl oil has been such a difficult barrier to break through.

Margins

Refining margins in August were firmer in the US and Europe, helped by gasoline cracks, mostly in response to various refinery-related supply issues in the world's biggest gasoline market as the peak driving season wraps up. The regional product oversupply led Singapore margins lower month-on-month (m-o-m). In terms of monthly averages, both NWE and Singapore margins are now closer to the lower range of the last five years.

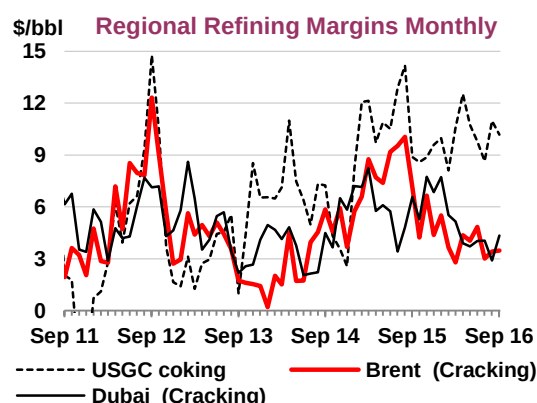
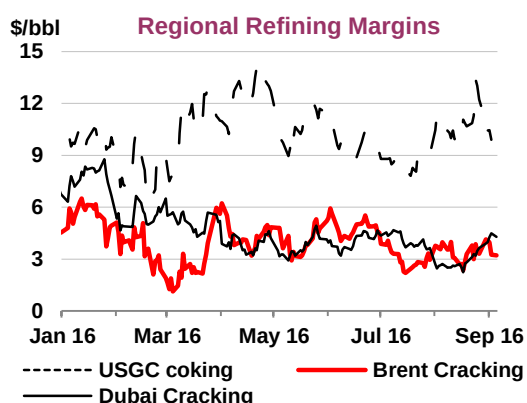
IEA/KBC Global Indicator Refining Margins¹

(\$/bbl)

	Monthly Average				Change	Average for week ending:					
	May 16	Jun 16	Jul 16	Aug 16	Aug 16-Jul 16	12 Aug	19 Aug	26 Aug	02 Sep	09 Sep	
NW Europe											
Brent (Cracking)	4.05	4.85	3.02	3.43	↑	0.41	3.46	2.79	3.48	3.85	3.27
Urals (Cracking)	5.28	5.98	4.29	4.57	↑	0.28	4.43	4.05	4.68	5.32	4.85
Brent (Hydroskimming)	-1.45	-0.25	-0.65	-0.31	↑	0.33	-0.26	-0.92	-0.38	0.30	-0.22
Urals (Hydroskimming)	-1.14	-0.20	-0.29	-0.13	↑	0.16	-0.21	-0.62	-0.27	0.65	0.24
Mediterranean											
Es Sider (Cracking)	5.66	6.44	5.29	5.44	↑	0.16	5.43	5.12	5.66	5.95	5.49
Urals (Cracking)	5.38	6.04	4.53	5.03	↑	0.50	5.11	4.78	5.19	5.81	5.49
Es Sider (Hydroskimming)	1.02	2.01	1.94	2.07	↑	0.13	2.07	1.62	2.13	2.75	2.39
Urals (Hydroskimming)	-0.58	0.19	0.11	0.59	↑	0.48	0.76	0.17	0.39	1.37	1.19
US Gulf Coast											
50/50 HLS/LLS (Cracking)	6.64	6.94	6.40	8.82	↑	2.42	7.69	8.67	10.63	7.88	6.31
Mars (Cracking)	4.30	4.39	4.58	6.00	↑	1.42	5.23	5.40	7.16	5.59	4.40
ASCI (Cracking)	3.79	3.95	4.19	5.54	↑	1.35	4.75	4.95	6.64	5.26	4.11
50/50 HLS/LLS (Coking)	9.11	9.27	8.35	10.70	↑	2.35	9.55	10.42	12.51	9.72	8.02
50/50 Maya/Mars (Coking)	10.75	9.78	8.64	10.97	↑	2.33	10.22	10.39	12.15	10.42	9.06
ASCI (Coking)	10.50	10.35	9.55	11.29	↑	1.75	10.38	10.70	12.67	10.73	9.08
US Midcon											
WTI (Cracking)	12.95	14.39	9.90	14.26	↑	4.36	14.10	13.59	15.02	11.80	10.74
30/70 WCS/Bakken (Cracking)	10.48	12.14	9.80	13.30	↑	3.49	13.48	12.13	13.37	10.97	10.00
Bakken (Cracking)	13.44	14.95	11.82	15.66	↑	3.85	15.89	14.53	15.69	12.63	11.32
WTI (Coking)	15.84	17.24	12.10	16.59	↑	4.50	16.50	15.77	17.27	13.96	12.81
30/70 WCS/Bakken (Coking)	15.24	16.75	13.37	17.52	↑	4.16	17.77	16.28	17.63	14.84	13.54
Bakken (Coking)	14.76	16.24	12.72	16.64	↑	3.93	16.91	15.40	16.63	13.53	12.18
Singapore											
Dubai (Hydroskimming)	-1.83	-1.28	0.08	-1.09	↓	-1.17	-1.45	-1.47	-0.78	0.23	0.49
Tapis (Hydroskimming)	0.96	1.63	1.23	-0.06	↓	-1.29	-0.38	-0.70	-0.67	1.18	0.74
Dubai (Hydrocracking)	3.72	4.03	4.06	2.91	↓	-1.15	2.57	2.61	3.35	4.16	4.48
Tapis (Hydrocracking)	5.18	5.44	3.36	1.90	↓	-1.46	1.52	1.33	1.42	3.33	3.01

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)



OECD refinery throughput

With finalised June throughput slightly lower than preliminary numbers, 2Q16 OECD runs dipped 500 kb/d below year earlier levels, recording its first quarterly decline since the oil price slide. About 400 kb/d of declines in the Americas and Europe were only partially offset by OECD Asia Oceania bucking the trend with 320 kb/d of annual growth in runs.

Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Change from Jun 16	Jul 15	Utilisation rate ¹ Jul 16	Jul 15
US ²	15.88	16.11	15.94	16.28	16.43	16.69	0.26	-0.20	0.91	0.94
Canada	1.68	1.74	1.66	1.31	1.59	1.80	0.20	0.09	0.91	0.86
Chile	0.17	0.17	0.16	0.17	0.17	0.17	0.00	0.00	0.74	0.72
Mexico	1.04	1.09	1.05	1.01	1.03	0.93	-0.10	-0.07	0.56	0.61
OECD Americas³	18.77	19.10	18.81	18.77	19.22	19.58	0.36	-0.18	0.88	0.91
France	1.17	1.12	1.20	0.89	0.76	1.21	0.45	0.10	0.87	0.79
Germany	1.91	1.91	1.77	1.83	1.93	1.94	0.01	0.05	0.96	0.93
Italy	1.14	1.20	1.35	1.26	1.25	1.34	0.09	-0.05	0.76	0.80
Netherlands	1.08	1.04	1.07	1.06	1.07	1.09	0.02	0.01	0.84	0.84
Spain	1.26	1.27	1.25	1.11	1.21	1.35	0.14	0.00	0.89	0.89
United Kingdom	1.00	0.94	1.06	1.13	1.11	1.09	-0.03	-0.13	0.79	0.89
Other OECD Europe	4.18	4.01	3.71	3.99	4.16	4.28	0.13	0.01	0.89	0.88
OECD Europe	11.74	11.50	11.42	11.27	11.50	12.30	0.80	-0.01	0.87	0.87
Japan	3.31	3.31	3.32	3.00	2.85	3.17	0.32	0.12	0.89	0.79
South Korea	3.14	2.89	2.85	2.97	2.89	2.98	0.09	0.07	0.90	0.88
Other Asia Oceania	0.80	0.78	0.79	0.79	0.79	0.77	-0.02	-0.02	0.78	0.79
OECD Asia Oceania	7.26	6.98	6.96	6.76	6.53	6.92	0.39	0.17	0.88	0.83
OECD Total	37.77	37.57	37.18	36.79	37.25	38.80	1.55	-0.01	0.88	0.88

¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

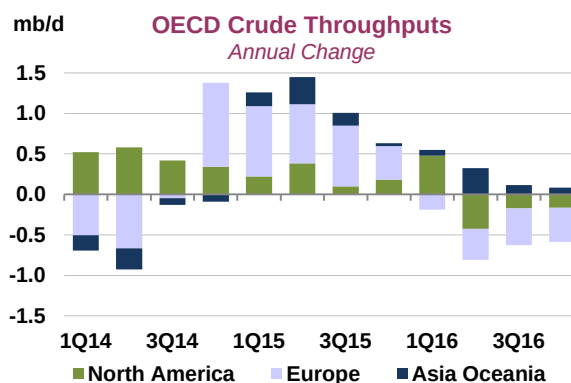
² US50

³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

July preliminary data for OECD countries came in 250 kb/d higher than our forecast, mostly on the basis of fully restored French throughput while we expected a slower post-strike recovery. This helped Europe stay flat y-o-y. The US saw a modest seasonal ramp-up from June to 16.7 mb/d, with output dipping 200 kb/d below last July's all-time peak rate. Weekly throughput data for August suggest a flat y-o-y outlook for the US and declines in Canada and Japan. Overall, 3Q16 OECD throughput is revised down by a small 50 kb/d, with an annual decline of 420 kb/d now forecast.

The 4Q16 forecast is equally bearish as recently added maintenance outages damp the October outlook even further, with Europe especially affected. Total OECD runs in October may turn out at the lowest for the past 2.5 years. Runs in 4Q16 are forecast at 510 kb/d down y-o-y, driven by Europe's 420 kb/d loss.

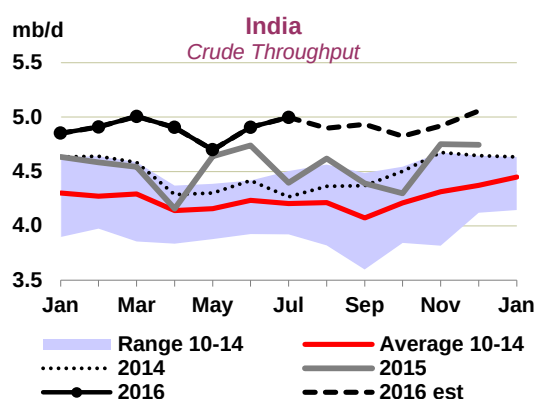
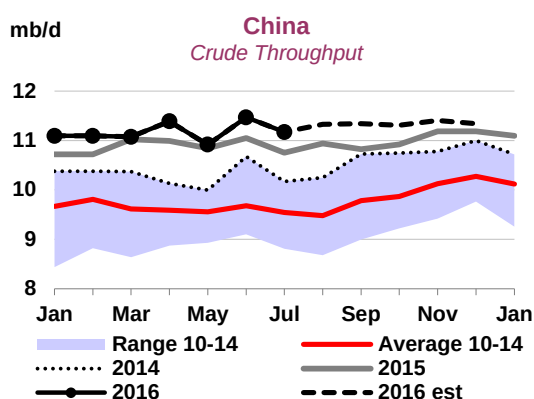
For 2016 as a whole, an almost flat Americas outlook is combined with a 350 kb/d decline in Europe and South-Korean-fuelled growth of 150 kb/d in OECD Asia. European refiners are resuming permanent capacity closures. One French refinery is expected to be shut down, while two others, in the UK and the Netherlands, will see a partial CDU capacity reduction.



Non-OECD refinery throughput

Only 80% of June throughput numbers for the non-OECD are actualised, with refinery runs still estimated for the rest of the year. But this still allows for some confidence in the observation that 2Q16 might have either come out flat y-o-y or seen the first quarterly y-o-y decline (however small, at just 30 kb/d) in the non-OECD in the past five years. The biggest losses, all coming from crude exporters Brazil, Venezuela, Russia and Iran – were not fully offset by robust gains in big oil importers China and India. In terms of forecasts, non-OECD refiners are expected to lift runs by 1 mb/d and 600 kb/d in 3Q16 and 4Q16 respectively, with 2016 average annual growth coming in at 600 kb/d, about the same rate as 2015.

July actuals for Chinese throughput came in only a marginal 40 kb/d below our forecast, dropping 300 kb/d from June, but 420 kb/d up y-o-y at 10.67 mb/d. August runs are expected to have rebounded to 10.8 mb/d, with runs ramping up further November-December. PetroChina recently stated that it expects a 2.2% annual decline in 2016 refining activity, indicating that drops seen earlier this year are going to persist for the rest of 2016. Most of the expected 340 kb/d annual gains in China for the August-December period will come from independent refiners.



Indian runs touched the 5 mb/d mark again in July, some 65 kb/d higher than our forecast. This marked a massive 600 kb/d gain y-o-y. The rest of 3Q16 is expected to have slowed marginally. The fourth quarter may see monthly output firmly crossing the 5 mb/d threshold. Indian gains for 2016 as a whole are now expected at a slightly faster rate than China - at about 370 kb/d. Elsewhere in Asia, our estimate of Indonesian refinery runs has been revised down historically based on recent reports of even lower utilisation rates at Pertamina's plants.

Russia's August throughput surprised again, ramping up from July and crossing the 5.8 mb/d mark for the first time this year. Russia now prefers domestic processing. That is because differentials for Urals crude are under pressure due to higher output of Urals, competition in northwest Europe from relatively robust North Sea output and in the Mediterranean from more aggressive marketing by Middle East exporters, combined with Europe's waning appetite for crude oil. This has, in turn, affected Russian oil companies' crude export earnings. Still, Russian refining activity registered a y-o-y slowdown of close to 100 kb/d. September throughput is expected to dip 400 kb/d from August due to seasonal maintenance. Runs in 4Q16 are forecast at 170 kb/d lower y-o-y, slowing seasonally from 5.7 mb/d in 3Q16 to 5.4 mb/d.

Brazil slowed down further in July, posting refinery throughput of 1.85 mb/d, some 100 kb/d below our forecast. The pre-Olympics month did not provide a visible boost to runs, and indeed, Petrobras was reported to have exported more diesel cargoes towards Europe - a symbolic reversal of a previously established flow. Local demand is struggling, while refinery upgrades have boosted diesel output. Refinery throughput is forecast to firm up at the end of the year, but 2016 will still carry an annual loss of 100 kb/d.

In the Middle East, Saudi Arabia's throughput in June actualised at 120 kb/d below our forecast, staying under 2.4 mb/d. Runs are estimated to have picked up in 3Q16 towards 2.6 mb/d, but reported maintenance in 4Q16 sees another slowdown to 2.3 mb/d. With both Iran and Iraq expected to see y-o-y declines in 2H16, the only other country increasing runs in the Middle East is the UAE. The rest are close to flat.

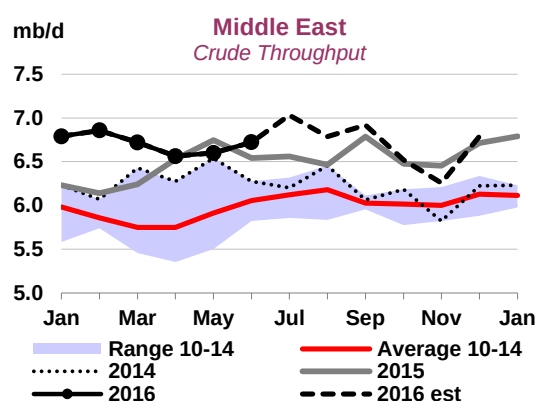


Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.2	24.2	24.3	24.2	24.8	24.5	24.5	24.5	24.4	24.9	24.6	24.6	24.5	24.5	24.9	24.7	24.7
Europe	13.6	13.5	13.5	13.6	14.2	13.7	13.7	13.6	13.9	14.1	13.6	13.8	13.6	13.8	14.1	13.7	13.8
Asia Oceania	8.3	8.1	8.7	7.6	7.7	8.2	8.0	8.5	7.6	7.7	8.1	8.0	8.5	7.6	7.7	8.1	8.0
Total OECD	46.1	45.8	46.5	45.3	46.7	46.4	46.2	46.7	45.9	46.7	46.4	46.4	46.7	45.9	46.7	46.5	46.5
NON-OECD DEMAND																	
FSU	4.8	4.9	4.7	4.9	5.1	5.0	4.9	4.9	4.9	5.2	5.1	5.0	4.9	5.1	5.2	5.2	5.1
Europe	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.8	11.2	11.4	11.5	11.6	11.4	11.5	11.6	11.5	11.8	11.6	11.7	11.8	11.9	12.0	11.9
Other Asia	11.7	12.0	12.3	12.5	12.3	12.8	12.5	13.1	13.1	12.8	13.4	13.1	13.6	13.7	13.4	13.9	13.6
Americas	6.6	6.8	6.6	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7
Middle East	8.0	8.4	7.8	8.5	8.8	8.2	8.3	7.8	8.4	8.8	8.4	8.3	8.1	8.5	8.9	8.5	8.5
Africa	3.8	3.8	4.1	4.1	4.0	4.2	4.1	4.2	4.3	4.2	4.3	4.2	4.3	4.4	4.3	4.4	4.4
Total Non-OECD	45.9	47.4	47.3	48.9	49.1	49.2	48.6	48.7	49.6	50.0	50.5	49.7	49.9	50.8	51.2	51.5	50.9
Total Demand¹	92.0	93.2	93.8	94.2	95.8	95.5	94.8	95.4	95.6	96.7	96.9	96.1	96.5	96.8	98.0	98.0	97.3
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.0	19.6	20.0	20.1	19.9	19.9	18.9	19.1	19.3	19.3	19.4	19.3	19.4	19.5	19.4
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.4	3.5	3.5	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	20.9	22.9	23.8	23.5	23.9	24.1	23.9	24.0	22.8	22.9	23.3	23.2	23.3	23.2	23.1	23.3	23.2
NON-OECD SUPPLY																	
FSU	13.8	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.0	13.9	14.1	14.1	14.2	14.2	14.2	14.4	14.3
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.1	4.0	4.0	4.1	4.0	4.0	3.9	3.9	4.0
Other Asia ²	2.7	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.6	2.6
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.5	4.6	4.7	4.5	4.7	4.7	4.8	4.8	4.7
Middle East	1.4	1.3	1.3	1.3	1.2	1.2	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2
Africa ²	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	28.4	28.8	29.3	29.2	29.0	29.1	29.1	28.9	28.6	28.7	29.0	28.8	29.0	29.0	29.0	29.2	29.1
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.6	56.1	57.2	57.3	57.6	57.9	57.5	57.0	56.0	56.6	57.0	56.7	56.6	57.0	57.3	57.3	57.0
OPEC																	
Crude	31.4	31.2	31.4	32.4	32.7	32.6	32.3	32.8	33.0								
NGLs	6.3	6.5	6.7	6.7	6.8	6.8	6.8	6.8	6.9	6.9	7.1	6.9	7.0	7.0	7.1	7.1	7.0
Total OPEC ²	37.7	37.7	38.1	39.2	39.5	39.5	39.0	39.6	39.9								
Total Supply⁴	91.3	93.8	95.2	96.5	97.1	97.3	96.5	96.6	95.9								
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.8	1.0	0.8	0.4	0.8	0.3	0.4								
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1	0.0								
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.4	0.3								
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2	0.3								
Miscellaneous to balance ⁵	-0.7	0.2	0.2	0.8	0.7	0.9	0.6	0.6	-0.4								
Total Stock Ch. & Misc	-0.7	0.6	1.5	2.3	1.3	1.8	1.7	1.3	0.3								
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	32.1	30.6	29.9	30.2	31.4	30.8	30.6	31.5	32.7	33.1	32.8	32.5	32.9	32.8	33.6	33.6	33.2

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

2 Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

3 Net volumetric gains and losses in the refining process and marine transportation losses.

4 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

5 Includes changes in non-reported stocks in OECD and non-OECD areas.

6 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-0.1	-0.1	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.1	-0.2	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-	-0.1	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-0.1	-0.2	-	-0.1	-	-0.1	-0.1	-0.1	-0.1
Total Demand	-	-	-	-	-	-	-	-	-	-0.3	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-0.1	-0.1	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	-	-	-	0.1	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-0.1	-	-	0.1	0.1	-	0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	0.1	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-0.1	-0.1	0.1	-	0.1	0.1	-	0.2	0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-0.2	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-0.2	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	-0.3	-0.3	-0.1	-0.2	-0.3	-0.2	-0.3	-0.3

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.20	24.34	24.19	24.83	24.47	24.46	24.48	24.39	24.91	24.62	24.60	24.52	24.51	24.94	24.67	24.66
Europe	13.51	13.46	13.57	14.16	13.71	13.73	13.64	13.92	14.07	13.65	13.82	13.59	13.85	14.10	13.65	13.80
Asia Oceania	8.11	8.68	7.58	7.71	8.18	8.03	8.54	7.64	7.71	8.12	8.00	8.55	7.59	7.70	8.14	7.99
Total OECD	45.82	46.48	45.34	46.70	46.35	46.22	46.66	45.95	46.68	46.39	46.42	46.66	45.95	46.75	46.46	46.45
Asia	22.79	23.49	23.97	23.76	24.34	23.89	24.55	24.70	24.31	25.19	24.69	25.31	25.50	25.31	25.91	25.51
Middle East	8.37	7.78	8.49	8.75	8.24	8.32	7.84	8.35	8.76	8.36	8.33	8.07	8.47	8.87	8.49	8.48
Americas	6.83	6.61	6.75	6.84	6.77	6.74	6.51	6.69	6.83	6.80	6.71	6.49	6.67	6.81	6.80	6.69
FSU	4.92	4.67	4.92	5.08	4.98	4.92	4.93	4.93	5.21	5.11	5.05	4.95	5.07	5.24	5.18	5.11
Africa	3.83	4.09	4.08	3.99	4.15	4.08	4.21	4.25	4.16	4.31	4.23	4.34	4.40	4.28	4.43	4.36
Europe	0.65	0.65	0.67	0.69	0.69	0.68	0.68	0.70	0.70	0.70	0.70	0.69	0.71	0.71	0.72	0.71
Total Non-OECD	47.39	47.30	48.87	49.12	49.17	48.62	48.72	49.63	49.97	50.47	49.70	49.86	50.81	51.23	51.53	50.86
World	93.21	93.77	94.21	95.82	95.52	94.84	95.38	95.58	96.65	96.85	96.12	96.51	96.76	97.98	97.99	97.32
of which: US50	19.11	19.29	19.25	19.68	19.36	19.40	19.45	19.43	19.90	19.61	19.60	19.52	19.59	19.92	19.69	19.68
Europe 5*	8.05	8.03	7.99	8.34	8.09	8.12	8.14	8.19	8.22	8.05	8.15	8.09	8.06	8.21	8.02	8.10
China	10.77	11.24	11.44	11.51	11.56	11.44	11.48	11.61	11.52	11.84	11.61	11.70	11.82	11.90	12.01	11.86
Japan	4.27	4.70	3.80	3.85	4.14	4.12	4.43	3.66	3.71	4.02	3.95	4.34	3.52	3.63	3.99	3.87
India	3.84	3.97	4.04	3.87	4.10	3.99	4.36	4.32	4.06	4.33	4.27	4.57	4.60	4.38	4.60	4.54
Russia	3.77	3.56	3.74	3.87	3.71	3.72	3.75	3.65	3.90	3.74	3.76	3.74	3.76	3.92	3.82	3.81
Brazil	3.24	3.17	3.17	3.22	3.20	3.19	3.02	3.07	3.14	3.17	3.10	3.02	3.05	3.14	3.18	3.10
Saudi Arabia	3.19	2.89	3.48	3.59	3.23	3.30	2.95	3.34	3.56	3.20	3.27	3.01	3.35	3.59	3.23	3.30
Canada	2.41	2.43	2.33	2.45	2.40	2.41	2.39	2.37	2.43	2.37	2.39	2.37	2.31	2.43	2.34	2.36
Korea	2.35	2.46	2.29	2.36	2.52	2.41	2.59	2.48	2.48	2.59	2.54	2.68	2.56	2.56	2.63	2.61
Mexico	2.04	1.94	1.97	2.07	2.05	2.01	1.98	1.94	1.94	1.98	1.96	1.95	1.97	1.94	1.98	1.96
Iran	2.04	1.86	1.88	1.83	1.91	1.87	1.84	1.82	1.85	1.95	1.86	1.90	1.88	1.91	1.99	1.92
Total	65.08	65.53	65.39	66.64	66.28	65.96	66.38	65.90	66.72	66.84	66.46	66.90	66.47	67.52	67.49	67.10
% of World	69.8%	69.9%	69.4%	69.5%	69.4%	69.6%	69.6%	68.9%	69.0%	69.0%	69.1%	69.3%	68.7%	68.9%	68.9%	68.9%
Annual Change (% per annum)																
Americas	0.2	1.7	1.7	1.6	-0.6	1.1	0.6	0.8	0.3	0.6	0.6	0.2	0.5	0.1	0.2	0.3
Europe	-0.7	2.8	0.7	1.6	1.3	1.6	1.3	2.5	-0.7	-0.4	0.7	-0.3	-0.5	0.2	0.0	-0.1
Asia Oceania	-2.8	-2.2	-0.8	0.8	-1.4	-0.9	-1.5	0.9	0.0	-0.7	-0.4	0.0	-0.7	-0.1	0.2	-0.1
Total OECD	-0.6	1.2	1.0	1.5	-0.2	0.9	0.4	1.3	0.0	0.1	0.4	0.0	0.0	0.1	0.2	0.1
Asia	3.6	3.5	4.5	6.6	4.6	4.8	4.5	3.1	2.3	3.5	3.3	3.1	3.2	4.1	2.9	3.3
Middle East	4.4	-3.9	-0.4	0.6	0.8	-0.7	0.7	-1.6	0.1	1.5	0.2	2.9	1.4	1.3	1.6	1.8
Americas	2.7	0.0	-0.7	-1.8	-2.2	-1.2	-1.5	-0.9	-0.1	0.4	-0.5	-0.2	-0.3	-0.2	-0.1	-0.2
FSU	3.6	0.7	0.9	-1.1	-1.0	-0.2	5.6	0.1	2.5	2.6	2.6	0.3	2.8	0.6	1.4	1.3
Africa	0.0	3.9	5.3	7.4	9.6	6.5	2.9	4.3	4.2	3.7	3.8	3.2	3.3	3.0	3.0	3.1
Europe	-1.5	4.9	4.4	3.4	5.1	4.4	3.4	4.8	1.8	1.9	2.9	2.1	1.3	1.0	2.7	1.8
Total Non-OECD	3.2	1.5	2.6	3.5	2.8	2.6	3.0	1.5	1.7	2.6	2.2	2.3	2.4	2.5	2.1	2.3
World	1.3	1.4	1.8	2.5	1.3	1.7	1.7	1.4	0.9	1.4	1.4	1.2	1.2	1.4	1.2	1.2
Annual Change (mb/d)																
Americas	0.04	0.40	0.41	0.40	-0.15	0.26	0.14	0.20	0.08	0.15	0.14	0.04	0.13	0.03	0.05	0.06
Europe	-0.10	0.36	0.09	0.23	0.18	0.21	0.18	0.35	-0.09	-0.06	0.09	-0.05	-0.07	0.03	0.01	-0.02
Asia Oceania	-0.23	-0.19	-0.06	0.06	-0.11	-0.08	-0.13	0.07	0.00	-0.06	-0.03	0.00	-0.05	-0.01	0.02	-0.01
Total OECD	-0.29	0.57	0.44	0.69	-0.09	0.40	0.18	0.61	-0.02	0.04	0.20	0.00	0.00	0.06	0.07	0.03
Asia	0.78	0.80	1.04	1.46	1.08	1.10	1.06	0.73	0.55	0.85	0.80	0.76	0.79	1.00	0.72	0.82
Middle East	0.35	-0.31	-0.03	0.06	0.06	-0.06	0.06	-0.13	0.01	0.12	0.01	0.23	0.12	0.11	0.13	0.15
Americas	0.18	0.00	-0.05	-0.12	-0.16	-0.08	-0.10	-0.06	-0.01	0.03	-0.03	-0.02	-0.02	-0.01	0.00	-0.01
FSU	0.17	0.03	0.04	-0.06	-0.05	-0.01	0.26	0.01	0.13	0.13	0.13	0.02	0.14	0.03	0.07	0.07
Africa	0.00	0.15	0.21	0.28	0.36	0.25	0.12	0.18	0.17	0.16	0.15	0.13	0.14	0.12	0.13	0.13
Europe	-0.01	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01
Total Non-OECD	1.48	0.70	1.24	1.64	1.33	1.23	1.42	0.76	0.85	1.30	1.08	1.14	1.18	1.26	1.07	1.16
World	1.19	1.27	1.68	2.33	1.25	1.63	1.60	1.37	0.84	1.33	1.28	1.14	1.18	1.32	1.14	1.20
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.02	-0.06	-0.02	-0.06	-0.08	-0.06	-0.04	-0.06
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.10	-0.05	-0.04	-0.05	-0.06	-0.06	-0.04	-0.05
Asia Oceania	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	-0.03	-0.02	-0.01	-0.01	0.00	-0.02	-0.02	-0.01
Total OECD	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	-0.15	-0.13	-0.06	-0.12	-0.14	-0.13	-0.10	-0.12
Asia	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.24	-0.05	-0.08	-0.06	-0.09	-0.07	-0.07	-0.07
Middle East	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	-0.01	-0.03	-0.01	-0.01	0.00	-0.02	-0.02	-0.01	-0.01
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.03	-0.02	-0.02
FSU	0.00	0.00	0.01	0.00	0.00	0.00	0.01	-0.04	0.08	0.01	0.02	0.03	0.03	0.05	0.04	0.04
Africa	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	-0.05	-0.19	-0.05	-0.07	-0.04	-0.07	-0.07	-0.05	-0.06
World	0.01	0.01	0.01	0.00	-0.01	0.00	0.02	-0.04	-0.34	-0.18	-0.14	-0.16	-0.21	-0.21	-0.15	-0.18
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.00	0.00	-0.01	0.00	0.01	-0.05	-0.34	-0.17	-0.14	-0.17	-0.17	0.13	0.03	-0.05

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	3Q15	4Q15	1Q16	2Q16	Apr 16	May 16	Jun 16 ²	May 16	Jun 15
Americas											
LPG and ethane	3.22	3.21	3.02	3.37	3.55	2.93	2.96	2.93	2.88	-0.05	-0.12
Naphtha	0.35	0.33	0.33	0.36	0.35	0.35	0.34	0.36	0.34	-0.02	0.06
Motor gasoline	10.61	10.89	11.17	10.90	10.85	11.23	10.95	11.23	11.51	0.29	0.36
Jet and kerosene	1.74	1.82	1.89	1.85	1.78	1.89	1.82	1.83	2.03	0.20	0.10
Gasoil/diesel oil	5.28	5.19	5.15	5.03	5.06	5.02	5.01	4.97	5.08	0.10	0.00
Residual fuel oil	0.58	0.55	0.63	0.62	0.59	0.69	0.74	0.63	0.71	0.08	0.23
Other products	2.40	2.45	2.65	2.34	2.30	2.27	2.25	2.20	2.38	0.18	-0.34
Total	24.20	24.46	24.83	24.47	24.48	24.39	24.08	24.16	24.93	0.78	0.28
Europe											
LPG and ethane	1.10	1.14	1.11	1.12	1.22	1.15	1.17	1.13	1.16	0.03	-0.02
Naphtha	1.13	1.12	1.07	1.10	1.24	1.12	1.18	1.11	1.06	-0.05	0.01
Motor gasoline	1.92	1.92	2.03	1.90	1.79	1.98	1.94	1.96	2.02	0.06	-0.01
Jet and kerosene	1.27	1.32	1.49	1.25	1.24	1.39	1.35	1.38	1.45	0.07	0.03
Gasoil/diesel oil	5.94	6.14	6.26	6.27	6.10	6.10	6.29	5.92	6.08	0.17	-0.03
Residual fuel oil	0.95	0.91	0.90	0.92	0.96	0.92	0.92	0.90	0.94	0.04	0.03
Other products	1.21	1.18	1.30	1.14	1.08	1.27	1.20	1.29	1.31	0.02	0.03
Total	13.51	13.73	14.16	13.71	13.64	13.92	14.05	13.68	14.02	0.34	0.04
Asia Oceania											
LPG and ethane	0.82	0.77	0.74	0.76	0.83	0.81	0.87	0.80	0.76	-0.04	0.06
Naphtha	1.88	1.96	1.95	1.99	2.00	1.85	1.85	1.83	1.87	0.04	0.02
Motor gasoline	1.56	1.56	1.62	1.57	1.53	1.52	1.53	1.53	1.51	-0.01	0.00
Jet and kerosene	0.87	0.87	0.70	0.96	1.17	0.73	0.81	0.71	0.68	-0.03	0.04
Gasoil/diesel oil	1.76	1.78	1.73	1.84	1.83	1.75	1.81	1.73	1.72	-0.01	-0.01
Residual fuel oil	0.68	0.64	0.55	0.64	0.75	0.60	0.65	0.56	0.59	0.03	0.02
Other products	0.56	0.45	0.43	0.42	0.44	0.37	0.39	0.38	0.35	-0.03	-0.11
Total	8.11	8.03	7.71	8.18	8.54	7.64	7.90	7.54	7.49	-0.05	0.02
OECD											
LPG and ethane	5.13	5.13	4.87	5.25	5.60	4.89	5.00	4.86	4.80	-0.06	-0.08
Naphtha	3.36	3.41	3.35	3.45	3.59	3.32	3.38	3.30	3.28	-0.02	0.09
Motor gasoline	14.09	14.37	14.82	14.38	14.16	14.73	14.42	14.72	15.05	0.34	0.35
Jet and kerosene	3.88	4.01	4.08	4.06	4.19	4.02	3.98	3.92	4.16	0.24	0.17
Gasoil/diesel oil	12.98	13.11	13.13	13.14	12.99	12.87	13.11	12.62	12.88	0.26	-0.04
Residual fuel oil	2.21	2.10	2.08	2.18	2.30	2.21	2.31	2.09	2.24	0.15	0.28
Other products	4.16	4.09	4.37	3.89	3.82	3.92	3.83	3.88	4.05	0.17	-0.42
Total	45.82	46.22	46.70	46.35	46.66	45.95	46.03	45.38	46.45	1.07	0.35

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

										Latest month vs.	
	2014	2015	3Q15	4Q15	1Q16	2Q16	Apr 16	May 16	Jun 16 ²	May 16	Jun 15
United States³											
LPG and ethane	2.40	2.37	2.20	2.50	2.69	2.21	2.26	2.23	2.14	-0.09	-0.07
Naphtha	0.23	0.22	0.22	0.24	0.22	0.22	0.22	0.23	0.22	-0.01	0.04
Motor gasoline	8.92	9.16	9.39	9.17	9.09	9.44	9.21	9.44	9.66	0.23	0.27
Jet and kerosene	1.48	1.55	1.59	1.58	1.51	1.62	1.57	1.57	1.72	0.16	0.09
Gasoil/diesel oil	4.04	3.98	3.93	3.83	3.90	3.81	3.82	3.74	3.86	0.11	0.00
Residual fuel oil	0.26	0.26	0.31	0.30	0.31	0.41	0.48	0.33	0.41	0.07	0.23
Other products	1.78	1.86	2.04	1.74	1.72	1.73	1.71	1.66	1.82	0.16	-0.32
Total	19.11	19.40	19.68	19.36	19.45	19.43	19.26	19.20	19.83	0.63	0.24
Japan											
LPG and ethane	0.49	0.43	0.39	0.40	0.47	0.42	0.49	0.41	0.36	-0.05	-0.01
Naphtha	0.74	0.78	0.78	0.80	0.79	0.72	0.80	0.66	0.70	0.04	0.03
Motor gasoline	0.92	0.91	0.97	0.92	0.87	0.88	0.88	0.88	0.87	-0.01	-0.01
Jet and kerosene	0.52	0.50	0.35	0.57	0.74	0.37	0.44	0.36	0.33	-0.03	0.01
Diesel	0.41	0.41	0.41	0.42	0.41	0.38	0.39	0.37	0.39	0.03	-0.03
Other gasoil	0.36	0.35	0.30	0.36	0.40	0.32	0.35	0.31	0.31	0.00	0.00
Residual fuel oil	0.42	0.36	0.31	0.32	0.38	0.30	0.32	0.27	0.30	0.03	-0.03
Other products	0.41	0.37	0.35	0.35	0.37	0.27	0.27	0.29	0.26	-0.02	-0.12
Total	4.27	4.12	3.85	4.14	4.43	3.66	3.93	3.54	3.52	-0.02	-0.15
Germany											
LPG and ethane	0.09	0.10	0.10	0.08	0.10	0.11	0.11	0.11	0.11	0.00	-0.01
Naphtha	0.41	0.40	0.37	0.40	0.42	0.36	0.36	0.36	0.36	0.01	0.00
Motor gasoline	0.43	0.42	0.44	0.42	0.39	0.43	0.43	0.43	0.43	0.01	0.00
Jet and kerosene	0.18	0.18	0.20	0.18	0.17	0.20	0.19	0.19	0.20	0.01	0.00
Diesel	0.71	0.75	0.79	0.77	0.72	0.80	0.83	0.75	0.82	0.06	0.04
Other gasoil	0.37	0.35	0.34	0.37	0.46	0.28	0.35	0.26	0.23	-0.02	0.00
Residual fuel oil	0.12	0.12	0.12	0.11	0.14	0.13	0.14	0.13	0.12	-0.01	-0.01
Other products	0.06	0.05	0.08	0.05	0.01	0.07	0.07	0.07	0.06	0.00	-0.01
Total	2.37	2.37	2.44	2.39	2.42	2.37	2.47	2.29	2.34	0.05	0.02
Italy											
LPG and ethane	0.10	0.11	0.10	0.12	0.12	0.10	0.10	0.10	0.10	0.00	0.01
Naphtha	0.07	0.09	0.09	0.09	0.11	0.12	0.13	0.11	0.12	0.01	0.05
Motor gasoline	0.20	0.21	0.23	0.21	0.20	0.21	0.21	0.21	0.20	-0.01	-0.01
Jet and kerosene	0.09	0.10	0.12	0.08	0.09	0.11	0.11	0.11	0.12	0.01	0.02
Diesel	0.48	0.44	0.45	0.45	0.42	0.45	0.44	0.44	0.46	0.01	-0.01
Other gasoil	0.09	0.09	0.09	0.10	0.08	0.08	0.08	0.07	0.09	0.01	0.00
Residual fuel oil	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.07	0.01	-0.01
Other products	0.15	0.15	0.15	0.15	0.12	0.15	0.15	0.15	0.15	0.01	-0.01
Total	1.27	1.27	1.32	1.28	1.21	1.29	1.30	1.26	1.32	0.06	0.02
France											
LPG and ethane	0.13	0.13	0.11	0.13	0.17	0.14	0.15	0.14	0.14	-0.01	0.02
Naphtha	0.13	0.13	0.13	0.09	0.14	0.12	0.13	0.13	0.10	-0.03	-0.04
Motor gasoline	0.16	0.16	0.18	0.16	0.15	0.18	0.17	0.18	0.17	-0.01	-0.01
Jet and kerosene	0.15	0.15	0.17	0.15	0.14	0.15	0.15	0.15	0.15	0.00	-0.01
Diesel	0.70	0.71	0.72	0.72	0.67	0.72	0.72	0.75	0.69	-0.06	-0.07
Other gasoil	0.25	0.25	0.28	0.23	0.26	0.20	0.23	0.20	0.17	-0.04	-0.04
Residual fuel oil	0.05	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.02	0.00	-0.02
Other products	0.12	0.12	0.12	0.10	0.12	0.13	0.12	0.12	0.14	0.02	-0.02
Total	1.69	1.69	1.76	1.63	1.69	1.66	1.70	1.71	1.58	-0.13	-0.19
United Kingdom											
LPG and ethane	0.12	0.14	0.12	0.14	0.18	0.16	0.17	0.14	0.17	0.03	0.03
Naphtha	0.02	0.03	0.03	0.04	0.04	0.03	0.02	0.04	0.03	0.00	0.01
Motor gasoline	0.30	0.29	0.30	0.29	0.28	0.30	0.29	0.29	0.31	0.02	0.01
Jet and kerosene	0.31	0.31	0.32	0.30	0.33	0.32	0.33	0.31	0.31	-0.01	0.01
Diesel	0.48	0.50	0.50	0.51	0.49	0.52	0.53	0.49	0.54	0.05	0.02
Other gasoil	0.13	0.13	0.14	0.13	0.12	0.13	0.15	0.12	0.13	0.01	-0.01
Residual fuel oil	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.00	0.01
Other products	0.12	0.12	0.13	0.12	0.11	0.12	0.12	0.13	0.13	0.00	0.02
Total	1.52	1.55	1.57	1.56	1.57	1.61	1.65	1.55	1.65	0.10	0.09
Canada											
LPG and ethane	0.36	0.38	0.38	0.41	0.43	0.36	0.34	0.36	0.37	0.02	0.04
Naphtha	0.09	0.09	0.09	0.10	0.11	0.10	0.11	0.10	0.11	0.01	0.02
Motor gasoline	0.81	0.82	0.86	0.81	0.83	0.86	0.83	0.86	0.90	0.04	0.03
Jet and kerosene	0.14	0.14	0.16	0.14	0.13	0.14	0.13	0.13	0.17	0.04	0.01
Diesel	0.29	0.31	0.32	0.29	0.30	0.31	0.31	0.30	0.32	0.02	0.01
Other gasoil	0.30	0.26	0.26	0.26	0.22	0.25	0.25	0.28	0.23	-0.05	-0.03
Residual fuel oil	0.05	0.04	0.02	0.03	0.05	0.03	0.04	0.03	0.02	-0.01	0.00
Other products	0.36	0.35	0.37	0.36	0.32	0.31	0.30	0.30	0.31	0.01	-0.02
Total	2.41	2.41	2.45	2.40	2.39	2.37	2.31	2.36	2.44	0.08	0.05

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2015	2016	2017	1Q16	2Q16	3Q16	4Q16	1Q17	Jun 16	Jul 16	Aug 16
OPEC											
Crude Oil											
Saudi Arabia	10.13			10.21	10.32				10.50	10.65	10.60
Iran	2.86			3.15	3.59				3.62	3.63	3.64
Iraq	3.99			4.28	4.29				4.25	4.32	4.35
UAE	2.88			2.81	2.93				3.01	3.03	3.07
Kuwait	2.75			2.83	2.82				2.87	2.87	2.91
Neutral Zone	0.07			0.00	0.00				0.00	0.00	0.00
Qatar	0.66			0.66	0.66				0.66	0.66	0.65
Angola	1.76			1.77	1.74				1.74	1.76	1.76
Nigeria	1.80			1.76	1.53				1.51	1.46	1.46
Libya	0.40			0.36	0.32				0.32	0.30	0.28
Algeria	1.11			1.10	1.09				1.10	1.11	1.11
Ecuador	0.54			0.54	0.55				0.55	0.55	0.55
Venezuela	2.40			2.34	2.22				2.16	2.15	2.14
Indonesia	0.69			0.71	0.74				0.74	0.74	0.74
Gabon	0.23			0.22	0.22				0.22	0.22	0.21
Total Crude Oil	32.29			32.76	33.00				33.25	33.45	33.47
Total NGLs ¹	6.76	6.94	7.05	6.84	6.86	6.95	7.13	7.01	6.86	6.95	6.95
Total OPEC²	39.05			39.60	39.87				40.11	40.39	40.42
NON-OPEC^{2,3}											
OECD											
Americas	19.92	19.31	19.40	19.89	18.93	19.08	19.34	19.40	18.73	19.02	19.13
United States	12.92	12.49	12.47	12.73	12.61	12.25	12.38	12.38	12.48	12.39	12.22
Mexico	2.60	2.48	2.34	2.54	2.49	2.47	2.43	2.39	2.50	2.48	2.47
Canada	4.39	4.33	4.58	4.61	3.82	4.35	4.53	4.62	3.75	4.15	4.43
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.48	3.51	3.39	3.63	3.44	3.41	3.54	3.48	3.27	3.60	3.35
UK	0.97	1.02	0.96	1.09	1.05	0.94	1.01	1.00	1.00	1.02	0.91
Norway	1.95	2.01	1.94	2.03	1.94	2.02	2.04	1.98	1.81	2.14	1.99
Others	0.56	0.48	0.49	0.51	0.45	0.45	0.49	0.50	0.45	0.44	0.45
Asia Oceania	0.46	0.42	0.43	0.43	0.42	0.42	0.42	0.42	0.43	0.42	0.42
Australia	0.38	0.34	0.35	0.36	0.34	0.34	0.34	0.34	0.35	0.34	0.34
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Total OECD	23.85	23.23	23.22	23.96	22.78	22.90	23.30	23.30	22.43	23.04	22.90
NON-OECD											
Former USSR	14.00	14.07	14.25	14.21	14.01	13.94	14.11	14.25	14.09	14.11	13.81
Russia	11.06	11.19	11.22	11.24	11.18	11.14	11.20	11.22	11.19	11.22	11.05
Others	2.94	2.88	3.04	2.97	2.84	2.80	2.90	3.03	2.89	2.88	2.76
Asia²	7.09	6.80	6.60	6.96	6.77	6.71	6.76	6.66	6.80	6.68	6.67
China	4.34	4.08	3.96	4.19	4.06	4.02	4.04	4.01	4.08	3.99	4.01
Malaysia	0.71	0.72	0.71	0.73	0.71	0.71	0.71	0.69	0.72	0.72	0.69
India	0.87	0.85	0.84	0.85	0.85	0.85	0.86	0.85	0.85	0.86	0.85
Others	1.18	1.15	1.09	1.19	1.15	1.13	1.15	1.10	1.14	1.12	1.11
Europe	0.14	0.14	0.13	0.14	0.14	0.13	0.13	0.13	0.14	0.14	0.14
Americas²	4.59	4.52	4.75	4.36	4.46	4.58	4.66	4.68	4.55	4.54	4.57
Brazil	2.53	2.62	2.91	2.40	2.55	2.72	2.80	2.82	2.67	2.69	2.72
Argentina	0.63	0.62	0.61	0.62	0.62	0.62	0.62	0.61	0.62	0.62	0.62
Colombia	1.01	0.90	0.86	0.96	0.91	0.86	0.87	0.87	0.89	0.85	0.86
Others	0.42	0.38	0.37	0.38	0.39	0.38	0.38	0.37	0.37	0.38	0.38
Middle East^{2,4}	1.27	1.25	1.25	1.24	1.24	1.27	1.27	1.26	1.26	1.26	1.27
Oman	0.99	1.01	0.99	1.01	1.01	1.02	1.02	1.01	1.02	1.03	1.02
Syria	0.03	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.03
Yemen	0.04	0.01	0.02	0.00	0.00	0.01	0.02	0.02	0.00	0.01	0.01
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.05	2.01	2.09	2.01	1.93	2.03	2.06	2.07	1.97	2.02	2.03
Egypt	0.72	0.70	0.67	0.70	0.70	0.70	0.69	0.68	0.70	0.70	0.70
Others	1.33	1.31	1.42	1.31	1.23	1.34	1.37	1.39	1.27	1.32	1.33
Total Non-OECD	29.14	28.78	29.07	28.92	28.56	28.66	28.99	29.04	28.80	28.75	28.48
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.27	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.37	2.45	1.89	2.42	2.77	2.41	1.97	2.48	2.71	2.80
TOTAL NON-OPEC	57.50	56.66	57.04	57.03	56.03	56.61	56.96	56.60	55.97	56.77	56.45
TOTAL SUPPLY	96.54			96.63	95.89				96.08	97.16	96.87

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Mar2016	Apr2016	May2016	Jun2016	Jul2016*	Jul2013	Jul2014	Jul2015	3Q2015	4Q2015	1Q2016	2Q2016
OECD Americas												
Crude	689.3	692.6	687.3	676.7	676.6	508.4	521.1	617.2	-0.10	0.27	0.53	-0.14
Motor Gasoline	272.7	273.6	271.1	273.2	271.2	257.8	252.4	248.4	0.07	0.11	0.06	0.01
Middle Distillate	240.5	231.6	228.9	219.7	224.3	198.9	195.0	216.0	0.07	0.17	0.06	-0.23
Residual Fuel Oil	50.8	50.6	47.4	46.9	45.7	46.3	44.5	47.3	-0.01	0.03	0.01	-0.04
Total Products ³	757.5	761.3	764.1	773.2	792.0	706.4	704.6	738.3	0.31	0.11	-0.17	0.17
Total ⁴	1620.2	1629.9	1632.9	1636.0	1653.2	1379.2	1399.9	1542.4	0.37	0.21	0.33	0.17
OECD Europe												
Crude	349.1	351.9	357.1	356.2	364.2	323.1	319.9	339.3	-0.05	0.23	-0.13	0.08
Motor Gasoline	100.6	100.1	100.1	96.9	96.1	87.4	84.1	83.7	0.04	0.03	0.09	-0.04
Middle Distillate	309.2	313.2	313.2	312.9	317.4	249.9	254.2	282.4	0.26	0.00	0.08	0.04
Residual Fuel Oil	78.0	72.4	74.7	71.5	71.1	76.6	65.1	68.1	0.03	0.03	0.07	-0.07
Total Products ³	585.8	583.6	588.8	580.6	585.8	507.3	496.6	526.3	0.37	0.06	0.25	-0.06
Total ⁴	1004.3	1005.4	1014.7	1005.1	1017.3	892.3	883.9	934.0	0.29	0.25	0.16	0.01
OECD Asia Oceania												
Crude	196.0	193.9	202.6	202.2	195.7	171.0	176.6	204.9	0.01	0.04	-0.11	0.07
Motor Gasoline	26.1	25.0	25.3	26.4	24.8	27.2	23.2	24.7	-0.02	0.00	0.03	0.00
Middle Distillate	59.0	61.6	64.7	67.0	72.2	66.2	58.7	65.6	0.06	-0.01	-0.08	0.09
Residual Fuel Oil	19.9	19.2	19.0	19.1	19.5	20.9	23.1	19.8	0.03	-0.01	-0.01	-0.01
Total Products ³	166.1	164.3	171.2	175.0	184.2	174.4	165.8	170.2	0.11	-0.11	0.00	0.10
Total ⁴	421.3	420.3	434.1	437.7	440.9	418.2	412.3	438.6	0.17	-0.11	-0.15	0.18
Total OECD												
Crude	1234.5	1238.4	1247.1	1235.1	1236.5	1002.5	1017.6	1161.4	-0.14	0.54	0.29	0.01
Motor Gasoline	399.4	398.6	396.5	396.5	392.1	372.3	359.8	356.8	0.09	0.13	0.18	-0.03
Middle Distillate	608.6	606.3	606.8	599.6	613.9	514.9	507.9	563.9	0.40	0.15	0.06	-0.10
Residual Fuel Oil	148.8	142.1	141.1	137.5	136.3	143.8	132.7	135.2	0.05	0.04	0.06	-0.12
Total Products ³	1509.3	1509.2	1524.0	1528.7	1562.0	1388.0	1366.9	1434.9	0.79	0.06	0.08	0.21
Total ⁴	3045.7	3055.6	3081.7	3078.8	3111.3	2689.8	2696.1	2915.0	0.82	0.35	0.34	0.36

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Mar2016	Apr2016	May2016	Jun2016	Jul2016*	Jul2013	Jul2014	Jul2015	3Q2015	4Q2015	1Q2016	2Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	691.0	695.1	0.01	0.00	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.5	206.4	206.0	205.6	205.8	206.4	208.2	207.8	0.01	-0.01	0.00	-0.01
Products	266.4	265.7	264.3	264.6	266.1	260.8	256.6	256.0	-0.05	0.08	0.05	-0.02
OECD Asia Oceania												
Crude	384.2	384.2	385.4	385.4	385.4	384.9	387.7	384.4	-0.05	0.01	0.02	0.01
Products	35.2	35.2	35.2	35.5	35.5	23.1	31.0	33.4	0.01	0.01	0.01	0.00
Total OECD												
Crude	1285.8	1285.7	1286.6	1286.1	1286.3	1287.3	1286.9	1287.3	-0.02	0.00	0.02	0.00
Products	303.6	302.9	301.5	302.1	303.5	284.9	288.5	291.5	-0.04	0.08	0.06	-0.02
Total ⁴	1593.2	1591.6	1590.8	1590.9	1592.4	1576.7	1579.7	1582.9	-0.06	0.08	0.07	-0.03

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
(millions of barrels¹ and 'days')²

	End June 2015		End September 2015		End December 2015		End March 2016		End June 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	175.6	72	182.5	76	188.4	79	183.6	77	171.6	-
Chile	11.8	36	11.0	33	10.6	32	11.3	32	11.0	-
Mexico	50.4	24	49.5	24	49.7	25	45.9	24	48.8	-
United States ⁴	1973.2	100	2003.1	103	2016.8	104	2054.5	106	2079.5	-
Total⁴	2233.2	90	2268.2	93	2287.5	93	2317.3	95	2333.1	94
OECD Asia Oceania										
Australia	35.9	32	35.5	31	33.5	30	37.0	33	38.2	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	578.3	150	589.6	143	582.0	131	559.8	153	573.5	-
Korea	224.6	95	226.0	90	227.9	88	235.7	95	238.0	-
New Zealand	9.0	59	8.7	52	7.7	45	8.2	51	8.9	-
Total	847.9	110	859.7	105	851.1	100	840.7	110	858.6	111
OECD Europe⁵										
Austria	23.2	82	23.7	90	24.1	94	25.4	94	22.5	-
Belgium	47.7	74	51.3	81	50.4	73	52.7	84	52.8	-
Czech Republic	21.6	106	21.8	127	22.1	148	22.8	130	22.8	-
Denmark	28.4	178	28.6	186	31.8	211	32.4	204	30.7	-
Estonia	1.5	50	1.5	53	1.8	66	2.2	89	2.6	-
Finland	45.0	219	39.9	205	44.9	237	46.0	241	45.4	-
France	169.8	97	166.8	103	167.6	99	165.8	100	167.5	-
Germany	285.6	117	281.4	118	285.3	118	288.7	122	287.9	-
Greece	27.8	91	29.2	94	32.4	115	33.4	116	31.4	-
Hungary	20.5	127	20.6	126	22.0	157	20.9	140	22.6	-
Ireland	11.1	74	11.3	75	11.6	75	12.2	82	12.3	-
Italy	117.1	89	117.2	92	117.3	97	119.9	93	120.9	-
Luxembourg	0.6	12	0.6	10	0.7	13	0.7	12	0.8	-
Netherlands	140.2	146	153.1	160	158.8	165	157.7	160	159.6	-
Norway	25.9	126	25.1	105	26.7	127	24.9	117	26.4	-
Poland	62.6	111	63.9	119	69.4	131	67.4	119	65.4	-
Portugal	21.8	85	23.0	97	23.9	109	24.5	102	24.9	-
Slovak Republic	11.4	137	11.0	134	11.6	150	11.9	135	12.4	-
Slovenia	4.7	88	4.6	96	4.5	90	4.6	90	4.7	-
Spain	133.4	106	139.4	113	130.9	104	140.3	112	134.2	-
Sweden	31.0	103	33.3	120	35.2	122	34.9	116	33.3	-
Switzerland	37.2	165	36.3	149	34.4	171	36.1	165	35.8	-
Turkey	65.7	70	71.2	82	74.6	88	75.9	80	78.0	-
United Kingdom	77.2	49	79.0	51	80.9	52	79.7	49	83.2	-
Total	1411.0	100	1433.9	105	1463.0	107	1481.0	106	1478.0	106
Total OECD	4492.1	96	4561.8	98	4601.6	99	4638.9	101	4669.7	100
DAYS OF IEA Net Imports⁶ -	194	-	196	-	198	-	200	-	205	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End June 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
2Q2013	4253	1576	2676	92	34	58
3Q2013	4296	1582	2715	92	34	58
4Q2013	4174	1584	2589	91	35	56
1Q2014	4196	1585	2610	93	35	58
2Q2014	4261	1580	2681	93	34	58
3Q2014	4328	1578	2749	93	34	59
4Q2014	4318	1580	2738	93	34	59
1Q2015	4397	1583	2814	97	35	62
2Q2015	4492	1585	2907	96	34	62
3Q2015	4562	1579	2983	98	34	64
4Q2015	4602	1587	3015	99	34	65
1Q2016	4639	1593	3046	101	35	66
2Q2016	4670	1591	3079	100	34	66

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 2Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	3Q15	4Q15	1Q16	2Q16	Apr 16	May 16	Jun 16	Year Earlier	
											Jun 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.57	0.72	0.74	0.72	0.78	0.79	0.59	0.53	0.06
Europe	0.79	0.84	0.78	0.77	0.69	0.76	0.67	0.73	0.67	0.63	0.81	-0.18
Asia Oceania	1.21	1.17	1.25	1.16	1.21	1.40	1.44	1.51	1.42	1.39	1.09	0.29
Saudi Medium												
Americas	0.45	0.36	0.37	0.44	0.43	0.39	0.44	0.42	0.46	0.45	0.35	0.09
Europe	0.01	0.03	0.03	0.02	0.04	-	0.01	-	-	0.02	0.03	-0.01
Asia Oceania	0.43	0.45	0.44	0.48	0.41	0.46	0.43	0.48	0.43	0.38	0.39	-0.01
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.09	0.29	0.21	0.44	0.42	0.46	0.44	0.19	0.25
Europe	0.25	0.50	0.72	0.95	0.94	0.90	0.67	0.83	0.71	0.48	0.55	-0.07
Asia Oceania	0.31	0.24	0.41	0.42	0.49	0.47	0.51	0.64	0.36	0.53	0.44	0.09
Kuwait Blend												
Americas	0.28	0.27	0.13	0.11	0.07	0.13	0.12	0.15	-	0.21	0.12	0.09
Europe	0.10	0.09	0.13	0.16	0.18	0.20	0.08	0.16	0.05	0.04	0.13	-0.09
Asia Oceania	0.64	0.62	0.65	0.62	0.69	0.71	0.65	0.62	0.75	0.59	0.51	0.08
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.07	0.10	0.09	0.17	0.12	0.19	0.21	0.10	0.11
Asia Oceania	0.00	0.01	0.01	0.02	-	0.02	0.01	-	0.01	0.02	-	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.03	0.01	0.04	0.13	0.19	0.16	0.05	0.02	0.03
Asia Oceania	0.30	0.28	0.27	0.25	0.26	0.44	0.47	0.26	0.61	0.54	0.21	0.33
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.61	0.61	0.61	0.64	0.57	0.63	-0.06
Europe	0.07	0.08	0.09	0.07	0.10	0.06	0.05	0.09	0.03	0.02	0.07	-0.05
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.45	0.54	0.52	0.54	0.67	0.38	0.58	0.44	0.14
Europe	0.14	0.14	0.15	0.19	0.11	0.15	0.16	0.17	0.16	0.13	0.16	-0.03
Asia Oceania	-	-	0.01	0.02	0.02	0.02	0.04	0.03	0.03	0.04	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	2.02	1.94	2.12	1.85	1.90	1.78	1.87	1.76	0.11
Europe	-	0.00	0.01	0.01	0.01	0.01	0.01	0.02	-	-	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	-	-
Europe	0.47	0.56	0.49	0.52	0.49	0.47	0.36	0.44	0.44	0.19	0.51	-0.32
Asia Oceania	0.06	0.07	0.06	0.02	0.09	0.09	0.03	0.09	-	-	0.13	-
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.64	1.74	1.58	1.75	1.95	1.68	1.61	1.40	0.21
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	-	-	-	-	-	-	0.02	-
Europe	0.59	0.64	0.64	0.59	0.65	0.76	0.65	0.88	0.62	0.44	0.54	-0.10
Asia Oceania	0.00	0.02	0.06	0.12	0.06	0.05	0.00	-	0.01	-	-	-
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.22	0.25	0.16	0.14	0.17	0.13	0.12	0.18	-0.06
Asia Oceania	0.03	0.02	0.01	-	-	0.02	0.01	-	0.02	0.02	0.02	-0.01
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.03	0.02	0.07	0.06	0.08	0.03	0.06	-	-
Europe	0.53	0.55	0.57	0.55	0.58	0.44	0.46	0.44	0.44	0.50	0.52	-0.02
Asia Oceania	0.03	0.02	-	-	-	-	0.01	-	0.03	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	3Q15	4Q15	1Q16	2Q16	Apr 16	May 16	Jun 16	Year Earlier	
											Jun 15	% change
Crude Oil												
Americas	5130	4201	4022	4075	4056	4350	4662	4454	4959	4563	4089	12%
Europe	8926	8679	9503	9605	9741	8963	8826	8915	8660	8907	8891	0%
Asia Oceania	6537	6371	6572	6482	6522	6802	6647	6772	6764	6400	6118	5%
Total OECD	20592	19251	20097	20161	20319	20115	20135	20142	20383	19870	19098	4%
LPG												
Americas	17	12	10	5	12	29	42	38	51	37	4	849%
Europe	382	427	412	408	404	404	405	444	356	418	399	5%
Asia Oceania	547	532	518	491	506	590	576	606	500	624	546	14%
Total OECD	946	971	940	904	921	1024	1023	1088	907	1078	949	14%
Naphtha												
Americas	17	20	15	12	12	11	11	8	4	22	9	161%
Europe	332	356	348	413	283	360	294	355	210	318	302	6%
Asia Oceania	920	953	951	948	977	948	834	859	900	741	872	-15%
Total OECD	1269	1328	1313	1372	1271	1319	1139	1222	1115	1081	1182	-9%
Gasoline³												
Americas	659	665	670	813	549	460	882	766	850	1032	801	29%
Europe	106	131	107	72	117	93	60	66	82	32	132	-76%
Asia Oceania	75	76	93	61	98	73	84	99	74	78	111	-30%
Total OECD	841	871	870	946	765	626	1026	932	1006	1142	1045	9%
Jet & Kerosene												
Americas	81	100	141	132	133	152	158	120	176	176	181	-3%
Europe	445	454	442	586	392	462	517	472	465	616	474	30%
Asia Oceania	73	60	64	49	74	79	76	99	72	55	91	-39%
Total OECD	600	614	648	768	599	693	750	691	714	847	746	14%
Gasoil/Diesel												
Americas	58	95	76	46	63	57	40	66	11	45	38	19%
Europe	1121	1097	1216	1261	1178	1407	1454	1457	1408	1499	1361	10%
Asia Oceania	141	159	164	147	200	180	228	269	196	220	154	43%
Total OECD	1319	1352	1457	1455	1441	1644	1722	1791	1615	1764	1553	14%
Heavy Fuel Oil												
Americas	165	132	116	139	91	163	126	124	62	195	87	124%
Europe	552	617	564	518	575	529	524	460	654	455	459	-1%
Asia Oceania	232	203	176	176	204	188	150	174	118	160	131	22%
Total OECD	949	953	856	833	870	880	801	758	834	810	678	19%
Other Products												
Americas	812	671	675	759	553	627	717	697	718	737	792	-7%
Europe	791	704	702	737	724	761	798	804	830	759	658	15%
Asia Oceania	426	408	352	373	351	384	347	305	386	349	391	-11%
Total OECD	2029	1784	1729	1870	1627	1772	1862	1806	1933	1846	1841	0%
Total Products												
Americas	1810	1695	1703	1906	1414	1499	1977	1818	1871	2244	1912	17%
Europe	3729	3786	3793	3996	3672	4015	4053	4058	4005	4096	3786	8%
Asia Oceania	2414	2391	2318	2246	2411	2444	2294	2411	2247	2227	2296	-3%
Total OECD	7953	7872	7813	8148	7496	7958	8324	8287	8123	8567	7994	7%
Total Oil												
Americas	6940	5896	5725	5980	5470	5850	6639	6272	6831	6807	6001	13%
Europe	12655	12465	13296	13601	13413	12978	12878	12974	12665	13004	12677	3%
Asia Oceania	8951	8762	8890	8728	8932	9246	8941	9183	9011	8627	8415	3%
Total OECD	28545	27123	27910	28309	27815	28074	28458	28429	28507	28438	27092	5%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 11 August 2016), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 11 October 2016

Oil Market Report

11 October 2016

HIGHLIGHTS

- **Global oil supply rose by 0.6 mb/d in September, with non-OPEC up nearly 0.5 mb/d on higher Russian and Kazakh flows and OPEC at an all-time high.** World oil output of 97.2 mb/d was up 0.2 mb/d on a year ago due to strong OPEC growth. Non-OPEC supply is forecast to drop by 0.9 mb/d in 2016 before rebounding by 0.4 mb/d in 2017.
- **OPEC crude output rose by 160 kb/d to a record 33.64 mb/d in September as Iraq pumped at the highest ever and Libya reopened ports.** Supply from the group stood 0.9 mb/d above 2015 due to robust Middle East output. OPEC has agreed to cut supply to between 32.5 mb/d and 33 mb/d, with details to be set by end-November.
- **Demand is forecast to expand by 1.2 mb/d this year, with a similar gain expected in 2017.** Growth continues to slow, dropping from a five-year high in 3Q15 to a four-year low in 3Q16 due to vanishing OECD growth and a marked deceleration in China. The potential for colder weather should see growth rebound somewhat in 4Q16.
- **OECD commercial inventories fell for the first time since March, by 10 mb to 3 092 mb in August** due to a larger than seasonal decline in crude stockpiles. Preliminary data for September show crude stocks falling in both Japan and the US.
- **Weighed down by autumn maintenance, global refinery throughput in 4Q16 is expected to decline seasonally by 1.1 mb/d, up just 70 kb/d year-on-year.** Global throughput in 2016 is expected to grow y-o-y by just 220 kb/d, the lowest annual growth rate in more than a decade, excluding the last economic recession.
- **Benchmark crude prices rose in September as market rebalancing continued and participants anticipated an OPEC supply cut.** At the time of writing, front month ICE Brent was trading at \$53.05/bbl with front month NYMEX WTI lower at \$51.15/bbl.

OMR PUBLISHING SCHEDULE – 2017

Please find below the 2017 release dates for the Oil Market Report:

- Thursday 19 January
- Friday 10 February⁽¹⁾
- Wednesday 15 March
- Thursday 13 April
- Tuesday 16 May
- Wednesday 14 June⁽²⁾
- Thursday 13 July
- Friday 11 August⁽³⁾
- Wednesday 13 September
- Thursday 12 October
- Tuesday 14 November
- Thursday 14 December

This information is also available at: www.iea.org/oilmarketreport/schedule/

The 2017 Edition of the Medium-Term Oil Market Report (MTOMR) will be released on Monday 6 March.

1. The 10 February OMR will comprise the usual data and projections through end-2017, but with abridged text.
2. Supply/demand forecasts will be 'rolled out' to 2018 in the report dated 14 June 2017.
3. The Annual Statistical Supplement 2016 Edition will be published in conjunction with the report dated 11 August 2016.

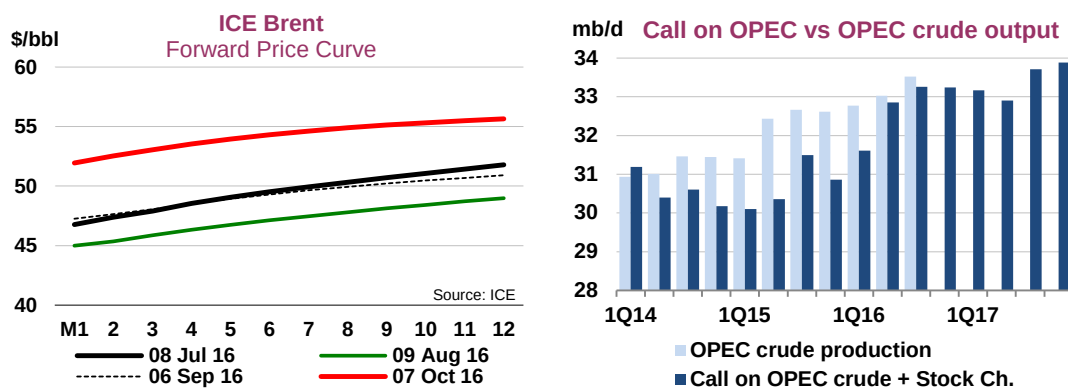
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SETTING LIMITS

The waiting game is over. OPEC has effectively abandoned its free market policy set in train nearly two years ago. Global oil inventories are far too high - in the view of some producers – and they aren't being worked off nearly fast enough. To speed up the process, OPEC agreed on 28 September to cut production. The price of oil has risen by 15% to more than \$53/bbl since the deal, the first to cut supply since 2008.

Now the real work starts. Apart from setting a supply target of between 32.5 mb/d and 33 mb/d, other critical details – like individual country allocations, production baseline and implementation date – need to be finalised when OPEC meets on 30 November. Iran, Libya and Nigeria – all aiming to raise output - are said to be exempt from cuts. A significant rebound in supply from Libya and Nigeria and further growth from Iran would suggest that bigger cuts would have to be made by others, such as Saudi Arabia, to meet the new output target. Our estimate for September shows crude supply from the group's 14 members climbing to 33.6 mb/d – an all-time high. The extent of any cooperation from non-OPEC producers such as Russia is still to be determined.



To be sure, the rapid rise of US light tight oil (LTO) and OPEC's free-wheeling strategy triggered dramatic changes in the world of oil. The price of crude fallen from triple digit highs to below \$50/bbl. Lower prices at the pump initially fuelled strong gains in demand, but growth has since slowed markedly after subsidy cuts in emerging markets, economic headwinds in some countries and demand saturation in the developed world. On the supply front, relentless growth from non-OPEC – particularly US LTO – has swung into contraction, as forecast in our previous reports. At the same time, production from OPEC – driven mainly by low-cost Middle East supply – has risen to all-time highs. The net result is a massive oil inventory overhang that is keeping the market under pressure.

The current price of oil has caused discomfort for all producers – even those with hefty financial reserves, such as Saudi Arabia. For high-cost non-OPEC producers the pain has been especially acute. The impact of steep investment cuts made in 2015 is being felt now: nearly 0.9 mb/d has been lost since a year ago. The lower price environment has also forced companies big and small to cut costs and do more with less. As a result, non-OPEC supply is expected to return to growth next year.

Even now, producers such as Russia are showing impressive resilience. So are Middle East OPEC countries whose record-smashing performance has raised the group's oil output by 1.1 mb/d from a year ago. The converse is true for demand, with growth slowing from a five-year high in the third quarter of 2015 to a four-year low in the third quarter of this year.

Even with tentative signs that bulging inventories are starting to decline, our supply-demand outlook suggests that the market – if left to its own devices – may remain in oversupply through the first half of next year. If OPEC sticks to its new target, the market's rebalancing could come faster.

DEMAND

Summary

- **World oil demand will grow by 1.2 mb/d this year, with a similar expansion expected in 2017.** The growth estimate for 2016 has been trimmed by 40 kb/d, while the absolute demand estimate was raised by 155 kb/d. Baseline adjustments, mainly to 2015 US data, lifted absolute demand but curbed expected growth in 2016.
- **Global demand growth continues to slow,** dropping from a five-year high of 2.5 mb/d in 3Q15 to a four-year low of 0.8 mb/d in 3Q16 due to vanishing OECD growth and a marked deceleration in China. After unusually mild winter weather in much of the northern hemisphere in 4Q15, year on year (y-o-y) growth should rebound somewhat in 4Q16 (+1.4 mb/d).
- **Much weaker-than-expected US oil demand data for July pulled down the estimate of overall demand for the third quarter and for the whole of 2016.** Growth estimates fell heavily (-415 kb/d in July, y-o-y), as upgrades to the baseline series further reduced year-on-year (y-o-y) comparisons.
- **Chinese oil demand growth has all but vanished in 3Q16 compared to a year ago, pulled down by a substantial slowdown in industrial oil usage.** Some of the slowdown may be temporary due to forced factory closures ahead of September's G20 meeting in Hangzhou, but the heady gains seen as recently as mid-2015 are unlikely to be repeated any time soon.
- **Exceptionally weak estimates of Saudi Arabian 'other product' demand** due to subdued seasonal power sector demand pulled the overall metric down in y-o-y terms for a fourth consecutive month in July.
- **Indian demand growth returned with a vengeance,** according to preliminary August data (+420 kb/d). Strong gains in road transport demand and residential LPG use lent support, more than offsetting declines in naphtha and kerosene.
- **A surprising uptick in Russian demand gathered pace in August despite an ailing economy and ongoing recessionary conditions.** Russian demand broke through 4 mb/d for the first time ever, rising by just over 4% y-o-y in August, despite a recession that has lasted since mid-2014.

Global Oil Demand (2015-2017)

	(million barrels per day)														
	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.4	4.3	4.4	4.3
Americas	31.1	31.2	31.8	31.3	31.4	31.0	31.1	31.6	31.4	31.3	31.0	31.2	31.7	31.5	31.3
Asia/Pacific	32.3	31.6	31.6	32.6	32.0	33.3	32.6	32.2	33.4	32.9	34.0	33.3	33.2	34.2	33.7
Europe	14.1	14.2	14.9	14.4	14.4	14.3	14.6	14.9	14.4	14.6	14.3	14.6	14.9	14.4	14.6
FSU	4.7	4.9	5.1	5.0	4.9	4.9	4.9	5.3	5.2	5.1	5.0	5.1	5.3	5.2	5.2
Middle East	7.8	8.5	8.7	8.3	8.3	7.8	8.3	8.7	8.3	8.3	8.0	8.4	8.8	8.4	8.4
World	94.0	94.5	96.0	95.6	95.0	95.5	95.8	96.8	97.0	96.3	96.8	96.9	98.1	98.2	97.5
Annual Chg (%)	1.6	2.1	2.7	1.4	1.9	1.6	1.4	0.8	1.5	1.3	1.3	1.2	1.4	1.2	1.3
Annual Chg (mb/d)	1.5	1.9	2.5	1.3	1.8	1.5	1.3	0.8	1.4	1.2	1.3	1.2	1.3	1.2	1.2
Changes from last OMR (mb/d)	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Global Overview

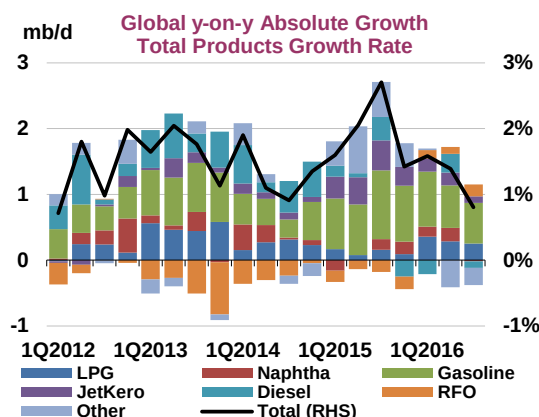
A number of major data revisions have significantly changed the composition and scale of the global oil demand profile. The baseline series for 2015 has been revised up by nearly 200 kb/d, since last month's

Report, to 95.04 mb/d. The raised historical estimates are mainly due to the latest US 2015 data being significantly above that first reported and, to some extent, upgrades of non-OECD Asian demand. The growth estimate for 2016 has, however, been modestly curtailed – by 40 kb/d to 1.24 mb/d – as higher baseline numbers were not fully replicated. A similarly paced expansion is projected for 2017, as a tentative acceleration in underlying economic activity collides with potentially higher oil prices.

Revisions to the historical numbers for the US were critical, as government data raised the 2015 demand estimate by 135 kb/d to 19.5 mb/d. Additional LPG (including ethane) demand was the key. A number of non-OECD consumers were also upgraded. Our Indonesian estimate was raised following the publication of more comprehensive data by the Joint Organisations Data Initiative (JODI). China was the other main upside-revision, with about 40 kb/d added to the 2015 demand estimate of 11.5 mb/d due to upwardly revised gasoline numbers following in-depth analysis of the road transportation market (see *Temporary disconnect between China's car sales boom and gasoline demand*).

The 2016 demand profile has also been adjusted. Preliminary August numbers for Russia, India, Korea and many European countries have come out ahead of prior expectations – indicating a potentially higher 3Q16 global demand forecast. However, much weaker conditions in the US, Brazil, Saudi Arabia and Turkey had the opposite effect. The net result overall is a 3Q16 global demand estimate of 96.80 mb/d, 150 kb/d up on the estimate carried in last month's *Report* due to the above mentioned base year adjustment.

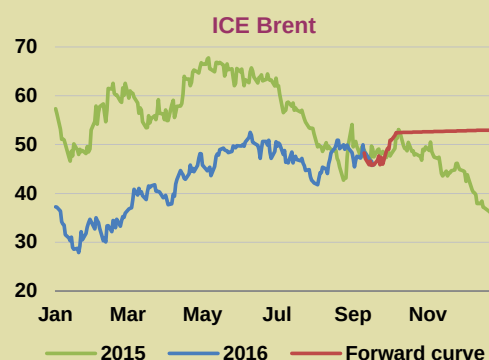
What remains clear is that y-o-y global oil demand growth has clearly slowed from a five-year high of 2.53 mb/d in 3Q15 to 0.77 mb/d. Although we anticipate a modest weather-related uptick in 4Q16 (see *Colder winter may spur northern hemisphere demand* in last month's *Report*), growth of 1.24 mb/d is expected for the year as a whole. That is significantly below the recent peak of 1.81 mb/d in 2015. The acceleration that occurred in 2015 after a near-halving in crude oil prices was not matched in 2016. This logic further also keeps the forecast for 2017 demand growth in check.



Excessive debt levels pose risk to forecasts

One clear risk stands out from reports published this month by the International Monetary Fund (IMF) – excessive debt levels and their impact on the world economy and oil demand.

At roughly 225% of global economic activity, gross debts in the non-financial sector cast a long shadow, according to the IMF's *Fiscal Monitor*. Indeed, the prolonged slowdown in global economic growth "has prompted financial markets to expect an extended period of low inflation and low interest rates" (*Global Financial Stability Report, October 2016*), encouraging excessive debt levels on the promise of low repayment schedules to come. But a key oil-related contribution to this has recently changed. For one-and-a-half years the oil-price contribution to overall price pressures has been overwhelmingly deflationary, but that has now changed. If one believes futures prices, oil could continue to act as an inflationary pressure. Assuming the majority of other global price pressures remain deflationary, the current low inflation/low interest rate environment will most likely remain. If other costs start to reflect the potential oil-price upside, or at least lack of downside, then the status quo could rapidly change making incumbent debt levels a hugely restrictive expense.



Excessive debt levels pose risk to forecasts (continued)

At more than \$150 trillion, non-financial debt levels – comprising the general government, household and non-financial companies – stand at an all-time high, while two-thirds of this consist of (potentially more risky) private sector liabilities. The IMF's *Financial Monitor* warns that “there are concerns that the sheer size of the debt could set the stage for an unprecedented private deleveraging process that could thwart the financial economic recovery”. Hence, achieving the IMF's central 3.4% 2017 global economic growth forecast – that underpin the demand forecasts carried in this *Report* – will not be clear sailing and October's *World Economic Outlook* forecasts a 90% confidence interval of 2.2%-to-4.5% for 2017 global economic growth, with anything below 3% commonly deemed to be close to a global economic recession. October's *Global Financial Stability Report*, from the IMF, further warns that the medium-term economic risks are building.

The IMF still claims that “the short term risks...have abated” (since their publication of April 2016). But many risks still loom outside of the forecasting horizon of this *Report*, i.e. 2016-17. For now we continue to foresee global oil demand growth of approximately 1.2 mb/d in 2017 but note that the exogenous variables that underpin our demand models – that of economic growth and prices – continue to ebb as the market evolves.

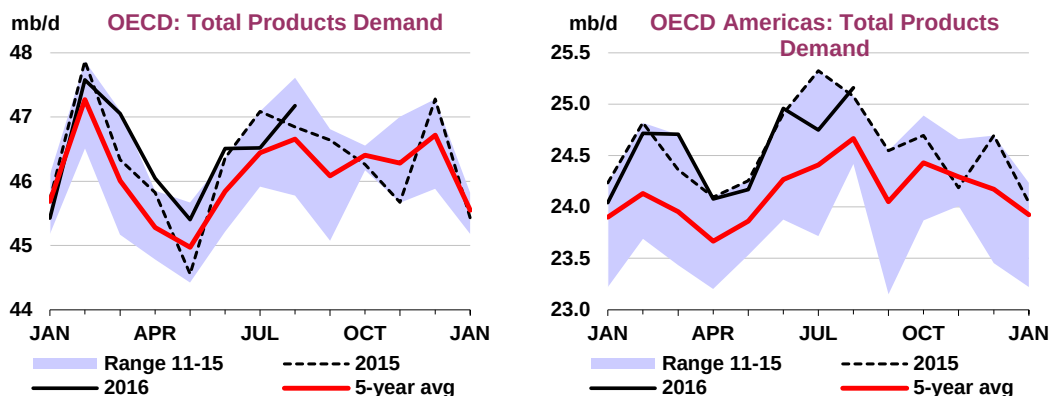
OECD

Total OECD oil deliveries are forecast to average 46.7 mb/d in 3Q16, down by 150 kb/d compared to a year earlier – the first outright contraction since the unseasonably mild winter of 4Q15. Gasoil/diesel led the downside due to sharp contractions in the OECD Americas (Canada, the US and Mexico) and Europe, more than offsetting gasoil's recent gains in Japan and Korea. The overall 3Q16 metric fell despite strong y-o-y gains in gasoline, jet/kerosene and residual fuel oil. July demand declined before returning to growth in August, reflecting the cycle of European and US demand. For the year as a whole, OECD oil demand is forecast to average 46.5 mb/d, 115 kb/d up on the year, as resurgent weather-induced 4Q16 demand growth takes the region back into positive growth territory. Roughly flat demand is foreseen in 2017.

OECD Demand based on Adjusted Preliminary Submissions - August 2016

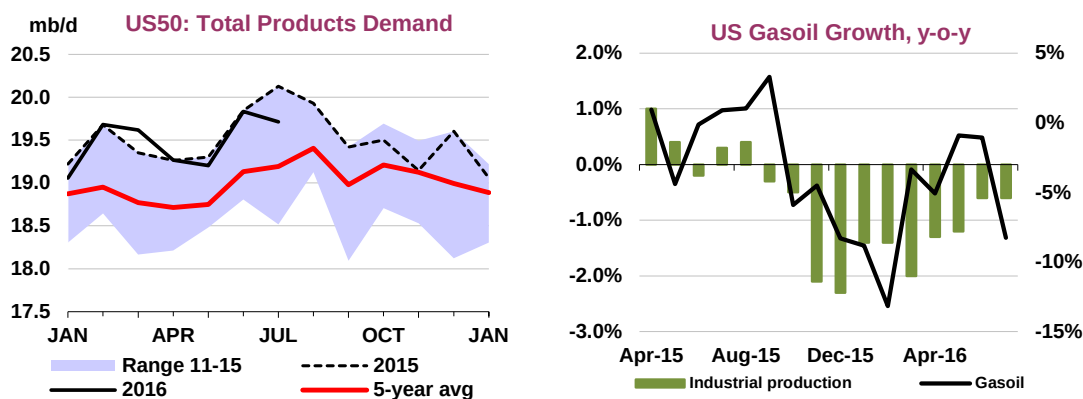
	(million barrels per day)													
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.51	2.5	2.02	5.5	4.69	1.4	0.48	0.7	0.64	0.0	5.81	-5.99	25.16	0.3
US50	9.68	2.3	1.70	6.3	3.81	1.2	0.16	5.7	0.35	17.3	4.36	-6.32	20.06	0.7
Canada	0.89	1.9	0.17	-0.7	0.30	-5.7	0.24	-2.1	0.02	-0.6	0.82	-0.66	2.44	-0.6
Mexico	0.80	5.5	0.08	6.5	0.38	4.8	0.05	-0.8	0.16	-23.1	0.50	-11.75	1.97	-2.6
OECD Europe	2.05	2.0	1.49	-1.4	4.83	4.9	1.28	-10.6	0.88	-0.8	3.60	2.97	14.12	1.4
Germany	0.43	-3.4	0.20	-4.6	0.80	5.8	0.31	-9.7	0.11	-7.3	0.56	0.60	2.40	-0.8
United Kingdom	0.30	1.6	0.30	-6.9	0.52	3.0	0.15	-0.7	0.02	-14.7	0.30	8.60	1.59	1.0
France	0.19	11.5	0.17	0.3	0.70	7.2	0.22	-24.5	0.03	-28.7	0.38	7.94	1.69	0.8
Italy	0.23	3.6	0.13	7.0	0.43	4.3	0.09	8.4	0.07	-17.5	0.34	2.36	1.27	2.8
Spain	0.13	6.0	0.16	10.2	0.47	5.3	0.13	1.0	0.16	8.2	0.24	1.29	1.28	5.0
OECD Asia & Oceania	1.73	2.0	0.67	-2.6	1.34	2.5	0.43	3.3	0.59	4.0	3.15	-0.82	7.90	0.7
Japan	1.03	-0.1	0.30	-12.8	0.41	1.1	0.31	5.4	0.31	-8.2	1.43	-4.99	3.78	-3.3
Korea	0.26	12.4	0.17	7.6	0.41	10.8	0.09	-4.1	0.23	27.4	1.46	3.74	2.62	7.3
Australia	0.31	0.8	0.15	6.0	0.43	-3.0	0.00	80.0	0.03	4.5	0.18	-1.13	1.10	-0.3
OECD Total	15.28	2.4	4.17	1.6	10.86	3.0	2.19	-5.8	2.11	0.7	12.56	-2.28	47.17	0.7

* Including US territories



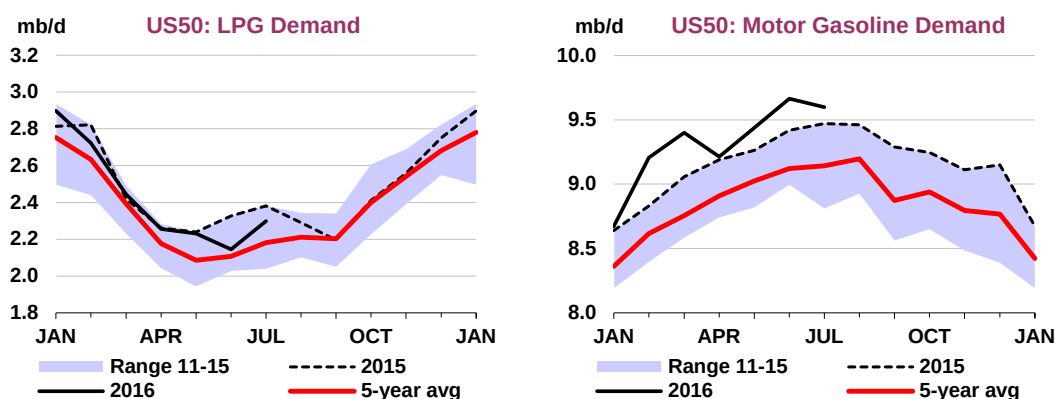
Americas

Falling by over 200 kb/d on a y-o-y basis in 3Q16, oil deliveries in the OECD Americas are envisaged to average 24.8 mb/d – the highest absolute level in a year but below the elevated low-price induced height of last year. Furthermore, the 0.8% y-o-y 3Q16 decline is the steepest OECD American drop since 3Q12. The changing **US** demand picture sits at the root of this change. US demand contracted by a surprisingly sharp 2.1% y-o-y in July, pulled down by a combination of upside baseline 2015 revisions and a much weaker official monthly estimate of July demand. Not only is the downwardly revised 19.7 mb/d July estimate significantly below (-255 kb/d) that previously assumed, it is also 415 kb/d below the upwardly revised level of year earlier deliveries – a scale of contraction not seen since late-2012.

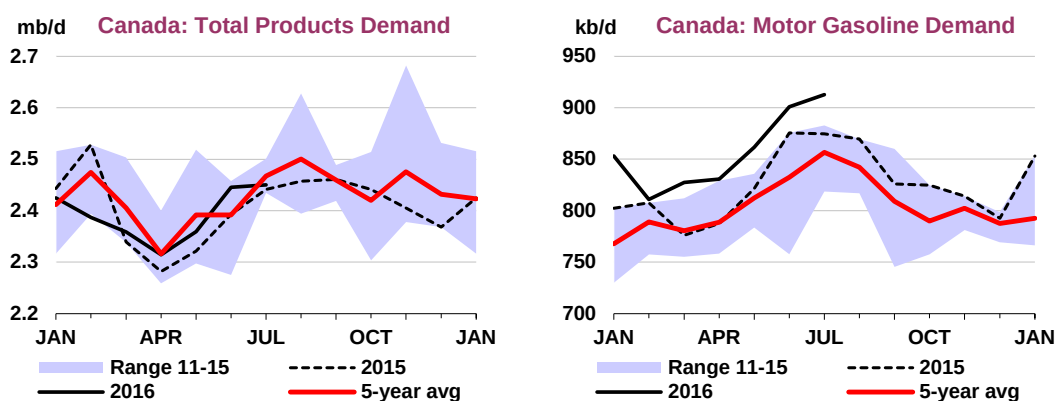


The key contributors for July's sharp drop – a three-and-a-half-year high – are the big declines in US industrial oil use, chiefly gasoil/diesel (-320 kb/d y-o-y) and 'other products' (-365 kb/d). These falls more than offset the gains in US gasoline, residual fuel oil and jet/kerosene. The split clearly demonstrates the dichotomy that exists in the US economy: persistent declines in the US industrial sector and continued growth in the consumer sector. Industrial activity across the US economy as a whole eased by 0.6% compared to the year earlier in July, with a further decline of 1.1% y-o-y in August, according to the US Federal Reserve. In contrast, the US Census Bureau cited total retail sales growth of approximately 2.4% y-o-y in July.

Baseline data revisions have dropped relative y-o-y growth estimates through most of 2016. The latest official data from the US showed demand at 19.5 mb/d in 2015, 135 kb/d more than previously reported, resulting in an upwardly revised US growth estimate of 425 kb/d (or 2.2%) compared to the previous +290 kb/d (or +1.5%). Additional LPG (including ethane) was the main catalyst, with deliveries of LPG now estimated to be 2.5 mb/d in 2015, a gain of 60 kb/d on the year earlier.

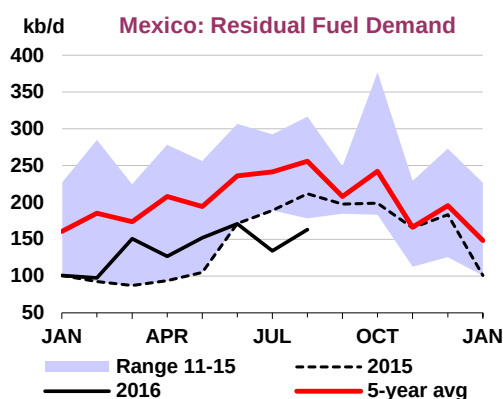
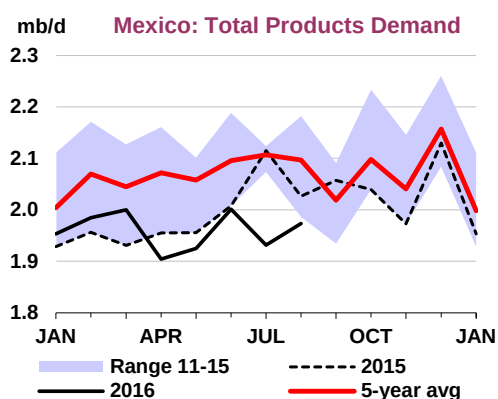


Preliminary indicators of August US demand – based on adjusted weekly numbers from the US Energy Information Administration – still point towards growth. Likely rising by around 0.7% in August, total US oil deliveries are forecast to average 20.1 mb/d in August and 19.8 mb/d in 3Q16, a decline of 75 kb/d on the year earlier. Despite the recent weaknesses in US industrial oil demand, gasoline remains relatively robust due to high vehicle usage. The US Department of Transport’s Federal Highway Administration cites seasonally adjusted US vehicle miles travelled rising by 3.3% in July, compared to the previous year. For the year as a whole, US oil deliveries are forecast to average 19.6 mb/d, a modest 35 kb/d up on 2015.



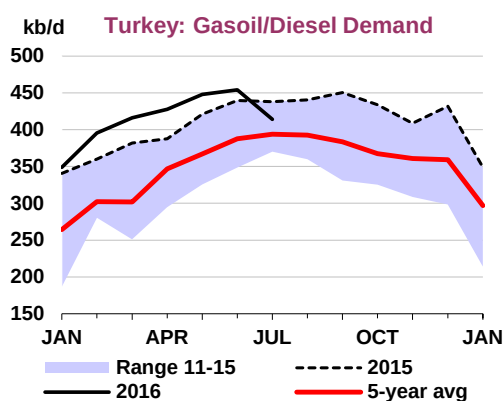
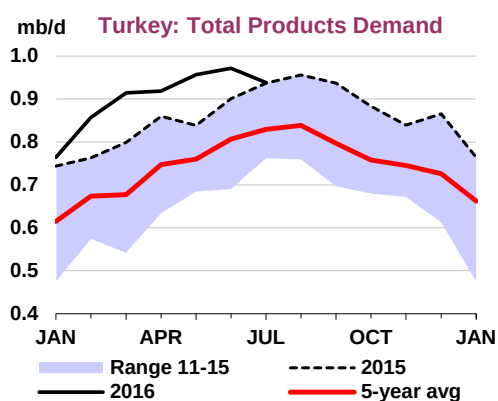
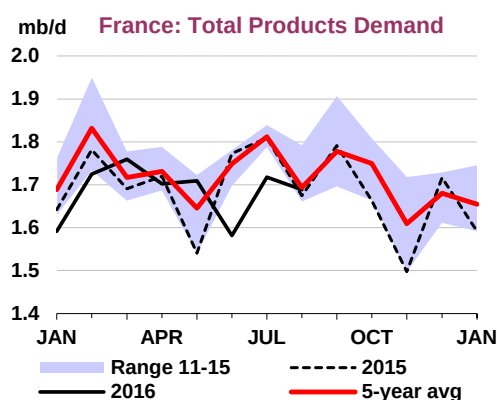
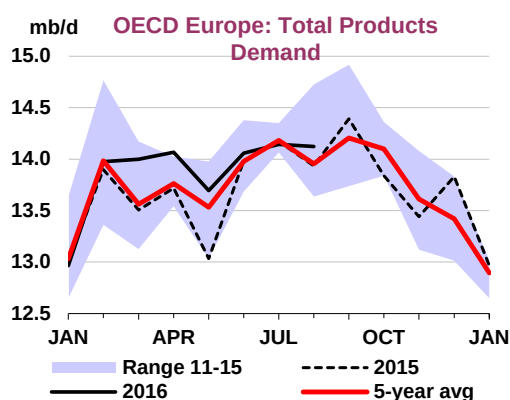
Having fallen through most of 2015 and early 2016, the latest **Canadian** demand estimates show modest oil demand growth, March through July. Gains in naphtha and gasoline provide the key supports, more than offsetting continued contractions in Canadian gasoil/diesel and ‘other products’ demand. Relatively strong gasoline demand growth has been the dominant Canadian theme in 2016, as comparatively low retail prices have coincided with restored consumer confidence. Retail sales across the economy as a whole were up by 2.3% y-o-y in July, continuing the growth trend in consumer spending that has been in place since early 2015. Deliveries are forecast to average 2.4 mb/d in 2016, down 10 kb/d compared to the previous year.

On par with the forecast in last month’s *Report*, **Mexican** oil deliveries averaged 2.0 mb/d in August. This 55 kb/d (or 2.6%) y-o-y contraction was caused by sharp drops in LPG, residual fuel oil and ‘other product’ demand that more than offset expansions in gasoline, gasoil and naphtha. Residual fuel oil demand fell sharply as power sector use contracted. The Mexican Secretaria de Energia reported that notoriously volatile power sector usage contracted by more than one-third compared to a year ago, reflecting accelerating natural gas use.



Europe

Preliminary estimates of European oil deliveries in August at 14.1 mb/d rose sharply (+190 kb/d, y-o-y, or +1.4%), supported by additional working days in many countries – August 2016 versus August 2015 – and a strengthening macroeconomic picture. France, Italy, Spain and Poland all experienced particularly robust y-o-y gains in August due to sharp upticks in gasoil/diesel demand. Despite an upside revision of 105 kb/d to 3Q16 European oil demand (to 14.2 mb/d), compared to last month's *Report*, growth essentially vanished in 3Q16, ending an unusual one-and-a-half year period of strong European oil demand growth. For the year as a whole, European oil product deliveries are forecast to average 13.9 mb/d, 135 kb/d up on 2015 – not quite of the scale (+215 kb/d) seen in 2015 but the second fastest pace of growth in 15 years.

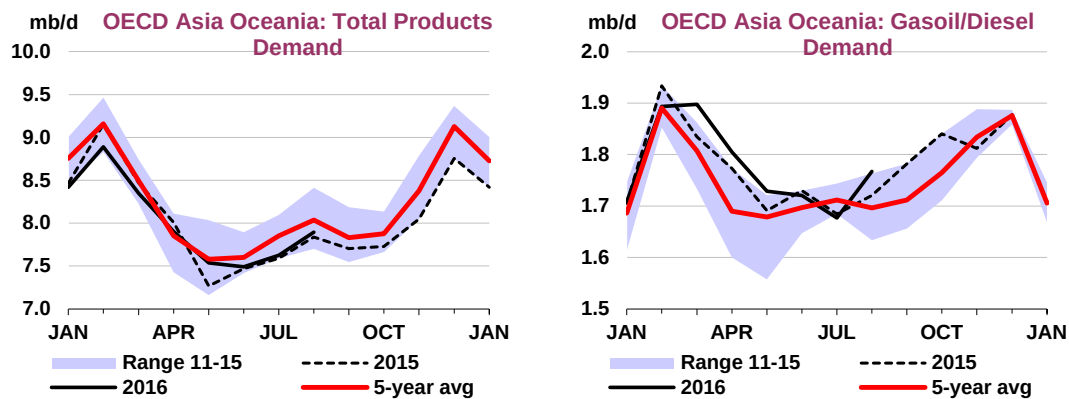


The latest European demand data has not been universally rising. The region's largest economy, Germany, saw a y-o-y decline in August as contractions in gasoline, LPG, residual fuel oil and 'other products' offset gains in German naphtha and gasoil/diesel deliveries. Furthermore, the slowdown in

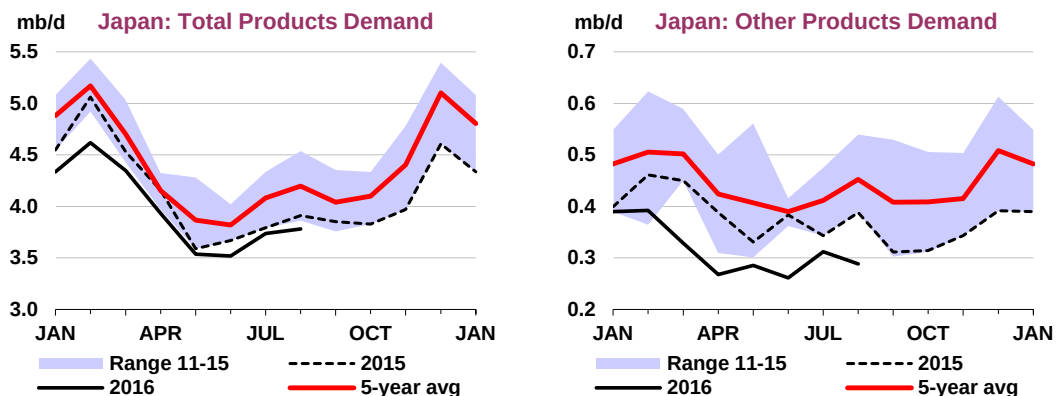
Turkish oil demand growth in July, the latest month for which Turkish data is available, surprised by its scale – growth vanishing after a year-and-a-half of strong growth – if not its occurrence. The Turkish deceleration was due to declines in middle distillate demand as an attempted coup saw industrial activity plummet.

Asia Oceania

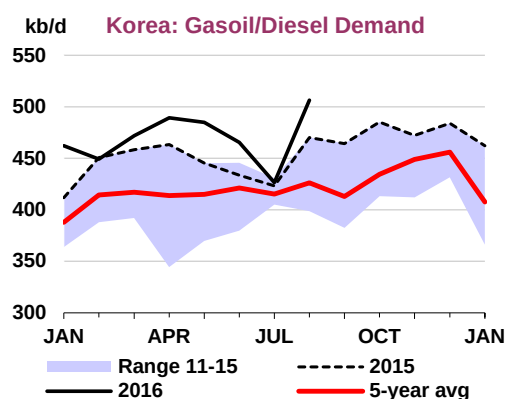
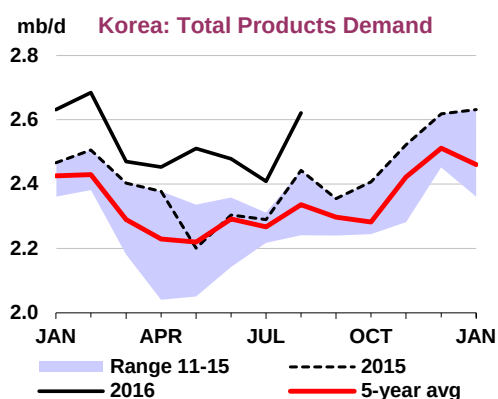
Rising for two consecutive quarters in 3Q16 in y-o-y terms, strong industrial-led gains in Korea more than offset persistent contractions in Japan. Oil demand in the OECD Asia Oceania region averaged 7.8 mb/d in 3Q16, a gain of 45 kb/d or 0.6% on the year earlier. This modest pace of mid-year growth is unlikely to prove sufficient to significantly change the forecast from 8.0 mb/d for the year as a whole.



The latest **Japanese** demand data came out roughly as forecast – down by 1.4% y-o-y in July and a further 3.3% in August due to continued declines in kerosene, naphtha and ‘other products’. With Japanese demand forecast to rise along normal seasonal patterns in 4Q16 – to 4.0 mb/d from 3.7 mb/d in 3Q16 – oil product deliveries should average about 4.0 mb/d over the course of the year, an average decline of 160 kb/d or -3.8%.



Korea provided most of the region's recent demand growth, with a y-o-y gain of 180 kb/d (or 7.3%) in August due to sharp and persistent upticks in gasoline, gasoi/diesel, LPG and residual fuel oil. The latter three products surged on the back of a renewed acceleration in industrial activity, which rose 2.3% y-o-y according to Statistics Korea. The two former products thrived as a more confident Korean consumer drove more, while August's heatwave increased in-vehicle air-conditioning, reducing vehicle efficiency. The Bank of Korea's consumer confident index rose to a three-month high of 102 in August, whereby any reading above 100 signifies an improving outlook. The closure of a number of nuclear and gas facilities, following September's earthquake, provides additional 2H16 demand support, raising the overall 2016 Korean demand forecast to 2.6 mb/d, 160 kb/d up on 2015 – note exactly the converse of the Japanese forecast – and 30 kb/d above the forecast carried in last month's *Report*.



Non-OECD

Preliminary indicators of 3Q16 non-OECD deliveries show growth accelerating, halting the decelerating trend that had been in place since mid-2015. From a recent peak of 1.68 mb/d in 3Q15, momentum slowed rapidly to a one-year low of +905 kb/d in 2Q16. Preliminary 3Q16 indicators point to a tentative reacceleration that is forecast to continue into 2017 with an average gain of 1.20 mb/d.

Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
LPG & Ethane	5,672	5,662	5,687	316	222	5.9	4.1
Naphtha	3,067	3,060	2,941	168	-60	5.8	-2.0
Motor Gasoline	10,972	10,962	11,139	426	386	4.0	3.6
Jet Fuel & Kerosene	3,127	3,126	3,172	51	34	1.7	1.1
Gas/Diesel Oil	14,172	14,881	14,781	142	235	1.0	1.6
Residual Fuel Oil	5,161	5,105	5,208	-139	116	-2.7	2.3
Other Products	6,646	6,998	7,170	-61	-7	-0.9	-0.1
Total Products	48,817	49,794	50,099	903	926	1.8	1.9

China

Chinese oil demand growth – which had been as high as 0.9 mb/d y-o-y in 3Q15 – all but disappeared in 3Q16. Growth ebbed due to the country's ongoing economic reorientation, regional flooding and deliberate government efforts to curtail factory activity in Hangzhou ahead of September's G20 meeting. Baseline numbers have also been revised up following our detailed analysis of Chinese road transport dynamics. Initial estimates of Chinese gasoline demand – based on data we collate on product trade flows, refinery activity and product stock adjustments – likely failed to reflect the underlying strength apparent in the vehicle statistics. With over 21 million passenger cars sold in 2015 (a near 7% gain) but less than 5 million vehicles likely scrapped, the total scale of the Chinese vehicle pool would have increased by around 15%, a huge support for robust Chinese gasoline demand growth despite the negative impact of restrictive city driving programmes and heady electric vehicle sales.

Temporary disconnect between China's car sales boom and gasoline demand

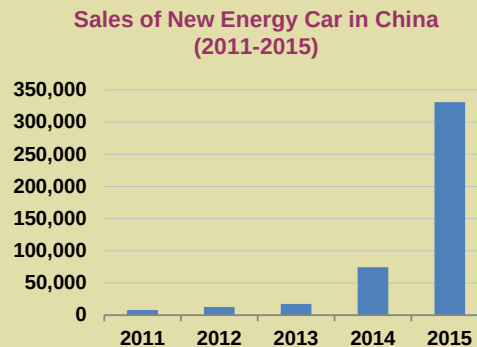
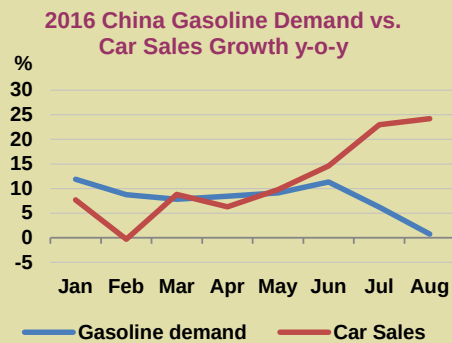
Surprisingly strong car sales in China this year are providing only limited support to gasoline demand growth. During the first eight months of 2016, 16.7 million cars were sold - an 11% increase over the same period in 2015, according to the China Association of Automobile Manufacturers. The boost is mainly due to a government policy that halves the purchase tax on cars with an engine capacity of 1.6 litres or smaller.

This tax stimulus, implemented in October 2015, put an end to a five-month trend of decelerating y-o-y growth. The upward momentum continued into 2016, and boosted y-o-y demand growth for gasoline in the

Temporary disconnect between China's car sales boom and gasoline demand (continued)

first six months by 10%. Since then, however, the boom in car sales has offered only limited support to gasoline demand. That is because fewer motorists were on the road during the peak driving season in July-August this year when severe floods pounded southern China. While car sales reached a record high y-o-y growth rate of 27% in August, gasoline demand growth rate dropped to a mere 0.8%.

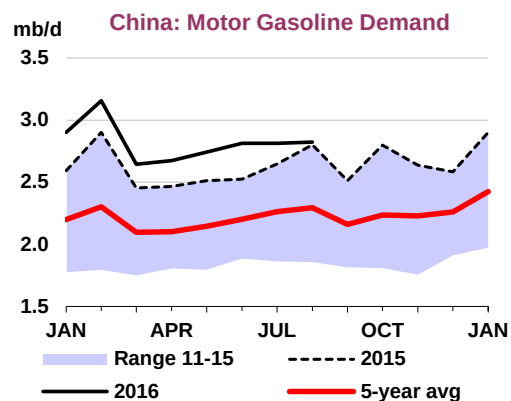
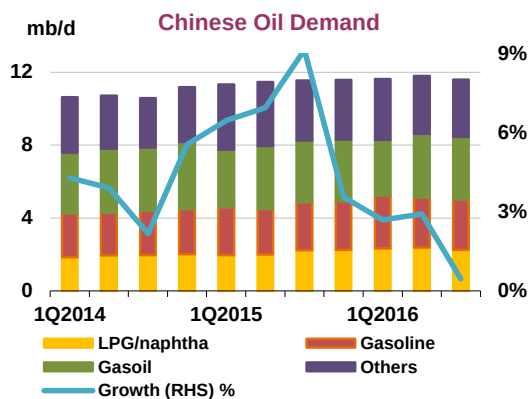
The sharp contraction could also be due to higher retail prices. Gasoline prices have been raised six times so far this year. Last summer, the price of petrol was very low. In September, the driving restriction during the G20 meeting may also have prevented a recovery in gasoline demand. Thus, there may not be a big jump in growth during the fourth quarter.



China's car sales growth is expected to slow in 2017 after the expiry of the tax incentive policy at the end of this year. But this will not affect sales of new energy vehicles (NEVs), which include pure electric vehicles and plug-in hybrids. China now implements vehicle purchase restrictions in seven cities, which could cut more than 2 million units in car sales every year.

NEVs, however, are exempt from this restriction, and sales have soared in recent years. For now, NEVs only account for a small percentage of total vehicles sales, but China's tough measures to combat air pollution will ensure further growth. Indeed, the share of gasoline demand in the transport sector is set to decline as China shifts to clean energy in public transport and replaces old vehicles with often more efficient ones.

At an estimated 11.6 mb/d in 3Q16, Chinese oil demand essentially remained unchanged on the previous year as declines in residual fuel oil offset continued gains in gasoline and LPG. Estimated deliveries would have been even lower had it not been for the sharp decline in Chinese diesel stocks – down by 455 kb/d in August alone, cited by the Xinhua News Agency's *China Oil, Gas and Petrochemicals* – more than offsetting 240 kb/d of diesel net-exports. Deliveries are forecast to average 11.7 mb/d in 2016, 235 kb/d up on 2015, with a similarly pace expansion forecast for 2017.



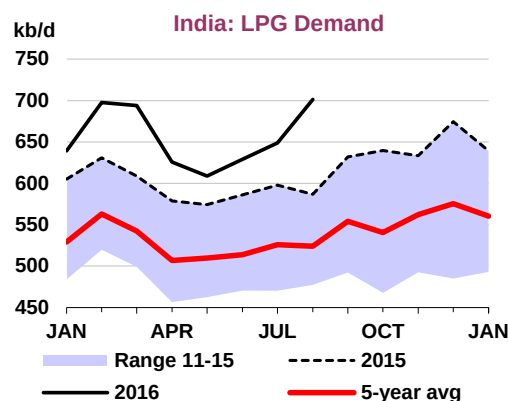
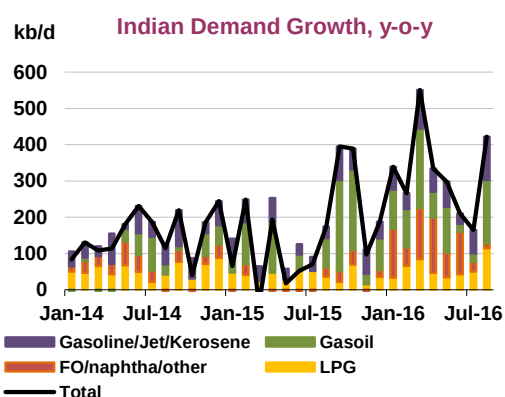
China: Demand by Product

(thousand barrels per day)

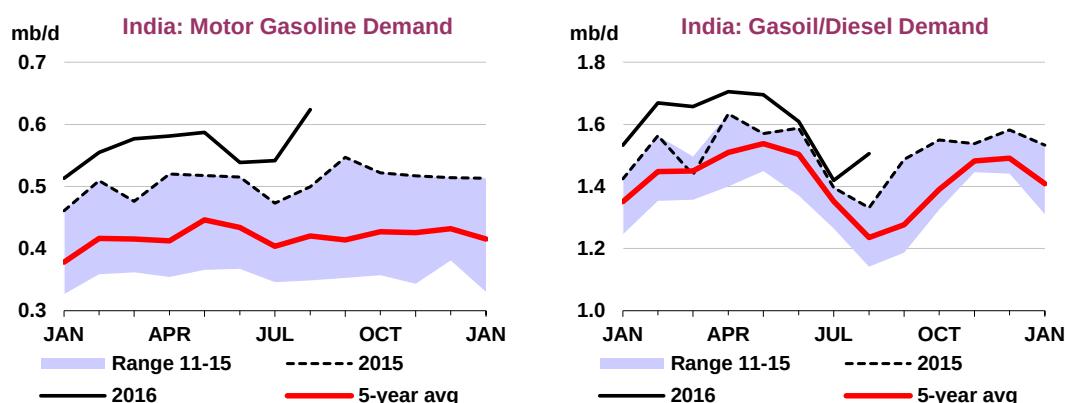
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,112	1,275	1,383	164	107	14.7	8.4
Naphtha	997	1,051	1,071	54	21	5.4	2.0
Motor Gasoline	2,618	2,812	2,997	194	185	7.4	6.6
Jet Fuel & Kerosene	604	642	676	39	34	6.4	5.3
Gas/Diesel Oil	3,335	3,365	3,346	30	-18	0.9	-0.5
Residual Fuel Oil	296	214	149	-82	-65	-27.8	-30.5
Other Products	2,513	2,348	2,332	-165	-16	-6.6	-0.7
Total Products	11,474	11,707	11,955	233	248	2.0	2.1

Other Non-OECD

Despite reports that **Indian** oil demand growth rose sharply in August, it is important to emphasise that the number is a preliminary estimate and that the data previously had shown a decelerating trend. Indeed, the latest official Indian demand estimate from the Ministry of Petroleum & Natural Gas showed growth of just 165 kb/d y-o-y in July, an eight-month low. Notable slowdowns in gasoil/diesel, residual fuel oil and 'other products' led the overall deceleration, a climb-down chiefly attributable to the relatively plentiful monsoon rains (which weakened the agricultural-oil requirement) and softening industrial activity across the economy as a whole. Although preliminary August oil demand data from India's Petroleum Planning & Analysis Cell (PPAC) show a sharp acceleration in growth, +11.3% y-o-y, the data prior to August showed a clearly ebbing trend. However, two key demand-supports raise the 2016 Indian demand forecast by 25 kb/d compared to last month's *Report*: the dramatic acceleration in Indian vehicle sales and rapidly expanding residential LPG sales. At an upwardly revised forecast average of 4.3 mb/d in 2016, the overall Indian demand estimate is expected to expand by 305 kb/d compared to a year earlier. A further gain of 290 kb/d forecast for 2017.

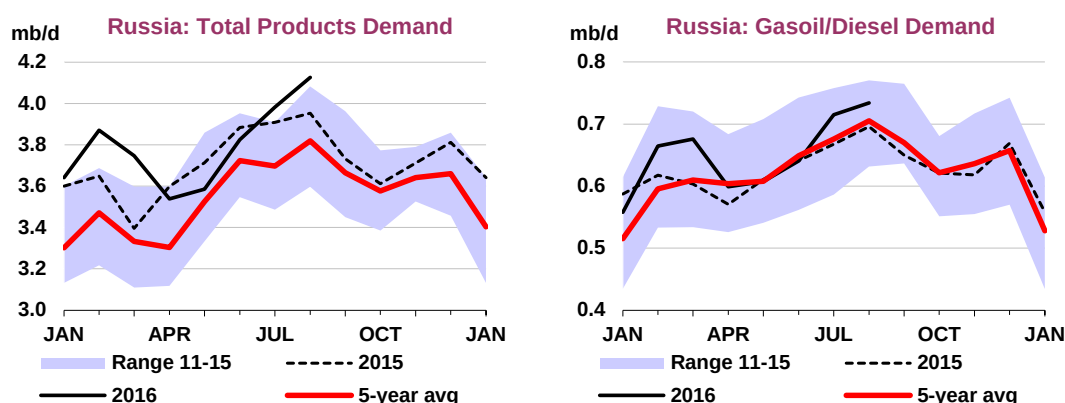


Particularly strong gains were seen in Indian LPG, which according to preliminary PPAC August surged by a staggering 115 kb/d compared to the year earlier supported by deliberate government efforts to support cleaner cooking fuels. As part of the government initiative, over 15 million additional homes will be connected to LPG in the fiscal year 2016-17 (April 2016-March 2017), while price subsidies remain for lower-income households and LPG's use as an alternative road transport fuel continues to expand.



India's rapidly expanding vehicle fleet provides further overall demand support, with the Society of Indian Automobile Manufacturers citing for August 16.7% y-o-y growth in wholesale passenger vehicle sales. Gasoline demand growth, at an estimated 25% y-o-y in August, proved particularly buoyant, roughly outpacing diesel 2:1 in percentage terms. The more rapid pace of gasoline demand growth due to sales of two-wheeled vehicles – which are almost always reliant on gasoline (or occasionally LPG) as opposed to diesel – rose by an even larger 26.3% y-o-y, while commercial vehicle sales – which tend to be diesel-powered – inched up by a mere 1.5%.

Russian oil product demand surged 170 kb/d y-o-y in August, to 4.1 mb/d, as strong gains in gasoil/diesel, jet/kerosene and 'other products' more than offset the continued decline in residual fuel oil deliveries. Growth rose to a fresh five-month high as industrial production inched higher (+0.7% y-o-y) in August, according to data from the Federal State Statistics Service. With Russian oil demand predicted to remain in growth territory in 4Q16, deliveries for the year as a whole should average 3.8 mb/d, 95 kb/d (2.6%) up on the year earlier – this despite an economy hamstrung by outright recession.

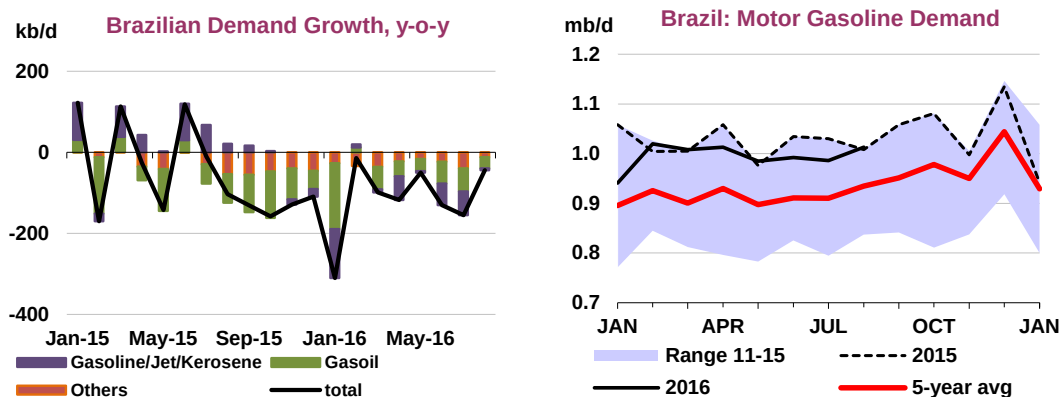


Non-OECD: Demand by Region

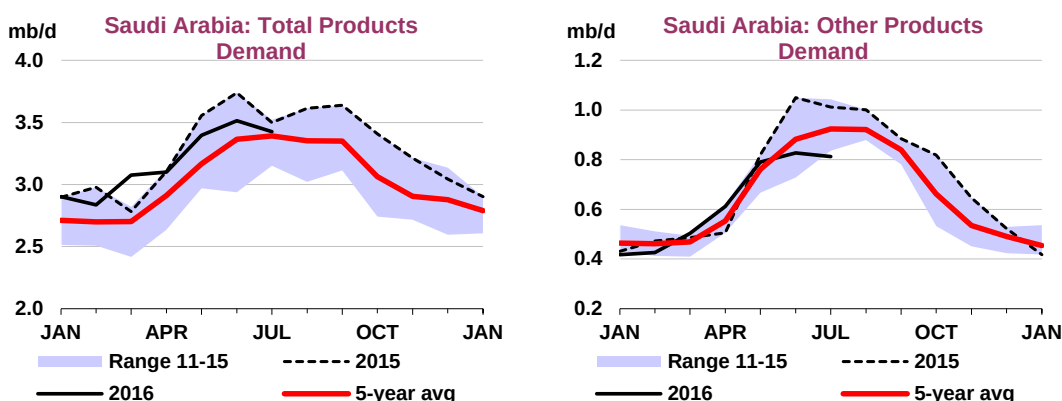
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
Africa	4,162	4,217	4,127	164	162	4.0	4.1
Asia	24,713	24,930	24,473	909	632	3.8	2.7
FSU	4,939	4,926	5,320	14	245	0.3	4.8
Latin America	6,492	6,675	6,797	-95	-62	-1.4	-0.9
Middle East	7,835	8,340	8,678	-122	-66	-1.4	-0.8
Non-OECD Europe	676	707	705	33	15	5.0	2.2
Total Products	48,817	49,794	50,099	903	926	1.8	1.9

Falling for a fourteenth consecutive month, in y-o-y terms, in August, the latest estimate of **Brazilian** oil demand showed deliveries averaging 3.1 mb/d. Although this 45 kb/d y-o-y decline exceeded earlier IEA estimates, it remains the shallowest y-o-y decline in six-months, while absolute demand levels reached an eight-month high. Pulling down the overall metric were persistent declines in residual fuel oil and gasoil, both consequences of the ongoing Brazilian industrial malaise. The consumer sector is thought to be recovering as the Confederacao Nacional da Industria cited a fourth consecutive month of net-positive consumer confidence readings in August. Industrial oil use, meanwhile, is still faltering as the latest industrial output numbers from the Instituto Brasileiro de Geografia e Estatistica show a 6.6% y-o-y decline in July. The forecast for the year as a whole shows deliveries averaging 3.1 mb/d in 2016, 95 kb/d down on 2015, before stabilising in 2017 as the underlying macroeconomic backdrop improves.



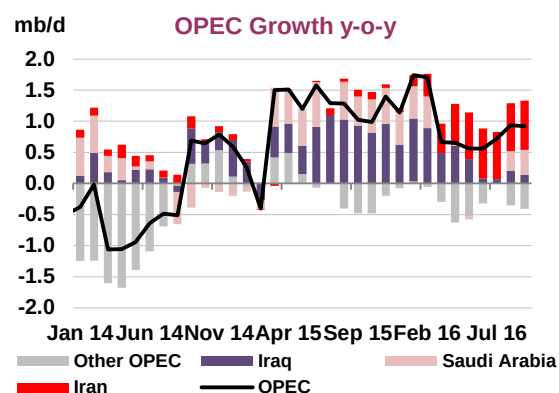
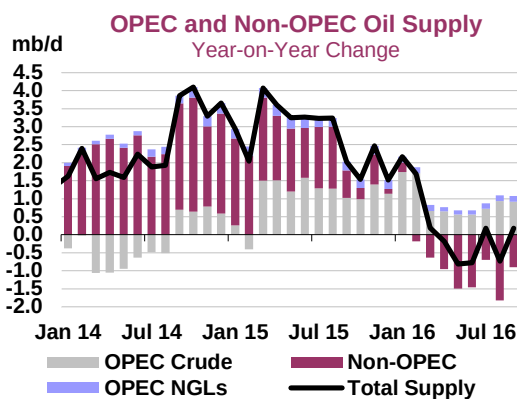
Falling by a sharper than expected 75 kb/d y-o-y in August, the latest **Saudi Arabian** demand data showed sharp declines in 'other product' and gasoil. Lower, than year earlier, 'other product' demand attributable to subdued demand growth from the power sector eased due to high domestic power prices, efficiency measures and the ramp up of the huge 2.5 billion cubic feet per day Wasit gas plant. With August data coming out below our earlier forecast, the outlook for the year as a whole has been trimmed by 35 kb/d to 3.2 mb/d, a 60 kb/d decline on a year ago. Oil demand growth in 2017 should return.



SUPPLY

Summary

- **Global oil supplies rose by 0.6 mb/d in September to 97.2 mb/d.** Non-OPEC production was up by nearly 0.5 mb/d on higher Russian and Kazakh flows, while OPEC crude output rose to a record high. After hefty declines in August, global oil supply in September was 0.2 mb/d higher than a year ago.
- **OPEC crude output rose by 160 kb/d to an all-time high of 33.64 mb/d in September as Iraq pumped at record rates and Libya reopened export terminals.** Saudi Arabia, Kuwait and the UAE held supply at or near historic highs, while Iran sustained pre-sanctions levels of close to 3.7 mb/d. Output from the group's 14 members stood 0.9 mb/d above a year ago due to the strong Middle East performance.
- **OPEC has agreed to cut output to between 32.5 mb/d and 33 mb/d – the group's first deal to reduce supply in eight years – in a bid to speed the market's rebalancing.** Details, including individual country targets, are expected to be finalised when ministers gather at a scheduled meeting on 30 November. Libya, Nigeria and Iran are said to be exempt from supply cuts.
- **Production from non-OPEC surged by nearly 0.5 mb/d in September to 56.6 mb/d** as Russian crude output soared to a post-Soviet high and Kazakh volumes recovered from maintenance. September production was nevertheless 0.9 mb/d below a year ago due to sharp declines in the US and China.
- **Non-OPEC supply is forecast to decline by 0.9 mb/d in 2016 before rebounding by 0.4 mb/d in 2017,** largely unchanged from last month's *Report*.



All world oil supply data for September discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary September supply data.

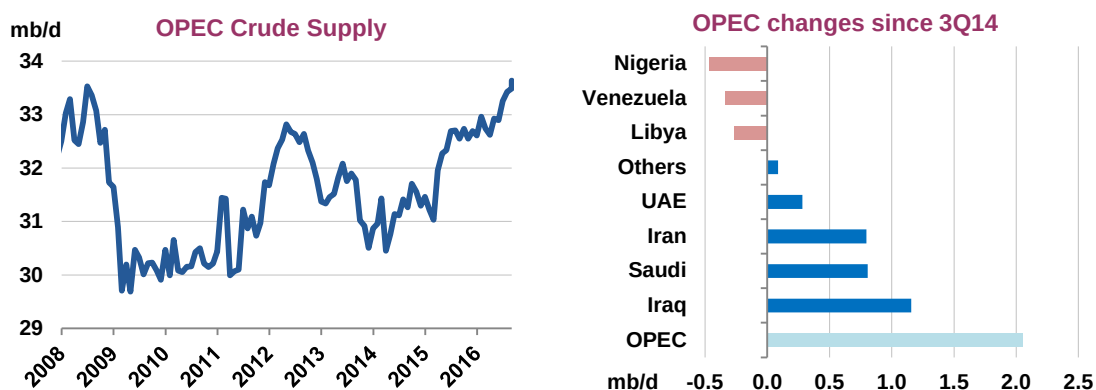
OPEC crude oil supply

OPEC crude oil output climbed to its highest ever in September – by 160 kbd/ to 33.64 mb/d - after Iraqi production rose to record levels and Libyan flows began to recover. Supply from Iraq – including the Kurdistan Regional Government (KRG) - rose by 90 kb/d to 4.46 mb/d after Baghdad and the KRG resumed joint exports from the northern Kirkuk oil field and southern fields ramped up. Libyan flows increased to 350 kb/d after previously blockaded export terminals reopened. Saudi Arabia, the UAE and Kuwait continued to pump at or near all-time highs. Supply from Iran edged up to 3.67 mb/d – slightly above its average 2011 pre-sanctions level. With the Middle East keeping up a brisk production pace, output from the group's 14 members stood 910 kb/d above a year ago.

In a bid to hasten the market's return to balance, OPEC ministers have agreed to lower output to

between 32.5 mb/d and 33 mb/d – the group’s first deal to cut production since 2008. Details, including individual country supply targets, are expected to be finalised at an OPEC conference scheduled for 30 November in Vienna. If implemented, the agreement signals a return to more traditional market management following two years of a Saudi-led hands-off policy. The Kingdom reportedly said it was willing to cut by 400 kb/d from an August level of about 10.6 mb/d. Saudi Arabia typically reduces its supply during the fourth quarter as domestic demand eases from summer highs.

Iran, recovering from international sanctions; Nigeria – making up for recent outages due to sabotage; and Libya, rebounding from lows caused by internal unrest, are expected to be exempt from the OPEC cut, agreed on 28 September at an extraordinary meeting in Algeria. Saudi Energy Minister Khalid al-Falih was quoted as saying the three members could “produce at the maximum levels that make sense”. Libyan supply looks set to post further gains in October after a modest recovery in September. Nigerian production may also rise following the resumption of Qua Iboe and Forcados exports.



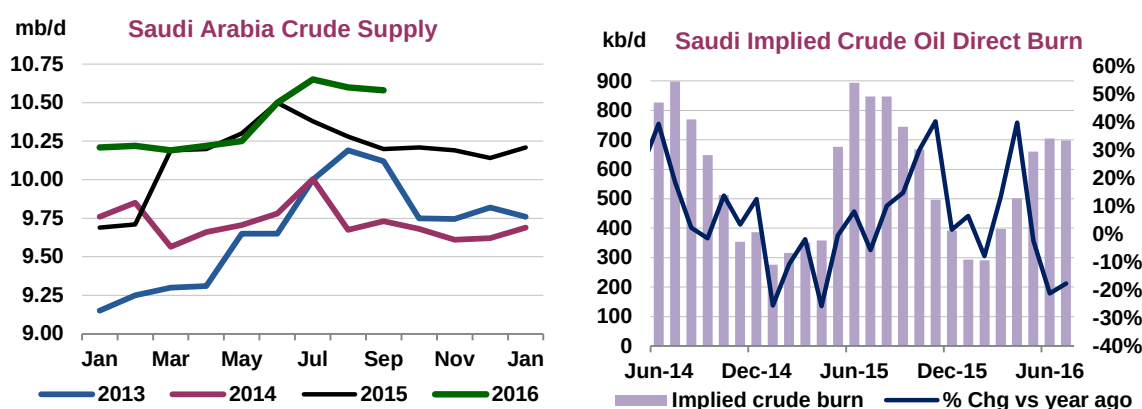
At this stage, it is difficult to assess how the OPEC supply cut, if enforced, will affect market balances. A significant rebound in production from Libya and Nigeria and further growth from Iran would suggest that bigger cuts would have to be made by others, such as Saudi Arabia, to meet the 32.5 mb/d to 33 mb/d production target. The extent of any cooperation from non-OPEC producers, such as Russia, is still to be determined.

In the run-up to the end-November OPEC meeting, output from the group is likely to hover around record highs. Since the group adopted its market defence strategy at the end of 2014, the group’s crude oil supply has soared by more than 2 mb/d after low-cost oil fields in the Middle East cranked up. Flows from Iraq have risen by nearly 1.2 mb/d (3Q14 versus 3Q16), while Iran and Saudi Arabia have each added around 800 kb/d. But lower oil prices and domestic strife have caused other members to suffer. Nigerian output has declined by 460 kb/d, while Libya has lost 265 kb/d and Venezuelan production has dropped by 340 kb/d.

Crude oil supply in **Saudi** Arabia was steady at 10.58 mb/d in September, holding near historic highs to meet strong demand from international customers. Domestic consumption slowed as power plants burned less crude. Saudi power plants typically need more crude during the summer when air conditioning use peaks, but the requirement this year has eased due to energy efficiency measures as well as the ramp up of the giant Wasit gas plant. From May to July an average 120 kb/d less crude oil was burned versus the same period a year ago, according to the latest official data from the Joint Organisations Data Initiative (JODI).

Riyadh has drawn down its crude oil stockpiles to help satisfy growing demand from domestic refiners and keep up oil sales. Refiners in the Kingdom lifted runs to 2.6 mb/d during July – by 230 kb/d from June, while exports of crude climbed by 170 kb/d to reach 7.6 mb/d, according to JODI. Crude oil stocks

fell to 282 million barrels in July from 289 million barrels the previous month. Outside of the Kingdom, Saudi Aramco is considering potential sites for crude oil storage in China in a bid to increase flexibility of supply to its customers in Asia. Aramco was China's second biggest crude supplier in August, with sales of roughly 1 mb/d.



Despite its robust exports and financial reserves, Saudi Arabia is also feeling the strain of lower oil prices. It announced a 20% cut in ministers' salaries on 26 September and reduced benefits for workers in the public sector.

OPEC Crude Production

(million barrels per day)

	Jul 2016 Supply	Aug 2016 Supply	Sep 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Sep 2016 Supply	YTD Average Supply
Algeria	1.11	1.11	1.12	1.12	0.00	1.10
Angola	1.76	1.76	1.74	1.78	0.04	1.75
Ecuador	0.55	0.55	0.55	0.55	0.00	0.55
Gabon	0.22	0.21	0.21	0.21	0.00	0.22
Indonesia	0.74	0.74	0.74	0.74	0.00	0.73
Iran	3.63	3.64	3.67	3.70	0.03	3.46
Iraq	4.32	4.37	4.46	4.50	0.04	4.32
Kuwait ²	2.87	2.91	2.90	2.91	0.01	2.85
Libya	0.30	0.28	0.35	0.40	0.05	0.33
Nigeria	1.39	1.43	1.45	1.70	0.25	1.55
Qatar	0.66	0.65	0.64	0.67	0.03	0.66
Saudi Arabia ²	10.65	10.60	10.58	12.20	1.62	10.38
UAE	3.08	3.09	3.10	3.10	0.00	2.97
Venezuela	2.15	2.14	2.13	2.20	0.07	2.24
Total OPEC	33.43	33.48	33.64	35.78	2.14	33.11
<i>(excluding Iraq, Nigeria, Libya)</i>					1.80	

1 Capacity levels can be reached within 90 days and sustained for an extended period.

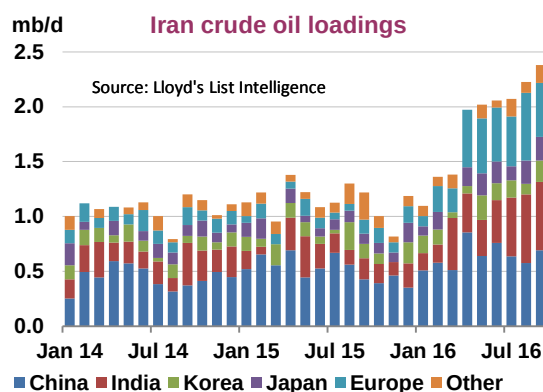
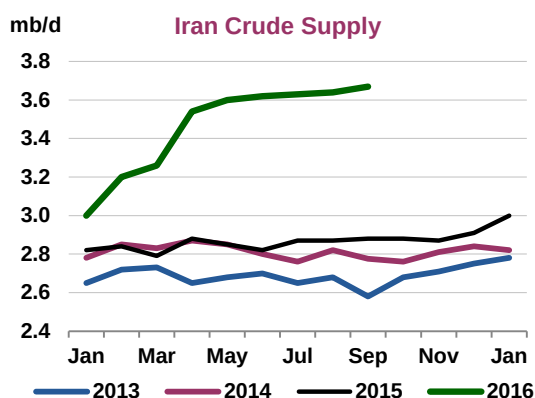
2 Includes half of Neutral Zone production.

Neighbouring Gulf countries **Kuwait** and the **UAE** continued to pump at record rates during September. Kuwaiti production held at 2.90 mb/d and supply from the UAE was steady at 3.10 mb/d. In a bid to cut costs and raise upstream profits, Abu Dhabi National Oil Co (Adnoc) has announced plans to merge its two offshore operating companies into a single unit. The move, due to take place by early 2018, will not affect the international partners in the concessions. The operations of Abu Dhabi Marine Operating Co (Adma-Opco), in which BP, Total and Jodco have stakes, are to be combined with Zakum Development Co (Zadco), a joint venture with ExxonMobil and Jodco. Zadco is expanding Upper Zakum, one of the world's largest offshore oil fields, to 750 kb/d by 2018 from just under 700 kb/d. Adma-Opco is tapping

Lower Zakum, which was expected to reach 425 kb/d this year. In **Qatar**, output inched down to 640 kb/d due to scheduled maintenance at al-Shaheen, the country's largest offshore oil field.

Output from **Iran**, OPEC's fastest source of 2016 supply growth, rose to 3.67 mb/d in September – up 760 kb/d since the start of the year when sanctions were eased. Shipments of crude oil rose above 2.3 mb/d, according to preliminary figures, the rate at which Iran was exporting before sanctions were tightened in mid-2012.

Since May, the National Iranian Oil Co (NIOC) has been shipping more than 2 mb/d of crude – double the volume under sanctions. Exports to Europe rose to about 620 kb/d during August to reach pre-sanctions levels. Crude oil sales appear to have slipped to around 500 kb/d in September, although tanker tracking data are subject to revision.



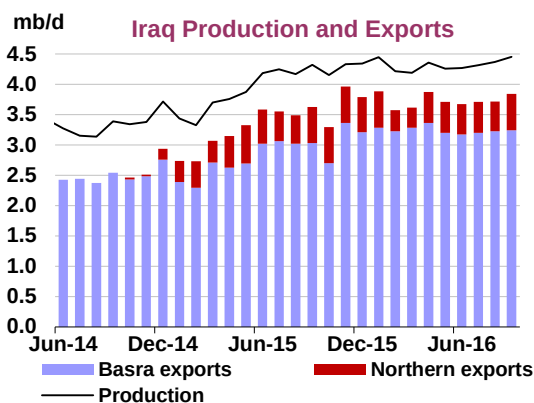
As for Asia, purchases from China, Iran's biggest customer, rose to 690 kb/d in September from 570 kb/d the previous month. Loadings to India and Japan held steady at around 620 kb/d and 215 kb/d, respectively. Exports to South Korea climbed to just shy of 200 kb/d from 96 kb/d in August. Shipments of ultra-light oil from Iran's South Pars gas project rose to 260 kb/d from 210 kb/d during August. Volumes of condensate stored at sea declined by 2 million barrels in September to 40 million barrels.

In a bid to lure back foreign investors and boost production, Iran has signed the first oil deal under its new Iran Petroleum Contract (IPC) with a local company. The deal with Persia Oil and Gas Industry Development Co (POGIDC) to boost production at the Yaran, Koupal and Maroon oil fields to at least 260 kb/d is worth an estimated \$2.2 billion.

Iraqi crude production rose by 90 kb/d to a record 4.46 mb/d during September after Baghdad and the KRG resumed joint exports from Kirkuk in the north and southern oil fields cranked up to satisfy increased requirements at home and abroad.

Overall exports, including from the KRG rose to 3.85 mb/d – up 125 kb/d on August – with northern shipments surging by 110 kb/d to 600 kb/d. Iraq's North Oil Co (NOC) resumed pumping crude from fields it operates in Kirkuk in mid-August following a five-month halt.

Baghdad and the autonomous northern region have agreed to split the proceeds from federally controlled Kirkuk oil. Shipments from NOC during September reached around 100 kb/d. It had been routing around 150

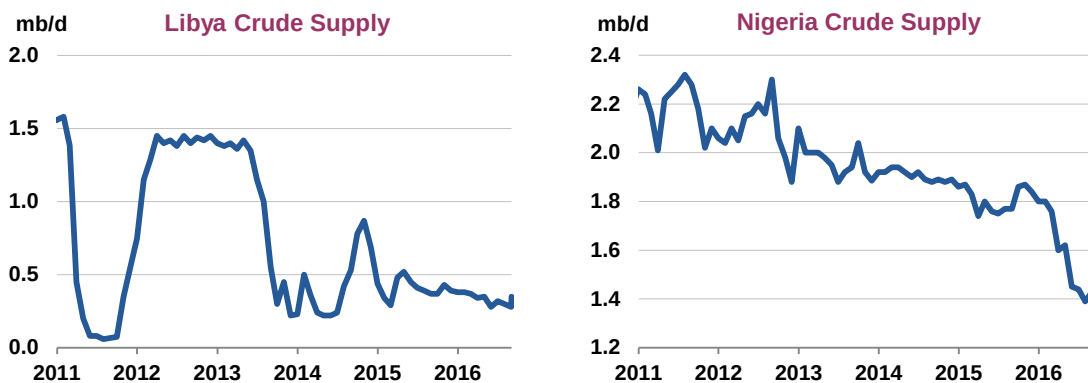


kb/d of Kirkuk through the KRG's pipeline to Turkey since mid-2014, when militants from the Islamic State of Iraq and the Levant (ISIL) sabotaged the federal export pipeline to Turkey. The KRG took control of the 170 kb/d Bai Hassan field and Kirkuk's Avana dome in June 2014 after the ISIL advanced through northern Iraq. NOC remains in control of Kirkuk's Baba dome and the adjacent Jambour field.

Baghdad has meanwhile issued a 2017 budget forecast that assumes higher exports and prices. Iraq expects to ship 3.75 mb/d of crude at a price of \$42/bbl. The federal government exported 3.28 mb/d in September, selling at an average price of \$38.89/bbl.

Output in **Libya** rose by 70 kb/d to 350 kb/d in September after the ports of Es Sider, Ras Lanuf and Zueitina reopened and allowed for higher production. Flows had risen above 500 kb/d by early October, which suggests a further recovery this month. Libya's Arabian Gulf Oil Co (Agoco), a unit of the National Oil Corp (NOC) operates the eastern fields that feed the strategic ports. Agoco output had climbed above 300 kb/d by early October. Ras Lanuf and Es Sider - shut since December 2014 and damaged by repeated attacks by Islamist militants - can ship nearly 600 kb/d between them. Zueitina can handle about 150 kb/d.

Two years of conflict and oil sector attacks have led to the repeated shutdown and restart of terminals and oil fields. As a result, Libya is now pumping only a fraction of the 1.6 mb/d produced before the fall of the Gaddafi regime. NOC, which is aiming for output of 900 kb/d by the end of the year, is also negotiating with local groups to restart the major oil fields of El Sharara and El Feel, which before the shutdowns had the capacity to produce 450 kb/d between them.



Output in **Nigeria** inched up to 1.45 mb/d in September after *force majeure* was lifted on Bonny Light exports. Output could rebound in October after the resumption of exports from Qua Iboe and Forcados. A fragile ceasefire is in place between the government and rebel militants who are attacking oil pipelines and facilities in the Niger Delta.

Repeated sabotage of Nigeria's oil sector since February has cut output to near 30-year lows. The Exxon-operated 330 kb/d Qua Iboe system, Nigeria's biggest stream, was hit in July and the Shell-operated Forcados export pipeline was bombed in mid-February, closing in more than 200 kb/d. Repair of the subsea Forcados pipeline was completed by the end of September.

Angolan production dipped to 1.74 mb/d after the offshore Plutonio oil field was shut for maintenance for part of September. Further declines are expected in October due to a scheduled overhaul on the Dalia field. Exports of Dalia, which typically run at around 200 kb/d, are expected to stop during the full field maintenance. Output in **Gabon** held steady at around 210 kb/d.

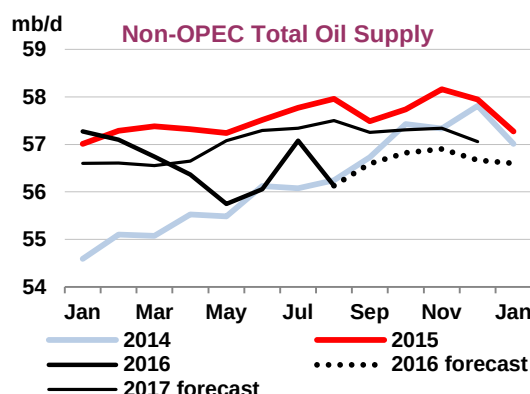
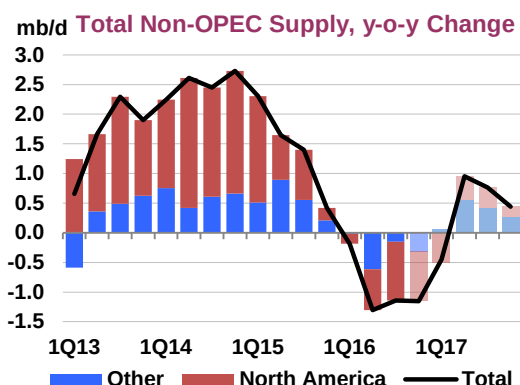
Output was similarly stable in **Indonesia** and **Ecuador** at 740 kb/d and 550 kb/d, respectively. In

Indonesia, the government may allow ExxonMobil to pump more from its Banyu Urip oil field in 2017 in order to meet a higher national oil output target. The plan to raise crude and condensate output to 815 kb/d would allow for Exxon to produce 200 kb/d from Banyu Urip. Output from the field is now around 165 kb/d.

Venezuelan production inched down to 2.13 mb/d – continuing its steady decline due to the country's acute economic crisis. In a bid to arrest the decline, Petroleos de Venezuela (PDVSA) plans to drill 480 wells in the extra heavy Orinoco Belt in the next 30 months. Schlumberger and other international oil companies are reportedly expected to take part in the \$3.2 billion effort to raise output by 250 kb/d. Caracas has hoped to boost production from the vast Orinoco Belt, which accounts for about half the country's output, in order to counter losses from mature oil fields.

Non-OPEC overview

Non-OPEC oil supply bounced nearly 0.5 mb/d higher in September to 56.6 mb/d, albeit from a downwardly revised August estimate. Following maintenance in August, Russian crude and condensate production surged by 0.4 mb/d to a post-Soviet high above 11.1 mb/d. Kazakh output also recovered from a steeper-than-expected cut during maintenance. Overall non-OPEC output in 2016 is forecast to decline by 0.9 mb/d to 56.6 mb/d, before rising by 0.4 mb/d in 2017.



During September, however, total non-OPEC output stood 0.9 mb/d below a year ago. Chinese crude oil production continued to fall, to reach a six-year low of just under 3.9 mb/d in August. Year-on-year declines have now ratcheted up to around 400 kb/d, or roughly -9%, as major oil companies cut spending and shut in un-economic wells. While output appears to be in freefall, we believe the pace of decline will slow during the remainder of the year. Indeed, updated production targets suggest 2H16 output roughly 170 kb/d below the first six months of the year, in line with our current estimate.

Colombian crude output has also continued on its downward path, with the latest ministry data pegging output at 830 kb/d in August, 140 kb/d lower than the same month in 2015. Declines also took place in the North Sea, where production came off a July peak. Seasonal maintenance and unscheduled outages took around 360 kb/d off line in August and loading schedules suggest the reduced levels will continue through October.

In the US, while output held up better than expected in July – the latest month for which official data are available – crude oil production dropped below 8.7 mb/d, its lowest since May 2014 and more than 0.7 mb/d below 2015. Independent producers are reportedly benefitting from oil's recent rally and are hedging output for 2017. Nevertheless, the pace of new rig additions slowed over September, but may pick up as operators take a more constructive view of the market. US independent producers will be watching the progress of discussions in the run up to the 30 November OPEC meeting. The possibility of

a coordinated production cut and a price increase may influence their investment decisions for 2017. Canadian output was also slightly higher than expected in July, with Albertan oil supply recovering fast from outages in May. Total output rose by 500 kb/d to 4.35 mb/d, only 150 kb/d less than a year ago.

Non-OPEC Supply

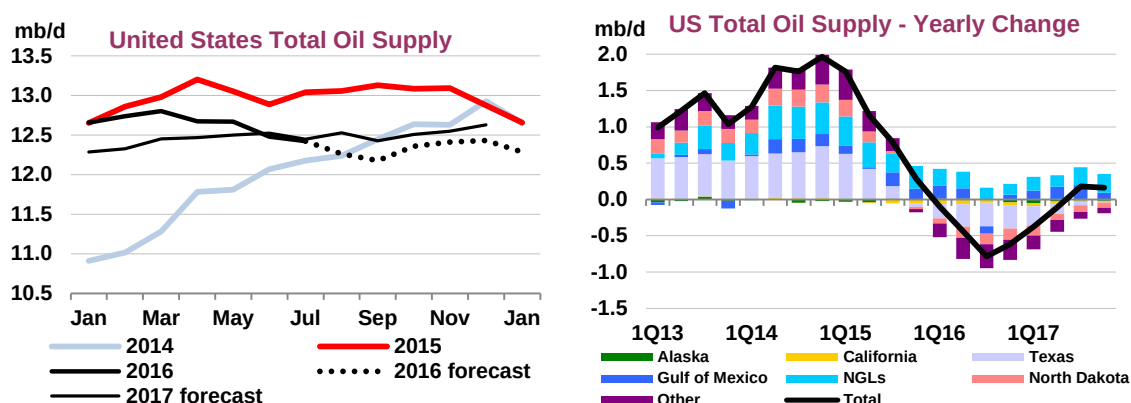
(million barrels per day)

	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	20.0	19.9	19.0	19.1	19.3	19.3	19.4	19.4	19.5	19.5	19.4
Europe	3.5	3.6	3.4	3.4	3.5	3.5	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	23.9	24.0	22.8	23.0	23.2	23.2	23.3	23.2	23.2	23.3	23.3
Former USSR	14.0	14.2	14.0	14.0	14.2	14.1	14.3	14.3	14.2	14.4	14.3
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.1	3.9	3.9	4.0	4.0	3.9	3.9	3.9	3.9
Other Asia	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.6	2.6
Latin America	4.6	4.4	4.4	4.5	4.6	4.5	4.6	4.7	4.7	4.8	4.7
Middle East	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3
Africa	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	29.1	28.9	28.5	28.6	28.9	28.8	29.0	29.0	29.0	29.1	29.1
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.6	57.0	56.1	56.6	56.8	56.6	56.6	57.0	57.4	57.2	57.1
Annual Chg (mb/d)	1.4	-0.2	-1.3	-1.1	-1.2	-0.9	-0.5	1.0	0.8	0.4	0.4
Changes from last OMR (mb/d)	0.1	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.1	-0.1	0.0

OECD

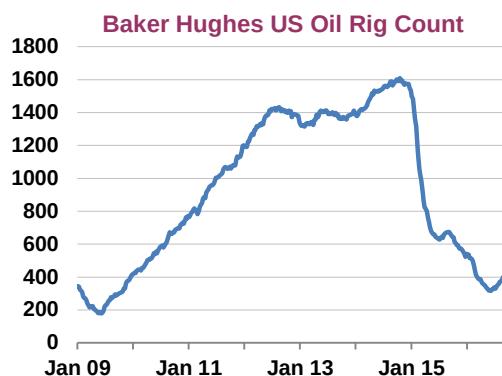
North America

US – July actual, Alaska – September preliminary: US crude oil production held up better than expected in July, dipping only 20 kb/d from a month earlier to just below 8.7 mb/d. Preliminary weekly data had suggested output slipped by 150 kb/d in July and the EIA's *Drilling Productivity Report* also showed larger output declines in major shale plays. LTO output is showing resilience, however, with only minor declines recorded in Texas and Oklahoma and production inching up in North Dakota and Colorado. The biggest month-on-month decline came from Alaska, which was 30 kb/d lower.



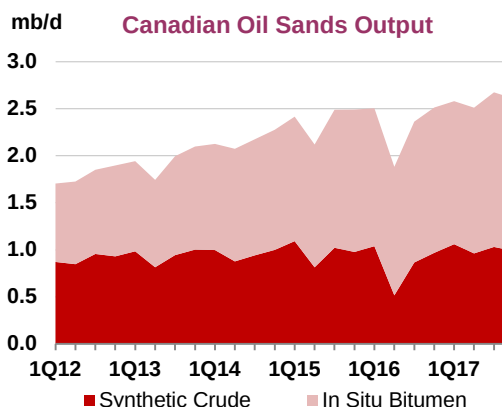
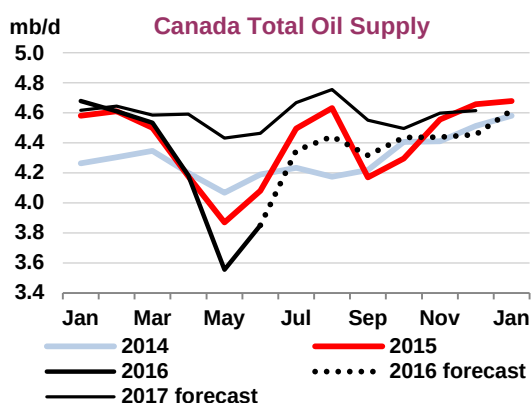
Gulf of Mexico crude production also inched up by around 15 kb/d in July to 1.56 mb/d – roughly on par with a year ago. Following ExxonMobil's Julia development start-up in April, the Noble Energy-operated Gunflint came on line in July. In September, Shell reported the Turitella FPSO had achieved first oil at its Stones project. It is only the second FPSO-based development in the US Gulf and the world's deepest-water production facility, at about 9 500 feet. The project is expected to ramp up towards its 50 kb/d estimated peak production capacity towards the end of next year.

US producers continued to add rigs during September but at a slightly slower pace than in previous months. Over the past five weeks through end-month, 19 new oilrigs entered operation, compared with around 35 in each of the two previous months. As in recent months, operators focused their efforts on the Permian basin in Texas and in 'Other basins' such as the Scoop and Stack plays in Oklahoma. At end-September, there were 68 active oil and gas rigs in Oklahoma, second only to Texas, which boasted 244 rigs in total. North Dakota and New Mexico each had 30 rigs in service, for a US total of 522 rigs. 425 of these were oil rigs.



Total US crude production was nevertheless 730 kb/d below 2015 in July. A 220 kb/d annual gain in NGL output left total US supplies at 12.4 mb/d, down 620 kb/d from a year earlier. For the year as a whole, US oil supplies are forecast to decline by nearly 0.5 mb/d, with a 0.2 mb/d rise in NGL output offsetting steeper losses in crude. Total oil supplies are forecast to start rising in the fourth quarter, leaving production in 2017 at 12.5 mb/d - level with this year.

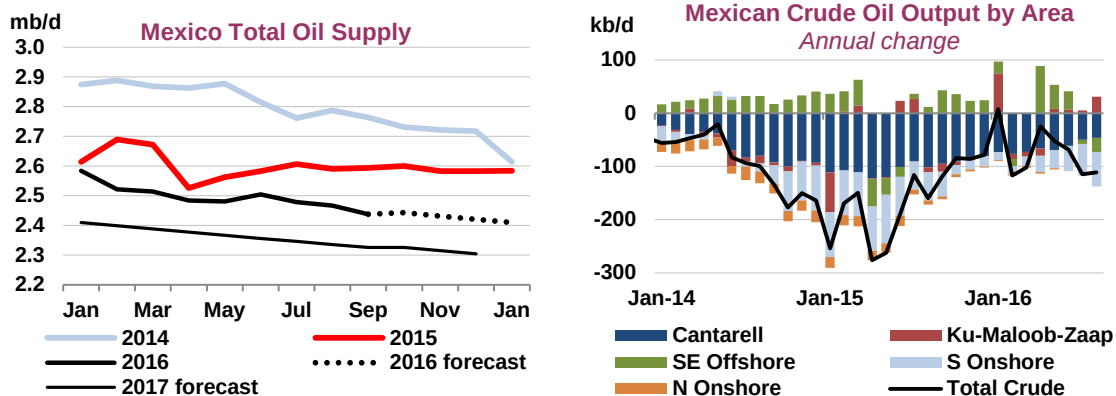
Canada – June actual, Newfoundland, Alberta – July preliminary: Total Canadian oil production recovered to 3.85 mb/d in June, up 300 kb/d on the previous month when wildfires shut in a large portion of Albertan oil supplies. June's output was nearly 100 kb/d higher than our initial estimate, almost entirely due to higher NGL production. In the latest month, Canadian NGL output stood some 120 kb/d above a year earlier – a 20% annual gain.



Data published by Alberta Energy Regulator show the province's crude and bitumen supplies recovering another 530 kb/d in July to just shy of 2.9 mb/d, of which 2.5 mb/d was oil sands. Synthetic oil output from the region's upgraders ramped up to 900 kb/d from 590 kb/d a month earlier and 350 kb/d in May. Un-upgraded bitumen output was up 225 kb/d month-on-month to 1.56 mb/d. Other crude and condensates supplies added another 490 kb/d.

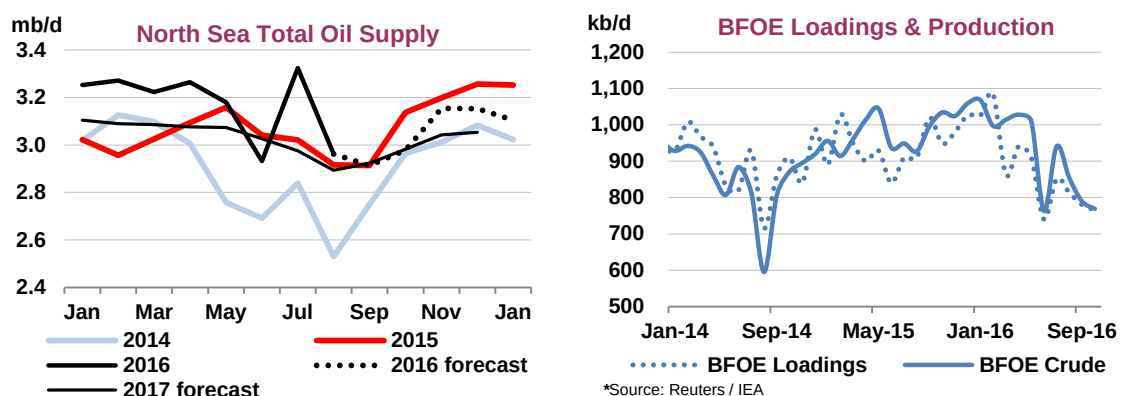
While there is still uncertainty as to what extent the wildfires will delay the start-up and ramping up of new capacity, we expect oil sands production to continue to climb. Canada Natural Resources Ltd (CNRL) plans to increase its Horizon mining and upgrading capacity by 45 kb/d later this year and add another 80 kb/d in 2017. Suncor intends to start up its 160 kb/d Fort Hills plant next year, Cenovus is on track to add 30 kb/d of capacity at its Foster Creek and 50 kb/d at its Christina Lake this year and ConocoPhillips plans to ramp up output at its 118 kb/d Surmont expansion. The new capacity, together with a rebound from reduced output rates in 2016, will push up Canada's total supplies next year by 260 kb/d to 4.6 mb/d.

Mexico - August actual, September preliminary: Mexican crude oil production dropped by another 30 kb/d in September to 2.1 mb/d. Output was 160 kb/d less than a year ago, with only the offshore Ku-Maloob-Zaap system posting any increase. In its 2017 federal budget, the Mexican government said it expects domestic crude production to fall to just over 1.9 mb/d in 2017 from around 2.2 mb/d currently. The government hopes a programme of energy reforms will help reverse the trend of declining output, but the expected output drop and lower revenue expectations have sparked a new wave of spending cuts, mainly centred on Pemex. The firm's budget for 2017 will fall by Ps 86 bn (\$4.6 bn) from this year to Ps 392 bn (\$21 bn). In its 2017 plan for Pemex, the government allotted 168 bn pesos (\$8.9 bn) for oil exploration and production, while 21.4 billion pesos (\$1.1 billion) is set aside for refining.



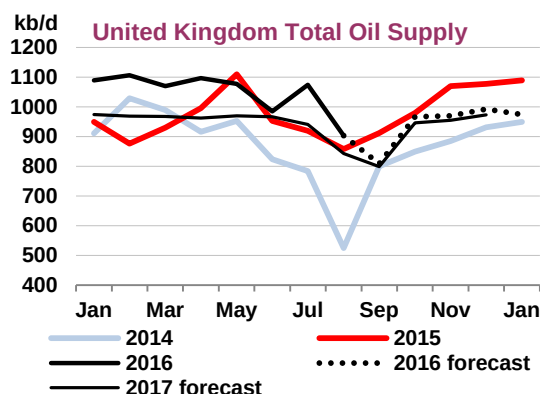
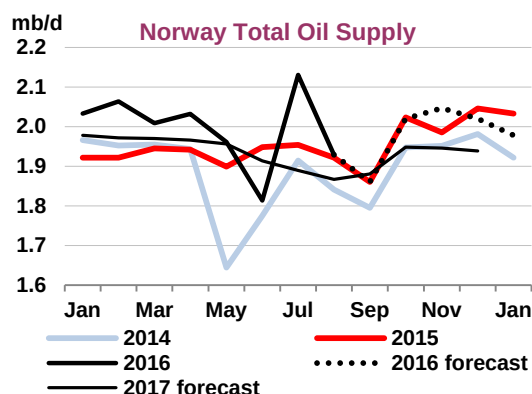
North Sea

North Sea crude and condensate supplies peaked in July at nearly 2.9 mb/d – the highest level since April 2012. Preliminary data show output easing by more than 300 kb/d in August, with both Norwegian and UK production lower. Loading schedules for September and October suggest North Sea volumes remained subdued as an outage at Norway's new Goliat field amplified a planned 35-day shutdown at the UK's Buzzard field from 17 September. Additionally, the Brent pipeline system is scheduled to close for two weeks of maintenance during October. Preliminary BFOE loadings schedules suggest higher planned shipments in November.



Norway – July actual, August provisional: Field level data published by the Norwegian Petroleum Directorate confirm July output levels at five-year highs. Norwegian oil supplies hit a bumper 2.1 mb/d in July, 320 kb/d higher than a month earlier and 180 kb/d above 2015. Monthly gains came mostly from the Conoco-operated Ekofisk field, which had been shut for most of June for scheduled maintenance. Other gains stemmed from Eni's recently commissioned Goliat field, which continued ramping up to an average 97 kb/d, just shy of its stated 100 kb/d nameplate capacity. As such, Goliat made up nearly half Norway's annual gains in July. Other increases came from the Edvard Grieg field, which started up last December, and is now pumping nearly 70 kb/d. Norwegian oil output dropped by a sharp 200 kb/d in

August, however, even before the Goliat field had to be shut due to a power outage and subsequent security issues. The field, which was closed for about one month, finally restarted on 27 September.

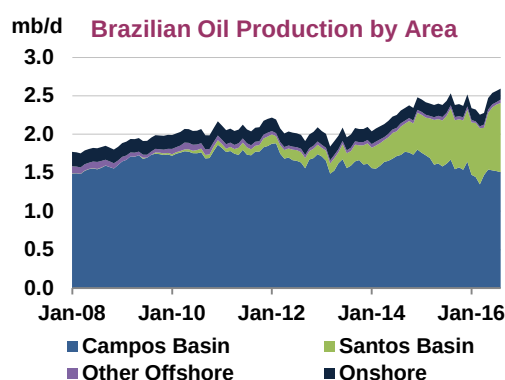
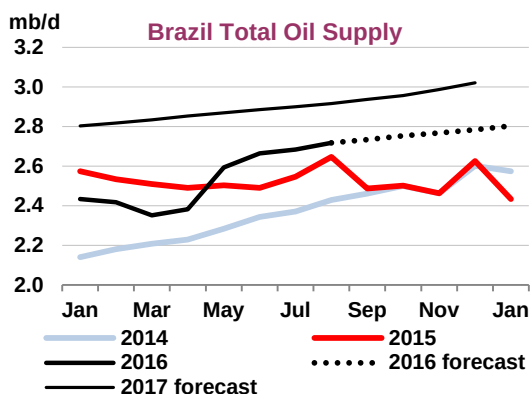


UK – July actual, August preliminary: UK crude and condensate output dropped by 150 kb/d in August to 820 kb/d, according to preliminary data published through the Joint Oil Data Initiative (JODI). Total oil output was 900 kb/d, largely in line with our forecast in last month's *Report*, and roughly 45 kb/d higher than in 2015. By contrast, total oil production for July was revised 50 kb/d higher to 1 074 kb/d – up some 150 kb/d from a year ago. Production is forecast to have fallen further in September, when the country's largest field, the Nexen-operated Buzzard field, shut for a month-long maintenance. Buzzard produced 170 kb/d on average during 1H16. The shutdown cut Forties loadings to 280 kb/d in September and 339 kb/d in October compared with 368 kb/d in August.

Non-OECD

Latin America

Brazil – August actual: Brazilian crude oil production continued to climb in August, reaching a high of 2.609 mb/d – some 28 kb/d more than the previous record in July and in line with our forecast. Production at Lula, the country's largest oil field, ramped up to 580 kb/d - nearly double the levels seen just over a year ago. Output is expected to rise further this year as Petrobras ramps up production from new units and commissions an 80 kb/d Floating Production, Storage and Offloading unit (FPSO) at its Lapa field.



In an effort to curb its massive debt and revive investor confidence, Petrobras cut its planned investment for the next five years by 25% to the lowest level in a decade. With \$124 bn of gross debt at the end of June, Petrobras now ranks as the world's most heavily-indebted oil company. In an updated five-year plan released in September, Petrobras said it would cut its capital expenditure to \$74.1 bn for the 2017-2021 period compared with the previous 2015-19 plan of \$98.4 bn.

The company says the latest capex reduction does not materially impact its production curve, as most of the investments underpinning growth to 2021 have already been made. Petrobras is aiming to lift output to 2.77 mb/d in 2021, bringing on as many as 19 production systems in the Santos and Campos basins over the next five years. The company did warn, however, that output could drop in the near term, due to high natural declines in mature fields in the Campos basin and from the potential divestment of some producing assets. Petrobras reaffirmed its earlier plan to complete the sale of \$15.1 billion worth of assets for 2015-2016. It also plans to sell an additional \$19.5 billion in assets over 2017-2018.

In the meantime, Petrobras is making progress at reducing costs and improving efficiency, especially in managing offshore well construction and completion. The company said in its latest investor update that over the past six years, it has reduced the average time of drilling new wells from 310 days to 89 days, while improving pre-salt productivity per well from 20 kb/d to 26 kb/d. At the same time, lifting costs in the pre-salt have fallen from \$14.6 per barrels of oil equivalent (boe) in 2014 to \$11/boe this year. Petrobras expects lifting costs to reach \$9.6/boe on average during 2017-2021.

While Petrobras is funneling most of its capital into the pre-salt area, it recognises the need for increased efforts in the Campos basin. Capital spending for existing Campos basin wells has taken a bigger hit from the downturn, but the 2017-2021 business plan lowered the decline rate estimate to 9% a year from 12%-15%. Petrobras is aiming to secure partnerships in the Campos basin, especially to revive output in the Marlim field, and recently signed a deal with Statoil to collaborate on existing fields. The company is also negotiating with Karoon Gas Australia the sale of its participation in the Baúna (100%) and Tartaruga (50%) fields, in the Santos and Campos Basins, respectively.

In early October, Brazil's lower chamber of Congress approved the main points of a bill removing a requirement that Petrobras be the sole operator of subsalt projects with a minimum 30% stake in their development. The bill, which has already been approved by the Senate, is aimed at boosting private investment in Brazil's oil industry.

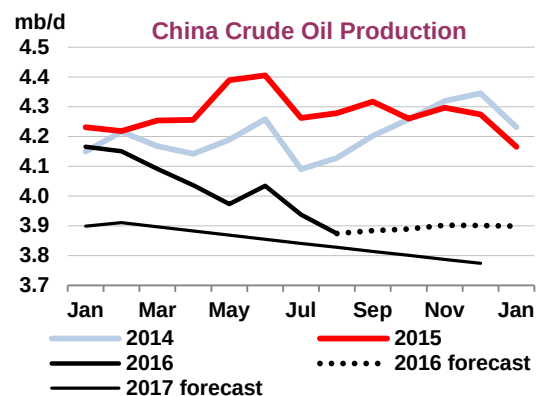
Petrobras currently accounts for around 84% of Brazil's total production. In the near term, we expect total Brazilian production to increase by 75 kb/d in 2016 and rise by 290 kb/d to 2.9 mb/d next year.

Colombia – August actual: Colombia produced an average of 830 kb/d of crude oil in August, according to the latest government figures. Crude supplies were down a hefty 140 kb/d - or 15% - from a year ago when output stood at 970 kb/d. While sharp capex cuts are clearly taking a toll, Ecopetrol - which produces more than half the country's oil - stated it is planning to intensify drilling in the second half of the year to stem declines. We have nevertheless cut our projections for the remainder of the year and for 2017 by a further 30 kb/d since last month's *Report*. Under our forecast, Colombian oil output declines by 120 kb/d this year and falls a further 60 kb/d to 830 kb/d in 2017.

Asia

China – August actual: Chinese oil production continued its recent downward slide into August, dropping another 60 kb/d to a six-year low of just under 3.9 mb/d. The country's state-run oil companies have shut in output from ageing high-cost fields in an effort to stem financial losses. According to data from the National Bureau of Statistics, output stood nearly 10% below year-earlier levels in the latest month.

While the outlook for Chinese oil output has worsened over the year, the pace of decline is expected to slow.



Indeed, mid-year updates from the country's two largest producers, PetroChina and Sinopec, support this view. PetroChina cut its full-year domestic crude output target to 2.06 mb/d from 2.1 mb/d after it stopped construction of projects with high break-even costs and cut output at high-cost fields. The implied 6% annual decline suggests its output in 2H16 will fall by 135 kb/d from 1H16 output (of 2.13 mb/d), in line with our current forecast.

Sinopec plans to spend more money during 2H16 than in the first half of the year, which is likely to put a floor under output declines. The company targets output of 680 kb/d in 2H16, down a marginal 30 kb/d from 1H16.

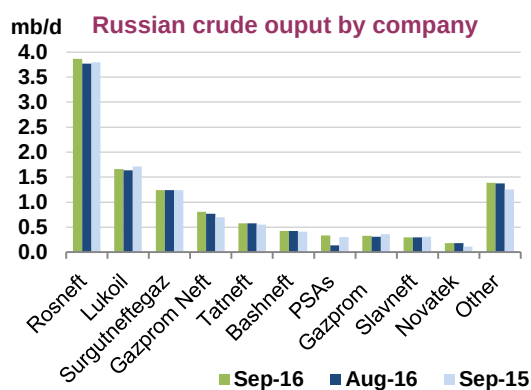
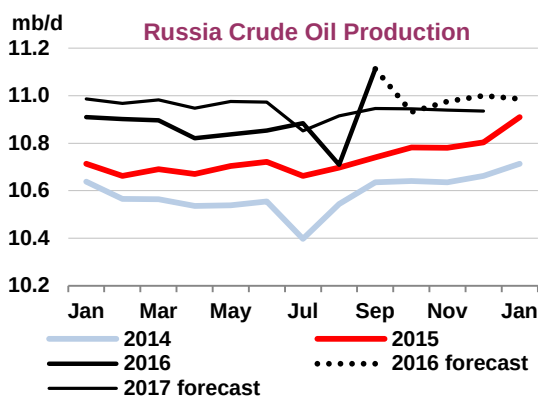
Lastly, China's largest offshore player, CNOOC, has completed its development programme for the year, bringing on line its Weizhou 6-9/6-10 and Enping 18-1 fields. CNOOC's domestic oil output increased by 2.4% over the first half of the year, to 775 kb/d compared with a year earlier due to new project in Bohai and Western South China Sea. CNOOC confirmed its full year oil and gas production target of 470-485 mboe set out earlier this year - double 1H16 output - suggesting overall output will remain roughly stable in the second half.

All in all, Chinese crude oil production is expected to fall by 300 kb/d for 2016 and fall a further 140 kb/d in 2017 to 3.8 mb/d.

Viet Nam – August actual, September preliminary: Viet Nam's crude oil production rebounded by 30 kb/d to an average 320 kb/d in September – up from a 23-month low of 280 kb/d in August, according to preliminary estimates released by the country's statistics office. Production was nevertheless 9% lower than 2015.

Former Soviet Union

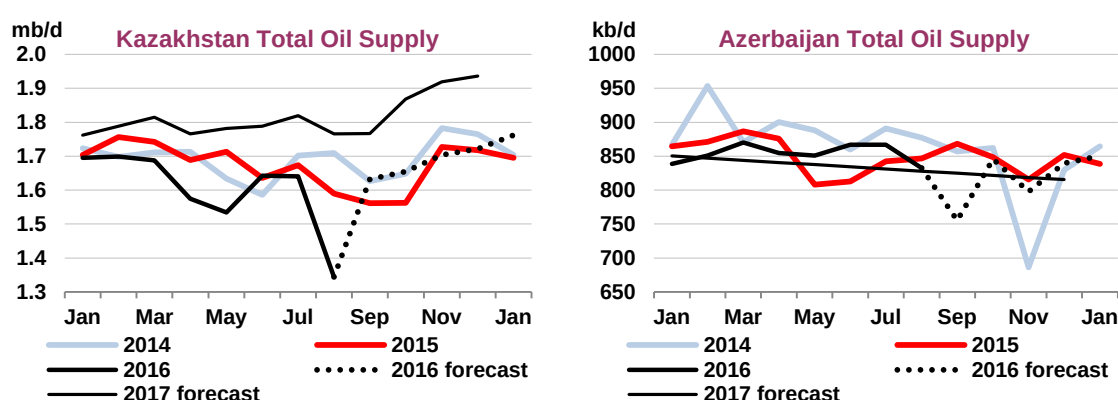
Russia – August actual, September actual: Russian crude and condensate production surged to a post-Soviet high in September, averaging 11.11 mb/d, according to preliminary energy ministry data. While all major oil companies pushed output higher, the biggest month-on-month gain stemmed from the Exxon-operated Sakhalin 1 project, which was shut for maintenance in August. The country's largest suppliers, Rosneft and Lukoil, also pumped harder, reversing a declining trend. Rosneft's production rose by nearly 100 kb/d from August, to 3.865 mb/d, and some 70 kb/d higher than a year ago. The company has intensified efforts to stem declines at brownfield assets while at the same time bringing on new fields. Together with Gazprom Neft, Rosneft in September launched Russia's northernmost onshore oilfield, Vostochno-Messoyakha, which is due to reach peak production of 110 kb/d by 2020. Rosneft is also planning in October to launch its Suzun field, which will yield 90 kb/d when fully operational.



Lukoil's liquids output also inched higher in September, climbing 30 kb/d to 1.66 mb/d. Output continued to contract year-on-year, however, lagging 2015 levels by 50 kb/d. So far this year, the company's Russian production has fallen by 70 kb/d from the same period a year earlier, or by more than 4%. Crude

oil production in Western Siberia continued to decline due to natural depletion of reserves, increase in water cut and a reallocation of capital to higher return projects in other regions of Russia. Field depletions were only partly offset by increases from the Yaregskoye and Imilorskoye fields, which are ramping up. Lukoil production is expected to get a boost towards year-end as it starts up its Filanovskoe field in the Caspian Sea.

Kazakhstan – August actual: Kazakhstan's oil production rebounded sharply in September, after heavy maintenance saw output drop to a 10-year low a month earlier. Supplies from the TengizChevroil field was cut by 284 kb/d in August from 560 kb/d the previous month due to extensive planned maintenance work. At 1.26 mb/d, total Kazakh crude oil output was 300 kb/d lower than the previous month in August and 250 kb/d below a year ago. The consortium developing the giant Kashagan oil field reported on 29 September it had begun test-pumping in preparation for commercial production. Initial flows are set to begin at 75 kb/d, rising towards year and through 2017. Operator North Caspian Operating Company (NCOC) said previously that it planned to restart Kashagan at an initial rate of 180 kb/d, increasing to 370 kb/d by the end of 2017 after gas reinjection is optimised.



Azerbaijan – August actual: Azeri oil output dropped by 35 kb/d from July, to 830 kb/d. Output is estimated to have fallen further in September when BP shut its Guneshli Deep platform at the ACG complex for planned maintenance. BP reported on 12 September the platform had resumed operations.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2014	2015	2Q2015	3Q2015	4Q2015	1Q2016	2Q2016	Jun 16	Jul 16	Aug 16	Sep 16 ³	Jul 16 vs Jul 16	Aug 15
Crude													
Black Sea	1.62	1.64	1.56	1.59	1.60	1.82	1.60	1.67	1.67	1.25	1.63	-0.42	-0.21
Baltic	1.33	1.45	1.45	1.38	1.51	1.54	1.65	1.56	1.55	1.60	1.70	0.04	0.29
Arctic/FarEast	1.14	1.42	1.41	1.42	1.48	1.66	1.83	1.90	1.82	1.48	1.70	-0.34	0.11
BTC	0.60	0.62	0.61	0.61	0.61	0.70	0.70	0.73	0.74	0.65	0.65	-0.09	0.10
Crude Seaborne	4.69	5.13	5.03	4.99	5.21	5.71	5.79	5.87	5.79	4.99	5.68	-0.80	0.30
Druzhba Pipeline	1.01	1.07	1.08	1.06	1.08	1.04	1.05	1.02	1.09	1.09	1.09	0.00	0.05
Other Routes	0.40	0.24	0.24	0.23	0.21	0.21	0.18	0.18	0.19	0.17	0.17	-0.02	-0.03
Total Crude Exports	6.14	6.43	6.35	6.28	6.50	6.96	7.02	6.81	6.81	6.02	6.63	-0.79	0.09
of which: Transneft ¹	3.88	4.19	4.16	4.08	4.23	4.32	4.44	4.26	4.30	4.20	4.50	-0.10	0.24
of which: Russian crude	4.02	4.42	4.44	4.30	4.47	4.57	5.06	5.09	4.97	4.40	4.94	-0.57	0.19
Products													
Fuel oil ²	1.72	1.49	1.51	1.31	1.48	1.35	1.33	1.46	1.34	1.42		0.07	0.15
of which: VGO	0.27	0.25	0.24	0.25	0.28	0.22	0.27	0.27	0.34	0.37		0.03	0.16
Gasoil	0.95	0.98	1.03	0.82	0.84	1.17	0.96	0.99	0.87	0.92		0.05	0.11
Other Products	0.57	0.66	0.69	0.58	0.66	0.71	0.71	0.68	0.65	0.78		0.13	0.24
Total Product	3.25	3.13	3.23	2.71	2.97	3.22	3.00	3.13	2.86	3.12		0.25	0.49
Total Exports	9.38	9.56	9.58	8.98	9.46	10.10	9.82	9.94	9.68	9.14		-0.54	0.58
Imports	0.08	0.07	0.06	0.07	0.08	0.05	0.06	0.06	0.06	0.06		-0.01	-0.01
Net Exports	9.30	9.50	9.53	8.91	9.38	10.05	9.77	9.88	9.61	9.08		-0.53	0.59

Sources: Argus Media Ltd, IEA estimates, Bloomberg, Lloyd's List Intelligence

¹Transneft data exclude Russian CPC volumes.

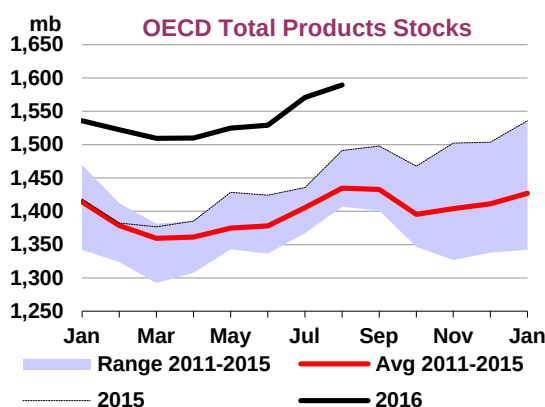
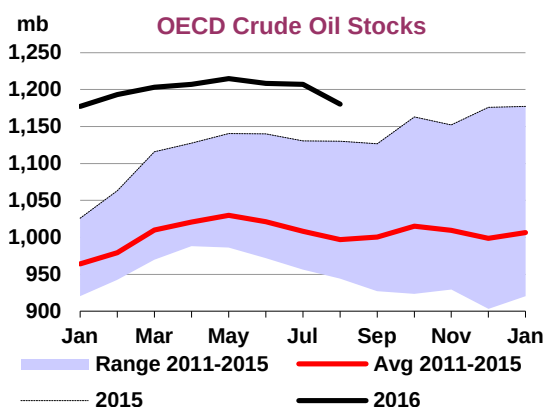
²Includes Vacuum Gas Oil

³Preliminary tanker data and IEA calculations

STOCKS

Summary

- **OECD commercial inventories fell for the first time since March**, by 10 mb to 3 092 mb, in August due to a larger than seasonal decline in crude stockpiles.
- **Asia Oceania saw the largest monthly draw in crude stocks.** The decline was split between Japan and South Korea, which saw higher refinery runs.
- **Oil product inventories built by 18.7 mb** to reach a historical high in August as OECD refinery throughput rose and seasonal restocking of US propane continued.
- **Preliminary data for September show crude stocks falling in both Japan and the US** due to lower imports and despite a heavier refinery maintenance schedule.



Global Overview

After a long uptrend, the pace of global stock builds has slowed recently, even tentatively started to reverse. In August, for example, total OECD commercial inventories fell for the first time since March, pulled down by a 22 mb drop in crude stocks in the US, Japan and South Korea. Inventories stood 145 mb above a year ago, so the ample supply cushion built over the last few years remains. Oil product stocks continued to march upwards, with builds seen in middle distillates and propane, and limited draws in other products. Preliminary figures released for the US and Japan suggest that the trend extended well into September with further falls in crude stocks despite heavier refinery maintenance than in August.

OECD inventory position at end-August and revisions to preliminary data

OECD commercial inventories fell counter-seasonally by 10 mb to stand at 3 092 mb by end-month, marking the first monthly fall since March. This meant inventories' surplus to average levels fell on the month, even if they stood a comfortable 348 mb above the five-year range and 145 mb above a year ago. The fall in stockpiles was largely driven by crude, which fell in all OECD regions and especially sharply in Asia Oceania. This brought crude stocks back to early February levels. Refined product stocks across the OECD hit yet another historic high as refineries increased runs in August.

Middle distillates inventories (+8.2 mb month-on-month) extended recent gains supported by higher refinery runs in North America and Asia Oceania to meet the seasonal increase in gasoline demand. Holdings of the product were boosted over the summer after a relative stabilization in 1H16. As in recent months, the largest portion of the increase in product inventories came from the seasonal restocking of 'other products' in North America. This category includes propane that has risen with natural gas liquids

production. By end-August, OECD refined product inventories covered 34.4 days of forward demand, a rise of 0.6 days on end-July and 2 days higher than one year earlier.

Preliminary Industry Stock Change in August 2016 and Second Quarter 2016

	August 2016 (preliminary)								Second Quarter 2016			
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	-11.4	-2.6	-13.0	-26.9	-0.37	-0.08	-0.42	-0.87	-0.09	0.08	0.07	0.05
Gasoline	-8.4	-2.3	0.4	-10.3	-0.27	-0.07	0.01	-0.33	0.01	-0.04	0.00	-0.03
Middle Distillates	4.7	-0.7	4.2	8.2	0.15	-0.02	0.13	0.27	-0.23	0.04	0.09	-0.10
Residual Fuel Oil	1.1	0.2	0.3	1.7	0.04	0.01	0.01	0.05	-0.04	-0.07	-0.01	-0.12
Other Products	15.4	0.3	3.4	19.1	0.50	0.01	0.11	0.62	0.44	0.02	0.02	0.47
Total Products	12.8	-2.4	8.3	18.7	0.41	-0.08	0.27	0.60	0.17	-0.05	0.10	0.22
Other Oils ¹	-3.2	0.2	1.2	-1.8	-0.10	0.01	0.04	-0.06	0.14	-0.01	0.02	0.14
Total Oil	-1.8	-4.7	-3.4	-10.0	-0.06	-0.15	-0.11	-0.32	0.21	0.02	0.18	0.41

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Upon the receipt of more complete information and following a data revision by the US Energy Information Administration, OECD stocks were lowered by 26.6 mb in June and 9 mb in July. Holdings in OECD Americas saw the largest changes with revisions to crude inventories (-29.7 mb), refined products (+2.6 mb) and NGLs, feedstocks and hydrocarbons (+10 mb) in July. The EIA removed from its historical commercial crude data 'lease stocks', representing volumes of crude produced and not yet transferred to pipelines or tank farms for storage. For OECD Europe, crude stocks were revised down 0.3 mb in July, products up 6.4 mb, while stocks of NGLs, feedstocks and hydrocarbons were raised by 1.4 mb. Asia Oceania saw fewer changes overall with a +0.7 mb data revision mainly focused on crude oil for July.

Revisions versus 13 September 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16	Jun-16	Jul-16
Crude Oil	-27.2	-29.7	0.3	-0.3	0.0	0.6	-26.9	-29.4
Gasoline	-0.1	1.0	-0.2	0.8	0.0	0.0	-0.3	1.8
Middle Distillates	0.2	5.2	0.0	4.5	0.0	-0.7	0.1	9.0
Residual Fuel Oil	-0.2	-0.8	0.5	-0.5	0.0	0.0	0.3	-1.4
Other Products	0.0	-2.9	0.2	1.6	0.0	0.6	0.3	-0.7
Total Products	-0.1	2.6	0.4	6.4	0.0	-0.2	0.3	8.8
Other Oils ¹	-0.1	10.0	0.1	1.4	0.0	0.2	0.0	11.6
Total Oil	-27.4	-17.2	0.8	7.5	0.0	0.7	-26.6	-9.0

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

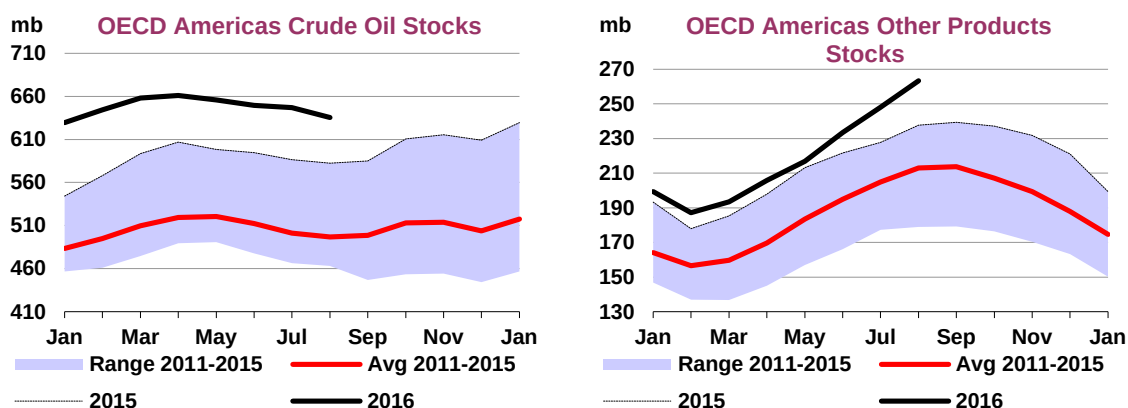
Recent OECD industry stock changes

OECD Americas

Industry inventories in the OECD Americas drew counter-seasonally in August by 1.8 mb to 1 634 mb. This was largely driven by crude stocks, which fell for a fourth month in a row and, at 635 mb, now sit just above levels at the start of the year. Another key contributor was gasoline, which fell 8.5 mb on the month to 264 mb, driven by a seasonal increase in demand.

Even if this was insufficient to offset the crude and gasoline draws, stocks of 'other products' in the OECD Americas (largely US propane) continued to build by 15.3 mb, or almost twice the normal rate for this time of year, to sit at a record 263 mb by end month. Remarkably, they were almost on a par with gasoline stocks at the end of August and could well overtake them in September. At the start of 2010, before the US Light Tight Oil boom, propane stocks represented barely half the gasoline volume. Middle distillates rose seasonally by 4.7 mb, while fuel oil built counter-seasonally by 1.1 mb. All told, refined products added 12.7 mb in August, more than the average build for the month to cover 32.9 days of forward demand and marking yet another increase on the month and the year.

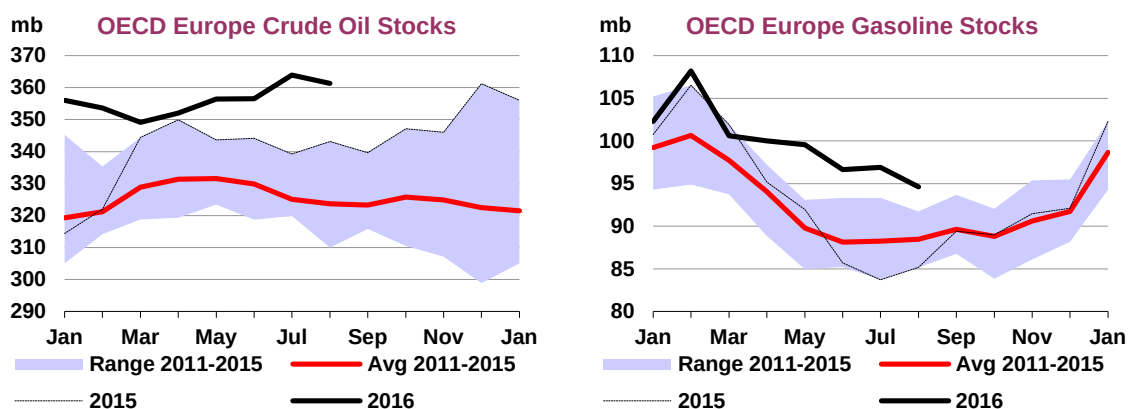
Preliminary weekly data from the US Energy Information Administration (EIA) suggest that US commercial crude stockpiles drew by a further 22 mb in September. Previous delays in discharging crude cargoes in the Gulf in early September were not offset by enough imports later in the month and a narrowing Brent-WTI spread made the US less attractive for oil exporters. The fall in crude stocks was also helped by a series of ultra light crude exports from the US Gulf Coast to Europe and came despite a 0.8 mb/d fall in refinery throughput. The largest draws were in the US Gulf Coast – traditionally the largest crude importing region – followed by the East Coast and the Midwest.



US refined product stocks were little changed overall in September, with further builds in middle distillates and a draw in gasoline. The Colonial Pipeline System was partially shut between 9-21 September, with implications for product stocks in PADD 1 (US Northeast) and PADD 3 (US Gulf Coast). During the outage, gasoline stocks built in the Gulf. A string of gasoline exports from Europe to the US Northeast helped cushion the impact for stocks in PADD 1. By the end of September, they stood at 60 mb, down 7 mb on the month. As for middle distillate stocks, they stood at 43 mb in the US Gulf Coast at the end of September, down 0.9 mb, while in the US Northeast they were up 1 mb to 64 mb.

OECD Europe

European commercial holdings drew overall in August against seasonal trends prompted by falls in crude oil and gasoline, with minor changes seen in other product categories. Crude stockpiles fell in France and the Netherlands in particular as refineries increased production to meet the seasonal increase in diesel demand, while in Germany, the UK and Italy, stocks gained. Overall, European commercial crude stocks stood at 361 mb by end-August, down 2.6 mb from July.

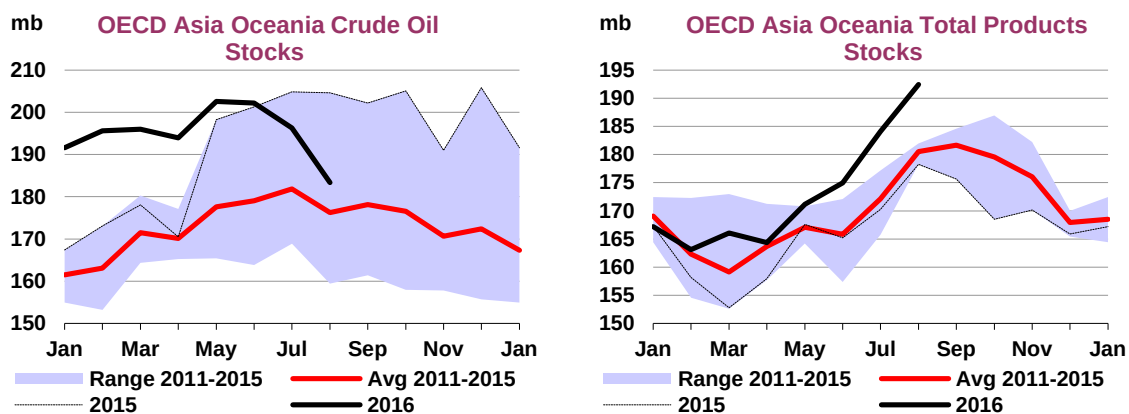


On the product side, gasoline stocks drew in line with higher exports to the US and West Africa, bringing industry stockpiles to 95 mb by end-August, their lowest level since December 2015. Stocks of middle distillates were almost unchanged on the month, as they drew by 0.7 mb to 321 mb. At the end of

August, regional refined product holdings covered 42.8 days of forward demand, a rise of 0.2 days on end-July. Reports concerning refined products held in independent storage in Northwest Europe suggest that stocks fell for most product categories in September. Gasoline and naphtha stocks fell due to higher exports to West Africa, while for diesel, gasoil and jet fuel lower cargo arrivals were to blame. Fuel oil inventories fell in mid-September due to higher exports to Asia before recovering in early October. Preliminary data from Euroilstocks for September was not available at the time of writing.

OECD Asia Oceania

As in North America and Europe, total oil stocks in OECD Asia Oceania fell in August, by 3.4 mb to 438 mb. By far the largest contribution was made by crude, which fell 13 mb on the month and a significant 21.3 mb below year-ago levels, to 183 mb. Overall, this was the third consecutive monthly crude draw in the region and the lowest crude stockpile figure recorded in OECD Asia Oceania since April 2015. The drop was also more than twice as large as normal for this time of year, and was split between Japan (-7.4 mb) and South Korea (-5.6 mb), which saw higher refinery runs during the month. The higher refinery runs, as well as imports ahead of the winter season, contributed to rising stocks of middle distillates (+4.2 mb), natural gas liquids (+1.2 mb), gasoline (+0.4 mb), fuel oil (+0.3 mb) and 'other products' (+3.4 mb) on the month. Altogether, this meant refined product stock holdings covered 24.5 days of forward demand at end-August, a rise of 0.8 days on end-July.



Preliminary weekly data from the Petroleum Association of Japan (PAJ) suggest that stocks of crude continued to fall in September to end the month at 90 mb, their lowest level since March. With refinery runs also down on the month, the implication is that crude imports fell in September in Japan. Stocks of refined products rose 3.3 mb on the month to 122 mb as the seasonal restocking of kerosene (+2.4 mb) ahead of winter is now well underway, and with a significant rise in naphtha stocks (+3.3 mb).

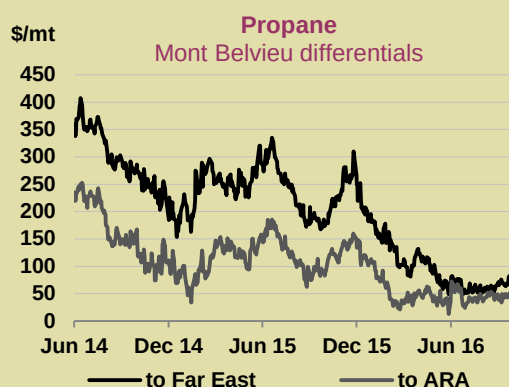
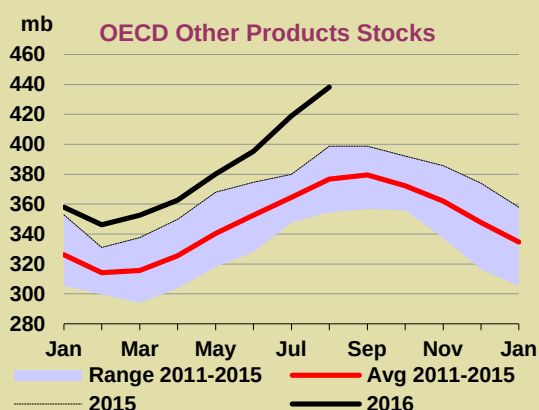
Recent developments in Singapore and China stocks

Data from *China Oil, Gas and Petrochemicals (China OGP)* indicate that Chinese commercial refined product stocks drew by a heady 16.7 mb in August. Holdings of gasoil fell by 14.1 mb, while gasoline dropped 1.1 mb and kerosene fell by 1.6 mb. In contrast with oil products as well as the wider Asia Oceania region, Chinese commercial crude stocks posted a 9.2 mb build in August, the largest month-on-month (m-o-m) rise recorded since early 2015. The gap between crude supply (domestic production plus net imports) and refinery throughputs was positive, implying an unreported build of 26 mb during August.

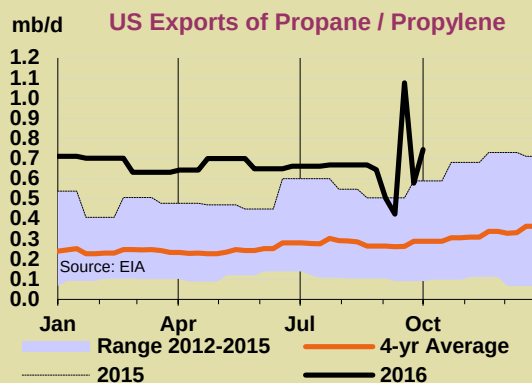
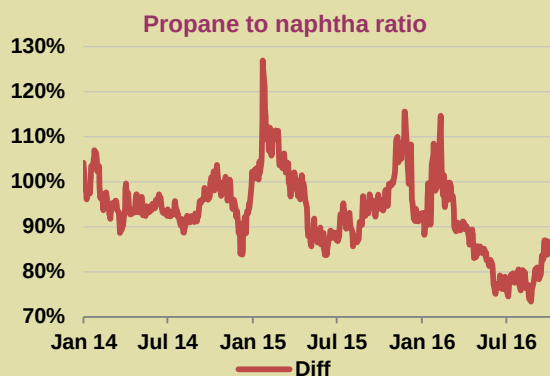
According to weekly data from International Enterprise, land-based refined product stocks in Singapore rose by 0.9 mb in September to 50 mb. Residual fuel oil stocks recovered from their lowest level in 17 months to end at 25 mb, up from 21 mb the previous month. Middle distillate stocks drew by 1.8 mb to 13 mb, while light distillates fell 1.5 mb to 12 mb.

LPG boom pushes product stocks to the brim

A relentless build in stocks of liquefied petroleum gas (LPG) shows no sign of letting up. US natural gas liquids (NGLs) have different production economics than crude oil, so supply has kept rising even as benchmark crude prices have fallen. Since 2010, gas liquids production has ballooned, led by ethane and propane, which grew from 800 and 600 kb/d, to 1.4 and 1.2 mb/d respectively. The IEA forecasts US NGL supply growing by 250 kb/d both this year and next, as *Medium Term Gas Market Report* (MTGMR) sees gas market rebalancing taking longer than oil. While still leading the growth in 2016, ethane had only modest luck on international markets, as its export capacity remains capped. Propane, on the contrary, has led the US exports of LPG, with regular volumes of over 700 kb/d. Its flexibility as a petrochemical feedstock and heating fuel and its ease of transport made large volumes being shipped to the Far East – China, India, Japan and Korea – and differentials to the US Gulf since 2014 have collapsed to less than \$50/t from what used to be \$300/t. But even energy-hungry Asia cannot absorb the booming supply, export capacity – estimated by the EIA to over 1 mb/d – is partly unused so the excess is piling up in storage tanks, even as supply growth of has come to an halt this year.



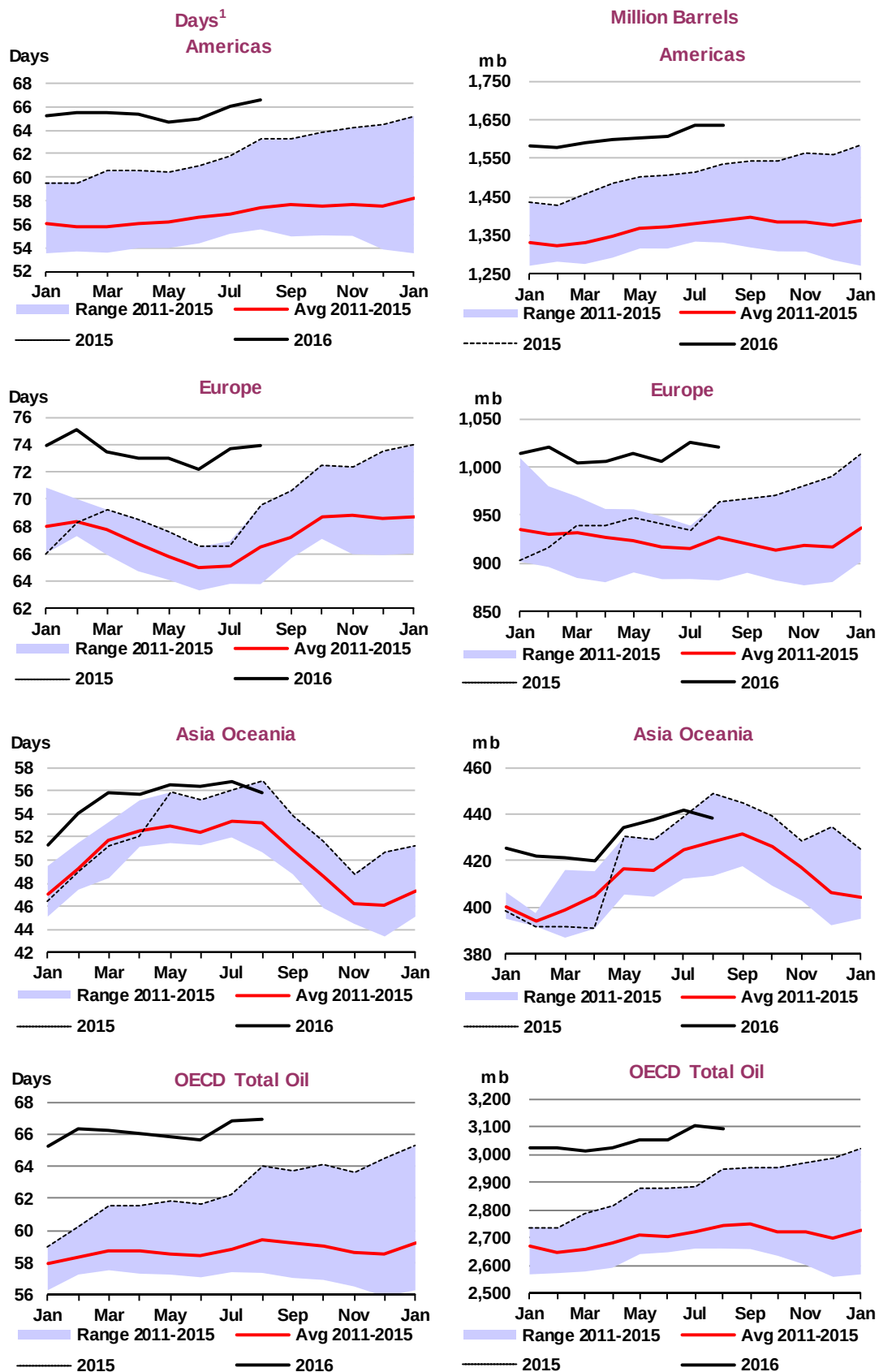
On the demand side, a mild winter and a dry summer – which cut demand for crop drying – did not help easing the US domestic market oversupply. As a result, up to 13 very-large-gas-carriers (VLGC) carrying more than 6 mb barrels were reportedly floating off Singapore at the peak of summer when inventories are typically at a high. OECD 'Other Products' inventory data – chiefly made up of LPG – show the overhang has been shifting to the east. More recently, US LPG has also been moving into Europe, displacing established sources of supply, from producers such as Algeria. Depressed freight rates, at more than 10 year lows, have also narrowed arbitrage opportunities.



There may be some short term relief for suppliers. The hanging vessels appear to have found homes and discharged in August-September. Weak propane-to-naphtha ratios seem to suggest that LPG has made further inroads into the Asian petrochemical sector, regaining some ground in September as it found a pocket of demand. But fuel switching is a slow process, so there will not be a substantial dent in the overhang in the short term. Without a colder winter, LPG looks still on a trajectory of its own. Indeed, the gas markets look set to take even longer to rebalance than oil markets.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

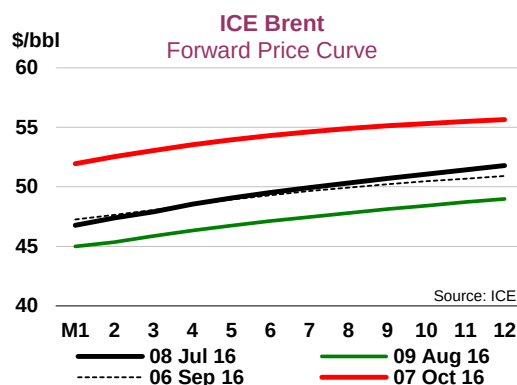
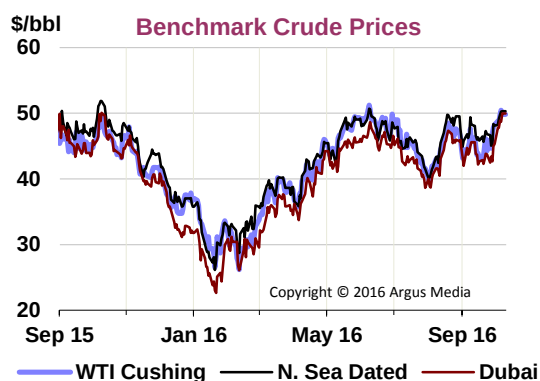


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Benchmark crude prices rose in September** as market rebalancing continued and participants anticipated an OPEC supply cut. At the time of writing, front month ICE Brent was trading at \$53.05 /bbl with front month NYMEX WTI lower at \$51.15/bbl.
- **Major crude benchmarks remained locked in contango** during September, reflecting continuing oversupply in physical markets.
- **Gasoline, naphtha and fuel oil prices all strengthened on open arbitrage** to the US East Coast and Singapore, while middle distillates were more stable.
- **Crude freight rates recovered from the lowest level since 2009** on stronger activity in the North Sea and West Africa. Clean product freight rates were largely stable, with the exception of Atlantic Basin clean routes, which responded to an outage on the Colonial pipeline.



Market overview

After an early period of volatility, benchmark crude prices stabilised mid-month and then rallied after ministers from OPEC showed a willingness to cut production and with several data releases showing falling US crude stocks. A meeting of ministers in Algeria on 28 September led to an agreement to curb OPEC production to between 32.5-33 mb/d, with the details to be ironed out at OPEC's next meeting on 30 November in Vienna. Despite uncertainty about some of the deal's key parameters, the price of front-month ICE Brent rose from \$45.97/bbl the day before the meeting to \$48.24/bbl at the end of that week. At the time of writing, prices were trading above \$53/bbl.

Futures markets

The contango in ICE Brent crude futures – defined as when the prompt month contract is lower than later ones – widened in September despite falling production linked to field maintenance in the North Sea and a raft of exports to Asia. This was largely driven by refinery maintenance in Northwest Europe, which reduced demand for crude. The Month 1-Month 2 futures spread was trading at -\$0.57/ bbl in early October, from -\$0.38/bbl at the start of September. The contango on the NYMEX WTI curve remained in a tight range throughout the month, while the spread between front month WTI and Brent futures narrowed in September with higher exports of crude scheduled from the US Gulf. The Month 1-Month 2 Dubai spread fell further into contango from -\$0.50/bbl at the start of September to -\$0.80/ bbl by end-month, reflecting ample supplies and lower demand for Middle Eastern crudes. By early October, as the front month contract rolled to December, Dubai was in backwardation.

The partial closure of the Colonial pipeline resulted in a steep backwardation of the NYMEX Reformulated Blend-stock for Oxygen Blending (RBOB) gasoline Month 1-Month 2 futures curve, which hit a high of 7.77 cents/gallon on September 16, before falling back to 2.43 cents/gallon by month-end as the pipeline reopened. A similar phenomenon was observed for NYMEX ultra low sulphur diesel futures, with a twist. The M1-M2 price structure continued to steepen in the days following the reopening of Colonial, reflecting falling inventories in the US Northeast and firm demand. The premium of NYMEX diesel over gasoline futures widened to 8.27 cents/gallon as a result in early October, reflecting seasonal patterns but also suggesting that on balance, market players see a tight diesel supply picture and more relaxed gasoline supplies in the US Northeast over the next few weeks.

Prompt Month Oil Futures Prices

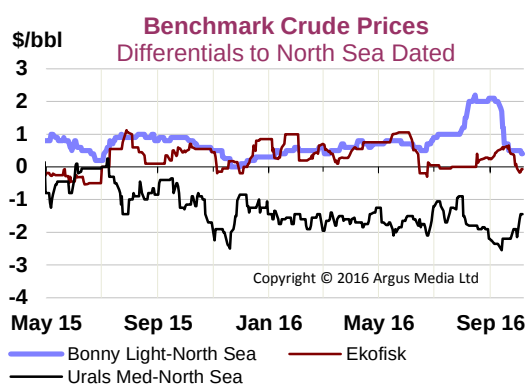
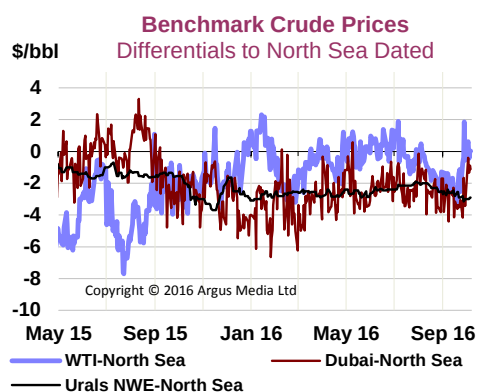
(monthly and weekly averages, \$/bbl)

	Jul	Aug	Sep	Sep-Aug Avg Chg	% Chg	Week Commencing:				
						05 Sep	12 Sep	19 Sep	26 Sep	03 Oct
NYMEX										
Light Sweet Crude Oil	44.80	44.80	45.23	0.43	1.0	45.96	44.34	44.58	46.74	49.52
RBOB	57.98	59.48	58.45	-1.03	-1.7	57.12	58.97	58.49	60.72	62.52
No.2 Heating Oil	58.17	59.42	60.17	0.75	1.3	60.35	59.37	59.56	62.06	66.07
No.2 Heating Oil (\$/mmbtu)	10.26	10.48	10.61	0.13	1.3	10.64	10.47	10.50	10.95	11.65
Henry Hub Natural Gas (\$/mmbtu)	2.76	2.72	2.90	0.18	6.6	2.75	2.92	3.00	2.96	3.03
ICE										
Brent	46.53	47.16	47.24	0.08	0.2	48.17	46.73	46.44	48.06	51.61
Gasoil	54.36	54.74	56.19	1.45	2.7	55.84	55.62	56.45	57.54	61.90
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-1.73	-2.36	-2.01	0.35		-2.21	-2.39	-1.86	-1.32	-2.09
NYMEX No.2 Heating Oil - WTI	13.37	14.62	14.94	0.32		14.39	15.03	14.98	15.32	16.55
NYMEX RBOB - WTI	13.18	14.68	13.22	-1.46		11.16	14.63	13.91	13.98	13.00
NYMEX 3-2-1 Crack (RBOB)	13.24	14.66	13.79	-0.87		12.24	14.76	14.27	14.42	14.18
NYMEX No.2 - Natural Gas (\$/mmbtu)	7.50	7.76	7.71	-0.05		7.89	7.55	7.51	7.98	8.62
ICE Gasoil - ICE Brent	7.83	7.58	8.95	1.37		7.67	8.89	10.01	9.48	10.29

Source: ICE, NYMEX.

Spot crude oil prices

The North Sea physical crude market showed the strongest gains out of all the major price benchmarks in September as Brent, Forties, Oseberg and Ekofisk (BFOE) loadings fell to 22.2 mb (740 kb/d) for the month due to field maintenance and scheduled shipments to Asia. North Sea Dated averaged \$46.69 /bbl, up \$1.01/bbl from August. Brent traded at wider differentials to other major crudes through the month, including sour benchmark Dubai and sweet marker WTI, even if it came under pressure in early October in relative terms.



West African crudes including Nigeria's Qua Iboe and Bonny Light were not as supported, falling against Azeri Light and Saharan Blend despite higher refining margins. Higher anticipated production from Nigeria appeared to dampen prices, with the first cargo of Qua Iboe since July's shutdown loading in early October. Qua Iboe changed hands at a \$1.18/bbl premium to North Sea Dated on average in September, down from \$1.97/bbl in August. Angolan crudes Girassol and Cabinda fell against Dated Brent with lacklustre demand from major buyer China and the widening of the Brent-Dubai spread, but were more supported compared with other West African crudes.

A shortage of sour benchmark Urals crude in the Mediterranean sent its value soaring against lighter crudes such as Azeri Light and forced open an arbitrage for crude from Northwest Europe. Urals values in Northwest Europe came under pressure in September versus North Sea crudes with record exports scheduled from Russia's Primorsk port in October. Middle Eastern sour benchmark Dubai fell against Brent-related crudes in September on lower demand from Asia, though the trend appeared to reverse partly in early October. US crude prices rose in September in line with other global oil benchmarks and with falling stocks, as reported by the Energy Information Administration (see *Stocks* section). Medium sour benchmark Mars gained relative to lighter US crudes such as WTI or Light Louisiana Sweet (LLS).

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Jul	Aug	Sep	Sep-Aug Avg Chg	%	Week Commencing:				
						05 Sep	12 Sep	19 Sep	26 Sep	03 Oct
Crudes										
North Sea Dated	45.00	45.68	46.69	1.01	2.2	47.51	46.55	46.55	46.68	49.53
Brent (Asia) Mth 1	46.22	46.72	46.85	0.13	0.3	48.14	46.40	46.34	46.79	50.88
WTI (Cushing) Mth 1	44.69	44.75	45.20	0.45	1.0	45.96	44.34	44.46	46.74	49.52
Urals (Mediterranean)	43.76	43.90	44.48	0.58	1.3	45.16	44.22	44.35	44.73	48.05
Dubai	42.54	43.67	43.58	-0.09	-0.2	44.59	43.09	43.15	43.77	48.63
Tapis (Dated)	44.69	44.25	45.97	1.72	3.9	46.01	44.67	46.83	46.94	49.73
Differential to North Sea Dated										
WTI (Cushing)	-0.31	-0.93	-1.49	-0.56		-1.55	-2.21	-2.09	0.07	-0.01
Urals (Mediterranean)	-1.24	-1.78	-2.21	-0.43		-2.35	-2.33	-2.20	-1.95	-1.48
Dubai	-2.46	-2.02	-3.11	-1.10		-2.91	-3.46	-3.40	-2.91	-0.90
Tapis (Dated)	-0.31	-1.43	-0.72	0.71		-1.50	-1.88	0.28	0.26	0.20
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.55	-0.23	-0.38	-0.15		-0.25	-0.37	-0.37	-0.59	-0.53
Forward WTI Cushing Mth1-Mth2	-0.73	-0.65	-0.54	0.11		-0.63	-0.58	-0.35	-0.58	-0.57
Forward Dubai Mth1-Mth2	-0.72	-0.39	-0.69	-0.31		-0.60	-0.61	-0.84	-0.80	0.27

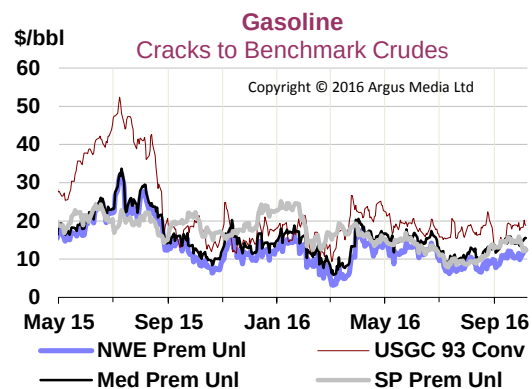
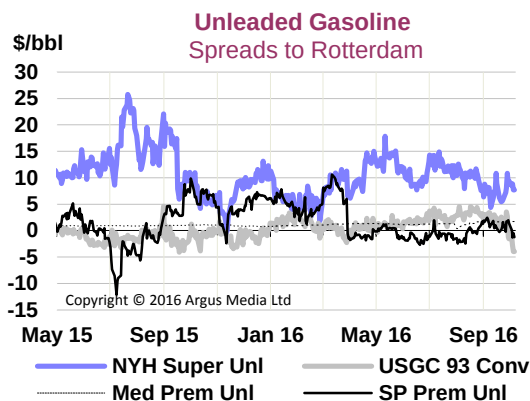
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Spot product prices

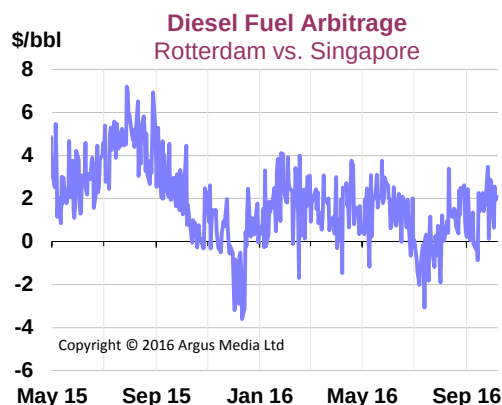
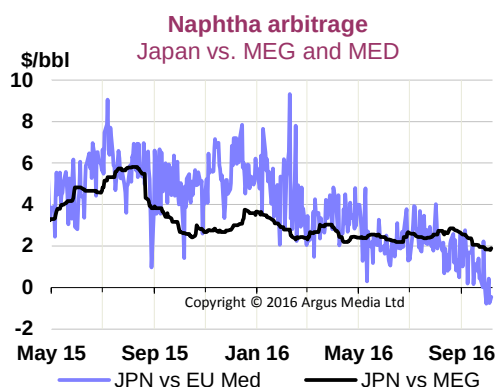
Spot refined product prices were up across the board in September, reflecting continued demand growth and tight supplies in many parts of the world. The major exception was the US Gulf Coast, where the partial closure of the Colonial Pipeline system led to rising stockpiles and falling prices. Gasoline, naphtha and fuel oil were notable strong performers in Europe and Asia.

Atlantic Basin gasoline prices saw mixed fortunes in September following the partial closure of the Colonial Pipeline system between 9-21 September, which trapped gasoline volumes in the US Gulf Coast and prevented flows from reaching the traditionally import-dependent US Northeast. As a result, European and Singapore gasoline physical premiums all rose in September to reflect a wide open arbitrage for cargoes headed to New York Harbour. Market sources said up to 11.7 mb of gasoline left Europe for the US East Coast over the month, with some shipments going as far as Los Angeles via the Panama Canal even before the disruption was reported. The price rise was even more noticeable as European and North American differentials traditionally fall in September with the move to higher Reid Vapour Pressure (RVP) specification ahead of the winter season.

Naphtha prices firmed across all surveyed markets in September in line with the strength recorded in gasoline. European shipments to the Far East, the benchmark region for the product, fell to a four-year low of 5 mb in September and were set to be only a little higher in October, according to market sources, down from an average 10-11 mb per month earlier in the year. This partly reflected European traders' preference to ship product to Brazil and the US, and in turn left Asian petrochemical importers scrambling for product after several months of oversupply. Qatargas' delay in starting up its naphtha-making 146 kb/d Ras Laffan 2 condensate splitter in Qatar also led to tightening supplies out of the Middle East. The Singapore crack gained \$2.67/bbl on a monthly average basis to -\$1.03/bbl, while in Europe, the Rotterdam crack rose \$2.08/bbl month-on-month to -\$2.63/bbl.



Diesel and gasoil prices were also affected by the partial closure of the Colonial Pipeline system, though to a lesser extent than gasoline, and overall moved in a narrow range across all regions. Global stocks of the product continued their upward trajectory, dampening any potential price upside. In Asia, the Monsoon season resulted in lower demand, as is normally expected at this time of year. Stocks of diesel and gasoil held in independent storage in Northwest Europe increased mid-way through September, before drawing on the back of refinery maintenance, lower imports from Russia and exports to the Mediterranean region and North America. Just like in 2015, unseasonably warm weather in Western and Central Europe affected water levels on the Rhine and its tributaries, curtailing the flow of refined products – largely diesel – on the river and trapping volumes in ARA. Rotterdam diesel cracks were up \$0.64/bbl on average in September to \$9.24/bbl, while Singapore 500 ppm gasoil cracks gained \$1.24/bbl to \$11.04/bbl.



Fuel oil saw some of the strongest price gains across the barrel in September, supported by refinery maintenance in the northern hemisphere and falling supplies from Venezuela and Russia. Stockpiles in Singapore fell to their lowest level in 18 months during August due to lower imports from Europe and the Middle East, but recovered in September as supply reached the region. Asian high sulphur fuel oil (HSFO)

prices were up more than \$2/bbl on average to \$39/bbl, with cracks up a little over \$2/bbl on the month. Northwest European HSFO outright prices were also up \$2/bbl to \$36/bbl and cracks were up \$1.15/ bbl to -\$10.65/bbl.

Spot Product Prices

(monthly and weekly averages, \$/bbl)

	Jul	Aug	Sep	Sep-Aug Chg	%	Week Commencing:					Jul	Aug	Sep
						05 Sep	12 Sep	19 Sep	26 Sep	03 Oct			
Rotterdam, Barges FOB											Differential to Dated Brent		
Premium Unl 10 ppm	52.73	54.45	57.00	2.55	4.7	56.87	57.52	57.46	57.32	61.28	7.73	8.77	10.31
Naphtha	42.20	40.97	44.06	3.08	7.5	43.80	43.40	44.86	45.34	48.76	-2.80	-4.71	-2.63
Jet/Kerosene	54.17	54.19	55.43	1.23	2.3	55.44	54.93	55.54	56.34	60.53	9.17	8.51	8.74
ULSD 10ppm	53.84	54.28	55.93	1.65	3.0	55.76	55.06	56.12	57.42	61.71	8.84	8.60	9.24
Gasoil 0.1%	53.17	53.88	55.21	1.33	2.5	55.13	54.41	55.42	56.46	60.71	8.18	8.20	8.52
LSFO 1%	36.57	37.27	39.94	2.67	7.2	40.33	39.71	40.04	40.36	43.23	-8.43	-8.41	-6.75
HSFO 3.5%	33.19	33.88	36.04	2.16	6.4	36.16	35.80	36.43	36.43	38.68	-11.81	-11.80	-10.65
Mediterranean, FOB Cargoes											Differential to Urals		
Premium Unl 10 ppm	54.00	55.66	58.68	3.02	5.4	58.55	59.20	59.14	59.00	62.77	10.24	11.76	14.20
Naphtha	41.06	39.93	43.20	3.27	8.2	42.88	42.54	44.03	44.57	48.03	-2.70	-3.97	-1.28
Jet Aviation fuel	53.21	53.33	54.78	1.45	2.7	54.71	54.28	54.95	55.80	59.97	9.45	9.43	10.30
ULSD 10ppm	54.15	54.72	56.32	1.59	2.9	56.14	55.81	56.47	57.63	61.90	10.39	10.82	11.84
Gasoil 0.1%	52.62	53.00	55.30	2.30	4.3	55.07	54.83	55.55	56.65	60.86	8.86	9.10	10.82
LSFO 1%	37.16	37.66	40.35	2.69	7.1	40.67	40.15	40.51	40.79	43.94	-6.60	-6.23	-4.12
HSFO 3.5%	35.65	36.18	38.33	2.14	5.9	38.37	38.10	38.76	38.78	41.14	-8.11	-7.71	-6.15
US Gulf, FOB Pipeline											Differential to LLS		
Super Unleaded	62.89	64.50	63.57	-0.93	-1.4	61.95	62.73	64.78	66.79	69.80	16.47	18.17	16.74
Unleaded	58.66	61.25	58.73	-2.52	-4.1	58.57	57.85	58.15	61.01	63.35	12.24	14.93	11.91
Jet/Kerosene	52.82	54.80	55.58	0.78	1.4	55.85	54.70	54.92	57.59	61.13	6.40	8.47	8.76
ULSD 10ppm	56.00	57.84	58.73	0.89	1.5	58.86	57.61	57.97	61.31	65.28	9.58	11.51	11.91
Heating Oil	50.07	51.98	53.21	1.23	2.4	53.08	51.96	52.64	55.95	59.22	3.65	5.65	6.39
No. 6 3%*	33.87	34.40	36.36	1.96	5.7	36.76	36.02	36.31	37.19	39.78	-12.55	-11.92	-10.46
Singapore, FOB Cargoes											Differential to Dubai		
Premium Unleaded	51.87	54.18	58.00	3.81	7.0	58.36	57.96	57.87	58.66	60.95	9.33	10.52	14.42
Naphtha	41.74	39.96	42.54	2.58	6.5	42.56	41.84	43.53	43.29	45.98	-0.80	-3.70	-1.03
Jet/Kerosene	54.37	53.55	55.07	1.52	2.8	55.69	54.64	54.87	55.55	60.11	11.83	9.88	11.49
Gasoil 0.05%	54.27	53.47	54.62	1.15	2.1	55.35	54.11	54.24	55.32	59.99	11.74	9.81	11.04
LSWR Cracked	42.40	43.56	44.65	1.10	2.5	45.03	43.38	44.93	45.48	48.30	-0.14	-0.11	1.07
HSFO 180 CST	38.13	38.20	40.44	2.24	5.9	40.89	39.71	40.80	40.82	43.56	-4.41	-5.47	-3.14
HSFO 380 CST 4%	37.06	37.21	39.35	2.15	5.8	39.84	38.69	39.64	39.65	42.36	-5.47	-6.46	-4.23

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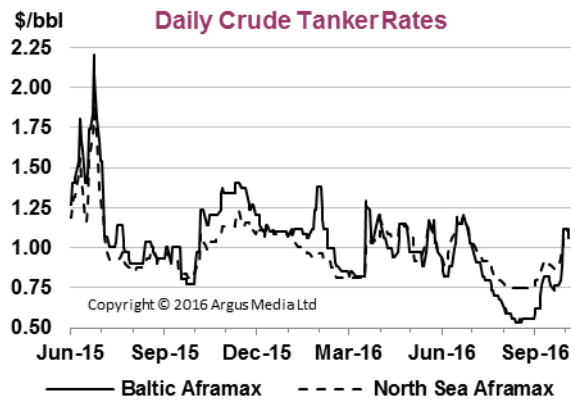
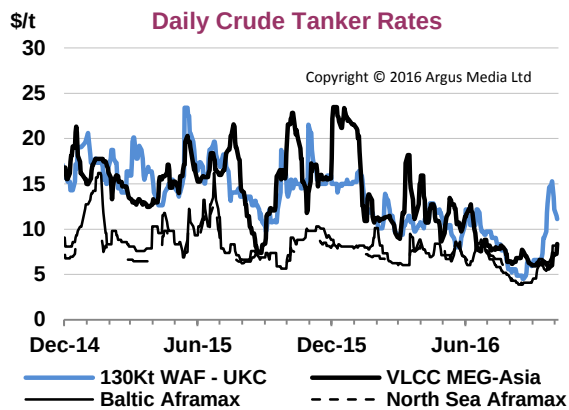
* Waterborne

Note: US Gulf ULSD 10ppm prices use Argus' FOB Diesel ULSD Colonial 62 Pipe assessments following the discontinuation of Argus' Colonial 61 Pipe assessments.

Freight

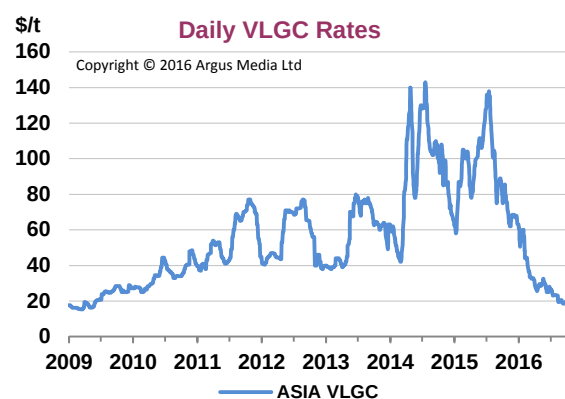
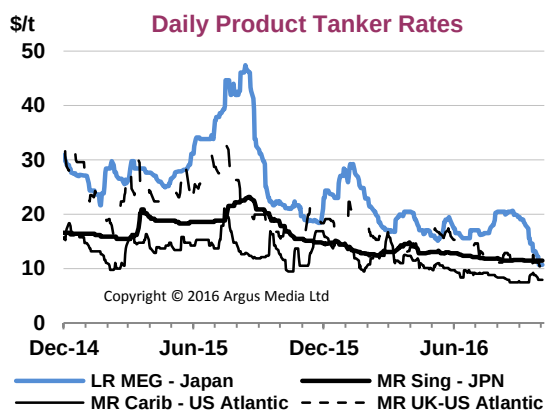
Surveyed crude freight rates saw some relief in September after reaching lows unseen since at least 2009. The persistent oversupply of vessels, together with lower Nigerian liftings put pressure on West African rates in July and August. In September, the lifting of force majeure on Bonny Light and Qua Iboe trebled Suezmax rates and injected some life into VLCC markets.

Stronger inquiry for smaller Aframax vessels in the North Sea and the Baltic lifted rates from depressed mid-summer levels. Belarus reportedly announced the hiking of transit fees through the Dhruzba pipeline, carrying 1 mb/d Russian crude to Europe. If implemented, this might push increased volumes to Baltic ports, although volumes would need some time to be rerouted, according to market sources.



Product freight rates were extremely subdued across the board, with the largest Long-Range vessels now sitting at multi-year lows, as continuing vessel oversupply met with weak naphtha imports, as cheap LPG provides competition as a petrochemical feedstock. Very-large-gas-carriers (VLGCs), the largest category for LPG carriers, collapsed to further historical lows, making unusual trade routes viable and helping levelling prices internationally (See '*LPG boom pushes product stocks to the brim*').

Rates for voyages on the US Gulf – UK Continent route were supported by outages on the Colonial pipeline, which called for extra tonnage to lift products out of the Gulf of Mexico, sending the rate up to \$17 /t. The UK – US Atlantic coast route also found support from the outage and from a few reportedly unexpected cargoes to West Africa, albeit to a lesser extent than the backhaul route.



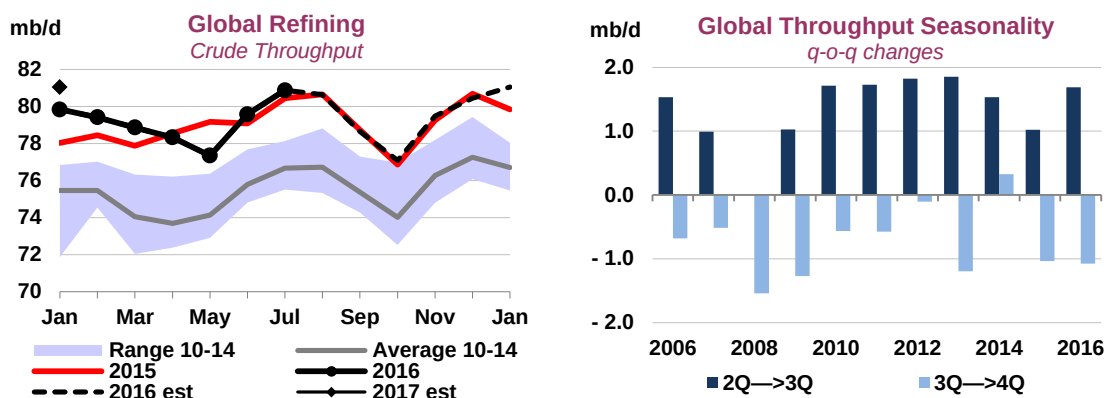
REFINING

Summary

- Weighed down by autumn maintenance, **global refinery throughput in 4Q16 is expected to decline seasonally by 1.1 mb/d to 78.9 mb/d, up only 70 kb/d year-on-year (y-o-y)**. The estimate for 3Q16 – though still at a record 80 mb/d – has been revised down by 420 kb/d, modestly above peak levels in 3Q15.
- **Global throughput in 2016 is expected to grow y-o-y by just 220 kb/d**, the lowest in more than a decade, excluding the last economic recession (See *Crouching refiners, hidden stockbuilds*). Our first forecast for 2017 offers a more optimistic outlook, with **January runs expected to increase to almost 81 mb/d – a rise of 600 kb/d from December and up 1.2 mb/d y-o-y**.

Global refinery overview

Global refinery runs continued surprising to the downside. Our latest estimate for 3Q16 runs points to a smaller ramp-up from 2Q16 and lower y-o-y growth than our previous forecasts. Runs are up 1.65 mb/d from the low levels of 2Q16, and are only 110 kb/d higher than the previous year. Usually, third quarter runs represent the annual peak, as refineries ramp up between spring and autumn turnaround seasons to provide for higher summer driving demand and, in some parts of the world, winter heating fuel restocking. At 80 mb/d, 3Q16 throughput is nonetheless a historical record, however small the margin compared to the previous peak in 3Q15. For the moment, data for 90% of July global throughput and 70% of August throughput are finalised while preliminary Russian statistics and US, Canadian and Japanese weeklies underpin the September forecast.



Global refinery intake is expected to slow from now on due to heavy October maintenance in US and Europe and November outages in the Middle East and Asia. This seasonal impact is well observed in previous years with very few exceptions. In 2014, global refinery intake defied the seasonal trend as margins were benefitting from falling crude prices. This year, fourth quarter throughput is forecast to decline by 1.1 mb/d from 3Q16, and register only a marginal 70 kb/d y-o-y growth.

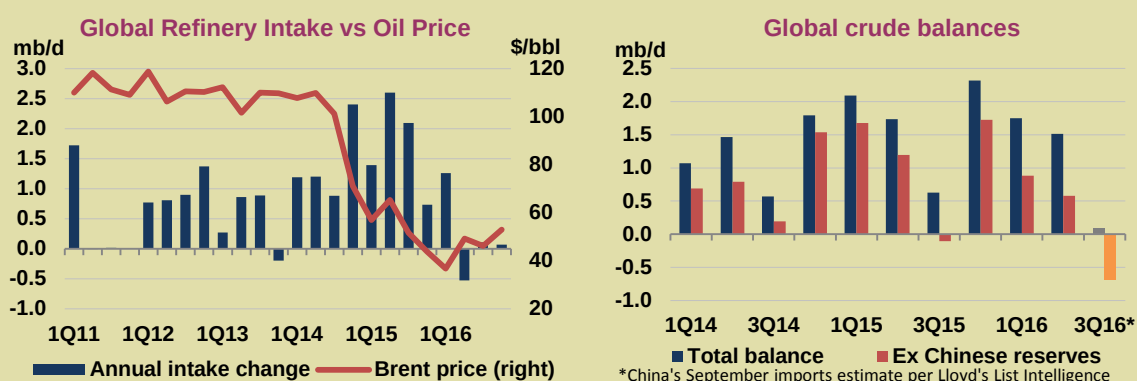
Overall, 2016 refinery runs are expected to grow at a paltry 220 kb/d y-o-y, despite rather solid demand growth of 1.2 mb/d. This should facilitate product stocks draws in 2016, so that, in 2017 refiners will return to a more normal annual growth pattern. This is why our first forecast for January 2017, at close to 81 mb/d, is defying the usual pattern of declines from December, climbing 600 kb/d instead.

Crouching refiners, hidden stockbuilds

This slightly overstretched headline borrowing from 2000's famous blockbuster is not to convey the deeper philosophical meaning of ancient Chinese poet Yu Xin's lines that served as an inspiration for the film's title, but to provide a visual decoration to the developments in the crude oil market this year. With only a 330 kb/d annual gain for the first eight months of this year (a period for which our data are largely finalised), refinery throughput is anything but flying or jumping. Excluding the last recession, this could be the most significant slowdown in refining activity in more than a decade, in especially stark contrast to annual gains of 1.4 mb/d and 1.7 mb/d in 2014 and 2015, respectively.

After a robust ramp-up in 1Q16 when runs surged 1.3 mb/d above 1Q15, throughput plunged 530 kb/d y-o-y in 2Q16, and is most likely going to barely budge above last year's third quarter, which was a historical record. Two factors that play a role in this slowdown have been repeatedly discussed in this *Report*: the decrease in refiners' market share as more and more oil product is supplied by non-refining sources; and the stocks overhang resulting from previous over-production.

With no comprehensive and reliable data source for non-OECD stocks, it is hard to get a bottom-up product inventory volume, but the extent of total global stockbuilds can be derived from the developments in refining and demand. Our approximation of refined product demand shows that while refinery runs grew by 3.1 mb/d between 2013 and 2015, refined product demand grew by only 2 mb/d (of the total demand growth of 2.8 mb/d). The difference between the two implies a cumulative global stockbuild of about 400 mb of products between 2013-15. OECD product inventories, for which we have a comprehensive data set, increased by about 200 mb during that period. For the non-OECD, which now accounts for more than half of global oil demand, this would imply a product inventory increase of 200 mb over two years and an increase in demand coverage of five days.



With this product inventory cushion, refiners are now far more sensitive to even small changes in margins. Up to the first quarter of this year, when oil prices reached the lowest average level in 12 years, refiners were responding to lower feedstock costs more enthusiastically. As soon as crude prices started to recover, refinery intake growth drastically slowed. Enter the hidden dragon: global crude markets saw support from the Chinese crude oil imports that went mostly to fill the country's strategic petroleum reserves (SPR).

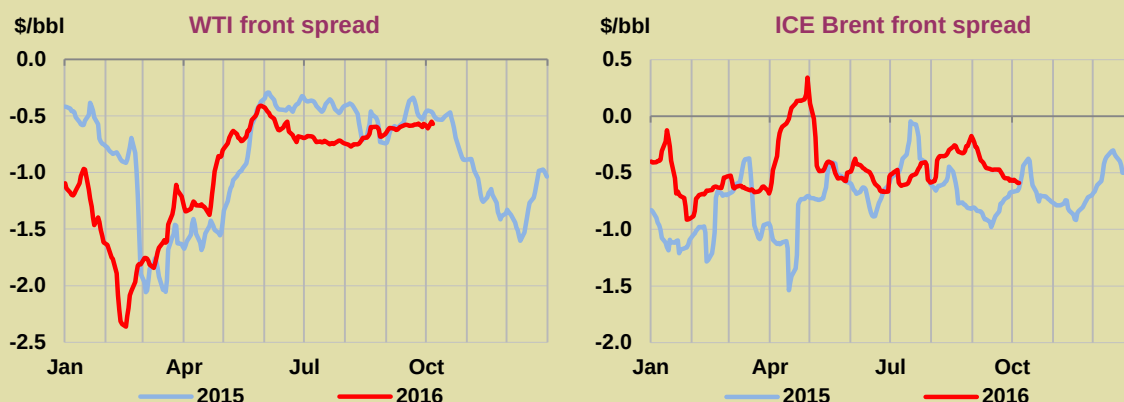
Of a 0.9 mb/d observed crude excess in China (total supplies less refinery intake) in January-August this year, our estimates based on *China Oil, Gas and Petrochemicals* data show no cumulative build in commercial crude oil inventories. There is a view that Chinese independents could have processed an additional 100-200 kb/d of crude oil undeclared in official refinery throughput statistics, which results in an implied SPR filling rate of about 700 kb/d in average. This would have more than offset 2Q16's y-o-y decline in global refinery throughput, reducing the global crude oil excess to a more modest 0.4-0.5 mb/d. In 3Q16, the crude market would have been merely balanced, but ongoing Chinese stockbuilds suggest that elsewhere in the world crude stocks have drawn at a rate close to 0.7 mb/d, the first significant decline since mid-2011. Of this, in fact, most has already manifested in the US and OECD Asia data.

In the US alone, weekly data show average 3Q16 crude stocks draw of about 300 kb/d. In OECD Asia, data based on Japanese weeklies for September, combined with monthly data for the rest ending in August, show a crude stocks draw of another 220 kb/d. Interestingly, JODI data for Saudi Arabia also show sizeable crude stocks draw in July (see *OPEC Supply*).

Crouching refiners, hidden stockbuilds (continued)

US refiners have seen their reliance on imported crude increasing this year due to declining LTO output as well as the Canadian wildfires cutting the supply of cheaper and, effectively, captive Canadian crudes in 2Q16. However, the significant eastward flow of crude oil seen in recent years to feed growing refinery runs East of Suez, as well as Chinese SPR filling means more competition for the US crude oil buyers.

Huge commercial stocks in the US, on the other hand, act as a swing supplier, as tightening WTI spreads due to lower local supply and less abundant imports prompt crude stock draws. Indeed, for the last two years, this spread has followed the same seasonal trend, tightening in 3Q, at the yearly peak of global crude demand. Brent spreads, at the same time, seem to be more random, as this benchmark is in effect pricing on the basis of more complex global fundamentals relative to WTI's rather US-centric triggers.



In the last two years, the fourth quarter has seen the yearly peak in implied crude stockbuilds, both with and without taking into account Chinese stocks. This year 4Q refinery intake is expected to seasonally decline by about 1.1 mb/d, while crude burn will see another 300-400 kb/d decline. Thus, the global crude oil demand is expected to fall by 1.5 mb/d from 3Q16 levels. Will this mean crude stock builds returning in this quarter? OPEC's recent announcement of an agreement to cut crude oil output, to be finalised at the end of November, seems to be more relevant for 2017 balances. In the meantime, the extent and duration of Chinese reserves filling may prove to be the biggest uncertainty. While still an inventory build, these barrels are effectively neutralised from the market, for an emergency situation, hence can be effectively added on the demand side.

Global Refinery Crude Throughput¹ (million barrels per day)

	2Q2016	Jul 16	Aug 16	Sep 16	3Q2016	Oct 16	Nov 16	Dec 16	4Q2016	2016	Jan 17
Americas	18.9	19.4	19.6	19.1	19.4	18.0	19.2	19.5	18.9	19.0	19.0
Europe	11.4	12.3	12.5	11.6	12.1	11.7	11.8	12.1	11.9	11.8	11.9
Asia Oceania	6.7	6.8	6.9	6.6	6.8	6.4	6.8	7.1	6.8	6.8	7.2
Total OECD	37.1	38.5	39.0	37.3	38.3	36.0	37.8	38.7	37.5	37.7	38.1
FSU	6.7	7.1	7.1	6.8	7.0	6.5	6.9	6.9	6.8	6.8	7.0
Non-OECD Europe	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.8	10.7	10.4	10.6	10.6	10.8	10.9	10.9	10.8	10.7	11.0
Other Asia	10.4	10.8	10.4	10.2	10.4	10.2	10.4	10.6	10.4	10.4	10.8
Latin America	4.2	4.3	4.3	4.3	4.3	4.3	4.4	4.5	4.4	4.3	4.6
Middle East	6.6	6.9	6.8	6.9	6.8	6.7	6.4	6.2	6.5	6.7	6.8
Africa	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2
Total Non-OECD	41.3	42.3	41.5	41.3	41.7	41.0	41.6	41.7	41.4	41.5	42.8
Total	78.3	80.8	80.5	78.6	80.0	77.0	79.4	80.4	78.9	79.1	80.9

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Margins

Average Brent cracking margins in 3Q16 were at two-year lows, returning closer to levels seen before the oil price crash. European refinery runs increased 700 kb/d from 2Q16's lows, which did not help the diesel crack, the mainstay of European refiners. ULSD cracks were in single digits most of the quarter, only strengthening by end-September during European maintenance. Gasoline cracks too were in single digits for most of the peak driving season, likely capped by the product flowing out of storage as July-August OECD gasoline inventories drew at double the previous five years' average rate. In September, European product cracks saw some relief of import pressure due to refinery outages in Russia. The fact that product cracks continued gaining while crude oil prices rallied, points at the strong impact of refinery outages on product inventories.

IEA/KBC Global Indicator Refining Margins¹

	(\$/bbl)										
	Monthly Average				Change		Average for week ending:				
	Jun 16	Jul 16	Aug 16	Sep 16	Sep 16-Aug 16	09 Sep	16 Sep	23 Sep	30 Sep	07 Oct	
NW Europe											
Brent (Cracking)	4.85	3.02	3.43	4.19	↑	0.76	3.27	4.09	4.72	4.92	6.03
Urals (Cracking)	5.98	4.29	4.57	5.96	↑	1.40	4.85	5.68	6.51	7.11	7.99
Brent (Hydroskimming)	-0.25	-0.65	-0.31	0.56	↑	0.87	-0.22	0.39	1.00	1.24	2.07
Urals (Hydroskimming)	-0.20	-0.29	-0.13	1.27	↑	1.40	0.24	0.94	1.81	2.33	2.75
Mediterranean											
Es Sider (Cracking)	6.44	5.29	5.44	6.29	↑	0.85	5.49	6.18	6.58	7.12	8.17
Urals (Cracking)	6.04	4.53	5.03	6.36	↑	1.33	5.49	6.34	6.83	7.02	7.33
Es Sider (Hydroskimming)	2.01	1.94	2.07	3.08	↑	1.01	2.39	2.99	3.33	3.79	4.65
Urals (Hydroskimming)	0.19	0.11	0.59	1.99	↑	1.41	1.19	2.00	2.50	2.52	2.39
US Gulf Coast											
50/50 HLS/LLS (Cracking)	6.94	6.40	8.82	7.41	↓	-1.41	6.31	7.09	7.45	8.62	8.92
Mars (Cracking)	4.39	4.58	6.00	5.40	↓	-0.60	4.40	5.26	5.86	5.97	6.04
ASCI (Cracking)	3.95	4.19	5.54	5.14	↓	-0.40	4.11	5.10	5.54	5.72	5.74
50/50 HLS/LLS (Coking)	9.27	8.35	10.70	9.25	↓	-1.45	8.03	8.88	9.29	10.63	11.05
50/50 Maya/Mars (Coking)	9.78	8.64	10.97	10.22	↓	-0.75	9.06	9.90	10.41	11.31	11.57
ASCI (Coking)	10.35	9.55	11.29	10.32	↓	-0.98	9.08	10.05	10.58	11.38	11.68
US Midcon											
WTI (Cracking)	14.39	9.90	14.26	11.93	↓	-2.32	10.74	13.26	12.40	11.66	12.01
30/70 WCS/Bakken (Cracking)	12.14	9.80	13.30	11.27	↓	-2.03	10.01	12.55	11.65	11.13	11.39
Bakken (Cracking)	14.95	11.82	15.66	12.75	↓	-2.91	11.33	14.04	13.06	12.85	13.23
WTI (Coking)	17.24	12.10	16.59	14.13	↓	-2.47	12.81	15.53	14.61	13.92	14.39
30/70 WCS/Bakken (Coking)	16.75	13.37	17.52	14.95	↓	-2.57	13.54	16.23	15.31	14.99	15.35
Bakken (Coking)	16.24	12.72	16.64	13.67	↓	-2.97	12.18	15.00	13.98	13.80	14.23
Singapore											
Dubai (Hydroskimming)	-1.28	0.08	-1.09	1.04	↑	2.13	0.49	0.99	1.60	1.31	-0.59
Tapis (Hydroskimming)	1.63	1.23	-0.06	1.20	↑	1.26	0.74	1.05	1.25	1.83	2.50
Dubai (Hydrocracking)	4.03	4.06	2.91	5.04	↑	2.13	4.48	5.07	5.47	5.42	3.80
Tapis (Hydrocracking)	5.44	3.36	1.90	3.45	↑	1.55	3.01	3.51	3.41	4.06	4.91

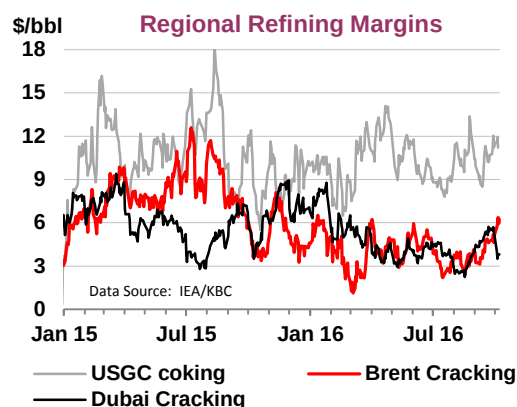
1 Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

In the US, the margin dynamics in 3Q16 were more mixed, higher than the second quarter in some cases, lower in others. The runs gained a more subdued 350 kb/d on the previous quarter, with driving demand also ramping up visibly. US peak maintenance is expected in October. September average margins in the

Gulf Coast were affected by the shutdown of the Colonial pipeline that moves excess US Gulf Coast gasoline and diesel to the product-deficient North-East.

Dubai average cracking margins in Singapore improved in September, supported by the whole oil product complex, with simple distillation products such as naphtha and fuel oil especially stronger on the month.



OECD refinery throughput

OECD July data were finalised with notable downgrades for the US and Japan, of about 130 kb/d each, contributing to OECD's total 300 kb/d downward revision. Preliminary August data, on the contrary, came in at 415 kb/d higher than our forecast for the month, mostly on stronger European runs, which, if confirmed by the finalised data, will indicate the first y-o-y growth in Europe since January this year. The US too, according to preliminary data, is back again to y-o-y growth, after four consecutive months of declines. In Asia Pacific, after strong annual growth rates of 2Q16, July marked only a nominal 30 kb/d above year earlier, while August is showing a similar-sized decline.

Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Change from		Utilisation rate ¹	
							Jul 16	Aug 15	Aug 16	Aug 15
US ²	16.11	15.94	16.28	16.43	16.56	16.75	0.19	0.08	0.91	0.93
Canada	1.74	1.66	1.31	1.57	1.77	1.82	0.05	-0.01	0.92	0.92
Chile	0.17	0.15	0.16	0.18	0.15	0.16	0.01	0.02	0.70	0.62
Mexico	1.09	1.05	1.01	1.03	0.93	0.85	-0.09	-0.22	0.51	0.64
OECD Americas³	19.10	18.80	18.76	19.21	19.41	19.57	0.16	-0.13	0.88	0.90
France	1.12	1.20	0.89	0.76	1.21	1.22	0.01	0.13	0.87	0.78
Germany	1.91	1.77	1.83	1.93	1.98	2.00	0.02	0.07	0.99	0.95
Italy	1.20	1.35	1.26	1.25	1.34	1.41	0.07	-0.01	0.80	0.81
Netherlands	1.04	1.07	1.06	1.07	1.04	1.08	0.03	0.03	0.83	0.81
Spain	1.27	1.25	1.11	1.21	1.35	1.33	-0.02	-0.08	0.88	0.93
United Kingdom	0.94	1.06	1.13	1.11	1.09	1.12	0.03	-0.10	0.81	0.88
Other OECD Europe	4.01	3.71	3.99	4.16	4.32	4.34	0.02	0.04	0.90	0.89
OECD Europe	11.50	11.42	11.27	11.50	12.32	12.48	0.16	0.08	0.88	0.87
Japan	3.31	3.32	3.00	2.85	3.03	3.36	0.32	0.03	0.95	0.86
South Korea	2.89	2.85	2.97	2.89	2.98	2.89	-0.10	0.01	0.88	0.87
Other Asia Oceania	0.78	0.78	0.79	0.79	0.76	0.70	-0.07	-0.08	0.70	0.78
OECD Asia Oceania	6.98	6.95	6.76	6.53	6.78	6.94	0.16	-0.04	0.89	0.86
OECD Total	37.57	37.16	36.78	37.24	38.51	38.99	0.49	-0.09	0.88	0.89

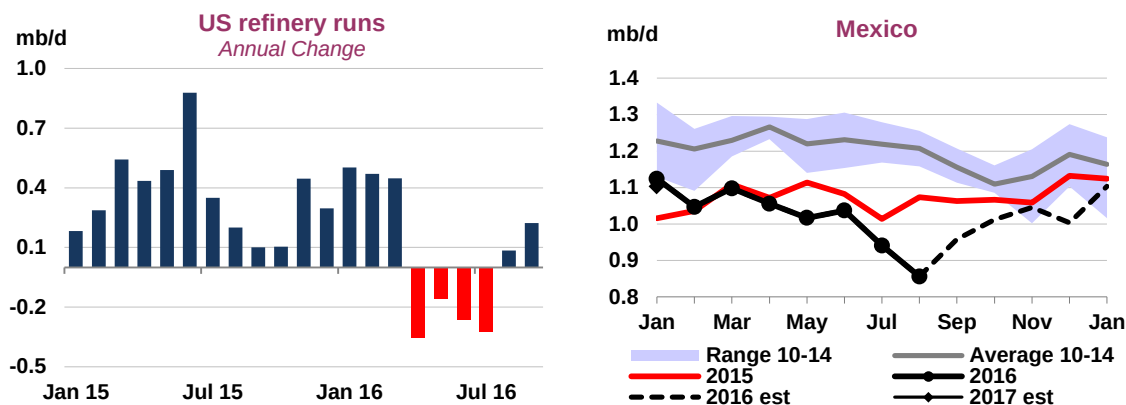
¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US\$0

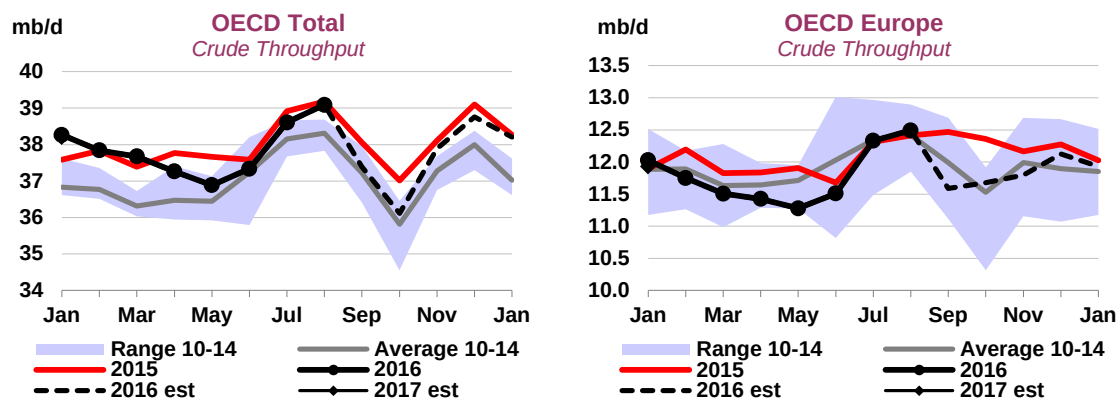
³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

Our latest estimate for third quarter OECD runs at 38.3 mb/d is a 1.2 mb/d increase on 2Q16, with most gains coming from Europe, the US and Canada, which recovered from the wildfire-related outages in 2Q16. OECD Asia Pacific ran flat quarter-on-quarter. Nevertheless, in terms of annual dynamics, OECD throughput continued to decline, sinking 350 kb/d below last year's 3Q. Of special note is Mexico's

precipitous declines, with runs dropping below 1 mb/d in July and declining further to 850 kb/d in August, implying a capacity utilisation rate of just 52%. Even with outages reported at a couple of the country's refineries, this sort of decline in throughput was not expected. Mexico's refining sector will need more investment to be able to bring refineries back into more normal utilisation rates. Even though we see runs rebounding from August lows, they will still stay in critical territory.



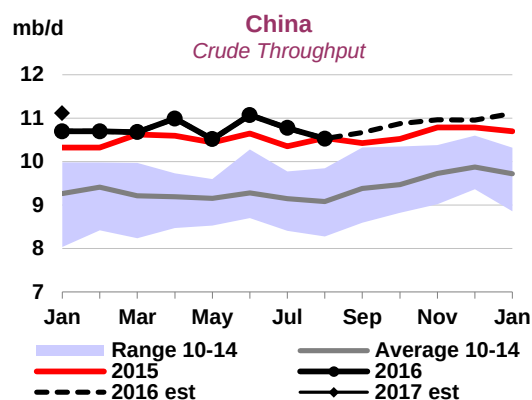
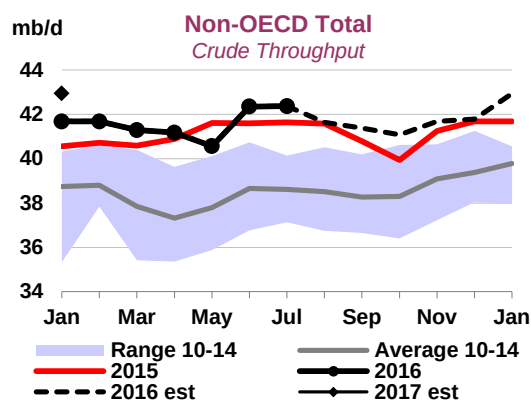
The outlook for 4Q16 is only positive for OECD Asia, both in terms of annual growth (at 100 kb/d) and quarter on quarter (q-o-q) changes (staying almost flat). In this region, there is a strong Q4-Q1 peak in demand, which is the combination of Northern Hemisphere heating demand in Japan and Korea, still largely oil-based, and Southern Hemisphere summer peak in Australia/New Zealand. European runs are expected to decline seasonally by 300 kb/d from the third quarter, marking a 400 kb/d decline y-o-y. North America's seasonal decline is a bit heavier at 500 kb/d, with runs continuing to move lower from year earlier levels, losing some 200 kb/d.



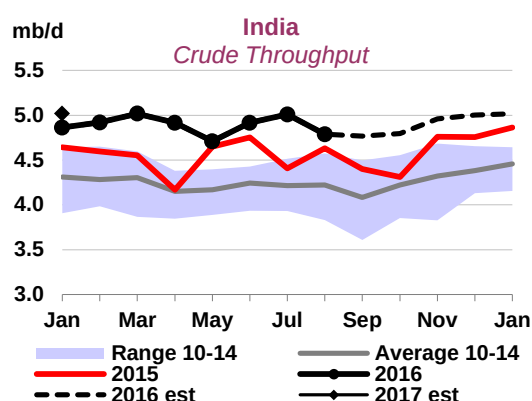
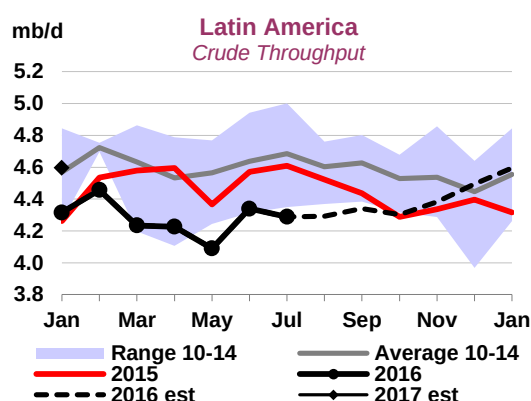
In January 2017, we expect a more stable outlook in the OECD, with runs declining from December by a slightly more modest 600 kb/d than the seasonal average, and very small annual losses in the US and Europe (under 100 kb/d each) partly offset by a stronger Asia Pacific throughput (+100 kb/d).

Non-OECD refinery throughput

Finalised July numbers brought the non-OECD throughput estimate for that month down by 170 kb/d, on lower runs primarily in the Middle East and Latin America. The 3Q16 forecast, lowered by 490 kb/d, still points at an all-time peak rate of 41.7 mb/d, for a strong annual gain of 460 kb/d, after running flat y-o-y the previous quarter. Runs in the fourth quarter are forecast to decline seasonally by 300 kb/d, but still grow 560 mb/d y-o-y. The first forecast for 2017 sees January runs increasing by 1.15 mb/d from December, and up 1.26 mb/d from January 2016.



China's reported August numbers came in some 400 kb/d below our expectation as the majors' refinery maintenance impact was not offset by independents, which reportedly chose to slow their activity amid tax inspections by the authorities. From 10.43 mb/d in August, Chinese runs are forecast to recover towards 10.86 mb/d by the end of the year even though PetroChina's new Anning refinery is not expected to start this year. The pipeline that was planned to deliver feedstocks for the refinery in China's southwestern Yunnan province through Myanmar has yet to see a line fill. According to news reports, PetroChina is hesitant to pay an additional crude oil transit tax asked by Myanmar government.



Indian August data were 120 kb/d below our prior expectations, and new maintenance information lowered the forecast for September by 180 kb/d. Runs in the fourth quarter runs are expected to post strong y-o-y gains. In the neighbouring **Middle East**, July reported runs were lower due to Iran's continuously weak numbers. With turnarounds announced in two major Saudi refineries, the fourth quarter forecast for the region as a whole is revised down by 60 kb/d. Even though the Saudi refining sector will see 150 kb/d growth y-o-y, the net result for the Middle East is that run rates will slow by 400 kb/d from 3Q16 and by 90 kb/d on the previous year.

Brazil's August runs declined by 200 kb/d y-o-y, and the outlook for 4Q16 sees runs essentially flat from 3Q16. **Russian** preliminary September data were 130 kb/d higher than our forecast, bringing the 3Q16 annual losses to the minimum since the trend started early last year. Runs in the fourth quarter are forecast to decline by some 260 kb/d from the third quarter due to peak maintenance in October. At 5.5 mb/d, runs will be some 110 kb/d below a year ago.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.2	24.2	24.5	24.4	25.0	24.5	24.6	24.5	24.4	24.8	24.7	24.6	24.5	24.5	24.9	24.6	24.6
Europe	13.6	13.5	13.5	13.6	14.2	13.7	13.7	13.6	13.9	14.2	13.7	13.9	13.6	13.9	14.2	13.7	13.8
Asia Oceania	8.3	8.1	8.7	7.6	7.7	8.2	8.0	8.5	7.6	7.8	8.2	8.0	8.6	7.6	7.7	8.2	8.0
Total OECD	46.1	45.8	46.6	45.6	46.9	46.4	46.4	46.7	46.0	46.7	46.5	46.5	46.7	46.0	46.8	46.5	46.5
NON-OECD DEMAND																	
FSU	4.8	4.9	4.7	4.9	5.1	5.0	4.9	4.9	4.9	5.3	5.2	5.1	5.0	5.1	5.3	5.2	5.2
Europe	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.8	11.3	11.5	11.5	11.6	11.5	11.6	11.8	11.6	11.8	11.7	11.8	11.9	12.0	12.1	12.0
Other Asia	11.7	12.0	12.3	12.6	12.3	12.8	12.5	13.1	13.1	12.9	13.4	13.1	13.7	13.7	13.5	13.9	13.7
Americas	6.6	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7
Middle East	8.0	8.4	7.8	8.5	8.7	8.3	8.3	7.8	8.3	8.7	8.3	8.3	8.0	8.4	8.8	8.4	8.4
Africa	3.8	3.8	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.4	4.3	4.4	4.3
Total Non-OECD	45.9	47.4	47.4	48.9	49.2	49.2	48.7	48.8	49.8	50.1	50.5	49.8	50.0	50.9	51.3	51.7	51.0
Total Demand¹	92.0	93.2	94.0	94.5	96.0	95.6	95.0	95.5	95.8	96.8	97.0	96.3	96.8	96.9	98.1	98.2	97.5
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.1	19.7	20.1	20.1	20.0	19.9	19.0	19.1	19.3	19.3	19.4	19.4	19.5	19.5	19.4
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.4	3.5	3.5	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	21.0	22.9	23.9	23.6	24.0	24.2	23.9	24.0	22.8	23.0	23.2	23.2	23.3	23.2	23.2	23.3	23.3
NON-OECD SUPPLY																	
FSU	13.8	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.0	14.0	14.2	14.1	14.3	14.3	14.2	14.4	14.3
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.1	3.9	3.9	4.0	4.0	3.9	3.9	3.9	3.9
Other Asia ²	2.7	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.6	2.6
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.5	4.6	4.5	4.6	4.7	4.7	4.8	4.7
Middle East	1.4	1.3	1.3	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3
Africa ²	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	28.4	28.8	29.3	29.2	29.0	29.2	29.1	28.9	28.5	28.6	28.9	28.8	29.0	29.0	29.0	29.1	29.1
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.6	56.1	57.2	57.4	57.7	57.9	57.6	57.0	56.1	56.6	56.8	56.6	56.6	57.0	57.4	57.2	57.0
OPEC																	
Crude	31.4	31.2	31.4	32.4	32.7	32.6	32.3	32.8	33.0	33.5							
NGLs	6.3	6.5	6.7	6.7	6.8	6.8	6.8	6.8	6.9	6.9	7.0	6.9	7.0	7.0	7.1	7.1	7.0
Total OPEC ²	37.7	37.7	38.1	39.2	39.5	39.5	39.0	39.6	39.9	40.5							
Total Supply⁴	91.4	93.8	95.3	96.5	97.2	97.4	96.6	96.6	95.9	97.1							
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.9	1.0	0.8	0.3	0.8	0.3	0.4								
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1	0.0								
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.4	0.4								
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2	0.3								
Miscellaneous to balance ⁵	-0.6	0.2	0.0	0.6	0.6	0.9	0.5	0.6	-0.6								
Total Stock Ch. & Misc	-0.7	0.6	1.3	2.1	1.2	1.8	1.6	1.2	0.2	0.3							
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	32.1	30.6	30.1	30.4	31.5	30.9	30.7	31.6	32.9	33.3	33.2	32.7	33.2	32.9	33.7	33.9	33.4

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	-	-	0.1	0.2	0.2	0.1	0.1	-	-	-0.1	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	0.1	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Total OECD	-	-	0.1	0.2	0.2	0.1	0.1	-	-	-	0.2	0.1	0.1	-	-	0.1	0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	0.1	-	-	-	-	0.1	0.2	0.1	-	0.1	0.1	0.1	0.1	0.1	0.1
Other Asia	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	-	-	0.1	0.1	0.1
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-0.1	-0.1	-0.1	-0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	0.1	-	0.1	0.1	0.1	0.1	0.2	0.1	-	0.1	0.2	0.1	0.1	0.1	0.1
Total Demand	-	-	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OECD SUPPLY																	
Americas	-	-	0.1	0.1	0.1	0.1	0.1	-	-	-	-0.1	-	-	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	0.1	0.1	0.1	0.1	0.1	-	-	0.1	-0.1	-	-	-	0.1	-	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	-	-	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	0.1	0.1	0.1	0.1	0.1	-	-	-	-0.2	-	-	-	0.1	-0.1	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Total Supply	-	-	0.1	0.1	0.1	0.1	0.1	-	0.1	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	0.1	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	0.1	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-0.2	-0.1	-0.1	-	-0.1	-0.1	-0.5	-	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-	-	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.5	0.2	0.3	0.2	0.1	0.3	0.2

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.20	24.46	24.42	24.99	24.53	24.60	24.48	24.40	24.78	24.65	24.58	24.52	24.48	24.90	24.65	24.64
Europe	13.51	13.46	13.57	14.16	13.71	13.73	13.64	13.94	14.17	13.70	13.86	13.64	13.89	14.15	13.69	13.85
Asia Oceania	8.11	8.68	7.58	7.71	8.18	8.03	8.54	7.64	7.76	8.19	8.03	8.58	7.62	7.73	8.17	8.02
Total OECD	45.82	46.59	45.56	46.86	46.41	46.36	46.66	45.97	46.71	46.54	46.47	46.74	46.00	46.79	46.51	46.51
Asia	22.80	23.62	24.02	23.84	24.39	23.97	24.71	24.93	24.47	25.22	24.83	25.46	25.64	25.46	26.08	25.66
Middle East	8.37	7.76	8.46	8.74	8.26	8.31	7.83	8.34	8.68	8.33	8.30	8.04	8.40	8.78	8.42	8.41
Americas	6.83	6.62	6.77	6.86	6.79	6.76	6.49	6.68	6.80	6.78	6.69	6.51	6.69	6.83	6.81	6.71
FSU	4.94	4.66	4.91	5.07	4.98	4.91	4.94	4.93	5.32	5.20	5.10	5.01	5.13	5.31	5.24	5.17
Africa	3.83	4.08	4.05	3.97	4.12	4.05	4.16	4.22	4.13	4.27	4.19	4.31	4.36	4.25	4.40	4.33
Europe	0.65	0.65	0.67	0.69	0.69	0.68	0.68	0.71	0.70	0.71	0.70	0.69	0.72	0.71	0.72	0.71
Total Non-OECD	47.41	47.40	48.89	49.17	49.23	48.68	48.82	49.79	50.10	50.50	49.80	50.02	50.94	51.35	51.68	51.00
World	93.22	93.99	94.45	96.03	95.64	95.04	95.48	95.77	96.80	97.04	96.28	96.76	96.93	98.13	98.19	97.51
of which: US50	19.11	19.41	19.47	19.83	19.42	19.53	19.45	19.43	19.75	19.63	19.57	19.50	19.55	19.87	19.65	19.64
Europe 5*	8.05	8.03	7.99	8.34	8.09	8.12	8.14	8.20	8.31	8.08	8.18	8.12	8.11	8.25	8.06	8.13
China	10.77	11.32	11.45	11.54	11.57	11.47	11.63	11.79	11.60	11.82	11.71	11.80	11.91	11.98	12.13	11.95
Japan	4.27	4.70	3.80	3.85	4.14	4.12	4.43	3.66	3.73	4.03	3.96	4.34	3.52	3.63	3.99	3.87
India	3.84	3.97	4.04	3.85	4.10	3.99	4.36	4.32	4.13	4.36	4.29	4.60	4.63	4.46	4.63	4.58
Russia	3.79	3.54	3.73	3.87	3.71	3.71	3.75	3.65	4.01	3.82	3.81	3.80	3.82	3.98	3.89	3.87
Brazil	3.24	3.17	3.17	3.22	3.20	3.19	3.02	3.07	3.13	3.16	3.10	3.01	3.05	3.14	3.18	3.10
Saudi Arabia	3.19	2.88	3.47	3.58	3.22	3.29	2.94	3.34	3.48	3.16	3.23	2.98	3.30	3.51	3.17	3.24
Canada	2.41	2.43	2.33	2.45	2.40	2.41	2.39	2.37	2.44	2.38	2.40	2.39	2.32	2.44	2.35	2.38
Korea	2.35	2.46	2.29	2.36	2.52	2.41	2.59	2.48	2.54	2.65	2.57	2.72	2.60	2.60	2.68	2.65
Mexico	2.04	1.94	1.97	2.07	2.05	2.01	1.98	1.94	1.94	1.98	1.96	1.95	1.96	1.94	1.98	1.96
Iran	2.04	1.87	1.89	1.84	1.94	1.89	1.85	1.85	1.87	1.97	1.88	1.92	1.90	1.93	2.01	1.94
Total	65.09	65.72	65.62	66.80	66.37	66.13	66.54	66.10	66.92	67.05	66.65	67.15	66.67	67.72	67.72	67.32
% of World	69.8%	69.9%	69.5%	69.6%	69.4%	69.6%	69.7%	69.0%	69.1%	69.1%	69.2%	69.4%	68.8%	69.0%	69.0%	69.0%
Annual Change (% per annum)																
Americas	0.2	2.2	2.7	2.3	-0.4	1.7	0.1	-0.1	-0.8	0.5	-0.1	0.2	0.4	0.5	0.0	0.3
Europe	-0.7	2.8	0.7	1.6	1.3	1.6	1.3	2.7	0.1	0.0	1.0	0.0	-0.3	-0.1	0.0	-0.1
Asia Oceania	-2.8	-2.2	-0.8	0.8	-1.4	-0.9	-1.5	0.9	0.6	0.2	0.0	0.4	-0.3	-0.3	-0.2	-0.1
Total OECD	-0.6	1.5	1.5	1.8	-0.1	1.2	0.1	0.9	-0.3	0.3	0.2	0.2	0.0	0.2	-0.1	0.1
Asia	3.6	4.1	4.8	6.9	4.8	5.1	4.6	3.8	2.7	3.4	3.6	3.0	2.8	4.0	3.4	3.3
Middle East	4.4	-4.1	-0.7	0.5	1.1	-0.7	0.9	-1.4	-0.8	0.8	-0.2	2.6	0.8	1.1	1.1	1.4
Americas	2.7	0.2	-0.4	-1.5	-1.9	-0.9	-2.0	-1.4	-0.9	-0.3	-1.1	0.2	0.2	0.5	0.5	0.4
FSU	3.9	0.2	0.5	-1.5	-1.3	-0.6	5.9	0.3	4.8	4.4	3.8	1.5	4.1	-0.2	0.9	1.5
Africa	0.0	3.5	4.7	6.6	8.7	5.9	2.1	4.0	4.1	3.7	3.5	3.6	3.5	3.1	3.1	3.3
Europe	-1.5	5.2	4.6	3.7	5.3	4.7	3.3	5.0	2.2	2.3	3.1	2.7	1.5	0.8	2.5	1.9
Total Non-OECD	3.3	1.7	2.6	3.5	2.9	2.7	3.0	1.8	1.9	2.6	2.3	2.5	2.3	2.5	2.3	2.4
World	1.3	1.6	2.1	2.7	1.4	1.9	1.6	1.4	0.8	1.5	1.3	1.3	1.2	1.4	1.2	1.3
Annual Change (mb/d)																
Americas	0.04	0.52	0.64	0.56	-0.09	0.40	0.02	-0.02	-0.21	0.12	-0.02	0.04	0.09	0.12	0.00	0.06
Europe	-0.10	0.36	0.09	0.23	0.18	0.21	0.18	0.36	0.01	-0.01	0.14	0.00	-0.04	-0.02	0.00	-0.02
Asia Oceania	-0.23	-0.19	-0.06	0.06	-0.11	-0.08	-0.13	0.07	0.05	0.01	0.00	0.04	-0.02	-0.02	-0.02	-0.01
Total OECD	-0.29	0.69	0.66	0.85	-0.03	0.54	0.07	0.41	-0.15	0.13	0.11	0.07	0.02	0.08	-0.03	0.04
Asia	0.79	0.93	1.09	1.54	1.11	1.17	1.09	0.91	0.63	0.84	0.87	0.74	0.71	0.99	0.85	0.83
Middle East	0.35	-0.33	-0.06	0.05	0.09	-0.06	0.07	-0.12	-0.07	0.06	-0.01	0.21	0.06	0.10	0.09	0.12
Americas	0.18	0.01	-0.03	-0.10	-0.13	-0.06	-0.13	-0.10	-0.06	-0.02	-0.08	0.01	0.01	0.03	0.04	0.02
FSU	0.18	0.01	0.02	-0.08	-0.07	-0.03	0.28	0.01	0.24	0.22	0.19	0.07	0.20	-0.01	0.05	0.08
Africa	0.00	0.14	0.18	0.25	0.33	0.22	0.09	0.16	0.16	0.15	0.14	0.15	0.15	0.13	0.13	0.14
Europe	-0.01	0.03	0.03	0.02	0.04	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01
Total Non-OECD	1.49	0.79	1.24	1.68	1.37	1.27	1.42	0.90	0.93	1.27	1.13	1.21	1.14	1.25	1.18	1.20
World	1.21	1.48	1.90	2.53	1.34	1.81	1.49	1.31	0.77	1.40	1.24	1.28	1.16	1.33	1.15	1.23
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.12	0.23	0.16	0.06	0.14	0.00	0.01	-0.13	0.03	-0.02	0.00	-0.03	-0.04	-0.02	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.05	0.04	0.05	0.05	0.05	0.04	0.05
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.07	0.03	0.03	0.03	0.03	0.03	0.03
Total OECD	0.00	0.12	0.23	0.16	0.06	0.14	0.00	0.03	0.02	0.15	0.05	0.08	0.05	0.04	0.05	0.06
Asia	0.00	0.13	0.05	0.08	0.05	0.08	0.16	0.23	0.17	0.03	0.15	0.15	0.14	0.16	0.17	0.15
Middle East	0.00	-0.02	-0.02	-0.01	0.02	-0.01	-0.01	-0.01	-0.08	-0.03	-0.03	-0.03	-0.07	-0.10	-0.08	-0.07
Americas	0.00	0.02	0.02	0.02	0.02	0.02	-0.02	-0.02	-0.03	-0.02	-0.02	0.02	0.02	0.01	0.02	0.02
FSU	0.01	-0.01	-0.01	-0.01	0.00	-0.01	0.00	0.00	0.11	0.09	0.05	0.06	0.06	0.07	0.06	0.06
Africa	0.00	-0.02	-0.03	-0.03	-0.03	-0.03	-0.05	-0.04	-0.03	-0.04	-0.04	-0.03	-0.03	-0.03	-0.03	-0.03
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total Non-OECD	0.02	0.10	0.02	0.06	0.06	0.06	0.10	0.16	0.13	0.03	0.11	0.17	0.12	0.11	0.14	0.14
World	0.02	0.22	0.24	0.21	0.12	0.20	0.10	0.19	0.15	0.18	0.16	0.25	0.17	0.16	0.19	0.19
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.02	0.21	0.23	0.20	0.09	0.18	-0.11	-0.05	-0.06	0.06	-0.04	0.15	-0.02	0.01	0.01	0.04

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	3Q15	4Q15	1Q16	2Q16	May 16	Jun 16	Jul 16 ²	Jun 16	Jul 15
Americas											
LPG and ethane	3.22	3.29	3.12	3.45	3.55	2.93	2.93	2.89	3.01	0.12	-0.18
Naphtha	0.35	0.34	0.33	0.36	0.35	0.35	0.36	0.35	0.35	0.01	0.06
Motor gasoline	10.61	10.91	11.18	10.90	10.85	11.23	11.23	11.51	11.44	-0.07	0.16
Jet and kerosene	1.74	1.83	1.89	1.85	1.78	1.90	1.83	2.03	2.04	0.00	0.08
Gasoil/diesel oil	5.28	5.21	5.18	5.05	5.06	5.02	4.97	5.08	4.74	-0.34	-0.38
Residual fuel oil	0.58	0.55	0.62	0.61	0.59	0.69	0.63	0.70	0.72	0.01	0.08
Other products	2.40	2.47	2.67	2.30	2.30	2.28	2.21	2.39	2.44	0.05	-0.39
Total	24.20	24.60	24.99	24.53	24.48	24.40	24.17	24.95	24.74	-0.21	-0.58
Europe											
LPG and ethane	1.10	1.14	1.11	1.12	1.22	1.15	1.13	1.16	1.22	0.06	0.07
Naphtha	1.13	1.12	1.07	1.10	1.24	1.12	1.11	1.06	1.21	0.14	0.12
Motor gasoline	1.92	1.92	2.03	1.90	1.79	1.98	1.96	2.02	2.02	-0.01	-0.06
Jet and kerosene	1.27	1.32	1.49	1.25	1.24	1.39	1.38	1.43	1.52	0.10	0.07
Gasoil/diesel oil	5.94	6.14	6.26	6.27	6.10	6.12	5.92	6.13	5.91	-0.22	-0.25
Residual fuel oil	0.95	0.91	0.90	0.92	0.96	0.92	0.90	0.94	0.95	0.01	0.00
Other products	1.21	1.18	1.30	1.14	1.09	1.27	1.30	1.32	1.31	0.00	0.01
Total	13.51	13.73	14.16	13.71	13.64	13.94	13.69	14.06	14.14	0.09	-0.03
Asia Oceania											
LPG and ethane	0.82	0.77	0.74	0.76	0.83	0.81	0.80	0.76	0.83	0.07	0.04
Naphtha	1.88	1.96	1.95	1.99	2.00	1.85	1.83	1.87	1.81	-0.06	-0.06
Motor gasoline	1.56	1.56	1.62	1.57	1.53	1.52	1.53	1.51	1.60	0.09	-0.01
Jet and kerosene	0.87	0.87	0.70	0.96	1.17	0.73	0.71	0.68	0.66	-0.02	0.02
Gasoil/diesel oil	1.76	1.78	1.73	1.84	1.83	1.75	1.73	1.72	1.68	-0.04	-0.01
Residual fuel oil	0.68	0.64	0.55	0.64	0.75	0.60	0.56	0.59	0.66	0.06	0.10
Other products	0.56	0.45	0.43	0.42	0.44	0.37	0.38	0.35	0.38	0.03	-0.05
Total	8.11	8.03	7.71	8.18	8.54	7.64	7.54	7.49	7.63	0.14	0.04
OECD											
LPG and ethane	5.13	5.21	4.96	5.33	5.60	4.89	4.86	4.81	5.06	0.26	-0.06
Naphtha	3.36	3.41	3.35	3.45	3.59	3.32	3.30	3.28	3.37	0.09	0.11
Motor gasoline	14.09	14.39	14.83	14.38	14.16	14.73	14.72	15.05	15.07	0.02	0.10
Jet and kerosene	3.88	4.02	4.09	4.07	4.19	4.01	3.92	4.14	4.22	0.08	0.17
Gasoil/diesel oil	12.98	13.13	13.16	13.17	12.99	12.89	12.63	12.93	12.33	-0.60	-0.63
Residual fuel oil	2.21	2.10	2.07	2.16	2.30	2.21	2.08	2.24	2.32	0.09	0.18
Other products	4.16	4.10	4.40	3.86	3.82	3.93	3.89	4.06	4.14	0.08	-0.43
Total	45.82	46.36	46.86	46.41	46.66	45.97	45.40	46.50	46.51	0.01	-0.57

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	3Q15	4Q15	1Q16	2Q16	May 16	Jun 16	Jul 16 ²	Latest month vs.	
										Jun 16	Jul 15
United States³											
LPG and ethane	2.40	2.45	2.29	2.57	2.69	2.21	2.23	2.14	2.30	0.16	-0.08
Naphtha	0.23	0.22	0.22	0.24	0.22	0.22	0.23	0.22	0.22	0.01	0.03
Motor gasoline	8.92	9.18	9.41	9.17	9.09	9.44	9.44	9.66	9.60	-0.07	0.13
Jet and kerosene	1.48	1.55	1.60	1.58	1.51	1.62	1.57	1.72	1.72	0.00	0.07
Gasoil/diesel oil	4.04	4.00	3.96	3.86	3.90	3.81	3.74	3.86	3.58	-0.28	-0.32
Residual fuel oil	0.26	0.26	0.30	0.28	0.31	0.41	0.33	0.41	0.45	0.05	0.13
Other products	1.78	1.87	2.06	1.70	1.72	1.73	1.66	1.82	1.84	0.01	-0.37
Total	19.11	19.53	19.83	19.42	19.45	19.43	19.20	19.83	19.71	-0.12	-0.41
Japan											
LPG and ethane	0.49	0.43	0.39	0.40	0.47	0.42	0.41	0.36	0.44	0.08	0.03
Naphtha	0.74	0.78	0.78	0.80	0.79	0.72	0.66	0.70	0.68	-0.01	-0.07
Motor gasoline	0.92	0.91	0.97	0.92	0.87	0.88	0.88	0.87	0.95	0.08	-0.02
Jet and kerosene	0.52	0.50	0.35	0.57	0.74	0.37	0.36	0.33	0.31	-0.02	0.00
Diesel	0.41	0.41	0.41	0.42	0.41	0.38	0.37	0.39	0.40	0.01	0.00
Other gasoil	0.36	0.35	0.30	0.36	0.40	0.32	0.31	0.31	0.31	0.00	0.01
Residual fuel oil	0.42	0.36	0.31	0.32	0.38	0.30	0.27	0.30	0.34	0.04	0.02
Other products	0.41	0.37	0.35	0.35	0.37	0.27	0.29	0.26	0.31	0.05	-0.03
Total	4.27	4.12	3.85	4.14	4.43	3.66	3.54	3.52	3.74	0.22	-0.05
Germany											
LPG and ethane	0.09	0.10	0.10	0.08	0.10	0.11	0.11	0.11	0.10	0.00	0.00
Naphtha	0.41	0.40	0.37	0.40	0.42	0.36	0.36	0.36	0.45	0.09	0.09
Motor gasoline	0.43	0.42	0.44	0.42	0.39	0.43	0.43	0.43	0.44	0.00	-0.01
Jet and kerosene	0.18	0.18	0.20	0.18	0.17	0.20	0.19	0.20	0.23	0.02	0.02
Diesel	0.71	0.75	0.79	0.77	0.72	0.80	0.75	0.82	0.82	0.00	-0.01
Other gasoil	0.37	0.35	0.34	0.37	0.46	0.28	0.26	0.23	0.20	-0.03	-0.07
Residual fuel oil	0.12	0.12	0.12	0.11	0.14	0.13	0.13	0.12	0.11	-0.01	-0.01
Other products	0.06	0.05	0.08	0.05	0.01	0.07	0.07	0.06	0.05	-0.01	0.00
Total	2.37	2.37	2.44	2.39	2.42	2.37	2.29	2.34	2.40	0.06	0.02
Italy											
LPG and ethane	0.10	0.11	0.10	0.12	0.12	0.10	0.10	0.10	0.10	0.00	-0.01
Naphtha	0.07	0.09	0.09	0.09	0.11	0.12	0.11	0.12	0.10	-0.02	0.03
Motor gasoline	0.20	0.21	0.23	0.21	0.20	0.21	0.21	0.20	0.22	0.01	-0.02
Jet and kerosene	0.09	0.10	0.12	0.08	0.09	0.11	0.11	0.12	0.13	0.01	0.01
Diesel	0.48	0.44	0.45	0.45	0.42	0.45	0.44	0.46	0.46	0.00	-0.04
Other gasoil	0.09	0.09	0.09	0.10	0.08	0.08	0.07	0.09	0.09	0.00	0.00
Residual fuel oil	0.07	0.08	0.08	0.08	0.07	0.07	0.06	0.07	0.07	0.00	-0.02
Other products	0.15	0.15	0.15	0.15	0.12	0.15	0.15	0.15	0.15	0.00	-0.02
Total	1.27	1.27	1.32	1.28	1.21	1.29	1.26	1.32	1.32	0.00	-0.07
France											
LPG and ethane	0.13	0.13	0.11	0.13	0.17	0.14	0.14	0.14	0.13	0.00	0.02
Naphtha	0.13	0.13	0.13	0.09	0.14	0.12	0.13	0.10	0.13	0.03	-0.01
Motor gasoline	0.16	0.16	0.18	0.16	0.15	0.18	0.18	0.17	0.19	0.01	-0.01
Jet and kerosene	0.15	0.15	0.17	0.15	0.14	0.15	0.15	0.15	0.17	0.03	0.00
Diesel	0.70	0.71	0.72	0.72	0.67	0.72	0.75	0.69	0.71	0.02	-0.07
Other gasoil	0.25	0.25	0.28	0.23	0.26	0.20	0.20	0.17	0.20	0.04	-0.02
Residual fuel oil	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.04	0.01	-0.01
Other products	0.12	0.12	0.12	0.10	0.12	0.13	0.12	0.14	0.14	0.00	0.00
Total	1.69	1.69	1.76	1.63	1.69	1.66	1.71	1.58	1.72	0.14	-0.09
United Kingdom											
LPG and ethane	0.12	0.14	0.12	0.14	0.18	0.16	0.14	0.17	0.17	0.00	0.05
Naphtha	0.02	0.03	0.03	0.04	0.04	0.03	0.04	0.03	0.03	-0.01	0.00
Motor gasoline	0.30	0.29	0.30	0.29	0.28	0.30	0.29	0.31	0.28	-0.03	-0.01
Jet and kerosene	0.31	0.31	0.32	0.30	0.33	0.31	0.31	0.29	0.29	0.01	0.02
Diesel	0.48	0.50	0.50	0.51	0.49	0.52	0.49	0.54	0.51	-0.03	0.02
Other gasoil	0.13	0.13	0.14	0.13	0.12	0.14	0.12	0.17	0.14	-0.04	0.00
Residual fuel oil	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.12	0.12	0.13	0.12	0.11	0.12	0.13	0.13	0.13	0.00	0.00
Total	1.52	1.55	1.57	1.56	1.57	1.62	1.55	1.67	1.58	-0.09	0.08
Canada											
LPG and ethane	0.36	0.38	0.38	0.41	0.43	0.36	0.36	0.38	0.35	-0.03	0.00
Naphtha	0.09	0.09	0.09	0.10	0.11	0.10	0.10	0.11	0.10	0.00	0.02
Motor gasoline	0.81	0.82	0.86	0.81	0.83	0.86	0.86	0.90	0.91	0.01	0.04
Jet and kerosene	0.14	0.14	0.16	0.14	0.13	0.14	0.13	0.17	0.17	-0.01	0.00
Diesel	0.29	0.31	0.32	0.29	0.30	0.31	0.30	0.32	0.30	-0.02	-0.02
Other gasoil	0.30	0.26	0.26	0.26	0.22	0.25	0.28	0.23	0.22	-0.01	-0.01
Residual fuel oil	0.05	0.04	0.02	0.03	0.05	0.03	0.03	0.02	0.02	0.00	0.00
Other products	0.36	0.35	0.37	0.36	0.32	0.31	0.30	0.31	0.38	0.06	-0.01
Total	2.41	2.41	2.45	2.40	2.39	2.37	2.36	2.45	2.45	0.00	0.01

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2015	2016	2017	2Q16	3Q16	4Q16	1Q17	2Q17	Jul 16	Aug 16	Sep 16
OPEC											
Crude Oil											
Saudi Arabia	10.13			10.32	10.61				10.65	10.60	10.58
Iran	2.86			3.59	3.65				3.63	3.64	3.67
Iraq	3.99			4.30	4.38				4.32	4.37	4.46
UAE	2.88			2.97	3.09				3.08	3.09	3.10
Kuwait	2.75			2.82	2.89				2.87	2.91	2.90
Neutral Zone	0.07			0.00	0.00				0.00	0.00	0.00
Qatar	0.66			0.66	0.65				0.66	0.65	0.64
Angola	1.76			1.74	1.75				1.76	1.76	1.74
Nigeria	1.80			1.50	1.42				1.39	1.43	1.45
Libya	0.40			0.32	0.31				0.30	0.28	0.35
Algeria	1.11			1.09	1.11				1.11	1.11	1.12
Ecuador	0.54			0.55	0.55				0.55	0.55	0.55
Venezuela	2.40			2.22	2.14				2.15	2.14	2.13
Indonesia	0.69			0.74	0.74				0.74	0.74	0.74
Gabon	0.23			0.22	0.21				0.22	0.21	0.21
Total Crude Oil	32.29			33.03	33.52				33.43	33.48	33.64
Total NGLs ¹	6.76	6.91	7.04	6.86	6.95	7.00	7.01	7.02	6.95	6.95	6.95
Total OPEC²	39.05			39.89	40.47				40.37	40.43	40.59
NON-OPEC^{2,3}											
OECD											
Americas	19.99	19.31	19.41	18.96	19.13	19.28	19.37	19.36	19.26	19.18	18.94
United States	12.99	12.51	12.47	12.61	12.29	12.40	12.36	12.50	12.42	12.26	12.18
Mexico	2.60	2.48	2.35	2.49	2.46	2.43	2.40	2.37	2.48	2.47	2.44
Canada	4.39	4.32	4.58	3.86	4.37	4.44	4.62	4.49	4.35	4.44	4.32
Chile	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01
Europe	3.48	3.48	3.39	3.44	3.40	3.46	3.47	3.43	3.64	3.29	3.26
UK	0.97	1.01	0.96	1.05	0.94	0.94	0.99	0.98	1.07	0.90	0.84
Norway	1.95	2.00	1.94	1.94	2.00	2.03	1.97	1.95	2.13	1.93	1.95
Others	0.56	0.48	0.50	0.45	0.45	0.49	0.50	0.50	0.44	0.45	0.47
Asia Oceania	0.46	0.43	0.44	0.41	0.44	0.43	0.43	0.43	0.46	0.43	0.42
Australia	0.38	0.35	0.36	0.34	0.36	0.35	0.35	0.35	0.37	0.35	0.34
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.08
Total OECD	23.92	23.23	23.25	22.82	22.96	23.18	23.27	23.22	23.36	22.89	22.62
NON-OECD											
Former USSR	14.00	14.10	14.31	14.01	13.97	14.20	14.33	14.30	14.11	13.60	14.22
Russia	11.06	11.24	11.28	11.18	11.24	11.31	11.32	11.30	11.22	11.05	11.45
Others	2.94	2.86	3.03	2.83	2.73	2.90	3.02	3.00	2.88	2.56	2.77
Asia²	7.09	6.76	6.56	6.77	6.64	6.67	6.60	6.57	6.69	6.59	6.65
China	4.34	4.04	3.91	4.06	3.95	3.95	3.96	3.93	3.99	3.92	3.93
Malaysia	0.71	0.72	0.71	0.71	0.71	0.71	0.69	0.71	0.72	0.69	0.72
India	0.87	0.85	0.84	0.85	0.85	0.86	0.85	0.84	0.86	0.85	0.85
Others	1.18	1.15	1.09	1.15	1.13	1.15	1.10	1.10	1.13	1.12	1.15
Europe	0.14	0.14	0.13	0.14	0.13	0.13	0.13	0.13	0.14	0.14	0.13
Americas²	4.59	4.49	4.71	4.45	4.54	4.61	4.64	4.69	4.51	4.55	4.57
Brazil	2.53	2.61	2.90	2.55	2.71	2.77	2.82	2.87	2.68	2.72	2.73
Argentina	0.63	0.62	0.62	0.61	0.62	0.63	0.62	0.62	0.60	0.62	0.62
Colombia	1.01	0.89	0.83	0.91	0.84	0.84	0.84	0.83	0.85	0.83	0.85
Others	0.42	0.38	0.36	0.39	0.37	0.37	0.37	0.36	0.38	0.38	0.37
Middle East^{2,4}	1.27	1.26	1.26	1.25	1.28	1.28	1.27	1.26	1.27	1.28	1.28
Oman	0.99	1.01	0.99	1.01	1.02	1.02	1.01	1.00	1.03	1.02	1.02
Syria	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.03
Yemen	0.04	0.02	0.03	0.01	0.02	0.03	0.03	0.03	0.02	0.02	0.03
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.05	2.01	2.09	1.93	2.03	2.06	2.07	2.08	2.02	2.03	2.05
Egypt	0.72	0.70	0.67	0.70	0.69	0.69	0.68	0.67	0.69	0.69	0.69
Others	1.33	1.31	1.42	1.23	1.34	1.37	1.39	1.40	1.32	1.33	1.36
Total Non-OECD	29.15	28.76	29.05	28.55	28.60	28.95	29.05	29.02	28.73	28.18	28.90
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.29	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.37	2.45	2.42	2.77	2.40	1.97	2.47	2.72	2.79	2.81
TOTAL NON-OPEC	57.57	56.62	57.05	56.05	56.60	56.80	56.59	57.01	57.08	56.13	56.59
TOTAL SUPPLY	96.62			95.94	97.07				97.45	96.57	97.18

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Apr2016	May2016	Jun2016	Jul2016	Aug2016*	Aug2013	Aug2014	Aug2015	3Q2015	4Q2015	1Q2016	2Q2016
OECD Americas												
Crude	661.2	655.7	649.5	646.8	635.5	482.5	481.7	582.5	-0.11	0.26	0.54	-0.09
Motor Gasoline	273.5	271.1	273.1	272.2	263.7	254.1	245.4	249.6	0.07	0.11	0.05	0.01
Middle Distillate	231.8	229.2	219.9	229.6	234.3	205.9	198.6	228.4	0.08	0.17	0.05	-0.23
Residual Fuel Oil	50.5	47.3	46.7	44.9	46.0	42.9	46.0	45.0	-0.01	0.02	0.01	-0.04
Total Products ³	761.7	764.4	773.1	794.5	807.3	715.9	716.6	760.8	0.32	0.11	-0.18	0.17
Total ⁴	1598.8	1601.5	1608.6	1635.9	1634.1	1365.3	1374.6	1534.0	0.37	0.21	0.32	0.21
OECD Europe												
Crude	352.1	356.5	356.5	363.9	361.4	310.0	312.0	343.2	-0.05	0.23	-0.13	0.08
Motor Gasoline	100.0	99.6	96.6	96.9	94.6	86.5	88.4	85.2	0.04	0.03	0.09	-0.04
Middle Distillate	313.1	313.2	312.9	321.9	321.2	256.1	267.7	298.0	0.26	0.00	0.08	0.04
Residual Fuel Oil	72.8	75.2	72.0	70.5	70.8	74.2	67.6	71.5	0.03	0.03	0.07	-0.07
Total Products ³	584.1	589.1	581.0	592.1	589.7	509.7	519.1	552.4	0.37	0.06	0.25	-0.05
Total ⁴	1006.1	1014.3	1005.9	1024.8	1020.1	882.4	902.4	964.0	0.29	0.25	0.16	0.02
OECD Asia Oceania												
Crude	193.9	202.6	202.2	196.3	183.4	159.4	180.3	204.7	0.01	0.04	-0.11	0.07
Motor Gasoline	25.0	25.3	26.4	24.8	25.2	26.0	22.6	23.6	-0.02	0.00	0.03	0.00
Middle Distillate	61.6	64.7	67.0	71.6	75.7	69.8	69.4	70.2	0.06	-0.01	-0.08	0.09
Residual Fuel Oil	19.2	19.0	19.1	19.5	19.8	21.9	24.3	21.2	0.03	-0.01	-0.01	-0.01
Total Products ³	164.3	171.2	175.0	184.1	192.4	181.1	179.8	178.3	0.11	-0.11	0.00	0.10
Total ⁴	420.3	434.1	437.7	441.6	438.1	413.6	431.1	449.1	0.17	-0.11	-0.15	0.18
Total OECD												
Crude	1207.1	1214.7	1208.2	1207.1	1180.2	951.8	974.1	1130.3	-0.15	0.53	0.30	0.05
Motor Gasoline	398.5	395.9	396.2	393.9	383.6	366.6	356.3	358.4	0.09	0.14	0.18	-0.03
Middle Distillate	606.5	607.1	599.8	623.0	631.2	531.8	535.7	596.5	0.41	0.15	0.06	-0.10
Residual Fuel Oil	142.5	141.5	137.8	134.9	136.5	139.0	137.8	137.7	0.05	0.04	0.06	-0.12
Total Products ³	1510.1	1524.6	1529.1	1570.8	1589.5	1406.6	1415.5	1491.5	0.80	0.06	0.06	0.22
Total ⁴	3025.2	3049.9	3052.2	3102.3	3092.3	2661.3	2708.1	2947.0	0.82	0.35	0.33	0.41

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Apr2016	May2016	Jun2016	Jul2016	Aug2016*	Aug2013	Aug2014	Aug2015	3Q2015	4Q2015	1Q2016	2Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	691.0	695.1	0.01	0.00	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	1.5	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.4	206.0	205.6	205.7	206.5	205.8	208.4	207.1	0.01	-0.01	0.00	-0.01
Products	265.7	264.3	264.6	267.0	268.3	262.1	257.4	255.4	-0.05	0.08	0.05	-0.02
OECD Asia Oceania												
Crude	384.2	385.4	385.4	385.4	385.4	384.9	387.6	383.3	-0.05	0.01	0.02	0.01
Products	35.2	35.2	35.5	35.5	35.6	23.6	31.0	33.7	0.01	0.01	0.01	0.00
Total OECD												
Crude	1285.7	1286.6	1286.1	1286.2	1287.0	1286.7	1287.1	1285.5	-0.02	0.00	0.02	0.00
Products	302.9	301.5	302.1	304.5	305.9	286.7	289.9	291.1	-0.04	0.08	0.06	-0.02
Total ⁴	1591.6	1590.8	1590.9	1593.2	1595.1	1577.6	1581.2	1580.6	-0.06	0.08	0.07	-0.03

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')

	End June 2015		End September 2015		End December 2015		End March 2016		End June 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	175.6	72	182.5	76	188.4	79	183.6	77	175.2	-
Chile	11.8	35	11.0	32	10.6	32	11.2	31	10.7	-
Mexico	50.4	24	49.5	24	49.7	25	45.9	24	48.8	-
United States ⁴	1943.3	98	1973.4	102	1986.6	102	2023.5	104	2048.9	-
Total ⁴	2203.3	88	2238.4	91	2257.3	92	2286.2	94	2305.7	93
OECD Asia Oceania										
Australia	35.9	32	35.5	31	33.5	30	37.0	33	38.2	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	578.3	150	589.6	143	582.0	131	559.8	153	573.5	-
Korea	224.6	95	226.0	90	227.9	88	235.7	95	238.0	-
New Zealand	9.0	59	8.7	52	7.7	45	8.2	51	8.9	-
Total	847.9	110	859.7	105	851.1	100	840.7	110	858.6	111
OECD Europe⁵										
Austria	23.2	82	23.7	90	24.1	94	25.4	93	22.5	-
Belgium	47.7	74	51.3	81	50.4	73	52.7	84	52.6	-
Czech Republic	21.6	106	21.8	127	22.1	148	22.8	130	22.8	-
Denmark	28.4	178	28.6	186	31.8	211	32.4	204	30.7	-
Estonia	1.5	50	1.5	53	1.8	66	2.2	89	2.6	-
Finland	45.0	219	39.9	205	44.9	237	46.0	241	45.4	-
France	169.8	97	166.8	103	167.6	99	165.8	100	167.5	-
Germany	285.6	117	281.4	118	285.3	118	288.7	122	287.9	-
Greece	27.8	91	29.2	94	32.4	115	33.4	116	32.6	-
Hungary	20.5	127	20.6	126	22.0	157	20.9	140	22.5	-
Ireland	11.1	74	11.3	75	11.6	75	12.2	82	12.3	-
Italy	117.1	89	117.2	92	117.3	97	119.9	93	120.9	-
Luxembourg	0.6	12	0.6	10	0.7	13	0.7	12	0.8	-
Netherlands	140.2	146	153.1	160	158.8	165	157.7	160	159.6	-
Norway	25.9	126	25.1	105	26.7	127	24.9	117	26.5	-
Poland	62.6	111	63.9	119	69.4	131	67.4	119	65.4	-
Portugal	21.8	85	23.0	97	23.9	108	24.5	100	24.9	-
Slovak Republic	11.4	137	11.0	134	11.6	150	11.9	135	12.4	-
Slovenia	4.7	88	4.6	96	4.5	90	4.6	90	4.7	-
Spain	133.4	106	139.4	113	130.9	104	140.3	112	134.2	-
Sweden	31.0	103	33.3	120	35.2	122	34.9	116	33.3	-
Switzerland	37.2	165	36.3	149	34.4	171	36.1	165	35.8	-
Turkey	65.7	70	71.2	82	74.6	88	75.9	80	78.0	-
United Kingdom	77.2	49	79.0	51	80.9	52	79.7	49	82.9	-
Total	1411.0	100	1433.9	105	1463.0	107	1481.0	106	1478.8	106
Total OECD	4462.1	95	4532.1	98	4571.4	98	4607.9	100	4643.1	100
DAYS OF IEA Net Imports⁶ -	192	-	195	-	196	-	199	-	203	

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End June 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
2Q2013	4224	1576	2648	91	34	57
3Q2013	4267	1582	2686	92	34	58
4Q2013	4144	1584	2559	90	35	56
1Q2014	4164	1585	2579	93	35	57
2Q2014	4229	1580	2649	92	34	58
3Q2014	4297	1578	2718	93	34	59
4Q2014	4285	1580	2705	92	34	58
1Q2015	4371	1583	2789	96	35	61
2Q2015	4462	1585	2877	95	34	61
3Q2015	4532	1579	2953	98	34	64
4Q2015	4571	1587	2985	98	34	64
1Q2016	4608	1593	3015	100	35	66
2Q2016	4643	1591	3052	100	34	66

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 2Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	3Q15	4Q15	1Q16	2Q16	May 16	Jun 16	Jul 16	Year Earlier	
											Jul 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.57	0.72	0.74	0.72	0.79	0.59	0.88	0.56	0.32
Europe	0.79	0.84	0.78	0.77	0.69	0.76	0.69	0.67	0.68	0.62	0.76	-0.14
Asia Oceania	1.21	1.17	1.25	1.16	1.21	1.40	1.44	1.42	1.39	1.18	1.14	0.04
Saudi Medium												
Americas	0.45	0.36	0.37	0.44	0.43	0.39	0.44	0.46	0.45	0.41	0.39	0.02
Europe	0.01	0.03	0.03	0.02	0.04	-	0.01	-	0.02	0.02	0.02	0.00
Asia Oceania	0.43	0.45	0.44	0.48	0.41	0.46	0.43	0.43	0.38	0.42	0.50	-0.08
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.09	0.29	0.21	0.44	0.46	0.44	0.43	0.16	0.27
Europe	0.25	0.50	0.72	0.95	0.94	0.90	0.71	0.71	0.60	0.75	0.85	-0.09
Asia Oceania	0.31	0.24	0.41	0.42	0.49	0.47	0.51	0.36	0.53	0.41	0.49	-0.08
Kuwait Blend												
Americas	0.28	0.27	0.13	0.11	0.07	0.13	0.12	-	0.21	0.26	-	-
Europe	0.10	0.09	0.13	0.16	0.18	0.20	0.08	0.05	0.04	0.10	0.21	-0.12
Asia Oceania	0.64	0.62	0.65	0.62	0.69	0.71	0.65	0.75	0.59	0.71	0.66	0.05
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.07	0.10	0.09	0.18	0.19	0.24	0.40	0.09	0.31
Asia Oceania	0.00	0.01	0.01	0.02	-	0.02	0.01	0.01	0.02	-	0.02	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.03	0.01	0.04	0.16	0.16	0.12	0.20	0.02	0.18
Asia Oceania	0.30	0.28	0.27	0.25	0.26	0.44	0.47	0.61	0.54	0.55	0.21	0.34
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.61	0.61	0.64	0.57	0.75	0.67	0.08
Europe	0.07	0.08	0.09	0.07	0.10	0.06	0.05	0.03	0.02	0.04	0.07	-0.02
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.45	0.54	0.52	0.54	0.38	0.58	0.56	0.46	0.11
Europe	0.14	0.14	0.15	0.19	0.11	0.15	0.16	0.16	0.13	0.18	0.16	0.02
Asia Oceania	-	-	0.01	0.02	0.02	0.02	0.04	0.03	0.04	0.10	0.03	0.06
Canada Heavy												
Americas	1.49	1.71	1.90	2.02	1.94	2.12	1.85	1.78	1.88	2.07	1.91	0.16
Europe	-	0.00	0.01	0.01	0.01	0.01	0.01	-	-	-	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	-	-
Europe	0.47	0.56	0.49	0.52	0.49	0.47	0.36	0.44	0.19	0.39	0.53	-0.15
Asia Oceania	0.06	0.07	0.06	0.02	0.09	0.09	0.03	-	-	-	-	-
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.64	1.74	1.58	1.76	1.68	1.64	1.68	1.60	0.09
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	-	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.59	0.65	0.76	0.67	0.62	0.52	0.79	0.65	0.14
Asia Oceania	0.00	0.02	0.06	0.12	0.06	0.05	0.00	0.01	-	-	0.16	-
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.22	0.25	0.16	0.14	0.13	0.12	0.09	0.30	-0.21
Asia Oceania	0.03	0.02	0.01	-	-	0.02	0.01	0.02	0.02	-	-	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.03	0.02	0.07	0.06	0.03	0.06	0.06	0.05	0.01
Europe	0.53	0.55	0.57	0.55	0.58	0.44	0.46	0.44	0.50	0.44	0.56	-0.12
Asia Oceania	0.03	0.02	-	-	-	-	0.01	0.03	-	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	3Q15	4Q15	1Q16	2Q16	May 16	Jun 16	Jul 16	Year Earlier	
											Jul 15	% change
Crude Oil												
Americas	5130	4201	4022	4075	4056	4350	4663	4959	4565	5062	4196	21%
Europe	8926	8679	9503	9605	9741	8963	8826	8660	8907	10085	9449	7%
Asia Oceania	6537	6371	6572	6482	6522	6802	6647	6764	6400	6448	6659	-3%
Total OECD	20592	19251	20097	20161	20319	20115	20135	20383	19873	21596	20304	6%
LPG												
Americas	17	12	10	5	12	29	10	13	6	31	1	2669%
Europe	382	427	412	408	404	404	405	356	418	512	391	31%
Asia Oceania	547	532	518	491	506	590	576	500	624	610	467	31%
Total OECD	946	971	940	904	921	1024	992	869	1047	1152	859	34%
Naphtha												
Americas	17	20	15	12	12	11	7	4	16	6	8	-23%
Europe	332	356	348	413	283	360	292	210	314	360	356	1%
Asia Oceania	920	953	951	948	977	948	834	900	741	960	947	1%
Total OECD	1269	1328	1313	1372	1271	1319	1134	1115	1071	1326	1312	1%
Gasoline ³												
Americas	659	665	670	813	549	460	873	843	1016	953	816	17%
Europe	106	131	107	72	117	93	56	82	22	-25	1	na
Asia Oceania	75	76	93	61	98	73	84	74	78	76	55	37%
Total OECD	841	871	870	946	765	626	1012	1000	1116	1005	872	15%
Jet & Kerosene												
Americas	81	100	141	132	133	152	154	172	174	202	158	28%
Europe	445	454	442	586	392	462	517	465	616	557	590	-6%
Asia Oceania	73	60	64	49	74	79	76	72	58	52	45	15%
Total OECD	600	614	648	768	599	693	747	709	848	812	794	2%
Gasoil/Diesel												
Americas	58	95	76	46	63	57	40	11	45	55	24	133%
Europe	1121	1097	1216	1261	1178	1407	1453	1408	1495	1283	1116	15%
Asia Oceania	141	159	164	147	200	180	225	196	211	156	156	0%
Total OECD	1319	1352	1457	1455	1441	1644	1718	1615	1751	1494	1296	15%
Heavy Fuel Oil												
Americas	165	132	116	139	91	163	126	62	195	180	109	66%
Europe	552	617	564	518	575	529	514	654	425	509	644	-21%
Asia Oceania	232	203	176	176	204	188	150	118	160	185	149	24%
Total OECD	949	953	856	833	870	880	791	834	780	874	902	-3%
Other Products												
Americas	812	671	675	759	553	627	713	718	737	721	837	-14%
Europe	791	704	702	737	724	761	794	830	736	673	585	15%
Asia Oceania	426	408	352	373	351	384	347	386	348	386	337	15%
Total OECD	2029	1784	1729	1870	1627	1772	1854	1933	1822	1780	1760	1%
Total Products												
Americas	1810	1695	1703	1906	1414	1499	1924	1822	2190	2149	1953	10%
Europe	3729	3786	3793	3996	3672	4015	4032	4005	4025	3869	3684	5%
Asia Oceania	2414	2391	2318	2246	2411	2444	2292	2247	2220	2425	2158	12%
Total OECD	7953	7872	7813	8148	7496	7958	8248	8075	8435	8443	7794	8%
Total Oil												
Americas	6940	5896	5725	5980	5470	5850	6587	6782	6755	7211	6149	17%
Europe	12655	12465	13296	13601	13413	12978	12857	12665	12932	13955	13133	6%
Asia Oceania	8951	8762	8890	8728	8932	9246	8939	9011	8620	8874	8817	1%
Total OECD	28545	27123	27910	28309	27815	28074	28383	28458	28307	30039	28098	7%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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User's Guide and Glossary to the IEA Oil Market Report

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 11 August 2016), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US\$ per barrel according to the Argus specification of products (Copyright © 2016 Argus Media Limited - all rights reserved).

Next Issue: 10 November 2016

www.oilmarketreport.org

Oil Market Report

10 November 2016

HIGHLIGHTS

- **Global oil supply rose 0.8 mb/d in October to 97.8 mb/d after producers in OPEC and non-OPEC opened the taps.** World oil output was 0.8 mb/d above a year ago, with higher OPEC supply offsetting non-OPEC declines. After declining by 0.9 mb/d in 2016, non-OPEC production is expected to grow by 0.5 mb/d next year.
- **OPEC crude output rose by 230 kb/d to a record 33.83 mb/d in October after production recovered in Nigeria and Libya and flows from Iraq hit an all-time high.** Output from the group's 14 members has climbed for five months running, led by Iraq and Saudi Arabia. In October, OPEC supply stood nearly 1.3 mb/d above a year ago.
- **Oil demand growth is forecast to ease to 1.2 mb/d in 2016** due to sharp slowdowns in the OECD Americas and China. A similar expansion is foreseen in 2017. Oil demand peaked at a five-year high of 1.8 mb/d in 2015.
- **OECD commercial stocks fell for the second month in a row in September, by 17.1 mb to 3 068 mb.** In China, stocks of crude built by 29.7 mb in September. Initial data point to renewed crude stock builds in the US and Japan. Stock builds could continue through 2017 if OPEC does not agree to production restraint at its forthcoming meeting in Vienna.
- **Global refinery runs are expected to fall by a seasonal 1 mb/d in 4Q16 to 78.9 mb/d, up 150 kb/d year-on-year.** Annual growth of 270 kb/d for 2016 is the lowest increase in more than a decade.
- **Benchmark crude prices followed a bell-shaped curve in October, rising in the first part of the month before erasing nearly all of those gains** on doubts about the likelihood of an OPEC production agreement. At the time of writing, front-month ICE Brent was trading at \$46.79/bbl.

OMR PUBLISHING SCHEDULE – 2017

Please find below the 2017 release dates for the Oil Market Report:

- Thursday 19 January
- Friday 10 February⁽¹⁾
- Wednesday 15 March
- Thursday 13 April
- Tuesday 16 May
- Wednesday 14 June⁽²⁾
- Thursday 13 July
- Friday 11 August⁽³⁾
- Wednesday 13 September
- Thursday 12 October
- Tuesday 14 November
- Thursday 14 December

This information is also available at: www.iea.org/oilmarketreport/schedule/

The 2017 Edition of the Medium-Term Oil Market Report (MTOMR) will be released on Monday 6 March.

1. The 10 February OMR will comprise the usual data and projections through end-2017, but with abridged text.

2. Supply/demand forecasts will be 'rolled out' to 2018 in the report dated 14 June 2017.

3. The Annual Statistical Supplement 2017 Edition will be published in conjunction with the report dated 11 August 2017.

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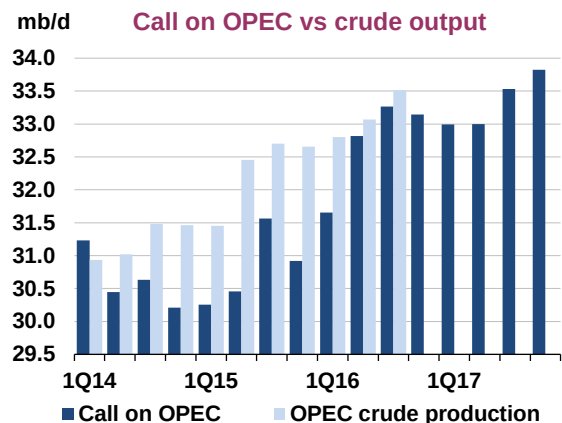
HOLDING THE LINE

The issue that currently dominates the outlook for the oil market is the outcome of OPEC's ministerial meeting in Vienna on 30 November. It has only been two months since OPEC last met in Algiers and announced it would examine how to set up a production ceiling of between 32.5 mb/d and 33.0 mb/d. OPEC also said it would seek to bring leading non-OPEC producers into the process. We can't predict the outcome of the 30 November meeting, but we can see the scale of the task ahead. In this report we estimate that OPEC members pumped 33.8 mb/d in October, well in excess of the high end of the proposed output range. This means that OPEC must agree to significant cuts in Vienna to turn its Algiers commitment into reality.

Whatever the outcome, the Vienna meeting will have a major impact on the eventual - and oft-postponed - re-balancing of the oil market. But it is not the only factor at play. Unfortunately for those seeking higher prices, an analysis of the other components provides little comfort. The world's biggest crude oil producer Russia will see its output increase by 230 kb/d in 2016, and sustained production at current record levels would result in growth of nearly 200 kb/d next year. With production also expected to grow in Brazil, Canada and Kazakhstan, total non-OPEC output will rise by 0.5 mb/d next year, compared to a fall of 0.9 mb/d in 2016. This means that 2017 could be another year of relentless global supply growth similar to that seen in 2016.

On the demand side of the oil balance, our outlook for world oil demand growth at 1.2 mb/d in 2016 and 2017 remains unchanged. There is currently little evidence to suggest that economic activity is sufficiently robust to deliver higher oil demand growth, and any stimulus that might have been provided at the end of 2015 and in the early part of 2016 when crude oil prices fell below \$30/bbl is now in the past.

If the OPEC countries do implement their Algiers resolution the resultant production cut will see the market move from surplus to deficit very quickly in 2017, albeit with a considerable stock overhang that will take time to deplete. On the other hand, if no agreement is reached and some individual members continue to expand their production then the market will remain in surplus throughout the year, with little prospect of oil prices rising significantly higher. Indeed, if the supply surplus persists in 2017 there must be some risk of prices falling back.



It is not the role of the IEA to urge any oil industry player to take one course of action rather than another, and we are not doing so now. Over time, market forces will do their job and the oil price will respond to the signals provided by demand and supply. What the IEA has argued for consistently is the need for investments necessary to meet rising oil demand. Such investments ensure that the market remains close to balance and that prices are as stable and as fair for both producers and consumers as can ever be possible in such a dynamic industry.

DEMAND

Summary

- **Oil demand growth is forecast to ease to 1.2 mb/d in 2016**, having peaked at a five-year high of 1.8 mb/d in 2015, due to slowdowns in the OECD Americas and China. A similarly paced expansion is foreseen in 2017.
- **The latest official data for the US showed deliveries climbing to an eight-and-a-half year high** of 20.1 mb/d in August, confirming the forecast cited in last month's *Report*. This is higher by 200 kb/d on the year earlier, supported by strong gains in gasoline and jet/kerosene. Both US growth and absolute demand have attained recent peaks; the former rose to a five-month high, while absolute deliveries at 20.1 mb/d were their highest level since early 2008. This robust 200 kb/d expansion is still down dramatically on the near 600 kb/d year-on-year (y-o-y) gain of mid-2015.
- Having seen somewhat hiccupping demand in recent months, **August data showed the Middle East recovering modestly**, with Saudi Arabia, Kuwait and Qatar all re-accelerating while Iran's decline eased. The greatest upside was seen in Middle Eastern jet fuel, gasoline and residual fuel oil. The recent flattening in Iranian demand coming in stark contrast to the heavily declining trend that predominated most of 2015 and 1H16.
- **With a surprise fall in Indian demand reported for September**, the Indian growth story appears to have lost some of its lustre. As with China, demand growth not only stuttered but also removed one of the key previous supports to global demand. Indian deliveries in September saw their first y-o-y decline in nearly one-and-a-half years, as lower industrial activity, rising prices, unrest in some provinces and heavy monsoon rains severely dampened demand.
- Our in-depth analysis of the global vehicle fleet shows that the **oil price declines of recent years did not have a uniform impact upon vehicle efficiency gains**. The fuel economy of new light duty vehicles purchased in the US, for example, improved in 2015 but at a pace just one-third of that previously seen. The IEA's recently published *World Investment Report* details similar slowdowns in India, Japan, South Africa, Korea, among others, but notably not in China and Germany. The IEA's other recently published *Energy Efficiency Market Report 2016* adds further clarity on how much oil consumption vehicle efficiency standards around the world have saved.

Global Oil Demand (2015-2017)

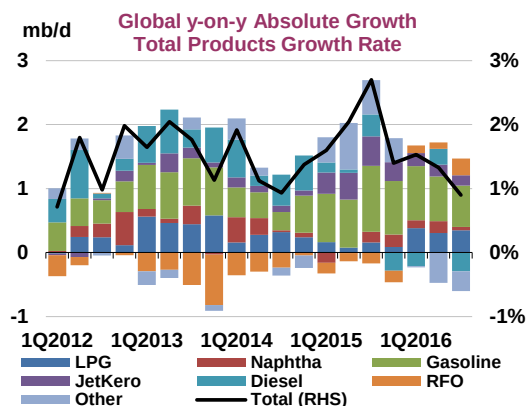
	(million barrels per day)														
	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.3	4.2	4.4	4.3
Americas	31.1	31.2	31.8	31.3	31.4	31.0	31.0	31.6	31.4	31.3	31.0	31.1	31.7	31.5	31.3
Asia/Pacific	32.3	31.6	31.6	32.6	32.0	33.3	32.6	32.1	33.5	32.9	34.1	33.3	33.2	34.3	33.7
Europe	14.1	14.2	14.9	14.4	14.4	14.3	14.6	15.1	14.4	14.6	14.4	14.6	14.9	14.5	14.6
FSU	4.6	4.9	5.1	5.0	4.9	4.9	4.9	5.2	5.1	5.0	4.9	5.0	5.3	5.2	5.1
Middle East	7.8	8.5	8.8	8.3	8.3	7.9	8.4	8.8	8.4	8.4	8.1	8.5	8.9	8.5	8.5
World	94.0	94.5	96.0	95.6	95.0	95.5	95.7	96.9	97.1	96.3	96.7	96.9	98.1	98.3	97.5
Annual Chg (%)	1.6	2.0	2.7	1.4	1.9	1.5	1.3	0.9	1.5	1.3	1.3	1.3	1.2	1.2	1.3
Annual Chg (mb/d)	1.5	1.9	2.5	1.3	1.8	1.4	1.3	0.9	1.4	1.2	1.3	1.2	1.2	1.2	1.2
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0

Global Overview

Our latest demand estimate for 2016 shows global deliveries averaging 96.3 mb/d for the year as a whole, 1.2 mb/d up on the year and a significant slowdown from 2015's five-year growth peak of

+1.8 mb/d as sharp decelerations impacted both of the world's two largest oil consumers – China and the US. A similarly paced 1.2 mb/d expansion is foreseen in 2017 as demand support from the potentially more upbeat macroeconomic backdrop – the International Monetary Fund (IMF) forecasts global economic growth of 3.4% in 2017 versus 3.1% in 2016 in October's *World Economic Outlook* – offsets the lack of a repeat demand boost from sharply lower oil prices.

On a quarterly-basis, y-o-y demand growth eased to 0.9 mb/d in 3Q16, a two-year low and significantly below the near five-year high of 2.5 mb/d seen exactly one year earlier. Moving onto projections for 4Q16, we cautiously envisage demand growth re-accelerating as the exceptionally mild northern hemisphere winter weather conditions of 4Q15 are unlikely to be replicated this year providing a temporary one-off uptick to demand (see *Colder winter may spur northern hemisphere demand* in the September edition of this Report).



OECD

Pulled down most of all by an absolute y-o-y decline in gasoil/diesel use, 3Q16 OECD oil demand grew by a modest 100 kb/d, a significantly slower rate than the average gain of 540 kb/d in 2015. Transport fuels provided the greatest contribution to 3Q16 growth, with OECD gasoline deliveries rising by an estimated 245 kb/d and jet/kerosene adding 115 kb/d.

OECD Demand based on Adjusted Preliminary Submissions - September 2016

	(million barrels per day)													
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.35	3.0	1.88	3.7	4.51	-6.6	0.44	-10.9	0.56	-3.6	5.67	-2.55	24.40	-0.6
US50	9.54	2.7	1.60	4.4	3.65	-7.3	0.09	-26.7	0.32	18.7	4.24	-0.63	19.44	0.1
Canada	0.88	6.2	0.15	-5.1	0.31	-6.4	0.28	-4.4	0.02	14.1	0.83	-1.08	2.46	0.1
Mexico	0.79	2.7	0.07	9.4	0.36	-3.1	0.05	-15.4	0.13	-32.9	0.49	-17.73	1.89	-8.0
OECD Europe	2.01	0.4	1.48	-2.9	4.98	1.7	1.42	-15.6	0.90	3.6	3.51	2.78	14.31	-0.6
Germany	0.44	1.8	0.19	-4.0	0.82	3.2	0.32	-24.8	0.10	-15.9	0.51	-8.35	2.38	-5.8
United Kingdom	0.30	-1.8	0.33	-5.6	0.51	2.7	0.15	1.0	0.03	-5.6	0.29	-1.46	1.61	-1.0
France	0.18	2.8	0.16	1.1	0.73	0.0	0.26	-21.0	0.03	-20.6	0.36	0.96	1.72	-3.8
Italy	0.22	-1.5	0.12	6.9	0.48	4.3	0.09	-2.9	0.07	-17.6	0.34	-0.70	1.33	0.3
Spain	0.12	4.9	0.15	-2.3	0.46	3.7	0.15	-1.8	0.15	2.6	0.26	4.89	1.28	2.5
OECD Asia & Oceania	1.57	0.1	0.73	-4.3	1.32	0.0	0.45	-1.2	0.59	11.7	3.10	1.19	7.77	0.8
Japan	0.91	-0.8	0.36	-10.2	0.42	-0.8	0.32	-0.6	0.31	17.0	1.38	-9.69	3.69	-4.1
Korea	0.22	2.8	0.17	-0.5	0.37	6.1	0.11	-3.4	0.23	8.6	1.47	14.09	2.58	9.4
Australia	0.31	-0.6	0.15	2.3	0.44	-4.9	0.00	0.0	0.03	-7.4	0.18	1.58	1.10	-1.7
OECD Total	14.92	2.3	4.09	-0.2	10.81	-2.1	2.31	-12.2	2.05	3.6	12.29	-0.14	46.48	-0.4

* Including US territories

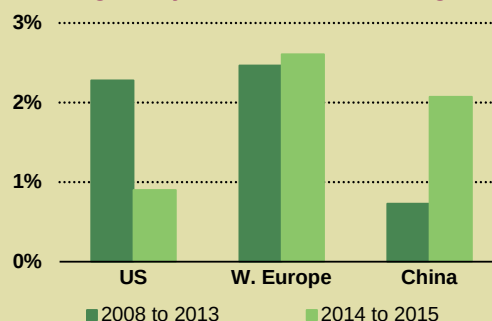
The clouded oil price influence upon vehicle efficiencies

Changes in oil prices influence oil demand. Throughout 2016 we have documented how US drivers have responded to lower prices by driving more miles than in any previous year. In addition, the oil price influences spending on assets and infrastructure that will define oil demand for many years to come. As oil prices rose in the period to 2008 and then again to 2014, vehicle fuel economy improved impressively and governments took the opportunity to tighten standards. The oil price decline since mid-2014 and the outlook for lower prices than previously expected provide a chance to see whether and how quickly consumers revert to purchasing less efficient cars.

The clouded oil price influence upon vehicle efficiencies (continued)

The answer is not clear cut and it reveals the importance of continued government policies as well as fuel prices in guiding vehicle purchases. The fuel economy of new light duty vehicles purchased in the US did for example improve in 2015, but at just one-third of the rate experienced between 2008 and 2013 (see chart). Sales of SUVs and trucks grew twice as fast as the car market as a whole, while sales of hybrids and diesel cars, which are traditionally more fuel-efficient than their gasoline equivalents, fell by 20% and 29% respectively (sales of the latter were also undermined by the startling revelations about violations of diesel emission regulations). The latest sales data for 2016 indicate a continuation of the trend. The US was not alone in seeing a slowdown in fuel economy improvements in 2015. Similar effects were observed in India, Japan, South Africa and Korea, among others.

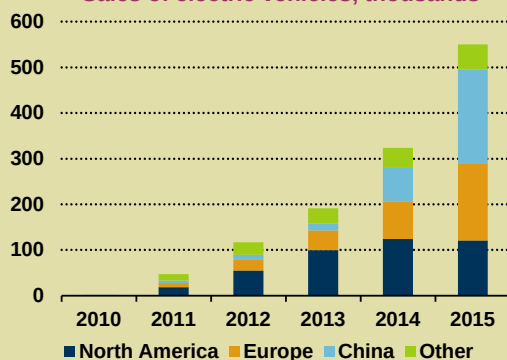
Improvements in average fuel economy of new light-duty vehicles in selected regions



In several key vehicle markets, no significant slowdown was observed, including in China and Germany. In fact, in China fuel economy improved in 2015 at nearly three times the annual average between 2008 and 2013. The increased pace of improvement in China reflects the important role of well-designed corporate average fuel consumption standards implemented from 2012. These standards move China away from vehicle-specific standards to fleet average standards which are driving efficiency gains while compensating for the increasing consumer preference for larger less efficient vehicles. In addition, while standards are important, price measures, such as fuel excise taxes, also play a significant role in dampening the effect of crude price changes.

Sales of electric cars are growing rapidly, reaching 550 000 units globally in 2015 and selling strongly in 2016. However, the estimated impact of the electric cars sold in 2015 is a reduction of just 0.01 mb/d of oil demand worldwide. This offsets the slowdown in fuel economy improvements of light duty vehicles sold in

Sales of electric vehicles, thousands



the US in 2015, which will raise oil demand by around the same amount. Both of these conflicting directional effects are far from being seen as decisive in annual changes in global oil product demand, which rose an estimated 1.8 mb/d in 2015. While sales of electric vehicles are expected to increase and more cars with longer ranges appear on the market, continued growth will put more strain on public budgets to keep pace with the level of fiscal support, global government support rising to almost \$4 billion in 2015. Consumer choices are influenced by a wide range of factors, from social status to changes in driving patterns, so this does not necessarily limit the pace of deployment. Finally, likely reductions in electric vehicle

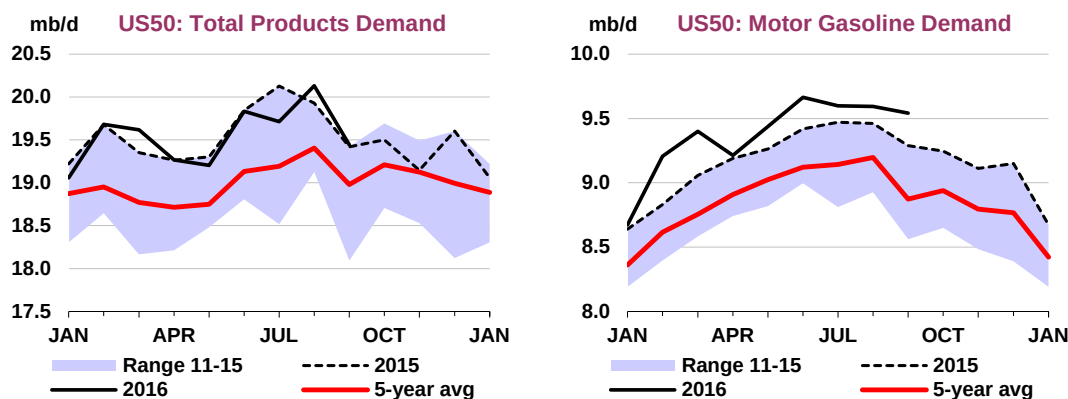
battery costs will reduce the level of support necessary for achieving a meaningful impact on oil demand in the coming years and thus remain a critical element in the future of electrified transport, especially in a lower oil price environment.

The new IEA report "World Energy Investment 2016" details the state of investment across technologies, sectors and regions. It includes analysis on investments in the oil and gas sector as well as in sectors that will determine future oil demand. See www.iea.org/investment for more information.

The IEA's other recently published "Energy Efficiency Market Report 2016" provides a detailed discussion on the role of changing oil prices on vehicle efficiency and how much oil consumption vehicle efficiency standards around the world have saved. See www.iea.org/eemr16 for more information.

Americas

Buttressed by continued strong gains in gasoline and jet/kerosene, the latest official monthly **US** data showed demand averaging 20.1 mb/d in August. Not only was this 200 kb/d up on the year earlier – a five-month growth high – but it also amounted to an eight-and-a-half year high in absolute terms. Preliminary estimates of September demand, however, imply a moderation in both absolute US demand and the y-o-y growth rate, as deliveries eased back to around 19.4 mb/d and growth eased to 25 kb/d in y-o-y terms.



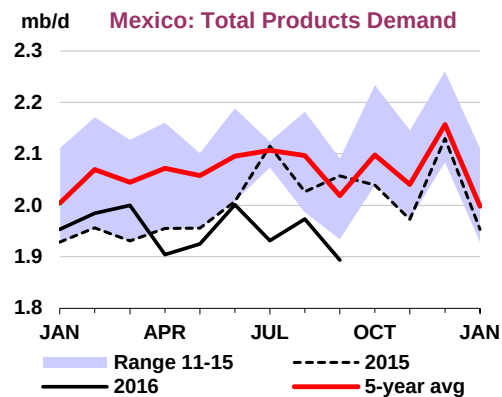
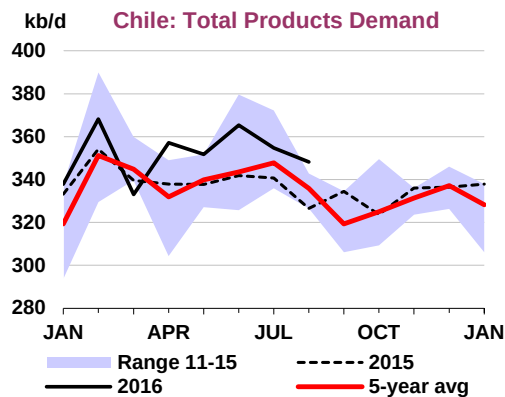
Robust gasoline demand underpins the ongoing US demand strength, with growth in y-o-y terms for gasoline between 125 kb/d and 250 kb/d each month since May – or in percentage terms between 1.3% and 2.7%. Having averaged -0.2% or -15 kb/d in the five years prior to 2015's dramatic price adjustment, recent gasoline demand growth stands out – supported by a combination of big increases in vehicle usage and heightened sales of larger vehicle categories, such as SUVs. The latest official vehicle usage statistics from the US Department of Transport's Federal Highway Administration show seasonally adjusted US vehicle miles travelled rising by 2.5% in August, compared to the year earlier. Sales of SUV's in the US, meanwhile, rose by 4.3% y-o-y in the first ten months of the year, to 1.5 million, according to data service provider *Motor Intelligence*. Rising SUV sales come in stark contrast to declining car sales, which fell by 8.7% y-o-y over the first ten months of the year to a net 6.0 million vehicles.

For the year as a whole US oil demand is forecast to average 19.6 mb/d, largely unchanged on 2015, as mid-year declines roughly offset envisaged gains at the beginning and end of the year. The late-2016 forecast rebound is due to a combination of potentially colder weather and the exceptional weakness in US oil demand in November 2015. Deliveries are forecast to remain at around 19.6 mb/d in 2017, as additional economic growth provides some support – the IMF's October *World Economic Outlook* cites US GDP growth of 2.2% in 2017 after a gain of 1.6% in 2016 – while potentially higher retail prices are a partial offset.

Falling sharply in September (-165 kb/d y-o-y), the latest **Mexican** demand numbers show deliveries declining in all of the main product categories bar gasoline and jet fuel, as the weaker industrial backdrop leaves very little support for demand. In particular, power sector oil demand vanished, as the Mexican Secretaria de Energia reported a drop in September of roughly one-fifth compared to the year earlier, reflecting rising natural gas use. Having averaged around 1.9 mb/d in September, roughly on a par with the forecast in last month's *Report*, Mexican oil deliveries are forecast to average 2.0 mb/d across the year as a whole, a drop of 50 kb/d on the year earlier. Ongoing, albeit lessening, declines in oil use in the Mexican power sector should ensure a further modest decline in 2017.

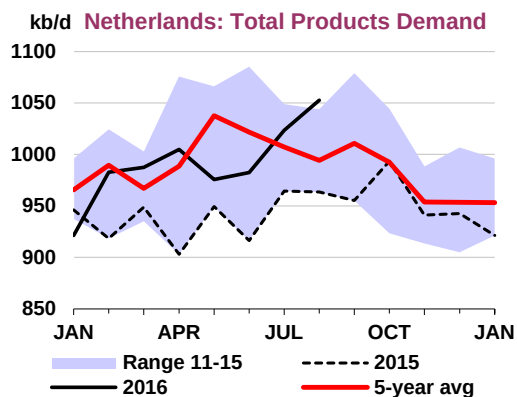
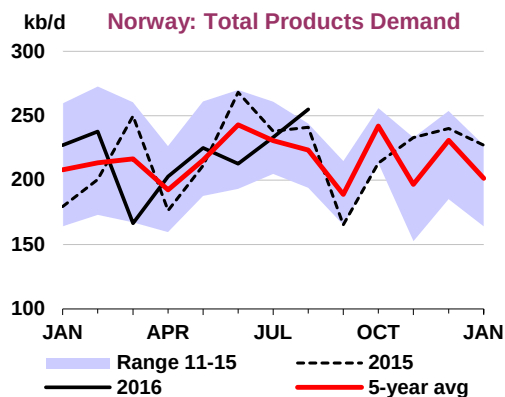
Sizeable baseline revisions to the **Chilean** demand numbers trimmed roughly 0.9% from the 2015 demand estimate, to 340 kb/d. The majority of the curtailments were to historical LPG and 'other

product' demand. The latest numbers show deliveries averaging 350 kb/d in August, roughly 20 kb/d up on the year earlier due to strong gains in gasoil/diesel, gasoline and 'other products'.

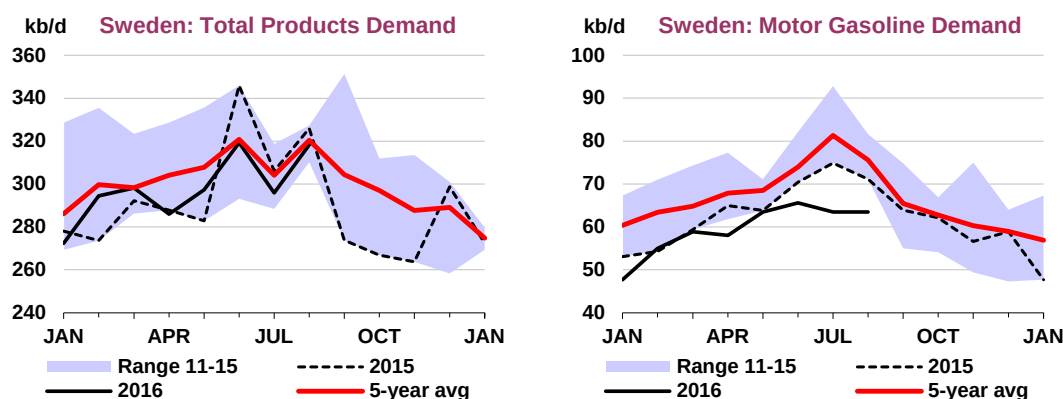


Europe

The latest oil demand data show strong y-o-y gains across much of Europe in August, with Turkey (+15.8%), Poland (+14.0%), the Netherlands (+9.3%), Norway (+5.7%), Finland (+5.6%), Spain (+4.8%), Portugal (+3.7%) and Belgium (+3.5%) all up particularly sharply. **Norwegian** oil deliveries are up sharply as robust gains in LPG more than offset persistent declines in jet/kerosene and gasoline. **Turkish** demand growth clambered up to a three-and-a-half year high, supported by big gains in naphtha, gasoil/diesel, residual fuel oil and 'other products', all gains that more than offset continued weaknesses in jet fuel demand as geopolitical issues curb tourism somewhat. **Belgian** deliveries rose by 20 kb/d in August, compared to the year earlier, due to strong gains in naphtha and residual fuel oil.

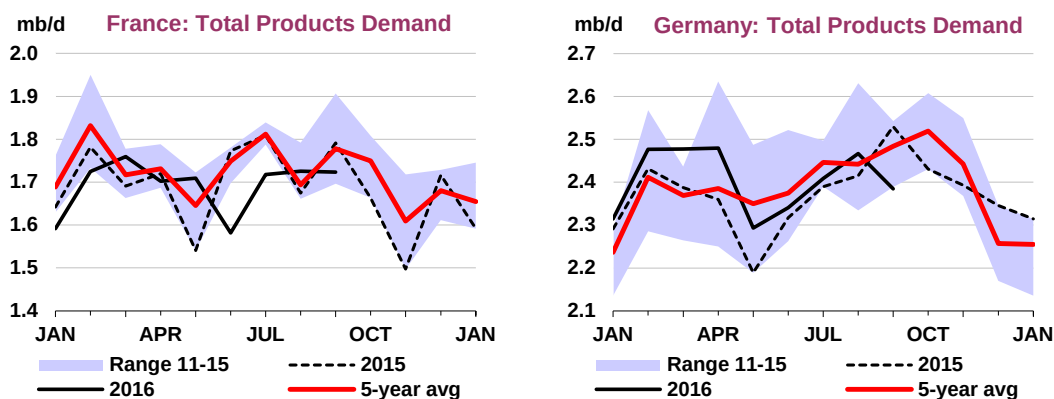


Dutch oil demand surged by around 90 kb/d in August, compared to the year earlier, due to big increases in reported deliveries of naphtha and residual fuel oil. At around 180 kb/d in August, naphtha's recent vigour is at least partially attributable to the depths demand plummeted to one year earlier, with a similar adjustment seen in residual fuel oil. The former also benefited from steam crackers switching between natural gas liquids and naphtha, and the general level of growth currently experienced by the Dutch petrochemical industry. Statistics Netherlands cited a 9.8% y-o-y growth in production of chemicals and a 7.0% expansion in the manufacture of rubber and plastic products. Residual fuel oil demand gained additional upside on strong bunker fuel demand. The uptick in overall Dutch momentum that commenced in February looks like supporting demand growth of around 40 kb/d over the course of 2016, with total deliveries forecast to average 985 mb/d for the year as a whole. Growth likely vanishes in 2017 as both potentially higher prices and weakening economic growth curtail oil demand growth.



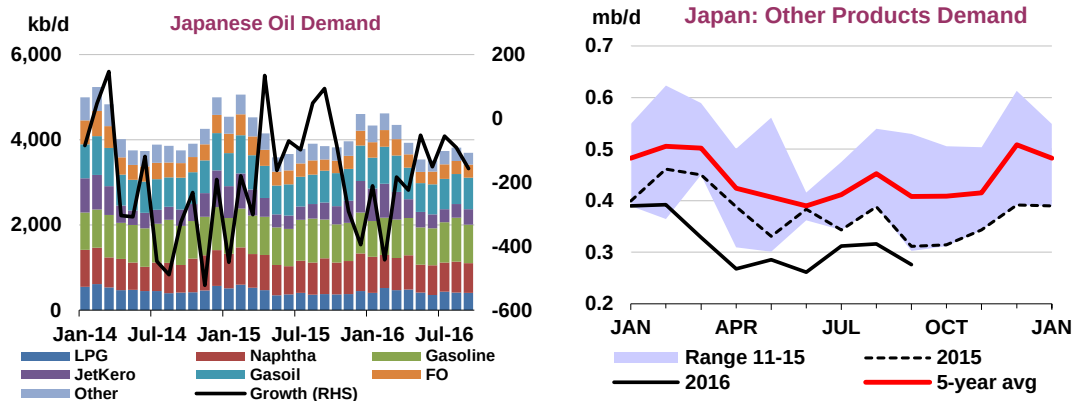
The European demand data for August have not all seen strong y-o-y expansions, however, with notable declines in Sweden, the Czech Republic and Estonia the main exceptions. **Swedish** oil deliveries edged lower in August due to the particularly heightened level of demand in August 2015 and the ongoing recent weakness in Swedish gasoline. Road transport fuel demand stuttered mid-year as car registrations, cited by Statistics Sweden, fell sharply in July (-32.9% month-on-month, or -0.6% y-o-y) having previously been trending upwards since 2013.

Although only a small sample size is available for September, the preliminary numbers that we have received point lower. Indeed, both France and Germany saw y-o-y demand declines, after gains in August, with industrial oil use in both countries experiencing sharp falls. Most notable in September was the complete lack of the normal seasonal uptick in **French** LPG deliveries. **German** deliveries in September, meanwhile, plunged by 145 kb/d compared to the year earlier, having risen by 50 kb/d in August, with gasoil, residual fuel oil, jet/kerosene and LPG all falling particularly sharply.

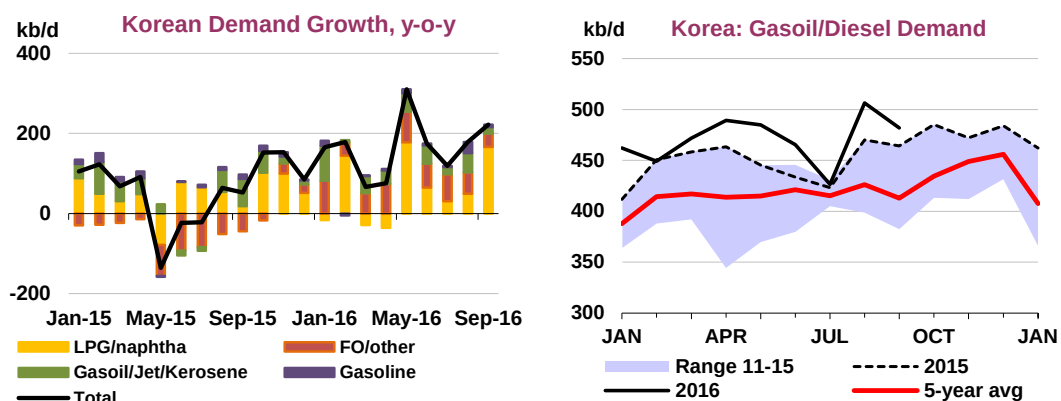


Asia Oceania

Roughly in line with the forecast we quoted in last month's *Report*, preliminary data show **Japanese** deliveries averaging 3.7 mb/d in September, 155 kb/d down compared to the year earlier. The drop is largely due to big falls in naphtha and jet/kerosene demand, which more than offset gains in LPG and residual fuel oil. Our Japanese demand forecast for the year as a whole has been modestly hiked due to official August data coming out ahead of the level indicated by month earlier preliminary numbers – jet/kerosene and 'other products' seeing the majority of the August upside revisions. Deliveries are now forecast to average roughly 4.0 mb/d in 2016, 145 kb/d below 2015 but 15 kb/d above our prior forecast, with the largest declines in naphtha, residual fuel oil and 'other products'. The declines in the latter two product categories are largely due to the falling share of oil use in the Japanese power sector. A further decline of around 95 kb/d is forecast for total oil deliveries in 2017 as the economic outlook remains relatively muted: the IMF forecast growth of just 0.6% in October's *World Economic Outlook*.



A number of exceptionally challenging economic circumstances have dented **Korean** demand, ranging from industrial action to Samsung's massive product stock recall and the collapse of the country's largest shipping company, Hanjin. Economic activity has stuttered, rising by 0.7% on a quarter-on-quarter basis in 3Q16, denting prospective oil demand. Having averaged 2.5 mb/d in 3Q16, 175 kb/d up on the year earlier, the forecast for 4Q16 is for a significant slowdown whereby growth eases back to around 140 kb/d. Although it is too early to understand the downside influence these special circumstances could pose, September's gasoil/diesel number – decelerating sharply from August's recent peak – offer an early glimpse of the rockier path for demand.



Non-OECD

Recent weaknesses in non-OECD oil demand growth remain very much a theme in 3Q16, as y-o-y growth eased to 0.8 mb/d, roughly half the pace experienced a year earlier. Significant slowdowns in China, Brazil and Saudi Arabia were key; all countries that will likely re-accelerate over the coming months as their underlying macroeconomic conditions improve.

China

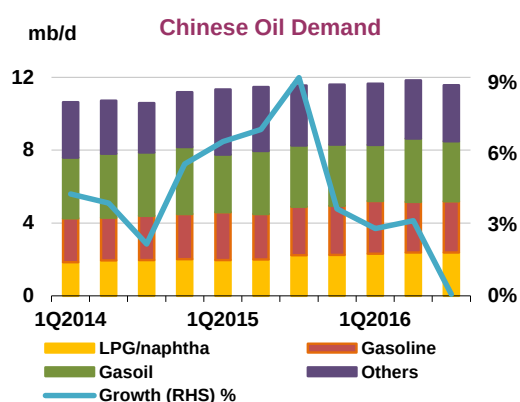
Heavily lagging, with regard to reported economic growth, Chinese oil product demand was essentially flat y-o-y in 3Q16. This lack of growth came despite overall economic growth reportedly reaching 6.7% for a third straight quarter. LPG and gasoline continue to provide reasonably robust Chinese demand support, albeit roughly cancelled out by declines in gasoil/diesel and residual fuel oil, two products that fell due to government restrictions on factory activity ahead of September's G20 meeting in Hangzhou. Also ongoing industrial weaknesses dampened demand.

China: Demand by Product

(thousand barrels per day)

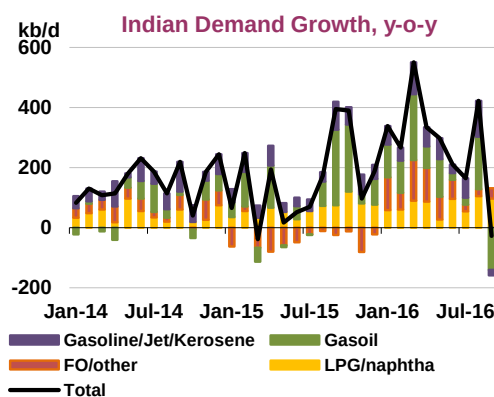
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,112	1,315	1,433	203	118	18.2	9.0
Naphtha	997	1,061	1,095	64	34	6.4	3.2
Motor Gasoline	2,624	2,834	3,026	210	192	8.0	6.8
Jet Fuel & Kerosene	605	645	680	41	35	6.8	5.4
Gas/Diesel Oil	3,332	3,323	3,316	-9	-7	-0.3	-0.2
Residual Fuel Oil	297	213	148	-83	-65	-28.1	-30.5
Other Products	2,516	2,350	2,299	-166	-51	-6.6	-2.2
Total Products	11,482	11,741	11,998	259	257	2.3	2.2

Tentative signs of a slow upturn have emerged. September, for example, saw China import record volumes of crude oil, at 8 mb/d, even overtaking the US to become the world's largest importer. Of course, significant volumes of this crude could be destined for storage or later exported as refined products. A number of important economic indicators are cautiously pointing upwards and most factories closed ahead of the G20 meeting (see above) have now reopened, suggesting that modest growth should resume in 4Q16. The data flow that supports this sentiment includes the latest car sales numbers (+26% y-o-y, according to the China Association of Automobile Manufacturers), the Caixin Manufacturing PMI (which has been in mildly net-optimistic territory for three consecutive months through September) and retail sales, which rose by 10.7% y-o-y in September according to the National Bureau of Statistics. For the year as whole, Chinese oil deliveries are forecast to average 11.7 mb/d, 260 kb/d or 2.3% up on the year earlier. A further gain of approximately 255 kb/d is forecast for 2017, underpinned (as in 2016) by strong gains in LPG, jet fuel and gasoline.

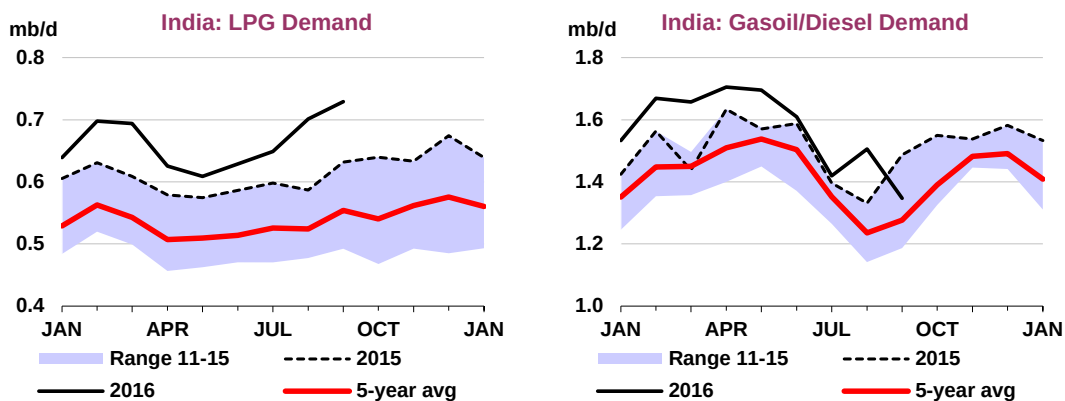


Other Non-OECD

The latest **Indian** demand estimate for September, from the Petroleum Planning and Analysis Cell, showed deliveries falling in y-o-y terms for the first time in nearly one-and-a-half years. Demand eased by approximately 0.7% compared to the year earlier as strong gains in LPG and bitumen failed to offset surprise drops in road transport fuel demand. Gasoline and diesel particularly suffered from disruption caused by heavy monsoon rains and political unrest in a number of provinces. Recent price increases, albeit kept somewhat under control by the depreciating rupee, further dented demand as did weakening industrial output across the economy as a whole. On the plus side, bitumen demand

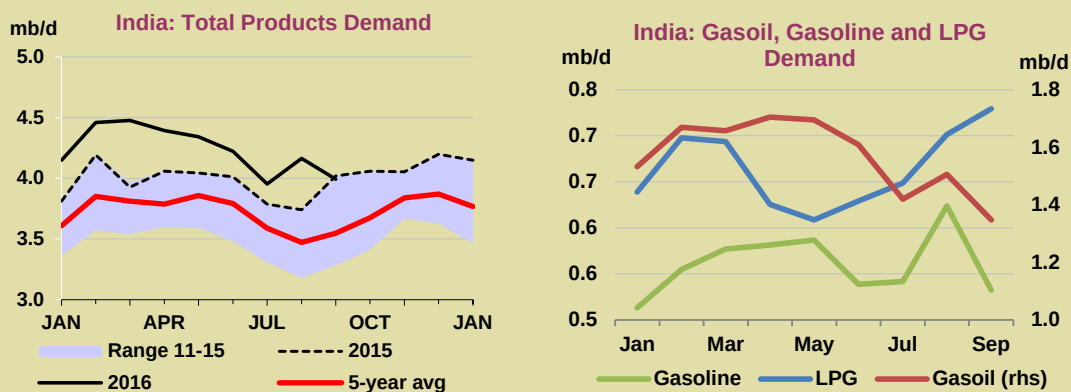


continues to rise supported by the huge national road building programme, while LPG demand gains support from government efforts to connect over 15 million homes to LPG as a cooking fuel in the fiscal year 2016-17 (April-March).



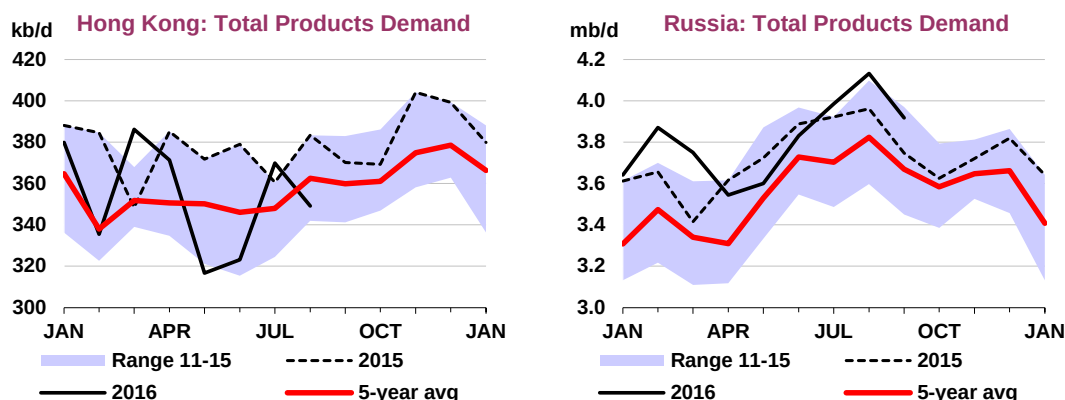
Volatile Indian oil demand keeps performing well in the second half of the year

Although India's oil demand showed counter-seasonal growth in August, the third quarter in general still followed the historical pattern, dropping by 6.5% from the second, close to the previous five-year average drop of 7%. Strong economic activity drove August oil demand growth up to a y-o-y high of 11%, the fastest pace since March, but this momentum did not continue into September. The heavy monsoon rainfall and disturbances in southern and northern states of India caused gasoil and gasoline demand to decline to their lowest level of the year, leading total oil demand y-o-y growth to fall by 1%. The only major oil product that kept growing during the third quarter was LPG which benefited from larger subsidies granted by the government for new connections. The result was that in 3Q16 LPG demand increased by 14.5% compared to last year.



In 4Q16, along with the end of the monsoon season, Indian gasoil demand will see a recovery, and robust vehicle sales, especially for two wheelers, will support gasoline demand. But the ongoing unrest in some states brings uncertainty to transportation oil demand. In general, good economic performance as the monsoon season ends will provide support to India's 4Q16 oil demand. The IMF expects the economy to expand by 7.6% in 2016-17, up from its earlier projection of 7.4%. We forecast India's 4Q16 demand to reach 4.3 mb/d, 5% higher than the same period of last year.

Demand weakness remains very much the dominant theme in **Hong Kong** this year with the latest data depicting an 8.9% y-o-y (35 kb/d) decline in August and year-to-date demand down 5.6%. Residual fuel has posted the sharpest declines as shippers switched to lower sulphur fuels, but also as international shippers refuelled at alternative destinations. **Singapore**, for example, saw total bunker sales up 10.4% in the first eight months of 2016 versus the year earlier according to the Maritime and Port Authority of Singapore.



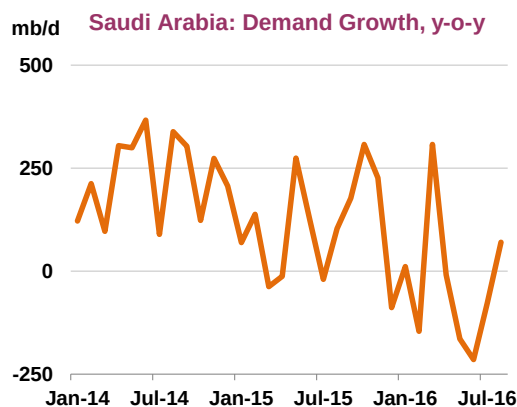
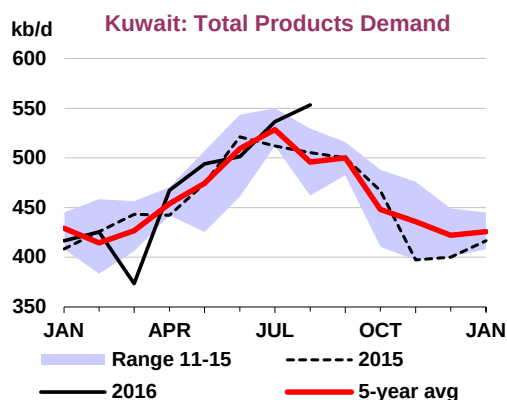
Continuing to shrug off the consequences of a struggling domestic economy, **Russian** oil deliveries rose by an estimated 170 kb/d or 4.5% in September to 3.9 mb/d. Robust gains in gasoil/diesel, LPG and 'other products' led September's upside, more than offsetting reported declines in residual fuel oil and jet/kerosene. September's oil demand growth took place against a background of weaker industrial activity: data from the Federal State Statistics Service, showed a 0.8% decline compared to the year earlier. Having risen, in y-o-y terms, for the three-consecutive months through September, and in six of the first nine months of the year, Russian oil deliveries are forecast to post an average gain of 85 kb/d in 2016 as a whole as demand averages 3.8 mb/d. Further growth is forecast in 2017, albeit down slightly from the 2016 level, as the IMF (in October's *World Economic Outlook*) forecasts economic growth of approximately 1.1% in 2017, supported by a slight uptick in the volume of overall goods exported.

Non-OECD: Demand by Product

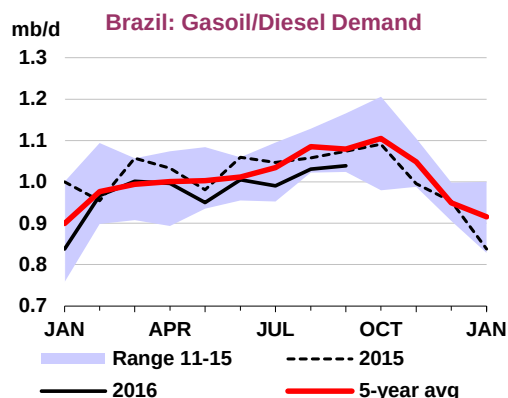
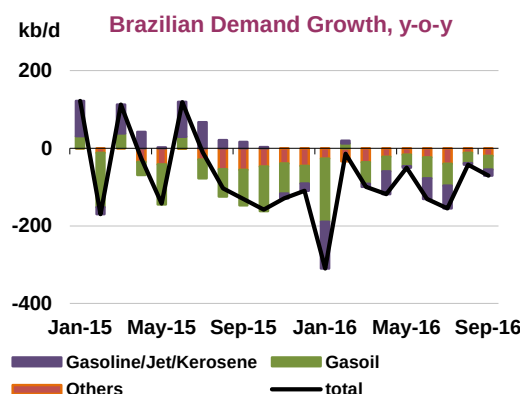
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
LPG & Ethane	5,688	5,686	5,784	331	311	6.2	5.7
Naphtha	3,042	3,045	2,998	152	-4	5.3	-0.1
Motor Gasoline	10,957	10,996	11,144	476	398	4.5	3.7
Jet Fuel & Kerosene	3,136	3,117	3,190	37	49	1.2	1.6
Gas/Diesel Oil	14,159	14,848	14,545	109	9	0.7	0.1
Residual Fuel Oil	5,162	5,102	5,240	-143	140	-2.7	2.7
Other Products	6,624	6,955	7,049	-125	-137	-1.8	-1.9
Total Products	48,769	49,749	49,949	839	766	1.7	1.6

A number of important Middle Eastern oil producing economies have seen demand numbers higher than recently forecast in this *Report*. For example, **Kuwait** saw demand growth of nearly 50 kb/d y-o-y in August, a 15-month high, **Qatari** deliveries rose by 20 kb/d and **Saudi Arabian** demand added 70 kb/d, all projections that were above prior forecasts. Saudi Arabian deliveries increased by a 14-month high of 3.7 mb/d in August, despite ongoing y-o-y declines the power sector's direct crude burn, as jet fuel growth resurfaced alongside persistent positive gains in LPG, gasoline and residual fuel oil. Both **Iran** and **Iraq**, meanwhile, continue to see flat-to-modestly declining y-o-y demand trends, but notably above earlier projections. With net Middle Eastern oil demand already adding 10 kb/d compared to the year earlier in 3Q16, to 8.8 mb/d, renewed OPEC supply management could support higher demand numbers in exporting countries in 2017, if oil prices increase sufficiently to boost economic growth in the region. According to the IMF's October *World Economic Outlook*, the Iraqi economy contracted by 2.4% in 2016, while Iran's expanded by just 0.4% and Kuwait's expanded by 1.1%. Significant upticks are envisaged for 2017, with the extent determined by the level of oil prices.



Brazilian oil demand continues to fall, albeit at a slower pace: the latest official data showed September deliveries averaging close to 3.2 mb/d, down by 70 kb/d compared to the year earlier. The near 2% y-o-y decline is about half that seen in the previous 12-month average. The decline rate eased as previous heavy declines in Brazilian gasoline demand bottomed-out, while gasoil/diesel, although still falling, fell more slowly. The declines in gasoil have eased roughly in unison with the decelerating decline rates in total industrial activity: the Instituto Brasileiro de Geografia e Estatística cited industrial activity contracting by 4.9% y-o-y in September, a near two-year low. For the year as a whole, Brazilian oil product deliveries are projected to average 3.1 mb/d, roughly 95 kb/d down on the year earlier, with only a modest gain forecast for 2017 as economic conditions only tentatively improve. The IMF's October *World Economic Outlook* predicted GDP growth of 0.5%. The net impact of oil price changes is relatively neutral as Brazil remains close to being balanced in terms of supply and demand.



Non-OECD: Demand by Region

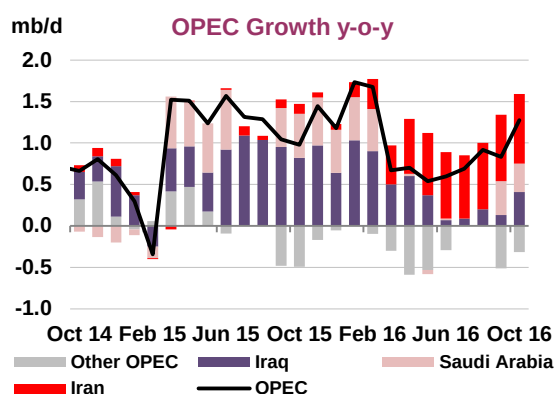
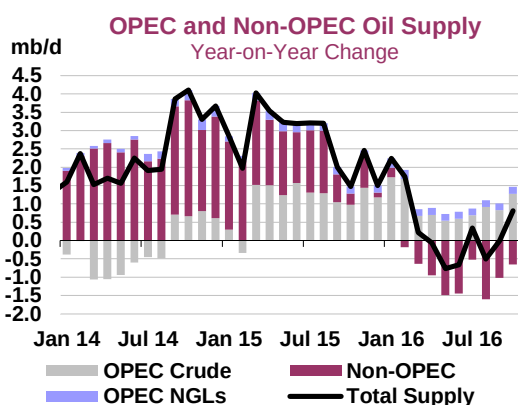
(thousand barrels per day)

	Demand		Annual Chg (kb/d)			Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
Africa	4,160	4,214	4,102	156	132	3.8	3.3
Asia	24,745	24,969	24,337	935	499	3.9	2.1
FSU	4,861	4,851	5,233	-40	179	-0.8	3.5
Latin America	6,468	6,650	6,781	-117	-74	-1.7	-1.1
Middle East	7,859	8,359	8,788	-128	10	-1.5	0.1
Non-OECD Europe	675	706	707	34	19	5.1	2.7
Total Products	48,769	49,749	49,949	839	766	1.7	1.6

SUPPLY

Summary

- **Global oil supply rose 0.8 mb/d month-on-month in October to 97.8 mb/d as both OPEC and non-OPEC output increased.** World oil production was 0.8 mb/d above a year ago, with higher OPEC production more than offsetting non-OPEC declines.
- **OPEC crude output rose by 230 kb/d to a record 33.83 mb/d in October after production recovered in Nigeria and Libya and supply from Iraq reached the highest level ever.** Iran pushed flows to a pre-sanctions rate of 3.72 mb/d, while Saudi Arabia, the UAE and Kuwait continued to pump near - or at - all-time highs. Output from the group's 14 members has climbed for five months running, led by Iraq and Saudi Arabia. In October, OPEC supply stood nearly 1.3 mb/d above a year ago.
- **OPEC's record-smashing performance comes ahead of its 30 November meeting, where oil ministers will try to implement a deal struck in Algiers to cut output to between 32.5 mb/d and 33 mb/d.** OPEC technical experts are still working on a mechanism to allocate individual supply targets. Production in October ran 830 kb/d above the upper range of the output target, and early indications are that the elevated levels will continue in November.
- **The forecast for non-OPEC oil supply growth in 2017 has been revised up by 110 kb/d since last month's Report to just shy of 0.5 mb/d due to an improved outlook for Russian output.** Russia is now forecast to grow by 190 kb/d in 2017, following gains of 230 kb/d in 2016. Other significant contributors to growth next year will be Brazil (+280 kb/d), Canada (+225 kb/d) and Kazakhstan (+160 kb/d). Non-OPEC production is still forecast to decline by 0.9 mb/d in 2016.
- **Non-OPEC oil supply rose by 485 kb/d in October, to 57 mb/d, on a recovery in output from the North Sea and on higher Russian and Kazakh flows.** A marginal increase is also estimated for US oil production, on lower outages in the Gulf of Mexico and as declines in tight oil output eased. Total non-OPEC supplies were 690 kb/d below a year earlier in October, with lower supplies in the US, the North Sea, China, Colombia and Mexico offset by gains in Kazakhstan, Brazil and Russia.

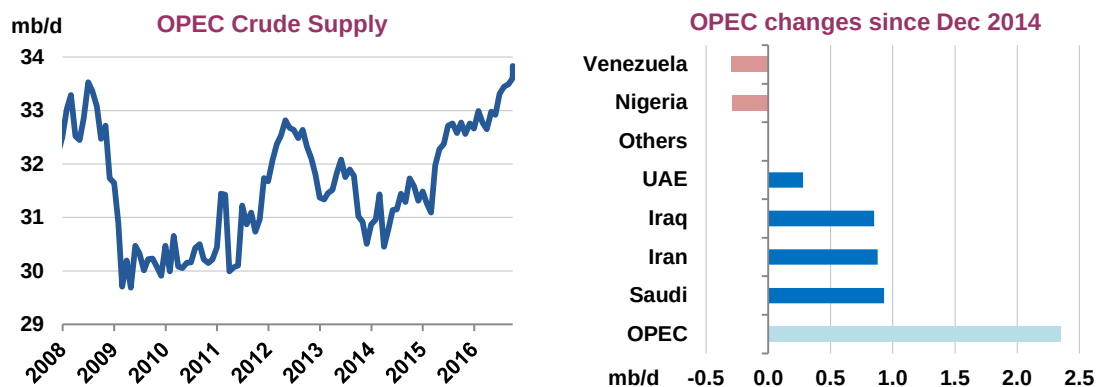


All world oil supply data for October discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary October supply data.

OPEC crude oil supply

October proved to be another record-breaking month for OPEC, with crude oil output rising 230 kb/d to 33.83 mb/d. Nigeria turned in the biggest increase after shipments restarted from key export streams that were disrupted by militant attacks. Libyan output continued to bounce back after the reopening of major export terminals. Production from Iraq, including the Kurdistan Regional Government (KRG), climbed to an all-time high as oil fields in both the south and the north pumped harder. Iran sustained pre-sanctions output levels, with sales of crude to world markets surging above 2.4 mb/d - a level not seen for at least seven years. Kuwait nudged production up to an all-time high. Supply edged lower in Saudi Arabia and the UAE, but stayed within sight of record rates. Stronger output from elsewhere in OPEC more than compensated for sharply lower flows from Angola, which carried out oil field maintenance. As of October, overall OPEC output had risen for five straight months, led by major additions in Iraq and Saudi Arabia (supply from each is up about 300 kb/d over the period). In October, OPEC output was nearly 1.3 mb/d above a year ago.

The unprecedented OPEC output comes in the run-up to the group's end-November meeting in Vienna, where ministers will try to enforce a framework agreement to lower output to between 32.5 mb/d and 33 mb/d to speed the market's return to balance. OPEC output in October stood 830 kb/d above the upper range of the supply target, according to IEA estimates, and early indications are that production in November will remain at this elevated level.



In the meantime, OPEC's technical experts, who met on 28 October, are still working on a mechanism to allocate individual supply targets. Iran, released from international sanctions early this year, has been reluctant to take part in any deal that would limit its production. Iraq agrees in principle with the OPEC reduction, but has disputed the accuracy of the data that would be used to set the output limits. Baghdad has claimed that secondary sources used by OPEC, which include the IEA, underestimate its production.

Since adopting its market defence strategy at the end of 2014, output from Saudi Arabia, Iraq and Iran – OPEC's three largest producers – has soared by 2.7 mb/d. Supply from Saudi Arabia has risen by 930 kb/d, while Iran has increased by 880 kb/d and Iraq has added 850 kb/d. A substantial chunk of the additional oil has been delivered into storage tanks in energy-hungry China and India, but refiners in Europe are also lapping up more sour crude.

While the relatively low-cost fields of the Middle East have ramped up to levels never seen before, producers outside the region – and in the grip of domestic turmoil – are struggling to arrest declines. Venezuela and Nigeria have each lost around 300 kb/d over the past two years.

OPEC Crude Production

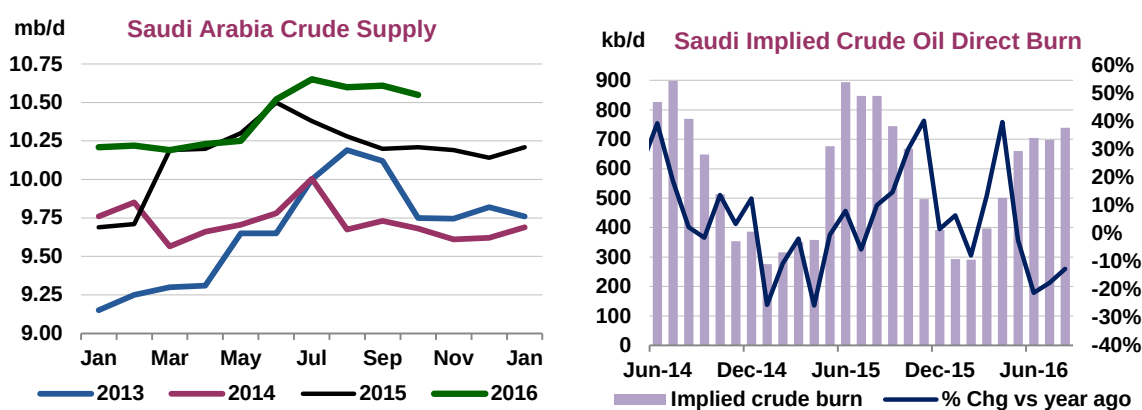
(million barrels per day)

	Aug 2016 Supply	Sep 2016 Supply	Oct 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity vs Oct 2016 Supply	YTD Average Supply
Algeria	1.12	1.12	1.12	1.12	0.00	1.11
Angola	1.76	1.69	1.52	1.78	0.26	1.73
Ecuador	0.55	0.56	0.56	0.56	0.00	0.55
Gabon	0.21	0.21	0.20	0.22	0.02	0.22
Indonesia	0.74	0.74	0.74	0.74	0.00	0.73
Iran	3.67	3.68	3.72	3.75	0.03	3.49
Iraq	4.40	4.49	4.59	4.60	0.01	4.37
Kuwait ²	2.91	2.90	2.93	2.93	0.00	2.86
Libya	0.28	0.36	0.51	0.60	0.09	0.35
Nigeria	1.37	1.39	1.57	1.70	0.13	1.53
Qatar	0.65	0.62	0.62	0.67	0.05	0.65
Saudi Arabia ²	10.60	10.61	10.55	12.20	1.65	10.40
UAE	3.09	3.10	3.08	3.10	0.02	2.99
Venezuela	2.14	2.13	2.12	2.20	0.08	2.23
Total OPEC	33.49	33.60	33.83	36.17	2.34	33.20
<i>(excluding Iraq, Nigeria, Libya)</i>					2.11	

1 Capacity levels can be reached within 90 days and sustained for an extended period.

2 Includes half of Neutral Zone production.

Since March 2015, the oil fields of **Saudi Arabia** have sustained a pumping rate well above 10 mb/d. Crude oil supply dipped 60 kb/d in October to 10.55 mb/d, but remained near historically high levels. Domestic consumption fell, with power plants requiring less crude following strong demand in the summer when air conditioning use peaks. This year, however, the requirement has eased due to energy efficiency measures as well as the ramp up of the giant Wasit gas plant. From May to August an average 120 kb/d less crude oil was burned versus the same period a year ago, according to the latest official data from the Joint Organisations Data Initiative (JODI).



Oil sales to world markets rose in October, according to preliminary tanker tracking data, with refinery maintenance in the Kingdom freeing up extra volume for export. Saudi Aramco's exports have - in any case - trended higher under OPEC's market defence policy. The latest JODI data show shipments of crude from January through August at an average 7.5 mb/d, up nearly 130 kb/d on the same period in 2015.

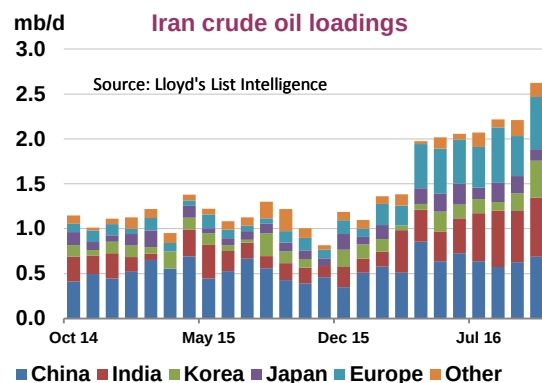
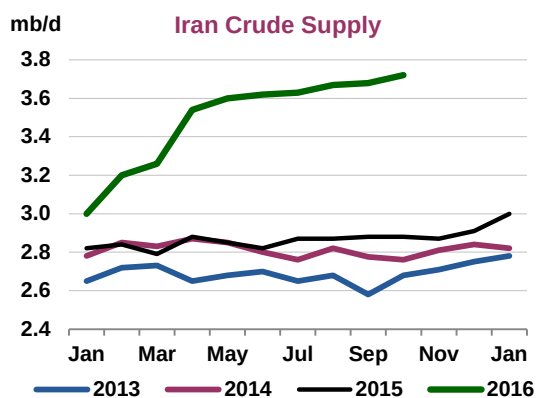
Saudi Energy Minister Khalid al-Falih said in October that market forces were "clearly working", but needed to be fine-tuned to hasten the return to balance. That point could be reached in the first half of next year, according to Saudi Aramco CEO Amin Nasser, who expects demand to remain robust and the price of oil to recover. "The gap between supply and demand is closing ... Our anticipation now is that it

will be balanced by the first half of 2017," Nasser was quoted as saying at a conference in early November. "That will see an adjustment upwards in terms of prices."

Neighbouring Gulf countries **Kuwait** and the **UAE** sustained elevated rates during October. Kuwaiti production rose by 30 kb/d to 2.93 mb/d, an historic high. Supply from the UAE eased a touch to 3.08 mb/d. Even in the lower oil price environment, the UAE is pushing ahead with capacity expansion plans. The country's Supreme Petroleum Council has approved the five-year business plan and operational budget of the Abu Dhabi National Oil Co (Adnoc), which commits it to build capacity to an official 3.5 mb/d by 2018. Production in **Qatar** remained at a suppressed 620 kb/d due to scheduled maintenance at al-Shaheen, the country's largest offshore oil field.

With gains of 810 kb/d so far this year, **Iran** has emerged as the world's fastest source of supply growth. Crude oil output rose by 40 kb/d in October to reach a pre-sanctions rate of 3.72 mb/d and shipments of crude oil climbed well above 2.4 mb/d, a rate not seen in at least seven years.

For six straight months, the National Iranian Oil Co (NIOC) has been exporting more than 2 mb/d of crude – double the volume seen under sanctions. NIOC reclaimed its European market share in August and shipments to Europe in October held close to the pre-sanctions level of 600 kb/d. New customers are signing up for Iranian crude, with Hungary agreeing to buy 1 million barrels via Croatia. Regular buyers include Total, BP, Repsol, Hellenic, Lukoil and Tupras.



As for Asia, exports to South Korea soared to 410 kb/d in October from just under 200 kb/d in September. Purchases from China, Iran's biggest customer, rose to 690 kb/d in October from 625 kb/d the previous month. Loadings to India climbed to 660 kb/d from 570 kb/d as the country filled its strategic reserves. Japan lifted fewer barrels in October, down 65 kb/d from September's 195 kb/d. Shipments of ultra-light oil from Iran's South Pars gas project declined to 130 kb/d from 220 kb/d during September, although preliminary figures are subject to revision. Volumes of condensate stored at sea declined by 4 million barrels in October to 36 million barrels.

On the upstream front, Total has struck a preliminary agreement with Iran to develop phase 11 of South Pars, one of the world's largest gas fields. Total – the first Western oil firm to reach a deal with Iran since sanctions were eased – plans to invest an initial \$1 billion in the offshore project. It previously developed South Pars Phases 2 and 3. In South Pars 11, Total would hold a 50.1% stake and operate the project. CNPC would hold a 30% stake and Petropars, a unit of NIOC, would have a 19.9% share.

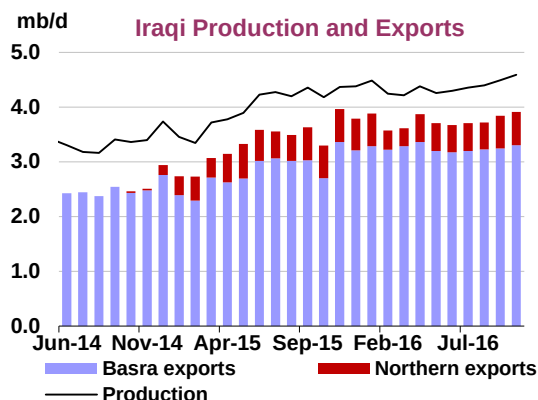
Iran has also invited international oil companies (IOCs) to bid for the 60 kb/d South Azadegan oil field that straddles the border with Iraq's Majnoon. Bids are due in by 17 November, with the winner to be announced in December, according to NIOC Managing Director Ali Kardor. Iran plans to offer at least 10 projects in the coming months, and to speed the process, some of them will be negotiated directly

with companies – such as Total, Sinopec and Lukoil – that have already signed memorandums of understanding with NIOC.

Iraq turned in another record-breaking month in October, with production rising by 100 kb/d to 4.59 mb/d. Lower oil prices are offering Iraq, fighting a costly battle against the Islamic State of Iraq and the Levant, every incentive to ramp up output to generate more revenue. Baghdad's draft 2017 budget forecast is based on production of roughly 4.5 mb/d.

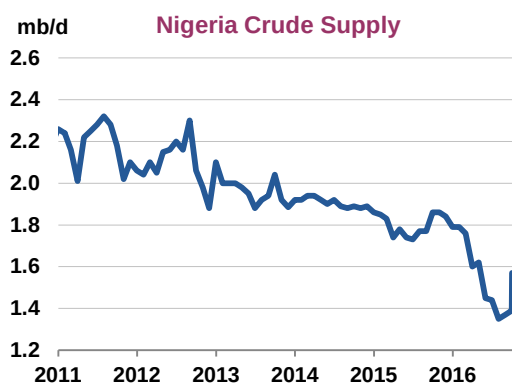
During October, the taps were opened at oil fields in the south and north, which pushed exports to 3.9 mb/d. Shipments of Basra crude rose by roughly 60 kb/d in October to just above 3.3 mb/d. Northern exports held steady at around 610 kb/d due to a technical disruption in deliveries at the start of October. Deliveries along the northern KRG pipeline to Turkey could climb towards 675 kb/d in November, provided there are no interruptions in flows.

Iraq is meanwhile taking steps to bolster its production capacity by offering a dozen small and mid-sized oil fields in its first upstream opening since 2012. The ministry of oil has pre-qualified 19 companies for the round including Rosneft, Inpex, Glencore and Mubadala and Crescent of the UAE. It has set a 30 November deadline for other oil companies to apply to be qualified. Awards will be made via direct negotiation.



It will take several years for most of the 12 fields, located in southern and central Iraq, to start pumping. The projects are being offered on terms more akin to a production-sharing contract. Under service contracts awarded to international oil companies (IOCs) since 2009, the ministry of oil repays contractors a fixed fee for every barrel of oil produced. When oil was in triple digits, the contract worked well, but now Baghdad is paying out the same remuneration from oil revenue that has been dramatically reduced. Foreign firms typically receive payment in crude that equates to the value of cash owed.

Output in **Nigeria** surged to 1.57 mb/d, up 180 kb/d from September, after shipments resumed from the key export streams of Qua Iboe and Forcados. The higher flows follow a ceasefire by militants in the restive Niger Delta, home to most of the country's oil. The recovery is proving fragile, however, after a militant attack forced the closure of the 200 kb/d Trans-Forcados pipeline in early November. The attack took place a day after leaders from the Niger Delta asked President Muhammadu Buhari to pull the army out of the region and spend more to end the spiralling violence.



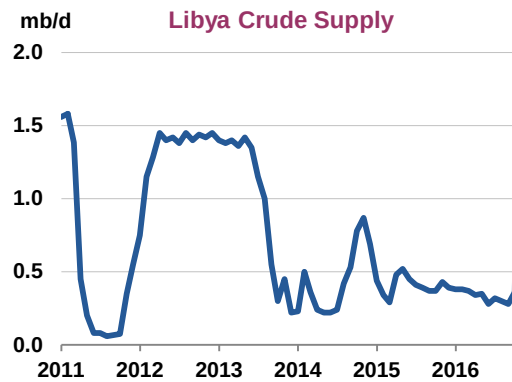
Repeated sabotage of Nigeria's oil sector since February had cut output to 30-year lows, with four major export streams under *force majeure*. In a bid to regain its market share, the Nigerian National Petroleum Corp (NNPC) cut the price for all of its November crude exports.

Libya's rebound continued into October, with production rising by 150 kb/d to 510 kb/d after the eastern Waha oil fields restarted and exports ramped up at reopened ports. November could see higher levels still. Supply had already risen to just shy of 600 kb/d by early November and National Oil Corp (NOC)

Chairman Mustafa Sanalla said exports of Libya's benchmark Es Sider grade were about to restart. Loadings are due to take place at Ras Lanuf rather than the Es Sider terminal, which is being repaired after militant attacks at the start of the year. Ras Lanuf and Es Sider were shut since December 2014 until this July by the Petroleum Facilities Guard due to a dispute over payments.

Sanalla said production could reach 800 kb/d next year if the major southwestern oil fields of El Sharara and El Feel, which before the shutdowns had the capacity to produce 450 kb/d between them, can start to pump again. Two

years of conflict and oil sector attacks have led to the repeated shutdown and restart of terminals and oil fields. As a result, Libya is producing only a fraction of the 1.6 mb/d seen before the fall of the Gaddafi regime.



Angolan production fell 170 kb/d to 1.52 mb/d due to scheduled maintenance at the Dalia oil field. Some of the loss from the 200 kb/d field was offset by higher production from the offshore Plutonio field, which was overhauled in September. China is meanwhile snapping up Angolan crude. Exports of just over 1 mb/d in September pushed Angola to the top of the supplier list and China's strong buying has continued since then. Output in **Gabon** dipped to 200 kb/d due to an oil workers' strike that reduced supplies during part of October. **Algerian** production held steady at 1.12 mb/d, reinforced by a stronger performance by the El Merk and Ourhoud fields. Production from **Indonesia** and **Ecuador** was similarly steady at 740 kb/d and 560 kb/d, respectively.

Venezuelan production eased to 2.12 mb/d - 260 kb/d below a year ago as the country's severe economic crisis takes a toll on output. In a bid to stem the decline, Petroleos de Venezuela (PDVSA) has signed financing deals worth nearly \$1.45 billion with India's ONGC Videsh and a local firm. ONGC will provide \$318 million to boost output at the San Cristobal field from 20 kb/d to 40 kb/d. DP Delta Finance will offer \$1.13 billion in financing to raise supply at the Petrodelta joint venture from 40 kb/d to 110 kb/d over the next five years.

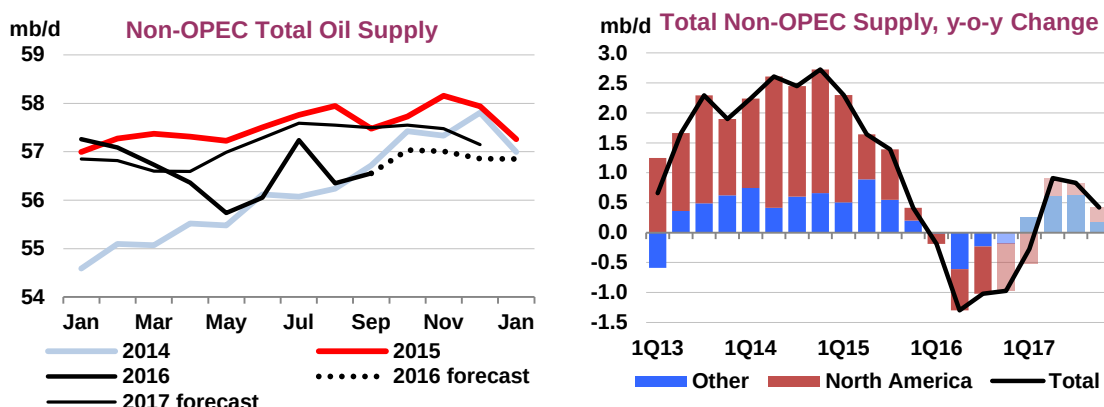
Non-OPEC overview

Non-OPEC oil production rose by nearly 0.5 mb/d in October, after extensive maintenance and unscheduled outages had curbed output a month earlier and as new fields started up. Indeed, non-OPEC production estimates for September came in slightly lower than expected, due to sharp curtailments in North Sea output. October supply was boosted as the giant Kashagan field in Kazakhstan ramped up after finally seeing first oil in September while Azeri production recovered from maintenance. Loading schedules suggest North Sea production also rebounded, while Russian producers recorded yet another record high. The continued ramp-up in Russian production in October and the launch of several new fields has led us to raise our forecast for Russian supplies through 2017, lifting expected non-OPEC supply growth to 0.5 mb/d. Non-OPEC production is still on track to decline by 0.9 mb/d in 2016.

In addition to Russia, 2017 non-OPEC supply growth will come from Brazil, Canada and Kazakhstan. Brazilian output has increased by 300 kb/d over the twelve-month period through September as a number of new production systems were installed in the pre-salt area. As these, and new units due on line continue to ramp up output, Brazil is expected to see growth of 280 kb/d next year, compared with only 90 kb/d in 2016 – when output was curtailed due to heavy outages early in the year.

Canada is also expected to see sharply higher output in 2017, albeit from a low 2016 base due to the extensive Albertan wildfires earlier this year. Gains will also come from expansion of existing plants, the

ramping up of projects already completed and the launch of new projects such as Suncor's Fort Hills and Hebron, which are nearing completion. After stalling in 2016, total Canadian oil production is forecast to grow by 225 kb/d next year.



In the US, meanwhile, activity continues to pick up – at least in the prolific Permian basin in West Texas. In October, 14 out of the total 25 oil rigs brought back to service were added in the Permian while initial production rates continue to outperform expectations. Other shale plays such as the Bakken and Eagle Ford are not seeing as much enthusiasm and we maintain our view that US crude supply will likely decline modestly in 2017 – offset by higher NGL production. In all, US total liquids output, excluding biofuels, is forecast to decline by 465 kb/d in 2016, to 12.5 mb/d, and stay at roughly this level in 2017.

Non-OPEC Supply

(million barrels per day)

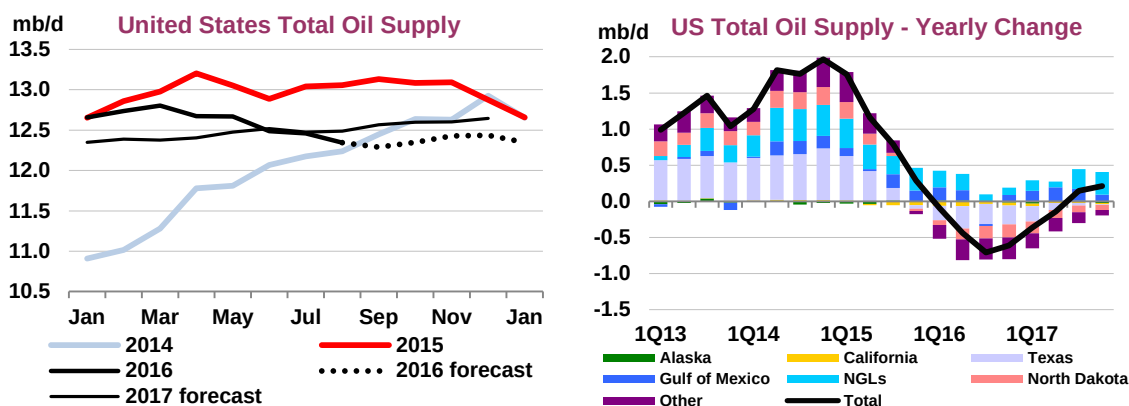
	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	20.0	19.9	19.0	19.3	19.3	19.4	19.4	19.3	19.5	19.6	19.4
Europe	3.5	3.6	3.4	3.3	3.4	3.4	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4
Total OECD	23.9	24.0	22.8	23.1	23.1	23.2	23.3	23.1	23.3	23.4	23.3
Former USSR	14.0	14.2	14.0	14.0	14.5	14.2	14.5	14.4	14.4	14.6	14.5
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.1	3.9	3.9	4.0	3.9	3.9	3.8	3.8	3.9
Other Asia	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6
Latin America	4.6	4.4	4.4	4.6	4.6	4.5	4.7	4.7	4.7	4.7	4.7
Middle East	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3
Africa	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	29.1	28.9	28.5	28.6	29.2	28.8	29.2	29.1	29.1	29.2	29.1
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.6	57.0	56.0	56.7	57.0	56.7	56.8	57.0	57.5	57.4	57.2
Annual Chg (mb/d)	1.4	-0.2	-1.3	-1.0	-1.0	-0.9	-0.3	0.9	0.8	0.4	0.5
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.0	0.2	0.2	0.1

OECD

North America

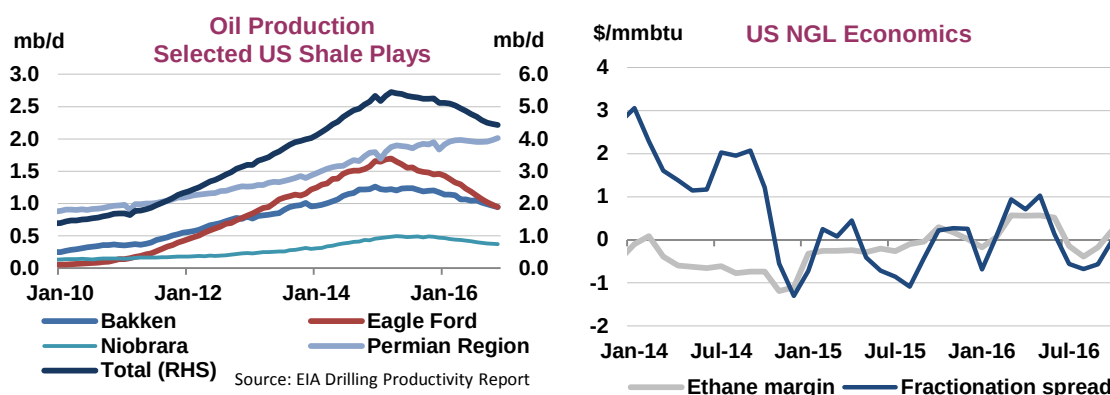
US – August September actual, others estimated: US crude oil production defied earlier expectations, rising by 50 kb/d in August, to 8.74 mb/d, on higher output in the Gulf of Mexico (GoM). Despite posting its first monthly increase since March, US crude production remained 640 kb/d lower than the year earlier. Moreover, a 175 kb/d decline in NGL production lowered total US liquids (excluding biofuels) 115 kb/d m-o-m to 12.3 mb/d – 710 kb/d below a year ago.

GoM output increased by nearly 90 kb/d in August, after outages had curbed production a month earlier. Also, Noble's 20 kb/d Gunflint project produced first oil towards the end of July. In late August and early September, however, several platforms again shut due to the passing of tropical storm Hermine. In addition to unplanned outages, scheduled maintenance further reduced GoM production in the August to October period, with the most notable being BP's 110 kb/d Atlantis field which went offline in mid-September for 35 days. In September, Shell's 50 kb/d Stones project produced first oil. The project is expected to ramp up to capacity by end-2017.



Alaska was the only other oil-producing region recording any significant increase in August, rising 20 kb/d to 460 kb/d. Lower-48 onshore crude supply saw continued declines, dropping nearly 60 kb/d from July. Output in North Dakota and the Bakken tight oil play fell by more than 50 kb/d, to 975 kb/d. North Dakota's Department of Mineral Resources forecasts Bakken production to fall to around 0.9 mb/d in mid-2017.

Output in Texas, the largest state producer, saw only marginal drops on the back of good performance in the Permian basin. The Permian has benefited from better well performance than the other plays and from the presence of large companies with substantial hedging programmes, having an easier time getting up funding. US producers added another 25 rigs during October, to have 450 active oil rigs operating in early November. Out of the 134 rigs added since its low point in May, 60% have been put to work in the Permian. EIA's Drilling Productivity Report estimates that oil production in the Permian basin turned a corner in September, again posting month-on-month growth. The gains in the Permian were not enough to offset declines in the Bakken and Eagle Ford, however, and total US LTO output is expected to decline by around 0.2 mb/d in 2017, after dropping by around 0.5 mb/d in 2016.



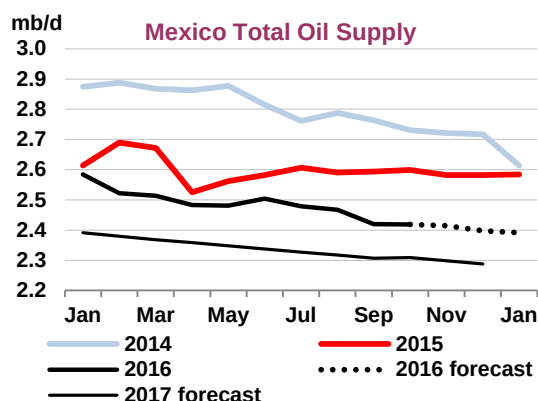
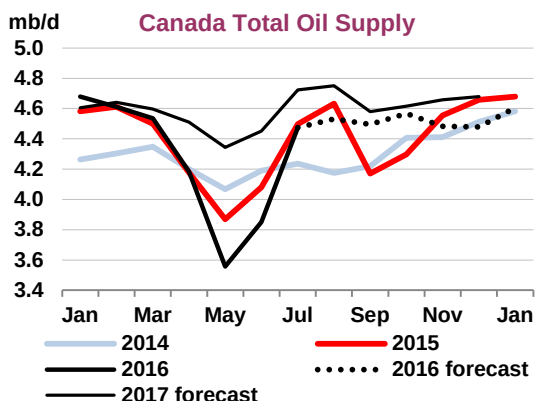
Natural gas liquids (NGL) production dropped more sharply than expected in August, posting its first annual decline since January 2013 – and compared with average annual gains of 230 kb/d over 1H2016. US natural gas production has fallen quite sharply since the start of this year, and increased demand has

helped push prices higher. The drop in NGLs output stemmed mostly from lower ethane production, however, with ethane fractionation spreads – defined as the difference between ethane and natural gas prices - turning negative over August and September. NGL economics improved in October after exports from Morgan's Point got under way. Enterprise Products Partners LP shipped the first cargo of ethane from the new terminal in Texas in early September. The tanker was loaded with some 265 kb of ethane for exports to the Ineos facility at Rafnes in Norway.

The estimate for total US production in both 2016 and 2017 is largely unchanged since last month's *Report* at around 12.5 mb/d for both years and 465 kb/d below the 2015 average.

Canada – Newfoundland September, Alberta - August actual: Canadian total oil production continues to recover, with output in July at 4.5 mb/d nearly 1 mb/d higher than May's fire-affected low. Production inched up a further 60 kb/d in August, to 4.53 mb/d, as the country's bitumen upgraders increased output by another 160 kb/d to 1.06 mb/d.

Canadian Natural Resources has completed the Phase 2B expansion of its Horizon oil sands project. Phase 2B will add 45 kb/d of synthetic crude capacity with full ramp-up targeted for November 2016. Cenovus Energy's Christina Lake Phase F is expected to start up later this year. In 2017, growth will come from Suncor's Fort Hills oil sands and its Hebron offshore projects, both nearing completion. The estimate for total Canadian oil supply for 2016 has been slightly lifted since last month's *Report* to average 4.4 mb/d. Growth of 225 kb/d is forecast for 2017.



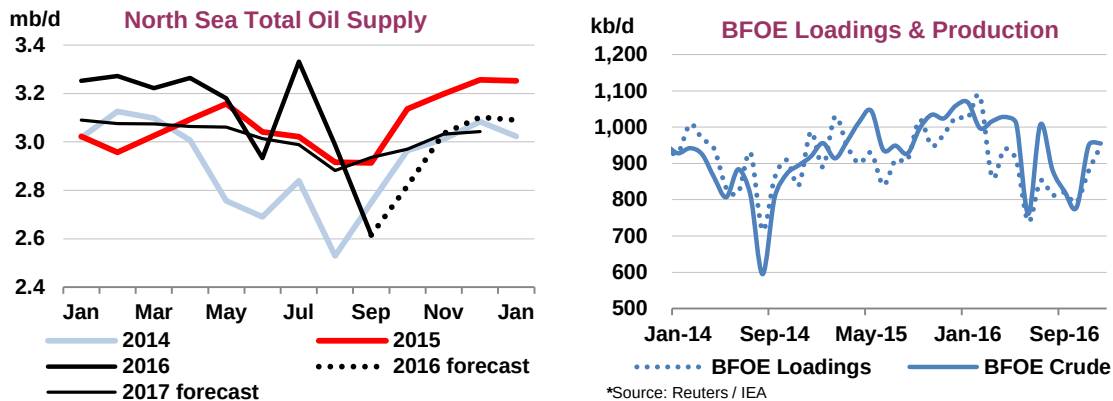
Mexico - September actual, October provisional: Mexican total oil output was unchanged in October from a month earlier at around 2.4 mb/d. Crude oil production was 2.1 mb/d, 10 kb/d lower than September and nearly 180 kb/d less than a year earlier.

Mexican state oil company Pemex presented a new business plan for 2016-20 in early October, announcing plans to seek new partnerships to develop onshore and offshore deposits. The company said it will produce an average of 1.9 mb/d of crude oil in 2017, down from 2.1 mb/d this year and well below a peak of 3.4 mb/d in 2004. The new business plan also outlined some of Pemex's other expectations for the coming years. It said the firm will look for tie-ups in the offshore Ayatsil-Tekel-Utsil project and the onshore Chicontepec field, as well as in seven other onshore areas next year. Pemex also wants to seek partners to develop six shallow-water areas in the north of the Gulf of Mexico in 2018, and aims to form partnerships to improve operations, or even reconfigure their Tula, Salamanca and Salina Cruz refineries in 2017-18.

North Sea

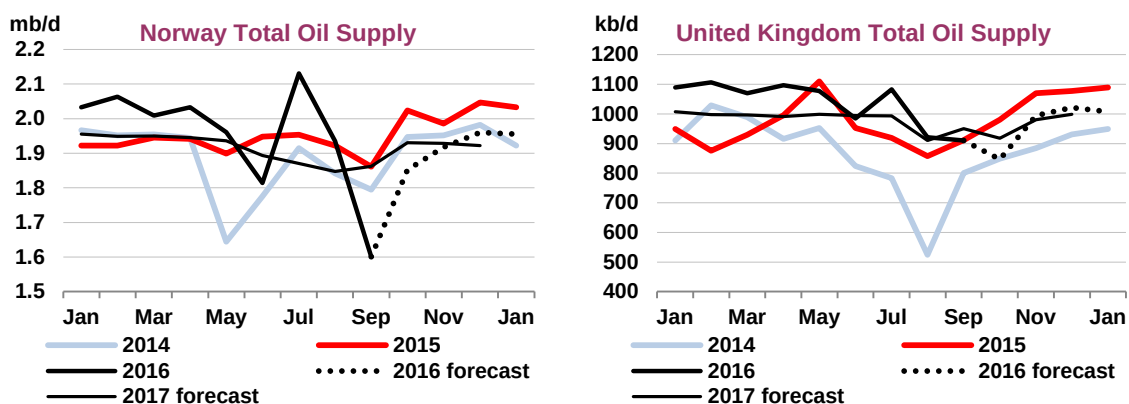
North Sea oil supplies plunged to a near two-year low in September, as planned and unplanned outages curbed output by nearly 700 kb/d from July's high. At just 2.6 mb/d in September, total North Sea liquids

were 300 kb/d below a year earlier, its steepest annual decline in more than three years. Output declines stemmed mostly from Norway, with production in the UK holding roughly steady m-o-m. Loading schedules suggest output rebounded from October and through end-year, with shipments rising in every month from September's low. In December, BFOE loadings are scheduled to reach its highest level since February – at around 950 kb/d.



Norway – August actual, September provisional: Norwegian oil production declined by 335 kb/d in September from a month earlier, extending losses seen in August when output fell by 195 kb/d. At 1.6 mb/d, total oil production was 260 kb/d less than a year earlier, its steepest annual decline since May 2014 and the lowest level since September 2013. Output fell as Eni's Goliat field in the Barents Sea was shut from late August through 27 September and as a number of other fields were offline for maintenance. While loading schedules had not shown a marked decline from August to September, preliminary tanker tracking data suggest Norwegian shipments dropped by 230 kb/d in September, with no shipments from Aasgaard, Draugen, Goliat, Norne and Skarv. Norwegian production is expected to average 1 945 kb/d in 2016, unchanged from last year, before declining 30 kb/d to 1 915 kb/d in 2017.

The Norwegian oil directorate has granted consent for production start-up on the Ivar Aasen field in the North Sea. Operator Aker BP has scheduled start-up for December and the field is expected to produce 16 kb/d in its first phase and 23 kb/d once it is fully operational. On 1 November, Statoil submitted a Plan for Development and Operation of the Trestakk discovery to the Ministry for Petroleum and Energy. The field, which was discovered 30 years ago, holds an estimated 76 million barrels of recoverable oil equivalent, and it will be tied back to the Aasgaard A platform. Cost deflation has cut development expenditure from an original estimate of 10 billion NOK to around 5.5 billion NOK.



UK – August actual, September provisional: Total oil production in the UK dropped 160 kb/d in August, to 920 kb/d, largely in line with expectations. Preliminary data suggest output was roughly unchanged in September, despite the largest field – the 180 kb/d Buzzard – being shut for maintenance from around

mid-month. Buzzard was reported as restarting on 23 October. BP announced its latest investor update that its West Shetlands Schiehallion redevelopment project was 96% complete and the field will come on line in the first half of 2017. Its Clair Ridge project, also west of Shetland, is due on stream towards the end of 2017 or in early 2018. UK production is expected to average 1 015 kb/d in 2016, up nearly 50 kb/d year-on-year, before declining by 40 kb/d in 2017.

Non-OECD

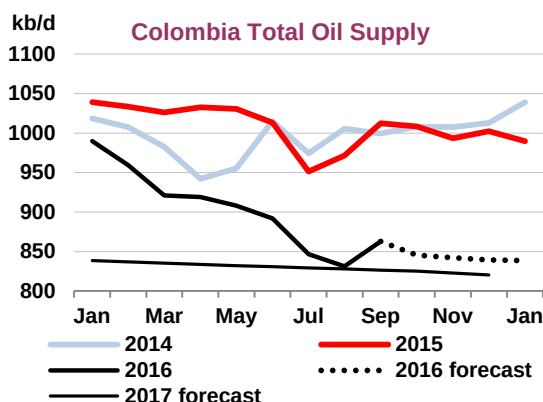
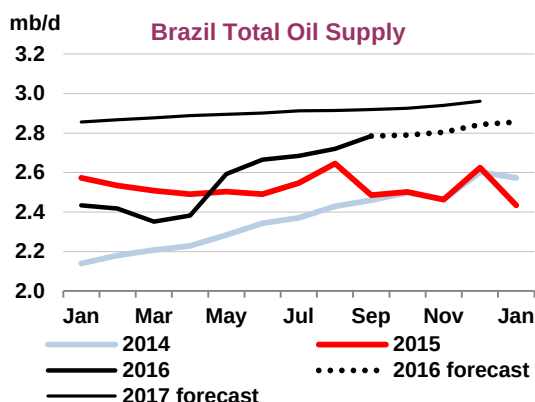
Latin America

Brazil – September actual: Brazilian oil production continued its upward trend into September, rising by 65 kb/d m-o-m to a new record-high of 2.8 mb/d. Total liquids output was a robust 300 kb/d higher than a year earlier, or 12%, driven by new production units in the prolific pre-salt basins. Total pre-salt oil output accounted for 1.175 mb/d of Brazil's total supply in September, or 44%.

Output gains stemmed mostly from increased output from the Lula and Sapinhoa fields in the Santos basin. The two fields alone are producing more than 800 kb/d through eight floating production, storage and offloading vessels (FPSOs), of which five have already reached plateau. Output at Lula is expected to increase further in coming months, as more wells are linked to the field's remaining three FPSOs — Cidade de Itaguaí, Cidade de Marica and Cidade de Saquarema. The Cidade de Caraguatatuba FPSO is due to start production shortly in the Lapa field in the Santos basin.

State-run Petrobras produced 2.242 mb/d in September, or roughly 80% of the national total. Over the first nine months of 2016, the company's output averaged 2.111 mb/d, still slightly below its goal to reach 2.145 mb/d for the year. Petrobras's 2017 production is expected to drop by 3.5% from 2016 due to its continuing divestment program. Subsalt output should increase, however, as the company plans to bring on 39 new production wells in the second half of the year, compared with 25 onstream in the first half of the year.

An early production system at Brazil's 8bn-12bn Libra sub-salt field is expected to start up in mid-2017, around six months behind schedule, Petrobras and project partner Total announced in early October. The consortium is hoping the 50 kb/d FPSO vessel will help it better understand the complex reservoir and lower breakeven costs to \$35/bbl. The unit is 80% complete. Petrobras hopes to install one production system annually at the field for four or five years starting in 2020. Petrobras recently relaunched a tender for the first 180 kb/d production unit, after the domestic oil industry regulator, ANP, agreed to dispense with rigid local content requirements.



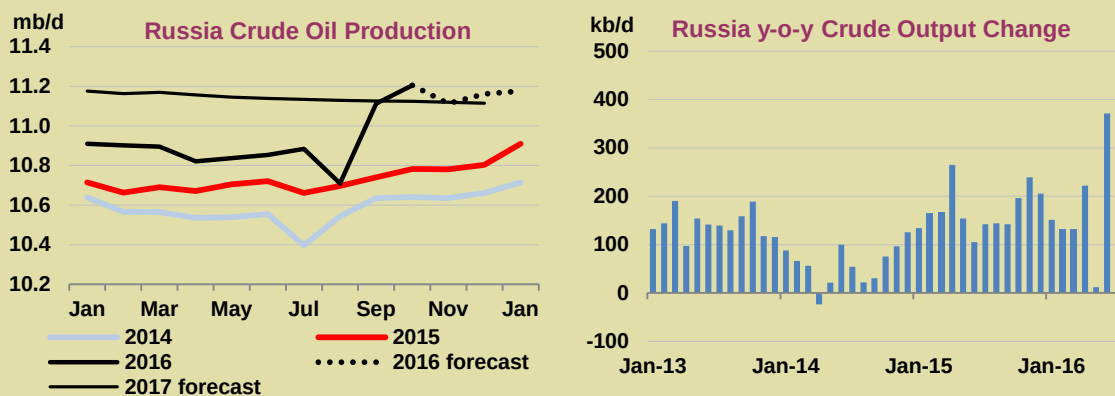
Colombia – September actual: Colombian crude oil production increased by 30 kb/d m-o-m in September according to the latest government data. At 860 kb/d, output was nevertheless 150 kb/d, or 14.8%, lower than a year earlier.

Former Soviet Union

Russia boosts output to new record ahead of OPEC meeting

Russian oil production continued to break new records in October, with gains of 0.5 mb/d notched up over the past two months. The latest increase comes as Russia talks with OPEC about a coordinated freeze or cut in production. Robust investment and drilling rates at mature fields and the start-up of several new projects have the potential to lift output further. As such, we have raised our forecast for Russian oil supply for 2016 and 2017 by 50 kb/d and 190 kb/d, respectively, to more than 11.1 mb/d in 2017.

Russian crude and condensate production already breached 11.2 mb/d in October. Output was 90 kb/d higher than the month prior and an impressive 420 kb/d above a year ago. Ministry data showed the largest increase stemmed from Gazprom Neft, which lifted output by 120 kb/d over the past twelve months to 815 kb/d supported by the launch of its Novy Port project in May and the start-up of Messoyakha in September. Messoyakha, jointly developed by Gazprom Neft and Rosneft, is Russia's northernmost onshore oil field. It is expected to produce 60 kb/d in 2017 and 110 kb/d by 2020. Novy Port is projected to contribute around 50 kb/d this year and 100 kb/d in 2017 before rising to 120 kb/d in 2018.



The start-up of Messoyakha has also helped Rosneft reverse a long trend of declining output – posting annual gains in both of the past two months. Russia's largest oil producer lifted output by 70 kb/d from a year earlier, to 3.87 mb/d – excluding its recently acquired controlling share of Bashneft. Rosneft's output will likely get a further boost as the company ramps up production at its Suzun field, which started test production in September. The field, which is part of the Vankor group of fields in eastern Siberia, is to be officially launched later this year. It should produce 70-80 kb/d in 4Q16 before ramping up towards its 100 kb/d capacity over the next year. Rosneft is also planning to launch Kuyumbinskoe – a joint venture with Gazprom Neft – and its Yurubcheno-Tokhomskoye oilfield in eastern Siberia in 2017. Any material increase from these fields will likely come after 2017 however.

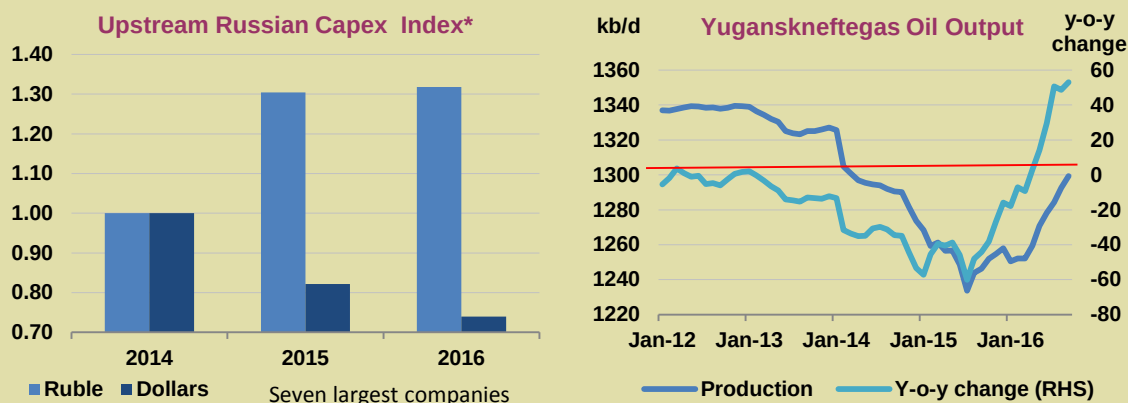
Output from Novatek, the country's second biggest gas producer, was 70 kb/d higher than a year ago in October, at 185 kb/d. Novatek is targeting a 30% rise in oil and gas condensate production this year.

Despite adding some 40 kb/d of production over the September and October period, output at Lukoil – Russia's second largest oil producer – continue to lag year-earlier levels. Last month production stood at 1.77 mb/d, 30 kb/d lower than a year ago. Output should be on an upward trend, however, as the company ramps up output at its Pyakyakhinskoye and Filanovskoye fields, which were both launched at the end of October. According to Lukoil, Filanovskoye was already flowing at 45 kb/d last month as two producer wells had been completed. Filanovskoye is expected to yield 90 kb/d in 2017, rising to 120 kb/d in 2019, while the Arctic Pyakyakhinskoye field will add 30 kb/d. The company hopes the new fields will compensate for an output decline in West Siberia, a trend it is trying to arrest by introducing a major drilling programme.

While recent output gains have been fuelled by new fields, it is clear that increased investments and drilling in mature assets have played an equally important role underpinning Russia's stellar performance. In stark contrast to their international counterparts, Russian companies have maintained or even increased spending over the past two years – capitalising on a weaker ruble. A survey of Russia's seven largest upstream players shows that while upstream capex declined by 18% and 10% in USD terms in 2015 and 2016, respectively, in ruble terms spending rose by 30% in 2015 and was maintained at this level in 2016.

Russia boosts output to new record ahead of OPEC meeting (continued)

With service costs mainly in rubles, companies have been focusing on increasing drilling and raising efficiency through reduced drilling times and increasing the share of horizontal wells which now account for more than 30% of the total. For instance, Rosneft increased its 1H16 development drilling footage by 48% compared to a year earlier, following gains of nearly 40% in 2015. By increasing the amount of development drilling by a reported 67% y-o-y at its Yugansk field, output at the field, which accounts for 31% of the company's total production, returned to growth earlier this year. According to Sberbank Investment Research, total Russian drilling rates increased by 16% year-on-year over the first nine months of the year.



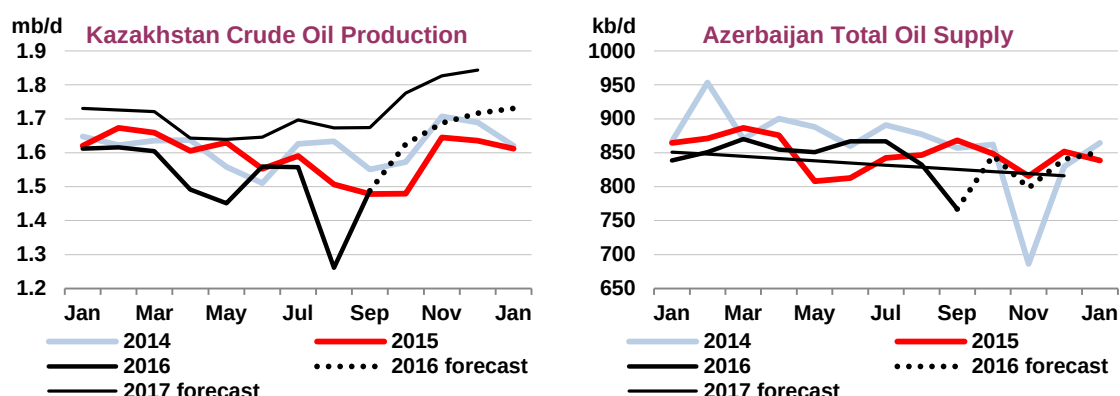
While drilling intensity in West Siberia has been a big factor in Russia's recent supply growth, the potential for further growth is likely limited, at least from an economic perspective. The water cut associated with these wells is quite high and costly to manage. However, if the ruble sees further devaluation and production costs decrease again, more rigs could come to drill infill wells at old fields. Industry sources say there is no shortage of rigs, equipment and personnel that could be added if demand for them is created.

Meanwhile, the recent adoption of the 2017 budget removes a key uncertainty surrounding taxation levels that had been clouding the outlook for the Russian oil sector. The new budget assumes an oil price of \$40/bbl for 2017 with output rising 0.7% from 2016, to 11 mb/d. The overall fiscal pressure on the energy sector was increased for 2017, but no additional taxes were implemented that could potentially restrict production at this stage. While companies will be charged an additional RR 150 billion via an increase in the Mineral Extraction Tax, large exporters, such as Rosneft, will benefit from a reduction in the export tax of 12 percentage points to 30%. Gazprom will face a hike of RR 170 billion via the Mineral Extraction Tax, while consumers will have to absorb an increase in excise duties of RR 190 billion. Greenfields and condensates retain tax breaks and exemptions in the new budget.

Additional ad hoc taxation on the oil sector for 2017 is unlikely given that the government should be able to fill its budget deficit through spending cuts, the privatisation of Rosneft and further bond issues. The government signed a decree in early November to sell a 19.5% stake in Rosneft to be finalised by 5 December. The sale could bring in around 750 billion rubles before the end of the year. Even so, the government is likely to continue drawing down its Reserve Fund. The Fund has already dwindled from \$90 billion to just over \$30 billion in only two years and could run out by the end of 2017 or in 2018. While the government could choose to draw down its Welfare Fund, which still holds some \$70 billion, if the economy has not at least partly recovered by then, or further divestments are proposed, the tax pressure on the oil sector could again increase –limiting the potential growth of Russian oil production further ahead.

Other FSU – September actual: Kazakh crude oil production recovered in September, adding 230 kb/d from a month earlier when the large Tengiz field was undergoing maintenance – to 1.49 mb/d. Indeed, Tengiz produced only 275 kb/d in August – its lowest output since August 2008 – compared with 560 kb/d in the previous month. Output recovered to 515 kb/d in September. The Kashagan field also started up in September, but added only 3 kb/d for the month on average. According to operator Eni, output had ramped up to around 100 kb/d in October. The consortium expects production to rise over coming months to an initial plateau of 180 kb/d before full capacity of 370 kb/d is reached by the end of

2017. Assuming these targets are met, Kazakh crude oil production is forecast to grow by 160 kb/d in 2017 – to 1.7 mb/d, from the 1.55 mb/d average reached in 2016. Preliminary loading schedules show crude shipments through the CPC pipeline rising a further 175 kb/d and 150 kb/d over October and November respectively – to an all-time high of 1 090 kb/d in November.



In Azerbaijan, meanwhile, maintenance at BP's Deepwater Guneshli platform during September curbed crude output by 65 kb/d compared with a month earlier. At 770 kb/d, production was roughly 100 kb/d below a year earlier and at its lowest level since November 2014. BTC loading schedules, which account for most of Azeri crude exports, suggest output increased in October. Output is expected to fall back again in November, when BP's Azeri East production platform, which produced an average 71 kb/d in 1H16, undergoes maintenance.

FSU net oil exports had a strong comeback in September, as Kazakh maintenance came to an end. Overall volumes reached 6.89 mb/d, just shy of previous highs reached in March, with Russia just below the 5 mb/d mark. Preliminary shipping data for October show overall shipments at another historical peak, at 7.1 mb/d, led by Russia posting its highest exports, a whopping 5.2 mb/d, underpinned by record output.

FSU Net Exports of Crude & Petroleum Products

	(million barrels per day)												
	2014	2015	3Q2015	4Q2015	1Q2016	2Q2016	3Q2016	Jul 16	Aug 16	Sep 16	Oct 16 ³	Sep 16 vs Aug 16	Sep 15
Crude													
Black Sea	1.62	1.64	1.59	1.60	1.82	1.60	1.53	1.67	1.25	1.66	1.64	0.40	-0.05
Baltic	1.33	1.45	1.38	1.51	1.54	1.65	1.58	1.55	1.58	1.59	1.85	0.02	0.02
Arctic/FarEast	1.14	1.42	1.42	1.48	1.66	1.83	1.78	1.82	1.48	2.04	2.02	0.55	0.57
BTC	0.60	0.62	0.61	0.61	0.70	0.70	0.66	0.74	0.65	0.59	0.69	-0.06	0.04
Crude Seaborne	4.69	5.13	4.99	5.21	5.71	5.79	5.55	5.79	4.97	5.88	6.20	0.91	0.59
Druzhba Pipeline	1.01	1.07	1.06	1.08	1.04	1.05	1.10	1.09	1.09	1.11	1.11	0.02	0.02
Other Routes	0.40	0.24	0.23	0.21	0.21	0.18	0.19	0.19	0.17	0.22	0.22	0.05	-0.04
Total Crude Exports	6.14	6.43	6.28	6.50	6.96	7.02	6.84	6.81	6.02	6.89	7.21	0.87	0.27
<i>of which: Transneft¹</i>	3.88	4.19	4.08	4.23	4.32	4.44	4.34	4.30	4.17	4.55	4.64	0.38	0.25
<i>of which: Russian cru</i>	4.02	4.42	4.30	4.47	4.57	5.06	4.77	4.97	4.25	5.09	5.14	0.84	0.59
Products													
Fuel oil ²	1.72	1.49	1.31	1.48	1.35	1.33	1.40	1.34	1.42	1.43		0.01	0.05
<i>of which: VGO</i>	0.27	0.25	0.25	0.28	0.22	0.27	0.35	0.34	0.37	0.34		-0.03	0.08
Gasoil	0.95	0.98	0.82	0.84	1.17	0.96	0.87	0.87	0.92	0.83		-0.09	0.02
Other Products	0.57	0.66	0.58	0.66	0.71	0.71	0.72	0.65	0.78	0.73		-0.05	0.15
Total Product	3.25	3.13	2.71	2.97	3.22	3.00	2.99	2.86	3.12	2.98		-0.13	0.22
Total Exports	9.38	9.56	8.98	9.46	10.10	9.82	9.56	9.68	9.14	9.88		0.74	0.49
Imports	0.08	0.07	0.07	0.08	0.05	0.06	0.06	0.06	0.06	0.06		0.00	-0.01
Net Exports	9.30	9.50	8.91	9.38	10.05	9.77	9.50	9.61	9.08	9.82		0.74	0.50

Sources: Argus Media Ltd, IEA estimates, Bloomberg, Lloyd's List Intelligence

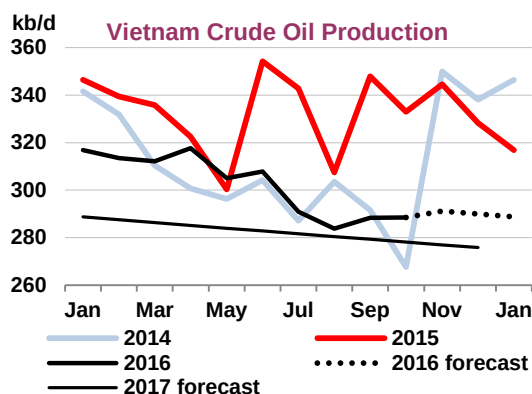
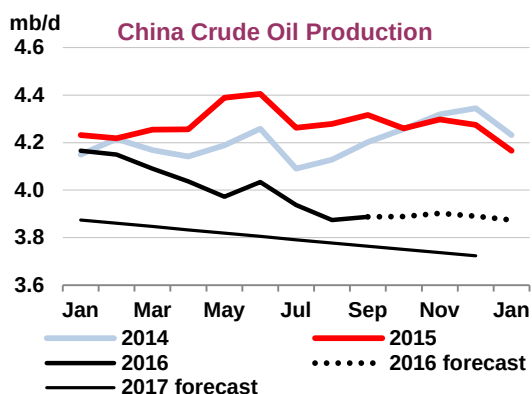
¹Transneft data exclude Russian CPC volumes.

²Includes Vacuum Gas Oil

³Preliminary tanker data and IEA calculations

Asia

China – September actual: Chinese crude oil output averaged 3.9 mb/d in September, a touch higher than a month earlier and in line with our previous expectations. Production was 430 kb/d lower than a year earlier, its steepest annual decline yet. For the year to date, Chinese production has slumped 275 kb/d y-o-y. As discussed in the October OMR, Chinese crude production declines are expected to slow from the steep rates seen over 1H16, with output for full year 2016 forecast to decline by 300 kb/d to just shy of 4.0 mb/d. Crude oil production is expected to decline by a further 190 kb/d in 2017.

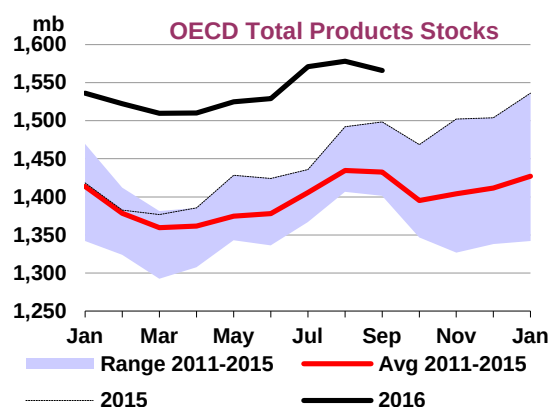
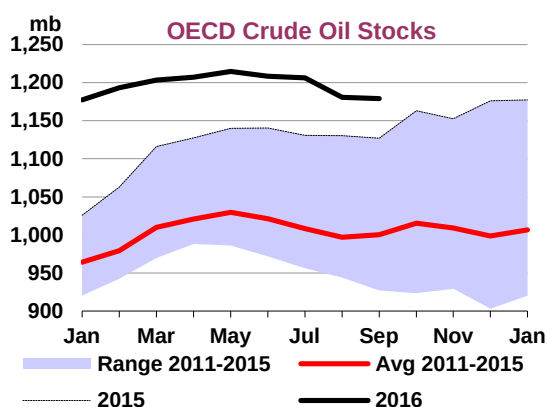


Other Asia: In **Vietnam**, latest government estimates put crude oil production at 290 kb/d in October, down 13% from a year earlier, unchanged from a downwardly revised September number. **Indian** total oil production dropped by 15 kb/d in September, 30 kb/d below a year earlier at 840 kb/d. Crude and condensate production in **Thailand** meanwhile was roughly stable in September at around 250 kb/d, of which 85 kb/d is condensate.

STOCKS

Summary

- **OECD commercial inventories fell for the second month in a row in September**, by 17.1 mb to 3068 mb. Taken together, OECD stocks in August-September fell the most in nearly three years.
- **Falls were concentrated in oil products** in September as the refinery maintenance season was in full swing. Crude stocks fell 1.7 mb because of North America, with gains seen in Asia Pacific and Europe.
- **Chinese crude stocks built by a strong 29.7 mb in September** and 84.4 mb over 3Q16, up by a cumulative 328 mb over the past 12-month period.
- **Preliminary data point to renewed crude stock builds in the US and Japan in October**, while elsewhere refinery maintenance is likely to have capped oil product stock builds. Unless OPEC agrees an output cut at its next meeting, stock builds could continue throughout 2017.



Global Overview

Oil stocks fell across the OECD in September for the second month in a row. Taken together, OECD stocks fell by a combined 34 mb in August-September, the largest two-month fall in nearly three years. In September, the falls were largely concentrated in oil products due to the traditional refinery turnaround season in Europe, Asia and the US. But it is too early to get excited about lower stocks as preliminary data for October point to renewed crude stock builds in the US and Japan, while elsewhere in the northern hemisphere refinery maintenance is likely to have capped oil product stock builds. Global supply and demand fundamentals imply continued stock builds across the oil spectrum and unless OPEC agrees an output cut at its next meeting, the situation is likely to last throughout 2017.

Preliminary Industry Stock Change in September 2016 and Third Quarter 2016

	September 2016 (preliminary)				Third Quarter 2016			
	(million barrels)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	-14.5	1.4	11.4	-1.7	-0.48	0.05	0.38	-0.06
Gasoline	-1.7	-0.5	-0.4	-2.6	-0.06	-0.02	-0.01	-0.09
Middle Distillates	5.4	-6.3	-1.0	-1.9	0.18	-0.21	-0.03	-0.06
Residual Fuel Oil	-1.1	-1.4	-0.7	-3.2	-0.04	-0.05	-0.02	-0.11
Other Products	-0.2	-2.2	-2.0	-4.4	-0.01	-0.07	-0.07	-0.15
Total Products	2.4	-10.5	-4.1	-12.1	0.08	-0.35	-0.14	-0.40
Other Oils ¹	-2.8	0.1	-0.6	-3.3	-0.09	0.00	-0.02	-0.11
Total Oil	-14.8	-9.0	6.7	-17.1	-0.49	-0.30	0.22	-0.57

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

In 3Q16, overall, crude stocks drew by 29 mb across the OECD, whereas oil products built by 36.7 mb. Crude stocks drew more markedly in North America than in other regions, likely as a result of falling production from light tight oil plays, falling imports and robust refinery runs. On the oil products front, Europe is the only region showing falling stocks in 3Q16 as refiners reduced production due to lower margins. Outside the OECD, Chinese crude stocks built by a strong 29.7 mb in September and 84.4 mb over 3Q16. Overall, they were up by a cumulative 328 mb over the past 12-month period, implying that large volumes of crude have been added to newly completed strategic petroleum reserve sites. For October, early indications point to a smaller build in Chinese crude stocks than in September.

OECD stock position at end-September and revisions to preliminary data

OECD inventories defied seasonal trends and drew by 17.1 mb in September to end the month at 3068 mb, their lowest level in three months. Stocks had fallen in August because of crude, but in September product draws played a more significant part with seasonal refinery turnarounds in full swing. Oil product stocks were down 12.1 mb across the OECD to end the month at 1 566 mb, with lower figures in Europe and Asia Pacific, and despite gains in North America. Gasoline (-2.6 mb), middle distillates (-1.9 mb), fuel oil (-3.2 mb) and 'other products' (-4.4 mb) all drew on the month.

Crude stockpiles, for their part, fell 1.7 mb across the OECD in September to 1 179 mb, with falls in North America and gains in Asia Pacific and Europe. In October, preliminary data point to a different trend with rising crude stockpiles in North America and Asia Pacific, and stable stocks in Europe. Oil product stocks were likely still capped by refinery turnarounds in the northern hemisphere in October.

Revisions versus October 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16	Jul-16	Aug-16
Crude Oil	-0.6	2.4	-0.4	-7.0	0.2	5.3	-0.8	0.7
Gasoline	0.1	-1.5	0.0	-2.1	0.0	-0.9	0.0	-4.5
Middle Distillates	0.0	-0.4	0.0	0.9	0.1	0.6	0.1	1.1
Residual Fuel Oil	-0.1	0.8	0.0	-1.1	0.1	-0.2	0.0	-0.5
Other Products	0.1	-4.9	0.0	-3.5	-0.1	0.7	-0.1	-7.6
Total Products	0.1	-6.1	-0.1	-5.8	0.0	0.2	0.1	-11.6
Other Oils ¹	0.4	3.4	-0.1	0.2	0.0	-0.2	0.3	3.4
Total Oil	-0.1	-0.3	-0.6	-12.6	0.2	5.4	-0.4	-7.5

1. Other oils includes NGLs, feedstocks and other hydrocarbons.

On the receipt of more complete data, OECD inventories were revised down by 7.5 mb in August. Oil product stocks were lowered by 11.6 mb, stocks of natural gas liquids, feedstocks and other hydrocarbons were raised by 3.4 mb and crude was higher by 0.7 mb. There was also a small downward adjustment for total OECD stocks in the month of July of 0.4 mb.

Preliminary data point to OECD commercial inventories drawing by a further 8.2 mb in October, with builds in crude (+20.9 mb) in the US and Japan not sufficient to offset draws in oil products (-31.7 mb) as the refinery maintenance season continued.

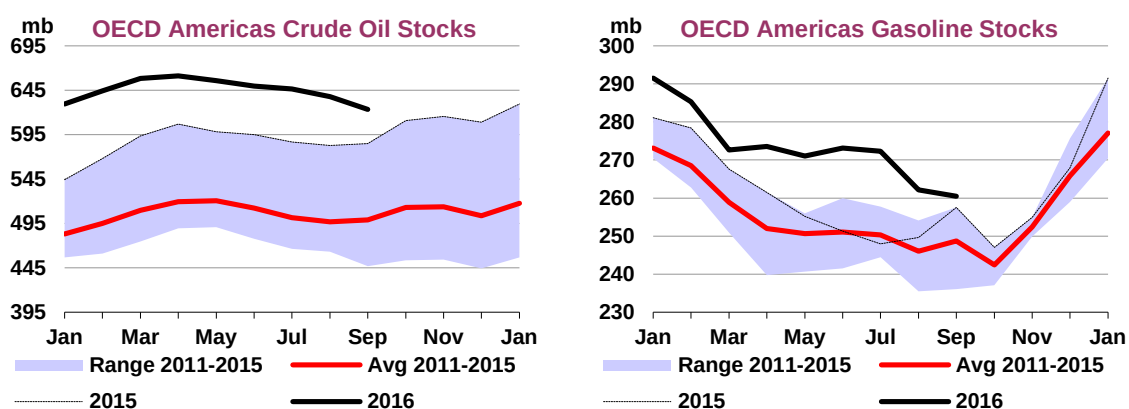
Recent OECD industry stock changes

OECD Americas

Commercial holdings in the OECD Americas drew counter-seasonally in September by 14.8 mb to 1619 mb, largely driven by crude oil and gasoline. Crude stocks fell 14.5 mb on the month to reach 623 mb by end-September, a three-month low, as crude imports into the US fell. The drop was offset by higher imports in October in tandem with a rising WTI-Brent spread.

Gasoline stocks also fell and were 260 mb at end-September, their lowest since November 2015. This reflected continued high demand in the US, lower production by refiners – partly linked to maintenance and diesel fuel prioritisation – and robust exports to Mexico and other countries in Latin America. Stocks of middle distillates rose, by 5.4 mb on the month to 239 mb, while stocks of ‘other products’ (largely US propane) drew for the first time in eight months to reach 258 mb by end-month. All told, oil products added 2.4 mb in September, in line with the average build for the month to cover 32.7 days of forward demand, a fresh record high.

Preliminary weekly data from the *US Energy Information Administration (EIA)* suggest that the crude draws seen in the US in September were offset by rising volumes in October. Crude stockpiles stood at 484 mb by end-October, up 14.5 mb month-on-month and back to their end-August level. The build came on the back of planned seasonal maintenance at US refineries and rising imports of crudes from the Atlantic Basin – West Africa, Mediterranean basin and North Sea – due to favourable economics. The WTI-Brent spread narrowed from mid-September onwards, incentivising traders to direct cargoes to US shores. Given the relatively short shipping time to the US, this helps explain the build.



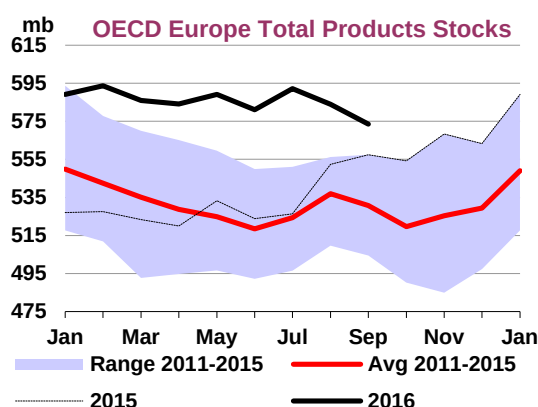
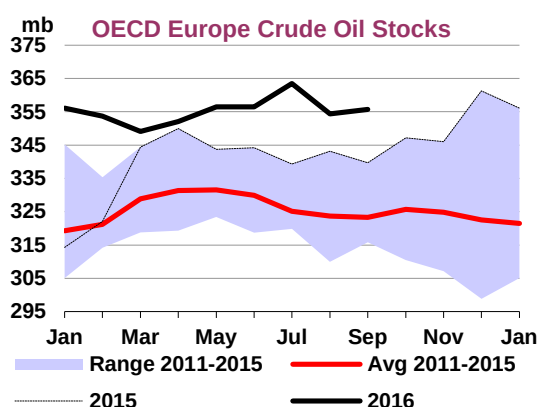
US oil product stocks fell overall in October, with continued declines in gasoline (down 4.8 mb) and a large month-on-month draw in middle distillates (down 11 mb). While for gasoline, exports to Latin America appeared to be the main reason, falling middle distillate stocks were largely down to lower production from refineries. The Colonial Pipeline System closed partially between 31 October and 6 November following an explosion and fire in Alabama, reducing the gasoline flow from Texas to the US Northeast. A large expected flow of gasoline cargoes from Europe to the US Northeast could help rebuild US East Coast gasoline stocks in the second half of November, once cargoes make it onshore.

OECD Europe

European industry inventories fell below the symbolic 1 000 mb level in September for the first time since December 2015 with lower output from refiners both on a month-on-month (m-o-m) and year-on-year (y-o-y) basis. Total oil stocks stood at 999 mb by end-month, down by a steeper-than-seasonal 9 mb on the month. Crude stockpiles rose by 1.4 mb to stand at 356 mb, with gains in France, Germany and the Netherlands, but draws in Italy and the UK.

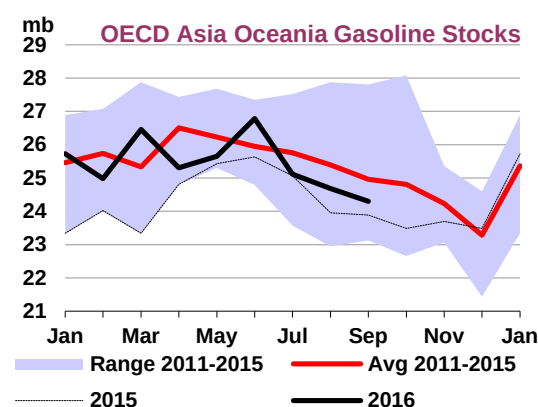
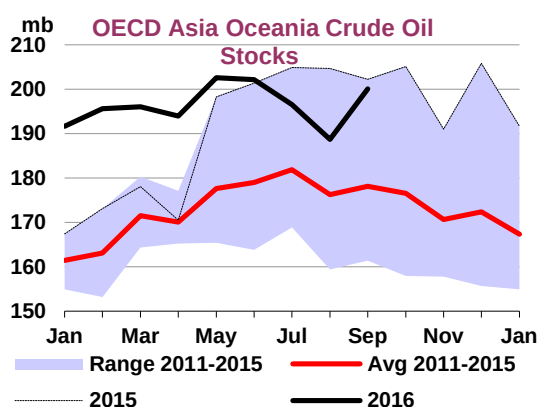
On the product side, middle distillate stocks saw the largest fall and were down 6.3 mb m-o-m to 316 mb by end-September, as European refiners entered the seasonal maintenance period and with lower imports from the US and Russia. Despite the fall, European middle distillate stocks covered a comfortable 41.7 days of forward demand at the end of the month, close to a historical high. Stocks of fuel oil (down 1.4 mb), gasoline (down 0.5 mb) and ‘other products’ (largely naphtha and LPG) also fell in September. European product stockpiles have followed a downward trend since the start of the year, a fact that is mainly attributable to lower runs at refineries.

Reports concerning refined products held in independent storage in Northwest Europe suggest that oil product stocks drew further in October, except for gasoline. Naphtha and fuel oil fell with refinery maintenance and planned cargo exports to Asia, while for diesel and jet fuel lower arrivals from Russia, the US and the Middle East were to blame. Gasoline stocks rose sharply in early November, but are likely to draw later in the month with a wave of cargo exports planned for the US East Coast following a six-day partial shutdown of the Colonial Pipeline System. Preliminary October data from Euroilstock for 16 European countries showed stable crude stocks, rising stockpiles of gasoline (+1.7 mb) and middle distillates (+2.5 mb) and falling fuel oil inventories (-1.4 mb).



OECD Asia Oceania

Unlike in North America and Europe, industry stocks in OECD Asia Oceania rose in September, by 6.7 mb to 450 mb. As a number of regional refiners undertook seasonal turnarounds and with imports of crude oil continuing unabated, crude stocks built by a steeper-than-usual 11.4 mb month-on-month. The build was largely driven by South Korea (+8.6 mb), with Japan (+2.8 mb) following. It put a stop to three consecutive months of falling crude stockpiles in the region. Oil product stocks, meanwhile, fell across the board in line with seasonal patterns, but this was not enough to offset the large build in crude stockpiles. Gasoline stocks drew by 0.4 mb to 24 mb, middle distillates by 1 mb to 75 mb and fuel oil by 0.7 mb to 19 mb. Altogether, this meant refined product stock holdings covered 23 days of forward demand at end-September, down 1.5 days on end-August.



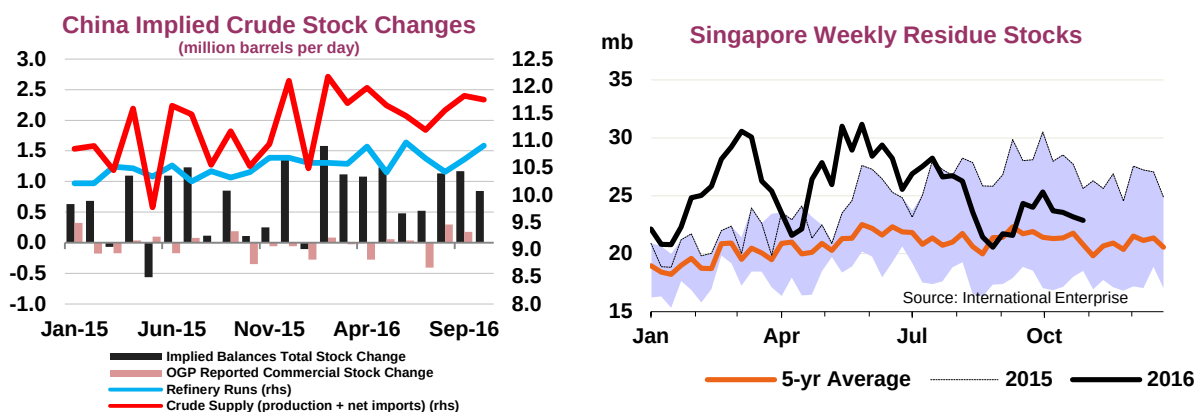
Preliminary weekly data from the *Petroleum Association of Japan (PAJ)* suggest that the patterns described above carried into October and early November with additional falls in oil product stocks and builds in crude holdings. A fire at the Kashima refinery in eastern Japan, combined with the decision to close permanently two crude distillation units at the Yokkaichi refinery in central Japan and planned maintenance at other plants brought the country's gasoline stocks to 9.3 mb at some point in late October, their lowest level since data was first published in 2003. Stocks of middle distillates, meanwhile,

fell to their lowest level in three months in October. By end-October, crude stocks were up 6.5 mb on the month to 94 mb and total finished product stocks down by 5.3 mb to 67 mb, according to the PAJ.

Recent developments in Singapore and China stocks

Data from *China Oil, Gas and Petrochemicals (China OGP)* indicate that Chinese commercial crude stocks posted a 5.3 mb build in September (data are reported in terms of percentage stock change) to their highest level since March. Stocks were bolstered by imports from top suppliers Angola, Russia and Saudi Arabia during the month, according to data from the customs.

It is likely that total crude stocks, including for strategic storage, built even more as crude supply (domestic production plus net imports) outstripped refinery throughputs by 29.7 mb in September. All told, this implies that Chinese crude inventories added 84.4 mb over 3Q16, up a cumulative 328 mb in the past 12-month period, implying that large volumes of crude have been added to newly completed strategic petroleum reserve sites in the country. For October, early indications point to a smaller build in Chinese crude stocks.

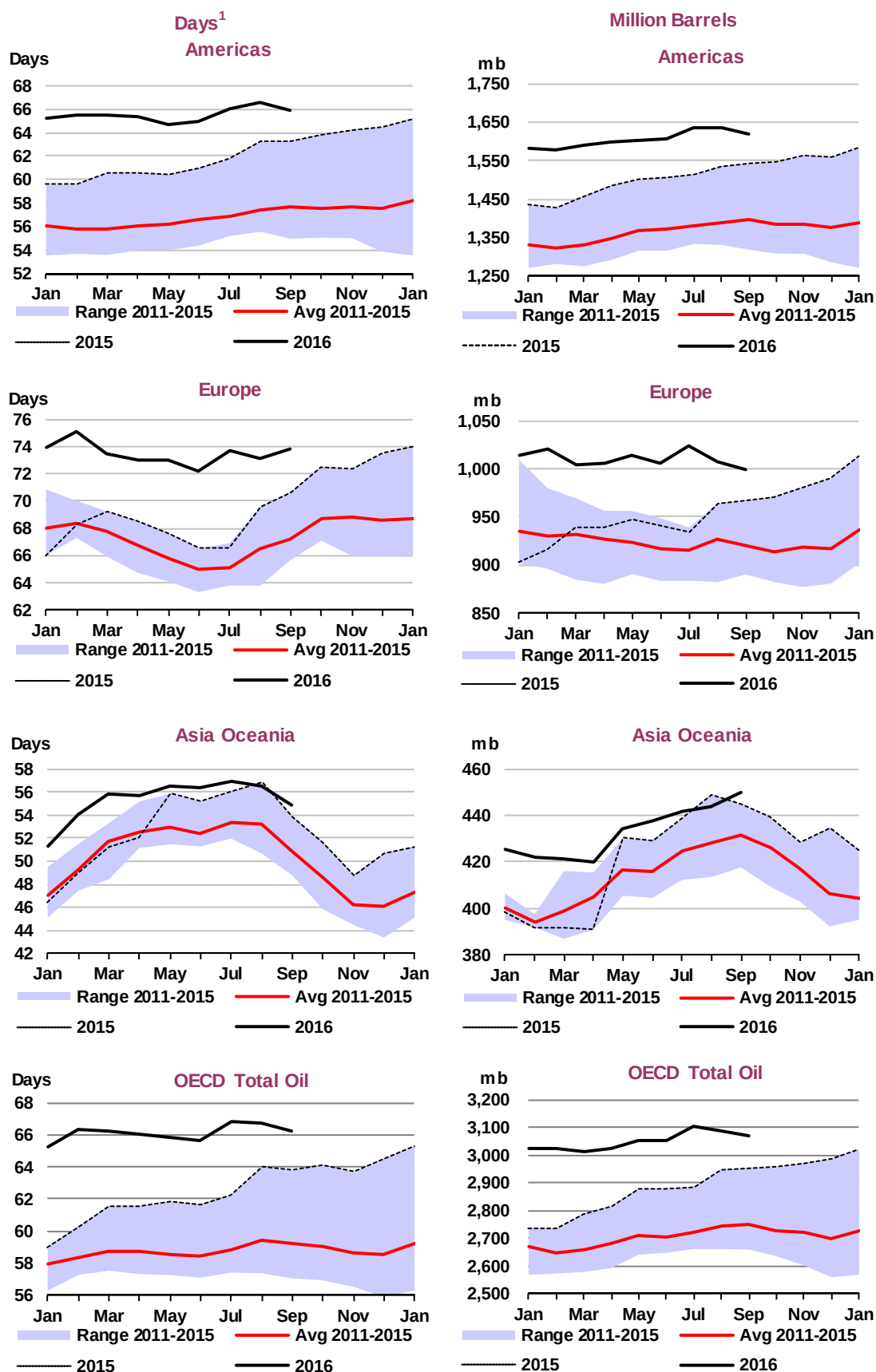


By contrast, Chinese commercial product stocks drew in September. Gasoil stocks fell by a steep 9 mb to their lowest level since late 2013 on strong demand linked to new truck regulations and from the agricultural sector, as well as record high exports to the rest of Asia. As a result, market reports pointed to tight gasoil supplies in the country in October and higher domestic prices than for gasoline. Gasoline stocks also fell on the month by 0.7 mb and kerosene by 0.5 mb.

According to weekly data from *International Enterprise* (available up until the week ended October 29), land-based residual fuel oil holdings in Singapore fell by 2.4 mb in October on lower arrivals from Europe, helping to support fuel oil cracks in the area. Light distillate stocks fell 1 mb, while middle distillates added 1.1 mb.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

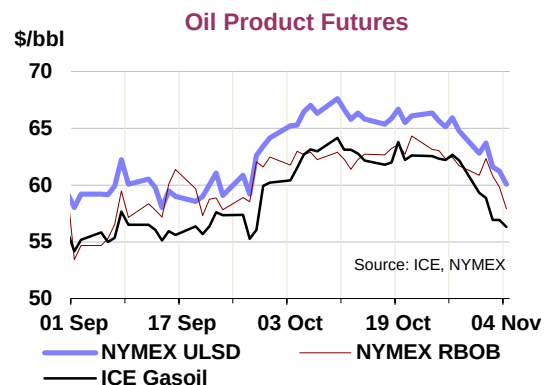
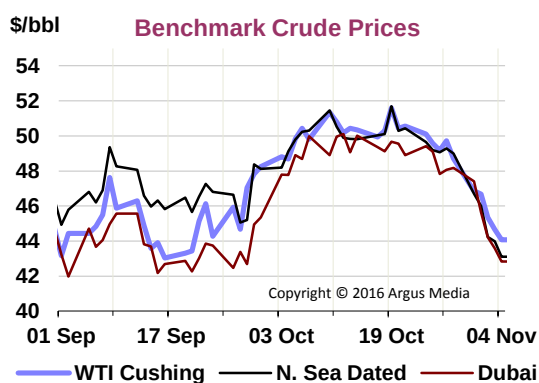


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Benchmark crude prices followed a bell-shaped curve in October, rising in the first part of the month before erasing nearly all of those gains** on doubts about the likelihood of an OPEC production agreement. At the time of writing, front-month ICE Brent was trading at \$46.79/bbl.
- **Rising production of light sweet crude** and lower demand from European refiners put pressure on the Brent complex, which fell relative to Dubai and West Texas Intermediate.
- **Oil product prices rose in tandem with lower production** from refiners. The gains were particularly strong in European and Asian gasoil, naphtha and fuel oil markets. US New York Harbour spot gasoline prices were supported in early November by the temporary shutdown of part of the Colonial pipeline.
- **VLCC freight rates rose strongly** in October in line with strong crude exports from the Middle East, while the Suezmax and Aframax markets performed less well.



Market overview

Global benchmark crudes gained across the board in the first part of October following OPEC's decision to curb output, before erasing all of those gains later in the month. On 10 October, front month ICE Brent crude futures hit their highest level in 13 months to stand at \$53.14/bbl, but they have since fallen on an almost daily basis. They were at \$46.79/bbl at the time of writing, a mere \$0.82/bbl higher than the price registered just before OPEC's announcement on 28 September. Iran confirmed it had continued to increase production and Iraq disagreed with estimates of its production published by the OPEC Secretariat and other sources, leading some traders to question the feasibility of an output cut. Other factors were also at play, including refinery maintenance in the northern hemisphere, which typically leads to lower crude demand, higher production of light sweet crudes from the North Sea, Libya and Nigeria, and rising crude stocks in the US towards the end of October.

Futures markets

ICE Brent crude futures firmed on an outright basis in October, by \$4.15/bbl to \$51.39/bbl, however the headline average figure hides two important facts. First, outright prices fell from 11 October onwards on an almost daily basis, before stabilising in early November. Second, Brent underperformed other major crude and product futures contracts by a significant margin, reflecting an oversupply of light sweet crude oil in the spot market. Futures for delivery in early 2017, corresponding to the period when an OPEC production cut might be implemented, strengthened in relative terms in the days following the Algiers

agreement but have since fallen back to below their level of late September. This, in turn, indicates that traders assign an increasingly unlikely chance of a meaningful curb on physical supplies in the early part of 2017. ICE Brent futures for January 2017 delivery were trading at a \$1.13/bbl discount to February at the time of writing, down from \$0.52/bbl before the agreement. Spreads for delivery next summer are also now wider than in late September, before the OPEC announcement. The market structure is close to being wide enough to incentivise storage onboard ships.

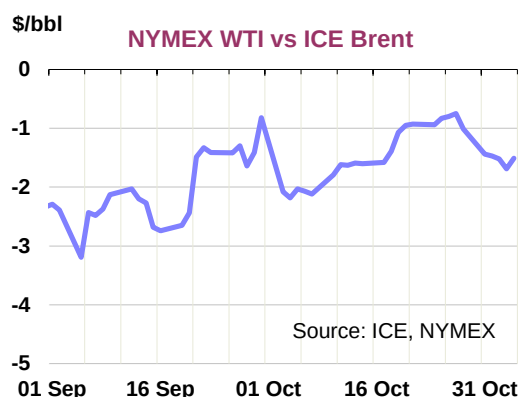
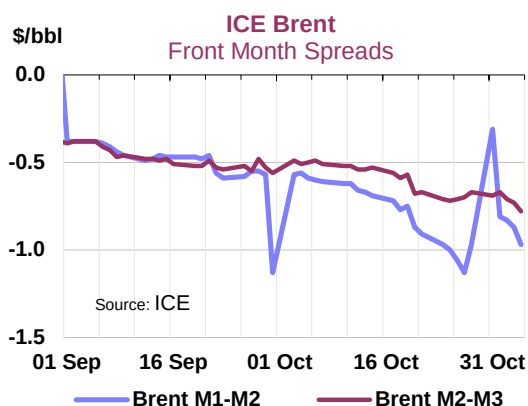
Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Aug	Sep	Oct	Oct-Sep Avg Chg	% Chg	Week Commencing:				
						03 Oct	10 Oct	17 Oct	24 Oct	31 Oct
NYMEX										
Light Sweet Crude Oil	44.80	45.23	49.94	4.71	10.4	49.52	50.62	50.62	49.62	45.52
RBOB	59.48	58.45	62.58	4.13	7.1	62.52	62.31	63.31	62.53	60.35
ULSD	59.42	60.17	65.85	5.68	9.4	66.07	66.45	65.91	65.57	61.89
ULSD (\$/mmbtu)	10.48	10.61	11.61	1.00	9.4	11.65	11.72	11.62	11.56	10.91
Henry Hub Natural Gas (\$/mmbtu)	2.72	2.90	3.07	0.17	5.9	3.03	3.27	3.16	2.84	2.85
ICE										
Brent	47.16	47.24	51.39	4.15	8.8	51.61	52.27	51.81	50.48	47.05
Gasoil	54.74	56.19	62.12	5.93	10.6	61.90	62.81	62.23	62.15	57.44
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-2.36	-2.01	-1.45	0.56		-2.09	-1.65	-1.19	-0.86	-1.53
NYMEX ULSD - WTI	14.62	14.94	15.91	0.97		16.55	15.83	15.29	15.95	16.37
NYMEX RBOB - WTI	14.68	13.22	12.64	-0.58		13.00	11.69	12.69	12.91	14.83
NYMEX 3-2-1 Crack (RBOB)	14.66	13.79	13.73	-0.06		14.18	13.07	13.56	13.92	15.34
NYMEX ULSD - Natural Gas (\$/mmbtu)	7.76	7.71	8.54	0.83		8.62	8.45	8.46	8.72	8.06
ICE Gasoil - ICE Brent	7.58	8.95	10.73	1.78		10.29	10.54	10.42	11.67	10.39

Source: ICE, NYMEX.

NYMEX West Texas Intermediate (WTI) rose against ICE Brent futures with relatively tighter supplies in the US than in Northwest Europe, the Mediterranean and West Africa. Front month WTI was trading \$1.07/bbl below Brent futures at the time of publication, up from \$2.08/bbl at the start of the month. The Month 1-Month 2 contango narrowed in the first part of the month in line with falling inventories, but widened once again in late October as throughput on the Seaway pipeline, which links Cushing, Oklahoma, to Texas, was halved due to a leak, and as crude imports into the US picked up and crude stocks rose as a result.



In refined products, the major futures contracts rose in tandem with the refinery maintenance season in the northern hemisphere and lower supplies in the spot market. ICE Gasoil futures were \$62.12/bbl on average in October, up \$5.93/bbl month-on-month, and the Month 1-Month 2 market structure remained in a shallow contango throughout the month. NYMEX Reformulated Blend-stock for Oxygen

Blending (RBOB) gasoline was comparatively less buoyant, rising by \$4.13/bbl to \$62.58/bbl in October. In early November, the partial closure of the Colonial pipeline for the second time in two months prevented flows from reaching the import-dependent Northeast, thus resulting in a steep backwardation of the Month 1-Month 2 futures curve. But with lower seasonal demand than in September, and news that the pipeline operator would be able to fix the situation in a few days, prices never reached the highs seen in September. By 6 November, the pipeline returned to full operations and prices were back to their previous levels.

Spot crude oil prices

Spot crude oil prices gained across the board in early October, supported by falling crude stocks in some regions and OPEC's decision in Algiers to curb output. Sour crude, produced by OPEC members such as Saudi Arabia, Iran and Iraq, showed the biggest rise, while light sweet crude from the North Sea, the Caspian and West Africa was in oversupply through the month. This, along with continued low freight rates for tankers, resulted in large flows of North Sea and Caspian crudes to Asia and North America.

Middle Eastern benchmark Dubai rose by a strong \$5.36/bbl month-on-month to \$48.94/bbl in October, achieving its highest monthly average since July 2015. The grade was in strong demand by Asian refiners anticipating the end of the refinery maintenance period in December and some field maintenance in Saudi Arabia. The Dubai Month 1-Month 2 market structure traded in backwardation through October, typically the sign of a strong market, and Dubai's discount to Brent narrowed to a near one-year low in late October. Interestingly, intermonth spreads further down the Dubai curve widened in relative terms during most of October and the Month 1-Month 2 structure was back in contango by early November, indicating that this may have been a short-term movement.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

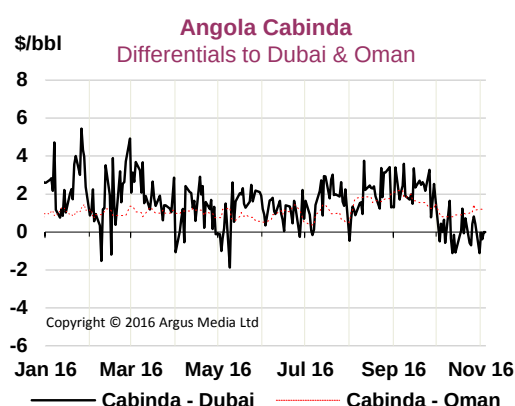
	Aug	Sep	Oct	Oct-Sep Avg Chg	%	Week Commencing:				
						03 Oct	10 Oct	17 Oct	24 Oct	31 Oct
Crudes										
North Sea Dated	45.68	46.69	49.74	3.06	6.5	49.53	50.30	50.51	49.24	44.80
Brent (Asia) Mth 1	46.72	46.85	50.98	4.13	8.8	50.88	51.71	51.36	50.22	47.12
WTI (Cushing) Mth 1	44.75	45.20	49.89	4.69	10.4	49.52	50.62	50.57	49.46	45.52
Urals (Mediterranean)	43.90	44.48	48.24	3.77	8.5	48.05	48.83	48.97	47.70	43.42
Dubai	43.67	43.58	48.94	5.36	12.3	48.63	49.61	49.32	48.52	44.73
Tapis (Dated)	44.25	45.97	50.09	4.12	9.0	49.73	50.50	50.80	49.86	45.50
Differential to North Sea Dated										
WTI (Cushing)	-0.93	-1.49	0.15	1.64		-0.01	0.32	0.05	0.22	0.72
Urals (Mediterranean)	-1.78	-2.21	-1.50	0.71		-1.48	-1.47	-1.54	-1.54	-1.38
Dubai	-2.02	-3.11	-0.80	2.31		-0.90	-0.69	-1.19	-0.72	-0.07
Tapis (Dated)	-1.43	-0.72	0.35	1.07		0.20	0.20	0.29	0.62	0.70
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.23	-0.38	-0.70	-0.31		-0.53	-0.63	-0.72	-0.79	-1.08
Forward WTI Cushing Mth1-Mth2	-0.65	-0.54	-0.47	0.07		-0.57	-0.45	-0.29	-0.54	-0.59
Forward Dubai Mth1-Mth2	-0.39	-0.69	0.29	0.98		0.27	0.35	0.25	0.27	-0.23

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Russian Urals crude for delivery in Northwest Europe rose \$3.27/bbl in October to \$47.23/bbl. Prices were supported by falling export volumes from the Baltic terminals of Primorsk and Ust Luga for November following the return from maintenance of some refineries and Russia's decision to boost inland supplies to Belarus. But prices for European sour crudes did not achieve the gains seen in the Middle East during October with refinery maintenance in Northwest Europe and strong competition from North Sea crudes. In the Mediterranean, Urals prices were stronger throughout the month, incentivising cargoes to move down from Northwest Europe, before that arbitrage window shut in late October. Loadings in the Black Sea were halted several times during the month due to bad weather.

Global benchmark North Sea Dated rose \$3.06/bbl to \$49.74/bbl on an outright basis in October, but the price gain was considerably less than for other global crude oils, and by early November prices were down further. This reflected a relative oversupply of light sweet crudes in the Atlantic Basin due to the traditional refinery maintenance season in the northern hemisphere as well as the partial return of crude production in Libya and Nigeria, which both export similar crudes. Production in the North Sea itself ramped up in late October with the return from planned maintenance of one of its largest fields, the UK's Buzzard. In addition, December North Sea loading programmes pointed to higher production at other fields. As a result, the relative discount of North Sea versus other crudes incentivised export flows of Forties and Ekofisk crude to South Korea and China with several Very Large Crude Carriers (VLCCs) leaving the region during the month. Additionally, Norwegian Oseberg crude left Europe for the US and Canada in the largest export flow seen in several months.

Crude from West Africa saw some of the smallest monthly gains amongst the major crudes in October, weighed by higher production and continued uncertainty around the loading of certain Nigerian grades such as Escravos, Forcados and Brass River. Nigerian benchmark Qua Iboe gained \$2.50/bbl month-on-month to \$50.36/bbl, but fell in relative terms against US Light Louisiana Sweet and competing sweet crudes in the Mediterranean. At one point in mid-October, there were more than 30 unsold cargoes of Nigerian crude in the spot market, though some have since found buyers. Nigeria also cut the Official Selling Price of its main export grades in mid-October in a bid to remain competitive with falling spot market prices. Angolan crudes performed better with good demand from major buyer China following the strengthening of the Middle Eastern Dubai complex and higher middle distillate cracks globally.



Light sweet crudes for delivery in the Mediterranean all saw muted gains in October in line with the rest of the sweet complex. Azeri Light rose by \$3.39/bbl to \$51.30/bbl. Exports of Algerian Sahara Blend picked up on the month and were seen going to the US, Cuba and as far afield as Malaysia, Thailand and Australia. Kazakh CPC Blend also saw record exports to Asia in November with higher naphtha cracks in the region and continued low freight rates. Russian ESPO differentials in the Far East benefitted from strong demand from Chinese refiners ahead of the country's official switch to lower gasoline and gasoil sulfur specifications in January 2017. ESPO Blend averaged \$51.67/bbl in October, up a strong \$5.06/bbl on the month.

In the US, Light Louisiana Sweet (LLS) rose \$4.53/bbl to \$51.36/bbl in October, trading at a rising premium to crudes from West Africa and the North Sea. The partial closure of the Seaway pipeline between 24-31 October halved crude flows from the Midwest to Texan refineries and helped WTI Midland trade at a rare premium to WTI Cushing for several days in a row, though by early November Midland was back to a discount. Rising inventories and the partial closure of the Colonial pipeline at the start of November helped weaken US crude differentials. Bakken crude fell from parity to a \$1.20/bbl discount to WTI by early November, while discounts for heavy grades Mars and Poseidon widened further on the month.

Spot product prices

Global spot product prices gained more than crude in most regions in September in line with lower output from refiners, falling stock levels and higher demand from end consumers. The gains were particularly strong in diesel, gasoil, naphtha and fuel oil, with gasoline also rising in some areas in early November following the partial closure of the Colonial pipeline. It reopened on 6 November.

Spot Product Prices

(monthly and weekly averages, \$/bbl)

	Aug	Sep	Oct	Oct-Sep		Week Commencing:					Aug	Sep	Oct	Chg
				Chg	%	03 Oct	10 Oct	17 Oct	24 Oct	31 Oct				
Rotterdam, Barges FOB														
											Differential to Dated Brent			
Premium Unl 10 ppm	54.45	57.00	60.51	3.51	6.2	61.28	61.46	60.47	59.46	57.90	8.77	10.31	10.77	0.45
Naphtha	40.97	44.06	49.15	5.09	11.6	48.76	48.85	49.36	49.96	47.04	-4.71	-2.63	-0.59	2.04
Jet/Kerosene	54.19	55.43	60.86	5.43	9.8	60.53	61.32	61.04	61.06	56.84	8.51	8.74	11.11	2.37
ULSD 10ppm	54.28	55.93	61.82	5.88	10.5	61.71	62.26	61.74	62.11	57.43	8.60	9.24	12.07	2.83
Gasoil 0.1%	53.88	55.21	60.91	5.71	10.3	60.71	61.40	61.13	60.99	56.19	8.20	8.52	11.17	2.65
LSFO 1%	37.27	39.94	44.08	4.14	10.4	43.23	44.41	45.04	44.17	40.03	-8.41	-6.75	-5.66	1.09
HSFO 3.5%	33.88	36.04	39.26	3.22	8.9	38.68	39.24	39.95	39.59	36.13	-11.80	-10.65	-10.48	0.17
Mediterranean, FOB Cargoes														
											Differential to Urals			
Premium Unl 10 ppm	55.66	58.68	61.58	2.91	5.0	62.77	62.15	61.17	60.79	59.13	11.76	14.20	13.34	-0.86
Naphtha	39.93	43.20	48.18	4.99	11.5	48.03	47.99	48.33	48.75	45.90	-3.97	-1.28	-0.06	1.22
Jet Aviation fuel	53.33	54.78	60.06	5.28	9.6	59.97	60.64	60.17	60.02	55.86	9.43	10.30	11.82	1.51
ULSD 10ppm	54.72	56.32	62.03	5.71	10.1	61.90	62.55	62.11	62.13	57.27	10.82	11.84	13.78	1.94
Gasoil 0.1%	53.00	55.30	60.87	5.57	10.1	60.86	61.64	60.94	60.72	55.86	9.10	10.82	12.63	1.81
LSFO 1%	37.66	40.35	44.83	4.47	11.1	43.94	45.28	45.77	44.84	40.56	-6.23	-4.12	-3.41	0.71
HSFO 3.5%	36.18	38.33	41.68	3.35	8.7	41.14	41.82	42.32	41.88	37.72	-7.71	-6.15	-6.57	-0.42
US Gulf, FOB Pipeline														
											Differential to LLS			
Super Unleaded	64.50	63.57	69.78	6.21	9.8	69.80	70.41	70.69	68.86	65.43	18.17	16.74	18.43	1.68
Unleaded	61.25	58.73	62.21	3.47	5.9	63.35	62.84	62.61	60.77	57.35	14.93	11.91	10.85	-1.06
Jet/Kerosene	54.80	55.58	60.68	5.09	9.2	61.13	61.14	60.76	60.33	56.31	8.47	8.76	9.32	0.56
ULSD 10ppm	57.84	58.77	64.80	6.02	10.2	65.28	65.36	64.71	64.54	59.70	11.51	11.95	13.44	1.49
Heating Oil	51.98	53.21	58.76	5.55	10.4	59.22	59.27	58.36	58.78	54.38	5.65	6.39	7.40	1.02
No. 6 3%*	34.40	36.36	40.08	3.71	10.2	39.78	40.66	40.42	39.93	37.16	-11.92	-10.46	-11.28	-0.82
Singapore, FOB Cargoes														
											Differential to Dubai			
Premium Unleaded	54.18	58.00	62.99	4.99	8.6	60.95	62.52	64.17	64.47	60.80	10.52	14.42	14.05	-0.37
Naphtha	39.96	42.54	47.70	5.16	12.1	45.98	47.07	48.47	49.28	47.48	-3.70	-1.03	-1.24	-0.20
Jet/Kerosene	53.55	55.07	61.02	5.95	10.8	60.11	61.59	61.35	61.15	57.73	9.88	11.49	12.08	0.59
Gasoil 0.05%	53.47	54.62	61.23	6.61	12.1	59.99	61.54	61.72	61.71	58.76	9.81	11.04	12.29	1.24
LSWR Cracked	43.56	44.65	49.04	4.39	9.8	48.30	49.81	49.06	49.10	47.66	-0.11	1.07	0.10	-0.98
HSFO 180 CST	38.20	40.44	45.02	4.58	11.3	43.56	45.22	45.60	45.67	43.42	-5.47	-3.14	-3.93	-0.79
HSFO 380 CST 4%	37.21	39.35	43.76	4.41	11.2	42.36	44.00	44.34	44.37	42.10	-6.46	-4.23	-5.18	-0.96

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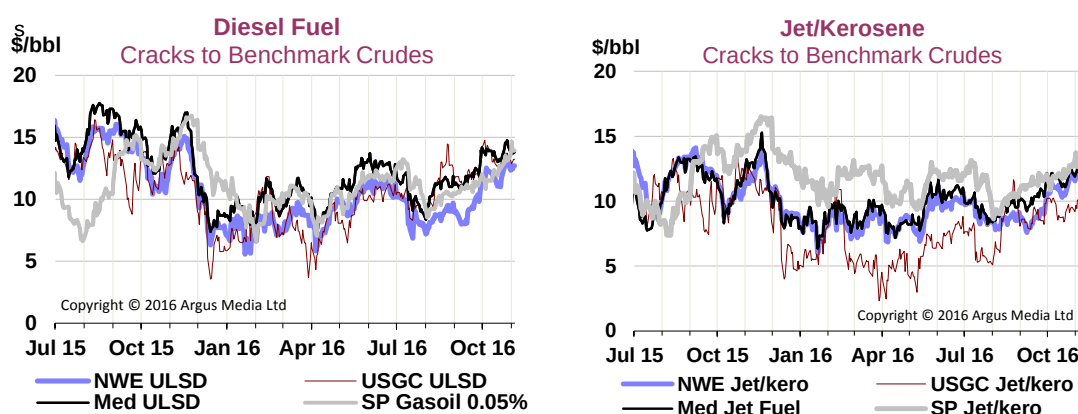
* Waterborne

Diesel and gasoil prices for delivery in Europe, traditionally the largest importer of middle distillates globally, rose strongly in October, buoyed by lower production from refineries and a host of other factors. Rotterdam diesel barge prices were up \$5.88/bbl to \$61.82/bbl on average. Higher prices came despite warm temperatures throughout the period and continued low water levels on the Rhine, which trapped diesel volumes in the Amsterdam-Rotterdam-Antwerp refining hub and prevented barges from reaching demand centres in Germany and Central Europe. Refinery maintenance affected most regions, but was especially noticeable in countries that typically export large quantities of diesel such as Russia, Saudi Arabia, Kuwait and some parts of Asia. Iran sent a cargo of gasoil to Northwest Europe during the month, the first such export since US and European sanctions ended last year. Egypt, which used to receive most of its supplies through long-term contracts with Saudi Arabia and other Gulf producers, tendered for all of its requirements via the spot market in October, creating a large import need in the Mediterranean and supporting the spot price for higher sulphur gasoil grades. A long-term supply agreement between Saudi Arabia and Egypt has been suspended indefinitely.

In Asia, the 500 ppm gasoil spot price rose by a strong \$6.61/bbl to \$61.23/bbl in October amid refinery maintenance and falling stocks. The Singapore gasoil crack rose so strongly in October that it briefly overtook the European diesel crack. As a result, Indian diesel exports headed to Singapore rather than

the Mediterranean and Northwest Europe. Those high prices are unlikely to hold in the longer run due to persistent overcapacity in Asian and global diesel markets. For their part, jet fuel prices were supported in Europe and Asia throughout October, even if not as much as diesel and gasoil. The Singapore Regrade – defined as the spread between jet fuel and gasoil – turned negative in late October for the first time since May, highlighting the strength in Asian gasoil markets.

Gasoline prices were relatively less supported than other oil products in October as is normally the case at this time of the year when demand shifts to middle distillates. European gasoline barge prices were up \$3.51/bbl month-on-month to \$60.51/bbl, while US Gulf unleaded gasoline pipeline prices gained \$3.47/bbl to \$62.21/bbl and Singapore premium unleaded cargoes rose \$4.99/bbl to \$62.99/bbl. Asia, rather than the US, appeared to drive the global gasoline market higher in October with lower supplies from the Middle East and India forecast in November and lower production from Japan's refineries. There was also strong import demand in Mexico following technical issues at one of the country's refineries while Norway's Mongstad gasoline production line shut unexpectedly during the month. Despite this, though, there were pockets of demand weakness, including in the Mediterranean basin and in West Africa. By early November, gasoline prices reacted higher to the temporary shutdown of part of the Colonial Pipeline System and a slew of gasoline cargoes were fixed from Europe to the US.



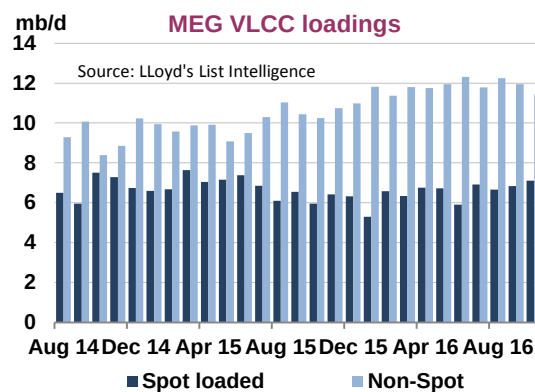
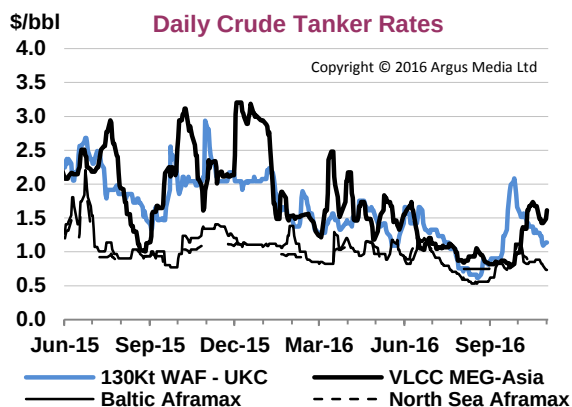
Naphtha prices were up seasonally by more than \$5/bbl in October on the month in both Europe and Asia as petrochemical crackers completed their maintenance and with lower supplies from refiners in Europe, Saudi Arabia and India. An explosion at a cracker in Germany mid-month appeared to have little impact on the naphtha market. Export flows from Europe to Asia are likely to remain low at 700,000 mt in November – close to the September and October levels – in a sign that light petroleum gases (LPG) have continued to displace naphtha in the Asian and global petrochemical sectors. On a year-on-year basis, naphtha cracks were down in both Europe and Asia in October.

Finally, fuel oil spot prices fared worse than other oil products in October as Russia's fuel oil production rebounded from September. European high sulphur barges averaged \$39.26/bbl, up \$3.22/bbl, and Singaporean 180 centistoke high sulphur cargoes gained \$4.58/bbl to \$45.02/bbl. As with other oil products, Asian fuel oil markets gained more than in other regions, attracting a steady flow of cargoes from Europe that will arrive in November and December. Price strength in Asia was driven by a seasonal pickup in demand from the power generation sector and planned refinery outages, amid low stocks in the region's bunkering hub at Singapore.

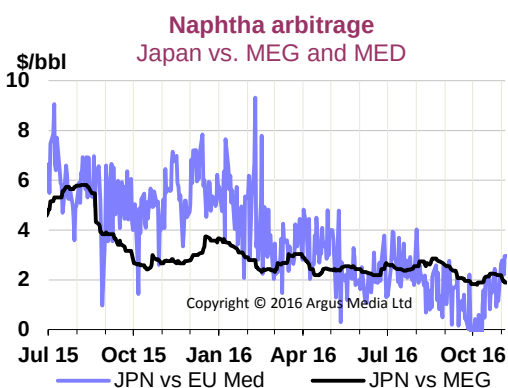
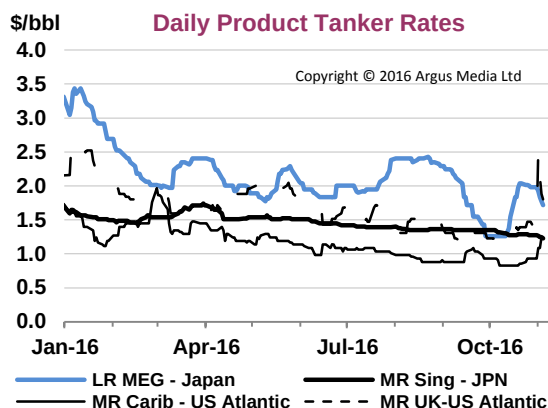
Freight

Freight rates for crude carriers were mixed in October. Very large crude carriers (VLCCs) rose strongly, jumping above \$1.5/bbl for delivery to East Asia, following exceptional cargo demand in the Middle East Gulf, with reports of the busiest month for VLCC loadings on record. Tanker data shows increases in spot traded volumes, chiefly coming from Iran and Saudi Arabia.

Suezmaxes out of West Africa eased from September's high prices, when rates increased due to the lifting of force majeure not finding enough vessels available. Fixing activity then steadied and incoming ballastors eased tonnage in the region, giving charterers the upper hand again over owners. The smaller Aframax crude vessels saw some weather driven volatility in early October, to then ease again as the position list was rebuilt.



Freight rates for clean products were up in October. The rate for Medium Range vessels on the cross Atlantic route almost doubled in early November following a deadly explosion on the Colonial pipeline, which spurred a flurry of fixtures from North West Europe. The Caribbean-US Atlantic rate also reacted quickly. Both benchmarks retraced gains as the pipeline restarted less than a week after the fire. East of Suez, rates for the larger Long Range product tankers were supported by improving naphtha spreads, after an overhang of LPG vessels in Singapore in September had made propane a preferred feedstock for crackers.



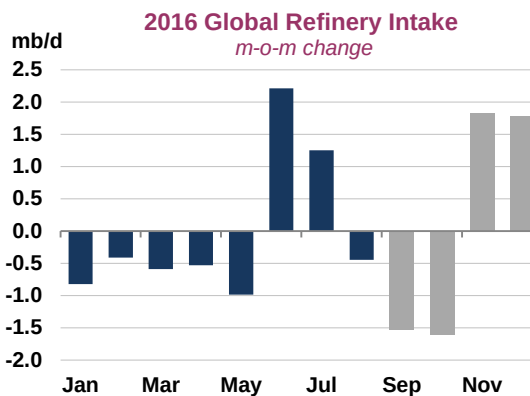
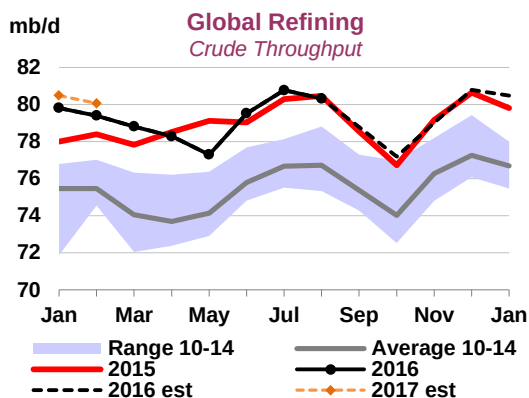
REFINING

Summary

- **Global refinery throughput is expected to fall by a seasonal 1 mb/d in 4Q16 to 78.9 mb/d, up by 150 kb/d year on year (y-o-y).** Refinery runs reached a record 79.9 mb/d in 3Q16, a modest 190 kb/d up from 3Q15.
- **Despite a slight upward revision, forecast annual growth of 270 kb/d for 2016 is still the lowest increase in more than a decade.** Refiners are uninspired with margins lower from 2015 peaks and product stocks still at more than comfortable levels.
- **Our forecast for January and February sees runs growing 670 kb/d y-o-y on average.** This is higher than what we observed in recent months, but still lower than the demand growth rate. (See *Through the stocks, darkly*)

Global refinery overview

Latest data for 3Q16, which include first August actual figures for most of the non-OECD countries and the finalised numbers for OECD countries, show slightly more sombre summer peak activity at 79.9 mb/d than our initial expectations. Although 3Q16 runs were 1.6 mb/d higher than in 2Q16, our estimate for 3Q16 global throughput is now revised down by 100 kb/d. Most of this comes from an unusually large gap between the finalised numbers and the preliminary weekly and monthly numbers for the US and Canadian refineries in August. Overall, 3Q16 output is up by 190 kb/d y-o-y, but global refinery runs were uncharacteristically down y-o-y in August, by 150 kb/d, the third annual loss this year.

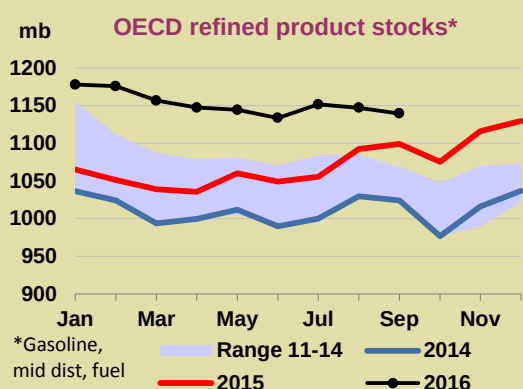


In the final four months of the year, we expect global throughput to gain y-o-y, with the exception of November runs. October throughput is revised up by 100 kb/d, as higher estimates of maintenance in OECD (Mexico and South Korea) are more than offset by an unexpected rebound in Russian refining activity. The forecast for 4Q16 runs is unchanged, expected to reach 78.9 mb/d, some 150 kb/d higher y-o-y.

2016's annual growth forecast is revised marginally higher to 270 kb/d, with OECD runs declining by 300 kb/d y-o-y, and non-OECD increasing by 570 kb/d. This is just half of the 2005-15 average growth, even when the recession-induced declines in 2008-09 are included. We are more optimistic about 2017, as the tightening of products stocks should help refiners return to throughput levels that better reflect total demand growth. January and February crude runs are forecast to grow by 670 kb/d on average, assuming global refined product stocks will continue drawing through end-2016.

Through the stocks, darkly

In economically peaceful times, the global refining sector had never seen such a roller-coaster performance as it has done this year. Starting with a 1.8 mb/d y-o-y gain in January, throughput sank 1.8 mb/d below last year's level in May, and has since failed to come anywhere near the global demand growth rates, registering yet another y-o-y drop in August. A higher maintenance programme this year to clear the work backlog from last year only partly explains the trend. As already illustrated in previous *Reports*, refined product demand growth has lagged total demand growth as more and more products are supplied from outside the refining sector. Therefore, refiners see a less solid market than the headline demand figures imply. Still, even though it is very difficult to estimate the incremental supply of non-refined products on a monthly basis, we do not expect it to be so high that it could explain the abnormally low refining intake growth this year.



Since the start of the oil price crash in 2014, integrated oil companies had come to rely on support from their downstream earnings. With the currently lower margins, their enthusiasm for boosting refining throughput has waned. While crude prices lost \$20/bbl from the start to the end of 2015, they have gained about as much since the start of this year. Refinery margins can cope with the pressure from upwardly trending feedstock prices only in a strong demand environment. Global product stocks, the excess of which we estimated at about 400 mb at the end of 2015, have definitely competed for product market share.

In OECD countries, where we have comprehensive data, we can see how lower refinery runs this year have resulted in refined product stocks draws. Gasoline, middle distillates and fuel oil, unlike naphtha and LPG, are supplied almost exclusively by refineries, and their total stocks in OECD have drawn 38 mb since January, or at a rate of 140 kb/d. However, they still have some way to go to fall back into the normal historical range. In the current environment, forecasting refinery runs further ahead is almost entirely dependent on the pace of the refined product stocks drawdown. However, with poor visibility of even historical global product stocks, the task of guessing their movement in the near future is even more daunting. Our current forecast for 2017 implies annual growth for refinery runs in a normal historical range, assuming 4Q16 continues to see global refined product stock draws.

Global Refinery Crude Throughput¹

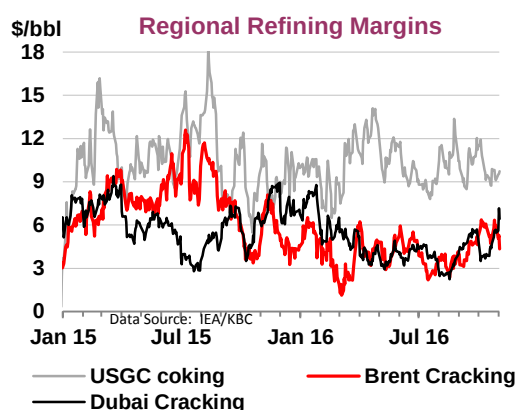
(million barrels per day)

	Jul 16	Aug 16	Sep 16	3Q2016	Oct 16	Nov 16	Dec 16	4Q2016	2016	Jan 17	Feb 17
Americas	19.4	19.4	18.9	19.2	17.8	18.9	19.6	18.8	19.0	19.1	18.7
Europe	12.3	12.5	12.0	12.3	11.7	11.9	12.2	11.9	11.8	12.0	11.7
Asia Oceania	6.8	6.8	6.6	6.7	6.3	6.8	7.1	6.7	6.8	7.2	7.3
Total OECD	38.5	38.6	37.4	38.2	35.7	37.5	38.9	37.4	37.6	38.3	37.7
FSU	7.0	7.1	6.7	6.9	6.8	6.9	6.9	6.8	6.8	6.8	6.9
Non-OECD Europe	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
China	10.7	10.4	10.7	10.6	10.9	10.9	10.9	10.9	10.7	10.8	10.7
Other Asia	10.8	10.4	10.3	10.5	10.2	10.3	10.5	10.3	10.4	10.6	10.6
Latin America	4.3	4.2	4.3	4.3	4.3	4.3	4.5	4.4	4.3	4.4	4.4
Middle East	6.9	6.9	6.9	6.9	6.7	6.5	6.5	6.6	6.7	6.9	7.0
Africa	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.2
Total Non-OECD	42.2	41.6	41.3	41.7	41.4	41.4	41.8	41.5	41.5	42.1	42.3
Total	80.7	80.2	78.7	79.9	77.1	78.9	80.7	78.9	79.1	80.4	80.0

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Margins

European margins in October hit year-to-date highs, surpassing even January's rather comfortable levels despite an almost \$20/bbl gain in average crude prices between the two months. This follows a rather poor performance in 3Q16, when average Brent cracking margins were at two-year lows. Local maintenance programmes and reduced arbitrage flows helped cracks firm across the board. While the strength in middle distillates cracks was expected due to maintenance (as these account for over 55% of Europe's demand barrel), naphtha and fuel oil gained support from both tight supply and an increased pull from Asia.



IEA/KBC Global Indicator Refining Margins¹

	Monthly Average (\$/bbl)				Change	Average for week ending:					
	Jul 16	Aug 16	Sep 16	Oct 16	Oct 16-Sep 16	07 Oct	14 Oct	21 Oct	28 Oct	04 Nov	
NW Europe											
Brent (Cracking)	3.02	3.43	4.19	5.72	↑ 1.52	6.03	5.91	5.11	5.94	4.28	
Urals (Cracking)	4.29	4.57	5.96	7.27	↑ 1.31	7.99	7.54	6.59	7.03	8.04	
Brent (Hydroskimming)	-0.65	-0.31	0.56	2.02	↑ 1.46	2.07	2.12	1.62	2.39	0.36	
Urals (Hydroskimming)	-0.29	-0.13	1.27	2.26	↑ 0.99	2.75	2.34	1.75	2.24	3.06	
Mediterranean											
Es Sider (Cracking)	5.29	5.44	6.29	8.01	↑ 1.72	8.17	7.95	7.40	8.43	9.20	
Urals (Cracking)	4.53	5.03	6.36	7.16	↑ 0.81	7.33	6.99	6.56	7.71	8.21	
Es Sider (Hydroskimming)	1.94	2.07	3.08	4.67	↑ 1.60	4.65	4.60	4.25	5.10	5.79	
Urals (Hydroskimming)	0.11	0.59	1.99	2.37	↑ 0.37	2.39	2.10	1.92	2.96	3.40	
US Gulf Coast											
50/50 HLS/LLS (Cracking)	6.40	8.82	7.41	7.32	↓ -0.09	8.67	7.10	6.61	6.97	7.04	
Mars (Cracking)	4.58	6.00	5.40	4.98	↓ -0.42	5.92	4.60	4.50	4.89	5.37	
ASCI (Cracking)	4.19	5.54	5.14	4.65	↓ -0.49	5.64	4.20	4.18	4.56	5.05	
50/50 HLS/LLS (Coking)	8.35	10.70	9.25	9.28	↑ 0.03	10.77	9.10	8.52	8.83	8.77	
50/50 Maya/Mars (Coking)	8.64	10.97	10.22	9.81	↓ -0.42	11.22	9.49	9.13	9.45	9.43	
ASCI (Coking)	9.55	11.29	10.32	10.14	↓ -0.18	11.44	9.66	9.55	9.93	10.05	
US Midcon											
WTI (Cracking)	9.90	14.26	11.93	7.42	↓ -4.51	12.00	7.30	4.56	6.08	6.34	
30/70 WCS/Bakken (Cracking)	9.80	13.30	11.27	7.82	↓ -3.44	11.38	7.42	5.45	7.05	7.72	
Bakken (Cracking)	11.82	15.66	12.75	9.06	↓ -3.69	13.22	8.93	6.23	8.05	8.36	
WTI (Coking)	12.10	16.59	14.13	9.33	↓ -4.80	14.37	9.30	6.19	7.77	7.89	
30/70 WCS/Bakken (Coking)	13.37	17.52	14.95	11.00	↓ -3.96	15.34	10.77	8.16	9.87	10.24	
Bakken (Coking)	12.72	16.64	13.67	9.84	↓ -3.84	14.22	9.75	6.88	8.71	8.98	
Singapore											
Dubai (Hydroskimming)	0.08	-1.09	1.04	0.08	↓ -0.96	-0.59	-0.47	0.01	1.13	1.71	
Tapis (Hydroskimming)	1.23	-0.06	1.20	3.37	↑ 2.18	2.50	3.13	3.00	4.34	4.91	
Dubai (Hydrocracking)	4.06	2.91	5.04	4.44	↓ -0.60	3.80	3.86	4.37	5.51	5.16	
Tapis (Hydrocracking)	3.36	1.90	3.45	5.91	↑ 2.47	4.91	5.52	5.67	7.04	6.95	

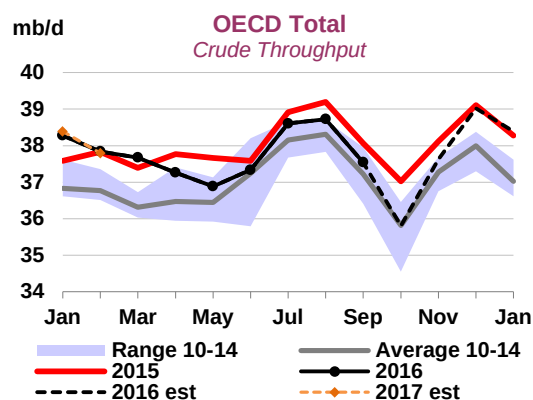
¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)

In other refining hubs, which are less dependent on major product imports compared to Europe, margins dynamics were mostly influenced by the strength of sour crude grades vs sweet crude grades. Sour-based margins were lower in both the US and Singapore relative to September, while sweet grades showed better margins in October.

OECD refinery throughput

The latest 3Q16 throughput updates for the OECD contained some surprises as August finalised data for the US and Canada saw unusually large downward revisions from the preliminary monthly and weekly indications. September preliminary monthly data, on the contrary, indicated a stronger than expected performance, with some maintenance programmes in Europe likely having a smaller impact on the month than expected. 3Q16 OECD throughput is now at 38.2 mb/d, a strong 1.1 mb/d up from 2Q16, but 430 kb/d below 3Q15. 4Q16 throughput is expected to seasonally decline by 810 kb/d, with the y-o-y decline intensifying to 600 kb/d. The latter, however, is a reflection of the maintenance impact catching up with normal seasonal levels as in 4Q15 OECD refiners ran at the highest seasonal level since 2008, postponing maintenance to profit from high margins.



Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

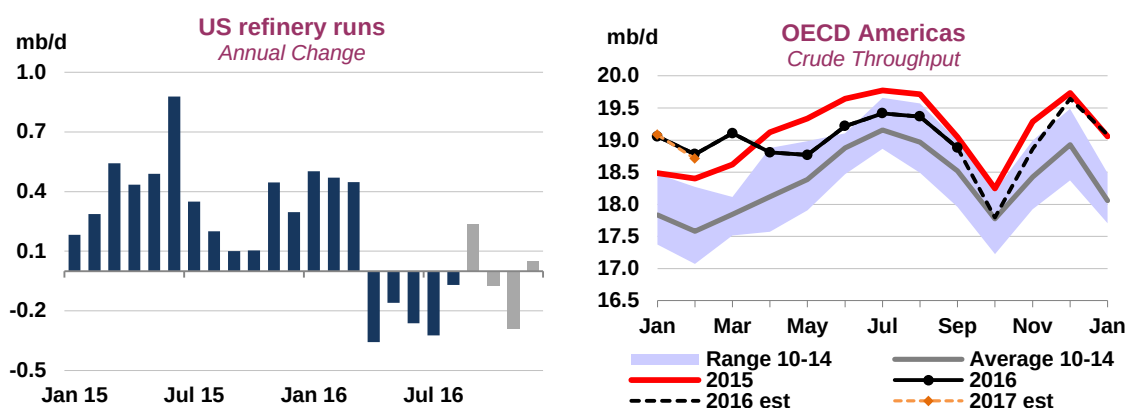
	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Change from Aug 16 Sep 15		Utilisation rate ¹ Sep 16 Sep 15	
US ²	15.94	16.28	16.43	16.56	16.59	16.41	-0.18	0.23	0.89	0.90
Canada	1.66	1.31	1.57	1.77	1.75	1.54	-0.21	-0.10	0.78	0.83
Chile	0.15	0.16	0.18	0.15	0.17	0.17	0.00	0.00	0.75	0.76
Mexico	1.05	1.01	1.03	0.93	0.85	0.75	-0.10	-0.30	0.45	0.64
OECD Americas³	18.80	18.76	19.21	19.41	19.36	18.87	-0.49	-0.17	0.85	0.87
France	1.20	0.89	0.76	1.21	1.22	1.20	-0.01	-0.07	0.86	0.91
Germany	1.77	1.83	1.93	1.98	2.00	1.99	-0.01	0.08	0.98	0.94
Italy	1.35	1.26	1.25	1.34	1.41	1.39	-0.02	0.03	0.79	0.77
Netherlands	1.07	1.06	1.07	1.04	1.10	1.00	-0.10	-0.10	0.77	0.85
Spain	1.25	1.11	1.21	1.35	1.33	1.34	0.01	0.04	0.88	0.85
United Kingdom	1.06	1.13	1.11	1.09	1.12	1.13	0.01	-0.07	0.82	0.87
Other OECD Europe	3.71	3.99	4.16	4.32	4.28	3.96	-0.32	-0.38	0.82	0.90
OECD Europe	11.42	11.27	11.50	12.32	12.45	12.00	-0.45	-0.46	0.85	0.88
Japan	3.32	3.00	2.85	3.03	3.22	2.97	-0.25	-0.10	0.84	0.79
South Korea	2.85	2.97	2.89	2.98	2.89	2.83	-0.06	0.13	0.86	0.82
Other Asia Oceania	0.78	0.79	0.79	0.76	0.71	0.77	0.07	0.08	0.78	0.70
OECD Asia Oceania	6.95	6.76	6.53	6.78	6.82	6.58	-0.24	0.11	0.84	0.79
OECD Total	37.16	36.78	37.24	38.51	38.62	37.44	-1.18	-0.52	0.85	0.86

¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

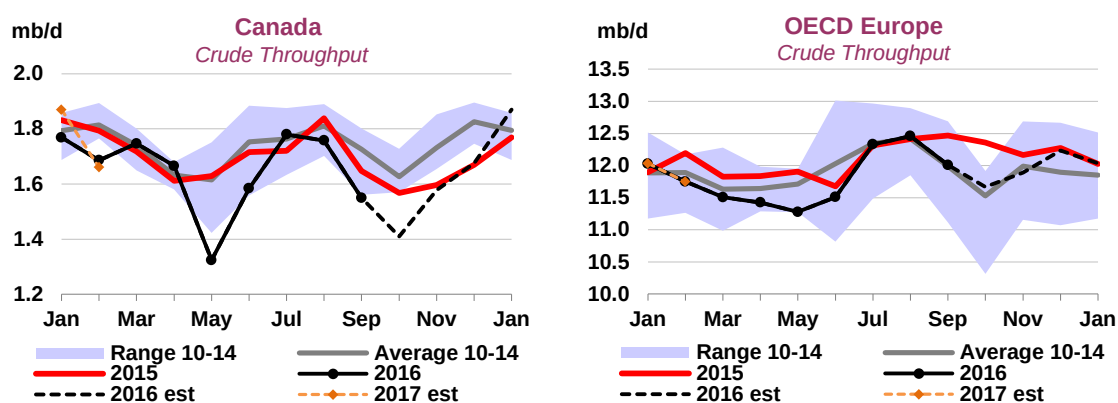
² US\$0

³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

Instead of the expected y-o-y uptick in August, **US** refinery intake continued dipping below the previous year's level. September preliminary data shows the first monthly y-o-y growth since March this year. In October, weekly throughput numbers indicate an expected decline of 1 mb/d m-on-m. At just 15.4 mb/d, US October throughput is close to the lowest level of the last two years. We revised the November shutdown impact higher, mostly on unplanned outages and run cuts rumoured in the Gulf Coast region due to the Colonial pipeline shutdown, which affected the takeaway capacity for a number of key refineries in the region in early November. Still, US throughput is expected to rebound back above 16 mb/d in November, and, following seasonal trends, further improve in December.

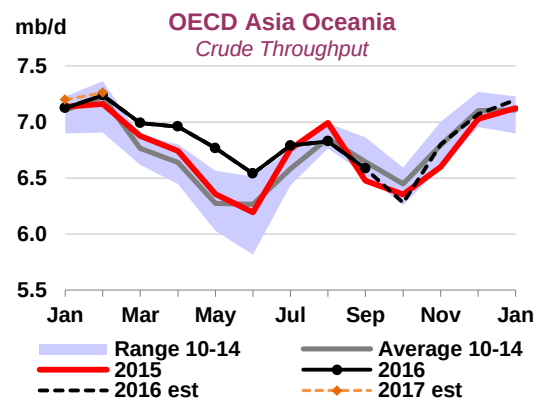


Canadian throughput was finalised lower in August by 70 kb/d while preliminary monthly numbers for September were 100 kb/d lower than the weekly data implied. October weekly data indicate a further decline in throughput, due to a major refinery maintenance shutdown, but November and December will both see runs higher month-on-month (m-o-m). The **Mexican** refining system, meanwhile, is beating its own negative records. September throughput was at the lowest level since 1984. At just 750 kb/d, refinery runs implied a utilisation rate of only 45%. Maintenance outages at two refineries added to the underlying lacklustre utilisation rates across the country's downstream sector. We expect a ramp-up to the levels observed in the beginning of the year, around 1 mb/d, in the last two months of the year.



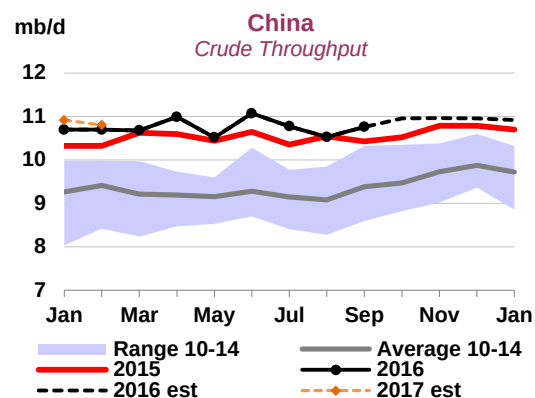
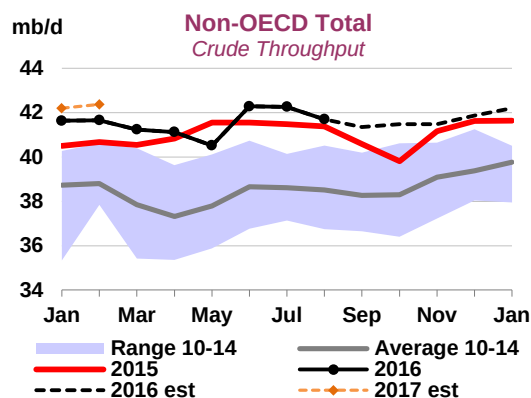
Preliminary data for September indicates a less busy turnaround programme for **European** refiners, than previously expected, especially in the Netherlands and Poland. Still, after stable runs in July and August, the regional total throughput reverted to sizeable y-o-y declines, with refinery intake 460 kb/d below September 2015. Runs will increase after October's peak maintenance, but our forecast for 4Q16 is still for a 340 kb/d y-o-y decline.

A major Korean refinery maintenance programme, partly offset by a more optimistic outlook for Australia (following September runs coming in at the highest since the last permanent shutdown of a refinery), led to a 50 kb/d downward revision in **OECD Asia Oceania's** 4Q16 forecast. 4Q16 runs are expected to remain relatively flat compared to 2Q-3Q16, at about 6.7 mb/d. A condensate splitter coming online in Korea in this quarter is included in the forecast.



Non-OECD refinery throughput

Our estimate for August non-OECD throughput is revised up by 55 kb/d as higher than expected Middle East refinery intake offsets lower North African and Latin American throughput. A number of countries reporting July data belatedly brought down the total estimate for the month by 110 kb/d. Overall, our 3Q16 estimate is unchanged, at 41.7 mb/d, but the y-o-y gain is now stronger at 620 kb/d, reflecting a downward revision to 2015 throughput estimates for a number of non-reporting countries.



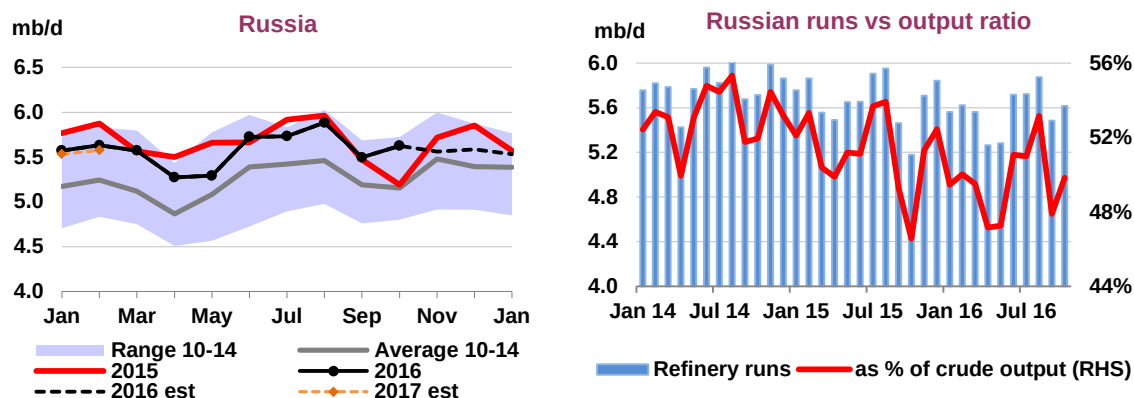
Chinese throughput in September was 90 kb/d below our forecast, but at 10.66 mb/d, registered a strong 330 kb/d y-o-y growth. October runs are expected to gain 200 kb/d from September as a recent uplift in domestic diesel demand and exports have helped partly clear the stocks. Chinese refiners reportedly exported even 10ppm, the ultra-low sulfur grade diesel, in September. China is moving to a countrywide 10ppm transport fuel standard in January 2017, but there is a pour point specification difference between summer and winter grades, which makes summer grade diesel not fit to use in colder winter months. Chinese diesel exports have reached as far as Australia, where the mining sector relies heavily on diesel-fired power. The recent rebound in coal prices is expected to boost Australian and Indonesian mining sector activity, and thus potentially see both countries increase their net diesel imports.

Chinese throughput is expected to stay just below 10.9 mb/d through end-year. According to customs data, October crude oil imports were 6.8 mb/d, a dramatic 1.3 mb/d reduction from September, which implies only a minor change in total crude stocks as opposed to hefty SPR filling rate observed in recent months. China is projected to finalise the year with a 270 kb/d y-o-y gain.

Indian refinery throughput in September came in close to our forecast, at 4.8 mb/d, with a strong 400 kb/d gain y-o-y. Runs are expected to further ramp up to 4.9 mb/d in 4Q16, with the annual average gain in 2016 reaching 340 kb/d.

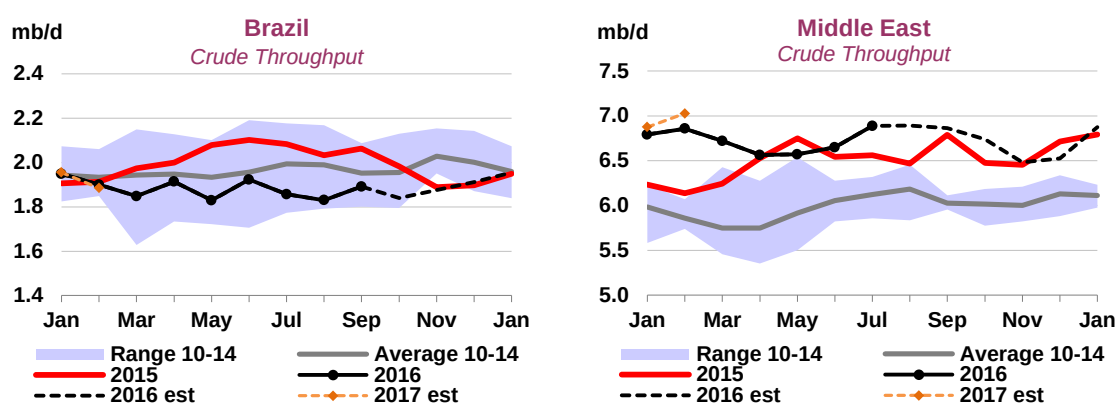
Russia's preliminary intake number for October came in at a much stronger 5.6 mb/d, marking the highest y-o-y growth in two years, at 440 kb/d, while we expected a much more modest gain. Our

forecast for Russian refinery output has hinged on the assumption that the oil industry tax manoeuvre would incentivise crude oil exports as opposed to marginal refinery capacity utilisation. This assumption still holds, in that Russian refineries are processing a lower percentage of local crude output than they did before, but higher domestic output has recently pushed up the throughput volumes. Higher refinery runs in October could also have been caused by strong cracks for simple distillation products such as naphtha and fuel oil, which are still produced in significant quantities in Russia's simple refineries.



Brazil's refinery throughput in September continued the y-o-y declining trend, this time losing 170 kb/d, faring a bit better than our expected 220 kb/d y-o-y loss. Runs for the rest of the year are expected to hover around 1.9 mb/d. Unlike Russia, recent record oil output in Brazil is not leading to higher refinery runs as the local demand is not impressive, and export markets are not attractive enough. Expected to finish the year with a 110 kb/d y-o-y loss, Brazil in 2015-2016 will have undone the previous three years' ramp-up in refinery runs.

Argentina is also running at lower rates this year, with January-August throughput down 30 kb/d on average, while the latest **Colombian** actual data in August showed a strong 140 kb/d y-o-y gain, as expected, with the new capacity at Barrancabermeja running at higher rates. **Cuban** throughput has reportedly been lower recently after Venezuela's troubled PDVSA reduced crude supplies to the country within the preferential trade terms set by Petrocaribe. Latin American throughput overall is expected to decrease by 150 kb/d y-o-y in 2016.



Both Iraq and Saudi Arabia reported stronger throughput in August, revising the month's estimate for the Middle East up by 110 kb/d. However, the strong 420 kb/d y-o-y gain is not expected to be matched in the last four months of 2016, with some major planned work in Saudi Arabia and Kuwait constraining regional runs. The new condensate splitter in Qatar that started up in October is not yet included in our throughput estimate pending a revision of our methodology to include OPEC condensate splitters in our global throughput estimates.

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.2	24.2	24.5	24.4	25.0	24.5	24.6	24.5	24.4	24.8	24.6	24.6	24.5	24.5	24.9	24.7	24.6
Europe	13.6	13.5	13.5	13.6	14.2	13.7	13.7	13.6	13.9	14.3	13.7	13.9	13.7	13.9	14.2	13.7	13.9
Asia Oceania	8.3	8.1	8.7	7.6	7.7	8.2	8.0	8.5	7.6	7.8	8.2	8.1	8.6	7.6	7.7	8.2	8.0
Total OECD	46.1	45.8	46.6	45.6	46.9	46.4	46.4	46.7	46.0	47.0	46.6	46.5	46.8	46.0	46.8	46.6	46.5
NON-OECD DEMAND																	
FSU	4.8	4.9	4.6	4.9	5.1	5.0	4.9	4.9	4.9	5.2	5.1	5.0	4.9	5.0	5.3	5.2	5.1
Europe	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.8	11.3	11.5	11.6	11.6	11.5	11.7	11.8	11.6	11.9	11.7	11.8	12.0	12.0	12.2	12.0
Other Asia	11.7	12.0	12.3	12.6	12.3	12.8	12.5	13.1	13.1	12.8	13.4	13.1	13.6	13.7	13.4	13.9	13.7
Americas	6.6	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.7	6.8	6.8	6.7	6.5	6.7	6.8	6.8	6.7
Middle East	8.0	8.4	7.8	8.5	8.8	8.3	8.3	7.9	8.4	8.8	8.4	8.4	8.1	8.5	8.9	8.5	8.5
Africa	3.8	3.8	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.3	4.2	4.4	4.3
Total Non-OECD	45.9	47.4	47.4	48.9	49.2	49.2	48.7	48.8	49.7	49.9	50.5	49.7	50.0	50.9	51.3	51.7	51.0
Total Demand¹	92.0	93.2	94.0	94.5	96.0	95.6	95.0	95.5	95.7	96.9	97.1	96.3	96.7	96.9	98.1	98.3	97.5
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.1	19.7	20.1	20.1	20.0	19.9	19.0	19.3	19.3	19.4	19.4	19.3	19.5	19.6	19.4
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.3	3.4	3.4	3.5	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4
Total OECD	21.0	22.9	23.9	23.6	24.0	24.2	23.9	24.0	22.8	23.1	23.1	23.2	23.3	23.1	23.3	23.4	23.3
NON-OECD SUPPLY																	
FSU	13.8	13.9	14.0	14.0	13.9	14.1	14.0	14.2	14.0	14.0	14.5	14.2	14.5	14.4	14.4	14.6	14.5
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.1	3.9	3.9	4.0	3.9	3.9	3.8	3.8	3.9
Other Asia ²	2.7	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.6	4.6	4.5	4.7	4.7	4.7	4.7	4.7
Middle East	1.4	1.3	1.3	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3
Africa ²	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	28.4	28.7	29.3	29.2	29.0	29.1	29.1	28.9	28.5	28.6	29.2	28.8	29.2	29.1	29.1	29.2	29.1
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.6	56.1	57.2	57.3	57.7	57.9	57.6	57.0	56.0	56.7	57.0	56.7	56.8	57.0	57.5	57.4	57.2
OPEC																	
Crude	31.4	31.2	31.5	32.5	32.7	32.7	32.3	32.8	33.1	33.5							
NGLs	6.3	6.5	6.5	6.7	6.8	6.8	6.7	6.8	6.9	6.9	7.0	6.9	7.0	7.0	7.0	7.0	7.0
Total OPEC ²	37.7	37.7	38.0	39.1	39.5	39.4	39.0	39.6	39.9	40.4							
Total Supply⁴	91.4	93.8	95.2	96.5	97.2	97.4	96.6	96.6	96.0	97.2							
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.9	1.0	0.8	0.3	0.8	0.3	0.4	0.2							
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1	0.0	0.0							
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.4	0.4	0.2							
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2	0.3	-0.2							
Miscellaneous to balance ⁵	-0.6	0.2	-0.1	0.6	0.5	0.8	0.4	0.6	-0.5	0.2							
Total Stock Ch. & Misc	-0.7	0.6	1.2	2.0	1.1	1.7	1.5	1.1	0.2	0.2							
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	32.1	30.6	30.3	30.5	31.6	30.9	30.8	31.7	32.8	33.3	33.1	32.7	33.0	33.0	33.5	33.8	33.3

¹ Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Net volumetric gains and losses in the refining process and marine transportation losses.

⁴ Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

⁵ Includes changes in non-reported stocks in OECD and non-OECD areas.

⁶ Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.3	-	0.1	-	-	-	0.1	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-	-	-	-
Total Demand	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	0.1	-
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	0.2	-	0.1	-	-0.1	0.1	0.1	-
Europe	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-0.1	0.1	0.1	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	0.3	0.1	0.2	0.1	0.2	0.2	0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	0.2	-	0.2	0.1	0.1	-	0.1
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	0.1	0.2	0.1	0.2	-	0.2	0.2	0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-0.1	-0.1	-	-0.1	-0.1	-0.1	-	-	-	-	-0.1	-	-	-	-
Total OPEC	-	-	-0.1	-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-0.1	-0.1	-	-	-	-	-	0.1	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-0.1	-0.1	-	-	-0.1	-	0.1	-	-	-	-	-	-	-	-
Total Stock Ch. & Misc	-	-	-0.1	-0.1	-	-	-0.1	-	0.1	-	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	0.2	0.1	0.1	0.1	0.1	-	-	-	-0.1	-	-0.2	0.1	-0.2	-0.1	-0.1

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.20	24.45	24.41	24.98	24.53	24.59	24.49	24.39	24.84	24.62	24.59	24.49	24.46	24.87	24.65	24.62
Europe	13.51	13.46	13.57	14.17	13.70	13.73	13.64	13.93	14.34	13.71	13.91	13.67	13.93	14.18	13.74	13.88
Asia Oceania	8.11	8.68	7.58	7.71	8.18	8.04	8.55	7.64	7.78	8.23	8.05	8.61	7.63	7.74	8.18	8.04
Total OECD	45.82	46.59	45.56	46.86	46.41	46.36	46.68	45.97	46.96	46.56	46.55	46.77	46.02	46.79	46.57	46.54
Asia	22.80	23.63	24.03	23.84	24.40	23.98	24.75	24.97	24.34	25.29	24.83	25.46	25.66	25.42	26.08	25.66
Middle East	8.37	7.79	8.49	8.78	8.28	8.34	7.86	8.36	8.79	8.40	8.35	8.10	8.47	8.89	8.51	8.50
Americas	6.83	6.62	6.77	6.86	6.79	6.76	6.47	6.65	6.78	6.76	6.66	6.49	6.67	6.82	6.80	6.70
FSU	4.95	4.64	4.89	5.05	4.96	4.89	4.86	4.85	5.23	5.10	5.01	4.92	5.04	5.25	5.18	5.10
Africa	3.83	4.08	4.06	3.97	4.12	4.06	4.16	4.21	4.10	4.26	4.18	4.30	4.35	4.23	4.39	4.32
Europe	0.65	0.65	0.67	0.69	0.69	0.68	0.68	0.71	0.71	0.71	0.70	0.69	0.72	0.71	0.72	0.71
Total Non-OECD	47.43	47.42	48.91	49.18	49.23	48.69	48.77	49.75	49.95	50.52	49.75	49.96	50.91	51.32	51.68	50.97
World	93.24	94.01	94.47	96.05	95.64	95.05	95.45	95.72	96.91	97.08	96.30	96.73	96.92	98.11	98.26	97.51
of which: US50	19.11	19.41	19.47	19.83	19.42	19.53	19.45	19.43	19.76	19.60	19.56	19.46	19.52	19.83	19.65	19.62
Europe 5*	8.05	8.03	7.99	8.34	8.09	8.12	8.15	8.20	8.33	8.07	8.19	8.11	8.10	8.24	8.06	8.13
China	10.77	11.33	11.46	11.55	11.59	11.48	11.65	11.83	11.56	11.93	11.74	11.84	11.95	12.02	12.18	12.00
Japan	4.27	4.70	3.80	3.85	4.14	4.12	4.43	3.66	3.75	4.06	3.98	4.36	3.53	3.63	3.99	3.88
India	3.84	3.97	4.04	3.85	4.10	3.99	4.36	4.32	4.04	4.31	4.26	4.57	4.60	4.37	4.58	4.53
Russia	3.80	3.56	3.74	3.88	3.72	3.73	3.75	3.66	4.01	3.82	3.81	3.79	3.81	4.01	3.90	3.88
Brazil	3.24	3.17	3.17	3.22	3.20	3.19	3.02	3.07	3.14	3.16	3.10	3.02	3.06	3.15	3.18	3.10
Saudi Arabia	3.19	2.89	3.47	3.59	3.23	3.30	2.95	3.34	3.54	3.19	3.25	3.01	3.32	3.54	3.20	3.27
Canada	2.41	2.43	2.33	2.45	2.40	2.41	2.39	2.37	2.49	2.40	2.41	2.41	2.35	2.46	2.37	2.40
Korea	2.35	2.46	2.29	2.36	2.52	2.41	2.59	2.48	2.53	2.66	2.57	2.73	2.60	2.60	2.68	2.65
Mexico	2.04	1.94	1.97	2.07	2.05	2.01	1.98	1.94	1.93	1.97	1.96	1.94	1.95	1.92	1.97	1.94
Iran	2.04	1.89	1.91	1.86	1.96	1.90	1.86	1.85	1.86	1.98	1.89	1.92	1.91	1.94	2.03	1.95
Total	65.10	65.77	65.66	66.85	66.41	66.18	66.58	66.16	66.94	67.15	66.71	67.16	66.70	67.72	67.80	67.35
% of World	69.8%	70.0%	69.5%	69.6%	69.4%	69.6%	69.8%	69.1%	69.1%	69.2%	69.3%	69.4%	68.8%	69.0%	69.0%	69.1%
Annual Change (% per annum)																
Americas	0.2	2.1	2.6	2.3	-0.4	1.6	0.1	-0.1	-0.6	0.4	0.0	0.0	0.3	0.1	0.1	0.1
Europe	-0.7	2.8	0.7	1.7	1.3	1.6	1.4	2.7	1.3	0.1	1.3	0.2	0.0	-1.1	0.2	-0.2
Asia Oceania	-2.8	-2.2	-0.8	0.8	-1.4	-0.9	-1.5	0.9	0.9	0.6	0.2	0.7	-0.2	-0.6	-0.6	-0.2
Total OECD	-0.6	1.5	1.5	1.8	-0.1	1.2	0.2	0.9	0.2	0.3	0.4	0.2	0.1	-0.4	0.0	0.0
Asia	3.6	4.1	4.8	6.9	4.8	5.2	4.7	3.9	2.1	3.6	3.6	2.9	2.8	4.5	3.1	3.3
Middle East	4.4	-3.8	-0.4	0.9	1.3	-0.4	0.9	-1.5	0.1	1.5	0.2	3.1	1.4	1.1	1.3	1.7
Americas	2.7	0.2	-0.5	-1.5	-2.0	-1.0	-2.3	-1.7	-1.1	-0.5	-1.4	0.4	0.3	0.5	0.6	0.5
FSU	4.1	-0.5	-0.3	-2.1	-2.1	-1.3	4.7	-0.8	3.5	3.0	2.6	1.1	3.9	0.4	1.4	1.7
Africa	0.2	3.6	4.6	6.6	8.6	5.8	1.9	3.8	3.3	3.6	3.2	3.3	3.1	3.1	2.9	3.1
Europe	-1.5	4.9	4.4	3.5	5.1	4.4	3.4	5.1	2.7	2.6	3.4	2.8	1.5	0.5	2.5	1.8
Total Non-OECD	3.3	1.7	2.6	3.5	2.8	2.7	2.9	1.7	1.6	2.6	2.2	2.4	2.3	2.7	2.3	2.5
World	1.3	1.6	2.0	2.7	1.4	1.9	1.5	1.3	0.9	1.5	1.3	1.3	1.3	1.2	1.2	1.3
Annual Change (mb/d)																
Americas	0.04	0.51	0.63	0.55	-0.09	0.40	0.04	-0.01	-0.15	0.09	-0.01	0.00	0.07	0.03	0.03	0.03
Europe	-0.10	0.36	0.09	0.23	0.18	0.21	0.19	0.36	0.18	0.01	0.18	0.02	-0.01	-0.16	0.03	-0.03
Asia Oceania	-0.23	-0.19	-0.06	0.06	-0.11	-0.07	-0.13	0.07	0.07	0.05	0.01	0.06	-0.02	-0.04	-0.05	-0.01
Total OECD	-0.29	0.69	0.66	0.85	-0.03	0.54	0.09	0.41	0.10	0.15	0.19	0.08	0.05	-0.17	0.01	-0.01
Asia	0.79	0.94	1.10	1.54	1.13	1.18	1.12	0.93	0.50	0.89	0.86	0.71	0.69	1.09	0.80	0.82
Middle East	0.35	-0.31	-0.03	0.08	0.11	-0.04	0.07	-0.13	0.01	0.12	0.02	0.24	0.12	0.10	0.11	0.14
Americas	0.18	0.01	-0.03	-0.10	-0.14	-0.07	-0.15	-0.12	-0.07	-0.03	-0.09	0.02	0.02	0.03	0.04	0.03
FSU	0.20	-0.02	-0.01	-0.11	-0.10	-0.06	0.22	-0.04	0.18	0.15	0.13	0.06	0.19	0.02	0.07	0.08
Africa	0.01	0.14	0.18	0.25	0.33	0.22	0.08	0.16	0.13	0.15	0.13	0.14	0.13	0.13	0.12	0.13
Europe	-0.01	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.00	0.02	0.01
Total Non-OECD	1.51	0.79	1.24	1.68	1.35	1.27	1.35	0.84	0.77	1.29	1.06	1.19	1.16	1.37	1.16	1.22
World	1.23	1.48	1.89	2.53	1.32	1.80	1.44	1.25	0.87	1.44	1.25	1.28	1.20	1.19	1.17	1.21
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	-0.01	0.00	0.00	0.00	0.01	0.00	0.06	-0.03	0.01	-0.03	-0.02	-0.04	0.01	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.17	0.02	0.05	0.03	0.03	0.03	0.05	0.04
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.02	0.03	0.01	0.01	0.01	0.01
Total OECD	0.00	0.00	-0.01	0.01	0.00	0.00	0.02	0.00	0.26	0.02	0.07	0.03	0.02	0.00	0.06	0.03
Asia	0.00	0.01	0.01	0.00	0.01	0.01	0.03	0.04	-0.14	0.07	0.00	0.00	0.02	-0.04	0.01	0.00
Middle East	0.00	0.03	0.02	0.03	0.02	0.03	0.02	0.02	0.11	0.08	0.06	0.06	0.07	0.11	0.10	0.08
Americas	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.03	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01
FSU	0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.08	-0.07	-0.09	-0.09	-0.08	-0.09	-0.09	-0.06	-0.07	-0.08
Africa	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.02	0.02	0.02	0.01	0.00	0.01	-0.05	-0.04	-0.15	0.02	-0.06	-0.06	-0.03	-0.03	0.01	-0.03
World	0.02	0.02	0.01	0.02	0.00	0.01	-0.03	-0.05	0.11	0.05	0.02	-0.03	-0.01	-0.03	0.07	0.00
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.02	0.00	-0.01	0.00	-0.02	-0.01	-0.05	-0.06	0.09	0.04	0.01	0.00	0.04	-0.14	0.02	-0.02

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

	Latest month vs.									
	2014	2015	3Q15	4Q15	1Q16	2Q16	Jun 16	Jul 16	Aug 16 ²	Jul 16 Aug 15
Americas										
LPG and ethane	3.22	3.29	3.11	3.44	3.56	2.93	2.89	3.02	3.03	0.01 -0.09
Naphtha	0.35	0.34	0.33	0.36	0.35	0.35	0.35	0.36	0.35	-0.01 0.01
Motor gasoline	10.61	10.91	11.18	10.91	10.85	11.23	11.51	11.44	11.44	0.00 0.22
Jet and kerosene	1.74	1.83	1.89	1.85	1.78	1.90	2.03	2.04	2.03	-0.01 0.12
Gasoil/diesel oil	5.28	5.21	5.18	5.05	5.06	5.02	5.08	4.74	5.11	0.37 0.01
Residual fuel oil	0.58	0.55	0.62	0.61	0.59	0.69	0.70	0.72	0.65	-0.07 0.00
Other products	2.40	2.46	2.67	2.30	2.30	2.28	2.39	2.44	2.73	0.29 0.00
Total	24.20	24.59	24.98	24.53	24.49	24.39	24.95	24.75	25.34	0.59 0.27
Europe										
LPG and ethane	1.10	1.14	1.11	1.12	1.22	1.15	1.16	1.21	1.21	0.00 0.07
Naphtha	1.13	1.12	1.08	1.10	1.24	1.12	1.06	1.21	1.22	0.01 0.15
Motor gasoline	1.92	1.92	2.03	1.90	1.79	1.98	2.03	2.02	2.06	0.03 0.05
Jet and kerosene	1.27	1.32	1.49	1.25	1.24	1.39	1.44	1.52	1.57	0.05 0.06
Gasoil/diesel oil	5.94	6.14	6.26	6.27	6.11	6.11	6.11	5.92	6.26	0.33 0.22
Residual fuel oil	0.95	0.91	0.90	0.92	0.95	0.92	0.94	0.95	0.97	0.02 0.09
Other products	1.21	1.18	1.30	1.14	1.09	1.27	1.32	1.31	1.31	0.00 0.02
Total	13.51	13.73	14.17	13.70	13.64	13.93	14.05	14.14	14.59	0.45 0.65
Asia Oceania										
LPG and ethane	0.82	0.77	0.74	0.76	0.83	0.81	0.76	0.83	0.84	0.01 0.13
Naphtha	1.88	1.96	1.95	1.99	2.00	1.85	1.87	1.81	1.94	0.13 -0.05
Motor gasoline	1.56	1.56	1.63	1.58	1.53	1.52	1.51	1.60	1.74	0.14 0.04
Jet and kerosene	0.87	0.87	0.70	0.96	1.17	0.73	0.68	0.66	0.70	0.04 0.01
Gasoil/diesel oil	1.76	1.78	1.73	1.84	1.83	1.75	1.72	1.67	1.76	0.09 0.04
Residual fuel oil	0.68	0.64	0.55	0.64	0.75	0.60	0.59	0.66	0.58	-0.08 0.01
Other products	0.56	0.45	0.43	0.42	0.44	0.37	0.35	0.38	0.40	0.02 -0.06
Total	8.11	8.04	7.71	8.18	8.55	7.64	7.49	7.62	7.96	0.34 0.12
OECD										
LPG and ethane	5.13	5.20	4.96	5.32	5.61	4.89	4.81	5.06	5.08	0.02 0.11
Naphtha	3.36	3.42	3.35	3.45	3.59	3.32	3.27	3.37	3.51	0.14 0.10
Motor gasoline	14.09	14.39	14.83	14.38	14.17	14.74	15.05	15.07	15.24	0.17 0.30
Jet and kerosene	3.88	4.02	4.09	4.06	4.19	4.02	4.15	4.22	4.29	0.08 0.19
Gasoil/diesel oil	12.98	13.13	13.17	13.17	13.00	12.88	12.91	12.34	13.14	0.80 0.27
Residual fuel oil	2.21	2.10	2.07	2.16	2.29	2.21	2.24	2.32	2.20	-0.12 0.10
Other products	4.16	4.10	4.40	3.86	3.83	3.92	4.06	4.13	4.44	0.31 -0.04
Total	45.82	46.36	46.86	46.41	46.68	45.97	46.49	46.51	47.89	1.38 1.04

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	3Q15	4Q15	1Q16	2Q16	Jun 16	Jul 16	Aug 16 ²	Latest month vs.	
										Jul 16	Aug 15
United States³											
LPG and ethane	2.40	2.45	2.29	2.57	2.69	2.21	2.14	2.30	2.25	-0.05	-0.04
Naphtha	0.23	0.22	0.22	0.24	0.22	0.22	0.22	0.22	0.22	-0.01	-0.02
Motor gasoline	8.92	9.18	9.41	9.17	9.09	9.44	9.66	9.60	9.59	0.00	0.13
Jet and kerosene	1.48	1.55	1.60	1.58	1.51	1.62	1.72	1.72	1.71	-0.01	0.11
Gasoil/diesel oil	4.04	4.00	3.96	3.86	3.90	3.81	3.86	3.58	3.89	0.31	-0.02
Residual fuel oil	0.26	0.26	0.30	0.28	0.31	0.41	0.41	0.45	0.34	-0.11	0.04
Other products	1.78	1.87	2.06	1.70	1.72	1.73	1.82	1.84	2.13	0.30	0.00
Total	19.11	19.53	19.83	19.42	19.45	19.43	19.83	19.71	20.13	0.42	0.20
Japan											
LPG and ethane	0.49	0.43	0.39	0.40	0.47	0.42	0.36	0.44	0.42	-0.02	0.05
Naphtha	0.74	0.78	0.78	0.80	0.79	0.72	0.70	0.68	0.72	0.04	-0.03
Motor gasoline	0.92	0.91	0.97	0.92	0.87	0.88	0.87	0.95	1.03	0.08	0.00
Jet and kerosene	0.52	0.50	0.35	0.57	0.74	0.37	0.33	0.31	0.32	0.01	-0.02
Diesel	0.41	0.41	0.41	0.42	0.41	0.38	0.39	0.40	0.41	0.00	0.00
Other gasoil	0.36	0.35	0.30	0.36	0.40	0.32	0.31	0.31	0.30	-0.01	0.01
Residual fuel oil	0.42	0.36	0.31	0.32	0.38	0.30	0.30	0.34	0.30	-0.04	-0.04
Other products	0.41	0.37	0.35	0.35	0.37	0.27	0.26	0.31	0.32	0.00	-0.07
Total	4.27	4.12	3.85	4.14	4.43	3.66	3.52	3.74	3.82	0.08	-0.09
Germany											
LPG and ethane	0.09	0.10	0.10	0.08	0.10	0.11	0.11	0.10	0.10	0.00	0.01
Naphtha	0.41	0.40	0.37	0.40	0.42	0.36	0.36	0.45	0.40	-0.05	0.02
Motor gasoline	0.43	0.42	0.44	0.42	0.40	0.43	0.44	0.44	0.43	0.00	-0.01
Jet and kerosene	0.18	0.18	0.20	0.18	0.17	0.20	0.20	0.23	0.22	-0.01	0.01
Diesel	0.71	0.75	0.79	0.77	0.72	0.80	0.82	0.82	0.80	-0.02	0.04
Other gasoil	0.37	0.35	0.34	0.37	0.46	0.27	0.23	0.20	0.31	0.11	-0.03
Residual fuel oil	0.12	0.12	0.12	0.11	0.13	0.13	0.12	0.11	0.12	0.01	0.00
Other products	0.06	0.05	0.08	0.05	0.02	0.07	0.06	0.05	0.08	0.02	0.00
Total	2.37	2.37	2.44	2.39	2.42	2.37	2.34	2.41	2.47	0.06	0.05
Italy											
LPG and ethane	0.10	0.11	0.10	0.12	0.12	0.10	0.10	0.10	0.10	0.00	0.00
Naphtha	0.07	0.09	0.09	0.09	0.11	0.12	0.12	0.10	0.12	0.01	0.02
Motor gasoline	0.20	0.21	0.23	0.21	0.20	0.21	0.20	0.22	0.22	0.00	-0.01
Jet and kerosene	0.09	0.10	0.12	0.08	0.09	0.11	0.12	0.13	0.13	0.00	0.01
Diesel	0.48	0.44	0.45	0.45	0.42	0.45	0.46	0.46	0.43	-0.03	0.02
Other gasoil	0.09	0.09	0.09	0.10	0.08	0.08	0.09	0.09	0.09	0.00	0.01
Residual fuel oil	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.01	-0.01
Other products	0.15	0.15	0.15	0.15	0.12	0.15	0.15	0.15	0.12	-0.03	-0.01
Total	1.27	1.27	1.32	1.28	1.21	1.29	1.32	1.32	1.26	-0.05	0.03
France											
LPG and ethane	0.13	0.13	0.11	0.13	0.17	0.14	0.14	0.13	0.14	0.00	0.02
Naphtha	0.13	0.13	0.13	0.09	0.14	0.12	0.10	0.13	0.14	0.00	-0.01
Motor gasoline	0.16	0.16	0.18	0.16	0.15	0.18	0.17	0.19	0.19	0.00	0.02
Jet and kerosene	0.15	0.15	0.17	0.15	0.14	0.15	0.15	0.17	0.17	0.00	0.00
Diesel	0.70	0.71	0.72	0.72	0.67	0.72	0.69	0.71	0.70	-0.01	0.05
Other gasoil	0.25	0.25	0.28	0.23	0.26	0.20	0.17	0.20	0.23	0.02	-0.06
Residual fuel oil	0.05	0.04	0.04	0.04	0.04	0.03	0.02	0.04	0.04	0.00	0.00
Other products	0.12	0.12	0.12	0.10	0.12	0.13	0.14	0.14	0.12	-0.02	0.03
Total	1.69	1.69	1.76	1.63	1.69	1.66	1.58	1.72	1.73	0.01	0.05
United Kingdom											
LPG and ethane	0.12	0.14	0.12	0.14	0.18	0.16	0.17	0.16	0.14	-0.02	0.02
Naphtha	0.02	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.02	0.00	0.00
Motor gasoline	0.30	0.29	0.30	0.29	0.28	0.30	0.31	0.28	0.29	0.00	-0.01
Jet and kerosene	0.31	0.31	0.32	0.30	0.33	0.31	0.30	0.29	0.33	0.04	0.01
Diesel	0.48	0.50	0.50	0.51	0.49	0.52	0.54	0.51	0.51	0.00	0.01
Other gasoil	0.13	0.13	0.14	0.13	0.12	0.14	0.15	0.14	0.16	0.02	0.01
Residual fuel oil	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.12	0.12	0.13	0.12	0.11	0.12	0.13	0.13	0.11	-0.01	-0.01
Total	1.52	1.55	1.57	1.56	1.57	1.62	1.66	1.57	1.60	0.03	0.02
Canada											
LPG and ethane	0.36	0.38	0.38	0.41	0.43	0.36	0.38	0.36	0.42	0.06	0.03
Naphtha	0.09	0.09	0.09	0.10	0.11	0.10	0.11	0.10	0.10	0.00	0.01
Motor gasoline	0.81	0.82	0.86	0.81	0.83	0.86	0.90	0.91	0.90	-0.01	0.03
Jet and kerosene	0.14	0.14	0.16	0.14	0.13	0.14	0.17	0.17	0.17	0.01	0.00
Diesel	0.29	0.31	0.32	0.29	0.30	0.31	0.32	0.30	0.28	-0.02	-0.04
Other gasoil	0.30	0.26	0.26	0.26	0.22	0.25	0.23	0.22	0.29	0.07	0.04
Residual fuel oil	0.05	0.04	0.02	0.03	0.05	0.03	0.02	0.02	0.04	0.01	0.01
Other products	0.36	0.35	0.37	0.36	0.32	0.31	0.31	0.38	0.35	-0.02	0.01
Total	2.41	2.41	2.45	2.40	2.39	2.37	2.45	2.46	2.56	0.10	0.10

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2015	2016	2017	2Q16	3Q16	4Q16	1Q17	2Q17	Aug 16	Sep 16	Oct 16
OPEC											
Crude Oil											
Saudi Arabia	10.13			10.33	10.62				10.60	10.61	10.55
Iran	2.86			3.59	3.66				3.67	3.68	3.72
Iraq	4.02			4.31	4.42				4.40	4.49	4.59
UAE	2.90			2.98	3.09				3.09	3.10	3.08
Kuwait	2.75			2.82	2.89				2.91	2.90	2.93
Neutral Zone	0.07			0.00	0.00				0.00	0.00	0.00
Qatar	0.66			0.66	0.65				0.65	0.62	0.62
Angola	1.76			1.74	1.74				1.76	1.69	1.52
Nigeria	1.80			1.50	1.37				1.37	1.39	1.57
Libya	0.40			0.32	0.31				0.28	0.36	0.51
Algeria	1.11			1.09	1.12				1.12	1.12	1.12
Ecuador	0.54			0.55	0.55				0.55	0.56	0.56
Venezuela	2.40			2.23	2.14				2.14	2.13	2.12
Indonesia	0.69			0.74	0.74				0.74	0.74	0.74
Gabon	0.23			0.22	0.21				0.21	0.21	0.20
Total Crude Oil	32.32			33.07	33.51				33.49	33.60	33.83
Total NGLs ¹	6.69	6.88	7.01	6.85	6.93	6.97	6.98	6.97	6.93	6.93	6.97
Total OPEC²	39.01			39.92	40.45				40.43	40.54	40.81
NON-OPEC^{2,3}											
OECD											
Americas	19.99	19.38	19.43	18.96	19.33	19.33	19.37	19.25	19.35	19.21	19.34
United States	12.99	12.53	12.49	12.61	12.37	12.40	12.37	12.47	12.34	12.29	12.35
Mexico	2.60	2.47	2.34	2.49	2.46	2.41	2.38	2.35	2.47	2.42	2.42
Canada	4.39	4.37	4.60	3.86	4.50	4.51	4.61	4.43	4.53	4.50	4.57
Chile	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
Europe	3.48	3.44	3.39	3.44	3.33	3.36	3.46	3.42	3.35	2.98	3.19
UK	0.97	1.02	0.98	1.05	0.97	0.95	1.00	1.00	0.92	0.91	0.85
Norway	1.95	1.94	1.92	1.94	1.89	1.91	1.95	1.93	1.94	1.60	1.85
Others	0.56	0.48	0.49	0.45	0.47	0.50	0.50	0.50	0.50	0.47	0.49
Asia Oceania	0.46	0.43	0.45	0.41	0.45	0.44	0.44	0.44	0.45	0.43	0.44
Australia	0.38	0.35	0.37	0.34	0.36	0.36	0.36	0.36	0.37	0.35	0.36
Others	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Total OECD	23.92	23.25	23.27	22.82	23.10	23.13	23.26	23.11	23.15	22.62	22.97
NON-OECD											
Former USSR	14.00	14.16	14.49	14.01	13.96	14.46	14.54	14.43	13.60	14.17	14.45
Russia	11.06	11.29	11.48	11.18	11.24	11.50	11.51	11.48	11.05	11.45	11.54
Others	2.94	2.87	3.01	2.83	2.72	2.96	3.04	2.94	2.56	2.72	2.91
Asia²	7.09	6.74	6.48	6.77	6.62	6.62	6.54	6.50	6.57	6.61	6.62
China	4.34	4.04	3.86	4.06	3.95	3.94	3.91	3.88	3.92	3.94	3.94
Malaysia	0.71	0.72	0.71	0.71	0.71	0.71	0.69	0.71	0.69	0.72	0.71
India	0.87	0.85	0.84	0.85	0.85	0.85	0.85	0.83	0.85	0.84	0.86
Others	1.18	1.14	1.07	1.15	1.11	1.11	1.08	1.08	1.10	1.11	1.11
Europe	0.14	0.14	0.13	0.14	0.13	0.13	0.13	0.13	0.14	0.13	0.13
Americas²	4.58	4.49	4.69	4.44	4.56	4.63	4.67	4.69	4.53	4.63	4.60
Brazil	2.53	2.62	2.91	2.55	2.73	2.81	2.87	2.90	2.72	2.79	2.79
Argentina	0.63	0.61	0.60	0.61	0.61	0.61	0.60	0.60	0.61	0.61	0.61
Colombia	1.01	0.89	0.83	0.91	0.85	0.84	0.84	0.83	0.83	0.86	0.85
Others	0.41	0.37	0.36	0.38	0.37	0.36	0.36	0.36	0.37	0.37	0.36
Middle East^{2,4}	1.27	1.26	1.26	1.25	1.28	1.28	1.27	1.26	1.28	1.28	1.28
Oman	0.99	1.01	0.99	1.01	1.02	1.02	1.01	1.00	1.02	1.02	1.02
Syria	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.03
Yemen	0.04	0.02	0.03	0.01	0.02	0.03	0.03	0.03	0.02	0.03	0.03
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.05	2.01	2.09	1.93	2.03	2.06	2.07	2.08	2.03	2.05	2.06
Egypt	0.72	0.70	0.67	0.70	0.69	0.69	0.68	0.67	0.69	0.69	0.69
Others	1.33	1.31	1.42	1.23	1.34	1.37	1.39	1.40	1.33	1.36	1.37
Total Non-OECD	29.14	28.80	29.14	28.54	28.57	29.17	29.22	29.08	28.14	28.86	29.14
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.29	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.37	2.46	2.42	2.77	2.40	1.98	2.48	2.79	2.81	2.66
TOTAL NON-OPEC	57.56	56.69	57.16	56.05	56.71	56.97	56.76	56.96	56.35	56.55	57.04
TOTAL SUPPLY	96.57			95.97	97.16				96.77	97.09	97.84

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	May2016	Jun2016	Jul2016	Aug2016	Sep2016*	Sep2013	Sep2014	Sep2015	4Q2015	1Q2016	2Q2016	3Q2016
OECD Americas												
Crude	655.7	649.5	646.3	637.9	623.4	493.1	483.1	585.0	0.26	0.54	-0.09	-0.28
Motor Gasoline	271.1	273.1	272.3	262.2	260.5	253.9	245.7	257.6	0.11	0.05	0.01	-0.14
Middle Distillate	229.2	219.9	229.6	233.9	239.4	206.4	203.5	220.4	0.17	0.05	-0.23	0.21
Residual Fuel Oil	47.3	46.7	44.8	46.8	45.7	43.0	44.4	47.4	0.02	0.01	-0.04	-0.01
Total Products ³	764.4	773.1	794.6	801.2	803.7	714.9	721.6	765.5	0.10	-0.19	0.17	0.33
Total ⁴	1601.5	1608.6	1635.9	1633.8	1619.0	1374.6	1384.6	1542.4	0.20	0.31	0.21	0.11
OECD Europe												
Crude	356.5	356.5	363.5	354.3	355.7	322.1	315.8	339.7	0.23	-0.13	0.08	-0.01
Motor Gasoline	99.6	96.6	96.9	92.6	92.0	88.5	86.8	89.4	0.03	0.09	-0.04	-0.05
Middle Distillate	313.3	312.9	321.9	322.1	315.8	254.9	266.3	302.3	0.00	0.08	0.04	0.03
Residual Fuel Oil	75.2	72.0	70.5	69.6	68.3	71.7	61.7	69.3	0.03	0.06	-0.07	-0.04
Total Products ³	589.1	581.1	592.1	583.9	573.5	504.5	512.3	557.4	0.06	0.25	-0.05	-0.08
Total ⁴	1014.4	1005.3	1024.2	1007.5	998.6	890.3	897.7	966.9	0.25	0.16	0.01	-0.07
OECD Asia Oceania												
Crude	202.6	202.2	196.5	188.7	200.1	165.9	178.3	202.2	0.04	-0.11	0.07	-0.02
Motor Gasoline	25.3	26.4	24.8	24.3	24.0	24.5	22.8	23.5	0.00	0.03	0.00	-0.03
Middle Distillate	64.7	67.0	71.6	76.3	75.3	69.9	70.3	67.0	-0.01	-0.08	0.09	0.09
Residual Fuel Oil	19.0	19.1	19.6	19.6	18.9	19.7	22.8	22.4	-0.01	-0.01	-0.01	0.00
Total Products ³	171.2	175.0	184.1	192.7	188.6	182.1	183.3	175.7	-0.11	0.00	0.10	0.15
Total ⁴	434.1	437.7	441.8	443.5	450.2	420.8	435.9	444.7	-0.11	-0.15	0.18	0.14
Total OECD												
Crude	1214.7	1208.2	1206.3	1180.9	1179.2	981.1	977.2	1126.9	0.53	0.30	0.05	-0.32
Motor Gasoline	395.9	396.2	393.9	379.1	376.4	366.9	355.2	370.5	0.14	0.18	-0.04	-0.21
Middle Distillate	607.1	599.8	623.0	632.3	630.4	531.3	540.1	589.6	0.15	0.06	-0.10	0.33
Residual Fuel Oil	141.5	137.8	134.9	136.0	132.8	134.3	129.0	139.1	0.04	0.06	-0.12	-0.05
Total Products ³	1524.7	1529.1	1570.8	1577.9	1565.7	1401.4	1417.1	1498.6	0.06	0.06	0.21	0.40
Total ⁴	3050.0	3051.6	3101.9	3084.8	3067.7	2685.8	2718.2	2953.9	0.34	0.32	0.41	0.17

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	May2016	Jun2016	Jul2016	Aug2016	Sep2016*	Sep2013	Sep2014	Sep2015	4Q2015	1Q2016	2Q2016	3Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	691.0	695.1	0.00	0.00	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	206.0	205.6	205.7	205.9	206.7	205.2	207.4	208.1	-0.01	0.00	-0.01	0.01
Products	264.3	264.6	267.0	267.9	267.8	262.1	256.2	254.6	0.08	0.05	-0.02	0.04
OECD Asia Oceania												
Crude	385.4	385.4	385.4	385.4	385.4	384.9	385.7	381.4	0.01	0.02	0.01	0.00
Products	35.2	35.5	35.5	35.9	35.9	28.3	31.0	33.7	0.01	0.01	0.00	0.00
Total OECD												
Crude	1286.6	1286.1	1286.2	1286.4	1287.2	1286.1	1284.0	1284.6	0.00	0.02	0.00	0.01
Products	301.5	302.1	304.5	305.8	305.7	291.4	289.2	290.3	0.08	0.06	-0.02	0.04
Total ⁴	1590.8	1590.9	1593.2	1594.4	1595.1	1581.6	1578.4	1579.2	0.08	0.07	-0.03	0.05

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
(millions of barrels² and 'days')³

	End September 2015		End December 2015		End March 2016		End June 2016		End September 2016 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	182.5	76	188.4	79	183.6	77	175.2	-	-	-
Chile	12.1	36	11.3	33	11.2	32	10.7	-	-	-
Mexico	49.5	24	49.7	25	45.9	24	48.8	-	-	-
United States ⁴	1973.4	102	1986.6	102	2023.5	104	2048.9	-	-	-
Total ⁴	2239.5	91	2258.0	92	2286.2	94	2305.7	93	2316.0	94
OECD Asia Oceania										
Australia	35.5	31	33.5	30	37.0	33	38.2	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	589.6	143	582.0	131	559.8	153	573.5	-	-	-
Korea	226.0	90	227.9	88	235.7	95	238.0	-	-	-
New Zealand	8.7	52	7.7	45	8.2	51	8.9	-	-	-
Total	859.7	105	851.1	100	840.7	110	858.6	111	871.4	106
OECD Europe⁵										
Austria	23.7	90	24.1	94	25.4	93	22.5	-	-	-
Belgium	51.3	81	50.4	73	52.7	84	52.6	-	-	-
Czech Republic	21.8	127	22.1	148	22.8	130	22.8	-	-	-
Denmark	28.6	186	31.8	211	32.4	204	30.7	-	-	-
Estonia	1.5	53	1.8	66	2.2	89	2.6	-	-	-
Finland	39.9	205	44.9	237	46.0	241	45.4	-	-	-
France	166.8	103	167.6	99	165.8	100	167.5	-	-	-
Germany	281.4	118	285.3	118	288.8	122	288.0	-	-	-
Greece	29.2	94	32.4	115	33.4	116	32.6	-	-	-
Hungary	20.6	126	22.0	157	20.9	140	22.5	-	-	-
Ireland	11.3	75	11.6	75	12.2	82	12.3	-	-	-
Italy	117.2	92	117.3	97	119.9	93	120.9	-	-	-
Luxembourg	0.6	10	0.7	13	0.7	12	0.8	-	-	-
Netherlands	153.1	160	158.8	165	157.7	160	159.6	-	-	-
Norway	25.1	105	26.7	127	24.9	117	26.5	-	-	-
Poland	63.9	119	69.4	131	67.4	119	65.4	-	-	-
Portugal	23.0	97	23.9	108	24.5	100	24.9	-	-	-
Slovak Republic	11.0	134	11.6	150	11.9	135	12.4	-	-	-
Slovenia	4.6	96	4.5	90	4.6	90	4.7	-	-	-
Spain	139.4	113	130.9	104	140.3	112	134.2	-	-	-
Sweden	33.3	120	35.2	122	34.9	116	33.3	-	-	-
Switzerland	36.3	149	34.4	171	36.1	165	35.8	-	-	-
Turkey	71.2	82	74.6	88	75.9	80	78.0	-	-	-
United Kingdom	79.0	51	80.9	52	79.7	49	82.3	-	-	-
Total	1433.9	105	1463.0	107	1481.1	106	1478.2	106	1475.3	109
Total OECD	4533.2	98	4572.1	98	4607.9	100	4642.5	100	4662.8	101
DAYS OF IEA Net Imports⁶ -	195	-	196	-	199	-	203	-	-	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End September 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled Millions of Barrels	Industry	Total	Government ¹ controlled Days of Fwd. Demand ²	Industry
3Q2013	4267	1582	2686	92	34	58
4Q2013	4144	1584	2559	90	35	56
1Q2014	4164	1585	2579	93	35	57
2Q2014	4229	1580	2649	92	34	58
3Q2014	4297	1578	2718	93	34	59
4Q2014	4285	1580	2705	92	34	58
1Q2015	4372	1583	2789	96	35	61
2Q2015	4463	1585	2878	95	34	61
3Q2015	4533	1579	2954	98	34	64
4Q2015	4572	1587	2986	98	34	64
1Q2016	4608	1593	3015	100	35	66
2Q2016	4642	1591	3052	100	34	66
3Q2016	4663	1595	3068	101	34	66

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 3Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	3Q15	4Q15	1Q16	2Q16	Jun 16	Jul 16	Aug 16	Year Earlier	
											Aug 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.57	0.72	0.74	0.72	0.59	0.88	0.70	0.57	0.13
Europe	0.79	0.84	0.78	0.77	0.69	0.76	0.73	0.80	0.72	0.85	0.66	0.18
Asia Oceania	1.21	1.17	1.25	1.16	1.21	1.40	1.44	1.39	1.18	1.18	1.20	-0.03
Saudi Medium												
Americas	0.45	0.36	0.37	0.44	0.43	0.39	0.44	0.45	0.41	0.41	0.51	-0.10
Europe	0.01	0.03	0.03	0.02	0.04	-	0.01	0.02	0.02	0.02	0.05	-0.03
Asia Oceania	0.43	0.45	0.44	0.48	0.41	0.46	0.43	0.38	0.42	0.39	0.52	-0.13
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.09	0.29	0.21	0.44	0.44	0.43	0.55	0.11	0.44
Europe	0.25	0.50	0.72	0.95	0.94	0.90	0.78	0.80	0.87	0.92	0.93	-0.01
Asia Oceania	0.31	0.24	0.41	0.42	0.49	0.47	0.51	0.53	0.41	0.46	0.45	0.00
Kuwait Blend												
Americas	0.28	0.27	0.13	0.11	0.07	0.13	0.12	0.21	0.26	-	0.12	-
Europe	0.10	0.09	0.13	0.16	0.18	0.20	0.10	0.08	0.18	0.25	0.19	0.06
Asia Oceania	0.64	0.62	0.65	0.62	0.69	0.71	0.65	0.59	0.71	0.61	0.65	-0.04
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.07	0.10	0.09	0.18	0.24	0.40	0.36	0.07	0.29
Asia Oceania	0.00	0.01	0.01	0.02	-	0.02	0.01	0.02	-	-	0.02	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.03	0.01	0.04	0.16	0.12	0.24	0.20	0.03	0.16
Asia Oceania	0.30	0.28	0.27	0.25	0.26	0.44	0.47	0.54	0.55	0.51	0.23	0.28
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.67	0.61	0.61	0.57	0.75	0.59	0.68	-0.10
Europe	0.07	0.08	0.09	0.07	0.10	0.06	0.05	0.02	0.04	0.03	0.04	-0.01
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.45	0.54	0.52	0.54	0.58	0.56	0.55	0.48	0.07
Europe	0.14	0.14	0.15	0.19	0.11	0.15	0.16	0.13	0.18	0.20	0.17	0.02
Asia Oceania	-	-	0.01	0.02	0.02	0.02	0.04	0.04	0.10	0.04	0.03	0.01
Canada Heavy												
Americas	1.49	1.71	1.90	2.02	1.94	2.12	1.85	1.88	2.07	2.22	2.06	0.16
Europe	-	0.00	0.01	0.01	0.01	0.01	0.01	-	-	-	-	-
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	-	-
Europe	0.47	0.56	0.49	0.52	0.49	0.47	0.37	0.23	0.40	0.68	0.48	0.20
Asia Oceania	0.06	0.07	0.06	0.02	0.09	0.09	0.03	-	-	-	-	-
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.64	1.74	1.58	1.78	1.72	1.75	1.63	1.65	-0.02
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	-	-	-	-	-	-	-	-
Europe	0.59	0.64	0.64	0.59	0.65	0.76	0.72	0.65	0.89	0.60	0.58	0.01
Asia Oceania	0.00	0.02	0.06	0.12	0.06	0.05	0.00	-	-	0.03	0.17	-0.14
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.22	0.25	0.16	0.15	0.16	0.22	0.11	0.17	-0.06
Asia Oceania	0.03	0.02	0.01	-	-	0.02	0.01	0.02	-	0.03	-	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.03	0.02	0.07	0.06	0.06	0.06	0.17	-	-
Europe	0.53	0.55	0.57	0.55	0.58	0.44	0.46	0.50	0.44	0.31	0.55	-0.25
Asia Oceania	0.03	0.02	-	-	-	-	0.01	-	-	0.03	-	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

2 Iraqi Total minus Kirkuk.

3 Iranian Total minus Iranian Light.

4 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	3Q15	4Q15	1Q16	2Q16	Jun 16	Jul 16	Aug 16	Year Earlier	
											Aug 15	% change
Crude Oil												
Americas	5130	4201	4026	4080	4066	4350	4663	4565	5062	4811	4133	16%
Europe	8926	8679	9503	9605	9741	8963	8826	8907	10085	9466	9412	1%
Asia Oceania	6537	6371	6572	6482	6522	6802	6647	6400	6447	6513	6662	-2%
Total OECD	20592	19251	20101	20166	20328	20115	20135	19873	21595	20790	20207	3%
LPG												
Americas	17	12	10	6	10	29	9	6	31	25	5	406%
Europe	382	427	412	408	404	404	401	405	514	400	414	-3%
Asia Oceania	547	532	518	491	506	590	576	624	620	574	544	6%
Total OECD	946	971	940	906	920	1024	986	1035	1165	999	962	4%
Naphtha												
Americas	17	20	14	12	12	11	7	16	6	2	13	-83%
Europe	332	356	348	413	283	360	292	314	357	394	432	-9%
Asia Oceania	920	953	951	948	977	948	834	741	960	986	886	11%
Total OECD	1269	1328	1313	1372	1271	1319	1134	1071	1323	1382	1331	4%
Gasoline³												
Americas	659	665	670	813	549	460	873	1016	953	827	793	4%
Europe	106	131	107	72	117	93	56	22	-25	139	101	37%
Asia Oceania	75	76	93	61	98	73	84	78	76	68	72	-6%
Total OECD	841	871	870	946	765	626	1012	1116	1005	1034	966	7%
Jet & Kerosene												
Americas	81	100	141	132	133	152	154	174	200	159	152	5%
Europe	445	454	442	586	392	462	515	609	549	628	550	14%
Asia Oceania	73	60	64	49	74	79	76	58	50	31	35	-12%
Total OECD	600	614	648	768	599	693	745	841	798	818	737	11%
Gasoil/Diesel												
Americas	58	95	76	46	63	57	40	45	55	97	49	100%
Europe	1121	1097	1216	1261	1178	1407	1454	1499	1284	1277	1353	-6%
Asia Oceania	141	159	164	147	200	180	225	211	156	158	128	24%
Total OECD	1319	1352	1457	1455	1441	1644	1719	1756	1495	1533	1529	0%
Heavy Fuel Oil												
Americas	165	132	116	139	91	163	126	195	180	186	163	15%
Europe	552	617	564	518	575	529	514	425	509	489	498	-2%
Asia Oceania	232	203	176	176	204	188	150	160	185	164	163	1%
Total OECD	949	953	856	833	870	880	791	780	874	839	824	2%
Other Products												
Americas	812	671	675	759	553	627	713	737	721	640	676	-5%
Europe	791	704	702	737	724	761	794	736	673	698	893	-22%
Asia Oceania	426	408	352	373	351	384	347	348	386	378	390	-3%
Total OECD	2029	1784	1729	1870	1627	1772	1854	1822	1780	1716	1960	-12%
Total Products												
Americas	1810	1695	1702	1907	1412	1499	1923	2190	2146	1937	1851	5%
Europe	3729	3786	3793	3996	3672	4015	4027	4011	3861	4025	4240	-5%
Asia Oceania	2414	2391	2318	2246	2411	2444	2292	2220	2433	2359	2218	6%
Total OECD	7953	7872	7813	8149	7494	7958	8242	8421	8440	8321	8310	0%
Total Oil												
Americas	6940	5896	5728	5987	5478	5850	6585	6755	7208	6748	5984	13%
Europe	12655	12465	13296	13601	13413	12978	12853	12918	13947	13491	13652	-1%
Asia Oceania	8951	8762	8890	8728	8932	9246	8939	8620	8880	8872	8880	0%
Total OECD	28545	27123	27913	28316	27823	28074	28377	28293	30035	29111	28517	2%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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Next Issue: 13 December 2016

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Oil Market Report

13 December 2016

HIGHLIGHTS

- **OPEC has agreed to cut output by 1.2 mb/d from January 2017 and secured a reduction of 558 kb/d from non-OPEC.** As OPEC was deciding to cut production, its crude output in November was 34.2 mb/d, a record high, and 300 kb/d higher than in October. The group's output stood 1.4 mb/d higher than a year ago.
- **Additional cuts in support of OPEC were agreed by non-OPEC countries, led by Russia. They are expected to curb 2017 growth from non-OPEC producers** to just over 0.2 mb/d from our previous estimate of 0.5 mb/d.
- **Global oil supplies in November edged up to a record high 98.2 mb/d,** as a drop in non-OPEC output was more than offset by higher OPEC production.
- **Global oil demand growth of 1.4 mb/d is foreseen for 2016, 120 kb/d above our previous forecast.** Robust 3Q16 US demand numbers and methodological changes for China were the main factors. Growth in 2017 is now seen at 1.3 mb/d.
- **OECD commercial inventories fell in October for the third month in a row.** They have drawn 75 mb since reaching a historical high in July, but remain 300 mb above the five-year average. Product stocks have fallen twice as quickly as crude during that period. Preliminary data show stocks falling further across the OECD in November.
- **Refinery crude intake in 1Q17 is forecast to grow by only a modest 310 kb/d y-o-y,** after growing by only 350 kb/d growth in 4Q16. The rally in crude prices following the announcement of coordinated OPEC/non-OPEC action may further squeeze refining margins, prompting product stock draws first on the way to market re-balancing.
- **Benchmark crude prices reversed their losses seen in November and rose by \$10/bbl** following the decision by OPEC and non-OPEC to cut output. Light sweet crude oil underperformed sour grades and this may well continue in the early part of next year. Fuel oil and naphtha were well supported due to higher Asian demand.

The IEA is recruiting
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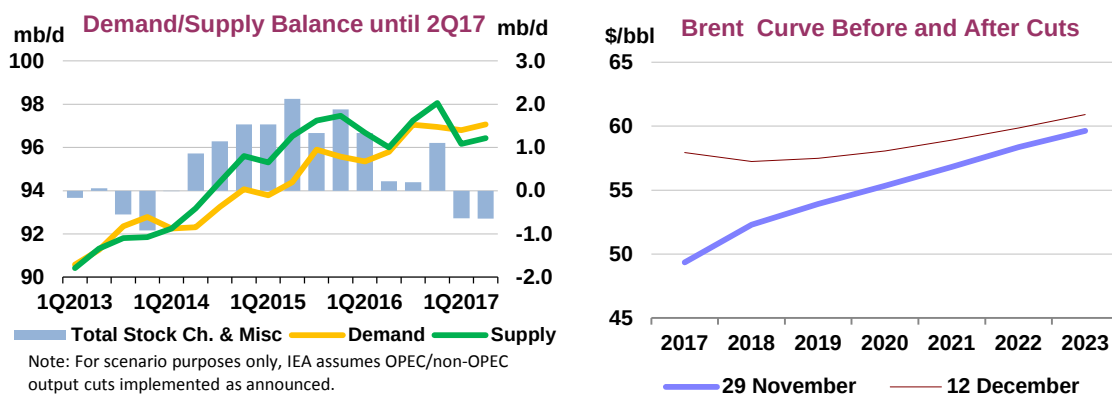
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WHAT A DIFFERENCE A YEAR MAKES

The final Report of 2016 analyses events as dramatic as those that kicked off the year. The focus in January was on \$30/bbl oil and the imminent increase in Iranian oil production after sanctions were lifted. In December, we are seeing the first proposed output cut by OPEC since 2008 – and the first deal including non-OPEC producers since 2001 – which marks a major departure from the market share policy followed for the past two years. OPEC's cut to crude production of 1.2 mb/d almost matches its deliberate production increase of 1.3 mb/d in the twelve months to October (the month on which the OPEC cuts are based), while the non-OPEC group has seen its crude output fall in the same period by about 0.9 mb/d. Meanwhile, following revisions to Chinese and Russian data, we have raised our 2016 global net demand growth number to 1.4 mb/d and that for 2017 to 1.3 mb/d.



Before the agreement among producers, our demand and supply numbers suggested that the market would re-balance by the end of 2017. But OPEC, Russia and other producers are looking to speed up the process. If OPEC promptly and fully sticks to its production target, assessed at 32.7 mb/d, and non-OPEC producers deliver the agreed cuts of 558 kb/d outlined on 10 December, then the market is likely to move into deficit in the first half of 2017 by an estimated 0.6 mb/d. This is not a forecast by the IEA, it is an assumption based on the numbers in OPEC's 30 November agreement, subsequently reinforced by the non-OPEC producers.

After the first half of 2017, the analysis is complicated by the fact that the proposed cut is for six months, and will be reviewed at the next OPEC ministerial meeting at the end of May. This can be seen as prudent given the underlying uncertainties in the oil market and the global economy but also a warning that production restraint might not be extended. The price curve reflects this with a sharp increase in short-term prices but shows relatively little movement further out. OPEC also appears to be signalling that high-cost producers should not take for granted that they will receive a free ride to higher production. These high-cost producers, who assume that the cuts at the very least guarantee a floor under prices, might think twice before taking the risk of sanctioning new investments.

Clearly, the next few weeks will be crucial in determining if the production cuts are being implemented and whether the recent increase in oil prices will last. For contractual and logistical reasons, we might initially see that the output cuts do not fall neatly into place. The deal is for six months and we should allow time for it to be implemented before re-assessing our market outlook. Success means the reinforcement of prices and revenue stability for producers after two difficult years; failure risks starting a fourth year of stock builds and a possible return to lower prices. What a difference a year makes!

DEMAND

Summary

- **This month's Report includes net hikes in the respective growth estimates for both 2016 and 2017** following upgrades to the Chinese forecast, reductions in the previous Russian base and US September demand strength (effectively adding 140 kb/d to 3Q16 demand estimate). Global oil demand growth of approximately 1.4 mb/d is now forecast for 2016 and 1.3 mb/d in 2017, growth estimates respectively raised by 120 kb/d and 110 kb/d.
- **Ongoing research to improve our estimates of Chinese demand have resulted in the addition of approximately 135 kb/d to the 2016 Chinese demand estimate**, to 11.9 mb/d. Our upwardly revised Chinese estimates better capture both the sharp 1H16 increases in imports of mixed aromatics (see *Non-OECD, China* section) and improved coverage of independent refinery activity.
- **Bringing together a near complete set of data for 3Q16, this month's Report confirmed the forecast carried since March 2016 that global demand growth would reach a low in 3Q16.** Indeed, over the nine months since the publication of that forecast the true 3Q16 year-on-year (y-o-y) growth rate turned out to be remarkably as forecast at the time, at +1.1 mb/d as opposed to the original forecast gain of +1.0 mb/d.
- **European gasoil demand continues to exceed expectations**, supported by the surprising ongoing strength demonstrated by the European manufacturing sector, though signs of weakness have started to emerge. European gasoil/diesel demand increased by on average 60 kb/d y-o-y through the first nine months of 2016, but is forecast to decelerate to +20 kb/d in 4Q16. Although only a small sample size is currently available for 4Q16, and largely only German, French and Italian October demand, an average overall y-o-y decline of 65 kb/d is forecast.
- **Significant baseline revisions curbed historical estimates of non-OECD oil demand, largely stemming from Russia** (following the extensive work carried out for the 2016 edition of the IEA's *World Energy Outlook*). This removed on average 0.3 mb/d from the baseline non-OECD demand numbers, 2010-14. The negative feed-through is less in 2015-16 and flips to a net-upgrade in 2017, as offsetting upside Chinese adjustments filter through, which, along with the recent Russian demand strength shown in the latest monthly data, have added upside pressure on the 2016-17 global growth estimate.

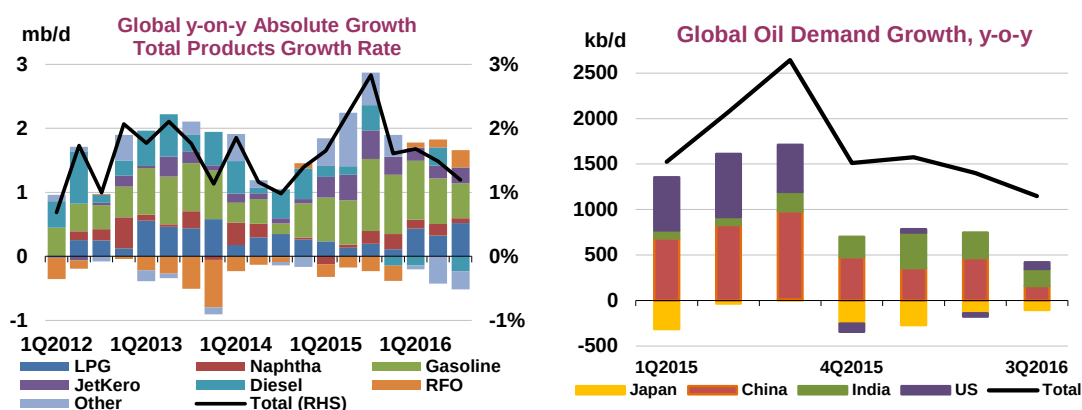
Global Oil Demand (2015-2017)

	(million barrels per day)														
	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Africa	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.4	4.2	4.4	4.3
Americas	31.1	31.2	31.8	31.3	31.4	31.0	31.1	31.8	31.3	31.3	31.0	31.2	31.8	31.4	31.3
Asia/Pacific	32.3	31.7	31.6	32.6	32.1	33.3	32.8	32.3	33.7	33.0	34.2	33.5	33.4	34.5	33.9
Europe	14.1	14.3	14.9	14.4	14.4	14.3	14.7	15.2	14.4	14.6	14.4	14.7	15.0	14.4	14.6
FSU	4.4	4.7	4.8	4.7	4.6	4.6	4.6	4.9	5.0	4.8	4.7	4.8	5.1	5.0	4.9
Middle East	7.8	8.5	8.8	8.3	8.4	7.9	8.5	8.8	8.4	8.4	8.2	8.6	8.9	8.5	8.6
World	93.8	94.4	95.9	95.6	94.9	95.4	95.8	97.1	96.9	96.3	96.8	97.1	98.3	98.2	97.6
Annual Chg (%)	1.7	2.2	2.8	1.6	2.1	1.7	1.5	1.2	1.4	1.4	1.5	1.3	1.3	1.3	1.4
Annual Chg (mb/d)	1.5	2.1	2.6	1.5	1.9	1.6	1.4	1.1	1.4	1.4	1.4	1.3	1.3	1.3	1.3
Changes from last OMR (mb/d)	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.1	-0.1	0.0	0.1	0.1	0.2	0.0	0.1

Global Overview

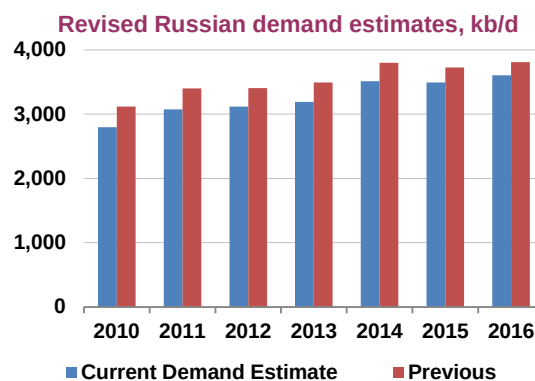
This month's *Report* includes higher growth forecasts for both 2016 and 2017, at +1.4 mb/d and +1.3 mb/d respectively (growth forecasts respectively raised by 120 kb/d and 110 kb/d), following a

number of important data revisions. Firstly, and most significantly, additional efforts to capture all of the key components that make up our Chinese apparent demand estimate added approximately 135 kb/d to the 2016 China forecast, which is now 11.9 mb/d. Although we have for a long time tracked Chinese apparent demand by adding estimates of refinery activity to net oil product imports and changes in Chinese product stocks (whereby a stock reduction is treated as a negative in the demand calculation, and vice versa), the data accuracy has grown increasingly clouded in the past couple of years. While efforts were already being made to capture the mismatch between the official National Bureau of Statistics (NBS) refinery numbers and true total refinery activity, including all independent refinery activity, increased imports of mixed aromatics in 2016 created further disparity. Not captured in the most commonly watched trade data, this month's *Report* reflects additional efforts to include these product flows.



Secondly, pulled up by big increases in gasoline, LPG (including ethane) and jet/kerosene, official US September demand data sharply exceeded that outlined by the previous weekly releases. September's surprise strength added approximately 140 kb/d to both the 3Q16 US and global demand estimates, to 19.9 mb/d and 97.1 mb/d respectively.

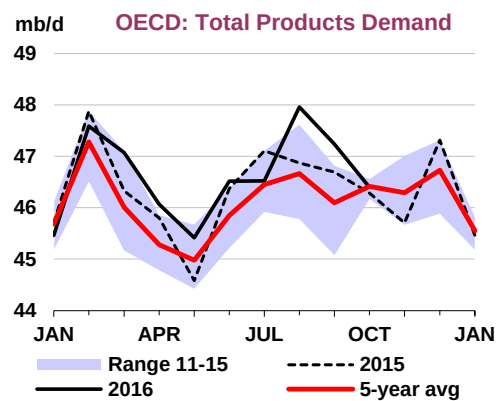
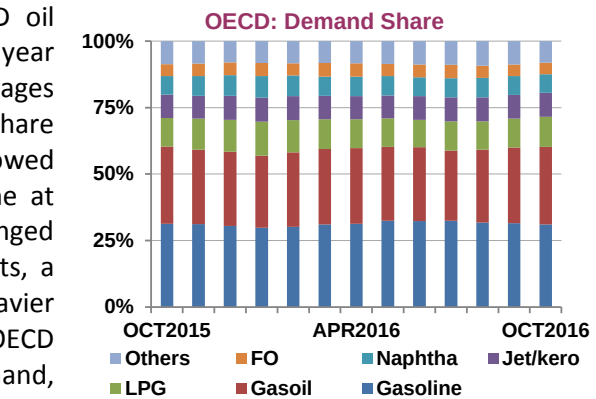
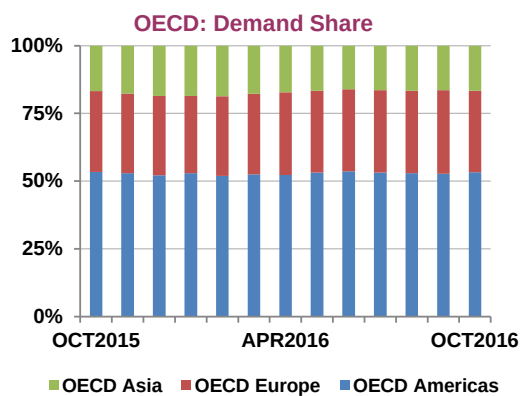
Big baseline demand reductions for Russia are the third major data adjustment this month, trimming an average 0.3 mb/d from estimates of 2010-14 Russian demand. The domestic Russian demand assessment was reduced following extensive work carried out for the IEA's 2016 *World Energy Outlook*, which effectively reclassified large quantities of domestic naphtha demand as export flows.



The lower baseline global demand numbers, reduced by an average 290 kb/d in 2010-14, are due almost exclusively to lower estimates of historical Russian naphtha demand. The downside adjustment eased in 2015, as amendments to the Chinese demand methodology, and consequently upward revisions, started to feed through. None of these baseline amendments changes the fact that post-2009 global oil demand has continued to rise relatively strongly, with growth peaking at +1.9 mb/d in 2015. By 2016, the net impact of our baseline changes to global demand is marginal, but, due to lower baseline numbers, the growth estimate is raised to +1.4 mb/d (120 kb/d up on last month's *Report*). Growth eases to 1.3 mb/d in 2017, as underlying upward price pressures are potentially negative for demand, although even here the feed-through is not clear-cut as potentially higher revenues in net oil-exporting economies raise their own domestic demand, providing an offset to lower demand in net oil-importers.

OECD

With preliminary estimates depicting October OECD oil product demand running roughly flat compared to the year earlier, estimated OECD oil product demand averages 46.4 mb/d. Gasoline and gasoil/diesel take the major share of this demand, at 31.1% and 29.2% respectively, followed by LPG (including ethane) at 11.3% and jet/kerosene at 9.0%. Although the relative market shares have changed very little for the most widely consumed oil products, a more sizeable relative shift has been seen out of heavier 'other products', to LPG and jet/kerosene. The OECD Americas continue to dominate overall OECD demand, accounting for more than one out of every two barrels consumed (53.3%) and little changed over the past year. Preliminary October numbers show OECD Europe accounting for roughly one out of every three barrels consumed in the OECD and OECD Asia Oceania one in six.



OECD Demand based on Adjusted Preliminary Submissions - October 2016

(million barrels per day)

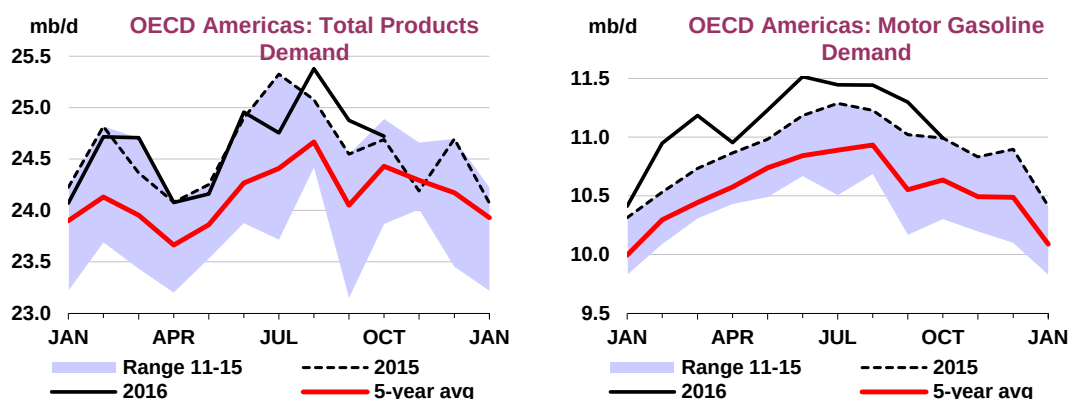
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	10.99	0.0	1.95	2.9	4.75	0.1	0.53	2.3	0.59	-0.5	5.91	-0.61	24.72	0.1
US50	9.21	-0.4	1.67	3.5	3.89	1.1	0.16	-3.8	0.30	27.6	4.49	2.32	19.73	1.2
Canada	0.84	1.7	0.14	-5.3	0.29	-9.0	0.28	7.5	0.03	-14.9	0.80	-5.28	2.39	-2.2
Mexico	0.79	1.5	0.07	8.0	0.36	-4.2	0.05	-3.9	0.15	-26.8	0.49	-16.06	1.89	-7.2
OECD Europe	1.91	-1.3	1.38	3.9	4.92	1.5	1.54	0.4	0.84	-4.6	3.37	1.32	13.97	0.8
Germany	0.41	-6.5	0.19	-6.6	0.78	-2.0	0.35	-11.2	0.09	-12.4	0.46	-6.77	2.28	-6.1
United Kingdom	0.29	-2.1	0.31	10.2	0.51	2.6	0.14	-1.1	0.03	3.3	0.28	-1.61	1.56	2.0
France	0.16	-0.1	0.16	-0.9	0.70	-3.4	0.29	20.4	0.04	7.0	0.34	0.67	1.69	1.7
Italy	0.20	-5.6	0.10	4.9	0.44	-4.1	0.10	-1.3	0.06	-30.5	0.34	-0.38	1.23	-4.3
Spain	0.12	5.7	0.14	11.8	0.47	3.7	0.16	-0.7	0.15	4.2	0.24	-6.66	1.27	2.0
OECD Asia & Oceania	1.54	-0.3	0.84	4.1	1.33	-2.3	0.46	-3.4	0.57	5.4	2.96	-1.15	7.71	-0.3
Japan	0.89	0.1	0.45	3.5	0.41	-4.0	0.33	-3.3	0.29	-2.1	1.37	-4.83	3.74	-2.3
Korea	0.21	-3.9	0.19	5.3	0.37	-1.6	0.10	-5.9	0.24	17.5	1.35	2.77	2.47	2.6
Australia	0.31	-0.2	0.15	3.2	0.45	-2.6	0.00	0.0	0.03	1.4	0.17	-1.80	1.11	-0.9
OECD Total	14.44	-0.2	4.17	3.5	11.00	0.4	2.53	0.1	2.01	-0.7	12.24	-0.22	46.39	0.2

* Including US territories

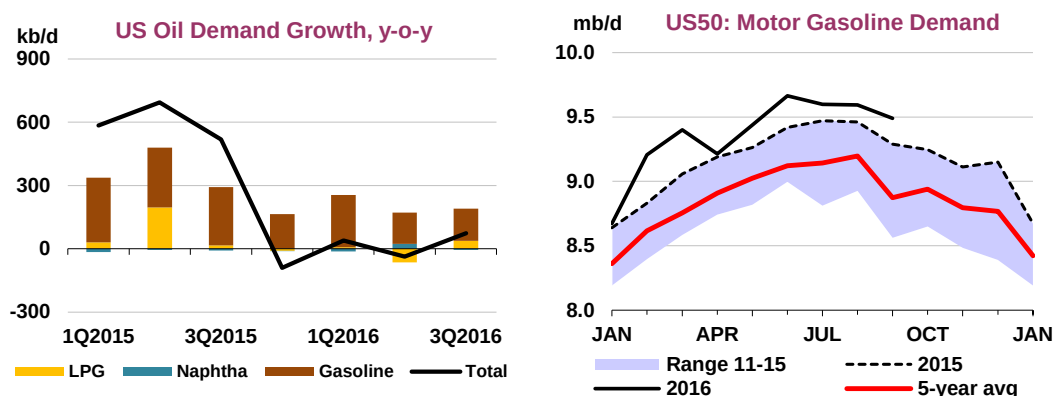
October's lack of any significant y-o-y growth amounts to a notable slowdown compared to the first nine months of the year, which saw growth average just below 300 kb/d y-o-y. Slower OECD demand growth looks likely through the remainder of the forecast, as the stimuli provided by previously sharply falling product prices are unlikely to be repeated.

Americas

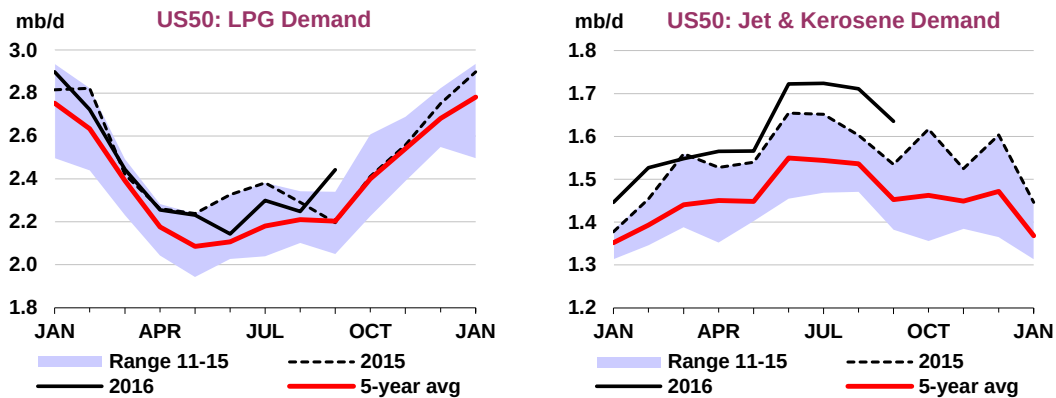
The sharp deceleration seen in the preliminary numbers for the OECD Americas, brought growth in overall OECD demand down towards zero in October. Demand in the OECD Americas averaged 24.7 mb/d in October, essentially flat y-o-y. A lack of growth in the OECD Americas that has much in common with the prior nine months of the year. There were occasional deviations from the trend such as August and September, when demand rose sharply. October's flat performance was largely due to vanishing gasoline demand growth in the US.



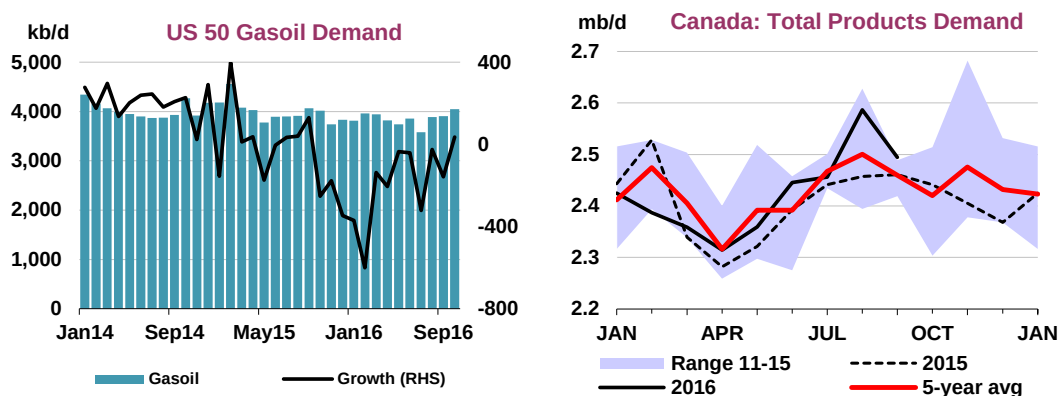
Prior to October's slowdown, however, growth came in at a robust +330 kb/d y-o-y in September, buttressed by a surprisingly sharp +445 kb/d uptick in the US, where demand averaged 19.9 mb/d. Not only was this expansion a thirteen month high but it was also significantly above that implied by the weekly data releases, with US gasoline and LPG (including ethane) particularly surprising to the upside. Rising by an estimated 200 kb/d or 2.2% y-o-y in September, US gasoline demand continues to match the gains posted in the vehicle miles travelled statistics. The US Department of Transport's Federal Highway Administration reported a 2.4% y-o-y gain in seasonally adjusted US vehicle miles travelled in September, led by California, Utah, Nevada, Idaho and Florida. Robust SUV sales provided a further support, with data service provider GCBC reporting SUV sales up 49.6% y-o-y in September.



As already suggested, early indicators of October-November US gasoline demand imply that the recent US demand strength is waning. Preliminary October numbers, compiled from weekly US Energy Information Administration (EIA) data, point towards the complete absence of any US gasoline demand growth in 4Q16, the first quarter for which US gasoline demand growth has been absent since 4Q12.

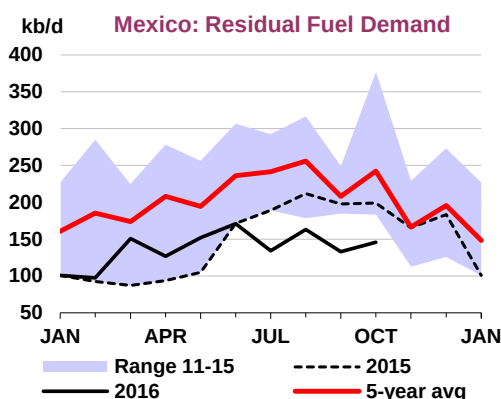
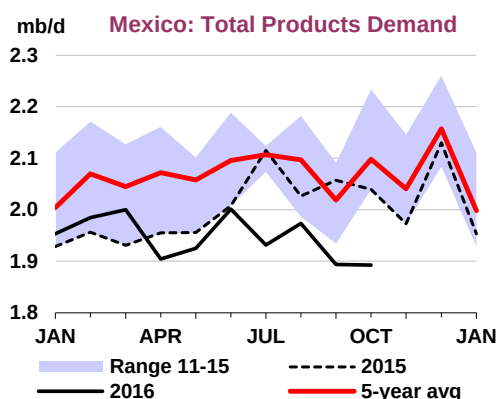


Other components of the US energy mix that held up well in September include LPG and jet/kerosene. US LPG demand averaged 2.4 mb/d in September, 245 kb/d up on the year earlier, its most rapid clip in nearly one-and-a-half years. US jet/kerosene demand, meanwhile, averaged 1.6 mb/d in September, 100 kb/d up on the year earlier. Indeed, of all the major product sub-categories only gasoil/diesel and naphtha saw absolute y-o-y demand declines in September, respectively falling by 160 kb/d and 30 kb/d, and even gasoil is tentatively forecast to return to growth in 4Q16. Since bottoming-out in February 2016, at minus 600 kb/d, the average y-o-y decline rate of US gasoil demand has since eased back close to parity by mid-2016. Preliminary EIA weekly data points towards renewed US distillate demand growth emerging in October-November. For the year as a whole, US demand averages 19.6 mb/d – a nine-year high – but only 55 kb/d up on 2015 as weak industrial oil use offset strong gains from the consumer sector. A partial reversal of this trend is foreseen in 2017, keeping growth entrenched, as projections of slower transport fuel demand growth counterbalance forecasts of more robust industrial oil demand.



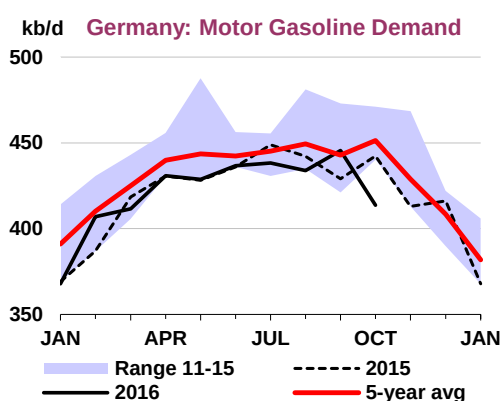
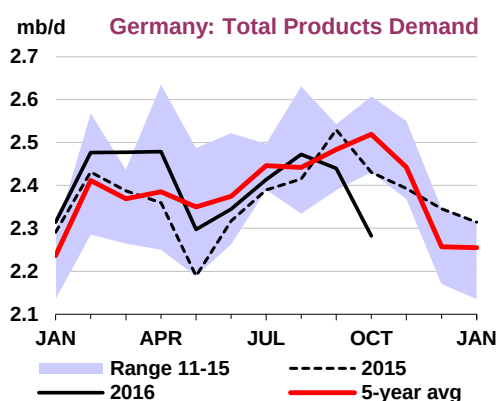
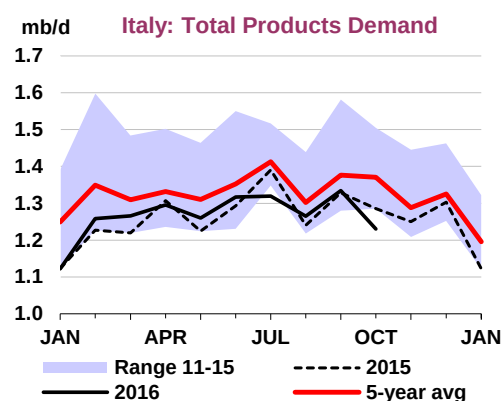
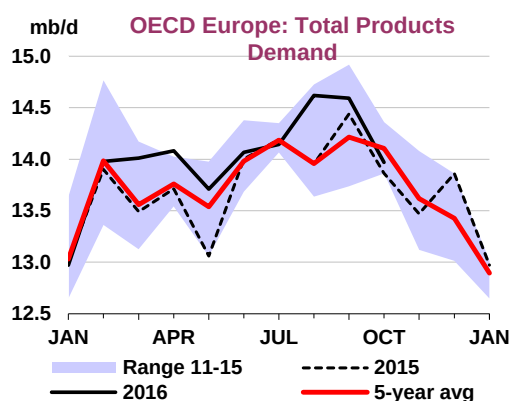
The recent uptick in the **Canadian** demand data continued into August and September, with the 3Q16 Canadian demand estimate now averaging 2.5 mb/d, 60 kb/d or 2.4% up on the year earlier. Rapid gains in road transport use led the upside, as Canadian gasoline demand averaged 900 kb/d in 3Q16, 40 kb/d up on the year earlier. Expected to average 2.4 mb/d in 2016 as a whole, total Canadian oil demand came out a net 15 kb/d above the year earlier.

Ongoing weaknesses in residual fuel oil, gasoil/diesel and LPG continue to pull the overall **Mexican** demand estimate sharply lower. The Mexican Secretaria de Energia cited October power sector oil demand down by around 15% compared to the year earlier, with a compensatory sharp gain in natural gas use. For the time being we have trimmed our 2017 oil demand forecast for Mexico to 1.9 mb/d in 2017, 15 kb/d down on the year earlier.



Europe

The recent strength of European demand has been the major surprise of the global oil market in 2016, rising by on average 270 kb/d y-o-y through the first nine months. Underpinned by strong gains in gasoil/diesel (+60 kb/d), naphtha (+60 kb/d) and LPG (+40 kb/d), it has largely been an industrially-driven rally. Preliminary October numbers suggest a weakening of this trend, however, particularly if manufacturing cost pressures continue to mount. IHS Markit's Purchasing Managers' Index (PMI) for October showed European factory cost pressures rising to a fifty-six month high, pressure that could escalate further following OPEC's recent production-cut.

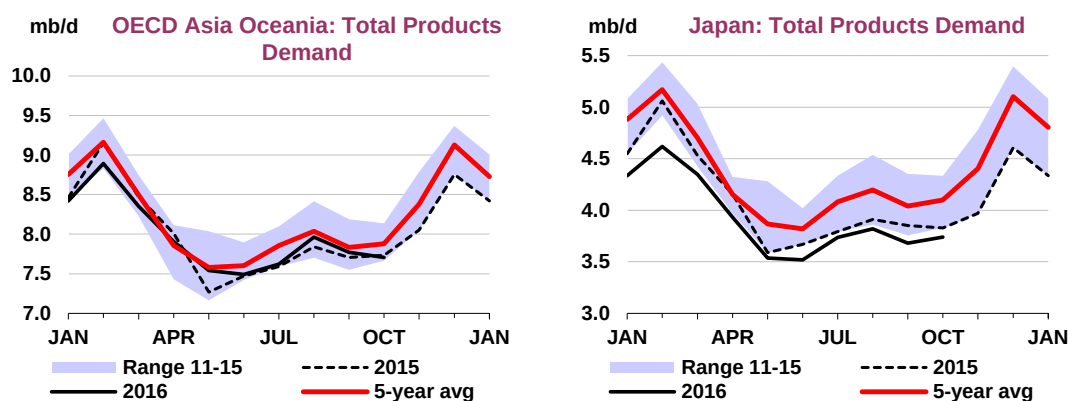


Preliminary October numbers, although only available for a small number of countries, already point towards potential weaknesses in 4Q16. Falling by approximately 150 kb/d y-o-y in October, **German** oil product demand experienced its sharpest y-o-y contraction in two-and-a-half years. Notable weakness took hold of German gasoil/diesel and gasoline demand, which fell respectively by 60 kb/d and 30 kb/d. These falls derived partly from weaker consumer sentiment with retail sales down by 1.0% y-o-y in

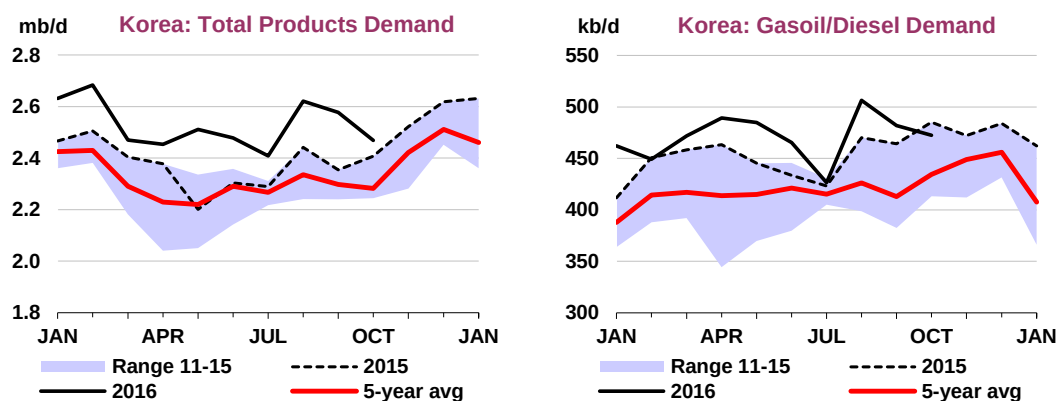
October. Preliminary October numbers show **Italian** demand down sharply, pulled lower by sizeable reductions in gasoil/diesel, gasoline and residual fuel oil.

Asia Oceania

The demand trend for OECD Asia Oceania remains roughly on a par with last year, sticking to normal seasonal patterns and essentially unchanged y-o-y in October at 7.7 mb/d. This is down by 260 kb/d on August's seasonal peak. In Korea and Japan, August-to-October demand respectively fell by 150 kb/d and 80 kb/d. Korea's contraction was largely due to lower gasoline/gasoil demand, and Japan's was due to reduced gasoline demand. Other than normal seasonal adjustments, persistent weaknesses in **Japanese** gasoil/diesel, naphtha and 'other product' demand pulled the overall Japanese October demand metric down by around 90 kb/d, compared to the year before, to 3.7 mb/d. Having endured a falling trend since 3Q15, October's 90 kb/d contraction is the smallest since July 2016.



Previously rapidly growing **Korean** oil demand slowed sharply in October, gaining 60 kb/d y-o-y to 2.5 mb/d. This was the lowest growth rate in a year. Momentum eased in October as industrial activity contracted by 1.6% y-o-y, triggering absolute declines in gasoil/diesel and 'other products'. We have accordingly downgraded the 2016 average demand forecast for Korea, to 2.6 mb/d, still 155 kb/d up on 2015 but 5 kb/d less than the estimate carried in last month's *Report*. With OPEC's output cut agreement likely to raise oil prices, the Korean demand forecast for 2017 has also been reduced, to 2.6 mb/d, 80 kb/d up on 2016, a modest curtailment since last month's *Report*.



Non-OECD

Baseline data adjustments, largely to Russia, brought overall historical non-OECD demand estimates down, with average reductions of around 0.3 mb/d applied to 2010-14. The scale of the net downgrade eases in 2015-16, albeit remaining net-negative, as additional upgrades elsewhere provide a partial counterbalance. Indeed, the absolute 2017 non-OECD demand estimate of 51.0 mb/d carries a small

premium to last month's *Report* (+65 kb/d) as not only do the number (and scale) of the offsetting upside adjustments rise but also the recent strength in the monthly Russian demand data curtails this major downside adjustment. Our non-OECD growth forecasts are accordingly raised post-2014. Albeit small at this point, this month's *Report* also includes a number of upgrades to demand forecasts for many of the net-oil-exporting non-OECD economies following the OPEC meeting, likely more than offsetting the number of forecast downgrades to non-OECD net-oil-importers.

Non-OECD: Demand by Product

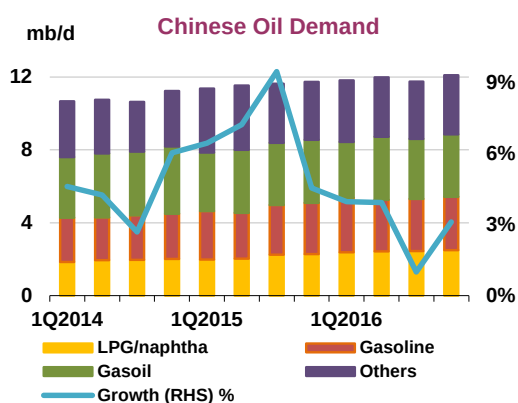
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
LPG & Ethane	5,829	5,786	5,918	352	379	6.5	6.8
Naphtha	2,660	2,651	2,620	138	8	5.5	0.3
Motor Gasoline	10,853	10,945	11,043	485	308	4.6	2.9
Jet Fuel & Kerosene	3,124	3,125	3,230	53	92	1.7	2.9
Gas/Diesel Oil	14,193	14,936	14,541	146	-41	1.0	-0.3
Residual Fuel Oil	5,287	5,249	5,363	-123	161	-2.3	3.1
Other Products	6,723	7,110	7,102	-68	-106	-0.9	-1.5
Total Products	48,670	49,801	49,817	983	801	2.0	1.6

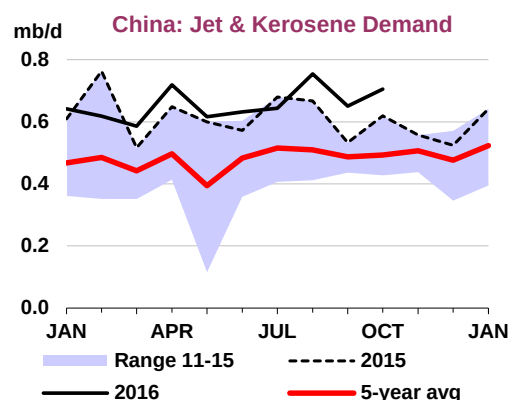
China

A reassessment of the components that make up Chinese apparent demand raised our baseline demand estimate and accordingly fed through the global forecast. Whereas Chinese apparent demand has long been calculated by adding domestic refinery activity to net-product imports, minus/plus any estimate of the monthly product stock build/draw, additional uncertainty has emerged recently attributable to two of these important variables. Firstly, China's decision to allow independent refiners to import crude oil last year seemingly led to a big increase in refining activity, not thought to be fully reflected in official statistics from the National Bureau of Statistics. Secondly, sharp upticks in imported mixed aromatics (see *Surge in mixed aromatics imports further complicates Chinese demand conundrum*), not fully captured in the most readily available trade data, suggested a further gap in the data.

Both import flows and refinery activity raised the Chinese apparent demand profile, with a particularly pronounced upgrade applied in 2016. The addition of 135 kb/d to the 2016 Chinese demand estimate, to 11.9 mb/d, also raises the growth forecast to 340 kb/d. The lighter end of the barrel has particularly excelled, led by gasoline and LPG, while middle distillates suffered from the anaemic state of Chinese industrial activity, a situation compounded by 3Q16 factory closures ahead of September's G20 meeting in Hangzhou. Such demand-management policies, coupled with severe flooding, sharply curtailed y-o-y Chinese demand growth in 3Q16, although a resumption to growth of nearly 0.4 mb/d is expected in 4Q16.



The latest monthly demand data showed Chinese apparent demand rising by 360 kb/d y-o-y in October, with gains spread fairly evenly across the barrel. Even China's previously beleaguered industrial sector showed signs of improving, with Caixin's Manufacturing PMI up to a two-year high of 51.2 in October, while fixed asset investment growth accelerated to 8.3% y-o-y in October. The transport and petrochemical sectors, however, dominate growth. The China Passenger Car Association reported sales growth of close to 20% y-o-y in October, with sales of less fuel efficient SUV's dominating the market, at just below half of all sales. Demand for jet fuel is rising and the Civil Aviation Administration of China reported strong traffic growth, up by 14% y-o-y in September. Petrochemical demand, meanwhile, continues to rise sharply as companies continue to open propane dehydrogenation (PDH) facilities; Oriental Energy and Hebei Haiwei being the latest to do so.

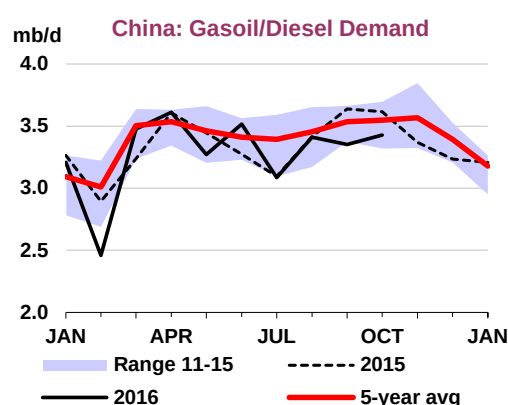
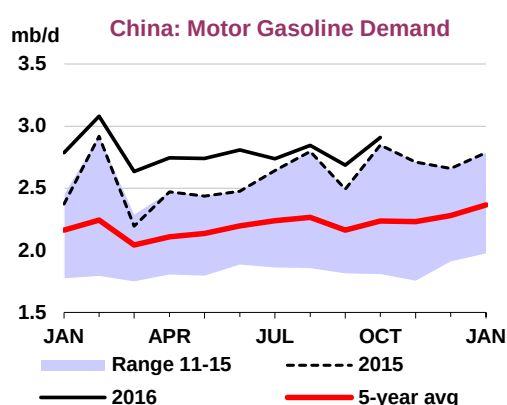


China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	1,111	1,357	1,493	245	136	22.1	10.0
Naphtha	1,002	1,076	1,104	74	29	7.3	2.7
Motor Gasoline	2,582	2,799	3,009	217	210	8.4	7.5
Jet Fuel & Kerosene	606	651	688	44	37	7.3	5.7
Gas/Diesel Oil	3,343	3,292	3,315	-51	23	-1.5	0.7
Residual Fuel Oil	293	212	154	-81	-58	-27.5	-27.4
Other Products	2,600	2,491	2,416	-109	-75	-4.2	-3.0
Total Products	11,538	11,878	12,178	340	300	2.9	2.5

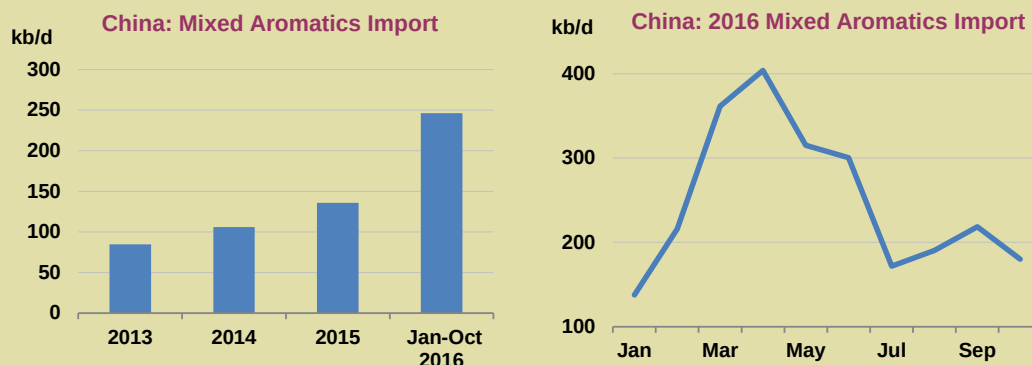
The recent uptick in Chinese power consumption – a closely tracked proxy for underlying Chinese economic activity – adds further support to our reaccelerating 4Q16 oil demand forecast as additional power demand tends to correlate with additional oil demand. The National Energy Administration cited power consumption rising by 7.0% y-o-y in October, to 489 billion kilowatt hours.



Having seen Chinese oil demand growth ease back to around 2.9%, or +340 kb/d, in 2016, significantly below 2015's 0.7 mb/d increase, a modest deceleration is expected in 2017 as the underlying macroeconomic backdrop is foreseen as less supportive. The International Monetary Fund (IMF), for example, in their October's *World Economic Outlook*, trimmed four-tenths of a percentage point from their Chinese economic growth projection.

Surge in mixed aromatics imports further complicates Chinese demand conundrum

China has recently seen a strong increase in imports of mixed aromatics. The trend started at the end of 2015, when December's imports were 95% higher than November's. In 1H16 imports were almost as much as the total for the whole of 2015. According to Chinese customs data, from January to October this year China imported a record high of 250kb/d of mixed aromatics, with a y-o-y growth of 135%. Most of the imports are used for gasoline blending, and private refineries are the major blended gasoline sellers, with the highest blending ratio reaching 40%. Due to receiving better data on the mixed aromatics market we slightly revised up our estimate of China's gasoline demand.



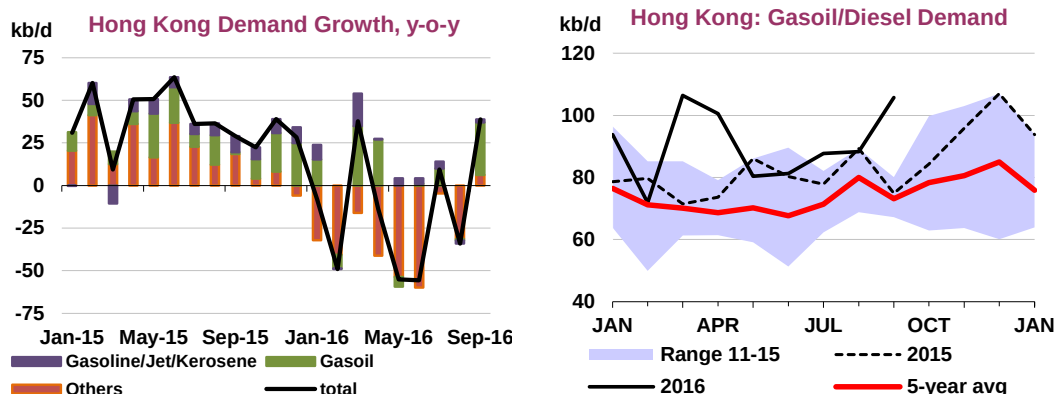
Two key factors contribute most to the import surge. First, China revised its fuel pricing mechanism in January, setting a floor price for the domestic gasoline and gasoil markets when the crude price is lower than \$40/bbl, while the mixed aromatics import price still follows the international crude price, which dropped sharply at the beginning of the year. This made the spread between mixed aromatics imports and blended gasoline prices quite appealing to refiners and traders. Second, since the end of 2015 the Chinese government has allowed export rights to private refineries, which led to a strong increase in the supply of gasoline alongside the demand surge for mixed aromatics. Private refineries' imports in 2016 accounts over one third of the total volume.

China's gasoline quality upgrades also helped drive up mixed aromatics imports by triggering higher demand for better quality products, especially from Europe. The first quarter of 2016 has seen Europe as the fastest growing source of imports, accounting for 42% of the total volume, with specifically the Netherlands being the largest import source, at 30%. Indonesia and Malaysia were the second and third biggest source of import growth, with ASEAN countries being exempt from import tariffs.

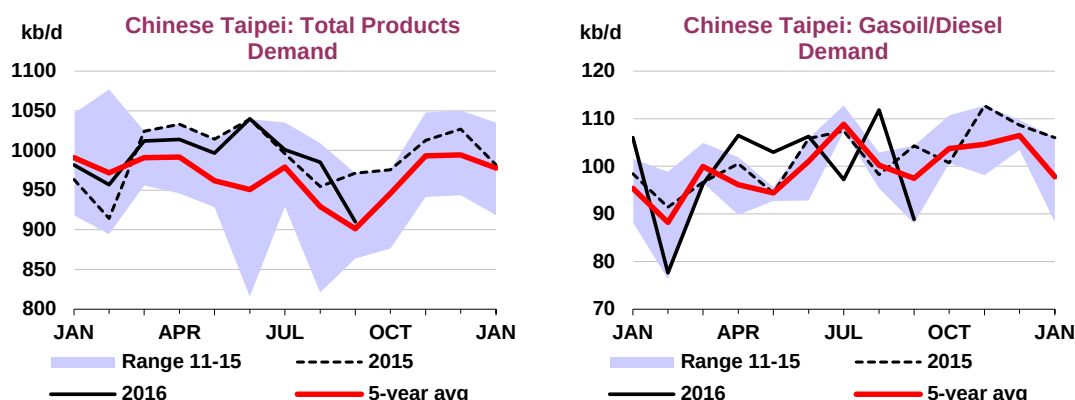
However, the mixed aromatics surge has slowed down considerably after peaking in 2Q16. A combination of oversupply and weak demand dragged down the domestic price, and the recovery of crude prices significantly drove up the import cost. Traders and refiners experienced heavy losses during the second quarter and sharply reduced their third quarter imports. Meanwhile, the major source of imports shifted to East Asia. In the third quarter the mixed aromatics import figure was 190kb/d, down by 43% from the second quarter, and we expect this slowdown to continue into the fourth quarter.

Other Non-OECD

Rapid gains in gasoil/diesel demand in **Hong Kong**, coupled with renewed solidity in jet/kerosene and residual fuel oil, raised overall growth to a ten-month high of 40 kb/d y-o-y in September. Such strong gains took demand up to an all-time high of 410 kb/d gaining particular traction from strong bunker sales, part of which was likely a consequence of international shippers refuelling at Hong Kong as opposed to alternative destinations such as Singapore and Chinese Taipei. The Maritime and Port Authority of Singapore showing oil-based bunker sales roughly flat in September (-0.5% y-o-y).



Sharp declines in both the transport and petrochemical sectors saw overall oil product demand in **Chinese Taipei** fall by approximately 60 kb/d y-o-y in September, the sharpest decline in 20 months. Plunging gasoil/diesel demand was the main factor, in contrast to the overall thriving state of industrial activity with the Ministry of Economic Affairs citing industrial production growth of 4.6% y-o-y. This mismatch is potentially explained by international bunker fuel sales lost to Hong Kong (see previous paragraph). Averaging approximately 1.0 mb/d in 2016, only very modestly higher than the year earlier (+5 kb/d), growth is forecast to accelerate to around 15 kb/d in 2017 supported by additional economic growth. The IMF's October *World Economic Outlook* expects a GDP expansion of 1.7% in 2017, seven-tenths of a percentage point up on 2016, with the petrochemical and transport sectors likely leading the upside.

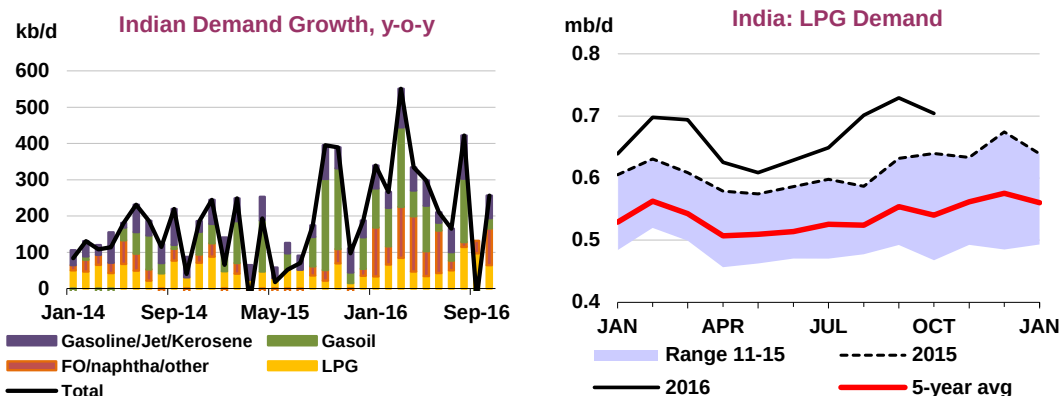


Non-OECD: Demand by Region

	(thousand barrels per day)						
	Demand		Annual Chg (kb/d)			Annual Chg (%)	
	1Q16	2Q16	3Q16	2Q16	3Q16	2Q16	3Q16
Africa	4,165	4,222	4,109	155	132	3.8	3.3
Asia	24,778	25,174	24,506	1,026	646	4.2	2.7
FSU	4,635	4,570	4,925	-81	119	-1.7	2.5
Latin America	6,474	6,664	6,791	-106	-70	-1.6	-1.0
Middle East	7,943	8,465	8,783	-46	-39	-0.5	-0.4
Non-OECD Europe	675	706	703	34	14	5.1	2.1
Total Products	48,670	49,801	49,817	983	801	2.0	1.6

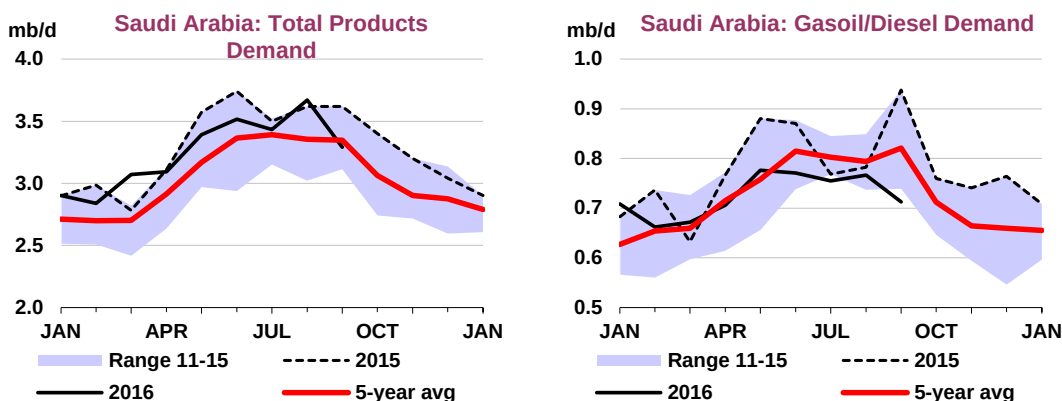
Heightened **Indian** volatility continues to surround the demand picture, as growth rebounded in October (+6.3% y-o-y) having essentially vanished in September. Supported by October's strong gains in LPG, gasoline and residual fuel oil demand, as opposed to the sharp declines seen in jet/kerosene and bitumen, overall Indian demand growth saw its second fastest pace of growth in five months. Strong LPG

demand growth continues as the government supports efforts to connect over 15 million homes to LPG as a cooking fuel in the fiscal year 2016-17 (April-March). Efforts to ban large denomination notes will have a temporary negative effect on overall economic activity, as they restrain the efficient distribution of money. Having risen by approximately 285 kb/d in 2016, to 4.3 mb/d, growth looks set to slow in 2017, to 270 kb/d, as currency concerns coupled with potential product prices rises choke off the most rapid Indian demand gains.



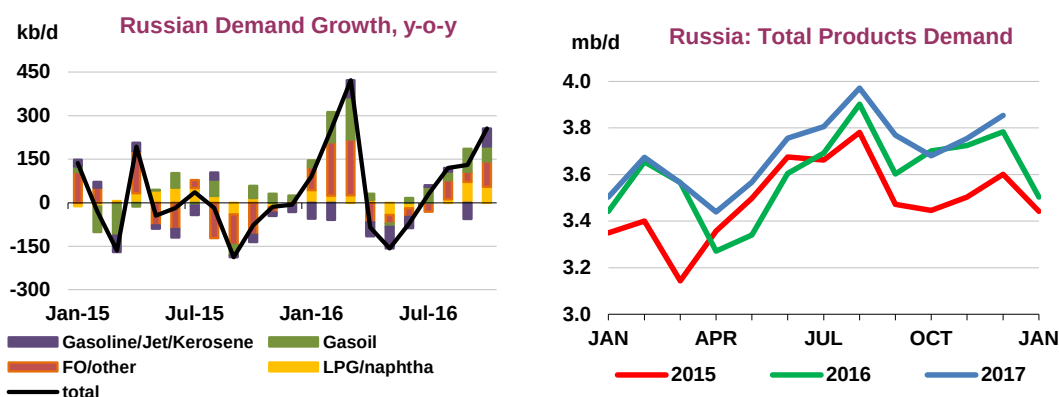
A more upbeat 2017 **Iranian** demand outlook follows OPEC's recently announced output cut. Iran is not expected to cut production and higher prices should see export revenues grow and thus boost the economy. Iranian demand growth of approximately 80 kb/d or 4.0% is forecast for 2017, supported by strong gains across the industrial and transport fuels. This will see Iranian oil deliveries rise to approximately 2.0 mb/d in 2017. Prior to this upgrade, lower oil prices were hurting the economy as shown by data from JODI which showed Iranian oil product demand contracting by close to 3% y-o-y in September, a decline chiefly attributable to sharply falling gasoil/diesel demand.

Other key non-OECD oil-exporting economies that have this month seen their 2017 demand forecasts upgraded include Saudi Arabia, Kuwait, Russia and Iraq. The picture is, however, slightly less clear cut for many of these countries than for Iran, as they are all supposed to instigate production cuts as part of the OPEC deal, hence limiting the potential revenue gain. This argument is particularly applicable to **Saudi Arabia** where the 2017 demand forecast has only been modestly hiked. Furthermore, September's sharp 330 kb/d y-o-y decline in total Saudi Arabian oil demand, including a 225 kb/d fall in gasoil/diesel demand, emphasises quite how precarious the domestic economic situation had become. The **Iraqi** demand forecast for 2017 is upgraded, with growth of 25 kb/d now foreseen, versus the prior month's estimate of +20 kb/d.



As previously mentioned, baseline **Russian** demand numbers have been revised down to take account of the detailed work undertaken for the IEA's 2016 *World Energy Outlook*. This adjustment trims on average

0.3 mb/d from 2010-14 Russian demand following upwardly revised estimates of Russian export flows, particularly naphtha. Similarly scaled downgrades, albeit modestly smaller, have been applied to 2015 and the first three quarters of 2016, but by 4Q16 the feed-through significantly wanes following the publication of upbeat Russian demand numbers for October. Rising at a seven-month high of 7.4% compared to the year earlier, October demand data confirm the recent Russian reacceleration that we have referred to in recent issues of this *Report*.



With October seeing very strong gains in transport and industrial oil use, Russian oil demand is clearly rebounding, ending a year-and-a-half of exceptionally weak conditions. The growth outlook for 2017 has been accordingly raised, to +2.4% (previously +1.7%), following the additional price support that the domestic economy will likely garner from OPEC's decision to curb supplies. Gasoline, gasoil and jet/kerosene likely provide the majority of the underlying support for 2017's relatively robust Russian demand forecast.

Russia: Demand by Product

(thousand barrels per day)

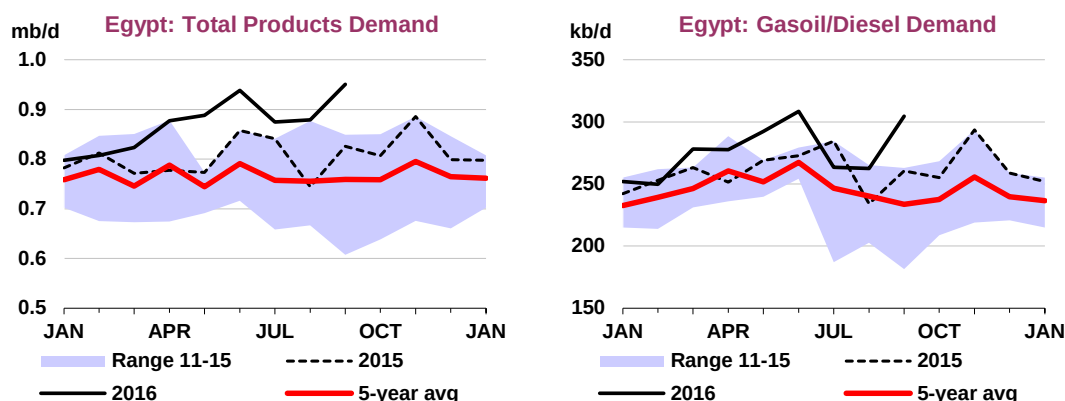
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2015	2016	2017	2016	2017	2016	2017
LPG & Ethane	475	500	520	26	20	5.4	3.9
Naphtha	114	112	114	-2	2	-1.9	1.6
Motor Gasoline	832	827	830	-5	3	-0.6	0.4
Jet Fuel & Kerosene	241	235	238	-6	3	-2.6	1.3
Gas/Diesel Oil	665	714	732	49	18	7.4	2.6
Residual Fuel Oil	413	428	439	14	12	3.4	2.7
Other Products	750	791	821	41	30	5.4	3.8
Total Products	3,491	3,607	3,695	116	88	3.3	2.4

Source: Petromarket RG, IEA

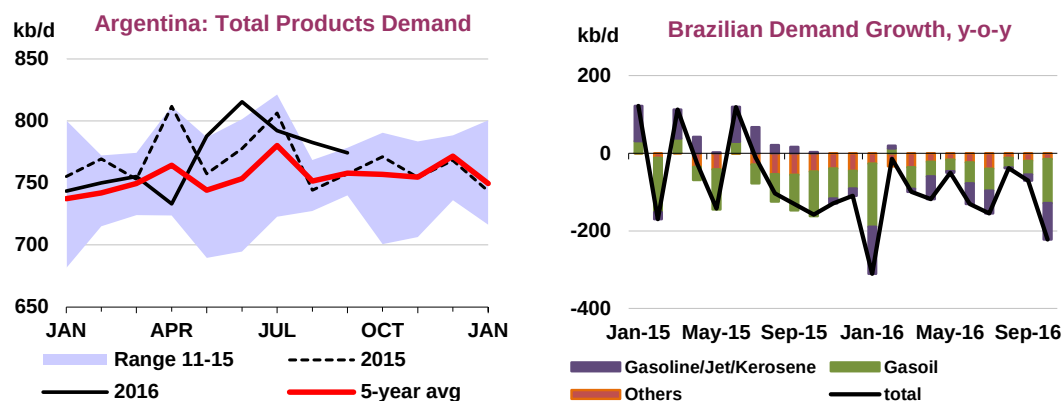
Recent demand-side adjustments at net oil-exporting non-OECD economies have largely been to the upside. Exceptions include both Algeria and Nigeria following their surprisingly weak recent data. **Algerian** demand, for example, posted a dramatic 30kb/d or 6.6% y-o-y slide in September, due to sharp drops in road transport and industrial oil use, in complete contrast to the strong gains of 2015 and 1Q16. **Nigerian** demand similarly contracted, with transport fuels falling particularly sharply, on faltering economic activity.

In contrast, the recent strength of the **Egyptian** oil demand trend remains very much entrenched, not only sharply growing but also well above the recent pace of economic activity. September oil demand averaged 950 kb/d, 125 kb/d up on the year earlier supported by rapid upticks across the industrial fuels. Egyptian oil demand growth over the first nine months of the year averaged +9.2% y-o-y, sharply above the 3.8% pace of economic growth predicted for 2016 in the IMF's October *World Economic Outlook*.

Although we do not expect such outperformance to continue in 2017, further strong growth of around 40 kb/d is forecast taking average Egyptian oil product demand up to 925 kb/d.



The recent uptick in oil product demand in **Argentina** continued into September, as total demand rose by 2.2% compared to the year earlier. A fourth y-o-y gain in five months, this latest trend is in sharp contrast to the previous 12-months, which with only one exception saw y-o-y declines. Gains in residual fuel oil, LPG and naphtha led September's rally, all products that have largely trended higher since April. For the year as a whole, Argentinean oil demand is forecast to average 770 kb/d, roughly the same as in 2015, before accelerating in 2017, up by 10 kb/d or 1.3%, on the anticipated economic uptick. Strong gains in the transport fuels forecast to lead 2017's upside. The IMF, in October's *World Economic Outlook*, cited economic growth of 2.7% for Argentina in 2017, after a decline of 1.8% in 2016.

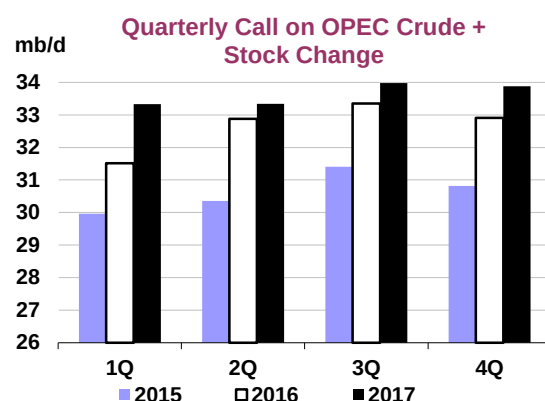
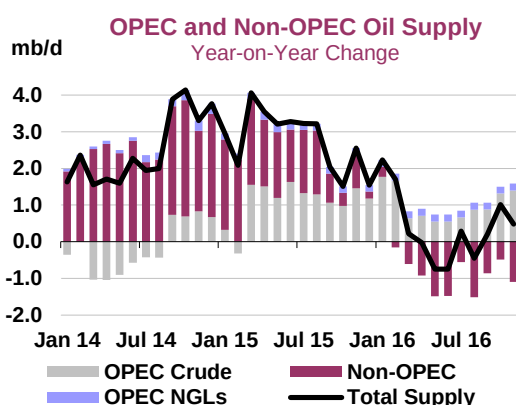


Falling by a hefty 220 kb/d y-o-y in October, **Brazilian** demand continues to wane. Although the sharpest declines were seen in gasoil/diesel and gasoline, respectively falling by 115 kb/d and 80 kb/d, all of the major product categories saw outright y-o-y contractions, with the declines in gasoil and gasoline the heaviest since January 2016. With the remainder of the year likely to see continued falls, the estimate for average oil deliveries in 2016 is 3.1 mb/d, 110 kb/d less than in 2015, with only a very modest uptick foreseen in 2017. Economic growth is likely to be flat in 2017, albeit an improvement on 2015 and 2016 when it respectively contracted by 3.8% and 3.3%. Since 2014, average Brazilian oil deliveries have fallen by 160 kb/d, a decline alone equivalent to the total consumption of Angola.

SUPPLY

Summary

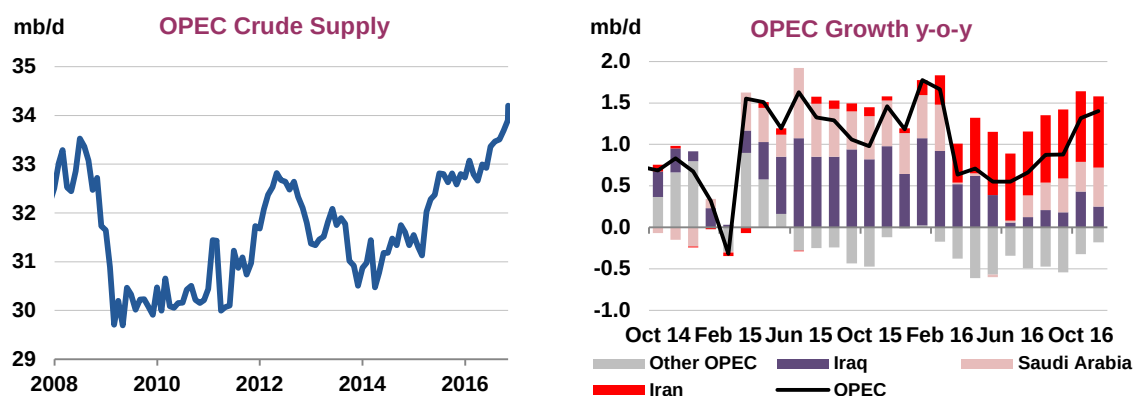
- **Global oil supplies edged higher in November to 98.2 mb/d, as a drop in non-OPEC output was more than offset by higher OPEC production.** Compared with a year earlier, global oil production was 470 kb/d higher, with OPEC increases more than making up for a 1.1 mb/d decline in non-OPEC output.
- **OPEC agreed to cut output by 1.2 mb/d from January 2017 and secured a reduction of 558 kb/d from non-OPEC (see *OPEC's comeback*). Russia has pledged to cut by 300 kb/d (see *Non-OPEC joins supply cuts*).** OPEC supply targets, set for the first time since 2008, leave Saudi Arabia bearing the brunt of the cut. Nigeria and Libya are exempt, Iran got a slight increase and Iraq was allocated its first supply target since 1998. Net importer Indonesia objected to the cut and suspended its membership.
- **OPEC crude output rose by 300 kb/d to a record 34.20 mb/d in November, just before the group struck its agreement to reduce supply.** Angola, along with Libya and Saudi Arabia, led the increase. Kuwaiti output fell by 100 kb/d. Six straight months of rising output put November supply from the group's 14 members 1.4 mb/d above a year ago.
- **The new OPEC output ceiling, which, for now, includes Indonesia, works out to 32.7 mb/d – below the “call” on OPEC crude throughout next year. If OPEC and its non-OPEC partners stick to their pledges, global inventories could start to draw in the first half of 2017.** For its part, Saudi Arabia has notified customers of supply reductions from January and has signalled it may be prepared to cut output below 10 mb/d for the first time since February 2015.
- **Non-OPEC supply growth for 2017 has been revised down by 255 kb/d since last month's Report to 220 kb/d** after Russia and ten other non-OPEC producers vowed to join OPEC's cut and speed the market's rebalancing. The outlook for Chinese and Mexican oil production has also dimmed. For 2016, non-OPEC supplies remain on track to decline by nearly 0.9 mb/d to 56.8 mb/d.
- **Non-OPEC oil production declined by 160 kb/d in November to 57.1 mb/d** on seasonally lower global biofuels supply and after Norwegian output receded from October's highs. November production is pegged 1.1 mb/d below a year earlier.



All world oil supply data for November discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Mexico and Russia are supported by preliminary November supply data.

OPEC crude oil supply

OPEC crude oil production scaled new heights in November, rising 300 kb/d to 34.20 mb/d just before oil ministers sealed an agreement to cut supply (see *OPEC's comeback*). Angola posted the biggest increase, with flows rising by 160 kb/d after the Dalia oil field returned from maintenance. Libya and Nigeria, spared from OPEC cuts, added 110 kb/d between them. Saudi Arabia raised output by 70 kb/d to a record 10.63 mb/d. Production from Iraq, including the Kurdistan Regional Government (KRG), edged up to an all-time high. The largest month-on-month (m-o-m) decline was in Kuwait, where the overhaul of an oil field gathering centre reduced output by 100 kb/d. Six months in a row of rising output put November supply from the group's 14 members at 1.4 mb/d above a year ago. Effective spare capacity stood at 1.9 mb/d, with Saudi Arabia accounting for 83% of the cushion.



OPEC's comeback

OPEC's agreement to cut supply by 1.2 mb/d from January marks a return to market management following two years of a market share strategy. A boost in supply from OPEC's top three producers – Saudi Arabia is pumping 1 mb/d more than in late 2014, while Iraq and Iran are each pumping nearly 900 kb/d more – has helped push global oil stocks to record levels. The expressed aim of the OPEC deal, which follows through on the output target set in Algiers, is to hasten the market's return to balance by working off the inventory overhang. An implicit goal may also be to keep the price of oil from falling below \$50/bbl.

OPEC Crude Production

(million barrels per day)

	Sep 2016 Supply	Oct 2016 Supply	Nov 2016 Supply	Sustainable Production Capacity ¹	Spare Capacity	OPEC Adjustments	% of Cut	Supply Target from Jan 2017 ²
Algeria	1.14	1.13	1.12	1.12	0.00	-0.05	4.3	1.04
Angola	1.67	1.51	1.67	1.78	0.11	-0.08	6.9	1.67
Ecuador	0.56	0.54	0.56	0.56	0.00	-0.03	2.2	0.52
Gabon	0.23	0.22	0.23	0.23	0.00	-0.01	0.8	0.19
Indonesia ⁴	0.74	0.74	0.74	0.74	0.00			0.72
Iran	3.70	3.72	3.72	3.75	0.03	0.09	*	3.80
Iraq	4.51	4.59	4.61	4.61	0.00	-0.21	18.0	4.35
Kuwait	2.90	2.93	2.83	2.93	0.10	-0.13	11.2	2.71
Libya ³	0.36	0.51	0.58	0.60	0.02			0.53
Nigeria ³	1.41	1.58	1.62	1.70	0.08			1.63
Qatar	0.61	0.63	0.65	0.67	0.02	-0.03	2.6	0.62
Saudi Arabia	10.60	10.56	10.63	12.20	1.57	-0.49	41.7	10.06
UAE	3.10	3.09	3.10	3.10	0.00	-0.14	11.9	2.87
Venezuela	2.16	2.15	2.14	2.20	0.06	-0.10	8.1	1.97
Total OPEC	33.69	33.90	34.20	36.19	1.99	-1.17		32.68
<i>(excluding Nigeria, Libya)</i>					1.89			

1 Capacity levels can be reached within 90 days and sustained for an extended period.

2 Supply targets are based on October 2016 OPEC secondary source figures, except Angola which is based on September 2016.

3 Libya and Nigeria are exempt from cuts.

4 Indonesia has suspended its membership.

* Iran's production is due to increase slightly

OPEC's comeback (continued)

Two months of tricky, post-Algiers negotiations saw OPEC emerge with individual supply targets for the first time since 2008 after last-minute concessions from Saudi Arabia, Iran and Iraq. The group also secured a 558 kb/d reduction from non-OPEC countries - the first coordinated action with OPEC since 2001 – with Russia agreeing to cut by 300 kb/d (see *Non-OPEC joins output cuts*).

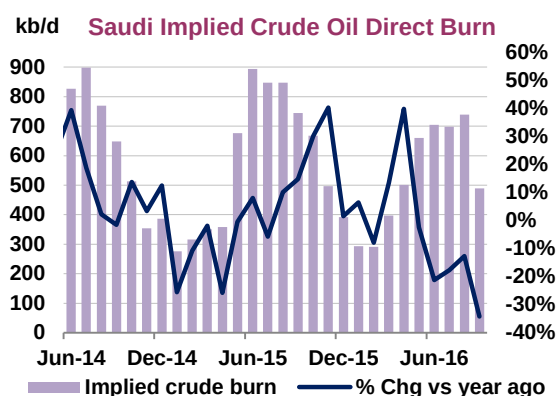
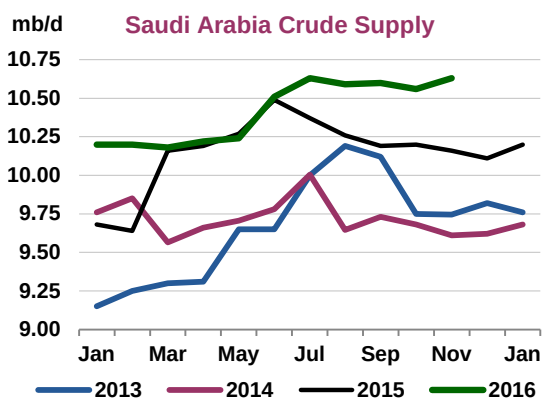
Under the OPEC cut of roughly 4.6%, Saudi Arabia is to take a “big hit” in the words of Energy Minister Khalid al-Falih. The Kingdom’s reduction of nearly 0.5 mb/d, more than initially planned, would drop supply towards 10 mb/d. Iraq and Iran abandoned their pre-meeting objections to pave the way for a deal. Iran, released from sanctions early this year, had refused to accept any production limit below 4 mb/d while Baghdad was opposed to the use of OPEC’s secondary source figures as the baseline for its reduction.

In the end, Tehran was allowed a 90 kb/d increase to 3.8 mb/d and Iraq accepted its first supply target since 1998. Libya and Nigeria, attempting to raise output following oil sector attacks, are exempt from the agreement. Net oil importer Indonesia saw no justification for a cut and suspended its membership (see *Indonesia quits OPEC again*). Saudi Arabia’s Gulf neighbours – the UAE, Kuwait and Qatar – are to cut 300 kb/d between them.

The 30 November agreement lasts for six months, with an option to extend it for another six. The new OPEC output ceiling, which, for now, includes Indonesia, works out to 32.7 mb/d – below the “call” on OPEC crude throughout 2017. If OPEC and non-OPEC were to implement strictly their agreed cuts, global inventories could start to draw in the first half of next year. Our provisional view is that this draw could be 0.6 mb/d. It must be stressed that this is not an IEA forecast, merely an assumption that OPEC and its non-OPEC partners follow through on their agreement.

For its part, Saudi Arabia has started to notify customers – mostly in Europe and North America – of supply cuts from January. It has also signalled that it may be prepared to cut production below 10 mb/d for the first time since February 2015. To monitor compliance, a committee has been established that includes Kuwait, Algeria and Venezuela along with non-OPEC producers Russia and Oman.

Saudi Arabia pumped at a record 10.63 mb/d in November, up 70 kb/d m-o-m, as shipments rose to world markets. Crude oil exports from the Kingdom have been trending higher this year. During the first nine months, shipments ran at an average 7.54 mb/d – up 190 kb/d on the same period in 2015, according to the latest official data from the Joint Organisations Data Initiative (JODI). Saudi Aramco has meanwhile lowered the price of flagship Arab Light for January loadings to Asia by \$1.20/bbl versus the previous month. The reductions were in line with a weakening in the Dubai price structure, which is a key factor in Saudi price setting.

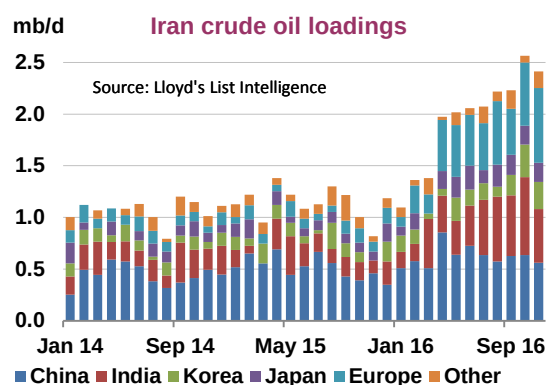
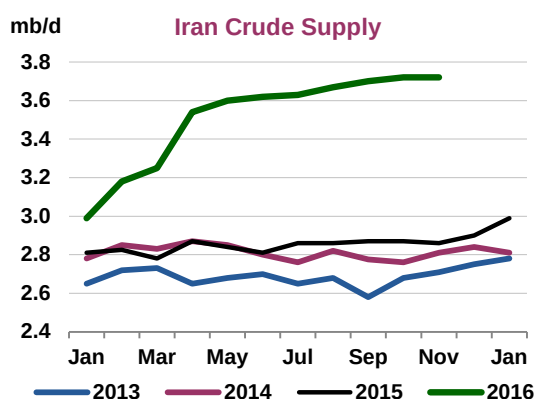


Domestic power plants burned fewer barrels of oil during November following strong summer demand when air conditioning use peaks. This year, however, power plants have been using less crude due to energy efficiency measures as well as the ramp up of the giant Wasit gas plant. During September, 255 kb/d less crude oil was burned versus a year ago, according to JODI data.

Saudi Arabia and Kuwait are making moves to restart output from a shared oil field in the Neutral Zone between the two countries that has been shut in for more than two years due to a political dispute. Saudi Arabia unilaterally closed the offshore Khafji field in October 2014 – ostensibly for environmental reasons. The onshore Wafra field has been shut since May 2015 due to an operational dispute. A resumption of production from Khafji, which was pumping around 300 kb/d, is likely to be gradual. Kuwait, which has been producing virtually flat out, has been harder hit by the outage than Saudi Arabia, which has spare capacity of some 1.6 mb/d.

During November, **Kuwait** posted the biggest m-o-m decline in production within OPEC. Maintenance on an oil field gathering centre cut output by 100 kb/d to 2.83 mb/d. Supply from the **UAE** inched up to 3.10 mb/d. Production in **Qatar** edged up to 650 kb/d following the scheduled maintenance at al-Shaheen, the country's largest offshore oil field. Qatar Petroleum is meanwhile preparing to issue a tender for a project designed to more than double output from the 40 kb/d Bul Hanine oil field.

Iran sustained production of 3.72 mb/d during November, up 860 kb/d on a year ago when its oil sector was struggling under the weight of international sanctions. Exports of crude oil remained brisk at roughly 2.4 mb/d. Since April, the National Iranian Oil Co (NIOC) has been shipping double the volume it moved during sanctions. Asia is the prime outlet, with regular buyers China, India, South Korea and Japan accounting for roughly 75% of overall sales. NIOC has also moved swiftly to regain market share in Europe: shipments during November rose above 700 kb/d, up 110 kb/d on the previous month, according to preliminary tanker tracking data.



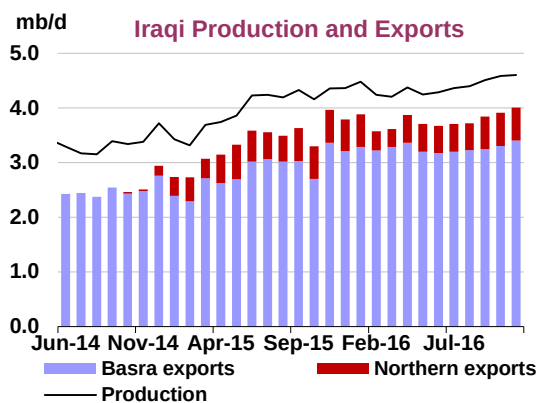
As for Asia, crude oil loadings for India fell to 520 kb/d during November – down 230 kb/d from an October buying spree for its strategic reserves. China lifted slightly less, with November shipments easing 70 kb/d to 560 kb/d. Exports to Korea slipped to 260 kb/d versus 320 kb/d in October. Japan's purchases held relatively steady at 190 kb/d. Shipments of ultra-light oil from Iran's South Pars gas project declined to 160 kb/d from 265 kb/d during October, although preliminary figures are subject to revision. At the end of November, volumes of condensate stored at sea declined by 6 million barrels to 43 million barrels.

NIOC is also striving to lure investment into its vast upstream sector. Some international companies appear to be willing to strike deals with Iran despite concerns that the incoming US administration might renegotiate or cancel the nuclear deal struck between Tehran and the P5+1 in January. Royal Dutch Shell on 7 December signed an initial agreement to "further explore areas of potential cooperation" in Iran's oil and gas sector. Iranian oil officials said the Shell memorandum of understanding (MOU) is to evaluate the Kish offshore gas field as well as the West Karun region oil fields of Yadavaran and South Azadegan, which nudges up against the Shell-operated Majnoon field in Iraq.

Tapping the vast reservoirs of South Azadegan and Yadavaran, which straddle the border with Iraq, is a top priority for Iran. Target production from West Karun, including North Azadegan, is 1 mb/d, but achieving that goal will require the help of Western oil companies. Iran also plans to offer at least 10 projects in the coming months and some of the deals are expected to be negotiated directly with companies – such as Total, Sinopec and Lukoil – that have already signed MOUs with NIOC.

After years of chronic underinvestment, Iran hopes its new Iran Petroleum Contracts (IPC) will attract the foreign cash and technology that is vital to raising output. In November, Total signed a preliminary agreement with NIOC to develop Phase 11 of South Pars – the first deal by a Western oil firm since sanctions were eased. NIOC has lined up a number of MOUs in recent weeks – among them, DNO for the Changuleh field near the border with Iraq and Schlumberger – via the National Iranian South Oil Co (NISOC) – to prepare a development plan for the onshore Rag Sefid, Parsi and Shadegan fields.

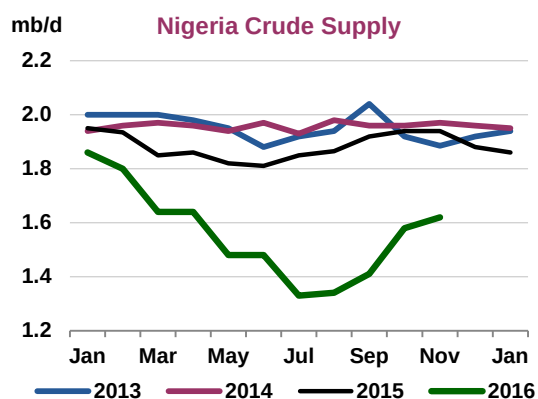
Iraqi production, including the KRG, edged up 20 kb/d in November to 4.61 mb/d, a fresh record. A drop in domestic consumption due to cooler weather allowed for a surge in southern exports, with Basra Light shipments reaching an all-time high of 3.41 mb/d – up 100 kb/d on October. Northern exports along the KRG pipeline to Turkey were steady at roughly 610 kb/d.



Iraq is feeling the pain of low oil prices while funding a costly battle against the Islamic State of Iraq and the Levant. For their part, the IOCs appear to be re-thinking their exposure in both the north and south. Shell, seeking to shed \$30 billion in global assets, reportedly is evaluating its position in technical service agreements at the southern West Qurna-1 oil field project, where it has a stake of just under 20%, and the Majnoon oil field on the border with Iran, where it is the operator. West Qurna-1, operated by ExxonMobil, is pumping roughly 470 kb/d, and Majnoon about 210 kb/d. Shell also has two other core projects on its books: it leads the Basra Gas Co joint venture, which processes and markets associated gas and natural gas liquids from the oil fields of Rumaila, West Qurna-1 and Zubair. It is also planning for the \$11 billion Nibraas petrochemical project.

In northern Iraq, complicated geology, rising security risks and lower oil prices have taken a toll. The KRG is producing around 600 kb/d from fields it controls but is struggling to meet export payments to foreign contractors. Exxon has withdrawn from three exploration blocks – Qara Hanjeer, Arbat East and Betwata – but remains involved in Pirmam, Al Qosh and Bashiqa. According to *Iraq Oil Report*, up to 19 blocks in the KRG have been abandoned since 2014.

Nigerian output rose by 40 kb/d in November to 1.62 mb/d. The higher flows, though still 320 kb/d down on a year ago, follow a ceasefire by militants in the restive Niger Delta, home to most of the country's oil.

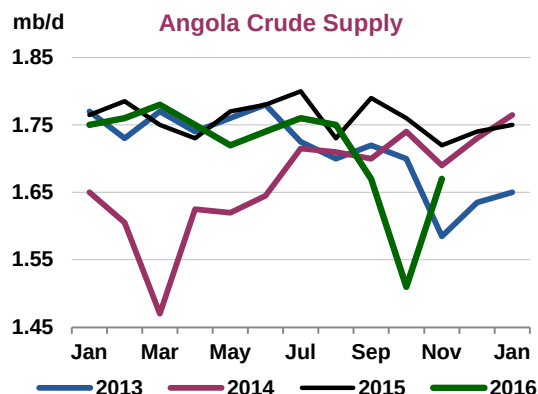


Hopes of a substantial boost in oil supply faded after renewed attacks on oil infrastructure shut in output of key export stream Forcados. The loss of Forcados was offset by higher shipments of other grades.

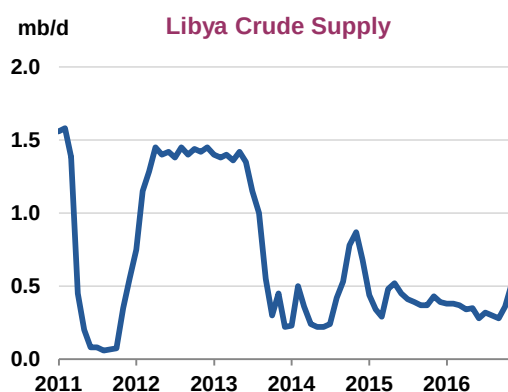
Oil Minister Emmanuel Kachikwu was quoted as saying Nigerian oil production could recover by 200 kb/d within half a year if political issues in the Niger Delta are resolved. Repeated sabotage of Nigeria's oil sector since February had cut output to 30-year lows, with four major export streams under *force majeure* earlier in the year.

Angolan production rebounded to 1.67 mb/d, up 160 kb/d from October, after the Dalia oil field returned from scheduled maintenance. A new oil field, Mafumeira Sul, operated by Chevron, started up in early November with initial output of 10 kb/d. The \$5.6 billion project, located off the coast of Angola, is using early production systems while it is being fully developed to produce 110 kb/d.

Supply from **Gabon** edged up to 230 kb/d following the end of an oil workers' strike. Shell, which has operated in Gabon for more than five decades, is in talks to sell its onshore operations – including the Rabi and Gamba oil fields – as part of its divestment plan. Bids for the Gabon fields were due in June. In **Algeria**, production held steady at around 1.12 mb/d during November.



Libya's recovery continued for a third month in November, with production rising by 70 kb/d to 580 kb/d. Libya's oil production has been hovering close to 600 kb/d in recent weeks after rising steadily since September when eastern military forces took charge of blockaded terminals and allowed the National Oil Corp (NOC) to reopen them. Exports in November rose above 500 kb/d for the first time in two years. Shipments of benchmark Es Sider crude set sail from Ras Lanuf, the first exports of the grade since December 2014.



The recovery, however, is proving to be fragile. The NOC is keeping close watch on Es Sider and Ras Lanuf after an attempted advance on the eastern ports in early December. Repairs are continuing at the 350 kb/d Es Sider terminal, damaged by militant attacks at the start of the year, with most of the barrels pumped in the east of the country shipped via the nearby Ras Lanuf terminal.

NOC is striving to reach output of 900 kb/d by the end of this year, although that looks unattainable. The increase depends on the resumption of production from the major southwestern oil fields of El Feel and El Sharara, which are closed due to a pipeline blockade. Two years of civil unrest and oil sector sabotage have led to the repeated shutdown and restart of terminals and oil fields. As a result, Libya is producing only a fraction of the 1.6 mb/d seen before the fall of the Gaddafi regime.

Supply from **Venezuela** dipped to 2.14 mb/d in November, 280 kb/d below a year ago, as the country's economic strife pushes the oil sector into further decline. Petroleos de Venezuela (PDVSA) is seeking financing to help revive its output which has been hit by chronic under investment and shortages of equipment. China National Petroleum Corp (CNPC) plans to spend \$2.2 billion on oil projects to raise production of heavy and light oil and boost exports to China. Few details have been made public, but output could rise by roughly 160 kb/d from four oil projects. The Sinovensa joint venture would provide the biggest increase – of 70 kb/d – from a steam injection pilot project in the Orinoco Belt in north-eastern Venezuela.

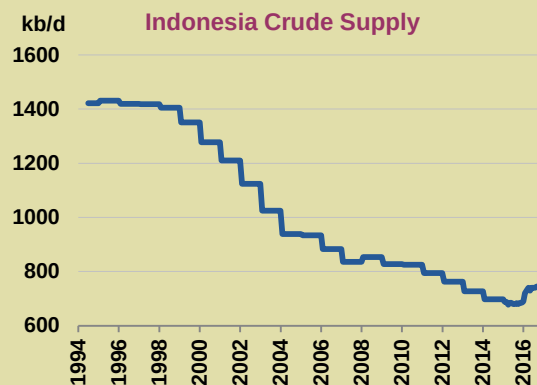
Shell has also agreed to provide some \$400 million in financing to boost oil output at Venezuela's Petroregional del Lago, a joint venture with state-run PDVSA. Petroregional operates the 30 kb/d Urdaneta oilfield in Venezuela's western Maracaibo Lake. Elsewhere in South America, production in **Ecuador** edged up to 560 kb/d in November.

Indonesia quits OPEC again

After less than a year into its second stretch in OPEC, Indonesia opted to suspend its membership saying it could not agree to the group's output cut. Indonesia's portion of the 5% cut would have been 37 kb/d and has been shared out among those members party to the deal. Indonesia's energy minister Ignasius Jonan said he had "mixed feelings" about an OPEC cut when he arrived in Vienna for his first meeting. He argued that the country could accept a cut of only 5 kb/d, which had been approved in its 2017 budget.

After the OPEC deal was agreed, Jonan, Indonesia's fourth energy chief this year, said in a statement that "as a net importer of oil, the cut will not benefit Indonesia because the oil price will rise". For more than a decade, Indonesia has been a net oil importer. Its crude oil production, which held at 740 kb/d in November, has halved since a 1.4 mb/d peak in the 1990s. Output has bounced higher this year after the Exxon-operated Banyu Urip field ramped up.

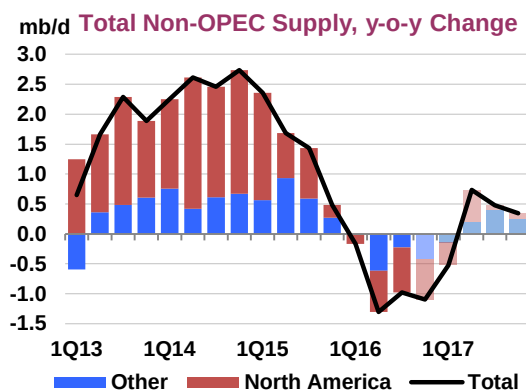
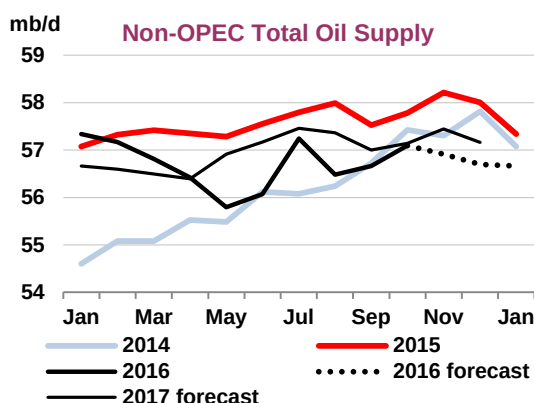
Indonesia re-joined OPEC in January after a seven-year absence, saying then that it would benefit from building relationships, particularly with the Middle East. Since its return, Indonesia has secured deals on crude imports, refining ventures and overseas upstream investments, including with Saudi Arabia and Iran.



Non-OPEC overview

Non-OPEC supply growth for 2017 has been revised 255 kb/d lower since last month's *Report* to 220 kb/d. The decline stems primarily from Russia, which has pledged to curb its oil production by 300 kb/d over 1H17 in support of OPEC's coordinated supply reduction. Ten other non-OPEC producers, including Azerbaijan, Oman, Mexico and Kazakhstan, pledged to contribute an additional 258 kb/d at a 10 December meeting in Vienna (see Non-OPEC joins output cuts).

The outlook for Chinese production has also been lowered. Following a fall of 335 kb/d this year, production is now projected to decline by 240 kb/d in 2017. China's oil output plunged to a seven-year low in October, with no uptick in activity expected from the major companies.



Regardless of its commitment made in Vienna, Mexico's oil production was already set to fall due to natural declines. Even though significant progress has been made in opening Mexico's hydrocarbon industry, near-term production prospects have dimmed. In a new business plan for 2017-2021 published in November, Pemex outlined a road map that sees oil output falling from 2 130 kb/d in 2016, to 1 944 kb/d in 2017, a slightly steeper fall than previously assumed. Longer term, the new plan opens up

more than 160 new opportunities for private companies over the next two years. Mexico's first competitive deep-water oil auction was also deemed a success, with eight out of 10 blocks awarded in early December. The successful farm-out of the Trion field to BHP Billiton further eases the financial strain on Pemex, freeing up cash for other activities in the coming years.

The prospect of a tighter oil balance has lifted international crude benchmarks by more than \$10/bbl since last month's *Report*. With WTI for delivery in 2017 trading at around \$55-57/bbl, activity in the US shale patch is expected to increase in the coming months. In recent financial filings, a number of US independent exploration and production companies revised upwards their 2016 capital expenditure guidance while signalling further increases in spending and activity in 2017. Since such an increase was already largely factored into our forecast, only a marginal increase in US output is foreseen compared to our earlier estimates. US LTO output is expected to continue to decline through the end of the year before rising marginally over 2017.

Brazil, Canada, Kazakhstan, Ghana and Congo continue to grow production with new projects ramping up. In October, combined output from these five countries stood more than 0.8 mb/d above a year earlier. In 2017, the group could add another 0.8 kb/d of growth – more than offsetting declines elsewhere.

Non-OPEC supplies for 2016 remain on track to decline by 0.9 kb/d in 2016.

Non-OPEC Supply

(million barrels per day)

	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Americas	20.0	19.9	19.0	19.4	19.4	19.4	19.5	19.4	19.5	19.5	19.5
Europe	3.5	3.6	3.4	3.3	3.4	3.5	3.4	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5
Total OECD	23.9	24.0	22.8	23.1	23.3	23.3	23.4	23.3	23.3	23.4	23.3
Former USSR	14.0	14.3	14.0	14.0	14.5	14.2	14.3	14.2	14.3	14.5	14.4
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.3	4.2	4.1	3.9	3.8	4.0	3.8	3.8	3.7	3.7	3.8
Other Asia	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6
Latin America	4.6	4.4	4.4	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.7
Middle East	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2
Africa	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	29.2	29.0	28.6	28.6	29.1	28.8	28.8	28.7	28.9	29.1	28.9
Processing Gains	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC	57.6	57.1	56.1	56.8	57.0	56.8	56.5	56.8	57.4	57.3	57.0
Annual Chg (mb/d)	1.5	-0.2	-1.3	-1.0	-1.0	-0.9	-0.6	0.7	0.6	0.3	0.2
Changes from last OMR (mb/d)	0.1	0.1	0.0	0.1	0.1	0.1	-0.3	-0.2	-0.2	-0.1	-0.2

Non-OPEC joins output cuts

OPEC and non-OPEC producers have reached their first joint deal in fifteen years to curtail oil output to speed up the market rebalancing. Following OPEC's pledge to curb output by 1.2 mb/d on 30 November, 12 major non-OPEC producers agreed to cut oil output by an additional 558 kb/d "to achieve a lasting stability in the oil market in the interest of oil producers and consumers".

In addition to Russia, which had already committed to curb production by 300 kb/d over 1H17, Azerbaijan, Bahrain, Brunei, Equatorial Guinea, Kazakhstan, Malaysia, Mexico, Oman, Sudan and South Sudan also agreed to reduce output "voluntarily or through managed decline, in accordance with an accelerated schedule", according to an OPEC press release. The cuts will start from 1 January 2017 for six months and could be extended for another six.

Non-OPEC joins output cuts (continued)

While the 558 kb/d target reduction falls slightly short of the 600 kb/d cut OPEC had initially hoped for, it is still the largest non-OPEC contribution ever. Last time non-OPEC and OPEC agreed to a coordinated supply cut was in 2001. However, the non-OPEC cut will not be immediate. Russian energy minister Alexander Novak stated that Russia's 300 kb/d reduction will be gradual. Production by the end of March will be 200 kb/d less than the October 2016 level of 11.2 mb/d - Russia's highest level so far. Novak said Russian output would fall to 10.9 mb/d after six months.

In addition to Russia, Mexico has agreed to cut output by 100 kb/d, Azerbaijan by 35 kb/d and Oman by 45 kb/d. According to Mexican officials, its contribution will be made through "managed natural declines". After falling by 130 kb/d in 2016, Mexican oil output is projected to decline by 185 kb/d next year, based on Pemex' recently updated business and strategy plan (see *North America Supply Section*).

Perhaps most surprisingly, Kazakhstan pledged to reduce production by 20 kb/d only months after its long delayed Kashagan project finally started pumping. The field, which is operated by the North Caspian Operating Company and co-owned by Eni, Total, ExxonMobil, KazMunaiGas, CNPC, Shell and Inpex was finally commissioned in October. Production reached commercial levels in November this year – more than a decade behind schedule and at a cost estimated at more than \$55 billion. Ahead of the 10 December meeting, Kazakh Energy Minister Kanat Bozumbayev said the field is expected to yield around 190 kb/d in 2017, as the consortium increase volumes towards a 370 kb/d plateau target.

Minister Bozumbayev has said that no limits will be placed on output from Kashagan, Karachaganak and Tengiz. Instead it will delay the expansion of two smaller fields and rely on natural output decline at others. As output at the country's three largest fields – accounting for nearly 60% of Kazakh crude and condensate output - will not be subject to any output restraints, we have left our Kazakh supply forecast largely unchanged since last month's *Report*. Kazakh production is forecast to expand by 160 kb/d in 2017.

In the coming months we will carefully monitor oil flows and compliance with the pledged supply cuts and continue to adjust our forecast. In the meantime, we have lowered our estimate of 2017 non-OPEC supply growth by 255 kb/d since last month's *Report*, due to these and other events discussed in this section.

Non-OPEC Supply Reduction Commitments

thousand barrels per day (kb/d)

Country	Cut	Current Oil Output**
Azerbaijan	35	813
Kazakhstan	20	1,723
Mexico	100	2,420
Oman	45	1,020
Russia	300	11,597
Others*	58	1,587
Total	558	1,518

* Bahrain, Brunei, Equatorial Guinea, Malaysia, Sudan and South Sudan

** November total oil supply, estimated based on market intelligence sources.

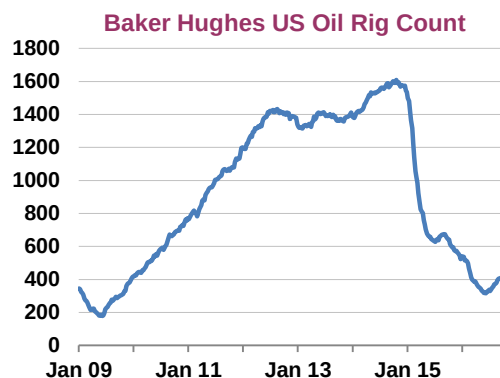
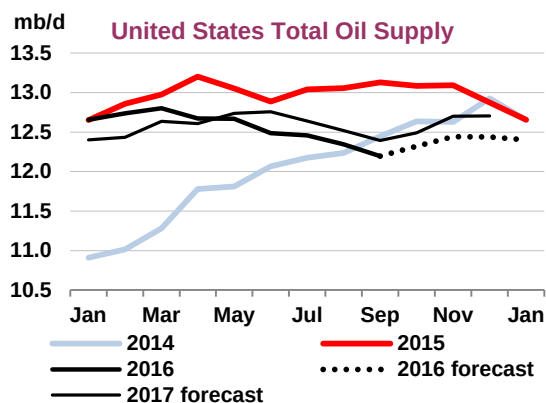
Mexico and Russia based on preliminary country statistics

OECD

North America

US – September actual: US oil production dropped by a steeper than expected 170 kb/d in September, as outages curbed US Gulf of Mexico production by nearly 140 kb/d compared with a month earlier. Output in key US light tight oil producing states such as North Dakota and Oklahoma saw continued declines while Texas onshore production posted its first monthly increase, albeit marginal, since the start of the year. Total US crude production was 843 kb/d lower than a year prior.

US natural gas liquids production also lagged year-earlier levels in September for a second consecutive month, compared with average annual growth of more than 230 kb/d over January-July. As discussed in last month's *Report*, higher natural gas prices and export constraints have significantly curtailed NGL economics and as such cut off supplies.

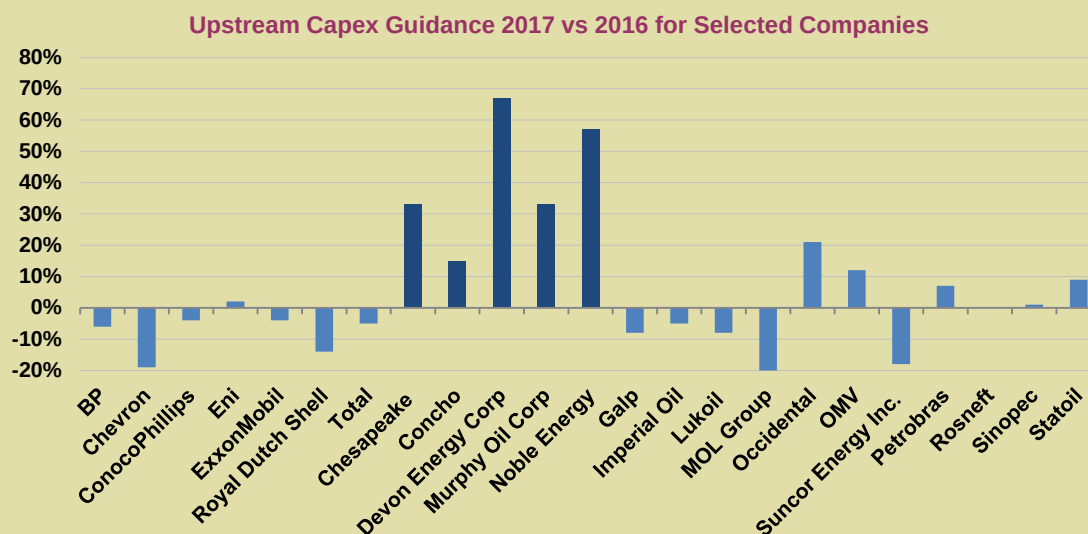


US shale producers gear up for increased investments

OPEC and non-OPEC producers' decision to curb output has had the intended effect of raising oil prices – at least in the near term. Over the past month, benchmark crude prices have risen by more than \$10/bbl, or roughly 20%. At the time of writing, WTI was trading around \$53.70/bbl, nearing levels seen by many as enough to spur on increased activity and investment in the US shale patch.

Increased activity is already underway. Since hitting a low point of only 316 oil rigs in May, US producers have put 161 rigs back in service. In November alone, the number of rigs increased by 36 to 477. As in previous months, the majority of the rigs were added to the Permian basin, though 11 rigs were also put into operation in the 'other' category – which includes the Oklahoma Stack and Scoop plays. The number of US rigs is a highly watched indicator of future growth as the US shale industry is characterized by shorter lead times and steeper declines than conventional wells. Maintaining levels of production requires continuous investment to compensate for the relatively fast decline of producing fields.

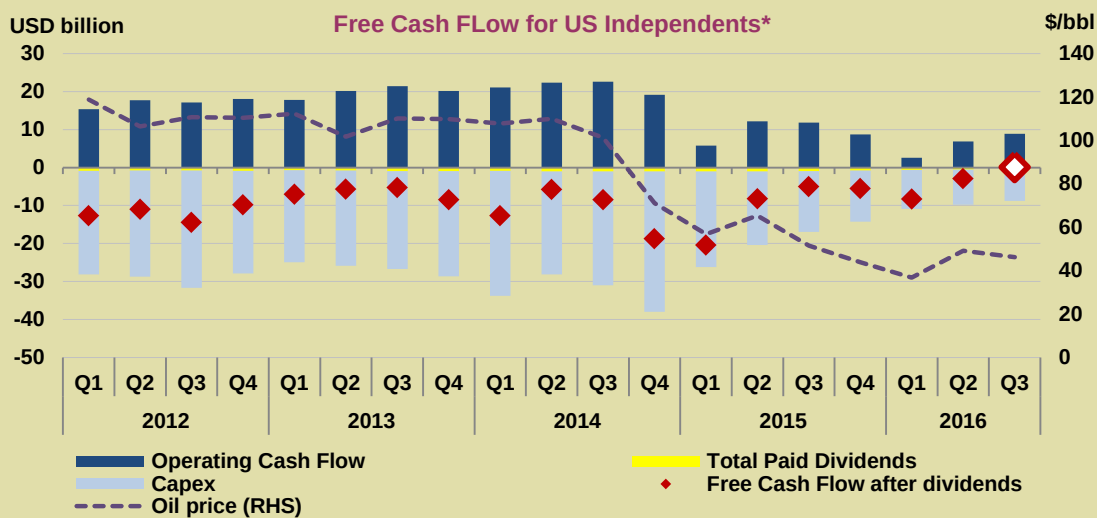
In stark contrast to most of their international counterparts, several US independent exploration and production companies again revised up their 2016 capex guidance during their 3Q16 earnings presentations. As for the majors, all companies, with the exception of Shell, announced further cuts to 2016 upstream budgets. ExxonMobil lowered its guidance by as much as 9% from the previous update to \$15.5 billion while BP, Chevron and Total cut plans by 6%, 4% and 2%, respectively. The majors announced further reductions in investments for 2017, revised down the number from their previous guidance or indicated the lower end of a range previously announced. While Chevron announced the steepest cuts next year – down by 28% y-o-y, it increased the amount it plans to spend on US shale by \$1 billion (to \$2.5 billion out of the total \$17 billion budget).



US shale producers gear up for increased investments (continued)

So too are independent companies. Anadarko, Apache, Chesapeake, Continental Resources and EOG all lifted their 2016 capex budget by anywhere from 13-20% compared with plans announced only three months earlier. Moreover, US independents such as Chesapeake, Devon and Noble Energy anticipate capex growth next year with increasing activities, especially in the Permian basin. At the same time, these companies emphasize spending within or near cash flow in their business plans.

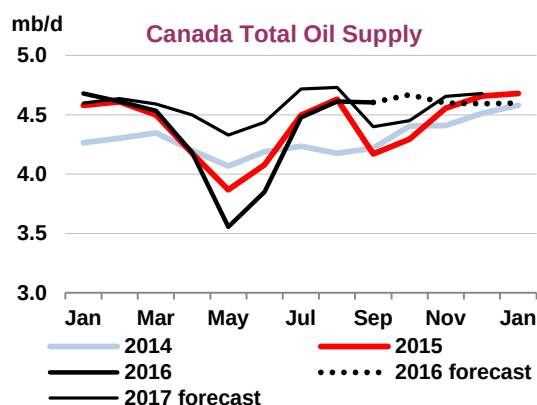
According to the latest investor presentations, improving financial conditions is the priority mentioned by most of companies including US independents such as Devon and Apache as well as traditionally heavily leveraged companies like Continental Resources and Noble Energy. Their focus is on generating positive free cash flow by spending mainly internal resources rather than continuing to make extensive use of external sources of financing.



* Free Cash Flow has been calculated analyzing balance sheets of about 50 US shale operators, having more than 80% of their revenues coming from shale activities and covering over 60% of US tight oil and shale gas production

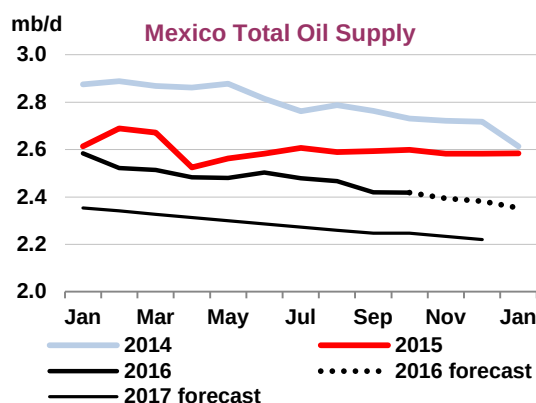
So far, the shale and tight oil industry has always been characterized by spending levels exceeding cash flow generated. Benefitting from the improved price environment (including a 50% natural gas price increase over the last six months), increased activity and enhanced cost efficiency, the US shale industry is now closer to being able to fund capex programs within operational cash flows. During 3Q16, for the first time in its history, the sector reached free cash flow neutrality. In other words, after more two years of very difficult times, the US shale business model seems on a much more sustainable path. Nonetheless, it remains to be seen whether companies can remain cash flow positive when the industry scales up activity and capital spending and as upward pressure on costs once again takes hold.

Canada – Newfoundland October actual, Alberta September actual: Consolidated monthly production figures for August lifted Canadian oil production estimates by 80 kb/d compared with last month's *Report*. Output was 135 kb/d higher than the month prior at around 4.6 mb/d, of which Alberta oil sands output, including synthetic crude, made up 2.6 mb/d. According to preliminary data, output was largely unchanged in September. After growth was all but erased by the wildfires this year, total Canadian oil output is expected to expand by 205 kb/d next year, to 4.6 mb/d.



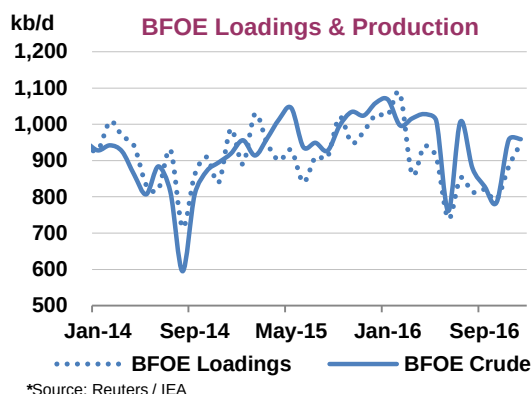
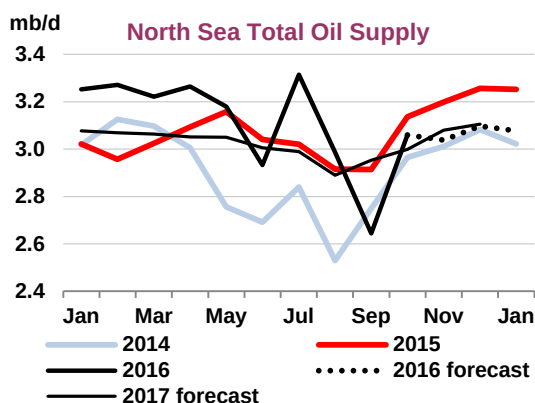
Mexico - October actual, November provisional: Mexico lost another 30 kb/d of crude and condensate output in November, ratcheting up annual declines of more than 200 kb/d, the largest since the start of the year. For the year as a whole, crude production is set to drop by 110 kb/d, to 2.2 mb/d. Including NGLs, output will average 2.5 mb/d this year. While Mexico is making strides in opening up its upstream industry to foreign players, output is set for further declines in the near term. In a new business plan for 2017-2021 published in November, Pemex outlined a road map that highlighted the possibility of more than 160 opportunities for private companies over the next two years. While Pemex hopes that foreign investment will reverse 12 years of production declines, it nevertheless sees oil output falling by 185 kb/d in 2017— a slightly steeper fall than previously assumed.

In early December, Mexico's National Hydrocarbon Commission (CNH) concluded Round One of the country's Energy Reform approved in 2013 which opens the door to foreign investors and as such ends Pemex's 75 year monopoly in the energy sector. CNH awarded eight out of 10 blocks on offer in a historic deep-water auction to international oil companies such as Total, CNOOC, Chevron, Statoil, BP and ExxonMobil. Separately, BHP Billiton won the right to develop the Trion field in the Gulf along with Pemex. The area, which is located just south of the maritime border with the US, is estimated to contain the equivalent of 485 million barrels. The influx of capital from BHP will ease the burden on heavily indebted Pemex – which will not have to commit additional funds to the project for the next few years.



North Sea

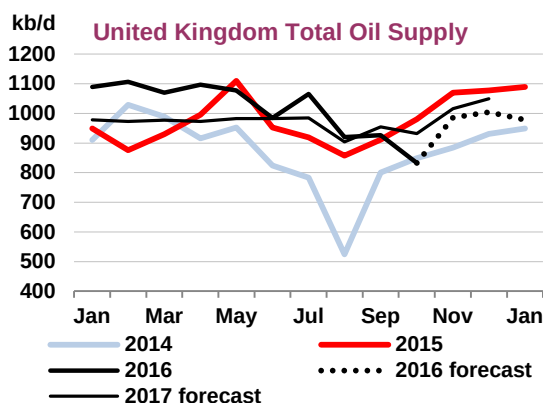
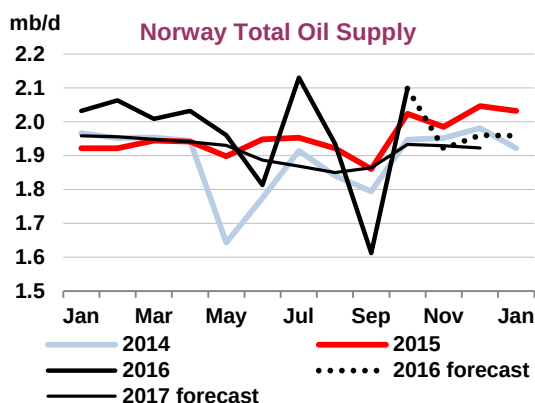
North Sea oil production continues to seesaw, surging 415 kb/d in October after sinking to its lowest level in a year during September. A substantial 490 kb/d monthly gain in Norwegian volumes was only slightly mitigated by a drop in output from the UK side of the Continental Shelf. At 3.06 mb/d, total output was 75 kb/d below a year earlier, curbing average annual gains for the year to date to around 85 kb/d. Preliminary loading schedules suggest shipments increased further in November and December, while remaining well short of the robust levels seen at the start of the year. Output is expected to decline by nearly 80 kb/d next year as field declines offset new project start-ups.



Norway – September actual, October provisional: Norwegian oil production surged more sharply than expected in October, leaping nearly 500 kb/d to 2.1 mb/d as a number of fields recovered from outages. Most notably, Eni's Goliat field was shut for most of September due to technical and safety issues. A number of other fields, including Gudrun, Asgard, Skarv, Tyrihans and Draugen, also saw reduced output

in September. Output is expected to ease in November, as reservoir pressure and production stabilise after the initial post-shutdown surge.

In November, Norway's oil and energy minister approved an increase in the 2016 oil output quota of the Statoil-operated Troll field, from 114 kb/d to 127 kb/d – close to our forecast for full year 2016 output. Det Norske's Ivar Aasen field remains on track for first oil in December. The field, which will be tied into the neighbouring Edvard Grieg platform, is expected to produce 35 kb/d in 2017 rising to 55 kb/d in 2018. Further growth next year will come from the Statoil-operated Gina Krog field, which is expected to produce around 65 kb/d at peak. In all, after three consecutive years of growth, Norway's oil output is forecast to fall by 50 kb/d next year, to 1.9 mb/d.



UK – September actual: After holding steady in September, total UK oil production dropped by 90 kb/d in October, to 830 kb/d. The decline stemmed mostly from the Forties system, as Buzzard, the UK's largest field, was shut for scheduled maintenance for part of the month. UK oil production is on track to expand by 40 kb/d on average this year, but will likely decline by roughly the same amount in 2017, when supply averages 975 kb/d. Output declines next year despite the start-up of BP's Schiehallion and Clair Ridge projects, which will have a larger impact on 2018 production. Some support should come from the commissioning of smaller fields, however, even though the start-up of Ithaca's Greater Stella field has been delayed from November to early January 2017 due to electricity supply issues. Other 2017 new field additions in the UK sector are moving forward, with Enquest's Kraken field on track for start-up as expected in 1H 17.

Non-OECD

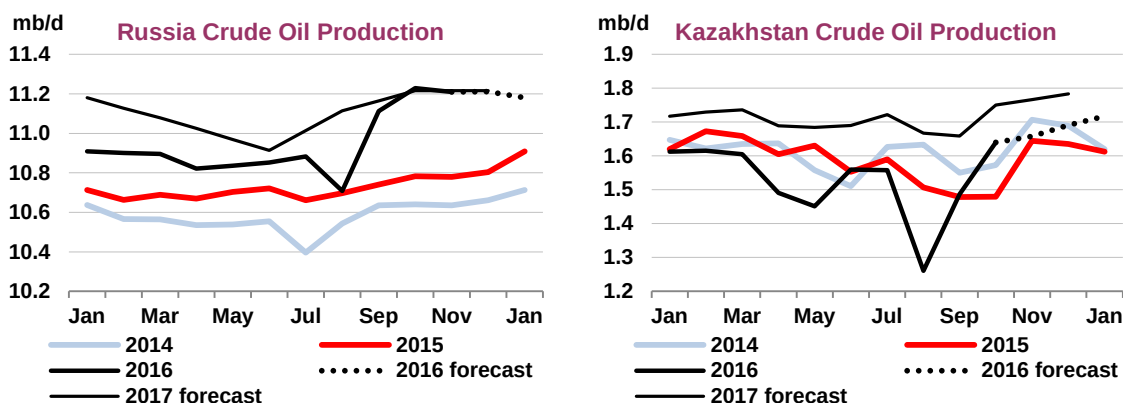
Former Soviet Union

Russia – October actual, September provisional: Russian oil producers continued to pump near record rates in November as a number of new field start-ups offset declines elsewhere. Crude and condensate production held above 11.2 mb/d for a second consecutive month, a substantial 430 kb/d above a year earlier. The breakneck pace of growth could come to an abrupt halt as Russia has agreed to contribute to OPEC's efforts in reining in oversupply, by cutting output by 300 kb/d from November-December levels during the first half of 2017. Energy Minister Alexander Novak, who had earlier said Russia would only freeze output, and thus forego around 200-300 kb/d of growth next year, confirmed the deal, stating that Russian oil output will be cut back "gradually" from January, citing technical difficulties for some companies in cutting production immediately.

While it remains to be seen whether Russia follows through on its commitment, we have lowered our outlook for Russian crude and condensate output by 140 kb/d for 2017. Output declines are likely to be gradual over 1H17, as the curbs are most likely to come from mature fields subject to higher taxation than greenfield developments through a slowdown in development drilling and the shutting in of

marginal wells. Russian producers have significantly increased drilling over 2016 in efforts to stem field decline. While little information on the duration of production cuts has been made public, provisionally we assume that output will rise gradually again during 2H17.

Providing a partial offset, we have raised our estimate for Russian natural gas liquids production going back to 2015, based on the latest company filings from major gas processing companies. In its 2015 annual report, Sibur, which accounts for more than half of Russia's associated gas processing, reported it produced 5 223 mmt (166 kb/d) of raw natural gas liquids last year, an increase of 8% from 2014. During the first nine months of 2016, Sibur's NGL fractionation increased by another 4.1%.



Kazakhstan, Azerbaijan – October actual: Kazakhstan's oil production leapt 150 kb/d in October to 1 640 kb/d as maintenance work ended and Kashagan continued to ramp up output. Production at Kashagan was around 50 kb/d in October but had reportedly reached commercial levels (75 kb/d) by mid-November and hit 100 kb/d by month-end. Kazakhstan's Energy Minister Kanat Bozumbayev said in early December that the field is expected to produce 8.9 million tonnes of oil (192 kb/d) in 2017.

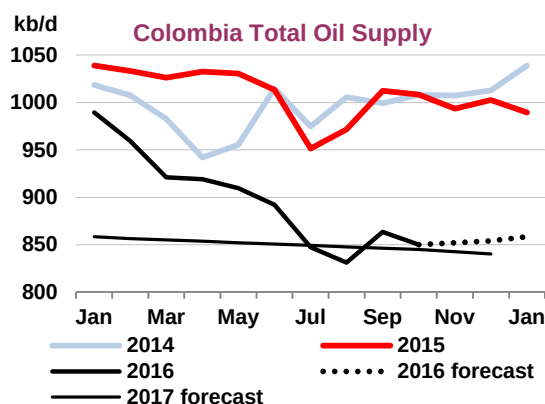
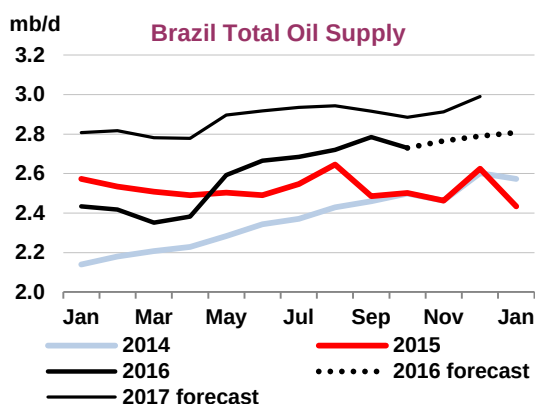
Surprisingly, Kazakhstan agreed on 10 December to take part in the joint OPEC-non-OPEC supply cuts. It agreed to cut output by a token 20 kb/d, but Minister Kanat Bozumbayev has stated that the country's three largest fields – Kashagan, Karachaganak and Tengiz – will not be imposed any production limits. Kazakhstan's output has been falling for the last three years, but the long delayed launch of Kashagan is set to reverse the trend, with output forecast to grow by 160 kb/d in 2017. In October, Kazakhstan's oil production stood 160 kb/d above a year earlier, marking the first substantial increase since June 2015.

Azerbaijan is also reportedly considering output curbs along with OPEC and non-OPEC producers. Azeri crude production recovered marginally to 810 kb/d in October, as the deepwater Guneshli platform returned from maintenance. Output was nevertheless 35 kb/d below a year earlier. Output likely dropped again in November, when the 80 kb/d East Azeri platform was offline for most of the month. With Azerbaijan reportedly agreeing to cut output 35 kb/d from current levels, Azeri production is now seen dropping to 805 kb/d next year, from an average 835 kb/d in 2016.

Latin America

Brazil – October actual: Brazil's total oil production dropped 55 kb/d in October due to maintenance shutdowns at the Cidade de Anchieta and Capixaba floating production, storage and offloading vessels (FPSOs) in the Parque das Baleias, and at FPSO Cidade Angra dos Reis, operating at the Lula field. At 2.7 mb/d, including natural gas liquids, output was nevertheless nearly 230 kb/d above a year earlier, as a number of new production systems have pushed crude supply from the Lula field sharply higher. Output at Brazil's largest field has nearly doubled over the past 12 months, to reach 630 kb/d in October from 330 kb/d a year earlier, despite the most recent maintenance work.

Production is set to increase further with new units starting up. Notably, Petrobras and partners Shell and Repsol started output from its Lapa field in November. The Cidade de Caraguatatuba FPSO is Petrobras' ninth such vessel in the Santos pre-salt basin - with a capacity to produce 100 kb/d of oil. Brazilian oil production is forecast to grow 80 kb/d in 2016, to 2.6 mb/d, and by 270 kb/d in 2017.

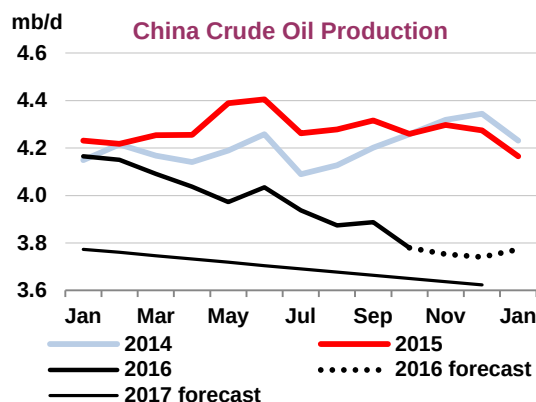


Colombia – October actual: Colombian crude oil production averaged 845 kb/d in October, 14 kb/d below September and 160 kb/d lower than a year earlier. For 2016 as a whole, Colombian crude oil output is on track to decline by 120 kb/d to average 890 kb/d. The output decline is expected to ease in 2017 to 40 kb/d, as Ecopetrol plans to increase investment. According to its recently approved 2020 business and strategy plan, the state-owned oil company, which accounts for two-thirds of the nation's output, has announced it will invest around \$3.5 billion next year. Of that, \$2.85 billion will be dedicated to exploration and production, which the company said is nearly double what it budgeted for 2016.

Roughly 95% of its spending will take place in Colombia. During its recent third-quarter earnings call, Ecopetrol said that despite weak oil and natural gas prices, it would still carry out a significant drilling campaign next year, especially in Colombia's promising Caribbean prospects. The company forecasts that it will be able to produce around 715 kb/d of oil equivalent per day in 2017, compared with 720 kb/d on average over the first nine months of 2016. Ecopetrol's output has fallen sharply this year as lower prices have forced the company to streamline drilling activity. According to the Colombian Petroleum Association (ACP), over the first eight months of the year only 70 production wells were drilled, compared with 710 for 2015. Ecopetrol's production actually increased slightly in 3Q16, as higher oil prices led to increased drilling and workovers. In an effort to increase the exit production rate for 2016, the Caño Sur field, which had been suspended due to low prices, was reactivated.

Asia

China – October actual: Chinese oil production continues to tumble, dropping another 110 kb/d in October. At 3.78 mb/d, crude oil output was 480 kb/d lower than a year earlier and at its lowest level in more than seven years. Despite an uptick in international crude oil prices in October, Chinese producers have refrained from increasing activity to stem declines. Earlier in the year, Sinopec's Chairman told investors that the company would open newly discovered reserves to make up for falling output at existing fields if crude prices were between \$45/bbl and \$50/bbl. In October, however, the Chairman of China National Petroleum Corp, the parent company of PetroChina, said at a board meeting that it would continue to cut crude oil output from less efficient fields through the remainder of 2016 and rather look to optimize and acquire new overseas projects.



Vietnam –October actual, November preliminary: Vietnam produced just shy of 300 kb/d in October, a slight uptick on September and our earlier forecast, but nevertheless 11% below a year ago. The nation's General Statistics Office expects output to drop to 290 kb/d in November

Other

Oman – October actual: Omani crude and condensate production rose to 1 012 kb/d in October, up 10 kb/d from the previous month and 40 kb/d above a year earlier. Of this crude contributed 923 kb/d, a new high, while condensates made up the remainder. Oman pledged to support production cuts planned by the OPEC and non-OPEC producers by cutting output by 40 kb/d in early 2017.

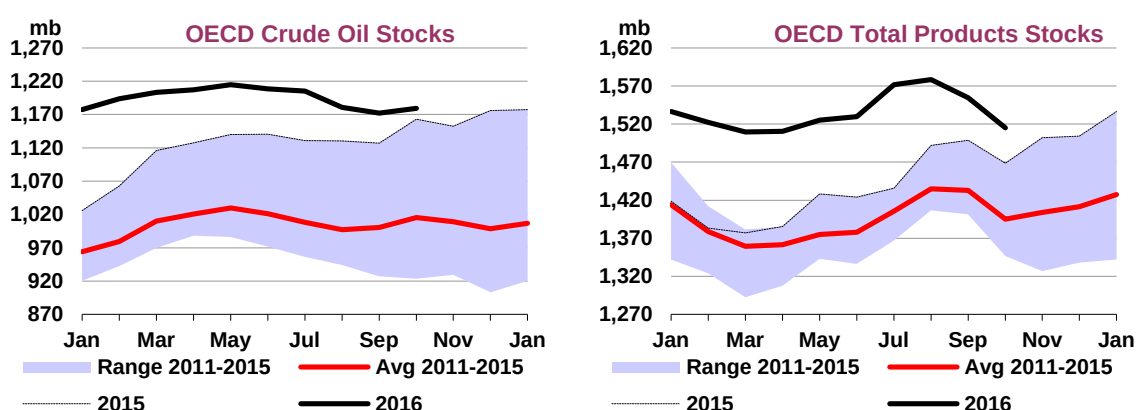
In **Ghana**, Tullow Oil has lowered the 2016 production target for its Tweneboa-Enyenra-Ntomme (TEN) project, which started up in August, due to problems with the water injection system. The company now aims to produce 15 kb/d on average this year, compared with an earlier target of 23 kb/d. Tullow also announced a production guidance of 65 kb/d for 2017, slightly lower than our previous assumptions. TEN is expected to hit peak output of 80 kb/d towards the end of 2017 or in early 2018.

In this month's report, we have slightly adjusted our estimates for **South Africa's** CTL production going back to 2014 based on operational reports from Sasol. Sasol reported it produced 92 kb/d of liquids from its Secunda coal-to-liquids plant in during 2015 and 86 kb/d so far this year, slightly higher than previously assumed.

STOCKS

Summary

- **OECD commercial inventories fell in October for the third month in a row.** They have drawn 75 mb since reaching a historical high in July, but remain 300 mb above the five-year average.
- **In October, falls were concentrated in oil products** and took place across all OECD regions. Product stocks have fallen twice as quickly as crude since July due to the impact of refinery turnarounds.
- **Chinese crude stocks decreased in October for the first time since January with higher refinery production** and lower crude imports, even if early data show a build in November.
- **Preliminary data show a fourth monthly draw in oil stocks** in the OECD in November.



Global Overview

Oil stocks fell in the OECD in October for the third month in a row, marking the longest stretch of draws seen since 2011, when the oil market experienced rising demand and supply cuts. Taken together, OECD stocks have lost 74.5 mb since reaching a historical record of 3 102 mb last July, but they remain 300 mb above the five-year average, providing a more than ample cushion going into 2017.

Oil product stocks drew twice as quickly as crude during that period due to the seasonal impact of refinery turnarounds in the northern hemisphere. In October, oil product inventories fell seasonally by 39.2 mb whereas crude stocks built by 7.3 mb. Preliminary data for November show OECD inventories falling yet again, mainly due to lower diesel cargo arrivals in Europe, even as US oil stocks built.

Preliminary Industry Stock Change in October 2016 and Third Quarter 2016

	October 2016 (preliminary)				Third Quarter 2016			
	(million barrels)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	14.6	-8.7	1.4	7.3	0.47	-0.28	0.04	0.24
Gasoline	-5.8	0.6	0.2	-5.0	-0.19	0.02	0.01	-0.16
Middle Distillates	-12.7	-5.4	-1.5	-19.6	-0.41	-0.17	-0.05	-0.63
Residual Fuel Oil	0.4	-1.8	0.0	-1.4	0.01	-0.06	0.00	-0.05
Other Products	-12.4	2.0	-2.8	-13.2	-0.40	0.06	-0.09	-0.42
Total Products	-30.4	-4.6	-4.1	-39.2	-0.98	-0.15	-0.13	-1.26
Other Oils ¹	3.2	-0.3	1.0	3.8	0.10	-0.01	0.03	0.12
Total Oil	-12.7	-13.6	-1.8	-28.0	-0.41	-0.44	-0.06	-0.90

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD inventory position at end-October and revisions to preliminary data

OECD inventories followed seasonal trends and drew by 28 mb in October to end the month at 3 027 mb, their lowest level since April. Crude stockpiles built by 7.3 mb to 1 179 mb with higher figures recorded in North America and Asia, and draws in Europe linked to an open arbitrage for Atlantic Basin crudes to Asia. Oil products, for their part, drew as expected for this time of year across all OECD regions by 39.2 mb to 1 515 mb due to the impact of seasonal refinery turnarounds. Stocks of gasoline (-5 mb), middle distillates (-19.6 mb), fuel oil (-1.4 mb) and 'other oils' (-13.2 mb) all fell on the month. Preliminary data for November show OECD inventories falling for a fourth month. European crude stocks were likely to have built 3.6 mb during the month, while a hefty drop in middle distillate inventories brought oil product stocks down 16.4 mb from October. There was a small build overall for crude and oil product stocks in the US, whereas Japanese stocks were slightly lower.

Revisions versus November 2016 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Aug-16	Sep-16	Aug-16	Sep-16	Aug-16	Sep-16	Aug-16	Sep-16
Crude Oil	1.1	-4.0	-0.1	-4.6	-1.3	1.4	-0.2	-7.2
Gasoline	-0.1	-1.4	0.0	-2.1	-0.1	0.1	-0.1	-3.4
Middle Distillates	0.0	-3.0	0.1	-3.0	-0.7	-1.6	-0.6	-7.6
Residual Fuel Oil	0.0	-0.6	0.3	-1.1	0.2	0.3	0.6	-1.4
Other Products	0.0	1.9	0.3	-0.3	0.3	-0.7	0.6	0.9
Total Products	-0.1	-3.0	0.8	-6.5	-0.3	-1.9	0.4	-11.5
Other Oils ¹	-0.3	3.8	0.2	2.1	0.0	0.3	0.0	6.2
Total Oil	0.7	-3.2	0.9	-9.0	-1.5	-0.3	0.1	-12.5

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

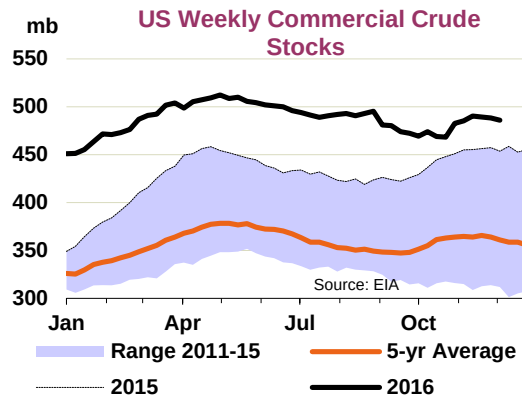
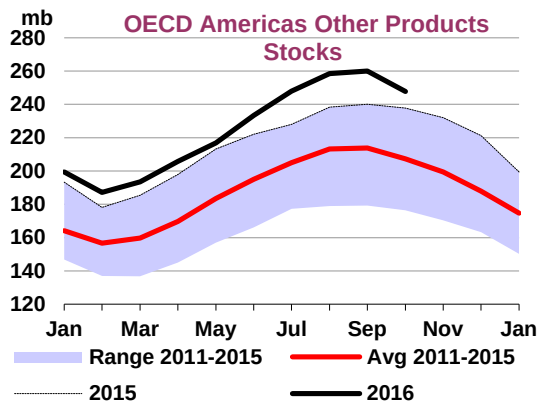
On the receipt of more complete data, OECD inventories were revised down by 12.5 mb in September. The largest changes were for oil products, including for middle distillates (-7.6 mb), 'other oils' (+6.2 mb) and gasoline (-3.4 mb). Crude stocks were revised down by 7.2 mb. August stock figures were largely unchanged.

Recent OECD industry stock changes

OECD Americas

Commercial holdings in the OECD Americas drew in line with seasonal patterns in October by 12.7 mb to 1 603 mb, with builds seen in crude oil and draws in oil products. Crude stocks gained 14.6 mb to 634 mb as refiners used less during their peak seasonal maintenance, while cargo imports fell. Gasoline stocks also fell seasonally, hitting a one-year low of 253 mb, with lower production from refineries and despite lower demand. Middle distillate stocks dropped seasonally by 12.7 mb to 224 mb. Stocks of 'other products' that had hit a record high during September, fell strongly by 12.4 mb to 248 mb in October with higher seasonal demand and as exports of US propane picked up in line with arbitrage opportunities. This could continue over the next few months with the opening of a new terminal in Freeport, Texas, in December.

Preliminary data from the US *Energy Information Administration (EIA)* suggest that US crude stockpiles continued to build through to mid-November, before drawing on the back of higher demand from refineries and lower imports. Overall, crude stocks were up by 2.8 mb month-on-month at end-November. WTI rose against Brent up until 9 November and has fallen almost continuously since then, which could help drive lower imports in the latter part of December and in January. US crude exports to Asia and Europe have been on the rise, with several VLCCs seen taking material from the US Gulf to Asia in November. No US Gulf terminal can load a fully laden VLCC, so traders have transferred crude from smaller Aframaxes loaded at US terminals onto VLCCs offshore.

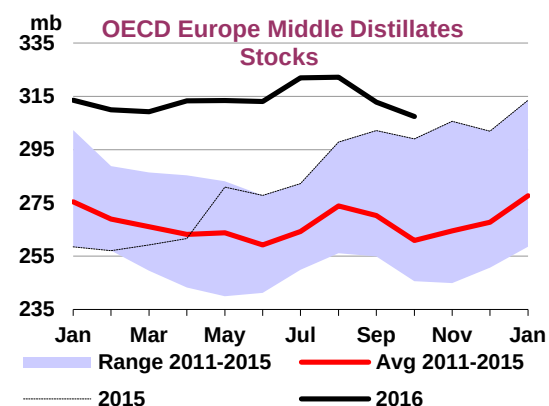
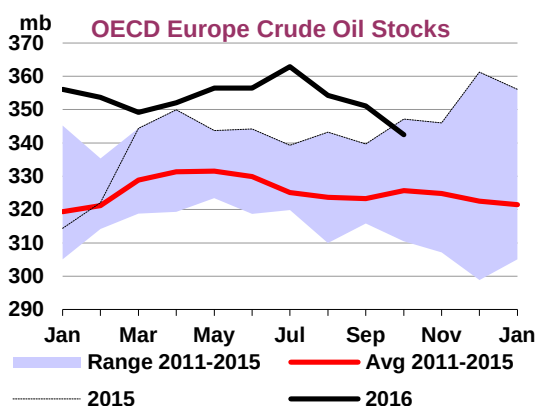


As US refineries ramped up output seasonally in November, oil product stocks gained. This was especially apparent for gasoline stockpiles, which followed seasonal trends and rose by 6 mb to 229 mb, while middle distillate stocks rose by a similar amount. Demand increased seasonally, US propane exports remained strong and this led to a further decline in stocks of 0.7 mb to 100 mb. Jet fuel stocks were 3.1 mb above year-ago levels at end-November due to higher imports.

OECD Europe

European industry inventories fell to 976 mb in October, their lowest level in a year, with draws seen in both crude and oil products. Crude stockpiles fell by a larger-than-seasonal 8.7 mb to 342 mb following a surge in exports of Atlantic Basin crudes to Asia during the month. This movement took place despite maintenance at refineries that weighed on demand, and continued well into November due to favourable economics.

On the products side, middle distillates drew by a further 5.4 mb to 307 mb, the lowest figure recorded since December 2015, on fewer cargo arrivals from Russia, the US and the Middle East, and with lower production from Europe's refineries. Fuel oil stocks also drew by 1.8 mb to 65 mb, their lowest in nearly two years, due to lower arrivals from Russia and exports to Asia. Gasoline inventories were up 0.6 mb to 91 mb and 'other products' (naphtha, LPG and other oil products) built by 2 mb to 99 mb. All told, oil product holdings covered 42.8 days of forward demand at end-October, up 0.9 days on the month.

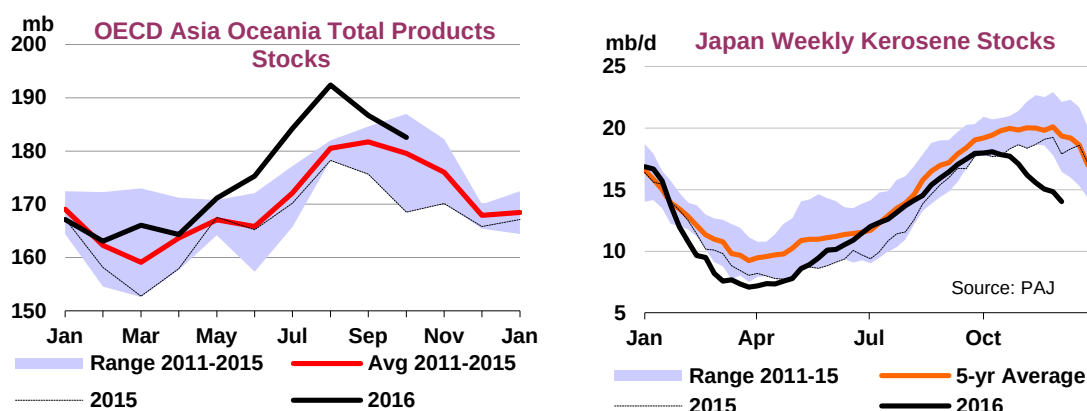


Preliminary data from Euroilstock for 16 European countries showed crude stocks reversing their recent falls and building by 3.6 mb in November. However, oil products drew substantially with lower arrivals of diesel and jet fuel recorded during the month. Middle distillate stocks fell 13.8 mb. Fuel oil and gasoline also showed declines. Reports concerning oil products held in independent storage in Northwest Europe showed a similar picture as stocks of diesel and gasoil drew in late November and early December, despite persistently low water levels on the Rhine that restrict barge flows from the Amsterdam-Rotterdam-Antwerp refining hub to a minimum.

OECD Asia Oceania

Commercial stocks in OECD Asia Oceania, comprising Australia, Israel, Japan, New Zealand and South Korea, fell by 1.8 mb to 448 mb in October. Crude inventories built for the third month in a row to 203 mb, their highest level so far in 2016, as imports more than offset lower consumption by refineries. In South Korea, customs data showed the country imported 6.6 mb of Iranian crude oil during the month, up more than two-thirds from October 2015, while overall crude imports also rose.

Oil product stocks drew by a larger-than-seasonal 4.1 mb to 183 mb at end-October. This was largely driven by kerosene and LPG in Japan and South Korea with the advent of winter and as seasonal refinery turnarounds affected output of those fuels. Gasoline stocks built by 0.2 mb to 24 mb and fuel oil stocks were unchanged month-on-month. Altogether, this meant oil product holdings covered 21.5 days of forward demand at end-October, down 1.2 days on end-September.



Preliminary weekly data from the *Petroleum Association of Japan (PAJ)* suggest that crude stocks bucked the recent trend in November and fell by 0.2 mb to 94 mb as refineries returned from maintenance. Kerosene inventories, meanwhile, drew by a larger-than-usual 2.3 mb to their lowest ever for this time of year, as heavy snowfalls hit the island of Hokkaido and heating demand went up, triggering a wave of imports. Gasoline stocks, which had fallen to their lowest level in 13 years in late October following unplanned outages at refineries, rebuilt in November, but remained considerably lower-than-normal for this time of year. Product stocks stood at 112 mb at end-November, down 0.1 mb on end-October.

Recent developments in Singapore and China stocks

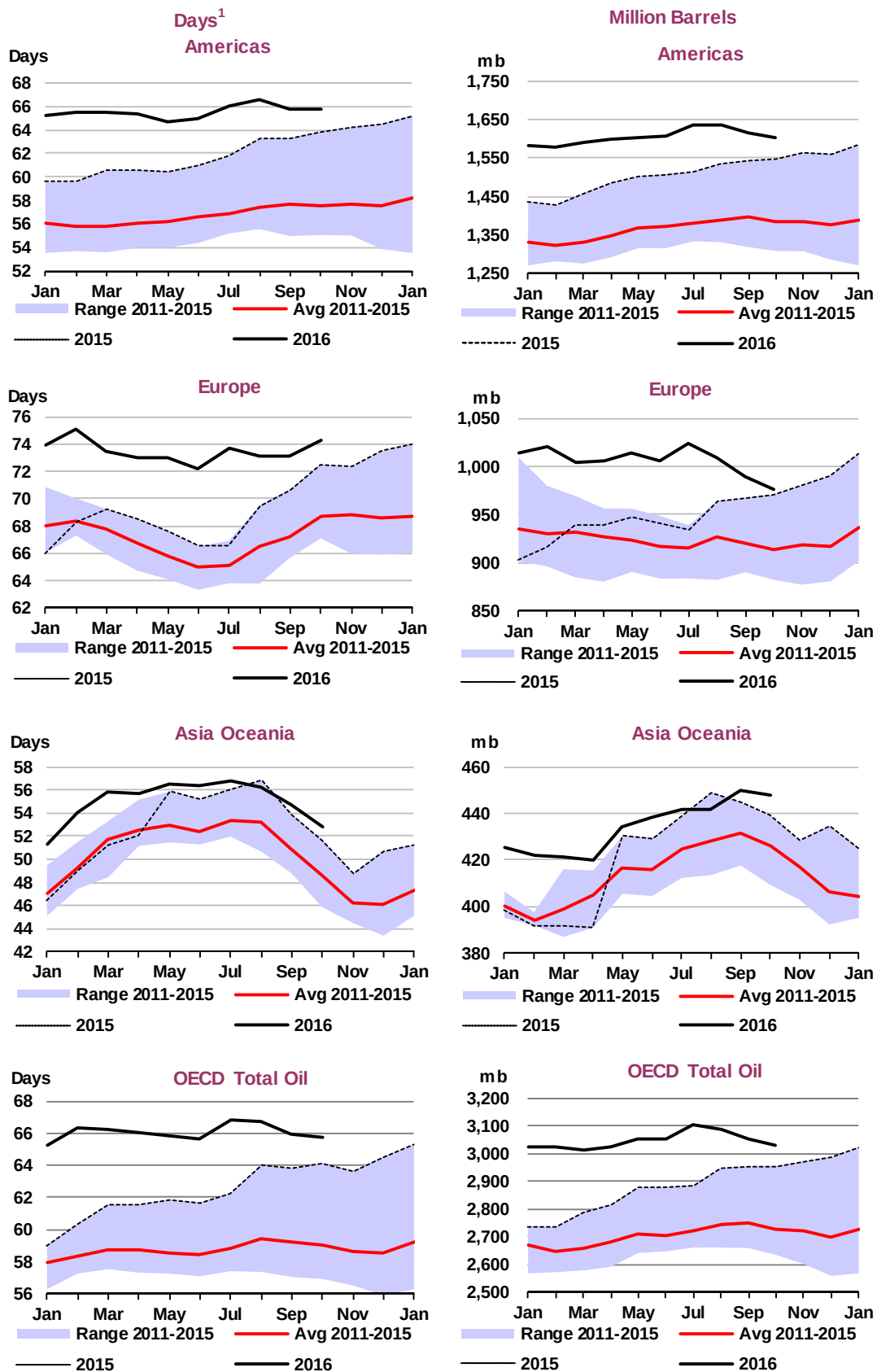
Data from *China Oil, Gas and Petrochemicals (China OGP)* indicate that Chinese commercial crude stocks fell by 0.1 mb/d in October with high refinery runs and strong exports of gasoil and kerosene to Asia. Total implied stocks are also likely to have drawn during the month as refinery runs outstripped net crude supply (crude production plus imports minus exports) by around 0.6 mb/d.

Preliminary data imply that total stocks built in November due to a pickup in imports and lower refinery runs. The 19 mb Huangdao Phase 2 strategic petroleum reserve (SPR) finished building in July while the 19 mb Zhoushan Phase 2 SPR is still filling crude and could be full early next year. Construction of the 31 mb Huizhou SPR is still underway, but it has been partly filled. Finally, the 19 mb Jinzhou underground rock cavern is likely to be filled in the first half of next year.

According to weekly data from *International Enterprise*, onshore fuel oil inventories in Singapore stood at 22.2 mb on 7 December, their lowest since early November and down more than 5 mb from a year ago, despite robust imports from Europe and the US. This year should see record bunker sales in Singapore, according to preliminary data and market reports. Stocks of light distillates, at around 12.1 mb, were up on the month, while middle distillate inventories were little changed on end-October.

Regional OECD End-of-Month Industry Stocks

(in days of forward demand and million barrels of total oil)

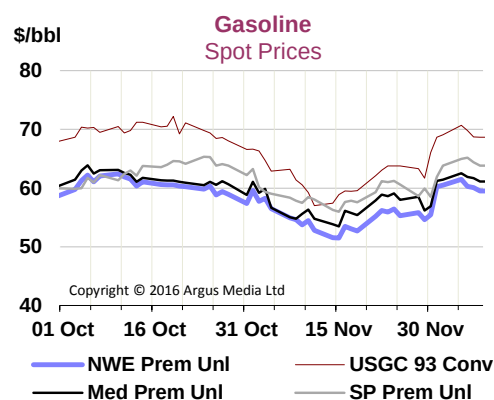
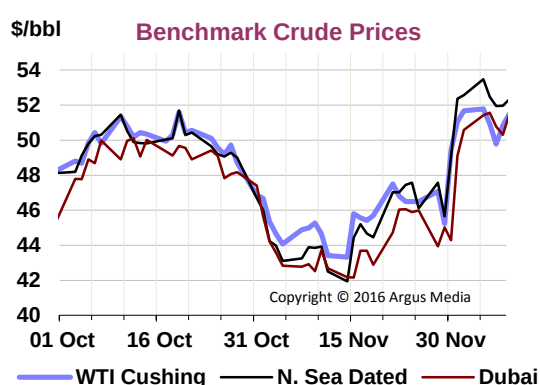


1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

- **Benchmark crude prices reversed their losses seen in November and rose by a sharp \$7/bbl in the aftermath of OPEC's deal on 30 November to curb output.** An agreement by non-OPEC countries to cut production on 10 December sent prices up a further \$3/bbl to their highest level since July 2015.
- **Light sweet crude oil remained under pressure relative to sour grades** and this may well continue in the early part of next year with lower production expected from OPEC members and Russia.
- **Oil product prices were boosted by refinery maintenance in the northern hemisphere.** The cheapest oil products – fuel oil and naphtha – saw the largest price gains, driven by Asian demand.
- **Freight rates for both dirty and clean tankers rose in November,** reflecting higher shipping movements and open price arbitrages in several regions.



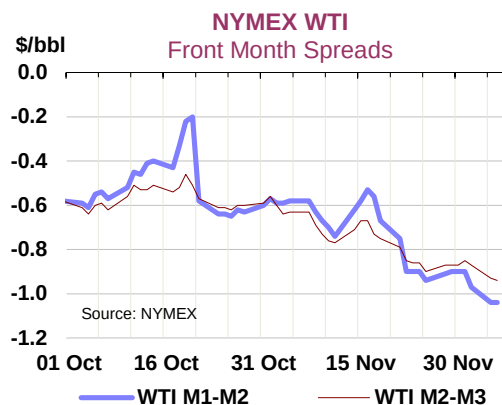
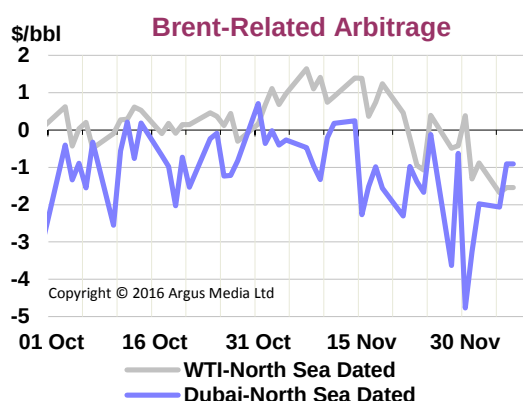
Market overview

In November, outright oil prices followed an inverse shape compared with October, falling early on before recovering in the second half of the month, as it became increasingly clear OPEC would cut production next year. Front month ICE Brent crude futures gained more than \$7/bbl in the aftermath of OPEC's summit in Vienna on 30 November and a further \$3/bbl following an agreement by non-OPEC producers on 10 December to reduce production. They were trading at \$56.35/bbl at the time of writing, up more than \$10/bbl from last month's *Report* and at their highest since July 2015. In the physical markets, light sweet crude oil remained under relative pressure compared with sour crude. This was originally triggered in October by an increase in Nigerian and Libyan production, as well as refinery maintenance in Europe, and continued well into November. OPEC's decision to curb production from the start of 2017 onwards could further help support sour crudes over the coming months. Core OPEC members such as Saudi Arabia, Kuwait and the United Arab Emirates, which are expected to shoulder the bulk of output cuts, largely produce sour quality crude oils. In addition, major sour crude producer Russia also pledged to cut output. In oil product markets, prices followed crude higher, reflecting tighter supplies and refinery shutdowns in many regions. Fuel oil and naphtha saw the largest price gains on the month, driven by strong Asian demand. But product prices lagged the rise in crude at the start of December, suggesting some pain ahead for global refiners.

Futures markets

Front month ICE Brent crude futures fell by \$4.31/bbl on an outright basis in November to \$47.08/bbl. However, this no longer represents market reality as prices gained more than \$7/bbl following OPEC's

summit in Vienna on 30 November and a further \$3/bbl after non-OPEC producers agreed their own cut on 10 December. They were \$56.35/bbl at the time of writing. 2017 Brent inter-month spreads narrowed by between \$0.13-0.24/bbl (depending on the contract maturity) as a result of the OPEC deal, with some moving into backwardation on 12 December after non OPEC countries agreed to cut output. This suggests that traders see an increasing chance of stock draws next year and has rendered floating storage less economic in Europe.



On the contrary, the Month 1-Month 2 contango on the NYMEX West Texas Intermediate (WTI) curve widened gradually through November in line with higher inflows into Cushing, Oklahoma, and a string of refinery outages in the US Gulf Coast. The OPEC deal had little impact on the structure of the curve, which continued to widen in early December due to expectations that stocks in Cushing would continue to build over the next few weeks. It stood at minus \$0.94/bbl at the time of writing, close to its widest in one year and down from minus \$0.58/bbl at the start of November. The OPEC deal had a larger impact on WTI spreads for delivery next year, which narrowed. Relative to Brent, WTI stayed in a tight price range through November, but by early December the front month Brent-WTI spread had widened to more than \$2.50/bbl. This, in turn, could help trigger more exports of US crude to the Atlantic Basin and Asia, even if these will not reach their final destination until next year. Already in November, a series of exports of US crude to China, Singapore and Europe were seen. Trading volumes in both Brent and WTI contracts hit a daily record high following OPEC's decision.

Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Sep	Oct	Nov	Nov-Oct Avg Chg	% Chg	Week Commencing:				
						07 Nov	14 Nov	21 Nov	28 Nov	05 Dec
NYMEX										
Light Sweet Crude Oil	45.23	49.94	45.76	-4.18	-8.4	44.64	45.16	47.39	48.90	50.97
RBOB	58.45	62.58	57.94	-4.64	-7.4	56.62	55.56	58.81	62.05	63.95
ULSD	60.17	65.85	61.57	-4.28	-6.5	60.15	60.22	63.40	65.96	68.56
ULSD (\$/mmbtu)	10.61	11.61	10.86	-0.75	-6.5	10.61	10.62	11.18	11.63	12.09
Henry Hub Natural Gas (\$/mmbtu)	2.90	3.07	2.87	-0.20	-6.5	2.68	2.75	3.01	3.37	3.66
ICE										
Brent	47.24	51.39	47.08	-4.31	-8.4	45.83	46.27	48.64	50.70	53.95
Gasoil	56.19	62.12	57.33	-4.79	-7.7	55.85	56.04	59.46	60.74	63.15
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-2.01	-1.45	-1.32	0.13		-1.19	-1.11	-1.25	-1.80	-2.98
NYMEX ULSD - WTI	14.94	15.91	15.81	-0.10		15.51	15.06	16.01	17.06	17.59
NYMEX RBOB - WTI	13.22	12.64	12.18	-0.46		11.98	10.40	11.42	13.15	12.98
NYMEX 3-2-1 Crack (RBOB)	13.79	13.73	13.39	-0.34		13.16	11.95	12.95	14.45	14.52
NYMEX ULSD - Natural Gas (\$/mmbtu)	7.71	8.54	7.99	-0.55		7.93	7.87	8.17	8.27	8.43
ICE Gasoil - ICE Brent	8.95	10.73	10.25	-0.48		10.02	9.77	10.82	10.04	9.20

Source: ICE, NYMEX.

In oil products, the major futures contracts largely followed movements in crude oil through November, but they fell in relative terms. ICE Gasoil futures were \$57.33/bbl on average in November, down \$4.79/bbl month-on-month. The Month 1-Month 2 market structure fell to minus \$0.60/bbl by early December due to higher expected supplies from Russia, the opening of a price arbitrage between the US Gulf Coast and Europe and the end of seasonal refinery turnarounds in Saudi Arabia. Prices were, however, better supported than at the end of 2015 in the midst of the global diesel glut. NYMEX Reformulated Blend-stock for Oxygen Blending (RBOB) gasoline fell \$4.64/bbl to \$57.94/bbl in November, and the Month 1-Month 2 market structure widened with high cargo arrivals from Europe, high inventories and seasonally lower consumption.

Spot crude oil prices

Spot crude oil prices in November continued many of the same trends seen in October. The Brent-Dubai spread narrowed further, incentivising a wave of cargo exports from the North Sea, Mediterranean, Caspian and West Africa to Asia, despite rising freight rates. In early December, the relative weakening of WTI versus other global crudes meant the US replaced the Europe and Africa regions as the source of marginal barrels for Asian refiners eager to produce winter fuels.

Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

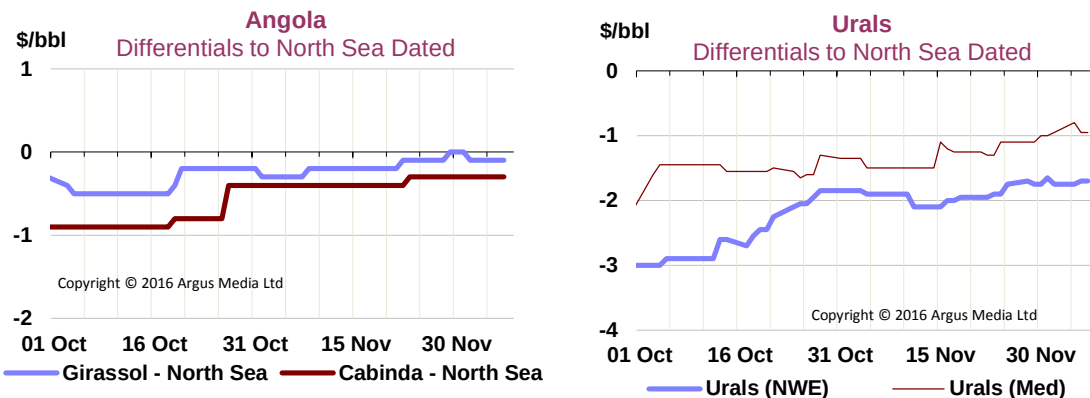
	Sep	Oct	Nov	Nov-Oct Avg Chg	%	Week Commencing:				
						07 Nov	14 Nov	21 Nov	28 Nov	05 Dec
Crudes										
North Sea Dated	46.69	49.74	45.13	-4.61	-9.3	43.48	44.14	47.04	49.44	52.44
Brent (Asia) Mth 1	46.85	50.98	46.07	-4.91	-9.6	44.91	44.90	47.70	48.93	53.46
WTI (Cushing) Mth 1	45.20	49.89	45.62	-4.27	-8.6	44.64	45.16	46.93	48.90	50.97
Urals (Mediterranean)	44.48	48.24	43.83	-4.41	-9.1	41.98	42.88	45.83	48.41	51.42
Dubai	43.58	48.94	43.98	-4.97	-10.1	42.93	42.92	45.74	46.59	51.11
Tapis (Dated)	45.97	50.09	46.04	-4.05	-8.1	44.18	44.84	48.18	50.94	53.94
Differential to North Sea Dated										
WTI (Cushing)	-1.49	0.15	0.48	0.34		1.16	1.02	-0.11	-0.54	-1.47
Urals (Mediterranean)	-2.21	-1.50	-1.30	0.20		-1.50	-1.26	-1.21	-1.03	-1.02
Dubai	-3.11	-0.80	-1.16	-0.35		-0.56	-1.22	-1.29	-2.85	-1.33
Tapis (Dated)	-0.72	0.35	0.91	0.56		0.70	0.70	1.14	1.50	1.50
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.38	-0.70	-1.03	-0.33		-1.22	-1.05	-0.92	-0.74	-0.65
Forward WTI Cushing Mth1-Mth2	-0.54	-0.47	-0.74	-0.27		-0.66	-0.59	-1.15	-0.92	-1.05
Forward Dubai Mth1-Mth2	-0.69	0.29	-0.48	-0.77		-0.46	-0.40	-0.58	-0.47	-0.13

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Middle Eastern benchmark Dubai fell \$4.97/bbl in November to \$43.98/bbl, but maintained most of the gains achieved last month against North Sea Brent with lower output from some Middle Eastern fields and a strong fuel oil crack in Asia. Competition from North Sea, West African and Caspian crudes was even more intense than in October and this weighed on light sour crude differentials such as Murban and Das Blend, which both fell more heavily than the rest of the sour complex. The price spread between Brent and Dubai had started to widen once again in early December as European refineries returned from maintenance. OPEC's decision to reduce production at the start of 2017 could help tighten the global sour crude market over the next few weeks.

Global benchmark North Sea Dated fell \$4.61/bbl to \$45.13/bbl on an outright basis in November, reflecting a continued oversupply of light sweet crudes in Northwest Europe as some refineries remained offline due to maintenance. Cash differentials for major North Sea grades fell through to mid-November, before recovering later in the month as news emerged that several tankers were scheduled to move crude to Asia, currently in the midst of its winter fuel boom. By the end of November, there was around 12 mb of unsold North Sea crude still held in floating storage offshore the UK. Trading in weekly

contracts-for-difference (CFD) swaps suggests physical differentials could rise in December as refineries are scheduled to return from maintenance. This is despite a forecast increase in loadings of Brent, Forties, Oseberg and Ekofisk crudes in January to a one-year high.



West African crude prices fell on the month, but rising demand from Asian and US refiners capped losses. Cash differentials for most grades gained in relation to North Sea Dated, except for Nigeria's Forcados which suffered from added uncertainty to its scheduled loadings following a pipeline attack early in November. The narrowing price spread between Brent and Dubai benchmarks helped incentivise exports from Nigeria and Angola to Asia. It is estimated that around 65 mb of crude from West Africa will leave for Asia in December, up 6 mb from November and at the highest level since the summer of 2015. Chinese purchases of West African crude loading in December were reportedly the highest ever. As in October, medium sour Angolan crudes benefitted from strong fuel oil and gasoil cracks in Asia and the planned return from maintenance of Asian refineries. Some Indian refiners, traditionally large importers of Nigerian crude, bought low sulphur Angolan crude to make up for the shortfall in Nigerian production. Angola's Pazflor and Dalia both changed hands at their highest in more than two years in late November. Another factor that helped support spot demand is state-owned Sonangol's decision to allocate all its scheduled loadings to long-term contract holders in January.

Russian sour Urals crude for delivery in Northwest Europe lost \$4/bbl in November to average \$43.22/bbl. The price differential with North Sea crude narrowed as the grade was in relatively higher demand following a cut in planned Baltic exports of 0.7 mb to 48 mb for December, and with high fuel oil cracks in Europe and Asia. In the Mediterranean, prices did not perform as well as in Northwest Europe despite a scheduled drop in exports. Sweet Mediterranean grades fell in line with North Sea Brent, highlighting the continued oversupply of light sweet crudes in the area. Shipments of Mediterranean and Caspian crudes to Asia and the Americas continued apace. Azeri Light loadings to Asia, for example, were at their highest level in two years in October, according to market reports. At least four Libyan crude cargoes were also seen heading outside the Mediterranean basin, largely to Asia.

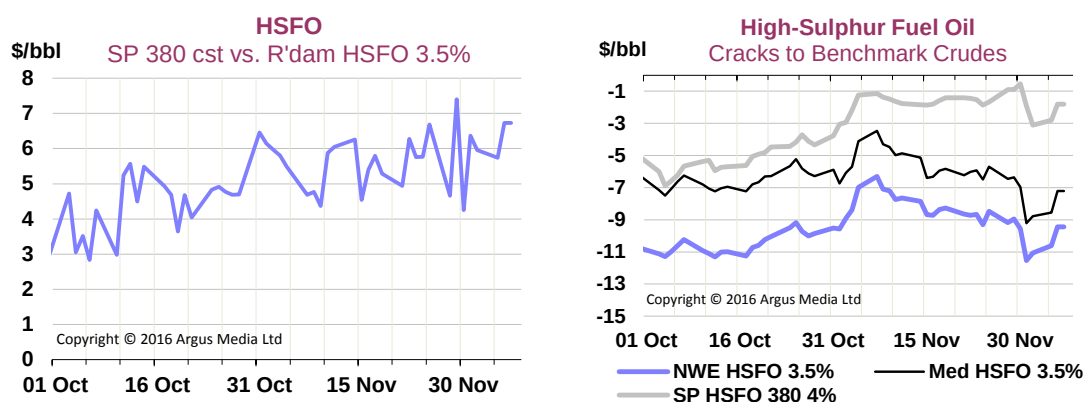
In the US, Light Louisiana Sweet (LLS) fell \$4.64/bbl to \$46.71/bbl in November, weighed by rising competition from North Sea and West African crudes. This also meant LLS was sent in greater volume to the US Midwest for refining or storage. This, in turn, had a knock-on impact on Bakken crude differentials, which fell to their lowest level in a year in mid-November. Midland grades for delivery in the US Gulf Coast gained with an end-of-year tax that favoured crude exports to Cushing, Oklahoma, rather than Texas. In early December, the wider Brent-WTI spread also helped support Midland differentials and triggered some US waterborne crude exports to South America, Europe and Asia.

Spot product prices

Global spot product prices were broadly higher against crude in November, reflecting tighter supplies and refinery shutdowns in many regions. The cheapest oil products – fuel oil and naphtha – saw the

largest price gains, driven by strong Asian demand. However, oil product prices lagged the rise in crude at the start of December, suggesting that the outlook is not as bright over the next few weeks.

Fuel oil prices saw the largest rise in price in November of all oil products, boosted by lower production from Russia, refinery maintenance and strong bunker fuel demand in Asia. Northwest European high sulphur barges changed hands \$8.33/bbl below Brent on average, up \$2.16/bbl on October, while the Singapore fuel oil crack rose to its highest in more than four years in late November. 180-centistoke fuel oil cargoes were \$0.39/bbl lower than Dubai, up \$3.54/bbl from October. The fall in Russian production follows structural changes in the refining industry and regular maintenance work. The quality of fuel oil exports from the country is lower than in the past, forcing importers in bunkering hubs such as Singapore to source higher quality blending material elsewhere and boosting prices in the process. Robust exports from Europe and the US, which have been a feature of the market since October, continued in November, but onshore inventories in Singapore stood at 22.2 mb as of 7 December, their lowest since mid-September and down more than 5 mb from a year ago.



November was a tale of two halves for the naphtha market as premiums gained strongly initially, before easing later in the month on improved supplies. Overall, naphtha prices in Northwest Europe traded at a \$1.21/bbl premium to North Sea Brent in November, up \$1.80/bbl on the month, while prices in Singapore gained \$4.08/bbl and were \$2.84/bbl above Dubai. Refinery maintenance in India, Europe and the Middle East, as well as an unplanned outage at a condensate splitter in Qatar, contributed to tighter supplies. The spread between Asian and European naphtha values gained until mid-November, attracting the highest amount of Western naphtha to Asia in several months. December and January were both expected to see between 12-13 mb of naphtha cargo arrivals from the West, as crackers ramped up output. However, Asian naphtha prices turned lower in mid-November, closing the arbitrage. For 2017, long-term deals were concluded at lower premiums compared with 2016 in Asia, a sign that the naphtha market is expected to be well supplied next year amid strong competition from LPG and ethane.

Diesel and gasoil prices stayed seasonally high in November, supported by planned and unplanned refinery turnarounds in the northern hemisphere. Barges for delivery in Northwest Europe rose by \$0.09/bbl against North Sea Brent to \$12.16/bbl and Singapore prices rose by \$0.58/bbl to a premium of \$12.87/bbl over Dubai. However, this was down on the same month in 2015, largely due to the higher crude price. In addition, diesel and gasoil cracks fell in both the Mediterranean and US Gulf Coast in November, and they came off across the board in early December with expectations of higher supplies. Exports from Russia's Primorsk were expected to rise by 11% month-on-month to 9.4 mb in December, while the US, India and Middle East were all looking to export to Europe after the end of refinery turnarounds. In Europe, water levels on the Rhine fell once again in late November after a brief respite in the second half of the month, constraining barge flows out of the Amsterdam-Rotterdam-Antwerp refining hub.

Spot Product Prices

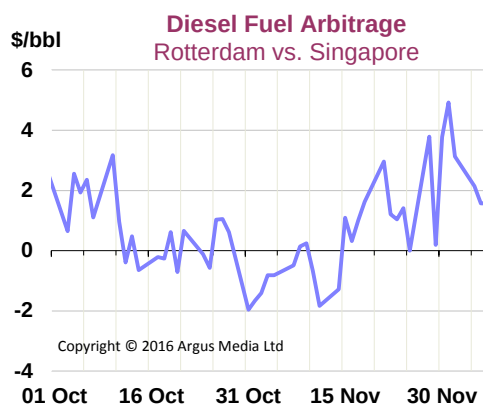
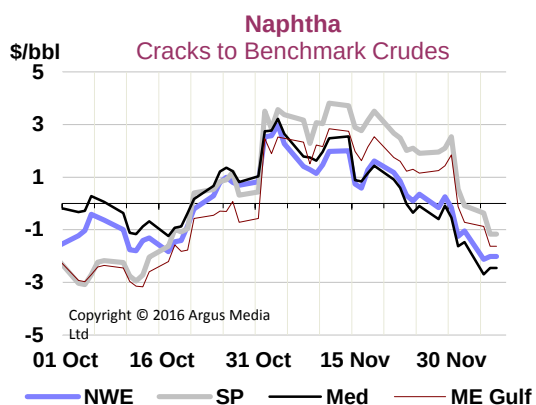
(monthly and weekly averages, \$/bbl)

	Sep	Oct	Nov	Nov-Oct		Week Commencing:						Sep	Oct	Nov	Chg
				Chg	%	07 Nov	14 Nov	21 Nov	28 Nov	05 Dec					
Rotterdam, Barges FOB															
	Differential to Dated Brent														
Premium Unl 10 ppm	57.00	60.51	55.00	-5.51	-9.1	54.12	52.46	55.81	57.33	60.31	10.31	10.77	9.87	-0.90	
Naphtha	44.06	49.15	46.34	-2.81	-5.7	44.94	45.38	47.59	48.97	50.24	-2.63	-0.59	1.21	1.80	
Jet/Kerosene	55.43	60.86	56.97	-3.89	-6.4	55.56	55.60	59.17	60.45	62.77	8.74	11.11	11.84	0.73	
ULSD 10ppm	55.93	61.82	57.29	-4.53	-7.3	55.84	55.96	59.40	60.73	63.28	9.24	12.07	12.16	0.09	
Gasoil 0.1%	55.21	60.91	55.98	-4.93	-8.1	54.38	54.83	58.09	59.54	62.13	8.52	11.17	10.85	-0.32	
LSFO 1%	39.94	44.08	40.62	-3.47	-7.9	39.30	39.44	42.51	44.13	47.27	-6.75	-5.66	-4.51	1.15	
HSFO 3.5%	36.04	39.26	36.80	-2.46	-6.3	36.29	35.76	38.28	39.39	42.80	-10.65	-10.48	-8.33	2.16	
Mediterranean, FOB Cargoes															
	Differential to Urals														
Premium Unl 10 ppm	58.68	61.58	56.91	-4.67	-7.6	55.31	54.92	58.51	58.86	61.80	14.20	13.34	13.08	-0.26	
Naphtha	43.20	48.18	45.09	-3.10	-6.4	43.90	44.25	46.03	47.55	48.88	-1.28	-0.06	1.26	1.32	
Jet Aviation fuel	54.78	60.06	55.87	-4.19	-7.0	54.67	54.64	57.74	59.16	61.62	10.30	11.82	12.04	0.22	
ULSD 10ppm	56.32	62.03	56.96	-5.07	-8.2	55.82	55.65	58.74	60.26	62.86	11.84	13.78	13.13	-0.65	
Gasoil 0.1%	55.30	60.87	55.39	-5.48	-9.0	54.33	54.13	57.02	58.53	61.27	10.82	12.63	11.56	-1.07	
LSFO 1%	40.35	44.83	41.05	-3.78	-8.4	39.44	39.48	43.12	45.20	48.02	-4.12	-3.41	-2.78	0.63	
HSFO 3.5%	38.33	41.68	38.17	-3.50	-8.4	37.57	36.95	39.75	40.87	44.08	-6.15	-6.57	-5.66	0.91	
US Gulf, FOB Pipeline															
	Differential to LLS														
Super Unleaded	63.57	69.78	61.84	-7.94	-11.4	60.28	58.97	62.97	65.75	69.40	16.74	18.43	15.13	-3.30	
Unleaded	58.73	62.21	54.80	-7.41	-11.9	53.57	51.87	56.25	59.35	62.52	11.91	10.85	8.09	-2.76	
Jet/Kerosene	55.58	60.68	56.11	-4.56	-7.5	55.24	54.90	58.28	58.93	61.09	8.76	9.32	9.40	0.08	
ULSD 10ppm	58.77	64.80	59.60	-5.20	-8.0	58.23	58.64	61.98	63.42	65.48	11.95	13.44	12.89	-0.55	
Heating Oil	53.21	58.76	53.32	-5.44	-9.3	52.60	52.22	54.66	56.25	58.74	6.39	7.40	6.61	-0.79	
No. 6 3%*	36.36	40.08	38.15	-1.93	-4.8	37.53	37.43	40.01	41.28	44.60	-10.46	-11.28	-8.57	2.71	
Singapore, FOB Cargoes															
	Differential to Dubai														
Premium Unleaded	58.00	62.99	58.99	-3.99	-6.3	58.04	57.08	60.67	60.57	64.74	14.42	14.05	15.02	0.97	
Naphtha	42.54	47.70	46.82	-0.89	-1.9	46.00	46.13	47.98	48.00	50.12	-1.03	-1.24	2.84	4.08	
Jet/Kerosene	55.07	61.02	56.63	-4.39	-7.2	55.74	55.14	58.56	58.54	62.74	11.49	12.08	12.66	0.57	
Gasoil 0.05%	54.62	61.23	56.84	-4.39	-7.2	56.36	55.41	58.07	57.57	61.48	11.04	12.29	12.87	0.58	
LSWR Cracked	44.65	49.04	49.93	0.89	1.8	48.18	49.00	52.90	54.51	58.26	1.07	0.10	5.96	5.86	
HSFO 180 CST	40.44	45.02	43.59	-1.43	-3.2	42.49	42.34	45.51	46.53	50.24	-3.14	-3.93	-0.39	3.54	
HSFO 380 CST 4%	39.35	43.76	42.36	-1.40	-3.2	41.45	41.22	44.16	45.12	49.09	-4.23	-5.18	-1.62	3.57	

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* Waterborne

In Asia, diesel prices were under pressure from continuing high South Korean and Chinese exports as China's refiners altered yields in preparation for the country's diesel specification switch next year. However, prices for the higher sulphur grade 500 parts per million (ppm) gasoil appeared relatively more supported, as shown by large buying of the specification by trading houses in the Singapore market in November, which reversed in December. Long-term contract negotiations between refiners and buyers showed lower premiums for diesel and jet fuel in the Middle East for 2017, but higher 500 ppm gasoil prices in Asia. This highlights the persistent state of oversupply seen in diesel and gasoil markets over the last two years, as well as the relative tightening of high sulphur gasoil markets globally as more and more refineries switch to low sulphur diesel specification.



Gasoline prices fell in most regions on both an outright basis and relative to crude oil, highlighting a seasonal slowdown in demand in the US and high inventories. There was strong demand for Europe's exports in the US East Coast – where there was a price rally in late November – West Africa and the Middle East. Asia also imported cargoes from the US during the month.

Freight

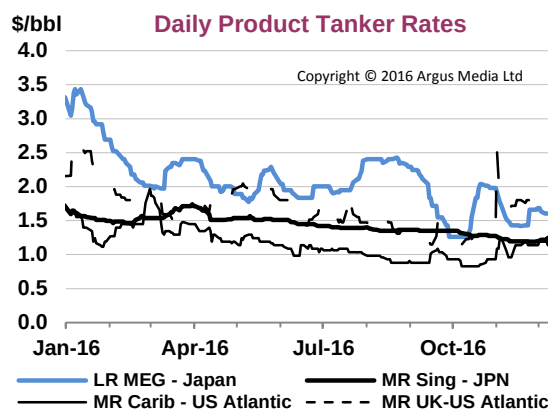
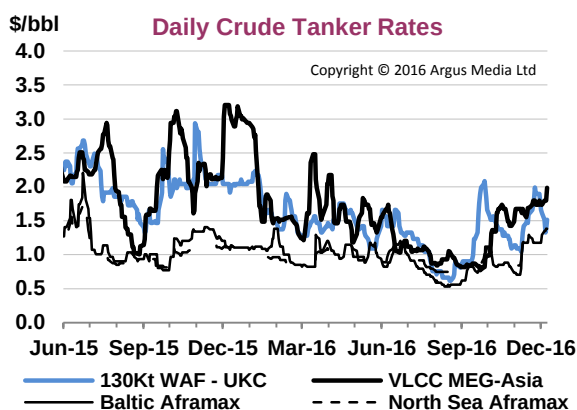
Surveyed crude carrier rates were generally up in November across the size ranges.

Very Large Crude Carriers (VLCCs) on the Middle East Gulf (MEG) to Asia route put the disastrous summer months firmly behind them, maintaining the upward momentum seen in October, as higher enquiries tightened the market.

Suezmaxes out of West Africa struggled on lower crude volumes caused by militant attacks in Nigeria on the Forcados and Nembe pipelines (see '*OPEC supply*').

Aframax rates in the North Sea shot above the \$1/bbl mark, after a weak October. Loading delays and storage activity constrained the supply of tonnage in the region and gave a lift to rates. The number of available ships reportedly increased in early December, but higher availability of cargoes kept the balance tight.

Clean product tankers **West of Suez**, on the major UK Continent – US Atlantic route, started November with a rate spike up to \$2.5/bbl, thanks to outages on the Colonial pipeline, which drew in gasoline from Europe. However, in a matter of days the rate retraced, albeit settling at a comfortable \$1.5/bbl. The backhaul US Gulf – UK Continent route was equally affected by the outages, with initial strength followed by a fall back as the Colonial pipeline resumed operations. Owners reportedly opted to ballast back to Europe once the spike of activity on the Atlantic route was over, tightening the vessel supply in the Caribbean and leaving rates at higher levels.



East of Suez, the benchmark LR MEG – Japan rate seesawed through November, initially suffering a lack of naphtha cargoes due to refinery maintenance, which was resolved towards the end of the month. Higher loadings from China and colder regional temperatures supported rates on the main Southeast Asia route, Singapore – Japan.

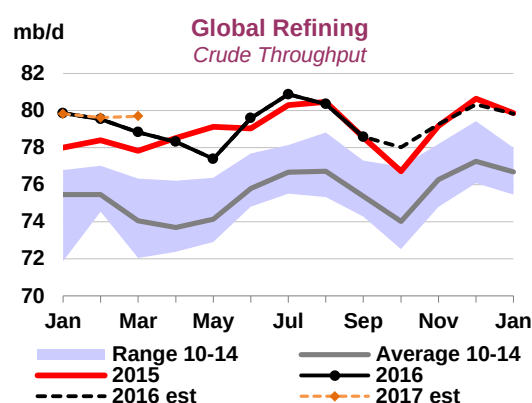
REFINING

Summary

- We have raised our global refinery throughput forecast for 4Q16 by 200 kb/d to 79.1 mb/d, gaining 350 kb/d year-on-year (y-o-y). Autumn maintenance led runs to a 750 kb/d decline from 3Q16.
- Our forecast for 1Q17 refinery runs implies a 30 kb/d y-o-y growth with positive impact from normal winter weather expected for product cracks. This incorporates a lower forecast for January and February for Europe and the US on expectations of lower crude supplies from the Middle East.
- The recent announcement by OPEC of an output cut increases the uncertainty around refinery intake forecasts. If OPEC's agreement is implemented, the global oil market is expected to re-balance in the first half of 2017, but it remains to be seen whether the markets will first clear the overhang of refined products or crude stocks.

Global refinery overview

Non-OECD data for September is still not fully finalised, but the available updates for the month resulted in a 30 kb/d downward revision to our global crude throughput for 3Q16. Final OECD throughput data for September in aggregate were not very different from the preliminary numbers. Global throughput, having registered a 120 kb/d y-o-y decline in August, is estimated at only 25 kb/d above year ago levels in September.



Global Refinery Crude Throughput¹
(million barrels per day)

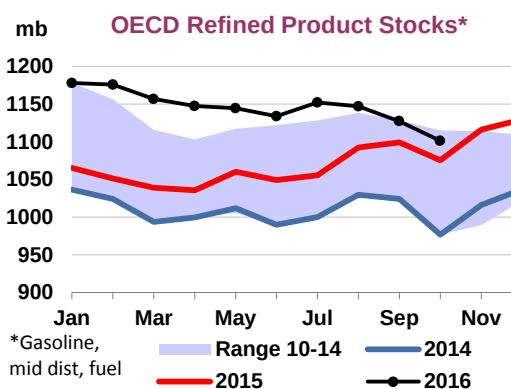
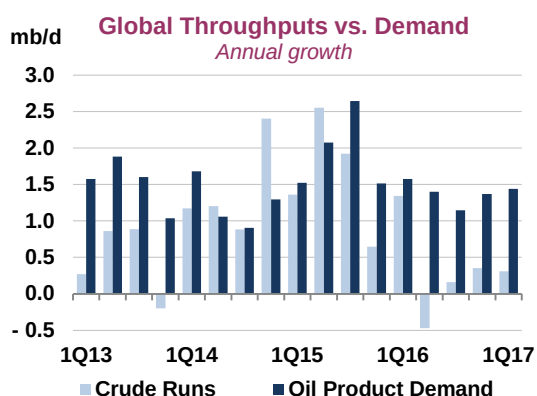
	Sep 16	3Q2016	Oct 16	Nov 16	Dec 16	4Q2016	2016	Jan 17	Feb 17	Mar 17	1Q2017
Americas	18.8	19.2	18.0	18.9	19.4	18.8	19.0	18.9	18.9	19.0	18.9
Europe	12.1	12.3	12.1	12.0	12.2	12.1	11.9	11.8	11.7	11.6	11.7
Asia Oceania	6.6	6.7	6.5	6.9	7.1	6.8	6.8	7.3	7.3	7.1	7.2
Total OECD	37.5	38.2	36.6	37.8	38.7	37.7	37.7	38.0	37.9	37.7	37.9
FSU	6.6	6.9	6.8	7.2	7.0	7.0	6.9	6.9	6.7	6.8	6.8
Non-OECD Europe	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.5	0.5
China	10.7	10.6	11.1	10.9	10.9	10.9	10.7	10.8	10.7	10.7	10.7
Other Asia	10.3	10.5	10.4	10.3	10.5	10.4	10.4	10.5	10.4	10.7	10.5
Latin America	4.2	4.2	4.0	3.9	4.1	4.0	4.2	4.2	4.2	4.2	4.2
Middle East	6.7	6.9	6.6	6.4	6.5	6.5	6.7	6.7	6.9	6.8	6.8
Africa	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1
Total Non-OECD	41.0	41.6	41.3	41.4	41.5	41.4	41.5	41.7	41.6	41.9	41.7
Total	78.5	79.9	77.9	79.2	80.2	79.1	79.1	79.7	79.5	79.6	79.6

¹ Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

The y-o-y indicators bounced back robustly in October as preliminary OECD throughput data implied lighter primary distillation unit maintenance compared to our expectations, especially in Europe and

Korea. In non-OECD countries, support came from higher than expected Chinese and Indian runs, offsetting lower estimates for Venezuela and Saudi Arabia. Overall, October throughput is estimated to have surged 1.3 mb/d above last year's levels. This was equally split between China and India each contributing 650 kb/d y-o-y, with smaller gains and losses in the rest of the world balancing each other out.

Our forecast for 4Q16 throughput is revised up by 200 kb/d to 79.1 mb/d. It seasonally declines 770 kb/d from 3Q16, and shows a faster increase above year earlier levels, at 350 kb/d, compared to 3Q16's modest 160 kb/d gain. While 2015 refinery run growth clearly overshoot refined products demand growth, 4Q16 is the third consecutive quarter of refinery throughput gain falling significantly behind products demand growth.



Our first full forecast for 1Q17 continues the trend of refinery run growth lagging well behind products demand growth rates. Global throughput is expected to increase only by 310 kb/d y-o-y while total demand growth is seen at 1.4 mb/d. OECD refined product stocks have drawn for most of 2016. Combined stocks for the three main refined products (gasoline, middle distillates and fuel oil) drew by about 76 mb (or 200 kb/d) from January to October, at a rate close to the 2010-2014 average of 80 mb (for the purposes of this calculation we do not include 2015 in the historical average, as the inventory change that year was due to exceptional market circumstances). Judging by preliminary October data, for the first time since November last year, combined OECD stocks of the above specified refined products are below their seasonal historical maximum. They are, however, still some 50 mb above the 2010-2014 average. The return of normal winter conditions may provide additional distillate demand, supporting the margins. On the other hand, higher crude oil prices from OPEC's supply reduction may cut refiners' appetite if product cracks narrow as a result.

Margins

Refinery margin dynamics in November were overwhelmingly defined by volatile crude oil prices as the market weighed the chances of an accelerated re-balancing pending OPEC's meeting at the end of November. The first half of the month saw margins rising as crude prices reversed October's gains, while the opposite movement during the second half negatively affected the margins. Global refinery throughput is estimated to have rebounded in November from October's seasonal lows, by as much as 1.2 mb/d, which could explain the lack of enthusiasm by product prices to follow crude prices higher. As a result, margins on average were lower month-on-month.

That said, the continued strength in fuel oil cracks offered a support to simple margins in Europe and Singapore. Russia, the main supplier of fuel oil to global markets, has reduced exports by 260 kb/d this year due to both lower refinery runs and utilisation of new upgrading units. This has not only affected the quantity of Russian exports, but also the quality, as the previously largely straight-run Russian fuel oil

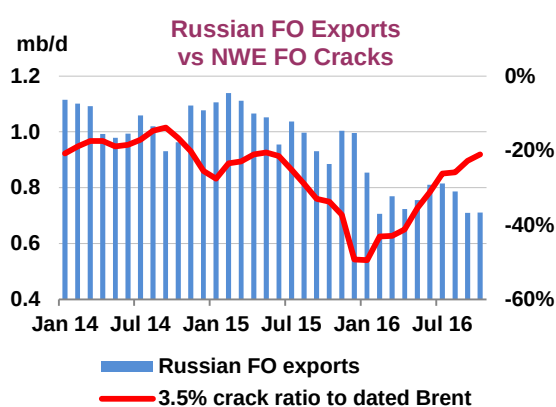
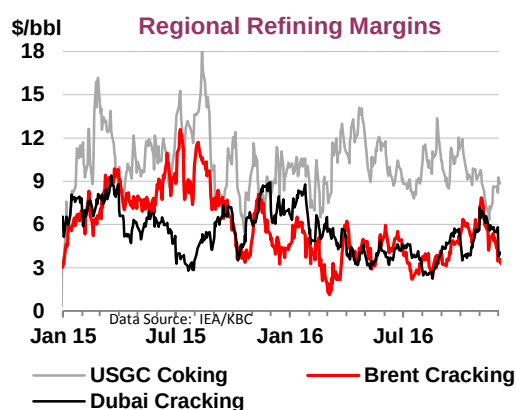
pool now sees more and more cracked material, i.e. the unwanted residuals of upgrading units such as crackers and hydrocrackers. This makes the product less suitable for blending in marine bunkers or secondary processing units, sending blenders to bid up for higher quality straight-run material.

IEA/KBC Global Indicator Refining Margins¹

	Monthly Average				Change	Average for week ending:					
	Aug 16	Sep 16	Oct 16	Nov 16	Nov 16-Oct 16	11 Nov	18 Nov	25 Nov	02 Dec	09 Dec	
NW Europe											
Brent (Cracking)	3.43	4.19	5.76	5.65	↓ -0.12	6.30	4.90	5.07	3.95	3.48	
Urals (Cracking)	4.57	5.96	7.27	7.01	↓ -0.26	7.69	6.59	6.57	5.25	4.94	
Brent (Hydroskimming)	-0.31	0.56	2.07	2.27	↑ 0.20	2.86	1.71	1.83	0.75	0.37	
Urals (Hydroskimming)	-0.13	1.27	2.26	2.61	↑ 0.35	3.42	2.42	2.23	0.84	0.70	
Mediterranean											
Es Sider (Cracking)	5.44	6.29	8.01	7.80	↓ -0.21	8.36	7.09	7.47	6.17	6.09	
Urals (Cracking)	5.03	6.36	7.16	7.39	↑ 0.22	8.04	6.97	7.15	5.64	5.17	
Es Sider (Hydroskimming)	2.07	3.08	4.67	4.60	↓ -0.07	5.12	3.86	4.30	3.20	3.19	
Urals (Hydroskimming)	0.59	1.99	2.37	2.83	↑ 0.46	3.67	2.47	2.52	1.00	0.71	
US Gulf Coast											
50/50 HLS/LLS (Cracking)	8.82	7.41	7.32	5.83	↓ -1.49	5.68	4.39	6.32	6.42	6.69	
Mars (Cracking)	6.00	5.40	4.98	4.51	↓ -0.47	4.67	3.37	4.44	4.85	5.20	
ASCI (Cracking)	5.54	5.14	4.65	4.37	↓ -0.28	4.49	3.34	4.37	4.72	5.16	
50/50 HLS/LLS (Coking)	10.70	9.25	9.28	7.35	↓ -1.94	7.18	5.82	7.78	7.97	8.14	
50/50 Maya/Mars (Coking)	10.97	10.22	9.81	8.09	↓ -1.71	7.90	6.88	8.21	8.72	8.69	
ASCI (Coking)	11.29	10.32	10.14	8.84	↓ -1.30	8.78	7.62	8.85	9.33	9.35	
US Midcon											
WTI (Cracking)	14.26	11.93	7.42	6.26	↓ -1.16	5.11	5.30	7.86	7.06	6.17	
30/70 WCS/Bakken (Cracking)	13.30	11.27	7.82	7.78	↓ -0.04	7.06	7.18	8.09	8.70	7.50	
Bakken (Cracking)	15.66	12.75	9.06	8.20	↓ -0.86	7.16	7.45	8.63	9.45	7.76	
WTI (Coking)	16.59	14.13	9.33	7.69	↓ -1.64	6.43	6.68	9.35	8.60	7.51	
30/70 WCS/Bakken (Coking)	17.52	14.95	11.00	10.09	↓ -0.91	9.08	9.34	10.61	11.27	9.69	
Bakken (Coking)	16.64	13.67	9.84	8.75	↓ -1.09	7.66	7.99	9.21	10.02	8.23	
Singapore											
Dubai (Hydroskimming)	-1.09	1.04	0.08	2.35	↑ 2.27	2.65	2.19	2.05	1.59	0.66	
Tapis (Hydroskimming)	-0.06	1.20	3.37	5.30	↑ 1.93	6.00	4.98	5.17	3.07	3.80	
Dubai (Hydrocracking)	2.91	5.04	4.44	6.08	↑ 1.64	6.44	5.81	5.67	4.94	3.99	
Tapis (Hydrocracking)	1.90	3.45	5.91	6.96	↑ 1.05	7.87	6.50	6.51	4.05	4.79	

¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries running individual crude slates and producing custom product sales, nor are these calculations intended to infer the marginal values of crude for pricing purposes.

Source: IEA, KBC Advanced Technologies (KBC)



In the US, even as refiners were increasing utilisation rates after October's heavy maintenance schedule, unusually high levels of secondary unit glitches (reformers, hydrocrackers) helped to support local diesel and gasoline cracks later in the month, offsetting the downward pressure from higher crude prices. Singapore margins showed a somewhat counterintuitive rising trend in November, but this is largely a normalisation of product cracks after China's export offensive in October that had pressured Asian cracks.

OECD refinery throughput

OECD throughput data for September was finalised with slightly stronger output in Europe and weaker US and Australian runs vs the preliminary data. In 3Q16, we saw y-o-y declines in all three regions, with even OECD Asia Oceania finally succumbing to the trend. Europe's 100 kb/d annual loss in fact still represents robust refining activity, as the impact of maintenance programmes in Norway, Poland and the Czech Republic were partly offset by higher runs in France and Germany. In OECD Americas, the decline was driven by the poor situation in Mexican refining, where runs were 200 kb/d lower y-o-y. Another 100 kb/d came from US and Canadian losses. In OECD Asia Oceania, 3Q16 runs were a notch below 3Q15, after six consecutive quarters of annual gains. South Korea's rampant y-o-y gains that started two years ago, slowed down to a more modest 70 kb/d, and were unable to offset declines elsewhere in the region.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16	Change from		Utilisation rate ¹	
							Sep 16	Oct 15	Oct 16	Oct 15
US ²	16.28	16.43	16.56	16.59	16.36	15.52	-0.83	0.06	0.84	0.86
Canada	1.31	1.57	1.77	1.75	1.54	1.49	-0.05	-0.07	0.75	0.79
Chile	0.16	0.18	0.15	0.17	0.18	0.15	-0.02	0.00	0.67	0.69
Mexico	1.01	1.03	0.93	0.85	0.75	0.80	0.05	-0.26	0.49	0.64
OECD Americas³	18.76	19.21	19.41	19.36	18.83	17.97	-0.86	-0.27	0.81	0.83
France	0.89	0.76	1.21	1.22	1.20	1.25	0.05	-0.02	1.01	0.91
Germany	1.83	1.93	1.98	2.00	1.99	1.95	-0.04	0.12	0.96	0.91
Italy	1.26	1.25	1.34	1.41	1.39	1.23	-0.16	-0.11	0.70	0.76
Netherlands	1.06	1.07	1.04	1.10	1.13	1.13	-0.01	-0.01	0.87	0.88
Spain	1.11	1.21	1.35	1.33	1.31	1.42	0.12	0.06	0.94	0.90
United Kingdom	1.13	1.11	1.09	1.12	1.13	1.11	-0.02	-0.10	0.87	0.88
Other OECD Europe	3.99	4.16	4.32	4.28	3.93	4.05	0.12	-0.15	0.84	0.87
OECD Europe	11.27	11.50	12.32	12.45	12.07	12.14	0.07	-0.21	0.87	0.87
Japan	3.00	2.85	3.03	3.22	3.00	2.88	-0.12	-0.07	0.81	0.76
South Korea	2.97	2.89	2.98	2.89	2.83	2.87	0.04	0.18	0.87	0.82
Other Asia Oceania	0.79	0.79	0.76	0.70	0.74	0.73	0.00	0.03	0.74	0.70
OECD Asia Oceania	6.76	6.53	6.78	6.81	6.57	6.48	-0.08	0.14	0.83	0.78
OECD Total	36.78	37.24	38.51	38.62	37.46	36.59	-0.87	-0.34	0.83	0.84

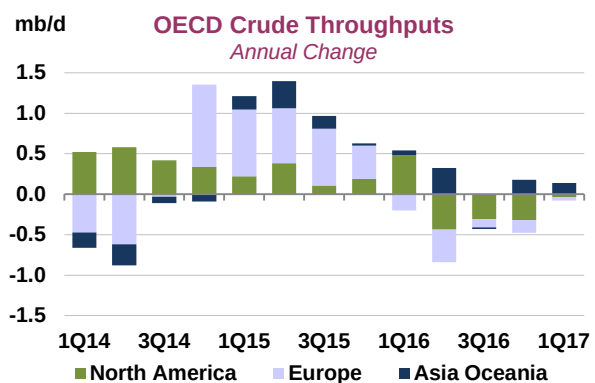
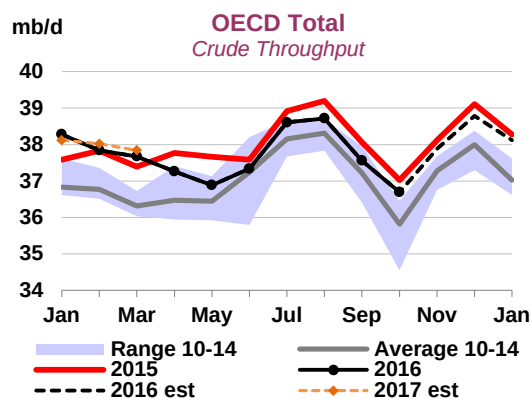
¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US\$0

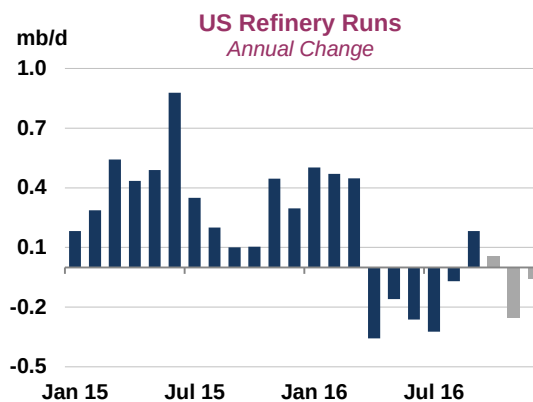
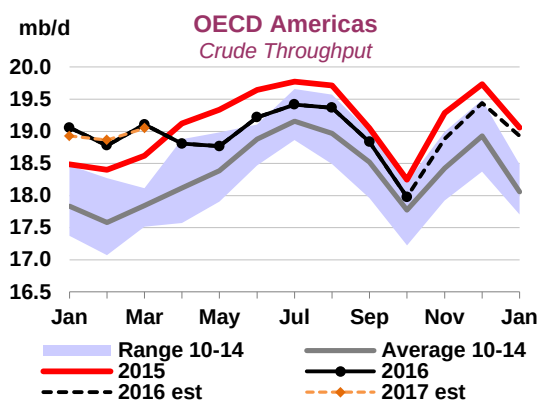
³ OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

Our forecast for 4Q16 total OECD throughput is revised up by 300 kb/d on stronger October preliminary numbers as deepening Latin American outages have incentivised Atlantic basin refiners to run at higher rates. While we expected almost 1 mb/d of maintenance-related outages in Europe for October, individual country data indicate that at least a third of this did not occur. This still implies a 300 kb/d y-o-

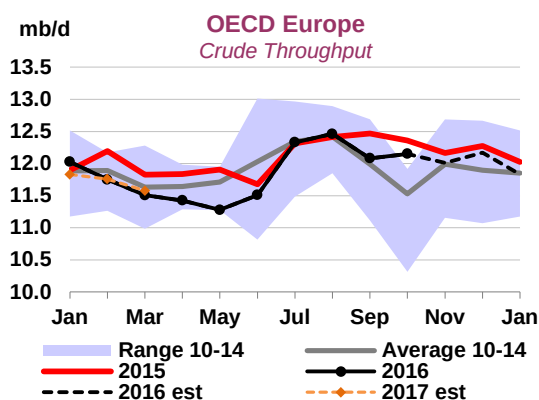
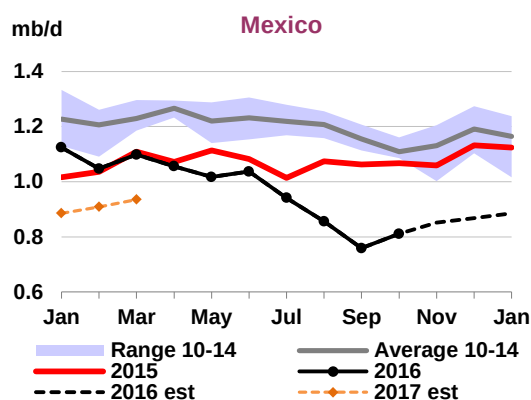
y decline for total OECD throughput. Our forecast for 1Q17 total OECD runs shows only marginal growth of 60 kb/d y-o-y, supported by ongoing stock draws and expected normal winter demand for heating fuels, with large Middle East refining outages in 4Q16 removing some pressure from product cracks.



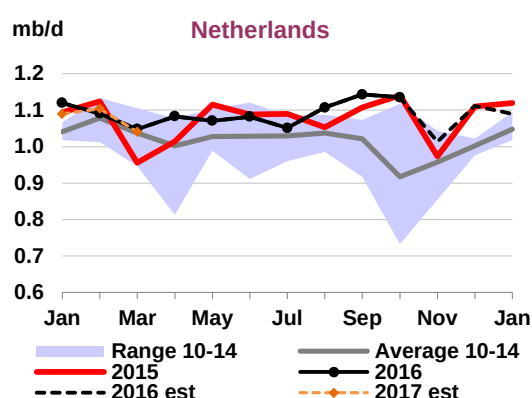
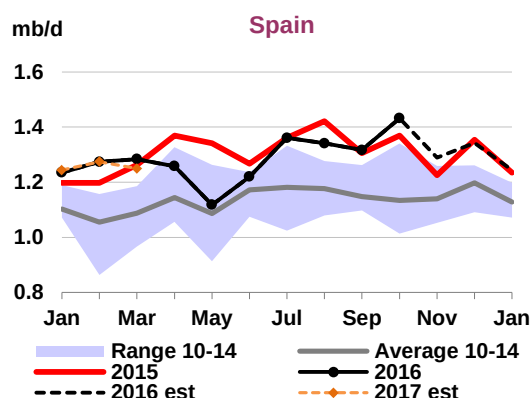
October's heavy maintenance schedule in the **US**, with some 1.5 mb/d of primary distillation capacity offline, resulted in runs falling 800 kb/d from September to 15.2 mb/d. November weekly data shows most of the units back in operation as throughput increased by 700 kb/d. However, a multitude of assorted glitches at reformers, crackers and cokers acted to support diesel and gasoline cracks. The 4Q16 forecast for the US is upgraded by 20 kb/d, although still showing a y-o-y drop of 80 kb/d. In 1Q17 though, we see annual growth resuming, with expectations of normal winter temperatures propping up heating fuel demand. Even though US heating fuel is mostly propane, a non-refined product, the call on diesel may come from increased export flows.



Canadian preliminary October crude runs data showed an unusually large 90 kb/d discrepancy with the weekly data and November weekly data also indicate a stronger performance versus our expectations. The 4Q16 forecast is revised up by 65 kb/d and staying unchanged y-o-y at 1.6 mb/d. In 1Q17 crude runs are forecast to increase seasonally by some 160 kb/d. **Mexican** throughput, although rebounding from the extreme lows seen in September (its lowest in over 30 years), was still some 40kb/d below our forecast. With Mexican officials admitting that problems will persist into next year, we have lowered our 4Q16 and 1Q17 forecasts to 833 kb/d and 900 kb/d respectively, some 300 kb/d below historical average levels.



European refiners had a stronger than expected month in October with preliminary data indicating a lighter maintenance programme than our forecast. Throughput in Netherlands and Spain remained at particularly strong levels. While **Spanish** refiners have most likely been a direct beneficiary from the closure of Morocco's sole refinery, the **Netherlands'** refining sector seems to enjoy its own microclimate of a trading hub with increased arbitrage and storage activity. Its 3Q16 runs were the highest in over a decade. **Germany** also had unexpectedly strong throughput in October, which could have been due to particularly low Rhine water levels, restricting barge flows of diesel into the German heartland, while consumers continued stocking heating oil before the heating season earnestly kicked off in November. Our 4Q16 crude runs forecast for OECD Europe is revised up by 180 kb/d, but is still 160 kb/d lower than in 4Q15. Throughput in 1Q17 is forecast to be 11.7 mb/d, down by 40 kb/d y-o-y.

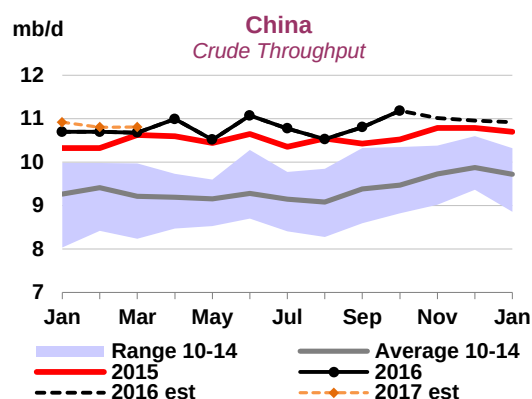
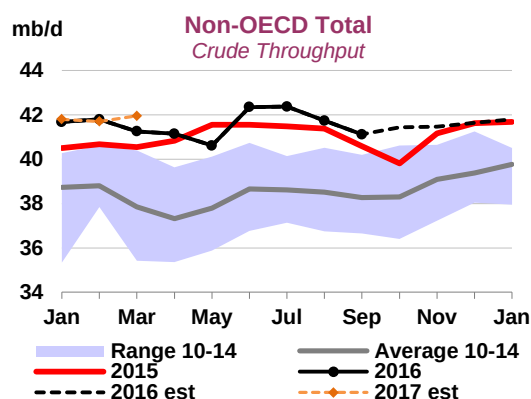


In **OECD Asia Oceania** too, October runs came in stronger with Korean throughput defying an expected maintenance impact. After modest annual growth in 3Q16, which, at just 70 kb/d, was the lowest in nine quarters, strong y-o-y growth resumed in October. At least one South Korean refiner discussed the negative impact of Chinese product exports on its throughput in 3Q16 in a quarterly results call. Winter heating oil demand in Japan and Korea is expected to support refinery runs at seasonally high levels. Our 4Q16 throughput forecast for Asia Oceania is revised up by 120 kb/d to 6.8 mb/d. Runs will ramp up further in 1Q17, to 7.2 mb/d, up 140 kb/d y-o-y, driven by Korean growth.

Non-OECD refinery throughput

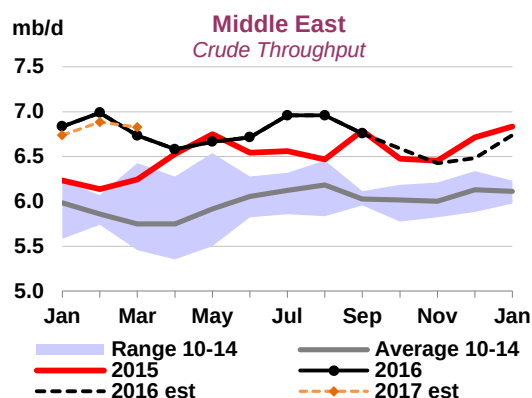
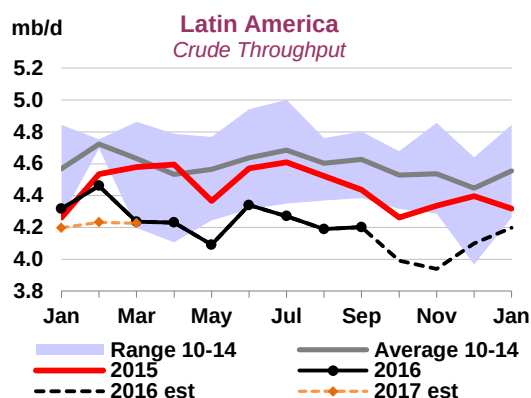
September updates for non-OECD refiners were patchy with a few important countries not reporting their throughput. The available data were largely in line with expectations with only Saudi Arabia and Algeria showing significantly lower actual numbers versus expectations. This, combined with new information on the situation in the Venezuelan downstream sector, lowered our September estimate for non-OECD runs by 240 kb/d. The resulting minor downward adjustment for 3Q16 as a whole slightly

lowered the y-o-y growth to 590 kb/d. In 4Q16, runs will seasonally decline by 230 kb/d to 41.4 mb/d, and rebound to 41.7 mb/d in 1Q17, up 650 kb/d and 250 kb/d y-o-y respectively.



Chinese refinery runs in October marked a new record level, exceeding 11 mb/d for the first time, up a whopping 660 kb/d y-o-y. Even particularly low crude imports into China did not discourage refiners, resulting in an implied crude stocks draw of 570 kb/d. While major companies reportedly brought a few refineries back from maintenance, this higher level of runs could possibly indicate improved coverage of the independent refinery sector in the official statistics. The 4Q16 forecast for China is revised up by 90 kb/d to 10.95 mb/d, 350 kb/d higher y-o-y. The annual growth is expected to slow down in 1Q17, to only 150 kb/d. An uncertainty surrounding the 2017 crude oil import quota for independent refiners is further complicating Chinese refining forecasts. The Ministry of Commerce started accepting the quota applications only in December, later than last year, with final decision to be issued by the end of the year. With China turning into a net refined product exporter this year, 2017 crude oil price development may be negative for refining margins and, curbing the growth of export-oriented refining.

India replicated China's outsized annual gain in October with runs at 4.95 mb/d, up 650 kb/d y-o-y. With slower growth expected in November and December, our 4Q16 forecast is for crude runs at 4.9 mb/d still up by a remarkable 320 kb/d from 4Q15. The throughput stays flat in 1Q17 as the effect of the Paradeep refinery ramp-up wanes. Refinery intake in **Thailand** continued the annual decline trend of this year. Runs are down some 55 kb/d for the first three quarters of the year, influenced by a heavier maintenance programme. With more outages scheduled early next year, this trend is expected to continue in 1Q17. September throughput in **Chinese Taipei** was more robust, having been forecast to be lower due to planned maintenance. New distillation units scheduled to come online at the Talin refinery are not expected to have an impact before March.



The malaise in Latin American refining continues, with the situation in **Venezuela** seemingly even worse than what we had previously assumed. According to news reports, quoting refinery representatives, the

country's system is operating at only a third of capacity. The refinery in **Netherlands Antilles**, run by Venezuela's PDVSA, is also operating at lower rates. With the outlook for the rest of the continent largely unchanged, our forecast for 4Q16 Latin American throughput is revised down by 350 kb/d. At just 4 mb/d, this is the lowest quarterly average in over a decade, and 320 kb/d lower y-o-y. The 1Q17 forecast sees runs rebounding partially, to 4.2 mb/d, but still 120 kb/d lower y-o-y.

In the Middle East, September data for **Saudi Arabian** throughput was lower than expected, by some 120 kb/d, as refinery intake showed the second y-o-y decline this year. With a higher estimate for the 4Q16 maintenance impact, our throughput forecast for Saudi Arabia is revised down by 80 kb/d. With higher UAE and lower Iranian and Kuwaiti runs forecast, the Middle East 4Q16 throughput level is expected to be just under 6.5 mb/d, ramping up by 300 kb/d into 1Q17.

Russian runs further ramped up in November, reaching 5.95 mb/d, with oil companies running 400 kb/d more crude than their announced throughput programme. Higher local crude production and strong fuel oil cracks encouraged simple capacity to increase utilisation rates, reversing a previous trend. Recent months also marked a more stable domestic fuel oil market. Largely driven by Russian changes, our 4Q17 FSU throughput forecast is revised up by 180 kb/d, returning to levels above 7 mb/d for the first time since 3Q15. A seasonal decline of 250 kb/d is expected in 1Q17.

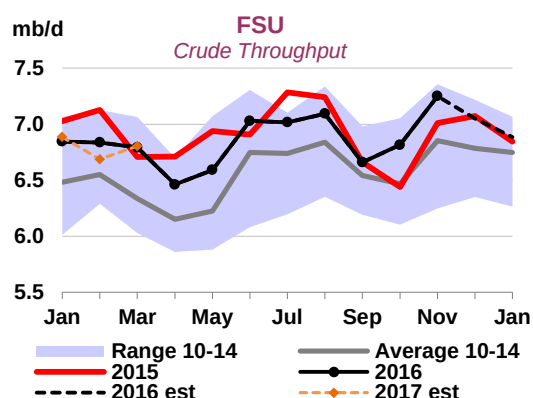


Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	24.2	24.2	24.5	24.4	25.0	24.5	24.6	24.5	24.4	25.0	24.6	24.6	24.5	24.5	24.9	24.6	24.6
Europe	13.6	13.5	13.5	13.6	14.2	13.7	13.7	13.6	13.9	14.4	13.7	13.9	13.7	14.0	14.3	13.7	13.9
Asia Oceania	8.3	8.1	8.7	7.6	7.7	8.2	8.0	8.5	7.6	7.8	8.2	8.1	8.6	7.6	7.7	8.2	8.0
Total OECD	46.1	45.8	46.6	45.6	46.9	46.4	46.4	46.7	46.0	47.2	46.5	46.6	46.8	46.1	47.0	46.4	46.6
NON-OECD DEMAND																	
FSU	4.5	4.7	4.4	4.7	4.8	4.7	4.6	4.6	4.6	4.9	5.0	4.8	4.7	4.8	5.1	5.0	4.9
Europe	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.4	10.8	11.3	11.6	11.6	11.7	11.5	11.7	12.0	11.7	12.0	11.9	11.9	12.1	12.2	12.4	12.2
Other Asia	11.7	12.0	12.3	12.6	12.3	12.8	12.5	13.1	13.1	12.8	13.4	13.1	13.6	13.7	13.4	13.9	13.7
Americas	6.6	6.8	6.6	6.8	6.9	6.8	6.8	6.5	6.7	6.8	6.7	6.7	6.5	6.7	6.8	6.8	6.7
Middle East	8.0	8.4	7.8	8.5	8.8	8.3	8.4	7.9	8.5	8.8	8.4	8.4	8.2	8.6	8.9	8.5	8.6
Africa	3.8	3.8	4.1	4.1	4.0	4.1	4.1	4.2	4.2	4.1	4.3	4.2	4.3	4.4	4.2	4.4	4.3
Total Non-OECD	45.6	47.2	47.2	48.8	49.0	49.1	48.5	48.7	49.8	49.8	50.5	49.7	50.0	51.0	51.4	51.8	51.0
Total Demand¹	91.7	93.0	93.8	94.4	95.9	95.6	94.9	95.4	95.8	97.1	96.9	96.3	96.8	97.1	98.3	98.2	97.6
OECD SUPPLY																	
Americas ⁴	17.2	19.1	20.1	19.7	20.1	20.1	20.0	19.9	19.0	19.4	19.4	19.4	19.5	19.4	19.5	19.5	19.5
Europe	3.3	3.3	3.4	3.5	3.4	3.6	3.5	3.6	3.4	3.3	3.4	3.5	3.4	3.4	3.3	3.4	3.4
Asia Oceania	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5
Total OECD	21.0	22.9	23.9	23.6	24.0	24.2	23.9	24.0	22.8	23.1	23.3	23.3	23.4	23.3	23.3	23.4	23.3
NON-OECD SUPPLY																	
FSU	13.8	13.9	14.1	14.0	13.9	14.1	14.0	14.3	14.0	14.0	14.5	14.2	14.3	14.2	14.3	14.5	14.4
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.2	4.3	4.4	4.3	4.3	4.3	4.2	4.1	3.9	3.8	4.0	3.8	3.8	3.7	3.7	3.8
Other Asia ²	2.7	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6
Americas ^{2,4}	4.2	4.4	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.6	4.6	4.5	4.6	4.7	4.7	4.7	4.7
Middle East	1.4	1.3	1.3	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2
Africa ²	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Total Non-OECD	28.4	28.8	29.4	29.2	29.0	29.2	29.2	29.0	28.6	28.6	29.1	28.8	28.8	28.7	28.9	29.1	28.9
Processing gains ³	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.0	2.2	1.8	2.4	2.6	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.9	2.5	2.5
Total Non-OPEC Supply ²	53.6	56.1	57.3	57.4	57.8	58.0	57.6	57.1	56.1	56.8	57.0	56.8	56.5	56.8	57.4	57.3	57.0
OPEC																	
Crude ⁷	31.4	31.3	31.5	32.5	32.7	32.7	32.4	32.8	33.1	33.6	34.1	33.4	32.7	32.7			
NGLs	6.3	6.5	6.5	6.6	6.7	6.8	6.7	6.7	6.8	6.9	6.9	6.8	7.0	7.0	7.0	7.0	7.0
Total OPEC ⁷	37.7	37.7	38.0	39.1	39.5	39.5	39.0	39.6	39.9	40.5	41.0	40.2	39.7	39.7			
Total Supply^{4,7}	91.4	93.9	95.3	96.5	97.2	97.5	96.6	96.7	96.0	97.3	98.1	97.0	96.2	96.4			
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	-0.2	0.4	0.9	1.0	0.8	0.3	0.8	0.3	0.4	0.0							
Government	0.0	0.0	0.0	0.0	-0.1	0.1	0.0	0.1	0.0	0.0							
Total	-0.2	0.4	0.9	1.0	0.8	0.4	0.8	0.4	0.4	0.1							
Floating storage/Oil in transit	0.1	0.0	0.4	0.4	-0.2	0.5	0.3	0.2	0.3	-0.2							
Miscellaneous to balance ⁵	-0.4	0.5	0.2	0.7	0.7	1.0	0.6	0.7	-0.5	0.3							
Total Stock Ch. & Misc⁷	-0.4	0.9	1.5	2.1	1.3	1.9	1.7	1.3	0.2	0.2	1.1	0.7	-0.6	-0.6			
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	31.8	30.4	30.0	30.4	31.4	30.8	30.6	31.5	32.9	33.4	33.0	32.7	33.3	33.3	34.0	33.9	33.6

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply. Includes Biofuels.

2 Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

3 Net volumetric gains and losses in the refining process and marine transportation losses.

4 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

5 Includes changes in non-reported stocks in OECD and non-OECD areas.

6 Equals the arithmetic difference between total demand minus total non-OPEC supply minus OPEC NGLs.

7 Assuming OPEC cuts implemented as announced.

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	2013	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	0.2	-0.1	-	-	0.1	0.1	-0.1	-
Europe	-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.1	0.1	-0.1	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	0.3	-0.1	-	0.1	0.1	0.2	-0.2	-
NON-OECD DEMAND																	
FSU	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	0.1	-	0.1	0.1	-	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Other Asia	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	0.1	0.1	-	-	-	0.1	0.1	-	-	0.1
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-0.3	-0.3	-0.2	-0.1	-0.2	-0.1	-0.1	-0.1	0.1	-0.1	-	-0.1	-	0.1	0.1	0.1	0.1
Total Demand	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.1	-0.1	-	0.1	0.1	0.2	-	0.1
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.2	-	-0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.2	0.1	0.1	0.2	-	-	0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	0.1	-	-	0.1	-	-0.2	-0.2	-0.1	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	0.1	-	-	0.1	0.1	0.1	-	-	-0.1	-	-0.4	-0.4	-0.2	-0.1	-0.3
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	0.1	-	-	0.1	0.1	0.1	-	0.1	0.1	0.1	-0.3	-0.2	-0.2	-0.1	-0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	0.1	-	0.1	0.1	0.1	0.1	-	0.1	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-0.2	-	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	0.3	0.3	0.3	0.1	0.2	0.1	0.2	0.2	-	0.1	-	-	-	-	-	-	-
Total Stock Ch. & Misc	0.3	0.3	0.3	0.1	0.2	0.1	0.2	0.2	-	-	-	-	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-0.3	-0.3	-0.3	-0.1	-0.2	-0.1	-0.2	-0.1	0.1	0.1	-0.2	-	0.3	0.3	0.4	0.1	0.3

When submitting their monthly oil statistics, OECD Member countries periodically update data for prior periods. Similar updates to non-OECD data can occur.

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2014	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017
Demand (mb/d)																
Americas	24.20	24.45	24.41	24.98	24.53	24.59	24.49	24.39	25.00	24.56	24.61	24.53	24.52	24.94	24.59	24.64
Europe	13.51	13.45	13.58	14.19	13.73	13.74	13.64	13.95	14.45	13.67	13.93	13.71	13.98	14.28	13.67	13.91
Asia Oceania	8.11	8.68	7.58	7.71	8.18	8.04	8.55	7.64	7.78	8.22	8.05	8.59	7.61	7.73	8.16	8.02
Total OECD	45.82	46.59	45.57	46.89	46.44	46.37	46.68	45.99	47.23	46.45	46.59	46.83	46.11	46.95	46.41	46.58
Asia	22.82	23.63	24.15	23.86	24.46	24.03	24.78	25.17	24.51	25.46	24.98	25.58	25.85	25.63	26.34	25.85
Middle East	8.37	7.82	8.51	8.82	8.32	8.37	7.94	8.47	8.78	8.37	8.39	8.21	8.59	8.92	8.55	8.57
Americas	6.83	6.62	6.77	6.86	6.80	6.76	6.47	6.66	6.79	6.69	6.66	6.48	6.66	6.81	6.79	6.69
FSU	4.66	4.37	4.65	4.81	4.74	4.64	4.63	4.57	4.93	4.99	4.78	4.68	4.79	5.07	5.02	4.89
Africa	3.83	4.09	4.07	3.98	4.12	4.06	4.17	4.22	4.11	4.28	4.19	4.31	4.36	4.24	4.40	4.33
Europe	0.65	0.65	0.67	0.69	0.69	0.68	0.68	0.71	0.70	0.71	0.70	0.69	0.72	0.71	0.72	0.71
Total Non-OECD	47.16	47.19	48.82	49.02	49.14	48.55	48.67	49.80	49.82	50.50	49.70	49.96	50.96	51.39	51.81	51.04
World	92.98	93.78	94.39	95.90	95.58	94.92	95.35	95.79	97.05	96.95	96.29	96.80	97.07	98.34	98.22	97.61
of which: US50	19.11	19.41	19.47	19.83	19.42	19.53	19.45	19.43	19.90	19.56	19.59	19.50	19.58	19.91	19.58	19.64
Europe 5*	8.05	8.03	8.00	8.37	8.12	8.13	8.15	8.20	8.39	7.93	8.17	8.10	8.10	8.26	7.95	8.10
China	10.80	11.33	11.58	11.58	11.66	11.54	11.69	12.05	11.74	12.04	11.88	11.94	12.14	12.22	12.42	12.18
Japan	4.27	4.70	3.80	3.85	4.14	4.12	4.43	3.66	3.75	4.08	3.98	4.36	3.53	3.63	3.99	3.88
India	3.84	3.97	4.04	3.85	4.10	3.99	4.36	4.32	4.04	4.38	4.27	4.59	4.60	4.38	4.60	4.54
Russia	3.51	3.29	3.51	3.64	3.52	3.49	3.55	3.40	3.73	3.74	3.61	3.58	3.59	3.85	3.76	3.69
Brazil	3.24	3.17	3.17	3.22	3.20	3.19	3.02	3.07	3.14	3.10	3.08	3.01	3.04	3.13	3.17	3.09
Saudi Arabia	3.19	2.89	3.48	3.58	3.21	3.29	2.94	3.33	3.47	3.08	3.21	3.01	3.32	3.47	3.11	3.23
Canada	2.41	2.43	2.33	2.45	2.40	2.41	2.39	2.37	2.51	2.40	2.42	2.42	2.35	2.47	2.38	2.40
Korea	2.35	2.46	2.29	2.36	2.52	2.41	2.59	2.48	2.53	2.63	2.56	2.72	2.58	2.60	2.67	2.64
Mexico	2.04	1.94	1.97	2.07	2.05	2.01	1.98	1.94	1.93	1.94	1.95	1.93	1.94	1.91	1.96	1.94
Iran	2.04	1.98	1.98	1.94	2.03	1.98	1.98	1.93	1.91	2.02	1.96	2.03	1.99	2.02	2.12	2.04
Total	64.84	65.60	65.63	66.74	66.36	66.09	66.53	66.19	67.04	66.90	66.67	67.17	66.75	67.85	67.70	67.37
% of World	69.7%	69.9%	69.5%	69.6%	69.4%	69.6%	69.8%	69.1%	69.1%	69.0%	69.2%	69.4%	68.8%	69.0%	68.9%	69.0%
Annual Change (% per annum)																
Americas	0.2	2.1	2.6	2.3	-0.4	1.6	0.1	-0.1	0.1	0.1	0.1	0.1	0.5	-0.2	0.1	0.1
Europe	-0.7	2.7	0.8	1.8	1.5	1.7	1.4	2.7	1.8	-0.5	1.4	0.5	0.2	-1.2	0.0	-0.1
Asia Oceania	-2.8	-2.2	-0.8	0.8	-1.4	-0.9	-1.5	0.9	0.9	0.5	0.2	0.5	-0.5	-0.7	-0.8	-0.4
Total OECD	-0.6	1.5	1.5	1.9	0.0	1.2	0.2	0.9	0.7	0.0	0.5	0.3	0.3	-0.6	-0.1	0.0
Asia	3.5	4.1	5.1	6.8	5.1	5.3	4.8	4.2	2.7	4.1	4.0	3.2	2.7	4.6	3.4	3.5
Middle East	4.4	-3.4	-0.1	1.4	1.8	0.0	1.5	-0.5	-0.4	0.6	0.2	3.3	1.4	1.5	2.1	2.1
Americas	2.7	0.2	-0.4	-1.4	-1.9	-0.9	-2.2	-1.6	-1.0	-1.6	-1.6	0.1	0.0	0.3	1.5	0.5
FSU	4.7	-0.1	1.0	-1.3	-1.1	-0.4	6.1	-1.7	2.5	5.2	2.9	1.0	4.9	3.0	0.6	2.3
Africa	0.2	3.8	4.8	6.8	8.7	6.0	1.8	3.8	3.3	3.7	3.2	3.5	3.2	3.2	2.8	3.2
Europe	-1.5	4.9	4.4	3.5	5.1	4.4	3.4	5.1	2.1	2.6	3.3	2.8	1.5	1.1	2.5	2.0
Total Non-OECD	3.3	1.8	3.0	3.7	3.2	2.9	3.1	2.0	1.6	2.8	2.4	2.7	2.3	3.2	2.6	2.7
World	1.3	1.7	2.2	2.8	1.6	2.1	1.7	1.5	1.2	1.4	1.4	1.5	1.3	1.3	1.3	1.4
Annual Change (mb/d)																
Americas	0.04	0.51	0.63	0.55	-0.09	0.40	0.04	-0.01	0.02	0.03	0.02	0.03	0.12	-0.06	0.03	0.03
Europe	-0.10	0.36	0.10	0.26	0.20	0.23	0.19	0.37	0.26	-0.07	0.19	0.07	0.03	-0.17	0.00	-0.02
Asia Oceania	-0.23	-0.19	-0.06	0.06	-0.11	-0.07	-0.13	0.07	0.07	0.04	0.01	0.05	-0.04	-0.06	-0.07	-0.03
Total OECD	-0.29	0.68	0.67	0.87	0.00	0.55	0.10	0.42	0.35	0.01	0.22	0.15	0.12	-0.28	-0.04	-0.01
Asia	0.78	0.93	1.18	1.53	1.19	1.21	1.15	1.03	0.65	0.99	0.95	0.80	0.67	1.13	0.88	0.87
Middle East	0.35	-0.27	-0.01	0.12	0.15	0.00	0.12	-0.05	-0.04	0.05	0.02	0.27	0.12	0.14	0.17	0.17
Americas	0.18	0.02	-0.03	-0.10	-0.13	-0.06	-0.15	-0.11	-0.07	-0.11	-0.11	0.01	0.00	0.02	0.10	0.03
FSU	0.21	0.00	0.05	-0.06	-0.05	-0.02	0.26	-0.08	0.12	0.25	0.14	0.05	0.22	0.15	0.03	0.11
Africa	0.01	0.15	0.19	0.25	0.33	0.23	0.07	0.16	0.13	0.15	0.13	0.15	0.14	0.13	0.12	0.13
Europe	-0.01	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.01	0.02	0.02	0.02	0.01	0.01	0.02	0.01
Total Non-OECD	1.52	0.84	1.41	1.77	1.51	1.38	1.48	0.98	0.80	1.36	1.15	1.29	1.16	1.57	1.32	1.34
World	1.23	1.52	2.07	2.64	1.51	1.94	1.57	1.40	1.15	1.37	1.37	1.44	1.28	1.29	1.28	1.32
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	-0.06	0.03	0.03	0.06	0.08	-0.07	0.03
Europe	0.00	0.00	0.01	0.02	0.03	0.01	0.00	0.02	0.10	-0.05	0.02	0.04	0.06	0.10	-0.08	0.03
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.01	-0.02	-0.02
Total OECD	0.00	0.00	0.01	0.02	0.03	0.01	0.00	0.02	0.27	-0.11	0.04	0.07	0.09	0.16	-0.16	0.04
Asia	0.02	0.00	0.11	0.02	0.07	0.05	0.03	0.21	0.17	0.17	0.15	0.12	0.19	0.21	0.25	0.19
Middle East	0.00	0.03	0.03	0.04	0.04	0.04	0.08	0.11	-0.01	-0.03	0.04	0.11	0.11	0.03	0.03	0.07
Americas	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	-0.06	-0.01	-0.01	-0.01	0.00	-0.01	-0.01
FSU	-0.29	-0.27	-0.24	-0.25	-0.21	-0.24	-0.23	-0.28	-0.31	-0.12	-0.23	-0.23	-0.25	-0.18	-0.16	-0.21
Africa	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	-0.26	-0.23	-0.09	-0.17	-0.09	-0.14	-0.10	0.05	-0.13	-0.02	-0.05	0.00	0.06	0.07	0.13	0.06
World	-0.26	-0.23	-0.08	-0.14	-0.06	-0.13	-0.10	0.07	0.14	-0.14	-0.01	0.06	0.15	0.23	-0.03	0.10
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.01	0.05	0.18	0.12	0.19	0.13	0.13	0.15	0.28	-0.07	0.12	0.16	0.08	0.10	0.10	0.11

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND¹
(million barrels per day)

										Latest month vs.	
	2014	2015	4Q15	1Q16	2Q16	3Q16	Jul 16	Aug 16	Sep 16 ²	Aug 16	Sep 15
Americas											
LPG and ethane	3.22	3.29	3.44	3.56	2.93	3.08	3.02	3.06	3.16	0.10	0.13
Naphtha	0.35	0.34	0.36	0.35	0.35	0.34	0.36	0.35	0.32	-0.03	-0.02
Motor gasoline	10.61	10.91	10.91	10.85	11.23	11.40	11.44	11.44	11.30	-0.15	0.28
Jet and kerosene	1.74	1.83	1.85	1.78	1.90	1.99	2.04	2.03	1.91	-0.12	0.10
Gasoil/diesel oil	5.28	5.21	5.05	5.06	5.02	5.00	4.74	5.12	5.15	0.03	-0.17
Residual fuel oil	0.58	0.55	0.61	0.59	0.69	0.64	0.72	0.65	0.55	-0.10	-0.03
Other products	2.40	2.46	2.30	2.30	2.28	2.55	2.44	2.72	2.49	-0.24	0.04
Total	24.20	24.59	24.53	24.49	24.39	25.00	24.75	25.37	24.87	-0.50	0.33
Europe											
LPG and ethane	1.10	1.14	1.12	1.22	1.15	1.19	1.21	1.23	1.13	-0.09	0.09
Naphtha	1.13	1.12	1.10	1.24	1.12	1.19	1.21	1.23	1.13	-0.10	0.06
Motor gasoline	1.92	1.92	1.90	1.79	1.98	2.04	2.02	2.05	2.03	-0.02	0.03
Jet and kerosene	1.27	1.32	1.26	1.24	1.39	1.55	1.52	1.56	1.56	0.00	0.03
Gasoil/diesel oil	5.94	6.14	6.27	6.11	6.11	6.24	5.93	6.27	6.52	0.25	-0.07
Residual fuel oil	0.95	0.91	0.92	0.95	0.92	0.94	0.95	0.97	0.90	-0.08	0.03
Other products	1.21	1.20	1.16	1.09	1.27	1.31	1.31	1.31	1.33	0.02	-0.01
Total	13.51	13.74	13.73	13.64	13.95	14.45	14.14	14.62	14.59	-0.03	0.15
Asia Oceania											
LPG and ethane	0.82	0.77	0.76	0.83	0.81	0.83	0.84	0.84	0.82	-0.02	0.11
Naphtha	1.88	1.96	1.99	2.00	1.85	1.89	1.81	1.94	1.91	-0.03	-0.07
Motor gasoline	1.56	1.56	1.58	1.53	1.52	1.64	1.60	1.74	1.58	-0.16	0.01
Jet and kerosene	0.87	0.87	0.96	1.17	0.73	0.70	0.67	0.70	0.74	0.05	-0.02
Gasoil/diesel oil	1.76	1.78	1.84	1.83	1.75	1.74	1.67	1.76	1.79	0.03	0.01
Residual fuel oil	0.68	0.64	0.64	0.75	0.60	0.60	0.66	0.58	0.58	0.00	0.05
Other products	0.56	0.45	0.42	0.44	0.37	0.38	0.38	0.40	0.35	-0.06	-0.03
Total	8.11	8.04	8.18	8.55	7.64	7.78	7.62	7.96	7.77	-0.19	0.06
OECD											
LPG and ethane	5.13	5.20	5.32	5.61	4.89	5.10	5.06	5.13	5.12	-0.01	0.33
Naphtha	3.36	3.42	3.45	3.59	3.32	3.41	3.37	3.51	3.36	-0.16	-0.03
Motor gasoline	14.09	14.39	14.38	14.17	14.74	15.07	15.07	15.24	14.90	-0.33	0.32
Jet and kerosene	3.88	4.02	4.07	4.19	4.02	4.24	4.23	4.29	4.21	-0.08	0.11
Gasoil/diesel oil	12.98	13.13	13.17	13.00	12.88	12.98	12.33	13.15	13.45	0.30	-0.23
Residual fuel oil	2.21	2.10	2.16	2.29	2.21	2.19	2.32	2.20	2.03	-0.17	0.05
Other products	4.16	4.11	3.88	3.83	3.92	4.24	4.13	4.43	4.16	-0.27	0.00
Total	45.82	46.37	46.44	46.68	45.99	47.23	46.51	47.96	47.23	-0.72	0.55

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 states, US territories, Mexico and Canada.

² Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES¹
(million barrels per day)

	2014	2015	4Q15	1Q16	2Q16	3Q16	Jul 16	Aug 16	Sep 16 ²	Latest month vs.	
										Aug 16	Sep 15
United States³											
LPG and ethane	2.40	2.45	2.57	2.69	2.21	2.33	2.30	2.25	2.44	0.19	0.25
Naphtha	0.23	0.22	0.24	0.22	0.22	0.22	0.22	0.22	0.21	-0.01	-0.03
Motor gasoline	8.92	9.18	9.17	9.09	9.44	9.56	9.60	9.59	9.49	-0.10	0.20
Jet and kerosene	1.48	1.55	1.58	1.51	1.62	1.69	1.72	1.71	1.64	-0.08	0.10
Gasoil/diesel oil	4.04	4.00	3.86	3.90	3.81	3.79	3.58	3.89	3.91	0.02	-0.16
Residual fuel oil	0.26	0.26	0.28	0.31	0.41	0.36	0.45	0.34	0.29	-0.05	0.02
Other products	1.78	1.87	1.70	1.72	1.73	1.95	1.84	2.13	1.90	-0.24	0.06
Total	19.11	19.53	19.42	19.45	19.43	19.90	19.71	20.13	19.86	-0.27	0.45
Japan											
LPG and ethane	0.49	0.43	0.40	0.47	0.42	0.42	0.44	0.42	0.40	-0.01	0.02
Naphtha	0.74	0.78	0.80	0.79	0.72	0.70	0.68	0.72	0.70	-0.03	-0.14
Motor gasoline	0.92	0.91	0.92	0.87	0.88	0.96	0.95	1.03	0.91	-0.12	-0.01
Jet and kerosene	0.52	0.50	0.57	0.74	0.37	0.33	0.31	0.32	0.36	0.04	-0.04
Diesel	0.41	0.41	0.42	0.41	0.38	0.41	0.40	0.41	0.42	0.01	0.00
Other gasoil	0.36	0.35	0.36	0.40	0.32	0.31	0.31	0.30	0.32	0.02	0.00
Residual fuel oil	0.42	0.36	0.32	0.38	0.30	0.31	0.34	0.30	0.30	0.00	0.03
Other products	0.41	0.37	0.35	0.37	0.27	0.30	0.31	0.32	0.27	-0.04	-0.04
Total	4.27	4.12	4.14	4.43	3.66	3.75	3.74	3.82	3.68	-0.14	-0.17
Germany											
LPG and ethane	0.09	0.10	0.08	0.10	0.11	0.10	0.10	0.10	0.10	-0.01	-0.01
Naphtha	0.41	0.40	0.40	0.42	0.36	0.41	0.45	0.40	0.37	-0.03	0.01
Motor gasoline	0.43	0.42	0.42	0.40	0.43	0.44	0.44	0.43	0.45	0.01	0.02
Jet and kerosene	0.18	0.18	0.18	0.17	0.20	0.23	0.23	0.22	0.23	0.00	0.02
Diesel	0.71	0.75	0.77	0.72	0.80	0.82	0.82	0.80	0.84	0.05	0.05
Other gasoil	0.37	0.35	0.37	0.46	0.27	0.26	0.20	0.31	0.27	-0.04	-0.15
Residual fuel oil	0.12	0.12	0.11	0.13	0.13	0.12	0.11	0.12	0.12	0.00	0.00
Other products	0.06	0.05	0.05	0.02	0.07	0.07	0.05	0.08	0.06	-0.01	-0.03
Total	2.37	2.37	2.39	2.42	2.37	2.44	2.41	2.47	2.44	-0.03	-0.09
Italy											
LPG and ethane	0.10	0.11	0.12	0.12	0.10	0.10	0.10	0.10	0.10	0.01	0.00
Naphtha	0.07	0.09	0.09	0.11	0.12	0.11	0.10	0.12	0.09	-0.02	0.01
Motor gasoline	0.20	0.21	0.21	0.20	0.21	0.22	0.22	0.22	0.21	0.00	-0.01
Jet and kerosene	0.09	0.10	0.08	0.09	0.11	0.12	0.13	0.13	0.11	-0.02	0.00
Diesel	0.48	0.44	0.45	0.42	0.45	0.45	0.46	0.43	0.47	0.05	0.01
Other gasoil	0.09	0.09	0.10	0.08	0.08	0.10	0.09	0.09	0.11	0.02	0.01
Residual fuel oil	0.07	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.00	-0.02
Other products	0.15	0.15	0.15	0.12	0.15	0.15	0.15	0.12	0.16	0.04	0.01
Total	1.27	1.27	1.28	1.21	1.29	1.31	1.32	1.26	1.33	0.07	0.01
France											
LPG and ethane	0.13	0.13	0.13	0.17	0.14	0.13	0.13	0.14	0.13	-0.01	0.02
Naphtha	0.13	0.13	0.09	0.14	0.12	0.13	0.13	0.14	0.11	-0.03	0.00
Motor gasoline	0.16	0.16	0.16	0.15	0.18	0.18	0.19	0.19	0.18	-0.01	0.01
Jet and kerosene	0.15	0.15	0.15	0.14	0.15	0.17	0.17	0.17	0.17	-0.01	0.01
Diesel	0.70	0.71	0.72	0.67	0.72	0.72	0.71	0.70	0.74	0.03	0.00
Other gasoil	0.25	0.25	0.23	0.26	0.20	0.23	0.20	0.23	0.27	0.04	-0.06
Residual fuel oil	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.00	-0.01
Other products	0.12	0.12	0.10	0.12	0.13	0.14	0.14	0.12	0.14	0.02	0.01
Total	1.69	1.69	1.63	1.69	1.66	1.74	1.72	1.73	1.77	0.04	-0.02
United Kingdom											
LPG and ethane	0.12	0.14	0.14	0.18	0.16	0.16	0.16	0.16	0.16	0.00	0.02
Naphtha	0.02	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.00	-0.01
Motor gasoline	0.30	0.29	0.29	0.28	0.30	0.29	0.28	0.29	0.30	0.01	0.00
Jet and kerosene	0.31	0.31	0.30	0.33	0.31	0.32	0.29	0.32	0.35	0.03	0.00
Diesel	0.48	0.50	0.51	0.49	0.52	0.52	0.51	0.51	0.53	0.01	0.03
Other gasoil	0.13	0.13	0.13	0.12	0.14	0.15	0.14	0.16	0.16	0.00	0.01
Residual fuel oil	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.00	0.00
Other products	0.12	0.12	0.12	0.11	0.12	0.12	0.13	0.12	0.12	0.00	-0.01
Total	1.52	1.55	1.56	1.57	1.62	1.62	1.57	1.62	1.66	0.05	0.04
Canada											
LPG and ethane	0.36	0.38	0.41	0.43	0.36	0.39	0.36	0.45	0.37	-0.08	-0.02
Naphtha	0.09	0.09	0.10	0.11	0.10	0.10	0.10	0.10	0.09	-0.01	0.02
Motor gasoline	0.81	0.82	0.81	0.83	0.86	0.90	0.91	0.90	0.88	-0.03	0.05
Jet and kerosene	0.14	0.14	0.14	0.13	0.14	0.16	0.17	0.17	0.15	-0.03	-0.01
Diesel	0.29	0.31	0.29	0.30	0.31	0.30	0.30	0.28	0.31	0.03	-0.02
Other gasoil	0.30	0.26	0.26	0.22	0.25	0.27	0.22	0.30	0.31	0.02	0.02
Residual fuel oil	0.05	0.04	0.03	0.05	0.03	0.03	0.02	0.04	0.03	0.00	0.02
Other products	0.36	0.35	0.36	0.32	0.31	0.36	0.38	0.35	0.35	0.00	-0.02
Total	2.41	2.41	2.40	2.39	2.37	2.51	2.46	2.59	2.49	-0.09	0.03

¹ Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2015	2016	2017	2Q16	3Q16	4Q16	1Q17	2Q17	Sep 16	Oct 16	Nov 16
OPEC											
Crude Oil											
Saudi Arabia	10.11			10.32	10.61				10.60	10.56	10.63
Iran	2.85			3.59	3.67				3.70	3.72	3.72
Iraq	4.00			4.30	4.42				4.51	4.59	4.61
UAE	2.89			2.97	3.09				3.10	3.09	3.10
Kuwait	2.74			2.81	2.89				2.90	2.93	2.83
Neutral Zone	0.07			0.00	0.00				0.00	0.00	0.00
Qatar	0.65			0.66	0.64				0.61	0.63	0.65
Angola	1.76			1.74	1.73				1.67	1.51	1.67
Nigeria	1.88			1.53	1.36				1.41	1.58	1.62
Libya	0.40			0.32	0.31				0.36	0.51	0.58
Algeria	1.11			1.09	1.13				1.14	1.13	1.12
Ecuador	0.54			0.55	0.55				0.56	0.54	0.56
Venezuela	2.45			2.25	2.18				2.16	2.15	2.14
Indonesia	0.68			0.74	0.74				0.74	0.74	0.74
Gabon	0.23			0.23	0.23				0.23	0.22	0.23
Total Crude Oil	32.36			33.09	33.55				33.69	33.90	34.20
Total NGLs ¹	6.66	6.85	7.00	6.82	6.90	6.94	6.99	6.95	6.90	6.94	6.94
Total OPEC²	39.03			39.91	40.45				40.59	40.84	41.14
NON-OPEC^{2,3}											
OECD											
Americas	19.98	19.40	19.47	18.96	19.36	19.40	19.45	19.42	19.23	19.39	19.41
United States	12.99	12.52	12.57	12.61	12.34	12.40	12.44	12.64	12.20	12.32	12.44
Mexico	2.60	2.47	2.28	2.49	2.46	2.40	2.34	2.30	2.42	2.42	2.39
Canada	4.39	4.41	4.61	3.86	4.57	4.60	4.67	4.48	4.61	4.65	4.57
Chile	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Europe	3.48	3.46	3.39	3.44	3.34	3.43	3.44	3.40	3.03	3.43	3.42
UK	0.97	1.01	0.98	1.05	0.97	0.94	0.98	0.98	0.93	0.83	0.99
Norway	1.95	1.96	1.92	1.94	1.90	1.99	1.95	1.92	1.61	2.10	1.94
Others	0.56	0.48	0.50	0.45	0.47	0.50	0.51	0.50	0.49	0.49	0.50
Asia Oceania	0.46	0.44	0.48	0.41	0.44	0.46	0.46	0.46	0.42	0.45	0.46
Australia	0.38	0.36	0.40	0.34	0.36	0.38	0.38	0.39	0.34	0.37	0.39
Others	0.08	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.08	0.08	0.08
Total OECD	23.92	23.30	23.34	22.82	23.15	23.29	23.35	23.29	22.68	23.26	23.29
NON-OECD											
Former USSR	14.03	14.20	14.35	14.05	13.99	14.51	14.34	14.22	14.20	14.51	14.51
Russia	11.09	11.34	11.37	11.21	11.27	11.58	11.40	11.29	11.49	11.60	11.58
Others	2.94	2.86	2.98	2.83	2.72	2.93	2.94	2.93	2.72	2.91	2.93
Asia²	7.09	6.71	6.36	6.77	6.62	6.48	6.43	6.37	6.60	6.51	6.48
China	4.34	4.00	3.76	4.06	3.95	3.81	3.81	3.78	3.94	3.83	3.80
Malaysia	0.71	0.72	0.69	0.71	0.71	0.71	0.68	0.68	0.72	0.71	0.71
India	0.87	0.85	0.84	0.85	0.85	0.85	0.85	0.83	0.84	0.85	0.86
Others	1.18	1.14	1.07	1.15	1.11	1.11	1.09	1.08	1.11	1.12	1.11
Europe	0.14	0.14	0.13	0.14	0.14	0.14	0.13	0.13	0.14	0.14	0.14
Americas²	4.58	4.49	4.70	4.44	4.56	4.59	4.63	4.68	4.64	4.56	4.60
Brazil	2.53	2.61	2.88	2.55	2.73	2.76	2.80	2.86	2.79	2.73	2.77
Argentina	0.63	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Colombia	1.01	0.89	0.85	0.91	0.85	0.85	0.86	0.85	0.86	0.85	0.85
Others	0.41	0.37	0.36	0.38	0.37	0.36	0.36	0.36	0.37	0.36	0.36
Middle East^{2,4}	1.27	1.26	1.24	1.25	1.27	1.28	1.23	1.21	1.27	1.28	1.28
Oman	0.99	1.01	0.97	1.01	1.02	1.02	0.97	0.95	1.01	1.02	1.02
Syria	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.02
Yemen	0.04	0.02	0.03	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Others	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	2.08	2.03	2.10	1.94	2.04	2.09	2.08	2.08	2.06	2.08	2.09
Egypt	0.72	0.69	0.66	0.70	0.69	0.68	0.67	0.67	0.68	0.68	0.68
Others	1.35	1.34	1.44	1.24	1.36	1.41	1.41	1.42	1.38	1.40	1.41
Total Non-OECD	29.19	28.82	28.88	28.59	28.62	29.09	28.84	28.71	28.91	29.07	29.09
Processing gains ⁵	2.24	2.27	2.29	2.27	2.27	2.27	2.29	2.29	2.27	2.27	2.27
Global Biofuels	2.26	2.37	2.46	2.42	2.77	2.40	1.98	2.48	2.81	2.66	2.45
TOTAL NON-OPEC	57.61	56.76	56.98	56.09	56.80	57.04	56.47	56.77	56.67	57.26	57.10
TOTAL SUPPLY	96.64			96.01	97.25				97.26	98.11	98.24

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Venezuelan Orimulsion (but not Orinoco extra-heavy oil), and non-oil inputs to Saudi Arabian MTBE.

² Other Asia excludes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon throughout.

Total Non-OPEC excludes all countries that were members of OPEC at 1 July 2016.

Total OPEC comprises all countries which were OPEC members at 1 July 2016.

³ Comprises crude oil, condensates, NGLs and oil from non-conventional sources

⁴ Includes small amounts of production from Jordan and Bahrain.

⁵ Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jun2016	Jul2016	Aug2016	Sep2016	Oct2016*	Oct2013	Oct2014	Oct2015	4Q2015	1Q2016	2Q2016	3Q2016
OECD Americas												
Crude	649.5	646.3	638.9	619.4	634.0	505.1	508.0	610.6	0.26	0.54	-0.09	-0.33
Motor Gasoline	273.1	272.2	262.1	259.1	253.3	246.6	237.1	247.1	0.11	0.05	0.01	-0.15
Middle Distillate	219.9	229.6	233.9	236.4	223.7	187.6	188.2	210.6	0.17	0.05	-0.23	0.18
Residual Fuel Oil	46.7	44.8	46.8	45.1	45.5	43.5	43.9	50.2	0.02	0.01	-0.04	-0.02
Total Products ³	773.1	794.5	801.2	800.6	770.2	676.4	691.4	745.8	0.10	-0.19	0.17	0.30
Total ⁴	1608.6	1635.7	1634.5	1615.7	1603.0	1346.4	1382.1	1545.4	0.20	0.31	0.21	0.08
OECD Europe												
Crude	356.5	362.8	354.3	351.1	342.5	334.8	315.4	347.2	0.23	-0.13	0.08	-0.06
Motor Gasoline	96.6	96.9	92.6	89.9	90.5	87.3	83.9	89.0	0.03	0.09	-0.04	-0.07
Middle Distillate	313.0	321.9	322.2	312.8	307.4	245.6	250.5	299.1	0.00	0.08	0.04	0.00
Residual Fuel Oil	72.0	70.8	70.0	67.1	65.3	68.3	62.1	69.6	0.03	0.06	-0.07	-0.05
Total Products ³	581.4	592.8	584.7	567.0	562.4	490.3	495.6	554.1	0.06	0.25	-0.05	-0.16
Total ⁴	1005.7	1024.3	1008.4	989.5	976.0	890.9	882.5	970.9	0.25	0.16	0.01	-0.18
OECD Asia Oceania												
Crude	202.3	196.2	187.4	201.5	202.8	158.0	184.2	205.1	0.04	-0.11	0.07	-0.01
Motor Gasoline	26.5	24.9	24.2	24.0	24.2	24.7	22.3	23.1	0.00	0.03	0.00	-0.03
Middle Distillate	67.1	71.7	75.6	73.7	72.1	68.2	67.8	65.0	-0.01	-0.08	0.09	0.07
Residual Fuel Oil	19.2	19.4	19.8	19.2	19.2	19.1	21.2	21.9	-0.01	-0.01	-0.01	0.00
Total Products ³	175.3	184.3	192.4	186.7	182.5	180.1	179.8	168.5	-0.11	0.00	0.10	0.12
Total ⁴	438.1	441.7	442.0	449.9	448.1	409.3	433.8	439.1	-0.11	-0.15	0.19	0.13
Total OECD												
Crude	1208.3	1205.3	1180.6	1172.0	1179.3	997.9	1007.6	1162.9	0.53	0.30	0.06	-0.39
Motor Gasoline	396.2	394.0	378.9	373.0	368.0	358.6	343.3	359.2	0.14	0.18	-0.03	-0.25
Middle Distillate	599.9	623.1	631.7	622.9	603.3	501.4	506.6	574.6	0.15	0.06	-0.10	0.25
Residual Fuel Oil	137.9	135.0	136.6	131.5	130.0	130.8	127.2	141.7	0.04	0.06	-0.12	-0.07
Total Products ³	1529.7	1571.5	1578.3	1554.3	1515.1	1346.8	1366.7	1468.4	0.06	0.06	0.22	0.27
Total ⁴	3052.4	3101.6	3084.9	3055.2	3027.1	2646.7	2698.4	2955.4	0.34	0.32	0.41	0.03

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jun2016	Jul2016	Aug2016	Sep2016	Oct2016*	Oct2013	Oct2014	Oct2015	4Q2015	1Q2016	2Q2016	3Q2016
OECD Americas												
Crude	695.1	695.1	695.1	695.1	695.1	696.0	691.0	695.1	0.00	0.00	0.00	0.00
Products	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	205.6	205.7	205.9	206.1	205.8	204.8	209.1	206.2	-0.01	0.00	-0.01	0.01
Products	264.6	267.0	267.9	267.2	266.8	260.6	254.1	256.0	0.08	0.05	-0.02	0.03
OECD Asia Oceania												
Crude	385.4	385.4	385.4	385.4	385.8	385.7	384.7	381.5	0.01	0.02	0.01	0.00
Products	35.5	35.5	35.9	35.9	35.9	29.9	31.0	33.9	0.01	0.01	0.00	0.00
Total OECD												
Crude	1286.1	1286.2	1286.4	1286.6	1286.6	1286.5	1284.7	1282.9	0.00	0.02	0.00	0.01
Products	302.1	304.5	305.8	305.0	304.7	291.6	287.1	291.9	0.08	0.06	-0.02	0.03
Total ⁴	1590.9	1593.2	1594.4	1594.0	1593.6	1581.8	1576.5	1579.3	0.08	0.07	-0.03	0.03

* estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) and include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
('millions of barrels' and 'days')²

	End September 2015		End December 2015		End March 2016		End June 2016		End September 2016 ³	
	Stock	Days Fwd ²	Stock	Days Fwd	Stock	Days Fwd	Stock	Days Fwd	Stock	Days Fwd
	Level	Demand	Level	Demand	Level	Demand	Level	Demand	Level	Demand
OECD Americas										
Canada	182.5	76	188.4	79	183.6	77	175.2	70	183.2	-
Chile	12.1	36	11.3	33	11.2	32	10.7	31	12.2	-
Mexico	49.5	24	49.7	25	45.9	24	48.8	25	45.7	-
United States ⁴	1973.4	102	1986.6	102	2023.5	104	2048.9	103	2049.6	-
Total ⁴	2239.5	91	2258.0	92	2286.2	94	2305.7	92	2312.8	94
OECD Asia Oceania										
Australia	35.5	31	33.5	30	37.0	33	38.2	35	36.7	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	589.6	143	582.0	131	559.8	153	573.5	153	586.6	-
Korea	226.0	90	227.9	88	235.7	95	238.0	94	239.3	-
New Zealand	8.7	52	7.7	45	8.2	51	9.3	57	8.7	-
Total	859.7	105	851.1	100	840.7	110	859.0	110	871.2	106
OECD Europe⁵										
Austria	23.7	90	24.1	94	25.4	93	22.5	80	21.6	-
Belgium	51.3	81	50.4	73	52.7	84	52.6	81	50.5	-
Czech Republic	21.8	127	22.1	148	22.8	130	22.8	125	22.9	-
Denmark	28.6	186	31.8	211	32.4	204	30.7	187	29.7	-
Estonia	1.5	53	1.8	66	2.2	89	2.6	89	2.4	-
Finland	39.9	205	44.9	238	46.0	242	45.4	225	44.9	-
France	166.8	103	167.6	99	165.8	100	167.5	96	166.9	-
Germany	281.4	118	285.3	118	288.8	122	288.0	118	284.3	-
Greece	29.2	94	32.4	115	33.4	116	32.6	100	31.1	-
Hungary	20.4	125	22.0	156	21.1	128	22.7	137	23.4	-
Ireland	11.3	75	11.6	75	12.2	82	12.3	84	11.6	-
Italy	117.2	92	117.3	97	119.9	93	120.9	93	127.4	-
Luxembourg	0.6	10	0.7	13	0.7	12	0.8	15	0.7	-
Netherlands	153.1	160	158.8	165	157.7	160	159.6	155	154.2	-
Norway	25.1	105	26.7	127	24.9	117	26.5	119	21.8	-
Poland	63.9	119	69.4	131	67.4	119	65.4	105	68.4	-
Portugal	23.0	97	23.9	108	24.5	100	24.9	99	23.2	-
Slovak Republic	11.0	134	11.6	150	11.9	135	12.4	132	11.3	-
Slovenia	4.6	96	4.5	90	4.6	90	4.7	85	4.4	-
Spain	139.7	111	130.9	104	140.3	112	134.2	104	138.8	-
Sweden	33.3	120	35.2	122	34.9	116	33.3	106	35.5	-
Switzerland	36.3	149	34.4	171	36.1	165	35.8	166	36.5	-
Turkey	71.2	82	74.6	88	75.9	80	78.0	76	76.5	-
United Kingdom	79.0	51	80.9	52	79.7	49	82.3	51	76.9	-
Total	1434.1	104	1463.0	107	1481.3	106	1478.6	102	1465.1	108
Total OECD	4533.4	98	4572.1	98	4608.1	100	4643.2	98	4649.1	100
DAYS OF IEA Net Imports⁶ -	193	-	195	-	198	-	202	-	202	-

¹ Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entropot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

² Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.

³ End September 2016 forward demand figures are IEA Secretariat forecasts.

⁴ US figures exclude US territories. Total includes US territories.

⁵ Data not available for Iceland.

⁶ Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions (see www.iea.org/netimports.asp). Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled <i>Millions of Barrels</i>	Industry	Total	Government ¹ controlled <i>Days of Fwd. Demand²</i>	Industry
3Q2013	4267	1582	2686	92	34	58
4Q2013	4144	1584	2559	90	35	56
1Q2014	4164	1585	2579	93	35	57
2Q2014	4229	1580	2649	92	34	58
3Q2014	4297	1578	2718	93	34	59
4Q2014	4285	1580	2705	92	34	58
1Q2015	4372	1583	2789	96	35	61
2Q2015	4463	1585	2878	95	34	61
3Q2015	4533	1579	2954	98	34	64
4Q2015	4572	1587	2986	98	34	64
1Q2016	4608	1593	3015	100	35	66
2Q2016	4643	1591	3052	98	34	65
3Q2016	4649	1594	3055	100	34	66

¹ Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

² Days of forward demand calculated using actual demand except in 3Q2016 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS¹
(million barrels per day)

	2013	2014	2015	4Q15	1Q16	2Q16	3Q16	Jul 16	Aug 16	Sep 16	Year Earlier	
											Sep 15	change
Saudi Light & Extra Light												
Americas	0.74	0.65	0.63	0.72	0.74	0.72	0.69	0.88	0.70	0.48	0.56	-0.09
Europe	0.79	0.84	0.78	0.69	0.76	0.73	0.78	0.72	0.90	0.71	0.89	-0.18
Asia Oceania	1.21	1.17	1.25	1.21	1.40	1.44	1.21	1.18	1.18	1.28	1.15	0.13
Saudi Medium												
Americas	0.45	0.36	0.37	0.43	0.39	0.44	0.44	0.41	0.41	0.50	0.42	0.08
Europe	0.01	0.03	0.03	0.04	-	0.01	0.03	0.02	0.02	0.03	-	-
Asia Oceania	0.43	0.45	0.44	0.41	0.46	0.43	0.41	0.42	0.39	0.43	0.44	-0.01
Iraqi Basrah Light²												
Americas	0.38	0.35	0.17	0.29	0.21	0.44	0.47	0.43	0.55	0.41	-	-
Europe	0.25	0.50	0.72	0.94	0.90	0.78	0.90	0.87	0.92	0.91	1.07	-0.16
Asia Oceania	0.31	0.24	0.41	0.49	0.47	0.51	0.44	0.41	0.46	0.45	0.31	0.14
Kuwait Blend												
Americas	0.28	0.27	0.13	0.07	0.13	0.12	0.18	0.26	-	0.28	0.22	0.05
Europe	0.10	0.09	0.13	0.18	0.20	0.10	0.22	0.18	0.25	0.24	0.08	0.16
Asia Oceania	0.64	0.62	0.65	0.69	0.71	0.65	0.68	0.71	0.61	0.72	0.56	0.16
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.08	0.10	0.09	0.10	0.09	0.18	0.33	0.40	0.36	0.23	0.06	0.17
Asia Oceania	0.00	0.01	0.01	-	0.02	0.01	0.01	-	-	0.04	0.04	0.00
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.03	0.01	0.02	0.01	0.04	0.16	0.27	0.24	0.20	0.39	0.05	0.34
Asia Oceania	0.30	0.28	0.27	0.26	0.44	0.47	0.58	0.55	0.51	0.68	0.32	0.36
Venezuelan 22 API and heavier												
Americas	0.61	0.64	0.67	0.67	0.61	0.61	0.65	0.75	0.59	0.63	0.66	-0.03
Europe	0.07	0.08	0.09	0.10	0.06	0.05	0.04	0.04	0.03	0.03	0.11	-0.08
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.70	0.66	0.50	0.54	0.52	0.54	0.52	0.56	0.55	0.45	0.42	0.03
Europe	0.14	0.14	0.15	0.11	0.15	0.16	0.17	0.18	0.20	0.14	0.24	-0.10
Asia Oceania	-	-	0.01	0.02	0.02	0.04	0.06	0.10	0.04	0.04	-	-
Canada Heavy												
Americas	1.49	1.71	1.90	1.94	2.12	1.85	2.12	2.07	2.22	2.07	2.09	-0.03
Europe	-	0.00	0.01	0.01	0.01	0.01	0.02	-	-	0.05	0.02	0.04
Asia Oceania	-	0.00	-	-	-	-	-	-	-	-	-	-
BFOE												
Americas	0.03	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	-	0.02	-
Europe	0.47	0.56	0.49	0.49	0.47	0.37	0.48	0.40	0.68	0.37	0.55	-0.18
Asia Oceania	0.06	0.07	0.06	0.09	0.09	0.03	-	-	-	-	0.07	-
Russian Urals												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	1.79	1.58	1.61	1.74	1.58	1.78	1.73	1.75	1.65	1.81	1.66	0.14
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan												
Americas	0.06	0.01	0.00	-	-	-	0.02	-	-	0.07	-	-
Europe	0.59	0.64	0.64	0.65	0.76	0.72	0.70	0.89	0.59	0.61	0.55	0.07
Asia Oceania	0.00	0.02	0.06	0.06	0.05	0.00	0.01	-	0.03	-	0.02	-
Libya Light and Medium												
Americas	0.00	-	-	-	-	-	-	-	-	-	-	-
Europe	0.57	0.31	0.22	0.25	0.16	0.15	0.17	0.22	0.11	0.17	0.18	-0.01
Asia Oceania	0.03	0.02	0.01	-	0.02	0.01	0.03	-	0.03	0.05	-	-
Nigerian Light⁴												
Americas	0.07	0.00	0.02	0.02	0.07	0.06	0.08	0.06	0.17	-	0.02	-
Europe	0.53	0.55	0.57	0.58	0.44	0.46	0.33	0.44	0.31	0.25	0.55	-0.29
Asia Oceania	0.03	0.02	-	-	-	0.01	0.01	-	0.03	-	-	-

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report.

IEA Americas includes United States and Canada.

IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia.

IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

⁴ 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS^{1,2}
(thousand barrels per day)

	2013	2014	2015	4Q15	1Q16	2Q16	3Q16	Jul 16	Aug 16	Sep 16	Year Earlier	
											Sep 15	% change
Crude Oil												
Americas	5130	4201	4026	4066	4350	4663	4867	5062	4810	4724	3905	21%
Europe	8926	8679	9503	9741	8963	8826	9640	10085	9433	9394	9966	-6%
Asia Oceania	6537	6371	6572	6522	6802	6647	6607	6429	6512	6888	6111	13%
Total OECD	20592	19251	20101	20328	20115	20135	21114	21577	20756	21005	19982	5%
LPG												
Americas	17	12	10	10	29	9	23	31	25	14	13	12%
Europe	382	427	412	404	404	401	456	514	418	435	420	3%
Asia Oceania	547	532	518	506	590	576	546	620	574	442	462	-4%
Total OECD	946	971	940	920	1024	986	1026	1165	1017	891	896	-1%
Naphtha												
Americas	17	20	14	12	11	7	4	6	2	4	13	-68%
Europe	332	356	348	283	361	298	389	357	392	420	452	-7%
Asia Oceania	920	953	951	977	948	834	946	960	986	890	1012	-12%
Total OECD	1269	1328	1313	1271	1321	1139	1340	1323	1381	1315	1477	-11%
Gasoline³												
Americas	659	665	670	549	460	873	919	953	853	952	830	15%
Europe	106	131	107	117	93	57	49	-29	110	68	116	-42%
Asia Oceania	75	76	93	98	73	84	71	81	68	64	56	15%
Total OECD	841	871	870	765	626	1014	1040	1006	1031	1083	1002	8%
Jet & Kerosene												
Americas	81	100	141	133	152	154	180	200	159	180	84	113%
Europe	445	454	445	397	462	515	567	549	616	536	629	-15%
Asia Oceania	73	60	64	74	79	76	47	51	31	60	68	-12%
Total OECD	600	614	650	605	693	745	794	799	806	776	782	-1%
Gasoil/Diesel												
Americas	58	95	76	63	57	40	84	55	97	101	67	51%
Europe	1121	1097	1217	1183	1408	1458	1268	1273	1270	1261	1315	-4%
Asia Oceania	141	159	164	200	180	225	173	166	158	197	159	24%
Total OECD	1319	1352	1457	1446	1645	1724	1526	1494	1525	1560	1542	1%
Heavy Fuel Oil												
Americas	165	132	116	91	163	126	158	180	186	108	147	-27%
Europe	552	617	565	575	529	514	484	476	473	503	409	23%
Asia Oceania	232	203	176	204	188	150	158	185	164	124	216	-43%
Total OECD	949	953	856	870	880	791	800	841	823	735	772	-5%
Other Products												
Americas	812	671	675	553	627	713	663	721	640	626	764	-18%
Europe	791	704	708	729	761	794	755	666	690	915	738	24%
Asia Oceania	426	408	352	351	384	347	361	383	380	320	393	-19%
Total OECD	2029	1784	1735	1632	1772	1854	1779	1769	1710	1860	1896	-2%
Total Products												
Americas	1810	1695	1702	1412	1499	1923	2032	2146	1963	1985	1919	3%
Europe	3729	3786	3802	3687	4018	4038	3969	3806	3969	4138	4080	1%
Asia Oceania	2414	2391	2318	2411	2444	2292	2303	2445	2361	2098	2367	-11%
Total OECD	7953	7872	7822	7510	7961	8253	8304	8397	8293	8221	8366	-2%
Total Oil												
Americas	6940	5896	5728	5478	5850	6585	6899	7208	6773	6709	5824	15%
Europe	12655	12465	13305	13428	12981	12864	13609	13891	13402	13532	14046	-4%
Asia Oceania	8951	8762	8890	8932	9246	8939	8910	8875	8873	8985	8478	6%
Total OECD	28545	27123	27923	27838	28076	28388	29418	29974	29049	29226	28348	3%

¹ Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.

² Excludes intra-regional trade.

³ Includes additives.

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Next Issue: 19 January 2017

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