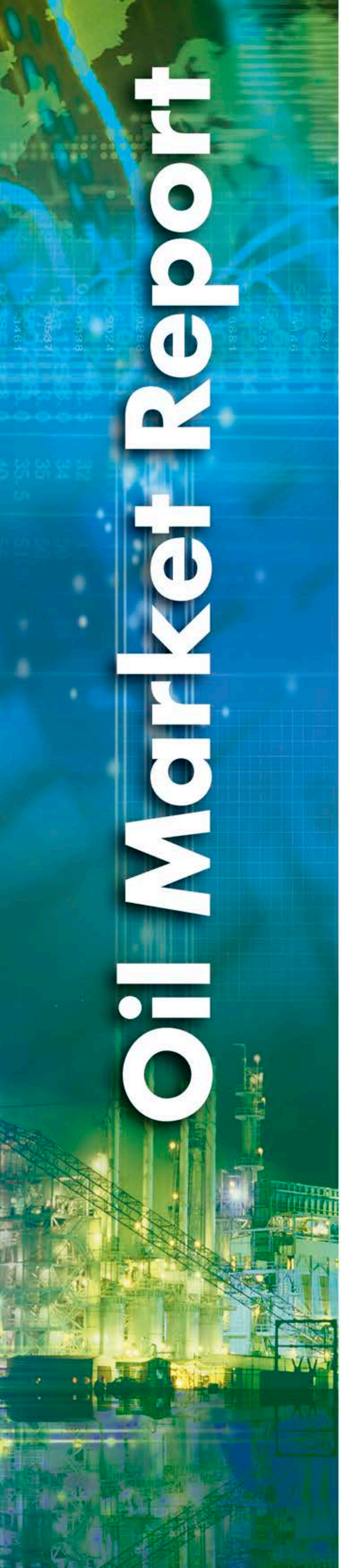

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19 January 2018

HIGHLIGHTS

- **Demand estimates in 2017 and 2018 are roughly unchanged at 97.8 mb/d and 99.1 mb/d respectively.** A 40 kb/d downward revision to 2016 demand, however, pushed up the 2017 growth to 1.6 mb/d, while our growth estimate for 2018 remains unchanged at 1.3 mb/d.

- **The slowdown in 2018 demand growth** is mainly due to the impact of higher oil prices, changing patterns of oil use in China, recent weakness in OECD demand and the switch to natural gas in several non-OECD countries.

- **Global oil supply in December eased by 405 kb/d to 97.7 mb/d** due mostly to lower North Sea and Venezuelan output. Production was steady on a year ago as non-OPEC gains of nearly 1 mb/d offset declines in OPEC.

- **A plunge in Venezuelan supply cut OPEC crude output to 32.23 mb/d in December,** boosting compliance to 129%. Declines are accelerating in Venezuela, which posted the world's biggest *unplanned* output fall in 2017.

- **Rapid US growth and gains in Canada and Brazil will drive up non-OPEC supply by 1.7 mb/d in 2018**, versus last year's 0.7 mb/d increase. US crude supply will push past 10 mb/d, overtaking Saudi Arabia and rivalling Russia.

- **OECD commercial stocks declined for the fourth consecutive month in November, by 17.9 mb, with a large fall in middle distillates.** Preliminary data for December suggest a further fall of 42.7 mb.

- **Global crude oil markets saw an exceptionally tight 4Q17** as the large draw in OECD crude stocks coincided with a decline in Chinese implied crude balances. The combined draw is estimated at 1 mb/d.

- **Benchmark crude prices climbed to a three-year high in early January**, reflecting falling stocks, supply issues in the North Sea and Libya, and geopolitical tensions. However, physical markets were softer and oil products failed to match the increases.

- **Global refining throughput hit a record in 4Q17 at 81.5 mb/d,** instead of falling seasonally. The US returned to pre-hurricane highs in December and China's refiners ran at their highest ever quarterly level. Margins suffered further from both product stock builds and the rally in crude oil prices.

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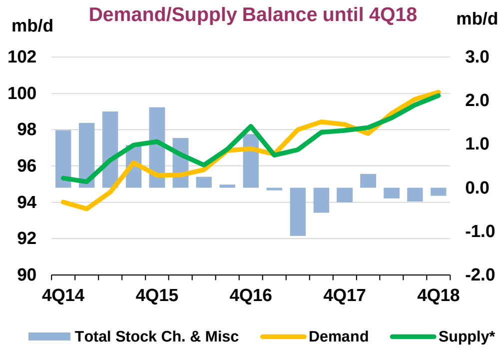
Is seventy plenty?

The price of Brent crude oil closed earlier this week above $70/bbl for the first time since 2 December 2014 (shortly after OPEC's "market share" ministerial meeting) and money managers have placed record bets on the recent upward momentum continuing. The factors contributing to this burst of optimism by investors include; the possible unravelling of the Iran nuclear deal and recent demonstrations in the country, disruption to the industry in Libya, and the closure of the Forties pipeline system. Although these factors might have faded somewhat, there are others at work. The general perception that the market has been tightening is clearly the overriding factor and, within this overall picture, there is mounting concern about Venezuela's production.

Taking Venezuela first, production has been sliding for a long time – it is now about half the level inherited by President Chavez in 1999 – and in December output was 490 kb/d lower than a year ago, having fallen to 1.61 mb/d. It is reasonable to assume that the decline will continue but we cannot know at what rate. If output and exports sink further other producers with the flexibility to deliver oil similar in quality to Venezuela's shipments to the US and elsewhere, including China, might decide to step in with more barrels of their own.

The oil market is clearly tightening; in the three consecutive quarters 2Q17-4Q17 OECD crude stocks fell by an average of 630 kb/d; such a threesome has happened rarely in modern history: examples include 1999 (prices doubled), 2009 (prices increased by nearly $20/bbl), and 2013 (prices increased by $6/bbl). Since the nadir for Brent crude in June when the price was $45/bbl, the 2017 OECD crude draws have coincided with a price increase for Brent of nearly $25/bbl.



*Note: For scenario purposes, OPEC/non-OPEC cuts remain constant.

A judgement as to whether the recent price strength is sustainable must take into account the rapid growth in global oil supply seen recently and which will continue through 2018. Short-cycle production from the US is reacting to rising prices and in this *Report* we have raised our forecast for crude oil growth there in 2018 from 870 kb/d to 1.1 mb/d. It is possible that very soon US crude production could overtake that of Saudi Arabia and also rival Russia's. After adding in barrels from Brazil, Canada and other growth countries, and allowing for falls in Mexico, China and elsewhere, total non-OPEC production will increase by 1.7 mb/d. This represents, after the downturn in 2016 and the steady recovery in 2017, a return to the heady days of 2013-2015 when US-led growth averaged 1.9 mb/d.

This projected big increase in non-OPEC production needs to be set against our current forecast for oil demand. For 2018, we see growth of 1.3 mb/d, a conservative number that acknowledges the current perception of healthy global economic activity, but also takes into account the fact that benchmark crude oil prices have increased by 55% since June and this can dampen oil demand growth to some extent. The uncertainty surrounding Venezuela is such that our regular practice of showing a market scenario chart that assumes steady OPEC production must be treated with caution. If OPEC countries plus their non-OPEC supporters maintain compliance then the market is likely to balance for the year as a whole with the first half in a modest surplus and the second half in a modest deficit.

This scenario, or something similar to it, presumably lies behind the assumption by forecasters surveyed by Reuters that Brent will trade in a $60-$70/bbl range in 2018. Whether or not the recent price rise has run out of steam and seventy really is plenty remains to be seen. However, such are the geopolitical uncertainties and the ever-dynamic prospects for US shale that we should expect a volatile year.

DEMAND

Summary

Estimates of global oil product demand in 2017 and 2018 have been left roughly unchanged at 97.8 mb/d and 99.1 mb/d respectively. A 40 kb/d downward revision to 2016 demand, however, pushed the 2017 growth to 1.6 mb/d vs. 1.5 mb/d in our previous forecast, while 2018 growth remained unchanged at 1.3 mb/d.

The slowdown in 2018 growth is mainly due to the impact of higher oil prices, the changing patterns of oil use in China, recent weakness in OECD demand and the switch to natural gas in several non-OECD countries (see *Oil versus Gas Competition*). Strong demand growth in OECD Europe and the US in the first half of 2017, largely attributable to lower prices, fell away in the second half of the year. In 2018, oil demand in these countries is unlikely to benefit from falling prices.

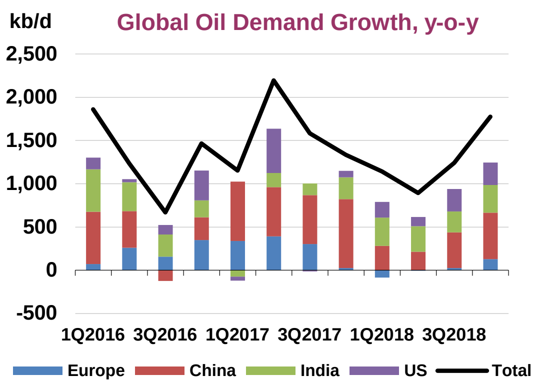
Global Oil Demand (2016-2018)

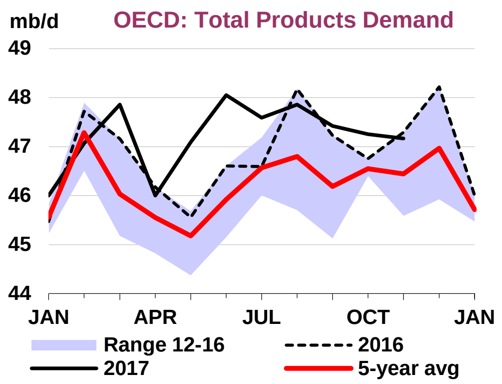
(million barrels per day)*

	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Africa	4.3	4.3	4.2	4.3	4.3	4.4	4.3	4.2	4.4	4.3	4.5	4.4	4.3	4.5	4.4
Americas	31.1	31.1	31.7	31.4	31.3	30.9	31.5	31.7	31.5	31.4	31.1	31.7	32.0	31.8	31.6
Asia/Pacific	33.4	32.8	32.2	33.3	32.9	34.2	33.9	33.3	34.6	34.0	34.8	34.4	33.9	35.3	34.6
Europe	14.3	14.7	15.2	14.9	14.8	14.6	15.1	15.5	15.0	15.0	14.6	15.1	15.5	15.1	15.1
FSU	4.6	4.6	4.9	4.9	4.8	4.6	4.7	5.0	4.9	4.8	4.7	4.8	5.1	5.0	4.9
Middle East	7.9	8.4	8.7	8.1	8.3	7.9	8.5	8.7	8.0	8.3	8.1	8.6	8.9	8.3	8.5
World	**95.5**	**95.8**	**96.8**	**97.0**	**96.3**	**96.6**	**98.0**	**98.4**	**98.3**	**97.8**	**97.8**	**98.9**	**99.7**	**100.1**	**99.1**
Annual Chg (%)	2.0	1.3	0.7	1.5	1.4	1.2	2.3	1.6	1.4	1.6	1.2	0.9	1.3	1.8	1.3
Annual Chg (mb/d)	1.9	1.2	0.7	1.5	1.3	1.2	2.2	1.6	1.3	1.6	1.1	0.9	1.2	1.8	1.3
Changes from last OMR (mb/d)	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.0	0.0	-0.2	0.1	-0.1	0.1	0.0

* Including biofuels

Our underlying economic projections are unchanged, but oil price and weather assumptions are significantly changed to reflect recent developments. We use the ICE Brent futures curve as a price assumption and 2018 values increased by $3.15/bbl on average compared to our previous forecast. The impact of higher prices is however partially offset by colder temperatures and revised assumptions regarding the start-up of some petrochemical projects. In the aftermath of Hurricane Harvey, at least two US Gulf Coast petrochemical projects were delayed and their additional ethane feedstocks will be accounted for in 2018 demand.





The recent cold snap in North America is likely to boost heating oil and fuel oil demand in the US, as a spike in natural gas prices supported alternative fuels. Gasoline and kerosene, on the contrary, were penalised by freezing temperatures, but this was not enough to offset the gains in heating fuels. Europe experienced opposite weather conditions with very warm weather at the start of January.

Historical data for some countries have been revised in this *Report*: additional 2016 data for Indonesia has been received; for South Africa, new data to mid-2017; and data for Pakistan–through October 2017. These revisions roughly offset each other, resulting in a minor downward revision to 2016 and 2017.

OECD

In this *Report,* we have data through October for all OECD countries. For November, preliminary estimates are available for the US, Mexico, Japan, Korea and some European countries. Recent data point to relatively sluggish demand in Europe and the US.

OECD Demand based on Adjusted Preliminary Submissions - November 2017

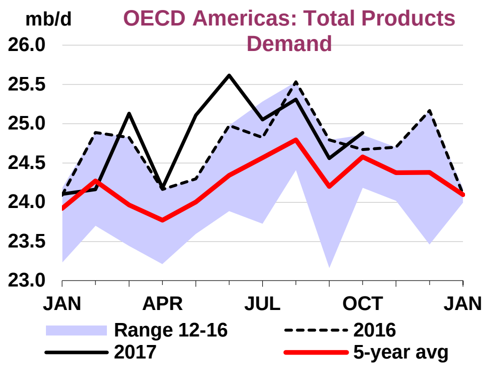
(million barrels per day)

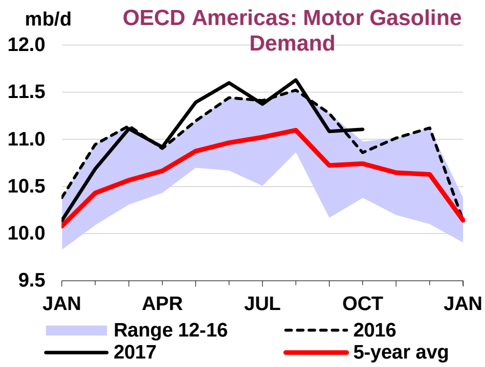
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	**10.89**	**-1.1**	**2.01**	**5.7**	**4.72**	**1.7**	**0.51**	**-1.5**	**0.63**	**9.5**	**6.08**	**0.58**	**24.85**	**0.6**
US50	9.12	-1.2	1.73	5.9	3.86	2.7	0.19	7.6	0.33	9.2	4.66	2.40	19.90	1.2
Canada	0.83	-0.2	0.13	4.2	0.29	-0.9	0.26	-1.8	0.04	-13.9	0.84	2.70	2.40	0.5
Mexico	0.79	-1.8	0.08	7.5	0.36	-5.1	0.03	-34.3	0.15	25.7	0.47	-17.19	1.88	-5.5
OECD Europe	**1.82**	**-2.1**	**1.30**	**2.0**	**5.01**	**-0.8**	**1.53**	**-0.7**	**0.85**	**-0.5**	**3.44**	**-2.99**	**13.95**	**-1.2**
Germany	0.43	-0.6	0.19	0.5	0.84	3.5	0.39	0.8	0.09	-2.4	0.49	-16.89	2.43	-2.9
United Kingdom	0.29	-1.5	0.30	-0.1	0.55	-0.2	0.12	-2.5	0.03	-1.9	0.30	0.00	1.59	-0.6
France	0.17	3.8	0.14	1.6	0.71	0.6	0.27	11.8	0.05	-12.6	0.26	-4.36	1.59	1.4
Italy	0.15	-5.4	0.10	14.0	0.42	-4.6	0.09	-0.6	0.06	6.4	0.35	-6.46	1.17	-3.2
Spain	0.10	-3.5	0.11	0.3	0.45	-2.1	0.18	-4.0	0.15	-5.6	0.32	2.76	1.31	-1.6
OECD Asia & Oceania	**1.56**	**-0.6**	**1.02**	**0.8**	**1.42**	**-0.6**	**0.53**	**2.3**	**0.61**	**-9.1**	**3.23**	**-1.10**	**8.37**	**-1.1**
Japan	0.89	-0.9	0.57	-1.7	0.46	2.0	0.35	-4.0	0.32	-7.9	1.51	-0.20	4.10	-1.3
Korea	0.22	1.9	0.24	7.0	0.41	-3.1	0.13	29.6	0.25	-12.1	1.50	-1.90	2.75	-1.0
Australia	0.32	-2.2	0.16	-0.1	0.48	-2.2	0.00	0.0	0.02	4.0	0.15	0.92	1.13	-1.4
OECD Total	**14.27**	**-1.2**	**4.33**	**3.4**	**11.15**	**0.3**	**2.57**	**-0.2**	**2.09**	**-0.5**	**12.75**	**-0.83**	**47.16**	**-0.3**

* Including US territories

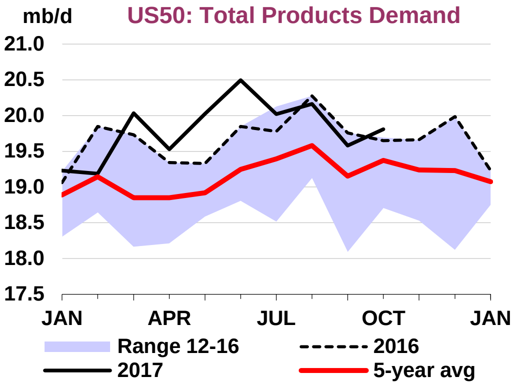
Americas

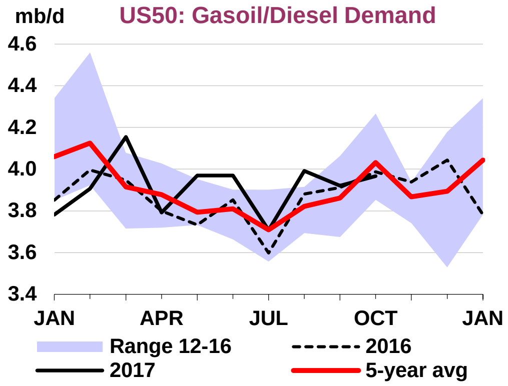
US oil demand rose by 160 kb/d year-on-year (y-o-y) in October after a drop of 175 kb/d in September. Canadian oil demand increased by 150 kb/d in October on strong gasoil deliveries. Mexican demand continued to decline, by 110 kb/d y-o-y in October, after a drop of 95 kb/d in September.



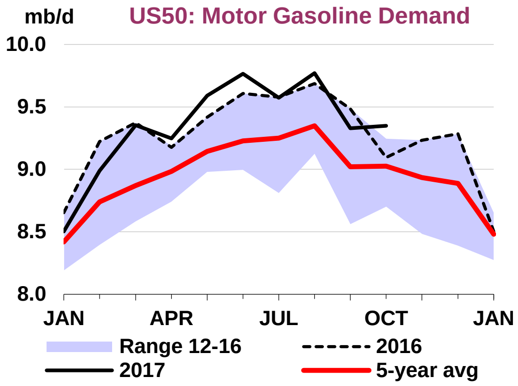


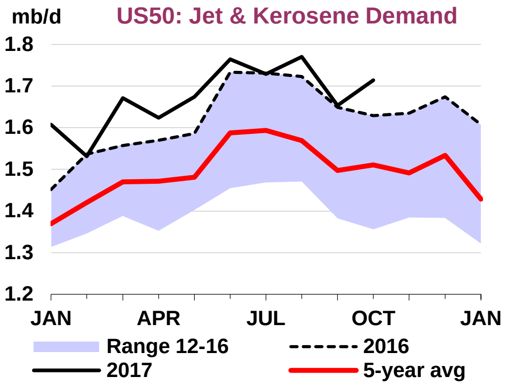
US Department of Energy data for October shows a strong rebound in gasoline demand, up by 255 kb/d y-o-y, after low deliveries in September due to hurricanes Harvey, Irma and Maria. The Department of Transportation reported growth in travel demand of 1.2% y-o-y in October, after only 0.3% for September. Traffic in the South Atlantic region, impacted by the hurricanes, rose by 1.8% y-o-y in October after a decline of 0.5% in September. US weekly data point to a slowdown in gasoline demand in November, down 110 kb/d y-o-y.





US gasoil demand declined slightly in October (20 kb/d y-o-y) but is expected to rebound by 120 kb/d in November, according to weekly data. Diesel demand is supported by the y-o-y growth of manufacturing production and freight transportation. The recent cold snap is believed to have added roughly 130 kb/d to heating oil and 50 kb/d to fuel oil demand in January. By contrast, kerosene demand was penalised, as many flights were cancelled. Gasoline demand also suffered from difficult travel conditions.





The CPB World Trade Monitor, published by the Netherlands Bureau for Economic Policy Analysis, shows an increase of 5 % y-o-y in the volume of US imports in October, contributing to support diesel demand. Goods imports from China reached an all-time high ahead of the holiday shopping season. In addition, diesel demand benefited from strong growth in industrial production, accelerating from 1.9% in September to 2.9 % y-o-y in October.

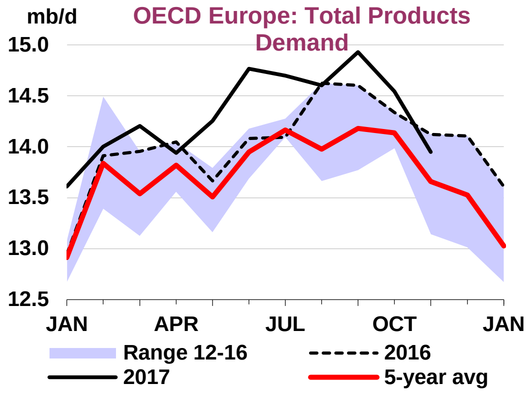
US jet fuel demand jumped by 85 kb/d y-o-y in October, after growth of only 5 kb/d in September. October deliveries reflect the sharp rebound in air travel after hurricanes Irma and Maria. The International Air Transport Association reported growth in North American international revenue passenger kilometres (RPK) of 4.8 % y-o-y in October, of which 5.3 % was in the domestic market. In November, North America RPK jumped by 5.4 % y-o-y as the domestic market continued to recover from hurricane related disruptions. The recent cold snap also hampered air transport, with more than 3 700 flights cancelled in early January, with New York airports the worst affected. The extreme cold weather also impacted air travel in Canada, causing the cancellation of almost 30% of flights in early January in Toronto.

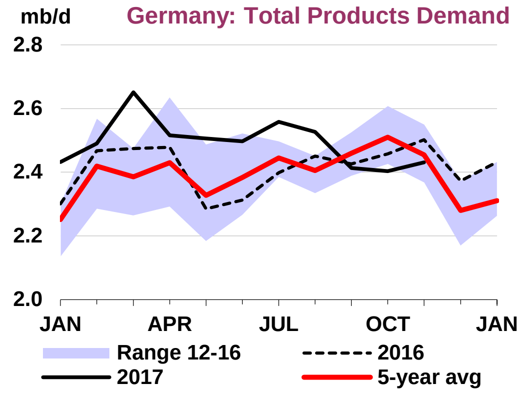
LPG/ethane demand remained 95 kb/d below last year in October. After Hurricane Harvey closed half of the USGC petrochemical facilities at the end of August, demand slipped below 2016 levels and remained below its five-year average through October. The hurricane delayed some projects and part of the increase in ethane demand we were expecting for the end of 2017 has been pushed to 2018. The completion of Chevron Phillips 66's project near Houston has reportedly been delayed to end-March and full production to mid-2018. ExxonMobil's new 1.5 mt/y ethane cracker in Baytown, Texas, will also be completed in early 2018 and producing ethylene by mid-year. The completion of the facility had previously been announced for end-2017 but construction work was halted due to Harvey.

After a weak 3Q17, with US demand decreasing by 15 kb/d y-o-y, demand in 4Q17 is expected to increase by 75 kb/d. Gasoline demand, 25 kb/d below last year in 3Q17, is expected to rise by 5 kb/d y-o-y in 4Q17. LPG/ethane demand, also down by 70 kb/d y-o-y in 3Q17, should rebound by 35 kb/d in 4Q17. Gasoil demand, benefiting from reconstruction work after the hurricanes, increased by 80 kb/d y-o-y in 3Q17 and should remain stagnant in 4Q17. Recent data indicates that US oil demand grew by 125 kb/d in 2017 and strong ethane demand will push up growth in 2018 to 205 kb/d.

Europe

European oil demand rose by 330 kb/d y-o-y in September and 205 kb/d in October. Preliminary data point to a drop of 175 kb/d in November.





German oil demand declined by 55 kb/d y-o-y in October, on poor gasoil and naphtha deliveries. Preliminary data point to a 70 kb/d y-o-y drop in November as weak naphtha demand is expected to push demand further lower. **French** oil demand dropped by 45 kb/d in October, on weak gasoil deliveries. Preliminary data for November point, however, to a small increase in oil demand of 25 kb/d y-o-y, largely due to higher gasoil deliveries. **Italy**'s oil demand rose by a strong 105 kb/d in October, supported by robust naphtha and gasoil deliveries. Preliminary data point to a drop of 40 kb/d y-o-y in November.

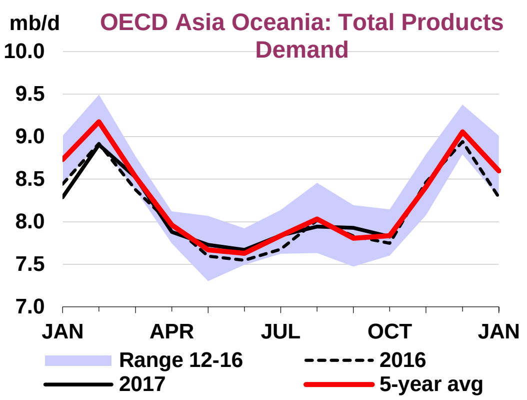
For Europe overall, we expect growth of 305 kb/d y-o-y in 3Q17 slowing to 25 kb/d in 4Q17, reflecting the recent slowdown in demand. For 2017 as a whole, growth should average 265 kb/d, but it will slow to only 15 kb/d in 2018 as demand will no longer be supported by falling prices.

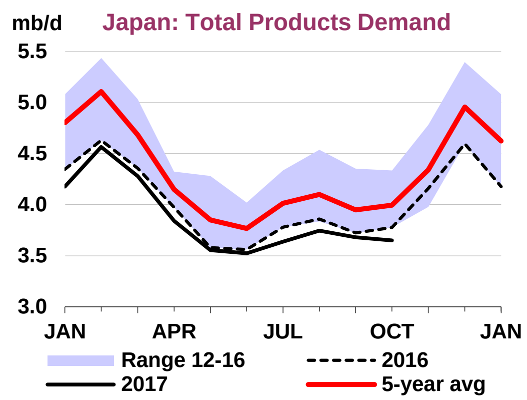
Asia Oceania

Asia Oceania demand rose by 75 kb/d y-o-y in October, with notable strength for naphtha for which demand increased by 245 kb/d. Gasoline demand declined slightly y-o-y. Preliminary data point to a decline of 95 kb/d in OECD Asian oil demand in November.

Japanese oil demand dropped by 130 kb/d y-o-y in October but is expected to contract by 55 kb/d in November, when demand for all fuels, with the exception of LPG-ethane, is believed to have fallen. South Korean demand rose by 100 kb/d y-o-y in October but fell by 30 kb/d in November. In October, demand was supported by naphtha deliveries rising by 185 kb/d y-o-y but November demand was dragged down by lower ethane deliveries. **Australian** gasoil demand rose by 70 kb/d y-o-y in October. It has been increasing since the start of 2017, in part supported by the restart of coal mines.

OECD Asia oil demand increased by 60 kb/d in 3Q17 and is expected to rise by 15 kb/d in 4Q17. Recent data indicates that OECD Asia oil demand increased by 30 kb/d in 2017 and for 2018 we expect it to fall by 190 kb/d on increasing oil prices.





Non-OECD

Data for October and November show strong growth in the main countries. In China, y-o-y oil demand growth of 710 kb/d in October was followed in November by growth of 990 kb/d. A similar picture was seen in India where October's 160 kb/d growth accelerated in November to 285 kb/d. Brazil's oil demand jumped to 90 kb/d y-o-y in November while Russia's fell by 100 kb/d. In this month's *Report* we included new historical data for Pakistan, South Africa and Indonesia.

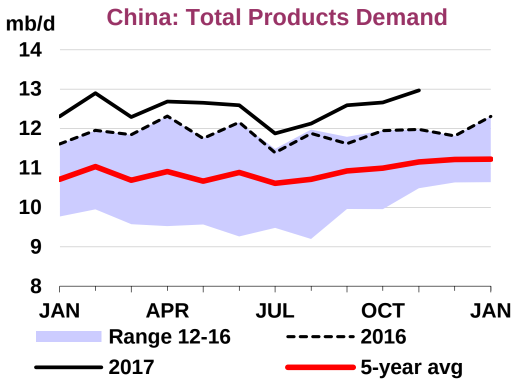
Non-OECD: Demand by Product

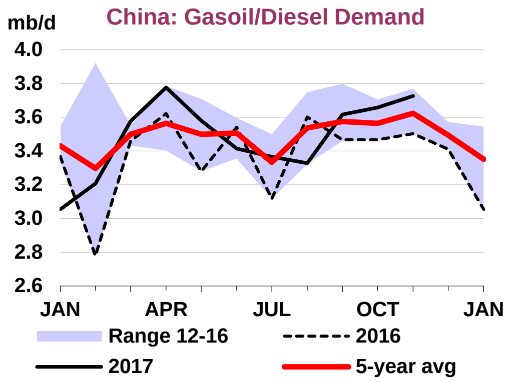
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q17	3Q17	4Q17	3Q17	4Q17	3Q17	4Q17
LPG & Ethane	6,472	6,285	6,549	156	106	2.6	1.6
Naphtha	2,711	2,641	2,782	47	81	1.8	3.0
Motor Gasoline	11,410	11,367	11,453	401	327	3.7	2.9
Jet Fuel & Kerosene	3,143	3,246	3,063	86	74	2.7	2.5
Gas/Diesel Oil	14,874	14,556	14,744	241	313	1.7	2.2
Residual Fuel Oil	5,301	5,344	5,265	17	-58	0.3	-1.1
Other Products	7,039	7,371	6,947	345	427	4.9	6.6
Total Products	**50,949**	**50,811**	**50,802**	**1,293**	**1,269**	**2.6**	**2.6**

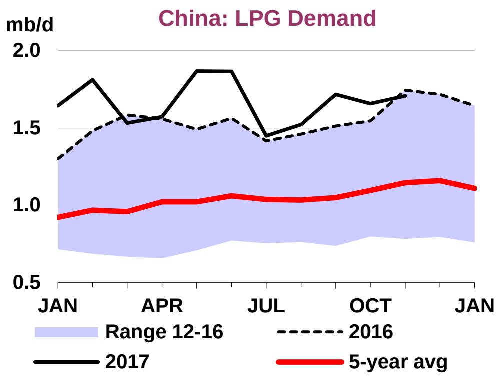
China

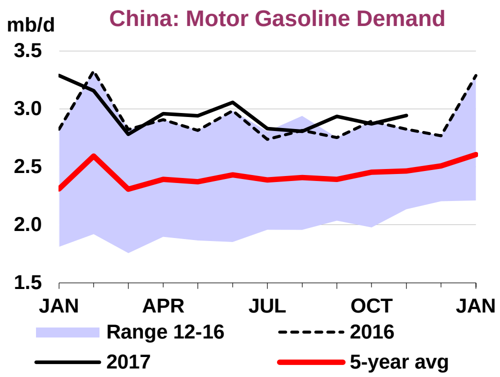
China's oil demand rose by 710 kb/d y-o-y in October and growth accelerated to a very strong 990 kb/d in November. Gasoil and gasoline posted robust growth, but the category "other products" posted the strongest expansion. Recent Chinese data are puzzling, as strong growth does not come from a defined product balance but from the "unexplained" category of our apparent demand computation and are mainly the result of a strong increase in refinery runs – in part due to new capacities. More data points are needed to enable us to be more definitive about Chinese demand.





For the main products: gasoline demand posted a decline of 25 kb/d y-o-y in October and rebounded by 120 kb/d in November; for gasoil the respective numbers were growth of 190 kb/d and 220 kb/d; while kerosene demand grew by 100 kb/d in October and slowed to 20 kb/d in November. Since the start of 2017, kerosene demand has increased by 60 kb/d y-o-y on average. Chinese domestic RPK grew by 14.1% y-o-y in November.





We expect final data to show that Chinese oil demand growth accelerated from 565 kb/d in 3Q17 to around 800 kb/d in 4Q17. For the year as a whole, demand growth should average 655 kb/d, but it will decelerate to 360 kb/d in 2018. The slowdown mainly results from a policy-driven move to a more service-oriented economy and tough policies to fight air pollution, restricting the use of diesel and gasoline vehicles.

China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2016	2017	2018	2017	2018	2017	2018
LPG & Ethane	1,531	1,679	1,726	148	47	9.7	2.8
Naphtha	1,093	1,124	1,175	31	51	2.8	4.6
Motor Gasoline	2,870	2,971	3,076	101	105	3.5	3.5
Jet Fuel & Kerosene	656	719	752	63	33	9.6	4.7
Gas/Diesel Oil	3,386	3,472	3,517	86	45	2.5	1.3
Residual Fuel Oil	339	360	366	22	6	6.4	1.6
Other Products	1,977	2,182	2,256	206	74	10.4	3.4
Total Products	**11,851**	**12,507**	**12,869**	**656**	**362**	**5.5**	**2.9**

Other Non-OECD

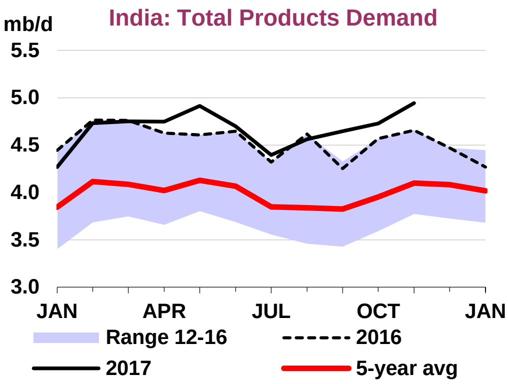
This month we revised historical data for three non-OECD countries, as new numbers became available. **Indonesia's oil demand has been revised down by 35 kb/d for 2016 and 65 kb/d for 2017** in this *Report*. The latest data released by the Ministry of Energy and Mineral Resources for 2016 showed a further drop in "domestic oil fuels sales" in 2016 versus 2015 (12 kb/d) while we had previously assumed an increase. Gasoil deliveries, in particular, dropped by 30 kb/d in 2016. Gasoil use in the power sector fell from 110 kb/d in 2014 to 75 kb/d in 2015 and 64 kb/d in 2016 as oil was replaced by coal and natural gas.

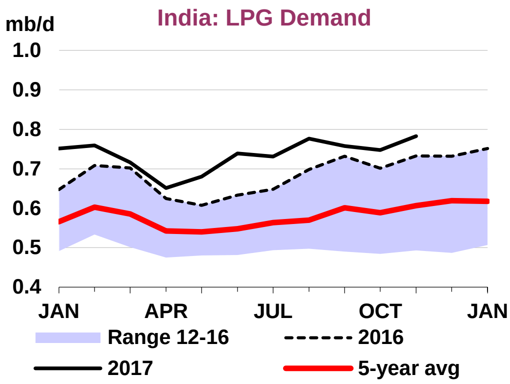
South Africa's oil demand has also been revised down, by 30 kb/d for 2016 and 35 kb/d for 2017. Statistics from the Department of Energy show a continuous decline in demand in 2016 and through to mid-2017. Here again, gasoil is the fuel the most impacted, declining by 20 kb/d on average in 2016 and 5 kb/d in 2017.

Pakistan's oil demand, by contrast, has been revised up by 15 kb/d for both 2016 and 2017. For 2018, however, the outlook has been revised down as Pakistan is switching part of its power fuel oil demand to LNG. Data from the Pakistan Oil Companies Advisory Council show relatively strong demand in 2016 and through the end of 2017. Gasoline demand, in particular, is higher than in our previous projection and has been revised up by 35 kb/d for 2017. For 2018, fuel oil demand has been revised down by 60 kb/d as more LNG will be imported for use in the power sector.Total demand has been lowered by 25 kb/d.

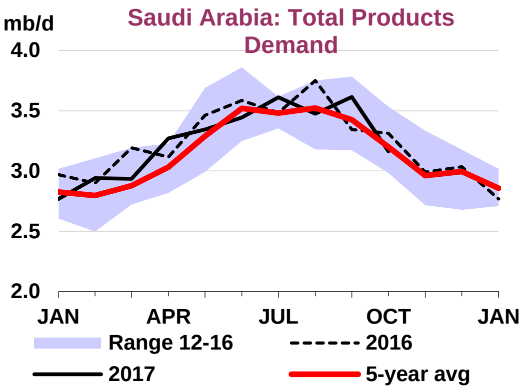
India's oil demand growth of 160 kb/d y-o-y in October accelerated in November to 285 kb/d. Preliminary data for December suggest a further acceleration to 310 kb/d. This strong 4Q17 demand suggests that growth in 2017 as a whole was 120 kb/d. Growth in 2018 is forecast to be 295 kb/d.

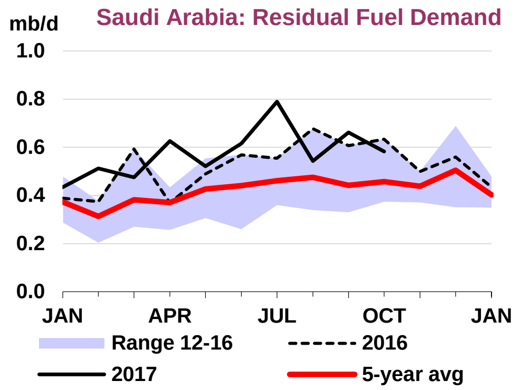
LPG demand grew by 60 kb/d in 2017, supported by strong growth in the residential sector, helped by government policies. As LPG replaced heating/lighting kerosene, total kerosene demand dropped by 25 kb/d even though the air transportation sector there was booming. Domestic India RPK rose by 16.4% y-o-y in November. Gasoline demand rose by 40 kb/d in 2017, on strong vehicle sales. The Indian government has ambitious plans to increase the penetration of electric vehicles but current targets may be difficult to achieve.



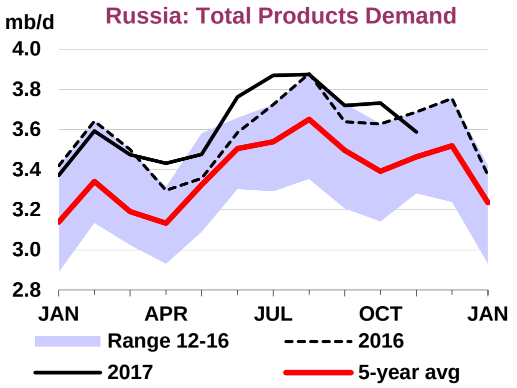


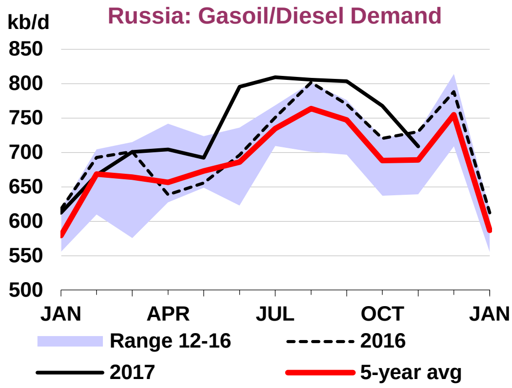
Saudi Arabian oil demand dropped by 150 kb/d y-o-y in October, on lower gasoil and fuel oil deliveries. In January, the government announced an increase for gasoline prices of 127%, as a part of the plan to bring prices toward market levels. From January 1st, the price of 91 octane gasoline rose to US$ 0.37/litre (+83%) while the price of 95 octane gasoline to US$ 0.55/litre (+127%). Diesel and kerosene prices were unchanged. Prices also include a new 5% VAT rate effective from January 1st. Overall, we expect that demand contracted by 50 kb/d in 2017 but it will bounce back by 95 kb/d in 2018 as the economy recovers. In 2016 and 2017, gasoil demand has been particularly affected by the slowdown in construction projects but 2018 should see a more positive picture.





Russian oil product demand contracted by 100 kb/d in November, affected by low LPG and fuel oil deliveries. Weather forecasts continued to show warm winter temperature in Russia, reducing demand for heating fuels. Overall, Russian oil product demand is forecast to increase by 45 kb/d in both 2017 and 2018.





Brazilian oil demand rose by a strong 90 kb/d in November, supported by strong gasoil and gasoline deliveries. Product sales have been increasing y-o-y in the past six months, supported by the ongoing economic recovery following three years of contraction. Demand is expected to increase by 35 kb/d in 3Q17 and 60 kb/d in 4Q17. For the year as a whole, growth was 15 kb/d and our current forecast is that 2018 growth will be 45 kb/d.

Iraq's direct crude use was reported at 85 kb/d for October, roughly in line with our assumptions. Imports of natural gas from Iran commenced in June and this will gradually reduce the use of crude oil in the power sector. Iranian exports started at only 7 mcm/d, however, but they will increase to 35 mcm/d in 2018. For the moment, the increase in gas sales to the power sector remains limited.

Non-OECD: Demand by Region

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q17	3Q17	4Q17	3Q17	4Q17	3Q17	4Q17
Africa	4,306	4,235	4,387	54	70	1.3	1.6
Asia	26,137	25,429	26,153	1,094	1,238	4.5	5.0
FSU	4,729	5,024	4,915	102	-12	2.1	-0.2
Latin America	6,573	6,680	6,601	22	66	0.3	1.0
Middle East	8,464	8,692	7,997	-7	-125	-0.1	-1.5
Non-OECD Europe	740	751	749	29	33	4.0	4.6
Total Products	**50,949**	**50,811**	**50,802**	**1,293**	**1,269**	**2.6**	**2.6**

Oil versus gas competition

Several non-OECD countries have recently experienced significant declines in gasoil, fuel oil or crude oil demand resulting from the increasing use of natural gas. The impact is mainly found in the power generation sector. Iran is the most spectacular case, losing roughly 300 kb/d of gasoil and fuel oil demand to natural gas in the period 2014-2017. In other countries, the penetration of natural gas in various sectors has had a less spectacular but still significant impact. In the countries listed below, gasoil demand posted a cumulative decline of 315 kb/d in 2014-2017; fuel oil demand fell by 165 kb/d and crude oil by 60 kb/d. In the table, we do not include China, where increasing numbers of LNG-fuelled trucks and CNG-fuelled cars must have displaced large volumes of oil.

Iran shows the largest decline in gasoil and fuel oil demand. According to domestic data, the switch to natural gas in the power sector was responsible for a drop of 57 kb/d in diesel demand in 2014 and a further drop of 48 kb/d in 2015. The switch also triggered a drop of 86 kb/d in fuel oil demand in 2014 and 57 kb/d in 2015. The drop in diesel demand can also be explained by increasing natural gas demand in the residential, commercial, and transport sectors. Higher fuel oil use in the transport sector seems to have partially offset the drop of power sector demand in 2014, but this was not the case in 2015 and fuel oil as well as gasoil consumption has continued to decline since then. Fuel oil still accounts for 8% of power plant energy use (from 45% in 2013) but there are plans to phase it out by the end of the fiscal year (March 2018). The National Iranian Gas Company wants to increase sales of gas to power plants from 62 bcm in fiscal 2017 to 68 bcm in fiscal 2018.

Indonesia also showed a large drop in gasoil demand in 2014-2016, partly the result of the displacement of gasoil in the power sector by natural gas and coal. According to domestic data, gasoil demand in the power sector dropped by 44 kb/d between 2013 and 2016 while coal and gas use increased.

The other countries are just starting to replace oil with gas and coal and the impact of oil displacement will be mainly felt in 2018.

Iraqi direct crude burning dropped from 205 kb/d in June to 110 kb/d in July, 75 kb/d in August and was reported at 80 kb/d for October. These changes are not seasonal: crude burning in Iraq did not fall in mid-2015 and mid-2016. Iraqi imports of natural gas from Iran started slowly in mid-2017 and will ramp up this year. General Electric has built a new power plant (2x180 MW gas turbines) to receive Iranian gas at Mansuriya in Diyala province starting in July.

Egypt's fuel oil demand also posted a small decline, from 210 kb/d in 2016 to 175 kb/d in the past three months, likely reflecting more gas-fuelled power generation. By mid-2017, gas already had a 75% share of power generation, the rest being fuel oil. In the future, however, the development of the supergiant Zohr gas field by ENI where production started in December should enable self-sufficiency in gas and might even allow Egypt to return to exporting gas in the medium term. The government contracted three combined cycle gas power plant to Siemens with a total capacity of 14.45GW and they started operations in 2017. Meanwhile, several old fuel oil -consuming power plants were closed at the end of the summer.

Year-on-Year changes in kb/d

		2014	2015	2016	2017	Sum 2014-17
Iran	*Gasoil*	-61	-96	-32	-4	**-194**
	Fuel oil	-19	-49	-18	-17	**-103**
	Total	-81	-145	-49	-21	**-297**
Iraq	*Crude oil*			-24	-37	**-62**
Pakistan	*Fuel oil*				-10	**-10**
Egypt	*Fuel oil*		-7	-3	-26	**-36**
Indonesia	*Gasoil*	-26	-63	-30		**-120**
	Fuel oil	-1	-7	-7		**-15**
Total	*Gasoil*	-88	-160	-62	-4	**-313**
	Fuel oil	-21	-63	-28	-53	**-165**
	Crude oil	0	0	-24	-37	**-62**
	Total	-108	-223	-114	-94	**-540**

Oil versus gas competition *(continued)*

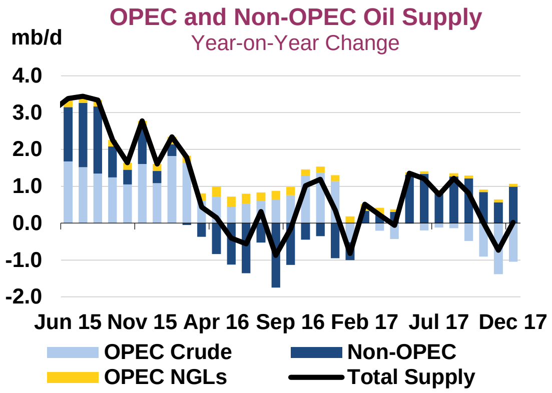
Egypt has also launched a $1.5bn project to connect 1.5 million households to natural gas, likely to displace oil in the domestic sector.

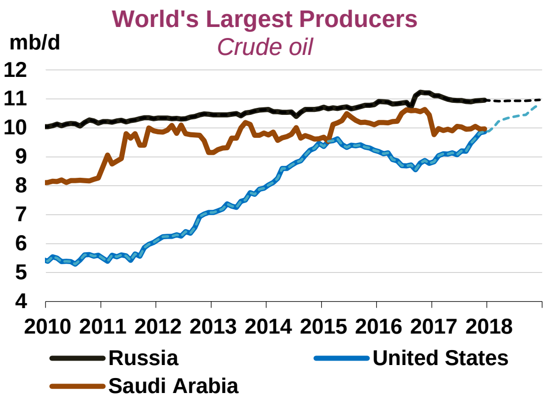
Pakistan is another country planning to use more gas and coal at the expense of fuel oil. Indeed, fuel oil demand decreased from 180 kb/d in the first nine months of 2017 to an estimated 150 kb/d in 4Q17 ahead of the commissioning of a second LNG Floating Storage Regasification Unit (FSRU). Pakistan is a large user of natural gas, accounting for roughly 50% of its energy needs. Falling production has resulted in the underutilisation of its gas power plants and the import of large volumes of oil products. The first LNG Floating Storage Regasification Unit (FSRU) started operations in 2015 and imports that year were 1 mt. This increased in 2016 to 3.4 mt and is likely to have reached close to 6 mt in 2017. Pakistan's LNG imports contracts are with Qatar, and more recently with Indonesia, and other volumes are secured by tenders. Pakistan is planning to increase gas consumption in the power sector with some 3,600 MW of projects in Punjab. A third FSRU should start up in 2019 and an eventual total of seven FSRU should see imports increase to 30 mt/y by 2022. Natural gas development plans could be however reconsidered as LNG becomes more expensive. At the same time, Pakistan is developing 8 GW of coal capacity, including 1.3 GW commissioned in 2017.

SUPPLY

Summary

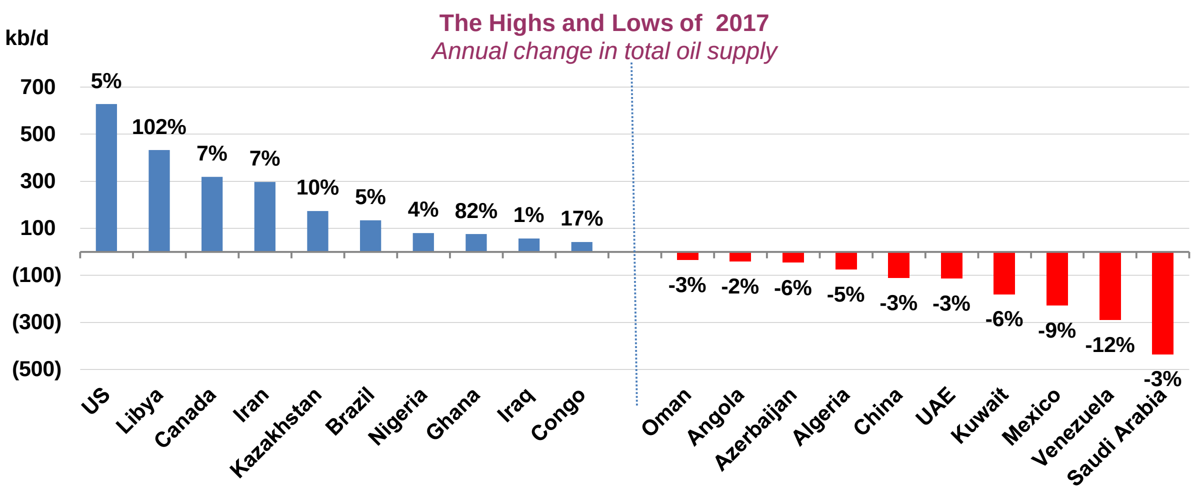
The big 2018 supply story is unfolding fast in the Americas. Explosive growth in the US and substantial gains in Canada and Brazil will far outweigh potentially steep declines in Venezuela and Mexico. With oil rallying to $70/bbl, impressive non-OPEC growth of 1.7 mb/d is expected, with the US alone accounting for 1.35 mb/d. The stage was set for a strong expansion last year, when non-OPEC supply, led by the US, returned to growth of 0.7 mb/d and pushed up world production despite OPEC/non-OPEC cuts. US growth of 0.6 mb/d in 2017 beat all expectations, even with a moderate price response to the output deal as the shale industry bounced back - profiting from cost cuts, stepped up drilling activity and efficiency measures enforced during the downturn.





This year promises to be a record-setting one for the US. Crude production of 9.9 mb/d is now at the highest level in nearly 50 years, putting it neck-and-neck with Saudi Arabia, the world's second largest crude producer after Russia. Relentless growth should see the US hit historic highs above 10 mb/d, overtaking Saudi Arabia and rivalling Russia during the course of 2018 – provided OPEC/non-OPEC restraints remain in place.

There is no clear sign yet of OPEC turning up the taps to cool down oil's rally by reclaiming lost market share or to compensate for a precipitous drop in supply from Venezuela, which posted the biggest *unplanned* decline in 2017. As of December, OPEC had spare capacity of around 3.2 mb/d.



For OPEC, 2017 marked a year of 95% compliance with supply cuts put in place at the start of the year. Total oil production from the group's 14 members fell from an unprecedented 39.6 mb/d to 39.2 mb/d, the first annual decline since 2013. Supply discipline from the non-OPEC camp has been less rigorous, 82% for 2017, but nonetheless strong. The historically high performance rate for the producer pact, however, was met with an equally remarkable increase in US production, which offset roughly 60% of the realised cuts. The impact of the reduction was further blunted by a rebound in output from Libya and Nigeria, excluded from the cuts. Global oil supply in December eased 405 kb/d to 97.7 mb/d due mostly to unplanned outages in the North Sea and lower Venezuelan output. Production was broadly steady on a year ago, as non-OPEC gains of nearly 1 mb/d offset declines in OPEC output.

OPEC / Non-OPEC Output Compliance[1]

(million barrels per day)

	Nov 2017 Supply	Dec 2017 Supply	Supply Baseline[2]	Agreed Cut	December Actual Cut	November Compliance	December Compliance	2017 Average Compliance	Sustainable Production Capacity[6]	Spare Capacity vs Dec 2017 Supply
Algeria	1.01	1.04	1.09	-0.05	-0.05	158%	98%	83%	1.10	0.06
Angola	1.61	1.61	1.75	-0.08	-0.14	181%	181%	137%	1.66	0.05
Ecuador	0.54	0.52	0.55	-0.03	-0.03	31%	108%	66%	0.55	0.03
Equatorial Guinea	0.13	0.13	0.14	-0.01	-0.01	83%	83%	109%	0.13	0.00
Gabon	0.21	0.21	0.20	-0.01	0.01	-89%	-89%	8%	0.21	0.00
Iran[3]	3.82	3.85	3.71	0.09	0.14	126%	159%	104%	3.85	0.00
Iraq	4.43	4.47	4.56	-0.21	-0.09	62%	43%	43%	4.70	0.23
Kuwait	2.71	2.70	2.84	-0.13	-0.14	98%	105%	100%	2.94	0.24
Qatar	0.62	0.61	0.65	-0.03	-0.04	93%	127%	129%	0.66	0.05
Saudi Arabia	9.95	9.97	10.54	-0.49	-0.57	122%	118%	121%	12.16	2.19
UAE	2.90	2.87	3.01	-0.14	-0.14	81%	103%	58%	3.22	0.35
Venezuela	1.77	1.61	2.07	-0.10	-0.46	313%	481%	106%	1.61	0.00
Total OPEC 12	**29.70**	**29.59**	**31.11**	**-1.18**	**-1.52**	**120%**	**129%**	**95%**		
Libya[4]	0.98	0.97							0.98	0.01
Nigeria[4]	1.61	1.67							1.70	0.03
Total OPEC	**32.29**	**32.23**							**35.47**	**3.24**
Azerbaijan	0.79	0.81	0.81	-0.04	0.00	65%	10%	90%		
Kazakhstan	1.921	1.91	1.805	-0.02	0.11	-583%	-551%	-176%		
Mexico	2.13	2.18	2.40	-0.10	-0.22	266%	224%	160%		
Oman	0.97	0.97	1.02	-0.05	-0.04	109%	100%	95%		
Russia	11.33	11.33	11.60	-0.30	-0.26	90%	87%	80%		
Others[5]	1.22	1.21	1.22	-0.05	-0.01	-2%	32%	25%		
Total Non-OPEC	**18.37**	**18.42**	**18.86**	**-0.55**	**-0.44**	**90%**	**81%**	**82%**		

1 OPEC figures are crude oil only, Non-OPEC figures are total oil supply (including NGLs).

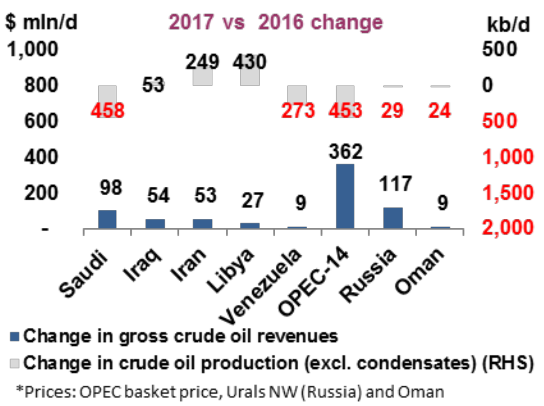
2 OPEC based on Oct 2016 OPEC secondary source figures, except Angola which is based on Sep 2016. Non-OPEC based on IEA Oct total supply estimates. Kazkahstan Nov estimate.

3 Iran was given a slight increase. 4 Libya and Nigeria are exempt from cuts. 5 Bahrain, Brunei, Malaysia, Sudan and South Sudan

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

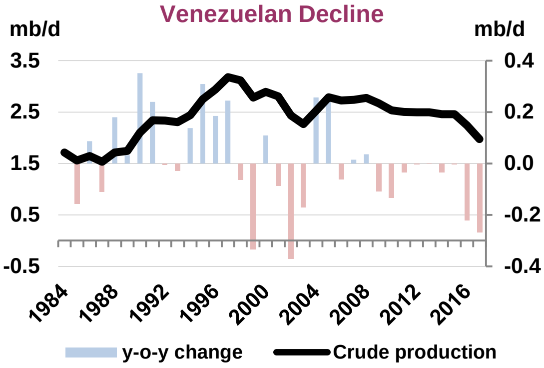
There was a silver lining for producers taking part in the supply cuts: they earned more in 2017 while pumping less. Among OPEC producers, Saudi Arabia saw the biggest reward, making nearly $100 million a day in additional revenue. Beleaguered Venezuela, on the other hand, only earned an extra $9 million. As a whole, OPEC producers netted an extra $362 million a day. Russia earned the most of all pocketing an additional $117 million a day. Oman made an extra $9 million. Iraq, which produced well above its OPEC target, was a leading beneficiary. Libya saw a big benefit from its production comeback.

The revenue gains may encourage producers to maintain robust compliance. Saudi Arabia and neighbouring Gulf countries have signalled they will continue to restrict supplies to clear the remaining inventory overhang. In December, OPEC supply edged down to 32.23 mb/d, as a sharp decline in Venezuela offset higher flows from elsewhere. The plunge in Venezuelan output raised OPEC compliance in December to 129%, the highest so far. Output from the group was down 1 mb/d on December 2016, when Middle East producers were at record rates.

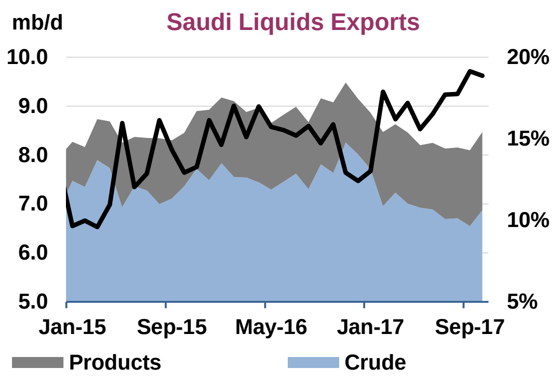


OPEC crude oil supply

A fourth-quarter tumble pushed **Venezuelan** supply 360 kb/d below its OPEC target by December and cut crude output from the 14-member group to the lowest since April. Petroleos de Venezuela (PDVSA) and its foreign joint-venture partners saw production fall by 240 kb/d in 4Q17 compared to declines of some 50 kb/d in the previous quarters. In December, output tumbled 160 kb/d month-on-month (m-o-m) to 1.61 mb/d, 490 kb/d below December 2016.



Given Venezuela's astonishing debt and deteriorating oil network, it is possible that declines this year will be even steeper than the 270 kb/d drop in 2017, which took annual output of 1.97 mb/d to the lowest in nearly 30 years. US financial sanctions are also making it tougher for Venezuela's oil sector to operate. PDVSA's new chief Major General Manuel Quevedo has been tasked with reshaping PDVSA and ramping up production by 1 mb/d. That will be a tall order. Chronic underinvestment and poor reservoir management have already wiped 20% off supply over the past two years. There were 50 rigs drilling for oil in December and industry sources reckon at least 100 active rigs are needed to arrest accelerating declines.



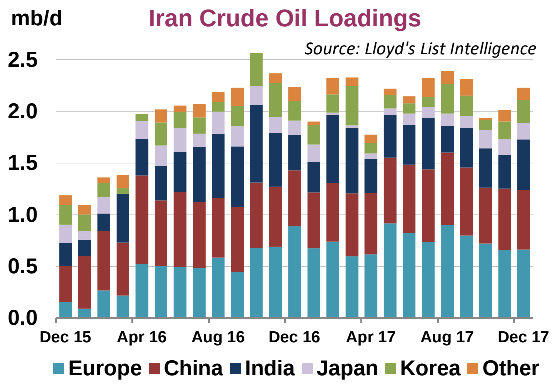
Source: JODI

The world's biggest *planned* decline in 2017 was by **Saudi Arabia**, which produced below its agreed supply target every month of the year. Crude supply in December edged up to 9.97 mb/d, down 480 kb/d on a year ago. The Kingdom has pledged to lead by example and sustain the lower levels to help remove the remaining inventory overhang. Riyadh might also want to maintain tight compliance and keep oil prices supported ahead of the anticipated initial public offering (IPO) of Saudi Aramco.

To stay below its OPEC target, Saudi Aramco has cut exports sharply to the US but held supplies relatively steady to buyers in Asia. The latest official data from the Joint Organisations Data Initiative (JODI) show shipments of crude rose in October to 6.9 mb/d, up 325 kb/d m-o-m but down 760 kb/d on the previous year. While exports of crude oil have been running sharply lower, exports of refined products have trended higher of total liquids exports of 8.5 mb/d during October, products accounted for 19% and were up 155 kb/d on a year ago. Overall sales, however, were 610 kb/d below October 2016 with crude exports down 760 kb/d. On the domestic front, the amount of crude burned in power plants was down 250 kb/d compared to September and 80 kb/d lower than the previous year.

Neighbouring Gulf countries have also signalled their willingness to sustain tight compliance with supply cuts. The **UAE** during December turned in a performance rate of more than 100% for the first time in 2017. Supply decreased by 30 kb/d due to minor onshore field maintenance. Additional work scheduled for February is expected to cut output even further. Supply in **Kuwait** and **Qatar** inched down during December. To bolster its international standing, Qatar Petroleum (QP) has meanwhile become the sole seller of Qatari crude to world markets. QP had previously marketed crude along with its international partners who had sold volumes based on their product entitlements. Since June, Qatar has been subject to an embargo imposed by Saudi Arabia, the UAE, Bahrain and Egypt but there has been no major impact on its exports outside the region.

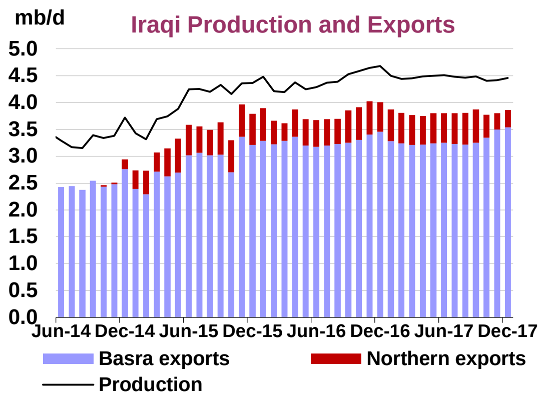
Iran, granted a slight increase under the output pact, pushed production and exports higher during December. Crude output reached 3.85 mb/d, up 30 kb/d from November. For 2017 as a whole, average output of 3.8 mb/d was up 248 kb/d. There was a corresponding increase in exports as the National Iranian Oil Co swiftly reclaimed its European customer base. Shipments of crude during 2017 rose nearly 200 kb/d to 2.17 mb/d. During December, exports pushed above 2.2 mb/d, a rise of more than 200 kb/d on the previous month, according to preliminary tanker tracking reports. India boosted purchases by 180 kb/d, while Korea and Japan lifted slightly more. Purchases by China and Europe were broadly steady. Iran had no oil stored at sea at the end of December.



Anti-government protests in early January have had no impact on production and exports. Tehran is attempting to boost production capacity by luring foreign oil companies into its energy sector after years of under-investment due to international sanctions. Iran is negotiating with companies from Europe, Russia and Asia with the hopes of securing 10 new upstream contracts by March. Only one deal has been signed so far with a Western major: Total for Phase 11 of the giant offshore South Pars gas field. In January, the US administration extended sanctions relief on Iran. The move keeps the nuclear agreement alive until at least May, the next deadline for renewing sanctions relief.

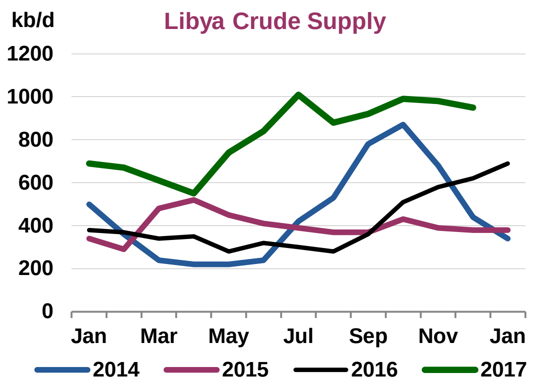
Production from **Iraq** edged up in December to 4.47 mb/d as Baghdad continued to push southern exports of Basra crude to all-time highs to compensate for losses in the north. Iraqi forces regained control over the northern oil fields of Kirkuk in mid-October and output at core fields (over 250 kb/d) has been shut since then. Compared to December 2016, output was down 210 kb/d.

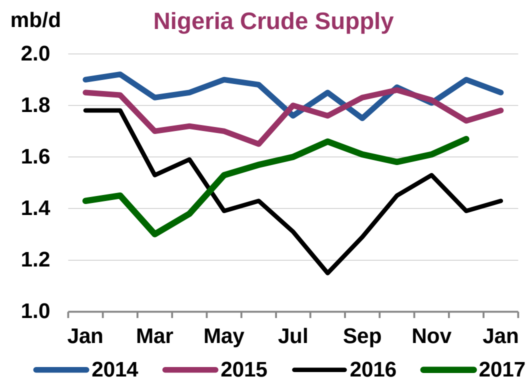
Shipments from the south rose by 40 kb/d m-o-m to a record rate of 3.54 mb/d in December, as output continued to rise from Basra area fields. Total crude exports in December were up 60 kb/d to 3.86 mb/d. Sales of northern crude via the KRG's pipeline to Turkey were running at roughly 320 kb/d – the lowest since the end of 2014 – with another 30 kb/d trucked to Turkey.



On the upstream front, Royal Dutch Shell is finalising efforts to exit Iraq's southern oil fields. It has agreed to sell its 20% share in the Exxon Mobil-operated West Qurna-1 to Itochu and will relinquish its stake in Majnoon, where it is operator, by the end of June.

Libya's remarkable comeback in 2017 made it the world's second biggest source of supply growth after the US. Production edged lower in December after a suspected pipeline attack, but at 970 kb/d was 350 kb/d above the previous year. Repairs have been completed on the pipeline that was damaged at the end of December. The blast and resulting fire south of the Es Sider export terminal briefly reduced output by around 100 kb/d. Financial, technical and security challenges are making it difficult to sustain output at July's rate of just over 1 mb/d.

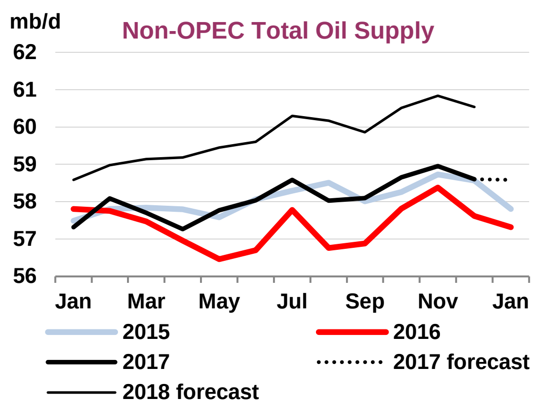


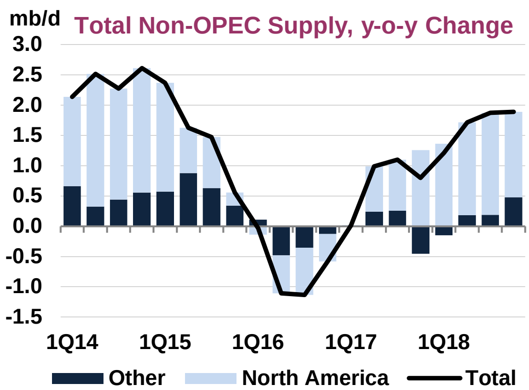


Nigeria posted the biggest increase during December. Production rose 60 kb/d to 1.67 mb/d, the highest since February 2016. A lull in the militant attacks that cut supply in the summer of 2016 to the lowest in three decades allowed output to stand 280 kb/d above December 2016. Nigeria has vowed in 2018 to support fellow OPEC members that have reduced supply and is determined to fend off renewed violence in the Niger Delta oil heartland. However, on 17 January, Nigerian militants threatened to renew attacks on offshore oil facilities within days. **Algerian** production increased by 30 kb/d in December following the completion of scheduled maintenance at the El Merk oil field. In the meantime, OPEC may have another African producer in its ranks later in 2018 as the Republic of Congo, now pumping around 300 kb/d, is seeking membership. Output in **Angola** held steady in December, but natural declines left the country with the strongest compliance rate during 2017.

Non-OPEC

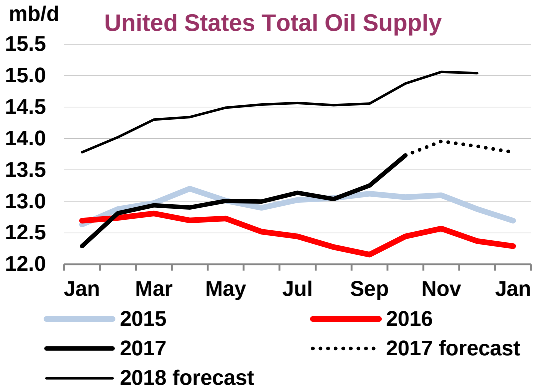
After three straight months of gains, non-OPEC oil supply declined by 345 kb/d in December, led by losses in the North Sea and seasonally lower biofuels output. At 58.6 mb/d, total non-OPEC production nevertheless was 1 mb/d higher than a year ago, with hefty gains in the US and Canada offsetting declines elsewhere. Following growth of 730 kb/d on average in 2017, non-OPEC supply is forecast to expand by nearly 1.7 mb/d this year.

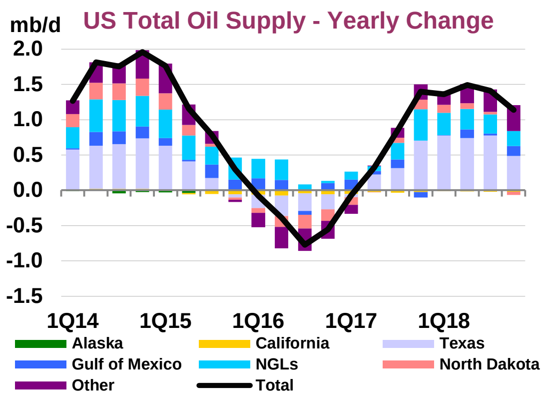




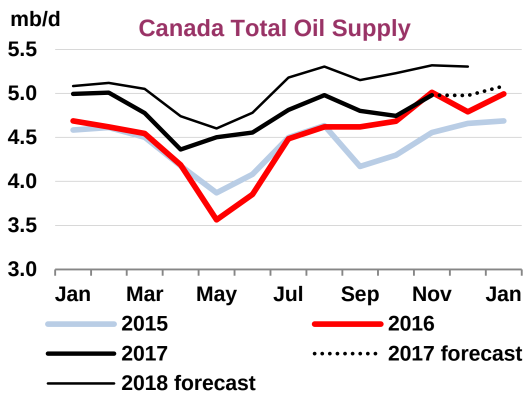
Fast-growing **US** production will drive impressive non-OPEC growth this year, with oil's recent price rally boosting our outlook since last month's *Report*. US crude oil output hit 9.9 mb/d in December, nearing the all-time high of 10 mb/d reached in November 1970. After a relatively quiet period, producers added 10 oil rigs in the week ending 12 January, the most in a single week since June 2017. Our outlook for US crude supply for 2018 has been raised by 260 kb/d to a record 10.4 mb/d.

Not even a hurricane could derail growth in US supply. Total oil output surged 480 kb/d m-o-m in October despite extensive shut-ins in the Gulf of Mexico due to Hurricane Nate. Higher onshore output lifted crude oil production by 170 kb/d to 9.64 kb/d, the highest since May 1971. Lower 48 onshore output gained 340 kb/d m-o-m, propelling production in Texas (+206 kb/d), New Mexico (+24 kb/d) and Colorado (+6 kb/d) to record highs. Strong gains were also recorded in North Dakota (+83 kb/d) and Oklahoma (+24 kb/d) while offshore output fell by 200 kb/d m-o-m. Production rose further in November following the recovery of Gulf of Mexico output and continued high completion rates in tight oil plays. However, Arctic temperatures across large parts of the US likely forced a temporary dip in production in late December and early January. Although companies often cut back on fracking operations during the winter due to operational issues, the impact is likely to have been greater this year due to the severe weather conditions. While record cold and freezing temperatures were seen as far south as Texas, North Dakota recorded some of the lowest temperatures in early January at around -30 F/-34.4C. In 2013, when the weather was also colder than normal, Bakken output dropped by 46 kb/d from November to December, or nearly 5% month-on-month, and took months to recover.



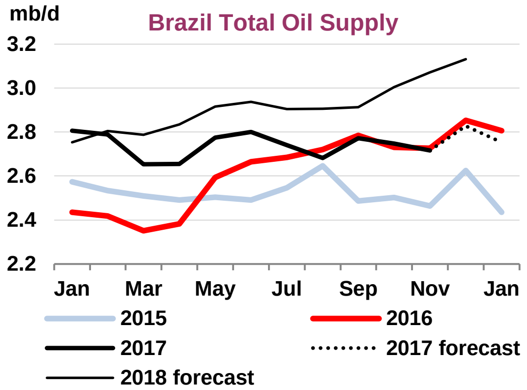


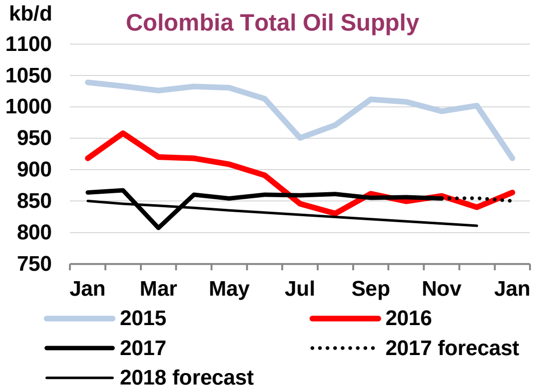
Natural gas liquids (NGLs) are smashing production records too. In October, output from gas processing plants rose by a sharp 275 kb/d m-o-m to an all-time high of 3.97 mb/d, up 420 kb/d up on a year earlier. Higher ethane production accounted for most of the gain, rising 250 kb/d m-o-m to 1.55 mb/d – the highest ever level. Improved domestic demand and infrastructure developments pushed ethane frac spreads higher over the past year, reducing the amount of ethane rejected into the natural gas stream. Three new ethane crackers are set to start up in early 2018, including ExxonMobil's Baytown, Indorama's Lake Charles and CP Chemical's Cedar Bayou plants. Our current forecast is for NGL supply to expand by 270 kb/d in 2018, to 4 mb/d, compared with gains of 215 kb/d last year.



Canadian oil production is also going from strength to strength, with supply surging 240 kb/d in November to stand just below 5 mb/d. The increase came from upgraders in Alberta, which lifted output by 150 kb/d m-o-m. The shutdown of the 590 kb/d Keystone pipeline for two weeks in November had no material impact on supplies, with un-upgraded bitumen output rising 105 kb/d m-o-m to nearly 1.8 mb/d. Offshore output averaged 230 kb/d compared with 217 kb/d in October, as Exxon's 150 kb/d Hebron field reporting first oil. The majority of Canada's supply growth this year, estimated at 280 kb/d, will come from Hebron and Suncor's 194 kb/d Fort Hills oil sands mining project, set to start up in January.

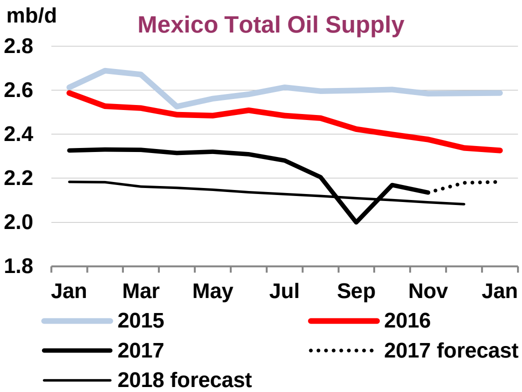
Substantial gains are expected from **Brazil** this year, where supply is forecast to rise by 170 kb/d compared with 135 kb/d in 2017. During November, production dropped by 30 kb/d m-o-m to 2.72 mb/d. A 30 kb/d monthly increase in production at the Lula field, which reached yet another record high of 840 kb/d was offset by a drop in output from the Marlim fields. Total production was 9 kb/d lower than a year earlier, as output from the mature Campos Basin declined 206 kb/d y-o-y (14%), offsetting a 208 kb/d annual increase in output from the Santos Basin. Onshore production dropped by 23 kb/d, or 17%, year-on-year. Brazilian production hit another setback in January, when one of the floating production, storage and offloading vessels operating at the Lula field caught fire. The 150 kb/d unit was shut down on 16 January and at the time of writing the extent of the damage was still unknown.





In neighbouring **Colombia**, output is also expected to post a marginal decline in 2018. After recording sharp declines of 126 kb/d (12.5%) in 2016, output largely stabilised during 2017 (-29 kb/d) as companies hiked spending and increased drilling activity. Oil production held steady at around 850 kb/d in November to stand marginally above year earlier levels. Ecopetrol announced in late November that it expected to invest between $3.5 billion and $4 billion this year, an increase of up to 55% from its projected investment at year-end 2017.

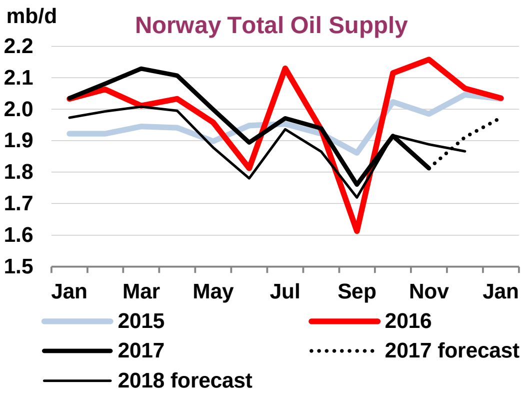
By contrast, **Mexican** oil production is heading for another year of decline in 2018, with supply forecast to drop by 130 kb/d. Production, including NGLS, was just over 2.1 mb/d in November, 240 kb/d lower than the previous year. Mexico had pledged to reduce output by 100 kb/d as part of the coordinated cuts but has seen output decline by 230 kb/d over the past 13 months due to natural declines.

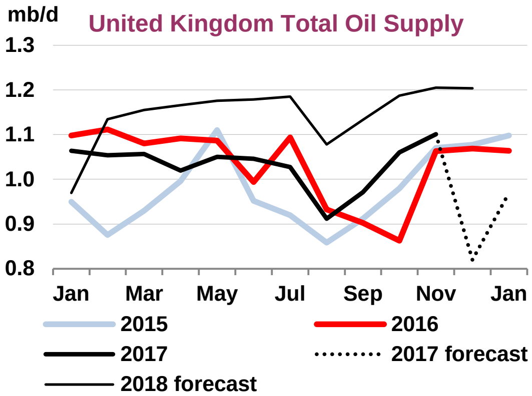


Declines are also expected in **Norway**, with production forecast to fall by 50 kb/d in 2018. Oil output dropped by 102 kb/d m-o-m in November, to 1.8 mb/d, a slightly bigger decline than forecast in last month's *Report*. The largest drop stemmed from the Goliat field, which was closed for the entire month, and from the Gina Krog and the Draugen fields, which saw lower than expected production rates. For October, final data show production 14 kb/d higher than preliminary estimates published by the Norwegian Petroleum Directorate (NPD).

The outlook is far more positive further out. In December, the Ministry of Petroleum and Energy received Plans for Development and Operations for seven new offshore projects, taking the year's total to 11 - more than in any other country. First out was Statoil's Johan Castberg project, valued at NOK 49 billion ($6.2 billion). AkerBP followed by submitting plans for Aerfugl, Valhall West Flank and Skogul, while Repsol's Yme New Development, VNG's Fenja, and Statoil's Snorre Expansion project came just thereafter. The latest projects have an estimated value of more than NOK 100 billion ($12.5 billion) in greenfield capex, taking the year total to $18 billion, the highest in the world ahead of the US and Mozambique. These new projects, along with those already in the pipeline (most notably Johan

Sverdrup), are expected to provide a significant boost to production in the medium term. Indeed, NPD raised its expectation for 2021 production by more than 200 kb/d over the past year. It now sees output expanding by 330 kb/d by 2022 from an estimated 1.96 mb/d in 2017.

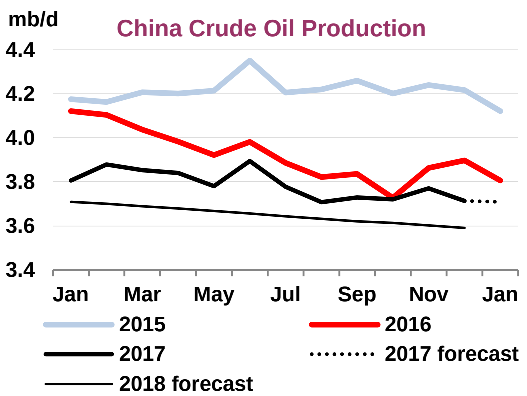


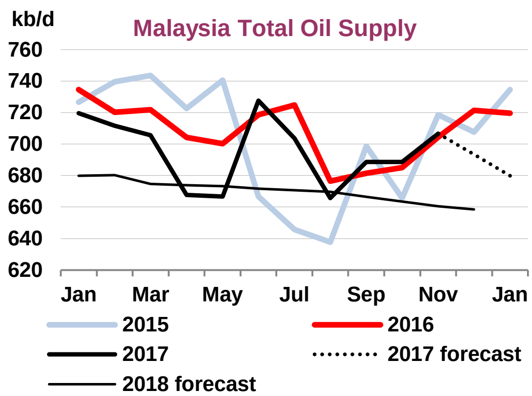


For this year, however, there is also positive news for the North Sea. **UK** output is expected to expand by 130 kb/d to reach 1.15 mb/d. Production fell sharply in December due to the closure of the Forties Pipeline System after rising to a near two year high in November of 1.1 mb/d. The pipeline, which was offline for repairs for nearly three weeks from 11 December, normally pumps around 450 kb/d of crude oil from more than 80 fields, including the two largest producers in the UK, Buzzard and Forties.

Turning to Asia, **China**'s crude production is expected to drop by a further 140 kb/d this year following declines of 290 kb/d in 2016 and 140 kb/d in 2017. Supply dropped by 60 kb/d in December, to an estimated 3.7 mb/d based on an average conversion rate from tons to barrels of 7.2. After having seen decline rates ease over recent months, December output was 185 kb/d lower than a year ago.

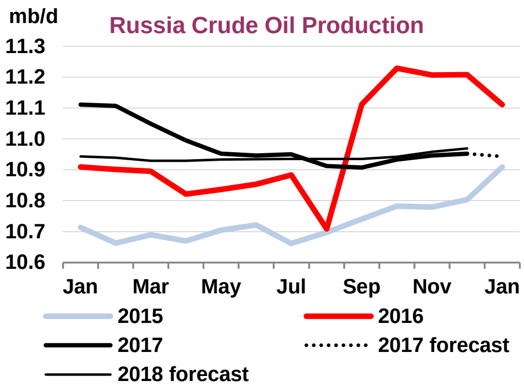
While the publication of field level data has been suspended by *China Oil, Gas and Petrochemicals* since June 2016, province-level output figures released by the National Bureau of Statistics through November suggest that output at Daqing (Heilongjiang province), declined by nearly 6% during 2017 to around 680 kb/d in November. Daqing, China's largest oil field, produced more than 800 kb/d at the start of 2014. After falling precipitously at the start of 2015 due to lower prices, output from Shengli (Shandong) seem to have stabilised at around 425 kb/d last year. Production from the Shaanxi province, home to the Yanchang and Changqing oil fields, marginally improved to around 700 kb/d. Output from the Tianjin and Guandong provinces, which primarily account for offshore production in the Bohai Bay and South China Sea, respectively, have seen declines of roughly 50 kb/d.





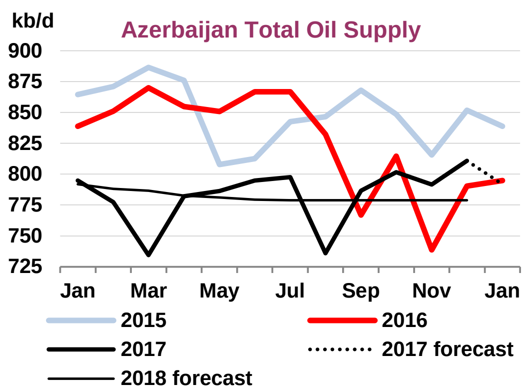
Elsewhere in Asia, **Malaysian** oil production rose to 707 kb/d in November, up 18 kb/d m-o-m to stand close to year-earlier levels. Output was 22 kb/d higher than in October 2016, compared with a pledged output cut of 20 kb/d. **Indian** oil production fell by 15 kb/d in November, to 845 kb/d, while **Vietnam**'s crude oil output was estimated by the government to have dropped by 11 kb/d in December to just over 260 kb/d.

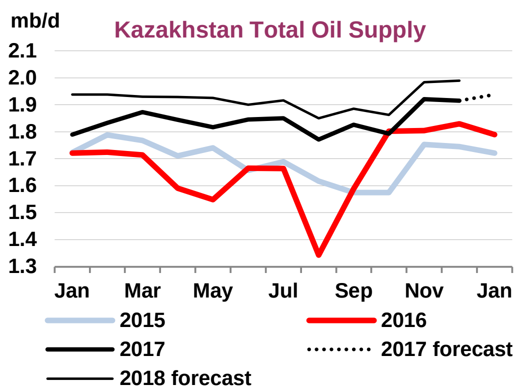
Crude and condensate output in **Russia,** which has led global supply cuts with Saudi Arabia, inched up in December to 10.95 mb/d, down 255 kb/d on a year ago. It agreed to cut output by 300 kb/d from October 2016, when its output hit a peak, yet production for the whole of 2017 stood slightly higher than year earlier levels. Russian Energy Minister Alexander Novak has said that 2018 oil production is expected to remain around 2017 levels if the cuts last until the end of the year as agreed.



Some companies are starting to plan an exit strategy from the cuts, however. The head of Lukoil, Vagit Alekperov, told reporters in January that if the oil price holds at $70/bbl a smooth exit from the production cut agreement could be started. Lukoil plans to maintain investments at a steady level in 2018, spending around 550 billion rubles ($9.7 billion). More than 80% of this will be allocated to projects in Russia. Lukoil's domestic oil output averaged 1.64 kb/d during 2017, 20 kb/d less than in the previous year.

Azeri oil output edged up to 810 kb/d in December, the highest level in 2017. Azerbaijan pledged to cut output by 35 kb/d. Production is expected to decline marginally in 2018 as output from with lower output from the Azeri-Chirag-Gunashli complex partially offset by increased condensate volumes from Shah Deniz as the second phase of the project nears completion.





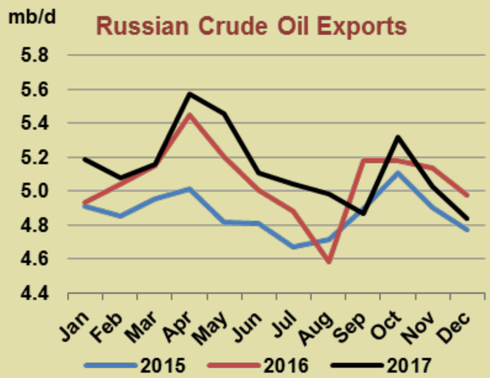
Kazakhstan's crude and condensate production in December was nearly 1.9 mb/d, a touch down on November. For Kashagan, November and December output was 211 kb/d and 230 kb/d respectively. For the year as a whole, production in Kazakhstan was estimated at 1.84 mb/d. Preliminary schedules for January suggest output at Kashagan rose at the start of the year, with shipments up 20% m-o-m to 270 kb/d. A drop in loadings from Karachagank provided a partial offset however, while Tengiz volumes held steady at around 665 kb/d. Total Kazakh oil production is expected to average 1.96 mb/d in 2018.

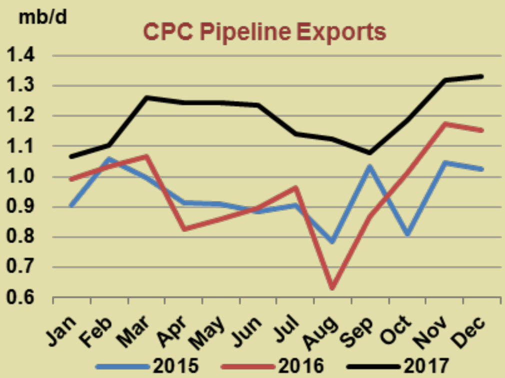
2017 FSU exports up despite output curbs

A boost in Kazakhstan's output pushed up exports from the former Soviet Union (FSU) by 230 kb/d last year despite its participation in the OPEC/non-OPEC pact to cut production. A steady ramp up of the Kashagan field raised shipments along the CPC pipeline to the Black Sea port of Novorossiysk by 25%. Further increases are expected this year as Kashagan production climbs towards capacity of 370 kb/d from 250 kb/d at the end of 2017.

2017 FSU exports up despite output curbs (Continued)

Total FSU crude exports were running at 6.92 mb/d by December, the same as the previous year, but the headline number masks a sharp drop in shipments from Russia. After scaling record highs in April 2017, Russian exports were 280 kb/d lower y-o-y in December at 4.45 mb/d. Despite this decline, for the year as a whole Russian crude exports (including those to other FSU countries) were up 2%, or 77 kb/d, versus 2016. However, the extra volumes are likely to have been drawn from stocks since production and refinery throughputs were steady year-on-year.





During 2017, Russia increasingly tilted exports eastward and this trend is set to become even more pronounced this year as Rosneft raises supplies by 60% (to 600 kb/d) to China National Petroleum Corp. This will lead to further reductions of shipments along the Transneft pipeline system and from the Baltic Sea ports. Exports of crude to Germany and Poland via the Druzhba pipeline fell during 2017, and this is expected to continue this year as Polish refiners diversify away from Urals crude oil.

FSU total oil product exports were marginally lower during 2017, mostly due to a continued drop in fuel oil exports. Fuel oil production has been on a declining trend since the "tax manoeuvre" was introduced in 2015 to discourage exports of fuel oil and this is expected to continue. Gasoil and diesel exports were also down in 2017 (-2% January to November) but are set to increase this year as Tatneft's Taneco refinery expansion comes on stream.

FSU Net Exports of Crude & Petroleum Products

(million barrels per day)

	2016	2017[4]	4Q2016	1Q2017	2Q2017	3Q2017	4Q2017	Sep 17	Oct 17	Nov 17	Dec 17	Latest month vs Month-1	Year-1
Crude													
Black Sea	1.68	1.89	1.77	1.80	2.00	1.75	2.02	1.67	1.91	2.17	1.96	-0.20	0.19
Baltic	1.62	1.54	1.69	1.67	1.60	1.42	1.46	1.56	1.64	1.40	1.34	-0.06	-0.29
Arctic/FarEast	1.60	1.65	1.70	1.66	1.74	1.57	1.65	1.36	1.67	1.64	1.63	-0.01	-0.05
BTC	0.67	0.70	0.61	0.67	0.70	0.73	0.71	0.70	0.63	0.79	0.70	-0.09	0.12
Crude Seaborne	**5.56**	**5.79**	**5.77**	**5.80**	**6.04**	**5.48**	**5.83**	**5.29**	**5.86**	**6.00**	**5.63**	**-0.37**	**-0.03**
Druzhba Pipeline	1.07	1.01	1.10	0.99	0.99	1.04	1.02	1.13	1.08	0.98	1.00	0.01	-0.09
Other Routes	0.19	0.26	0.20	0.23	0.28	0.25	0.29	0.25	0.30	0.29	0.29	0.01	0.11
Total Crude Exports	**6.83**	**7.06**	**7.07**	**7.02**	**7.31**	**6.77**	**7.14**	**6.67**	**7.24**	**7.27**	**6.92**	**-0.35**	**0.00**
of which: Transneft[1]	4.39	4.31	4.45	4.34	4.42	4.21	4.28	4.26	4.57	4.30	3.98	-0.32	-0.34
of which: Russian crude[2]	4.70	4.77	4.86	4.82	4.98	4.61	4.70	4.53	4.99	4.65	4.45	-0.20	-0.28
Products													
Fuel oil[3]	1.41	1.36	1.42	1.53	1.40	1.21	1.25	1.14	1.23	1.27		0.05	-0.21
of which: VGO	0.33	0.32	0.36	0.36	0.31	0.29	0.32	0.30	0.32	0.32		0.00	-0.03
Gasoil	0.98	0.96	0.88	1.12	1.02	0.83	0.79	0.80	0.75	0.84		0.09	-0.10
Other Products	0.72	0.75	0.69	0.77	0.78	0.71	0.73	0.73	0.66	0.81		0.14	0.10
Total Product	**3.10**	**3.06**	**2.99**	**3.43**	**3.20**	**2.75**	**2.78**	**2.66**	**2.64**	**2.92**		**0.28**	**-0.21**
Total Exports	**9.93**	**10.14**	**10.06**	**10.45**	**10.51**	**9.52**	**10.03**	**9.33**	**9.88**	**10.19**		**0.30**	**0.00**
Imports	0.07	0.07	0.07	0.07	0.08	0.07	0.04	0.07	0.07	0.00		-0.07	-0.07
Net Exports	**9.87**	**10.07**	**9.98**	**10.38**	**10.43**	**9.45**	**10.00**	**9.26**	**9.81**	**10.18**		**0.38**	**0.07**

Source: Argus Media Ltd, IEA Estimates, Bloomberg, Lloys's List Intelligence, Ministry of Energy of the Russian Federation

[1]Transneft data exclude Russian CPC volumes.

[2]Excludes Russian exports to Belarus, Kyrgyzstan and Uzbekistan

[3]Includes Vacuum Gas Oil

[4]January to November average for products

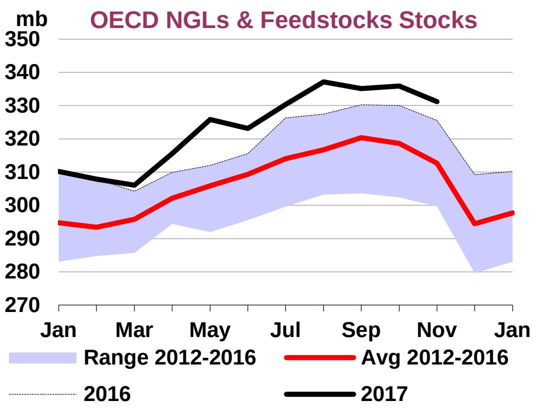
STOCKS

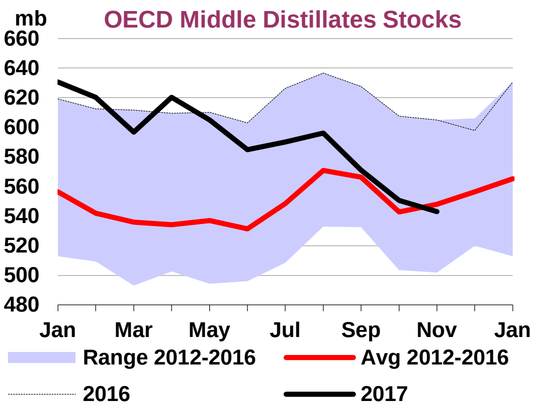
Summary

OECD commercial stocks declined for the fourth straight month in November and, based on preliminary data, fell even more sharply in December, confirming the global oil deficit shown in our balances for 2017. In November, OECD commercial stocks drew by 17.9 mb (600 kb/d) to 2 910 mb. The fall was, just as in October, twice as large as the five-year average draw for the month. Taking into account adjustments in Australia, Belgium and Sweden made at the start of 2017, OECD inventories stood 90 mb above the five-year average, down from 98 mb in October and a peak of 366 mb in July 2016. Stocks covered 61.3 days of forward demand, their lowest level since June 2015. Middle distillates once again led stock falls owing to steady exports from the US to Latin America linked to refinery production issues, and higher demand in the OECD. Middle distillate stocks fell 7.6 mb month-on-month in November with a counter-seasonal fall registered in Europe and a larger-than-usual decrease in Asia Pacific. Higher demand for diesel globally has been the main reason for the decrease in this category since 2017. Middle distillate stocks stood 14 mb below the five-year average, down from an 80 mb surplus at their peak in July 2016.

Nov17 v Oct17 Stock Estimate		
	mb	mb/d
Americas Commercial	-14.9	-0.5
Asia Oceania Commercial	-5.3	-0.2
Europe Commercial	2.3	0.1
Government Stocks	-6.9	-0.2
Total OECD	**-24.8**	**-0.8**
Crude in Transit	-34.4	-1.1
Product in Transit	7.6	0.3
Fujairah (FEDCom/S&P Global Platts)	1.5	0.1
Singapore (International Enterprise)	-2.9	-0.1
China Commercial Stocks (OGP)	-10.5	-0.3
Total exc China Balance	**-63.4**	**-2.1**
China Crude Balance	16.7	0.6
Total	**-46.7**	**-1.6**

Crude stocks fell seasonally, by 1.6 mb to 1 141 mb, with gains registered in Europe (+6.4 mb) and Asia Pacific (+1.4 mb) and a large counter-seasonal draw in the Americas of 9.4 mb linked to higher refinery runs. Higher crude imports into Europe and Asia Pacific, however, meant the overall crude draw seen in the OECD during the month was less than that registered over the last five years. OECD NGL and feedstock holdings fell 4.7 mb on the month, in line with seasonal trends, to 331 mb. They remain just 5.9 mb off the historic high reached in August 2017, amid rising North American oil and gas production.





In December, oil stocks in Europe, Japan and the US are likely to have dropped by a combined 42.7 mb (1.4 mb/d), bringing OECD stocks below the 2 900 mb mark for the first time since 2015 and reducing the surplus to the five-year average to 68 mb. There was a sharp 34 mb month-on-month decline in crude stocks owing to higher refinery runs and a 24.7 mb seasonal fall in other products (largely LPG and naphtha), whereas distillate and gasoline stocks rose seasonally. Over 4Q17, OECD stocks fell 104.5 mb (1.1 mb/d), marking an acceleration from the falls seen in 3Q17 (480 kb/d) and 2Q17 (180 kb/d).

Outside the OECD, commercial stocks fell in Singapore (-2.9 mb) and China (-10.5 mb) during November, but rose in Fujairah (+1.5 mb). China's implied crude balance, measured as the difference between commercial stock builds/draws, net imports and crude production minus input into refineries, implied a net stock build of 16.7 mb (560 kb/d). Crude in transit fell 34.4 mb during the month, according to several estimates available at the time of writing, with reduced shipments from the US, the UAE and Nigeria. In December, stocks fell in Fujairah (-1.7 mb) and Singapore (-1 mb). China's crude balance, based on custom estimates, looks to have drawn 7.4 mb, while volumes of oil in transit increased.

Preliminary Industry Stock Change in November 2017 and Third Quarter 2017

	November 2017 (preliminary) (million barrels)				(million barrels per day)				Third Quarter 2017 (million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	**-9.4**	**6.4**	**1.4**	**-1.6**	**-0.31**	**0.21**	**0.05**	**-0.05**	**-0.34**	**-0.26**	**0.09**	**-0.51**
Gasoline	8.2	2.3	0.9	11.5	0.27	0.08	0.03	0.38	-0.18	-0.05	-0.02	-0.24
Middle Distillates	1.8	-4.2	-5.1	-7.6	0.06	-0.14	-0.17	-0.25	-0.15	-0.04	0.03	-0.15
Residual Fuel Oil	-1.2	-0.7	0.2	-1.7	-0.04	-0.02	0.01	-0.06	0.02	-0.06	-0.02	-0.06
Other Products	-12.1	-1.0	-0.8	-13.8	-0.40	-0.03	-0.03	-0.46	0.24	0.08	0.04	0.36
Total Products	**-3.2**	**-3.5**	**-4.8**	**-11.6**	**-0.11**	**-0.12**	**-0.16**	**-0.39**	**-0.06**	**-0.06**	**0.03**	**-0.09**
Other Oils[1]	-2.3	-0.5	-1.9	-4.7	-0.08	-0.02	-0.06	-0.16	0.15	0.00	-0.02	0.13
Total Oil	**-14.9**	**2.3**	**-5.3**	**-17.9**	**-0.50**	**0.08**	**-0.18**	**-0.60**	**-0.26**	**-0.32**	**0.10**	**-0.48**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD oil inventories were revised down by 12.2 mb for October and 8.5 mb for September as new data were received. There was a large downward revision for US crude oil stocks in both months.

Revisions versus December 2017 Oil Market Report

(million barrels)

	Americas		*Europe*		*Asia Oceania*		*OECD*	
	Sep-17	Oct-17	Sep-17	Oct-17	Sep-17	Oct-17	Sep-17	Oct-17
Crude Oil	**-7.8**	**-9.7**	**0.0**	**-1.3**	**0.0**	**2.5**	**-7.8**	**-8.5**
Gasoline	0.1	2.8	-0.1	2.0	0.0	-0.3	0.0	4.4
Middle Distillates	-1.3	-1.1	0.4	-7.2	0.0	0.7	-1.0	-7.6
Residual Fuel Oil	0.0	-0.2	-0.4	3.0	0.0	-0.1	-0.4	2.7
Other Products	-0.8	-1.8	-0.4	-2.8	0.0	0.6	-1.2	-4.0
Total Products	**-2.0**	**-0.3**	**-0.6**	**-5.0**	**0.0**	**0.8**	**-2.6**	**-4.5**
Other Oils[1]	2.2	0.9	-0.3	0.0	0.0	-0.1	1.9	0.8
Total Oil	**-7.7**	**-9.1**	**-0.9**	**-6.3**	**0.0**	**3.2**	**-8.5**	**-12.2**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

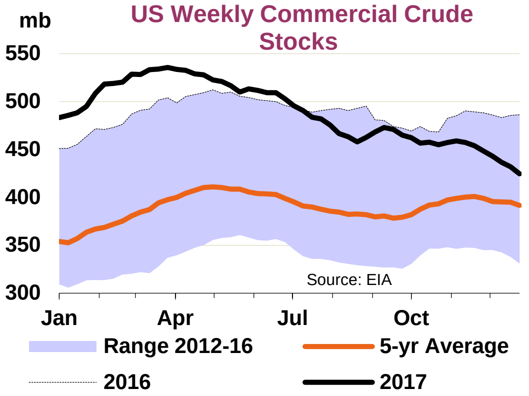
Recent OECD industry stock changes

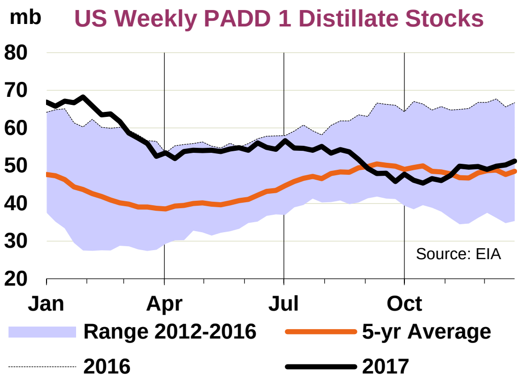
OECD Americas

Commercial stocks in the OECD Americas fell 14.9 mb in November to reach 1 527 mb, their lowest level since July 2015. Inventories stood 78 mb above the five-year average, down from 222 mb at the end of 2016 and a peak of 262 mb reached at the start of 2016. US refiners continued to run at near record levels partly in order to supply Mexico and Latin America, which suffer from ongoing refining woes.

Once again, crude represented the bulk of stock falls, dropping by 9.4 mb on the month to reach 607 mb, their lowest since September 2015. US refiners increased throughput by more than 700 kb/d on average to 16.9 mb/d. Both US crude exports and imports fell during the month. The 600 kb/d Keystone pipeline between Canada and Cushing, Oklahoma, closed for unplanned maintenance during 13-28 November and stayed at reduced rates thereafter, due to a leak. This in turn led to reduced stocks in Cushing. We estimate that, on the contrary, Canadian crude stocks increased by 3.8 mb to 116 mb as a result.

Oil product stocks declined counter-seasonally, by 3.2 mb to 724 mb. This compares with a 6.3 mb average build for the month over the last five years. This was largely due to a bigger-than-usual fall in 'other products' (largely US LPG) of 12.1 mb, to 227 mb. LPG demand increased seasonally and exports stayed high. Gasoline stockpiles climbed seasonally by 8.2 mb to 256 mb, while middle distillates built by 1.8 mb, less than the usual seasonal increase. At 1.4 mb/d on average, US distillate exports fell from October but remained high. Middle distillate stocks in the OECD Americas stood at 203 mb at end-November, close to their lowest level in 2.5 years and in line with the five-year average.

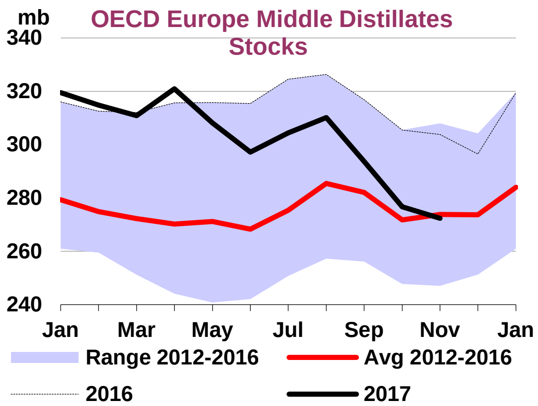


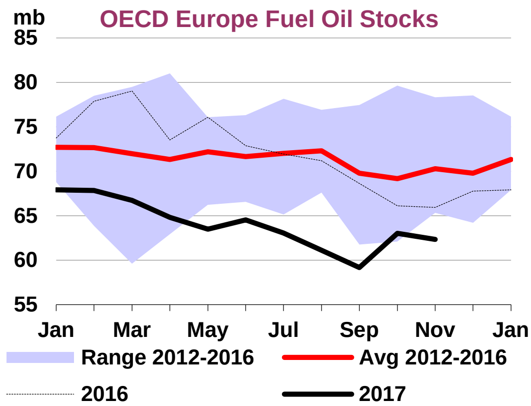


Preliminary data from the EIA for December show US oil stocks falling by a significant 26.3 mb on the month, thus continuing the downtrend started in 2Q17. Crude stocks dropped 25.9 mb as US refiners increased throughput by another 380 kb/d to 17.3 mb/d. Crude import and exports flows were relatively unchanged. Flows on the Keystone pipeline stayed below normal, likely resulting in additional stock draws in Cushing of some 7.7 mb. Crude stockpiles in the storage hub have fallen by more than 20 mb since reaching a historical high of 69.1 mb at the end of March 2017. Higher refinery runs have been the main driver of these falls, but in November-December the Keystone outage added more impetus. US oil product stocks were largely unchanged overall in December, as seasonal drawdowns in LPG and other stocks offset higher stockpiles of gasoline (+14.5 mb) and diesel (+11 mb), also for seasonal reasons. In the last few days of December and the first half of January, heating oil usage in the US Northeast increased in line with much colder temperatures.

OECD Europe

OECD Europe commercial stocks increased in November by a modest 2.3 mb to 953 mb. Taking into account the upward revision made to Belgian and Swedish baseline stock figures from January 2017, total oil stocks in the OECD Europe region stood 4 mb above the five-year average, down from 35 mb at the end of 2016 and a peak of 93 mb reached in July 2016. Outright oil stocks fell by around 38 mb between the end of December 2016 and end-November 2017, a less important decline than seen in the OECD Americas, but also a reflection of the lower surplus accumulated during 2014-2016.

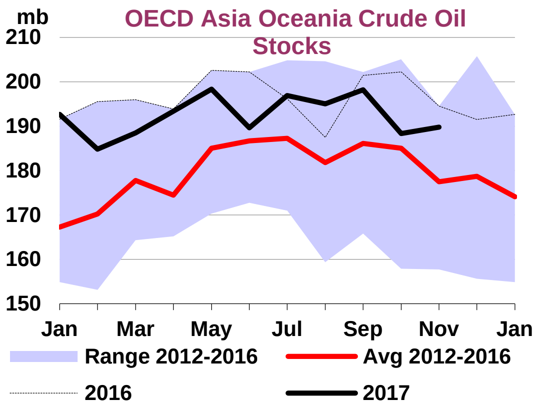


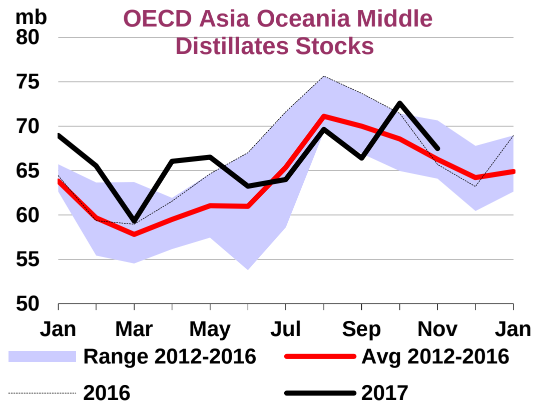


Crude stocks increased seasonally, by 6.4 mb to 344 mb, following much higher seaborne imports the previous month. Oil products stocks fell counter-seasonally by 3.5 mb, with a 4.2 mb draw in middle distillates likely related to higher end user consumption. Fuel oil stocks fell 0.7 mb to 62 mb, while gasoline stocks increased seasonally to 93 mb. Preliminary data from Euroilstock showed crude stocks falling by 5 mb in December, likely as a result of the Forties pipeline outage in the UK and lower Russian exports. Gasoline stocks rose by 1 mb, middle distillates were unchanged and fuel oil stockpiles fell further.

OECD Asia Oceania

Commercial stocks in OECD Asia Oceania fell 5.3 mb in November to reach 430 mb. While stocks typically draw in the region at this time of year due to the onset of winter and the associated increase in kerosene consumption, the fall was less steep than seen over the last five years. When taking into account the upward revision made to Australian baseline figures from January 2017, total oil stocks in OECD Asia Oceania stood 8 mb above the five-year average in November. Crude stocks increased counter-seasonally, by 1.4 mb to 190 mb, well helped by higher imports amid higher refinery runs. Data from *Vortexa*, the ship-tracking company, showed that total crude imports into Australia, Israel, Japan, Korea and New Zealand increased to 7.1 mb/d, their highest level since April 2017, during the month. Oil products stocks largely moved in line with seasonal patterns, as middle distillates drew 5.1 mb to 68 mb.



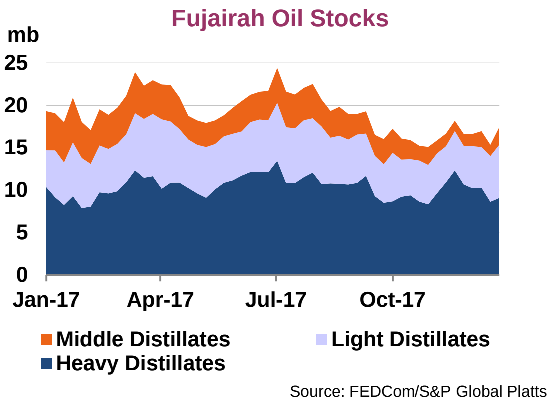


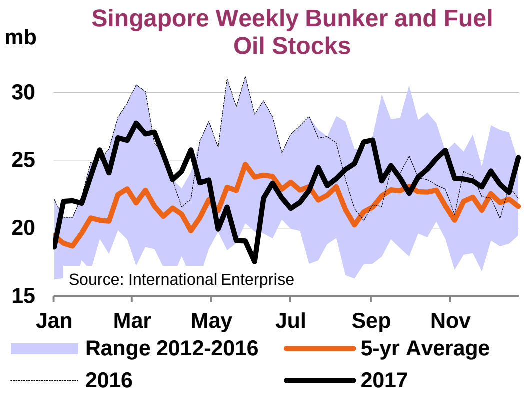
Preliminary data from the *Petroleum Association of Japan* (PAJ) show total oil stocks drawing by a further 12.4 mb in December, thanks to lower stocks of kerosene (-3.1 mb), naphtha (-1.8 mb), fuel oil (-1.1 mb), gasoline (-0.6 mb) and crude (-3.2 mb). The draw was larger than the five-year average decrease. At 3.1 mb, the draw in kerosene was also the largest seen at this time of year since 2014, owing to cold temperatures.

Other stock developments

Stockpiles in the 26 non-OECD countries covered by the JODI database (Angola, Chinese Taipei, Argentina, Philippines, Hong Kong, Croatia, Bahrain, Romania, Jamaica, Iraq, Bulgaria, Malta, Slovenia, Brunei, Nicaragua, Tunisia, Papua New Guinea, Lithuania, Cyprus, Ecuador, Saudi Arabia, Brazil, Algeria, Qatar, India, Nigeria) gained 15.5 mb month-on-month in October. The largest builds were seen in Nigeria (+8.8 mb), India (+5.6 mb), Qatar (+4.3 mb) and Algeria (+4 mb). The figure for Nigeria marked a sharp rebound and was surprising as production and exports were both seen as stable during the month. It probably reflected a data correction. Saudi Arabia's crude stocks increased 2.7 mb, the first build seen since March 2017, whereas oil products fell 2.2 mb.

Data from *China Oil, Gas and Petrochemicals* (China OGP) covering Chinese oil majors show that commercial stocks fell 10.5 mb during November to an estimated 334 mb. There were draws recorded for gasoil (-7.7 mb) during the high demand season and crude oil (-5.9 mb), whereas gasoline (+2.7 mb) and kerosene stocks (+0.4 mb) increased. Crude imports recovered from 7.3 mb/d in October to 9 mb/d in November. Even with higher refinery throughputs, this resulted in net crude builds (once data for commercial stocks from *China OGP* is taken into account) of around 16.7 mb, or 560 kb/d, during the month. This remains sharply lower than in February-July 2017 when implied net builds were 800 kb/d or more each month.



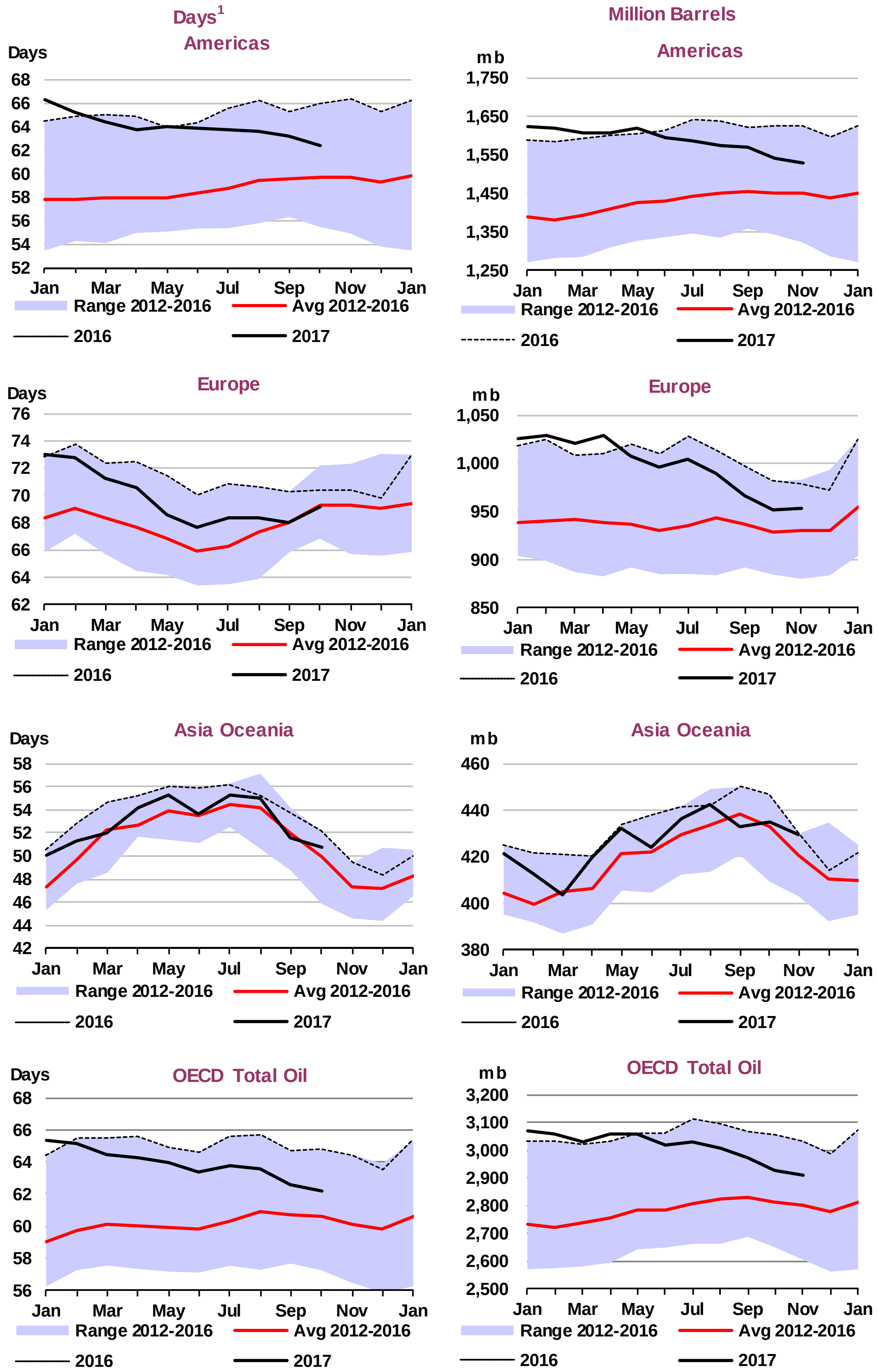


In other developments, China's National Bureau of Statistics said that the strategic petroleum reserve stood at 274 mb at the end of June 2017, up 33 mb (90 kb/d) from end-June 2016. This marks a slowdown in the rate of growth compared with the 2015-2016 period, as the majority of Phase 2 SPR sites are now full. The significant net crude builds seen in 1H17 imply that substantial volumes of crude have gone either into reserves held by commercial operators that can be drawn upon in case of emergency or into stockpiles held by independent refiners.

Oil inventories in Fujairah drew 1.7 mb in December to 15.6 mb, their lowest level since figures were first published in January 2017. Fuel oil and bunker fuel stocks declined 2.6 mb to 8.9 mb. Singaporean stocks fell 1 mb to 45.1 mb, as bunker and fuel oil stocks declined 2.2 mb.

Regional OECD End-of-Month Industry Stocks

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

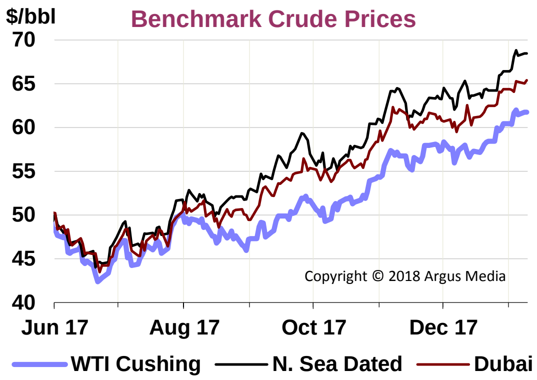


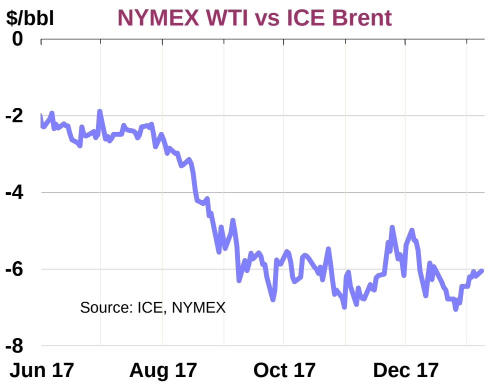
1 Days of forward demand are based on average demand over the next three months

PRICES

Summary

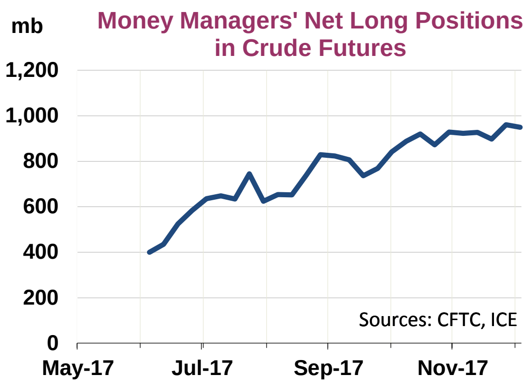
Outright crude oil prices climbed to a three-year high in early January, reflecting ongoing geopolitical tensions and steady crude and oil product stock falls globally. Net long positions held by money managers in crude futures broke a new historical record at the end of December. However, builds have been more moderate than in November, suggesting that, unless fresh fundamental factors push prices up over the next few weeks, they could go into reverse. Physical crude markets mostly failed to catch up with higher futures prices during December. North Sea, Urals and West African crude followed Brent futures higher, but elsewhere markets were almost flat. Oil products lagged crude for the second straight month, leading to worsening refining margins globally. Diesel was a notable exception, as below freezing temperatures in North America supported demand and prices.

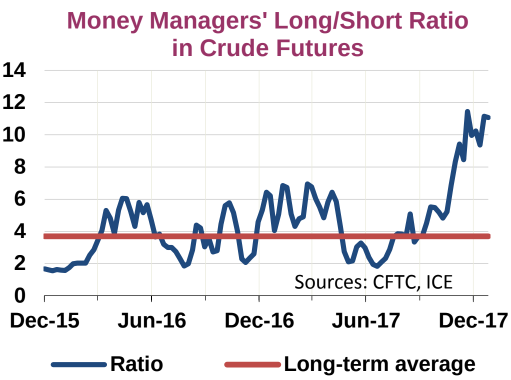




Futures markets

Front-month ICE Brent crude futures rose for the sixth straight month in December, by $1.22/bbl to $64.09/bbl. In early January, they made further gains and were $69.25/bbl at the time of writing, close to their highest level in three years. Further evidence that the global oil market is in deficit, with oil stock falls seen in several countries, helped to support prices. Demonstrations in Iran were also widely cited as a reason for the price rise in late December and early January. However, they did not affect crude production and, when they stopped, the headline price stayed unchanged. The most recent move up in prices has taken place against a background of rising tensions in the Middle East, suggesting that geopolitical risks factor into current prices. There have been supply disruptions too in December, such as in Libya and the North Sea, following the closure of the Forties pipeline system. Brent prices have moved up $20/bbl since OPEC decided to cut production at the end of November 2016.





Money managers built net long positions in crude futures to a new historic high in December, amid rising prices. They amounted to 950 mb at the start of January, up from 923 mb at the beginning of December. However, the rate of increase seen in the last few weeks was not as rapid as in October and November, when net long positions regularly rose by 50 mb or more every week. This suggests that, unless fresh fundamental factors push prices up over the next few weeks, net long builds may go into reverse. Brent accounted for around 60% of all net long positions held by money managers at end December, versus 40% for WTI. In parallel, net short positions held by swap dealers rose to 214 mb at the start of January, their highest level ever. This means that hedging activity by producers has been on the rise.

The backwardation of the Month 1-Month 2 ICE Brent futures spread increased sharply in mid-December as the Forties pipeline system closed for emergency repairs. It rose to $0.69/bbl on 11 December, before easing in the second half of the month. Forties crude is the cheapest of the grades included in North Sea Dated and has a big influence on the spot benchmark and associated Brent futures. Further out on the curve, spreads strengthened by around $0.10-15/bbl as the outright oil price increased. The Brent curve is in full backwardation until April 2019.

Prompt Month Oil Futures Prices

(monthly and weekly averages, $/bbl)

	Oct	Nov	Dec	Dec-Nov Avg Chg	% Chg	Week Commencing: 11 Dec	18 Dec	25 Dec	01 Jan	08 Jan
NYMEX										
Light Sweet Crude Oil	51.59	56.66	57.95	1.29	2.3	57.21	57.91	59.97	61.36	63.27
RBOB	69.19	74.49	72.26	-2.23	-3.0	70.53	72.36	75.29	75.11	76.84
ULSD	75.55	80.67	81.85	1.18	1.5	80.66	81.72	86.17	86.96	86.97
ULSD ($/mmbtu)	13.33	14.23	14.43	0.21	1.5	14.23	14.41	15.20	15.34	15.34
Henry Hub Natural Gas ($/mmbtu)	2.91	3.06	2.78	-0.28	-9.3	2.70	2.67	2.81	2.94	2.99
ICE										
Brent	57.65	62.87	64.09	1.22	1.9	63.40	64.38	66.76	67.52	68.99
Gasoil	71.55	75.18	76.68	1.50	2.0	76.05	76.92	80.23	81.07	81.69
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-6.06	-6.21	-6.14	0.07		-6.19	-6.47	-6.79	-6.16	-5.72
NYMEX ULSD - WTI	23.96	24.01	23.90	-0.11		23.45	23.81	26.20	25.60	23.70
NYMEX RBOB - WTI	17.60	17.83	14.31	-3.52		13.32	14.45	15.32	13.75	13.57
NYMEX 3-2-1 Crack (RBOB)	19.72	19.89	17.51	-2.39		16.70	17.57	18.94	17.70	16.95
NYMEX ULSD - Natural Gas ($/mmbtu)	10.41	11.17	11.66	0.49		11.52	11.75	12.38	12.40	12.35
ICE Gasoil - ICE Brent	13.90	12.31	12.59	0.28		12.65	12.54	13.47	13.55	12.70

Source: ICE, NYMEX.

The Brent-WTI futures spread widened from around $6/bbl at the end of November to $6.75/bbl at the end of December, as the Forties pipeline outage more than offset falling stock levels in Cushing, Oklahoma. The Brent-Dubai Exchange of Futures for Physical (EFP) spread stayed roughly unchanged above $3/bbl, making cargo exports from the Atlantic Basin to Asia less economic. The EFP traded below $2/bbl for large parts of 2017 and even fell below $1/bbl during April-July, but sluggish demand for fuel oil and reduced imports from Asian refiners in 4Q17 widened the spread once again.

In oil products, the Month 1-Month 2 ICE low sulphur gasoil futures spread moved to a shallow contango with plentiful supplies in Europe and a scheduled rise in Russian diesel exports at the start of 2018. The NYMEX diesel futures curve rose sharply at the end of December as heating oil demand increased due to below freezing temperatures in the US Northeast. It was $0.44/bbl on 9 January, still in backwardation but down from $1.06/bbl on 3 January.

Spot crude oil prices

Global crude prices rose for the sixth straight month in December, but the gains were largely centered on the North Sea, West African and Urals markets due to a three-week Forties pipeline outage, a pipeline explosion in Libya and lower Russian crude exports that reduced supplies in the Atlantic Basin. North American heavy grades weakened and Canadian crude remained at deep discounts to WTI owing to a lack of takeaway pipeline capacity to the US.

Spot crude oil prices and differentials

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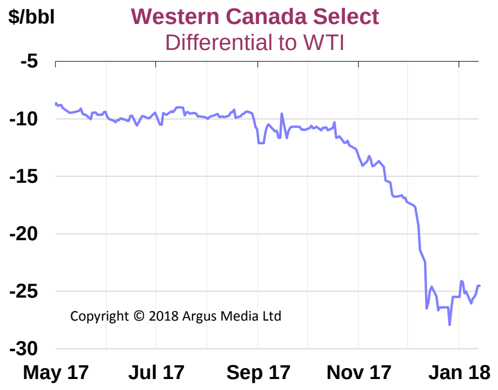
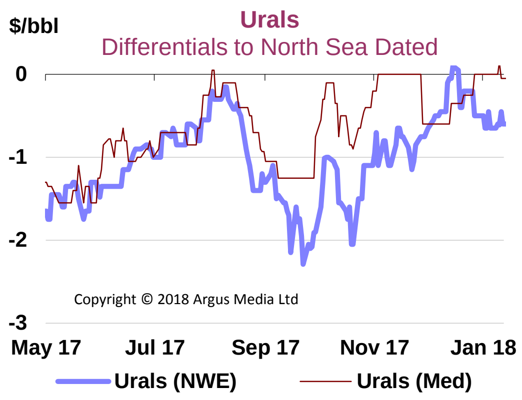
North American crude prices gained in tandem with the crude complex, however most grades lagged behind Brent and other international oil benchmarks. Light Louisiana Sweet loading in the Gulf Coast averaged $63.32/bbl during the month, up $0.93/bbl. Heavy grades such as Mars, Poseidon and Maya fared less well, increasing by a smaller $0.43-0.86/bbl on month. West Canadian Select delivered at Canada’s Hardisty terminal remained under significant pressure, despite the partial restart of the Keystone pipeline at the end of November. It was assessed at a $30.32/bbl discount to WTI on 5 January, down from $-18.71/bbl at the start of November, as pipelines running from Canada to the US reached full capacity. A discount was seen for Bakken delivered at Clearbrook, Minnesota, which was assessed $3.24/bbl below Bakken delivered in Cushing, Oklahoma on 5 January, due to the general crude oversupply seen in Canada and PADD 2. By contrast, WTI delivered at Midland, Texas, showed the largest month-on-month gain across North America and went as high as $1.10/bbl above WTI Cushing on 22 December, due to steady export demand and the commissioning of new pipelines between the Permian and the Gulf Coast.

North Sea crude prices were buoyed in December by the unplanned shutdown of the Forties pipeline following the discovery of a hairline crack and the offshore oil fields attached to it. North Sea Dated was up $1.51/bbl on the month to $64.14/bbl and generally increased versus other global oil benchmarks. North Sea physical prices rose sharply from 7 December, reflecting lower expected cargo loadings. Pricing agency *S&P Global Platts* did not publish prices for cargoes under force majeure during the duration of the outage. The first week contract for difference (CFD) traded as much as $1/bbl above forward contracts in mid-December following the outage. The pipeline was repaired in late December and flows returned to normal in early January. *Platts* added Troll grade to the North Sea Dated benchmark at the start of the year, thus boosting the volume of crude reflected in the index by around 160 kb/d. Troll is typically more expensive than Brent, Forties, Oseberg or Ekofisk and is thus unlikely to have a sizeable influence on the benchmark for now.

West African crude prices responded higher to the North Sea and Libyan pipeline outages, rising by between $1.70-2.00/bbl on average during December. Qua Iboe and Bonny Light were both up $1.76/bbl on the month to $65.26/bbl. Differentials to North Sea Dated moved up a little. Angolan grades saw more modest gains partly due to an expected increase in availability during February. By early January, some Angolan cargoes from both the January and February loading programmes were still available – a relatively rare occurrence.





Russia's Urals prices rose more than any other global crudes in December as European refiners bought higher volumes of the grade following the Forties pipeline outage. Lower expected cargo exports in January versus December also contributed. Prices for Urals delivered in Northwest Europe averaged $63.80/bbl, up $2.04/bbl from November. They also rose against North Sea crudes, briefly trading at a premium to North Sea Dated in mid-December, and versus Urals delivered in the Mediterranean. Urals prices weakened in relative terms in late December and early January as the Forties pipeline progressively returned to normal operations. CPC crude briefly traded below North Sea Dated in mid-December with plentiful production, but it returned to a premium of $0.25/bbl by early January.

Middle Eastern Dubai crude rose only modestly in December as the approach of spring refinery turnarounds in the region reduced demand for crude. Dubai rose $0.80/bbl on the month to $61.61/bbl, and the Brent-Dubai futures spread continued to widen. The Forties pipeline outage helped to support certain crude differentials, such as Al Shaheen, Murban and Qatar Marine. Iraq's Basrah Light and Heavy crude grades eased further as Iraq continued to ramp up exports via its southern ports.

Spot product prices

Oil product prices saw mixed fortunes in December, as clean products such as diesel, jet fuel and naphtha rose thanks to higher demand, whereas gasoline and fuel oil fell. Overall, products failed to follow crude higher for the second straight month, which led to worsening margins for refiners.

Middle distillate prices increased in line with crude in all regions, showing stronger gains than other products. Colder temperatures in the northern hemisphere, including in Canada and the US, boosted end-user demand. US Gulf Coast diesel pipeline prices rose $0.76/bbl to $78.37/bbl, Rotterdam diesel barges increased $1.21/bbl to $76.56/bbl and Singapore 500 ppm gasoil cargoes gained $2.13/bbl to $75.27/bbl. Heating oil prices rose sharply in the US Northeast as below freezing temperatures took hold. This incentivised higher product flows from the Gulf Coast and briefly opened an arbitrage window for diesel shipped from Europe. Diesel exports from the US to Europe stayed close to the minimum guaranteed under long-term contracts in December, as US traders prioritised supplies to Latin America. Europe was also seen exporting diesel to Latin America.

By contrast, Russia will ramp up diesel exports from its northern port of Primorsk by 1.5 mb to around 11 mb in January following the commissioning of a new pipeline. Rotterdam diesel barges traded below

ICE gasoil futures from mid-December onwards, partly reflecting the inability to ship products from Amsterdam-Rotterdam-Antwerp to Germany due to the closure of parts of the Rhine linked to floods. The situation improved on 9-10 January. In Asia, diesel and gasoil prices stayed firm due to strong demand for imports in East Africa, Pakistan and Vietnam. *Platts* modified the specification reflected in its Asian gasoil benchmark from 500 ppm to ultra low sulfur diesel at the start of January.

Spot product prices

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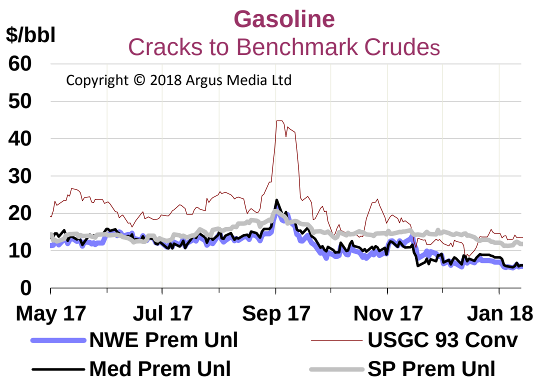
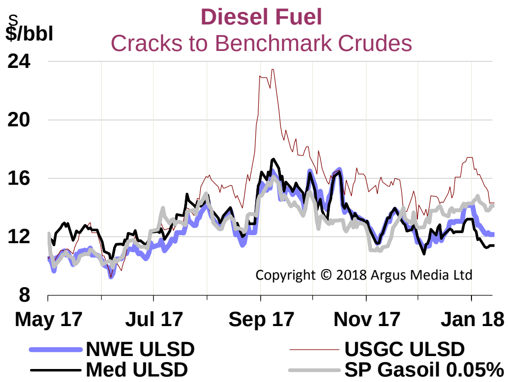
Gasoline prices fell sharply across all the key pricing centres as a result of lower seasonal demand and below freezing temperatures in North America, the world's biggest gasoline market, which hampered transportation. Gasoline fell against a background of rising crude prices. Premium unleaded gasoline barge prices averaged $71.19/bbl in December, down $2.16/bbl on the month, while US Gulf unleaded pipeline prices were down $2.27/bbl to $71.43/bbl. Demand rose in Nigeria, Africa's largest consumer, but this was not enough to bolster prices.

Naphtha prices, by contrast, rose once again during the month, even if price gains were more limited than in recent months. Asian petrochemical factories, which have ramped up naphtha imports in 4Q17, remained significant buyers, with around 18 mb set to arrive in Asia from the West in January, up from 12 mb in December. LPG prices remained high due to increased demand for heating and were not a viable alternative. In the second half of December and in early January, prices came off. South Korea's petrochemical company Hanwha was able to replace a cargo of condensate lost to a collision with a bulk tanker at sea at relatively cheap differentials. Singapore naphtha cargoes changed hands at a $1.28/bbl premium to swaps in early January, down from a seven-month high of $1.56/bbl in mid-December.

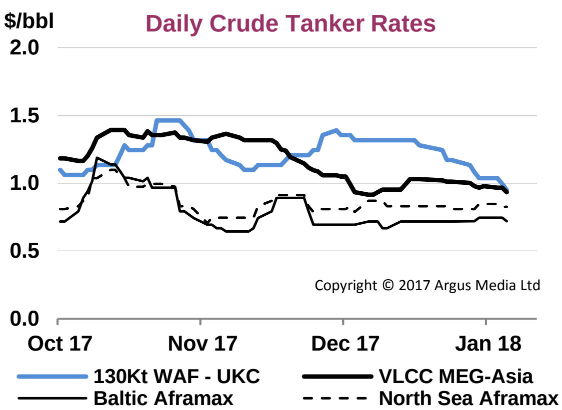


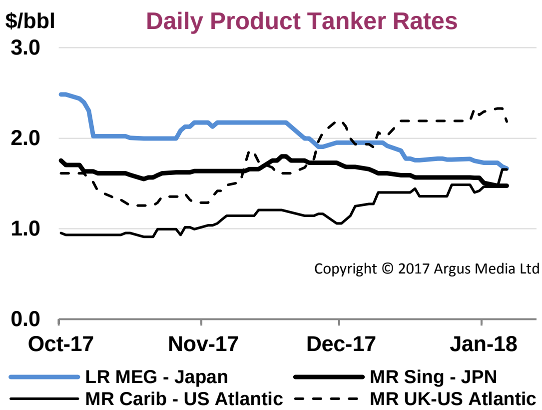


Fuel oil prices declined, weighed by reduced demand in Asian bunker fuel hubs and strong imports. Singapore 380 centistoke high sulphur fuel oil cargoes were $57.11/bbl, down $0.48/bbl on the month. Cargo arrivals into East Asia were at their highest in several months during December and bunker fuel demand touched a seasonal low. Ample availability of product meant the arbitrage window between Europe and East Asia closed at the start of January. Falling imports into Pakistan also reduced the viscosity spread between higher quality 180 centistoke cargoes and lower quality 380 cst material.

Freight

Freight for **VLCCs** on the Middle East Gulf (MEG) to Asia route fell from $1.27/bbl in November to $0.99/bbl in December, thus reaching its lowest level since September. Lower exports from OPEC countries have reduced demand for such vessels. **Suezmax** rates on the West Africa to Northwest Europe route rose a touch with higher cargo exports from the region. The Forties pipeline outage also helped to boost demand, however freight price increases remained moderate. **Aframax** rates in Northwest Europe eased, with a plentiful supply of tankers.



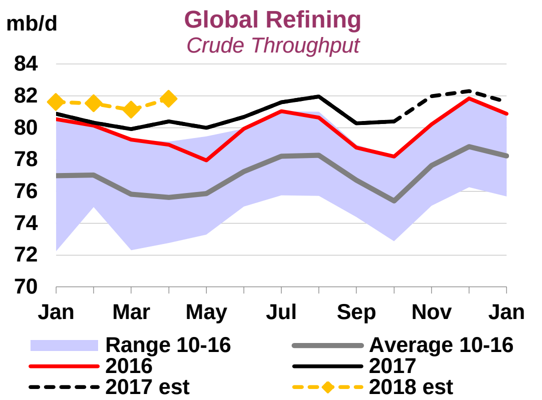


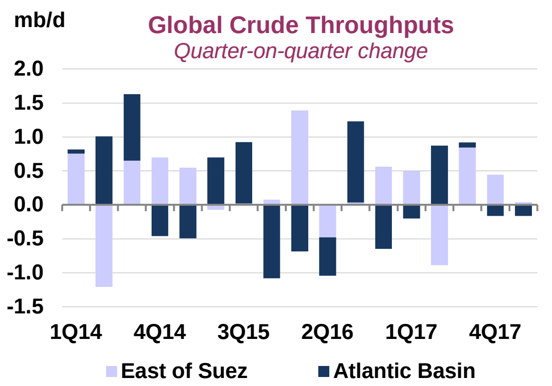
Clean product freight on the UK Continent-US Atlantic Coast route rose with higher demand from West Africa. It was boosted in late December by growing import demand for heating oil linked to cold weather in the US. The rate averaged $2.11/bbl, up from $1.59/bbl in November. **East of Suez**, the Long Range MEG-Japan rate fell $0.26/bbl to $1.87/bbl with planned refinery maintenance in the Middle East over the next few weeks.

REFINING

Summary

Instead of seeing the usual seasonal slowdown, global refining throughput in 4Q17 surged to a new record high of 81.5 mb/d, posting the largest year-on-year growth since 3Q15. December throughput, likely to finalise as the highest month yet, was up 2 mb/d from September. Throughput growth came from three major sources: the US, China and India. In the US, refinery intake recovered from 3Q17 outages, returning to above 17 mb/d in December. Throughput dropped elsewhere in the Atlantic Basin in 4Q17, with all net growth in global refinery runs coming from East of Suez. Chinese throughput hit a new record in November, with monthly rates just under 12 mb/d as new refining capacity ramped up. December runs recorded an expected slowdown to 11.5 mb/d. India increased runs to a quarterly record of over 5 mb/d.





Record refining rates did not go unnoticed by the market and crude oil futures rallied in 4Q17 (See *Global crude oil and product balances*). For the same reason, refining margins continuously softened throughout the quarter, as December indicators hit the lowest in more than a year in Europe and the US, with our implied product balances showing a build in 4Q17.

In 1Q18, refinery intake is forecast to drop some 0.1 mb/d on maintenance works. Still, product markets are seen building stocks at comfortable levels ahead of the peak summer demand season.

Global Refinery Crude Throughput[1]

(million barrels per day)

	3Q17	Oct 17	Nov 17	Dec 17	4Q17	2017	Jan 18	Feb 18	Mar 18	1Q18	Apr 18
Americas	**19.2**	18.6	19.3	19.9	**19.3**	**19.3**	19.6	19.5	19.5	**19.6**	20.0
Europe	**12.6**	12.3	12.3	12.3	**12.3**	**12.2**	12.1	11.9	11.9	**12.0**	12.3
Asia Oceania	**7.0**	6.8	7.2	7.3	**7.1**	**7.0**	7.4	7.3	7.2	**7.3**	7.0
Total OECD	**38.9**	37.8	38.9	39.5	**38.7**	**38.6**	39.1	38.7	38.6	**38.8**	39.2
FSU	**6.9**	6.5	7.1	7.1	**6.9**	**6.8**	6.9	7.0	6.8	**6.9**	6.8
Non-OECD Europe	**0.6**	0.6	0.6	0.6	**0.6**	**0.5**	0.6	0.6	0.6	**0.6**	0.6
China	**11.2**	11.8	12.0	11.5	**11.8**	**11.3**	11.5	11.5	11.7	**11.6**	11.7
Other Asia	**10.3**	10.2	10.4	10.3	**10.3**	**10.3**	10.4	10.4	10.3	**10.4**	10.4
Latin America	**3.8**	3.9	3.7	3.8	**3.8**	**3.8**	3.8	3.8	3.7	**3.7**	3.8
Middle East	**7.5**	7.4	7.2	7.2	**7.2**	**7.4**	7.2	7.4	7.2	**7.3**	7.1
Africa	**2.1**	2.1	2.0	2.1	**2.1**	**2.1**	2.1	2.1	2.0	**2.1**	2.1
Total Non-OECD	**42.3**	42.5	43.0	42.7	**42.7**	**42.2**	42.4	42.7	42.4	**42.5**	42.5
Total	**81.2**	80.3	81.9	82.2	**81.5**	**80.8**	81.5	81.4	81.0	**81.3**	81.7
Year-on-year change	*1.1*	*2.2*	*1.8*	*0.5*	*1.5*	*1.1*	*0.7*	*1.2*	*1.2*	*1.1*	*1.4*

[1] Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Global crude oil and products balances

Oil product markets returned to oversupply mode in 4Q17 as global refinery throughput reached a record high and refined product demand declined seasonally in the Atlantic Basin. Overall, 2017 saw the second consecutive year of refined products stocks drawdowns. Refined product inventories are expected to build in 1Q18, while LPG stocks draw seasonally to feed heating demand.

Crude Oil and Product Balances

(million barrels per day)

	2015	1Q16	2Q16	3Q16	4Q16	**2016**	1Q17	2Q17	3Q17	4Q17	**2017**	1Q18
World balance[1]	**1.5**	1.1	0.2	0.1	1.2	**0.7**	-0.1	-1.1	-0.6	-0.3	**-0.5**	0.3
Refined product balance	**0.6**	0.6	-0.8	-0.3	0.2	**-0.1**	0.2	-1.4	-0.6	0.6	**-0.3**	0.5
of which												
OECD refined product actual stock change[2]	***0.3***	*0.4*	*-0.3*	*0.0*	*-0.1*	***0.0***	*-0.1*	*-0.3*	*-0.5*	*0.0*	***-0.2***	
Non-OECD refined product implied stock change	*0.3*	*0.2*	*-0.5*	*-0.3*	*0.3*	***-0.1***	*0.3*	*-1.0*	*-0.1*	*0.6*	***-0.1***	
Crude oil balance	**0.9**	1.1	0.4	-0.1	1.8	**0.8**	0.2	-0.4	-0.7	-0.4	**-0.3**	0.3
of which												
OECD crude oil actual stock change	**0.0**	0.3	0.1	-0.4	0.0	**0.0**	0.7	-0.6	-0.6	-0.7	**-0.3**	
Non-OECD crude oil implied stock change	**0.8**	0.7	0.3	0.3	1.8	**0.8**	-0.4	0.2	-0.1	0.3	**0.0**	
China crude oil balance	**0.3**	0.4	0.6	0.7	0.2	**0.5**	0.8	1.2	0.6	-0.2	**0.6**	
Other Non-OECD crude oil stock change	**0.6**	0.3	-0.3	-0.4	1.7	**0.3**	-1.2	-1.0	-0.7	0.6	**-0.6**	
OECD non-refined product stock change[3]	**0.0**	-0.5	0.6	0.5	-0.8	**-0.1**	-0.5	0.6	0.7	-0.6	**0.0**	-0.5

[1] 1Q18 OPEC crude oil output assumed flat from December levels

[2] Refined product inventories include gasoline, middle distillates and fuel oil. See *Stocks* for detailed discussion of observed stock changes

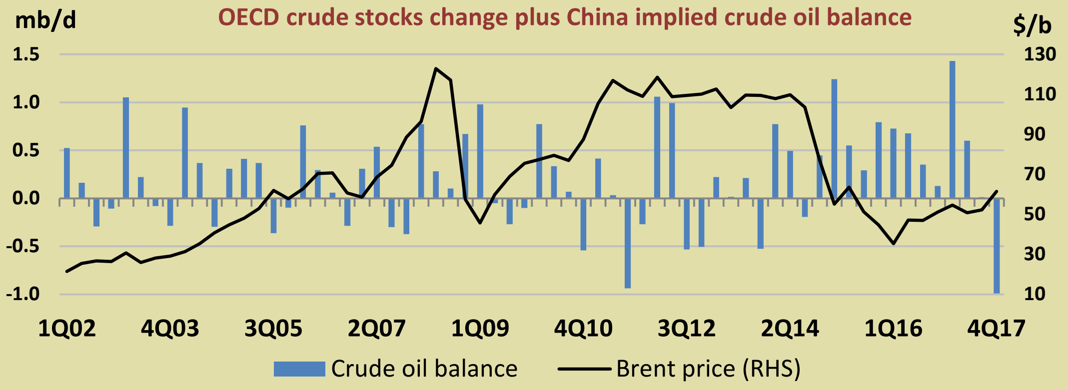
[3] Based on OECD LPG stock draws until October 2017, and a seasonal average stock change expectation for the forecast period

Global crude oil balances were much tighter in 4Q17, a result of higher than expected refinery runs, lower Venezuelan oil production, and some impact from the closure of the Forties pipeline in December.

Global crude oil balances started to tighten in 2Q17, with the 3Q17's draw 0.7 mb/d the largest since 3Q11. OECD crude oil stocks declined in 2Q17-4Q17. This was not only a rare occurrence of three consecutive quarters of falling crude stocks, but their average size, 0.6 mb/d, was also the largest since 1984 (when the IEA stocks data collection started). Meanwhile, China's implied balances slowed down from the record builds seen in the first half of the year, and eventually turned negative in 4Q17.

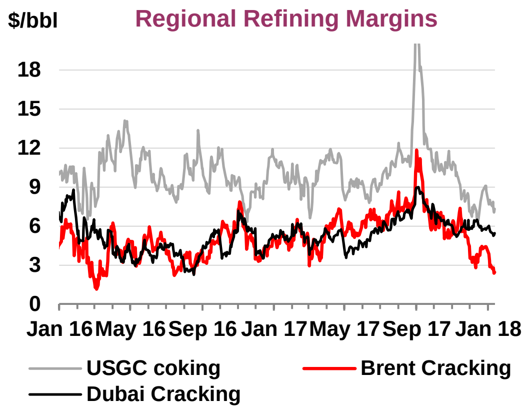
OECD countries together with China import most internationally traded oil. These two combined form two symmetrically large net crude import flows in the Western and Eastern hemispheres of about 14-15 mb/d each. In 2Q17-3Q17, while OECD crude stocks were drawing, Chinese implied balances were building, which could be described as effectively an inventory transfer between the two regions. This is perhaps why crude prices did not start rallying until well into 3Q17.

In 4Q17, both OECD crude stocks and Chinese implied balances showed declines. These synchronized crude stock draws in 4Q17 by the world's largest importers at least partly explain the oil price rally. The simultaneous draws of OECD stocks and the Chinese implied crude oil balance were the first such occurrence since 3Q14, and also the largest for as long as our Chinese historical series allows us to see.



Margins

Refining margins generally declined in December as global crude runs hit a record monthly level. In Europe, the downward pressure came mainly from seasonally lower gasoline and weaker fuel oil cracks. In the US Gulf Coast, the end-year cold snap did support otherwise softening diesel cracks; but they stayed flat month-on-month, allowing weaker gasoline cracks to drive refining margins lower. In the US midcontinent, margins based on WTI saw the biggest monthly losses of $4/bbl.



Despite record Chinese product exports in December, Singapore refinery margins held up well. In Asia, gasoline demand is not as seasonal as in the West. Moreover, North East Asia relies heavily on kerosene for winter heating, which is supportive for middle distillate cracks.

IEA/KBC Global Indicator Refining Margins[1]

($/bbl)

	Monthly Average				Change		Average for week ending:				
	Sep 17	Oct 17	Nov 17	Dec 17		Dec 17-Nov 17	15 Dec	22 Dec	29 Dec	05 Jan	12 Jan
NW Europe											
Brent (Cracking)	8.17	5.92	5.77	3.80	↓	-1.97	3.46	4.21	4.40	3.27	2.61
Urals (Cracking)	9.09	6.85	5.80	3.44	↓	-2.36	2.84	3.81	4.20	3.18	2.38
Brent (Hydroskimming)	3.52	1.94	1.40	-0.42	↓	-1.82	-0.95	0.19	0.11	-0.80	-1.77
Urals (Hydroskimming)	3.98	2.26	0.91	-1.34	↓	-2.25	-2.11	-0.75	-0.67	-1.57	-2.67
Mediterranean											
Es Sider (Cracking)	8.79	7.18	6.68	5.46	↓	-1.22	5.16	5.82	6.29	5.15	4.11
Urals (Cracking)	9.14	6.99	5.59	4.69	↓	-0.90	4.45	5.09	5.11	3.95	2.95
Es Sider (Hydroskimming)	4.67	3.47	2.93	1.49	↓	-1.43	1.03	2.07	2.17	1.24	-0.02
Urals (Hydroskimming)	3.95	2.10	0.63	-0.54	↓	-1.17	-0.96	0.11	-0.34	-1.39	-2.64
US Gulf Coast											
50/50 HLS/LLS (Cracking)	14.38	9.27	8.67	7.02	↓	-1.65	5.95	7.84	8.43	7.79	7.07
Mars (Cracking)	9.92	5.89	5.19	3.32	↓	-1.87	2.56	4.17	4.15	3.77	2.81
ASCI (Cracking)	9.53	5.53	4.90	3.10	↓	-1.80	2.46	3.83	3.76	3.37	2.46
50/50 HLS/LLS (Coking)	16.53	11.17	10.31	8.72	↓	-1.59	7.58	9.54	10.35	9.72	8.89
50/50 Maya/Mars (Coking)	14.25	10.68	9.16	7.63	↓	-1.53	6.78	8.11	8.95	8.56	7.41
ASCI (Coking)	15.48	10.81	9.42	7.97	↓	-1.45	7.15	8.64	9.30	8.80	7.76
US Midcon											
WTI (Cracking)	17.86	18.97	17.39	13.39	↓	-4.00	11.43	15.53	15.37	13.87	11.93
30/70 WCS/Bakken (Cracking)	14.98	15.59	15.85	16.01	↑	0.15	15.86	18.91	17.91	17.70	15.16
Bakken (Cracking)	16.75	17.17	16.21	14.57	↓	-1.65	13.95	16.78	16.38	16.65	13.43
WTI (Coking)	20.02	21.41	19.43	15.33	↓	-4.10	13.20	17.63	17.58	16.08	13.93
30/70 WCS/Bakken (Coking)	18.62	19.64	19.07	19.21	↑	0.14	18.81	22.39	21.68	21.36	18.56
Bakken (Coking)	17.59	18.18	17.02	15.30	↓	-1.72	14.59	17.60	17.24	17.50	14.17
Singapore											
Dubai (Hydroskimming)	3.38	2.09	1.61	1.50	↓	-0.12	1.70	1.44	1.20	1.10	0.41
Tapis (Hydroskimming)	3.22	2.60	2.02	1.43	↓	-0.59	1.45	1.74	1.50	0.13	-0.90
Dubai (Hydrocracking)	7.80	6.41	5.73	6.00	↑	0.28	6.34	5.84	5.76	5.76	5.37
Tapis (Hydrocracking)	6.77	6.15	5.59	5.26	↓	-0.33	5.37	5.48	5.36	4.11	3.32

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)

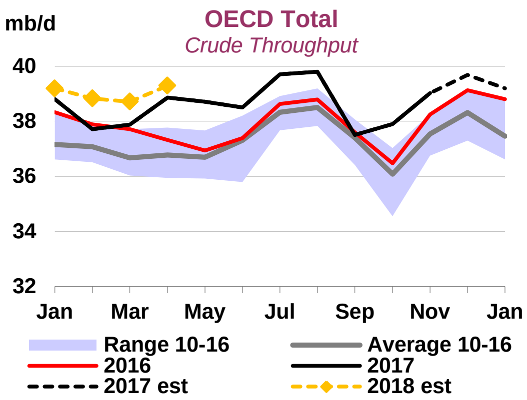
OECD refinery throughput

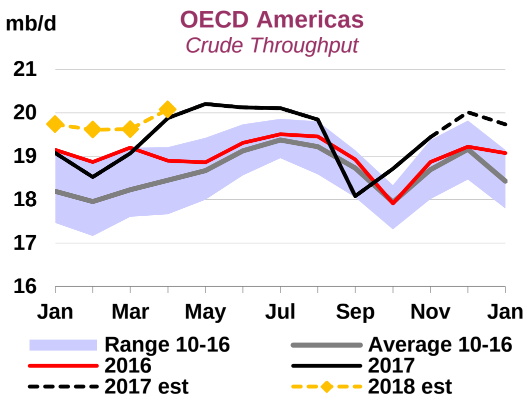
October throughput was finalised some 50 kb/d higher than the provisional data. For November, preliminary data were higher by 280 kb/d than our forecast, mainly due to South Korea and Europe Changes to previous months included a downward revision of 70 kb/d for Sweden in September and an upward revision of 70 kb/d for Canada in August. Our December estimate has been revised up by 20 kb/d, and our 1Q18 forecast is now higher by 180 kb/d. Mimicking 3Q17, both 4Q17 and 1Q18 OECD throughput is expected to top the seasonal rates seen in the past ten years.

Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

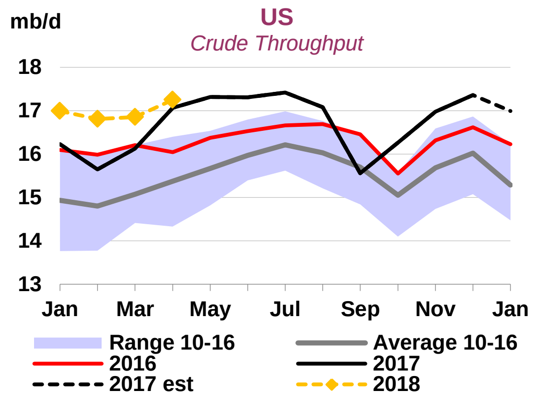
	Jun 17	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Change from		Utilisation rate[1]	
							Oct 17	*Nov 16*	Nov 17	Nov 16
US[2]	17.21	17.32	16.98	15.46	16.16	16.88	0.72	0.66	93%	90%
Canada	1.81	1.84	1.84	1.78	1.75	1.68	-0.07	0.06	87%	84%
Chile	0.20	0.18	0.18	0.19	0.17	0.19	0.02	0.03	85%	70%
Mexico	0.81	0.67	0.75	0.55	0.53	0.59	0.06	-0.18	36%	46%
OECD Americas[3]	**20.02**	**20.01**	**19.74**	**17.98**	**18.61**	**19.34**	**0.73**	**0.57**	**88%**	**86%**
France	1.16	1.19	1.23	1.24	1.23	1.26	0.02	-0.07	101%	107%
Germany	1.77	1.89	1.99	2.03	1.99	1.93	-0.05	0.00	96%	96%
Italy	1.41	1.48	1.51	1.45	1.45	1.44	0.00	0.06	82%	79%
Netherlands	1.03	1.06	0.96	1.10	0.97	1.01	0.04	-0.15	78%	90%
Spain	1.23	1.39	1.43	1.41	1.30	1.30	0.00	-0.13	91%	99%
United Kingdom	1.13	1.09	1.15	1.15	1.12	1.06	-0.06	-0.07	84%	90%
Other OECD Europe	4.30	4.45	4.52	4.25	4.29	4.34	0.05	0.31	89%	83%
OECD Europe	**12.03**	**12.55**	**12.78**	**12.63**	**12.34**	**12.34**	**0.00**	**-0.04**	**89%**	**89%**
Japan	2.76	3.15	3.33	3.16	2.89	3.23	0.34	0.05	93%	86%
South Korea	2.79	3.10	3.11	2.89	3.16	3.21	0.05	0.22	101%	97%
Other Asia Oceania	0.80	0.81	0.74	0.75	0.79	0.80	0.01	-0.04	92%	96%
OECD Asia Oceania	**6.35**	**7.06**	**7.18**	**6.80**	**6.84**	**7.24**	**0.40**	**0.24**	**97%**	**92%**
OECD Total	**38.40**	**39.61**	**39.70**	**37.40**	**37.80**	**38.92**	**1.12**	**0.77**	**90%**	**88%**

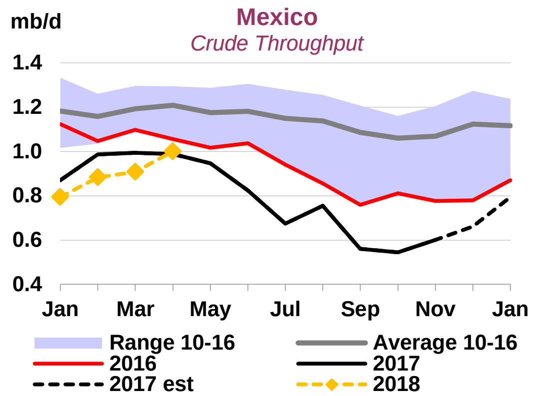
1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50
3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery



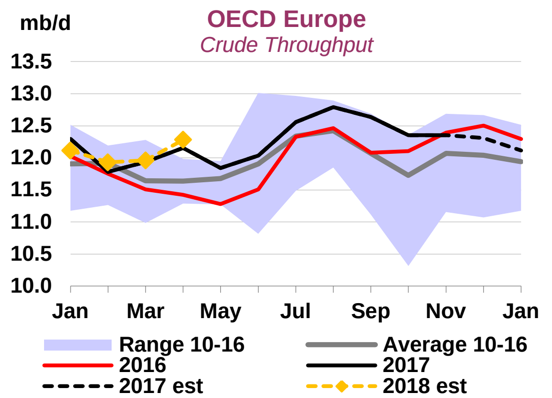


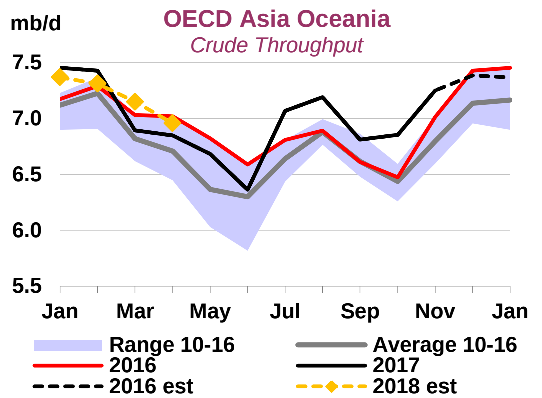
In the **US**, refining intake continues at all-time seasonal highs. December weekly data showed runs returning to last summer's record levels, concluding the year with the second highest ever weekly average at 17.6 mb/d. The monthly average, at 17.3 mb/d, was thus some 0.4 mb/d higher than our forecast. In 2017, US throughput grew 0.4 mb/d y-o-y, the second highest after China. **Mexico's** November throughput did show a rebound, but smaller than expected, with runs staying below 0.6 mb/d. However, the completion of repair works should see Mexico's crude runs ramp up to 1 mb/d in April. Throughput needs to rise even further though, to meet PEMEX's planned 1 mb/d average rate for 2018.





Preliminary November data for **Europe** came in 120 kb/d higher than forecast, but our outlook for December has been revised down by 230 kb/d on maintenance, as well as reports of episodic strikes and bad weather affecting operations. The outlook for 1Q18 now shows runs 140 kb/d lower than previously forecast. Even though y-o-y growth flattened in 4Q17, regional throughput posted a strong 310 kb/d increase in 2017 as a whole, more than reversing the losses in 2016.

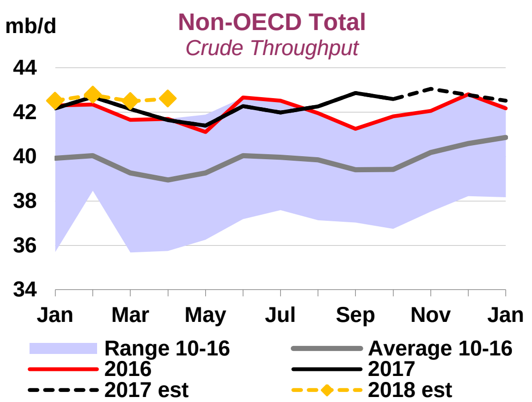


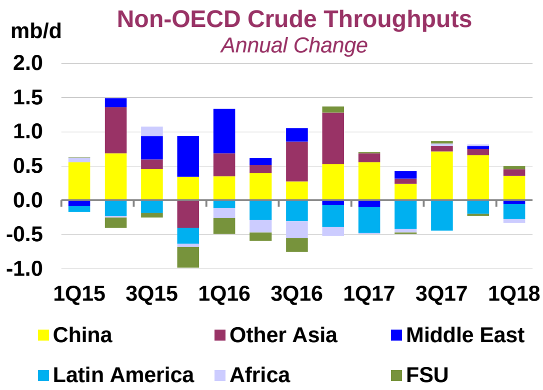


In OECD Asia, refiners are ramping up for the seasonal demand increase. **Korean** runs reached above nominal throughput capacity in October and November, surpassing Japanese throughput by a large margin in October (270 kb/d). In the three years to 2017, Korean crude runs increased by 500 kb/d, slightly more than achieved by India.

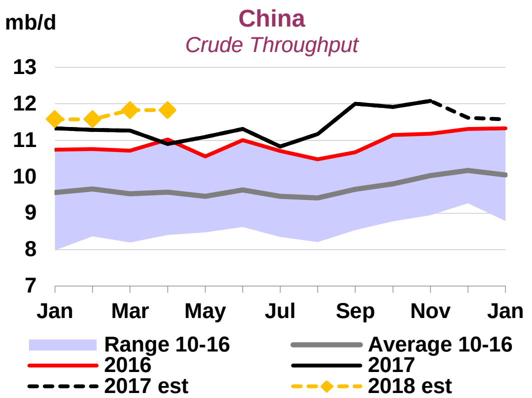
Non-OECD refinery throughput

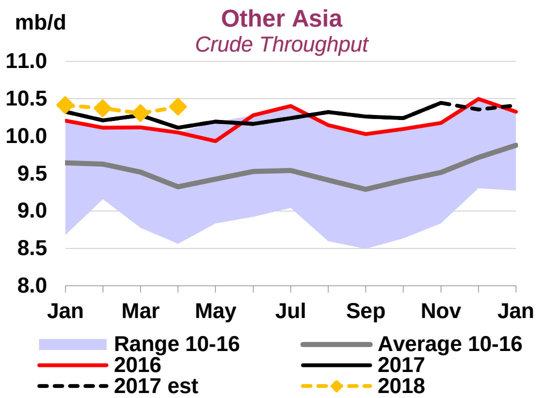
This month, we have revised historical data for a few countries based on better information. Algerian throughput now includes the reported intake of natural gas liquids, which we interpret as condensate. We have revised UAE refinery intake to match annual figures reported by three independent sources. These two amendments have resulted in baseline revisions amounting some 150-200 kb/d. As such, our latest estimate for 2017 refinery intake puts total non-OECD y-o-y growth at the lowest rate since 2009 – a modest 310 kb/d, notwithstanding China's 550 kb/d y-o-y growth. Indian growth ran out of steam, while runs stayed flat in the Middle East, Africa and FSU. Throughput declined y-o-y in Latin America.





Chinese throughput in November surged to a new record high at just under 12 mb/d, instead of our expected slowdown to 11.5 mb/d. December throughput though did show the first winter slowdown, with runs reported at 11.5 mb/d. China's refining intake in 2017 grew by 550 kb/d y-o-y, the highest observed rate since 2010. Three factors contributed to the growth – higher import quotas for independent refiners, 450 kb/d of new capacity additions (there were no significant additions in 2016), and higher product export quotas. With majors allowed to export more products, the domestic market could accommodate more output from independent refiners. Independents accounted for more than half of the 550 kb/d annual growth in 2017, increasing their throughput by 10%, heavily weighted to the second half of the year.

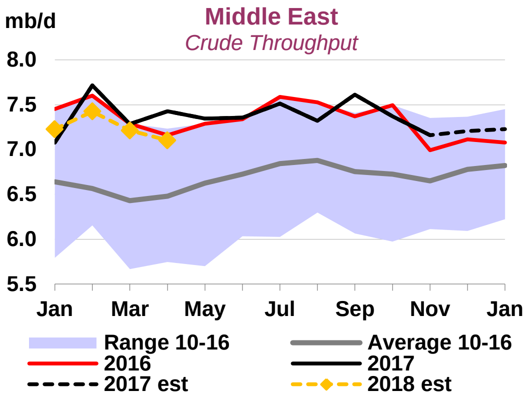


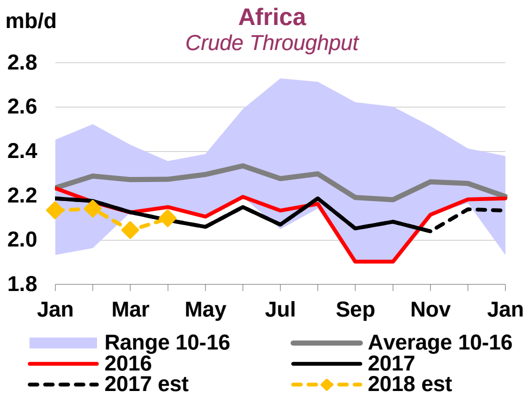


Indian refinery throughput in November was 5.1 mb/d, and for the first time ever runs were sustained above 5 mb/d for two consecutive months. Despite large y-o-y gains in recent months, India's 2017 growth rate flattened to just 70 kb/d, as capacity utilisation rates hit maximum. Other Asian countries were largely flat y-o-y. We have pushed back the assumed start-up of Vietnam's new refinery, the 200 kb/d Nghi Son plant, to April. Taiwan's expected additions at the Da-Lin refinery are not seen starting up before the summer.

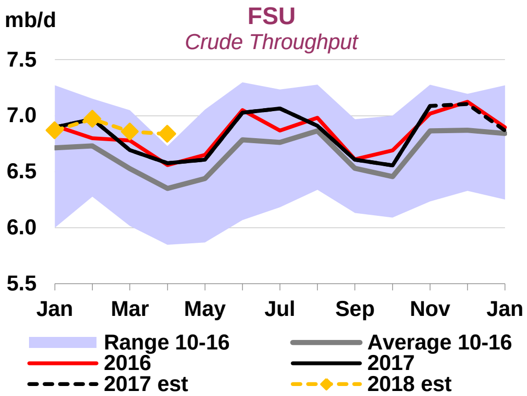
In the **Middle East**, October reported runs exceeded our forecast, on higher activity in Qatar and Kuwait. Outlook for 1Q18 remains flat. In 2017, the Middle East's growth came to a sudden stop after three consecutive years of large annual gains. Iran and Iraq reversed their declining trend, and Qatar and Saudi Arabia showed increases with recent new capacity additions. However, the closure of a Kuwaiti refinery and lower UAE throughput on a major secondary unit outage offset the gains.

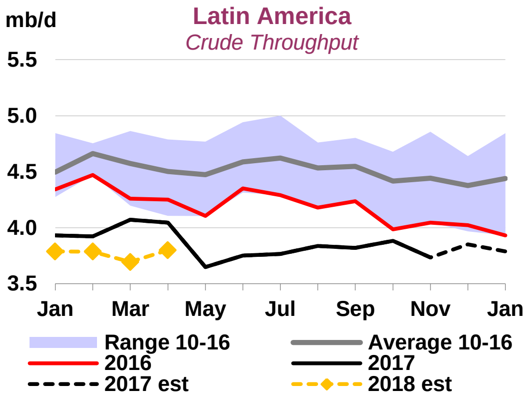
The revised baseline for Algeria has pushed our **African** throughput assessment higher, but the regional outlook has worsened on the consistently underperforming Nigerian refining industry, and major works planned in Sudan.





Russian throughput in December stayed close to 5.8 mb/d, down 200 kb/d y-o-y. The annual average rates were unchanged from 2016, as growth in the first half of the year was offset by declines in the second half. **Kazakhstan's** October throughput was flat from September, some 40 kb/d lower than usual levels, as extensive work took place to upgrade the refineries. November runs rebounded to 330 kb/d.





Latin America saw the largest annual decline in our historical series for the continent, at 360 kb/d in 2017, on weak performance in Brazil and Venezuela. In **Venezuela**, the decline in 2017, at 140 kb/d, was less than the 190 kb/d seen in 2016. PDVSA announced it would bring a major secondary unit back online in Puerto La Cruz refinery, the first positive news for a while for the country's refining industry. **Brazil's** annual decline was not much lower than Venezuela's last year, at 100 kb/d. These two major crude exporters have reduced their combined throughput by almost 800 kb/d since 2014.

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

	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
OECD DEMAND																	
Americas	24.2	24.6	24.6	24.5	25.1	24.8	24.7	24.5	25.0	25.0	24.9	24.8	24.6	25.0	25.2	25.1	25.0
Europe	13.5	13.8	13.6	13.9	14.4	14.2	14.0	13.9	14.3	14.7	14.2	14.3	13.9	14.3	14.8	14.3	14.3
Asia Oceania	8.1	8.1	8.6	7.7	7.8	8.4	8.1	8.6	7.8	7.9	8.4	8.2	8.5	7.6	7.7	8.1	8.0
Total OECD	45.8	46.4	46.8	46.1	47.3	47.4	46.9	47.0	47.0	47.6	47.5	47.3	46.9	46.9	47.6	47.5	47.3
NON-OECD DEMAND																	
FSU	4.6	4.5	4.6	4.6	4.9	4.9	4.8	4.6	4.7	5.0	4.9	4.8	4.7	4.8	5.1	5.0	4.9
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8
China	10.8	11.6	11.8	12.1	11.6	11.9	11.9	12.5	12.6	12.2	12.7	12.5	12.8	12.9	12.6	13.2	12.9
Other Asia	11.8	12.4	13.0	13.0	12.7	13.0	12.9	13.1	13.5	13.2	13.4	13.3	13.6	13.9	13.6	14.0	13.8
Americas	6.9	6.7	6.5	6.6	6.7	6.5	6.6	6.4	6.6	6.7	6.6	6.6	6.5	6.7	6.8	6.7	6.7
Middle East	8.4	8.4	7.9	8.4	8.7	8.1	8.3	7.9	8.5	8.7	8.0	8.3	8.1	8.6	8.9	8.3	8.5
Africa	4.1	4.3	4.3	4.3	4.2	4.3	4.3	4.4	4.3	4.2	4.4	4.3	4.5	4.4	4.3	4.5	4.4
Total Non-OECD	47.3	48.5	48.7	49.7	49.5	49.5	49.4	49.7	50.9	50.8	50.8	50.6	50.9	51.9	52.0	52.5	51.8
Total Demand[1]	**93.1**	**95.0**	**95.5**	**95.8**	**96.8**	**97.0**	**96.3**	**96.6**	**98.0**	**98.4**	**98.3**	**97.8**	**97.8**	**98.9**	**99.7**	**100.1**	**99.1**
OECD SUPPLY																	
Americas[4]	19.1	20.0	19.9	19.0	19.3	19.7	19.5	19.9	19.8	20.2	20.9	20.2	21.3	21.3	21.9	22.3	21.7
Europe	3.3	3.5	3.6	3.4	3.3	3.6	3.5	3.7	3.5	3.4	3.4	3.5	3.6	3.6	3.5	3.6	3.6
Asia Oceania	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Total OECD	22.9	23.9	24.0	22.9	23.1	23.7	23.4	24.0	23.6	23.9	24.7	24.1	25.3	25.3	25.8	26.4	25.7
NON-OECD SUPPLY																	
FSU	13.9	14.1	14.3	14.1	14.0	14.6	14.2	14.5	14.4	14.3	14.4	14.4	14.4	14.4	14.4	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	4.3	4.1	4.0	3.9	3.9	4.0	3.9	3.9	3.8	3.8	3.9	3.8	3.8	3.8	3.7	3.8
Other Asia[2]	3.5	3.6	3.7	3.6	3.5	3.5	3.6	3.5	3.4	3.4	3.4	3.5	3.4	3.3	3.3	3.3	3.3
Americas[2,4]	4.4	4.6	4.3	4.4	4.6	4.6	4.5	4.6	4.5	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	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3
Africa[2]	1.8	1.8	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.8	1.8	1.7	1.8
Total Non-OECD	29.2	29.7	29.5	29.1	29.1	29.7	29.3	29.5	29.3	29.2	29.3	29.3	29.3	29.4	29.3	29.5	29.4
Processing gains[3]	2.2	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
Global Biofuels	2.2	2.3	1.9	2.5	2.7	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.0	2.5	2.7	2.5	2.4
Total Non-OPEC Supply	56.6	58.1	57.7	56.7	57.1	57.9	57.4	57.7	57.7	58.2	58.7	58.1	58.9	59.4	60.1	60.6	59.8
OPEC																	
Crude	30.7	31.8	32.3	32.5	32.9	33.4	32.8	32.1	32.3	32.7	32.3	32.3					
NGLs	6.4	6.6	6.6	6.8	6.9	6.8	6.8	6.8	6.9	6.9	6.9	6.9	7.0	7.0	7.0	7.1	7.0
Total OPEC	37.1	38.4	39.0	39.3	39.8	40.2	39.6	38.9	39.2	39.6	39.2	39.2					
Total Supply[4]	**93.6**	**96.5**	**96.6**	**96.0**	**96.9**	**98.2**	**96.9**	**96.6**	**96.9**	**97.9**	**98.0**	**97.3**					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.4	0.8	0.4	0.4	0.1	-0.9	0.0	0.3	-0.2	-0.5							
Government	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1							
Total	0.4	0.8	0.4	0.4	0.1	-0.9	0.0	0.3	-0.3	-0.6							
Floating storage/Oil in transit	0.0	0.3	0.2	0.3	-0.2	0.2	0.1	-0.3	-0.3	-0.7							
Miscellaneous to balance[5]	0.2	0.4	0.5	-0.5	0.2	1.8	0.5	-0.1	-0.5	0.7							
Total Stock Ch. & Misc	**0.5**	**1.5**	**1.1**	**0.2**	**0.1**	**1.2**	**0.7**	**-0.1**	**-1.1**	**-0.6**	**-0.3**	**-0.5**					
Memo items:																	
Call on OPEC crude + Stock ch.[6]	30.1	30.3	31.2	32.3	32.8	32.2	32.1	32.1	33.4	33.3	32.7	32.9	31.9	32.4	32.5	32.4	32.3

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. Includes Biofuels.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola, Gabon and Equatorial Guinea throughout.
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)

	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-0.2	-0.1	-	0.1	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	0.1	-	-	0.1	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	0.2	-0.1	-0.1	-
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	0.3	0.1	-	-	-	0.2	-
Other Asia	-	-	-	-	-	-	-	-	-	0.1	-0.2	-	-0.1	-0.1	-	-0.2	-0.1
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	0.1	0.1	0.1
Africa	-	-	-0.1	-	-	-	-	-0.1	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-0.1	-	-	-	-	-0.1	-	0.1	0.1	-	-0.2	-0.1	-	0.1	-
Total Demand	**-**	**-**	**-0.1**	**-**	**-**	**-**	**-**	**-0.1**	**-**	**0.1**	**-**	**-**	**-0.2**	**0.1**	**-0.1**	**0.1**	**-**
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	0.5	0.1	0.2	0.2	0.3	0.5	0.3
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.4	0.1	0.1	0.1	0.3	0.5	0.3
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	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	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-0.1	-0.1	-0.1
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-	0.3	0.1	0.1	0.1	0.2	0.3	0.2
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-							
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-							
Total Supply	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-0.1							
Government	-	-	-	-	-	-	-	-	-	-							
Total	-	-	-	-	-	-	-	-	-	-0.1							
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-							
Miscellaneous to balance	-	-	0.1	-	-	-	-	0.1	-	-							
Total Stock Ch. & Misc	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**	**0.1**	**-**	**-0.1**							
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-0.1	-	-	-	-	-0.1	-	0.1	-0.3	-0.1	-0.3	-	-0.2	-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

	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Demand (mb/d)																
Americas	24.55	24.59	24.47	25.05	24.85	24.74	24.47	24.97	24.98	24.87	24.82	24.60	25.01	25.20	25.13	24.99
Europe	13.83	13.60	13.93	14.44	14.19	14.04	13.93	14.32	14.74	14.21	14.30	13.85	14.31	14.77	14.34	14.32
Asia Oceania	8.06	8.57	7.70	7.84	8.38	8.12	8.56	7.76	7.90	8.40	8.15	8.47	7.63	7.68	8.08	7.96
Total OECD	46.44	46.76	46.10	47.33	47.42	46.90	46.97	47.04	47.62	47.48	47.28	46.92	46.94	47.65	47.54	47.27
Asia	23.96	24.80	25.09	24.33	24.91	24.79	25.60	26.14	25.43	26.15	25.83	26.37	26.81	26.24	27.27	26.68
Middle East	8.37	7.87	8.40	8.70	8.12	8.27	7.92	8.46	8.69	8.00	8.27	8.11	8.57	8.88	8.31	8.47
Americas	6.71	6.47	6.58	6.66	6.53	6.56	6.45	6.57	6.68	6.60	6.58	6.49	6.65	6.76	6.72	6.66
FSU	4.55	4.59	4.56	4.92	4.93	4.75	4.59	4.73	5.02	4.91	4.82	4.67	4.78	5.09	4.95	4.87
Africa	4.26	4.32	4.33	4.18	4.32	4.29	4.42	4.31	4.23	4.39	4.34	4.50	4.38	4.29	4.50	4.42
Europe	0.69	0.69	0.73	0.72	0.72	0.71	0.71	0.74	0.75	0.75	0.74	0.73	0.76	0.76	0.76	0.75
Total Non-OECD	48.54	48.74	49.69	49.52	49.53	49.37	49.68	50.95	50.81	50.80	50.57	50.86	51.94	52.03	52.52	51.85
World	**94.98**	**95.50**	**95.80**	**96.85**	**96.95**	**96.28**	**96.65**	**97.99**	**98.43**	**98.29**	**97.85**	**97.79**	**98.89**	**99.67**	**100.06**	**99.11**
of which: US50	19.53	19.54	19.50	19.94	19.77	19.69	19.49	20.01	19.92	19.84	19.82	19.68	20.12	20.18	20.10	20.02
Europe 5*	8.13	8.09	8.14	8.34	8.21	8.19	8.28	8.35	8.49	8.21	8.34	8.21	8.35	8.50	8.28	8.34
China	11.56	11.80	12.07	11.63	11.91	11.85	12.48	12.64	12.19	12.71	12.51	12.76	12.86	12.61	13.25	12.87
Japan	4.12	4.44	3.70	3.79	4.18	4.03	4.33	3.64	3.69	4.12	3.94	4.23	3.43	3.51	3.82	3.75
India	4.24	4.65	4.63	4.40	4.56	4.56	4.58	4.79	4.53	4.82	4.68	4.91	5.08	4.77	5.14	4.98
Russia	3.41	3.52	3.41	3.75	3.69	3.59	3.48	3.56	3.82	3.68	3.64	3.54	3.59	3.87	3.73	3.68
Brazil	3.18	3.02	3.07	3.13	3.07	3.07	3.01	3.05	3.17	3.13	3.09	3.03	3.10	3.21	3.20	3.14
Saudi Arabia	3.42	3.02	3.39	3.53	3.11	3.26	2.88	3.35	3.57	3.06	3.22	3.04	3.43	3.61	3.17	3.31
Canada	2.37	2.33	2.32	2.46	2.40	2.38	2.35	2.34	2.50	2.44	2.41	2.32	2.30	2.47	2.41	2.37
Korea	2.47	2.66	2.55	2.60	2.72	2.63	2.69	2.56	2.64	2.76	2.66	2.71	2.63	2.59	2.72	2.66
Mexico	2.01	2.05	2.02	2.01	2.03	2.03	1.96	1.98	1.90	1.94	1.94	1.93	1.95	1.89	1.95	1.93
Iran	1.84	1.84	1.82	1.79	1.82	1.82	1.84	1.82	1.83	1.88	1.84	1.91	1.90	1.90	1.96	1.92
Total	**66.27**	**66.96**	**66.61**	**67.36**	**67.47**	**67.10**	**67.37**	**68.09**	**68.26**	**68.58**	**68.08**	**68.26**	**68.74**	**69.13**	**69.70**	**68.96**
% of World	69.8%	70.1%	69.5%	69.6%	69.6%	69.7%	69.7%	69.5%	69.4%	69.8%	69.6%	69.8%	69.5%	69.4%	69.7%	69.6%
Annual Change (% per annum)																
Americas	1.6	0.7	0.5	0.4	1.5	0.8	-0.5	2.0	-0.3	0.1	0.3	0.5	0.2	0.9	1.0	0.7
Europe	2.2	0.5	1.9	1.1	2.5	1.5	2.5	2.8	2.1	0.2	1.9	-0.6	-0.1	0.2	0.9	0.1
Asia Oceania	0.1	-1.3	1.1	1.2	2.1	0.8	-0.1	0.8	0.8	0.2	0.4	-1.0	-1.7	-2.8	-3.9	-2.4
Total OECD	1.5	0.3	1.0	0.8	1.9	1.0	0.4	2.0	0.6	0.1	0.8	-0.1	-0.2	0.1	0.1	0.0
Asia	5.9	5.9	3.8	1.4	2.8	3.5	3.2	4.2	4.5	5.0	4.2	3.0	2.6	3.2	4.3	3.3
Middle East	-0.6	1.1	-1.4	-1.5	-2.6	-1.2	0.6	0.7	-0.1	-1.5	-0.1	2.4	1.2	2.1	4.0	2.4
Americas	-2.1	-2.4	-2.2	-1.8	-2.6	-2.3	-0.3	-0.1	0.3	1.0	0.2	0.7	1.2	1.3	1.8	1.2
FSU	-1.9	7.7	-0.1	4.3	6.2	4.4	0.1	3.7	2.1	-0.2	1.4	1.6	1.0	1.3	0.7	1.2
Africa	3.0	1.2	2.1	0.1	-0.3	0.7	2.3	-0.7	1.3	1.6	1.1	1.8	1.8	1.3	2.5	1.9
Europe	3.9	4.5	6.1	3.1	2.2	4.0	1.5	2.0	4.0	4.6	3.1	3.8	3.1	1.7	1.8	2.4
Total Non-OECD	2.5	3.7	1.6	0.6	1.2	1.7	1.9	2.5	2.6	2.6	2.4	2.4	2.0	2.4	3.4	2.5
World	**2.0**	**2.0**	**1.3**	**0.7**	**1.5**	**1.4**	**1.2**	**2.3**	**1.6**	**1.4**	**1.6**	**1.2**	**0.9**	**1.3**	**1.8**	**1.3**
Annual Change (mb/d)																
Americas	0.39	0.18	0.11	0.11	0.36	0.19	-0.12	0.49	-0.07	0.03	0.08	0.13	0.04	0.23	0.26	0.16
Europe	0.29	0.07	0.26	0.16	0.35	0.21	0.34	0.39	0.30	0.02	0.26	-0.08	-0.01	0.02	0.13	0.02
Asia Oceania	0.01	-0.11	0.09	0.09	0.17	0.06	-0.01	0.06	0.06	0.02	0.03	-0.09	-0.13	-0.22	-0.32	-0.19
Total OECD	0.69	0.14	0.46	0.36	0.88	0.46	0.21	0.94	0.29	0.07	0.38	-0.04	-0.10	0.03	0.06	-0.01
Asia	1.33	1.39	0.92	0.34	0.69	0.83	0.80	1.05	1.09	1.24	1.05	0.77	0.67	0.81	1.12	0.84
Middle East	-0.05	0.09	-0.12	-0.13	-0.22	-0.10	0.05	0.06	-0.01	-0.13	-0.01	0.19	0.10	0.19	0.32	0.20
Americas	-0.14	-0.16	-0.15	-0.12	-0.18	-0.15	-0.02	-0.01	0.02	0.07	0.02	0.04	0.08	0.08	0.12	0.08
FSU	-0.09	0.33	0.00	0.20	0.29	0.20	0.00	0.17	0.10	-0.01	0.07	0.08	0.05	0.07	0.04	0.06
Africa	0.13	0.05	0.09	0.00	-0.01	0.03	0.10	-0.03	0.05	0.07	0.05	0.08	0.08	0.05	0.11	0.08
Europe	0.03	0.03	0.04	0.02	0.02	0.03	0.01	0.01	0.03	0.03	0.02	0.03	0.02	0.01	0.01	0.02
Total Non-OECD	1.20	1.72	0.77	0.31	0.58	0.84	0.94	1.26	1.29	1.27	1.19	1.18	0.99	1.22	1.72	1.28
World	**1.88**	**1.86**	**1.23**	**0.67**	**1.46**	**1.30**	**1.15**	**2.20**	**1.58**	**1.34**	**1.57**	**1.14**	**0.90**	**1.24**	**1.78**	**1.27**
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	-0.23	-0.06	0.00	0.08	-0.07	0.00	0.00
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.14	0.04	0.02	0.07	0.03	0.04	0.04
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.01	0.02	-0.05	-0.11	-0.03
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.05	-0.01	0.03	0.17	-0.10	-0.07	0.01
Asia	0.00	-0.02	0.00	-0.02	0.00	-0.01	-0.04	0.02	0.09	0.09	0.04	-0.18	-0.08	0.00	0.02	-0.06
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.07	-0.01	0.02	0.05	0.08	0.10	0.06
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01	-0.01	-0.01	-0.01	0.04	0.00
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.01	-0.01	0.02	-0.02	-0.01
Africa	0.00	-0.06	-0.03	-0.02	0.00	-0.03	-0.06	-0.04	-0.03	0.00	-0.03	-0.05	-0.05	-0.04	-0.02	-0.04
Europe	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	0.00	0.00
Total Non-OECD	0.00	-0.09	-0.03	-0.04	0.00	-0.04	-0.09	-0.03	0.08	0.07	0.01	-0.22	-0.11	0.05	0.13	-0.04
World	**0.00**	**-0.09**	**-0.03**	**-0.04**	**0.00**	**-0.04**	**-0.09**	**-0.02**	**0.09**	**0.02**	**0.00**	**-0.19**	**0.06**	**-0.05**	**0.07**	**-0.03**
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	-0.08	-0.02	-0.03	0.00	-0.04	0.00	0.00	0.13	0.02	0.04	-0.10	0.08	-0.15	0.05	-0.03

* France, Germany, Italy, Spain and UK

Table 2a
OECD REGIONAL OIL DEMAND[1]
(million barrels per day)

										Latest month vs.	
	2015	2016	4Q16	1Q17	2Q17	3Q17	Aug 17	Sep 17	Oct 17 [2]	Sep 17	Oct 16
Americas											
LPG and ethane	3.25	3.27	3.32	3.50	3.07	2.96	2.76	2.96	3.08	0.11	-0.11
Naphtha	0.34	0.35	0.34	0.35	0.36	0.34	0.35	0.30	0.32	0.02	0.00
Motor gasoline	10.89	11.10	11.00	10.64	11.30	11.36	11.63	11.08	11.10	0.02	0.25
Jet and kerosene	1.82	1.90	1.92	1.89	1.97	2.04	2.11	1.96	2.02	0.06	0.11
Gasoil/diesel oil	5.22	5.07	5.20	5.14	5.10	5.10	5.26	5.13	5.23	0.10	0.06
Residual fuel oil	0.55	0.60	0.60	0.67	0.69	0.60	0.60	0.61	0.70	0.10	0.07
Other products	2.47	2.44	2.47	2.28	2.48	2.58	2.60	2.51	2.42	-0.08	-0.16
Total	**24.55**	**24.74**	**24.85**	**24.47**	**24.97**	**24.98**	**25.31**	**24.56**	**24.88**	**0.33**	**0.22**
Europe											
LPG and ethane	1.17	1.21	1.25	1.26	1.17	1.14	1.12	1.12	1.12	0.00	-0.13
Naphtha	1.11	1.11	1.09	1.30	1.15	1.21	1.25	1.17	1.22	0.05	0.20
Motor gasoline	1.89	1.90	1.86	1.79	1.99	2.00	2.06	1.95	1.90	-0.05	0.04
Jet and kerosene	1.33	1.37	1.32	1.29	1.45	1.63	1.59	1.65	1.51	-0.14	0.08
Gasoil/diesel oil	6.21	6.28	6.52	6.32	6.42	6.53	6.45	6.74	6.60	-0.15	0.11
Residual fuel oil	0.89	0.89	0.87	0.89	0.87	0.89	0.88	0.91	0.93	0.03	0.03
Other products	1.24	1.28	1.28	1.09	1.28	1.33	1.26	1.40	1.26	-0.14	-0.14
Total	**13.83**	**14.04**	**14.19**	**13.93**	**14.32**	**14.74**	**14.60**	**14.93**	**14.54**	**-0.39**	**0.21**
Asia Oceania											
LPG and ethane	0.77	0.83	0.85	0.89	0.77	0.74	0.75	0.72	0.70	-0.02	-0.09
Naphtha	1.98	1.96	2.04	2.14	1.98	2.05	2.09	2.06	2.16	0.10	0.25
Motor gasoline	1.54	1.55	1.56	1.47	1.53	1.62	1.67	1.57	1.51	-0.06	-0.01
Jet and kerosene	0.86	0.90	1.02	1.17	0.73	0.72	0.71	0.76	0.85	0.08	0.02
Gasoil/diesel oil	1.81	1.84	1.92	1.90	1.90	1.89	1.84	1.94	1.84	-0.10	0.02
Residual fuel oil	0.64	0.65	0.65	0.64	0.51	0.52	0.52	0.50	0.48	-0.02	-0.10
Other products	0.46	0.40	0.34	0.35	0.34	0.35	0.37	0.37	0.28	-0.09	-0.01
Total	**8.06**	**8.12**	**8.38**	**8.56**	**7.76**	**7.90**	**7.94**	**7.93**	**7.82**	**-0.11**	**0.08**
OECD											
LPG and ethane	5.19	5.31	5.42	5.65	5.01	4.84	4.63	4.80	4.90	0.09	-0.32
Naphtha	3.43	3.42	3.47	3.79	3.48	3.60	3.68	3.53	3.71	0.17	0.45
Motor gasoline	14.32	14.55	14.42	13.91	14.82	14.99	15.36	14.60	14.52	-0.09	0.27
Jet and kerosene	4.01	4.17	4.27	4.34	4.15	4.39	4.41	4.38	4.38	0.00	0.21
Gasoil/diesel oil	13.24	13.20	13.64	13.36	13.42	13.52	13.55	13.82	13.67	-0.15	0.19
Residual fuel oil	2.09	2.15	2.12	2.20	2.06	2.01	2.00	2.01	2.12	0.11	0.00
Other products	4.17	4.11	4.09	3.72	4.10	4.26	4.23	4.27	3.96	-0.31	-0.31
Total	**46.44**	**46.90**	**47.42**	**46.97**	**47.04**	**47.62**	**47.85**	**47.41**	**47.25**	**-0.17**	**0.50**

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 COUNTRIES[1]
(million barrels per day)

	2015	2016	4Q16	1Q17	2Q17	3Q17	Aug 17	Sep 17	Oct 17 [2]	Latest month vs. Sep 17	Latest month vs. Oct 16
United States[3]											
LPG and ethane	2.45	2.47	2.51	2.69	2.36	2.26	2.07	2.25	2.34	0.09	-0.10
Naphtha	0.22	0.22	0.22	0.24	0.24	0.21	0.22	0.18	0.22	0.04	0.01
Motor gasoline	9.18	9.32	9.20	8.95	9.54	9.56	9.77	9.33	9.35	0.02	0.25
Jet and kerosene	1.55	1.62	1.65	1.61	1.69	1.72	1.77	1.65	1.71	0.06	0.09
Gasoil/diesel oil	4.00	3.88	3.99	3.95	3.91	3.87	3.99	3.92	3.97	0.05	-0.02
Residual fuel oil	0.26	0.33	0.32	0.37	0.37	0.30	0.34	0.31	0.36	0.06	0.02
Other products	1.87	1.86	1.88	1.69	1.91	2.01	2.01	1.94	1.86	-0.08	-0.10
Total	**19.53**	**19.69**	**19.77**	**19.49**	**20.01**	**19.92**	**20.16**	**19.58**	**19.81**	**0.23**	**0.16**
Japan											
LPG and ethane	0.44	0.44	0.44	0.50	0.40	0.37	0.38	0.36	0.35	-0.01	-0.04
Naphtha	0.79	0.76	0.80	0.83	0.75	0.75	0.78	0.76	0.78	0.02	0.06
Motor gasoline	0.89	0.90	0.90	0.82	0.87	0.95	0.99	0.90	0.86	-0.04	-0.03
Jet and kerosene	0.49	0.50	0.59	0.73	0.36	0.33	0.32	0.37	0.44	0.07	0.00
Diesel	0.43	0.43	0.45	0.43	0.41	0.42	0.40	0.43	0.40	-0.03	-0.04
Other gasoil	0.34	0.35	0.37	0.39	0.32	0.31	0.30	0.32	0.31	-0.01	-0.01
Residual fuel oil	0.37	0.34	0.34	0.33	0.27	0.27	0.27	0.26	0.25	-0.01	-0.05
Other products	0.37	0.31	0.30	0.30	0.27	0.29	0.30	0.28	0.26	-0.01	-0.02
Total	**4.12**	**4.03**	**4.18**	**4.33**	**3.64**	**3.69**	**3.75**	**3.68**	**3.65**	**-0.03**	**-0.13**
Germany											
LPG and ethane	0.10	0.10	0.09	0.13	0.13	0.13	0.13	0.11	0.09	-0.02	0.00
Naphtha	0.39	0.38	0.39	0.46	0.40	0.39	0.42	0.33	0.35	0.02	-0.03
Motor gasoline	0.42	0.42	0.42	0.41	0.45	0.43	0.45	0.42	0.42	0.00	0.00
Jet and kerosene	0.18	0.20	0.20	0.20	0.21	0.22	0.22	0.22	0.21	-0.02	-0.01
Diesel	0.74	0.76	0.76	0.75	0.78	0.78	0.79	0.77	0.77	0.01	0.00
Other gasoil	0.36	0.36	0.39	0.39	0.36	0.35	0.33	0.37	0.35	-0.02	-0.03
Residual fuel oil	0.11	0.09	0.10	0.10	0.07	0.08	0.08	0.08	0.10	0.03	0.02
Other products	0.06	0.10	0.10	0.07	0.10	0.11	0.10	0.11	0.11	0.00	-0.01
Total	**2.37**	**2.41**	**2.44**	**2.53**	**2.51**	**2.50**	**2.53**	**2.41**	**2.40**	**-0.01**	**-0.05**
Italy											
LPG and ethane	0.11	0.11	0.12	0.13	0.10	0.10	0.10	0.10	0.10	0.01	-0.01
Naphtha	0.08	0.09	0.08	0.11	0.11	0.12	0.11	0.13	0.12	-0.01	0.05
Motor gasoline	0.18	0.18	0.17	0.16	0.18	0.18	0.19	0.17	0.17	0.00	0.00
Jet and kerosene	0.09	0.10	0.09	0.08	0.11	0.13	0.13	0.13	0.11	-0.02	0.02
Diesel	0.47	0.46	0.45	0.45	0.47	0.46	0.45	0.46	0.49	0.03	0.04
Other gasoil	0.09	0.09	0.10	0.08	0.08	0.09	0.08	0.09	0.10	0.01	0.00
Residual fuel oil	0.08	0.06	0.06	0.07	0.06	0.08	0.08	0.07	0.07	0.00	0.01
Other products	0.18	0.16	0.18	0.15	0.16	0.16	0.14	0.17	0.18	0.00	-0.01
Total	**1.27**	**1.25**	**1.24**	**1.23**	**1.28**	**1.32**	**1.28**	**1.33**	**1.34**	**0.01**	**0.10**
France											
LPG and ethane	0.13	0.12	0.12	0.14	0.10	0.10	0.10	0.09	0.10	0.00	-0.01
Naphtha	0.12	0.10	0.07	0.12	0.10	0.11	0.12	0.09	0.07	-0.02	0.00
Motor gasoline	0.16	0.17	0.17	0.16	0.19	0.20	0.20	0.20	0.17	-0.03	0.01
Jet and kerosene	0.15	0.15	0.14	0.15	0.16	0.18	0.18	0.18	0.16	-0.01	0.01
Diesel	0.71	0.70	0.71	0.71	0.73	0.73	0.71	0.77	0.71	-0.06	0.01
Other gasoil	0.26	0.25	0.28	0.28	0.21	0.25	0.23	0.30	0.24	-0.06	-0.06
Residual fuel oil	0.04	0.04	0.05	0.06	0.05	0.06	0.06	0.06	0.06	0.00	0.01
Other products	0.12	0.12	0.10	0.09	0.14	0.13	0.11	0.16	0.11	-0.05	0.00
Total	**1.69**	**1.66**	**1.63**	**1.72**	**1.68**	**1.76**	**1.71**	**1.85**	**1.62**	**-0.22**	**-0.04**
United Kingdom											
LPG and ethane	0.14	0.16	0.16	0.16	0.15	0.14	0.15	0.14	0.15	0.01	-0.03
Naphtha	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.02
Motor gasoline	0.29	0.29	0.29	0.28	0.30	0.29	0.29	0.30	0.29	-0.01	0.00
Jet and kerosene	0.31	0.31	0.31	0.32	0.31	0.33	0.31	0.34	0.34	-0.01	0.02
Diesel	0.50	0.52	0.53	0.49	0.53	0.52	0.51	0.53	0.52	-0.01	0.00
Other gasoil	0.13	0.13	0.12	0.12	0.14	0.15	0.15	0.16	0.13	-0.03	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	-0.01
Other products	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.00	0.00
Total	**1.55**	**1.59**	**1.58**	**1.53**	**1.59**	**1.60**	**1.58**	**1.64**	**1.60**	**-0.04**	**0.01**
Canada											
LPG and ethane	0.35	0.37	0.39	0.39	0.32	0.32	0.31	0.31	0.35	0.03	0.00
Naphtha	0.09	0.10	0.10	0.09	0.09	0.11	0.11	0.10	0.10	0.00	0.01
Motor gasoline	0.81	0.85	0.84	0.80	0.86	0.89	0.92	0.85	0.85	0.00	0.02
Jet and kerosene	0.13	0.14	0.13	0.13	0.14	0.17	0.18	0.17	0.16	-0.02	0.01
Diesel	0.31	0.30	0.29	0.30	0.29	0.29	0.29	0.29	0.28	-0.01	0.00
Other gasoil	0.26	0.24	0.27	0.26	0.26	0.32	0.35	0.31	0.36	0.05	0.10
Residual fuel oil	0.05	0.04	0.04	0.05	0.06	0.05	0.04	0.06	0.04	-0.02	0.00
Other products	0.36	0.34	0.35	0.33	0.32	0.36	0.37	0.37	0.36	-0.01	0.01
Total	**2.37**	**2.38**	**2.40**	**2.35**	**2.34**	**2.50**	**2.56**	**2.48**	**2.50**	**0.02**	**0.15**

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)

	2016	2017	2018	3Q17	4Q17	1Q18	2Q18	3Q18	Oct 17	Nov 17	Dec 17
OPEC											
Crude Oil											
Saudi Arabia	10.42	9.96		9.99	9.99				10.05	9.95	9.97
Iran	3.55	3.80		3.83	3.82				3.78	3.82	3.85
Iraq	4.42	4.47		4.48	4.44				4.41	4.43	4.47
UAE	3.05	2.93		2.94	2.90				2.93	2.90	2.87
Kuwait	2.88	2.71		2.70	2.70				2.70	2.71	2.70
Neutral Zone	0.00	0.00		0.00	0.00				0.00	0.00	0.00
Qatar	0.65	0.61		0.60	0.61				0.61	0.62	0.61
Angola	1.71	1.64		1.67	1.63				1.66	1.61	1.61
Nigeria	1.47	1.53		1.62	1.62				1.58	1.61	1.67
Libya	0.39	0.82		0.94	0.98				0.99	0.98	0.97
Algeria	1.11	1.05		1.06	1.02				1.00	1.01	1.04
Equatorial Guinea	0.14	0.13		0.12	0.13				0.14	0.13	0.13
Ecuador	0.55	0.53		0.54	0.53				0.53	0.54	0.52
Venezuela	2.24	1.96		1.99	1.75				1.86	1.77	1.61
Gabon	0.23	0.20		0.20	0.21				0.21	0.21	0.21
Total Crude Oil	32.80	32.35		32.68	32.32				32.45	32.29	32.23
Total NGLs[1]	6.78	6.89	7.04	6.94	6.89	7.01	7.04	7.05	6.89	6.89	6.89
Total OPEC[2]	**39.59**	**39.24**		**39.62**	**39.22**				**39.34**	**39.18**	**39.12**
NON-OPEC[2,3]											
OECD											
Americas	19.48	20.20	21.70	20.17	20.92	21.29	21.30	21.86	20.65	21.07	21.03
United States	12.53	13.16	14.51	13.14	13.85	14.04	14.46	14.55	13.73	13.96	13.88
Mexico	2.47	2.24	2.11	2.16	2.16	2.17	2.13	2.09	2.17	2.13	2.18
Canada	4.47	4.79	5.07	4.86	4.90	5.08	4.71	5.21	4.74	4.98	4.98
Chile	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Europe	3.52	3.47	3.56	3.36	3.39	3.59	3.57	3.48	3.49	3.43	3.25
UK	1.03	1.01	1.15	0.97	0.99	1.08	1.17	1.13	1.06	1.10	0.82
Norway	1.99	1.96	1.91	1.89	1.88	2.00	1.89	1.85	1.91	1.81	1.91
Others	0.49	0.49	0.50	0.50	0.51	0.50	0.50	0.49	0.52	0.51	0.51
Asia Oceania	0.43	0.40	0.43	0.41	0.41	0.41	0.42	0.42	0.40	0.41	0.41
Australia	0.35	0.33	0.35	0.33	0.33	0.34	0.34	0.35	0.33	0.34	0.34
Others	0.08	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.08	0.08
Total OECD	**23.42**	**24.07**	**25.68**	**23.94**	**24.71**	**25.29**	**25.28**	**25.76**	**24.54**	**24.92**	**24.69**
NON-OECD											
Former USSR	14.24	14.37	14.41	14.28	14.39	14.43	14.40	14.37	14.29	14.42	14.44
Russia	11.34	11.36	11.32	11.30	11.33	11.32	11.31	11.32	11.31	11.33	11.33
Others	2.90	3.01	3.09	2.97	3.06	3.11	3.09	3.05	2.98	3.10	3.11
Asia[2]	7.57	7.32	7.09	7.26	7.25	7.17	7.11	7.07	7.25	7.29	7.21
China	3.98	3.87	3.77	3.83	3.84	3.81	3.79	3.76	3.82	3.88	3.82
Malaysia	0.71	0.70	0.67	0.69	0.70	0.68	0.67	0.67	0.69	0.71	0.69
India	0.85	0.86	0.83	0.86	0.85	0.83	0.82	0.84	0.86	0.84	0.84
Indonesia	0.88	0.84	0.81	0.84	0.82	0.82	0.81	0.80	0.83	0.82	0.82
Others	1.15	1.06	1.01	1.06	1.04	1.03	1.01	1.00	1.05	1.04	1.03
Europe	0.14	0.13	0.12	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13
Americas[2]	4.48	4.55	4.69	4.54	4.57	4.57	4.68	4.67	4.55	4.52	4.63
Brazil	2.61	2.75	2.91	2.73	2.76	2.78	2.90	2.91	2.75	2.72	2.83
Argentina	0.61	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.58	0.58
Colombia	0.88	0.85	0.83	0.86	0.85	0.85	0.84	0.82	0.86	0.85	0.85
Others	0.38	0.37	0.36	0.37	0.37	0.37	0.36	0.36	0.36	0.37	0.37
Middle East[2,4]	1.26	1.25	1.28	1.25	1.25	1.27	1.27	1.29	1.25	1.24	1.24
Oman	1.01	0.98	0.99	0.98	0.98	0.98	0.98	1.00	0.98	0.97	0.97
Syria	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Yemen	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Others	0.20	0.22	0.24	0.22	0.22	0.24	0.24	0.24	0.22	0.22	0.22
Africa	1.66	1.71	1.76	1.72	1.76	1.74	1.77	1.78	1.76	1.77	1.77
Egypt	0.67	0.63	0.61	0.64	0.63	0.62	0.61	0.61	0.63	0.63	0.63
Others	0.99	1.08	1.15	1.09	1.13	1.12	1.16	1.17	1.13	1.14	1.14
Total Non-OECD	**29.34**	**29.33**	**29.36**	**29.18**	**29.34**	**29.30**	**29.35**	**29.31**	**29.23**	**29.37**	**29.43**
Processing gains[5]	2.27	2.29	2.32	2.29	2.29	2.32	2.32	2.32	2.29	2.29	2.29
Global Biofuels	2.34	2.40	2.41	2.82	2.38	1.99	2.45	2.72	2.58	2.37	2.20
TOTAL NON-OPEC	**57.36**	**58.09**	**59.77**	**58.24**	**58.73**	**58.90**	**59.41**	**60.11**	**58.65**	**58.95**	**58.60**
TOTAL SUPPLY	**96.95**	**97.33**		**97.86**	**97.95**				**98.00**	**98.13**	**97.73**

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 Latin America excludes Ecuador throughout. Africa excludes Angola, Gabon and Equatorial Guinea throughout. Asia includes Indonesia throughout.
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 STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jul2017	Aug2017	Sep2017	Oct2017	Nov2017*	Nov2014	Nov2015	Nov2016	4Q2016	1Q2017	2Q2017	3Q2017
OECD Americas												
Crude	642.3	617.7	624.7	616.8	607.4	513.2	615.4	647.9	0.24	0.56	-0.44	-0.34
Motor Gasoline	262.4	254.6	252.5	248.2	256.5	252.9	254.9	265.4	0.11	0.02	-0.03	-0.18
Middle Distillate	221.6	216.3	210.9	201.4	203.1	195.5	226.7	235.5	0.01	-0.13	-0.02	-0.15
Residual Fuel Oil	39.3	40.3	42.7	38.3	37.1	44.6	50.2	47.7	0.03	0.00	-0.08	0.02
Total Products[3]	754.5	756.2	747.4	727.4	724.2	707.6	763.8	788.7	-0.29	-0.43	0.19	-0.06
Total[4]	1587.4	1574.2	1571.5	1542.1	1527.2	1394.6	1563.8	1625.4	-0.24	0.10	-0.13	-0.26
OECD Europe												
Crude	364.0	345.7	340.4	337.8	344.1	307.2	346.0	341.1	-0.15	0.18	0.05	-0.26
Motor Gasoline	90.5	90.3	87.8	90.9	93.2	88.2	91.6	94.0	0.09	0.02	-0.09	-0.05
Middle Distillate	304.5	310.2	293.7	276.7	272.5	257.6	308.0	303.8	-0.22	0.06	-0.15	-0.04
Residual Fuel Oil	63.1	61.2	59.2	63.1	62.4	65.4	74.7	66.0	-0.01	-0.03	-0.02	-0.06
Total Products[3]	564.6	573.3	554.3	539.6	536.1	509.0	571.0	564.9	-0.11	0.16	-0.33	-0.06
Total[4]	1004.0	990.2	967.2	950.8	953.1	886.6	983.1	978.9	-0.27	0.33	-0.27	-0.32
OECD Asia Oceania												
Crude	197.0	195.1	198.2	188.4	189.8	173.9	191.0	194.6	-0.11	-0.03	0.01	0.09
Motor Gasoline	22.8	24.9	23.1	23.0	23.8	22.7	23.4	23.0	0.00	-0.01	0.02	-0.02
Middle Distillate	64.1	69.7	66.4	72.6	67.5	70.7	65.9	65.7	-0.11	-0.05	0.04	0.03
Residual Fuel Oil	21.6	20.0	18.9	20.9	21.1	20.3	23.6	20.0	-0.02	0.01	0.03	-0.02
Total Products[3]	175.6	182.2	172.1	182.5	177.7	182.2	170.1	171.9	-0.27	-0.08	0.16	0.03
Total[4]	436.5	442.5	433.2	435.1	429.7	424.1	428.2	430.0	-0.39	-0.13	0.23	0.10
Total OECD												
Crude	1203.2	1158.5	1163.4	1143.0	1141.3	994.3	1152.5	1183.6	-0.01	0.71	-0.38	-0.51
Motor Gasoline	375.8	369.8	363.4	362.0	373.5	363.8	369.9	382.4	0.20	0.03	-0.10	-0.24
Middle Distillate	590.1	596.1	571.1	550.7	543.1	523.8	600.6	605.0	-0.32	-0.12	-0.13	-0.15
Residual Fuel Oil	124.0	121.5	120.8	122.3	120.6	130.2	148.4	133.6	0.01	-0.02	-0.07	-0.06
Total Products[3]	1494.7	1511.7	1473.8	1449.5	1437.9	1398.8	1504.9	1525.5	-0.66	-0.35	0.01	-0.09
Total[4]	3027.9	3006.9	2971.9	2928.0	2910.1	2705.3	2975.0	3034.2	-0.90	0.31	-0.18	-0.48

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jul2017	Aug2017	Sep2017	Oct2017	Nov2017*	Nov2014	Nov2015	Nov2016	4Q2016	1Q2017	2Q2017	3Q2017
OECD Americas												
Crude	678.9	678.8	673.6	669.0	661.3	691.0	695.1	695.1	0.00	-0.04	-0.14	-0.06
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	208.3	208.1	208.0	207.4	207.5	209.6	205.5	208.8	-0.01	0.00	0.03	0.00
Products	268.4	267.9	267.2	265.0	265.4	256.3	259.3	272.3	0.05	0.02	-0.03	-0.06
OECD Asia Oceania												
Crude	385.0	385.0	385.0	385.0	385.3	385.3	381.5	385.7	-0.01	0.00	0.01	0.00
Products	38.0	38.0	38.3	38.3	38.3	31.5	33.9	36.7	0.01	0.01	0.00	0.00
Total OECD												
Crude	1272.2	1271.9	1266.7	1261.4	1254.0	1285.9	1282.1	1289.6	-0.02	-0.04	-0.09	-0.06
Products	308.4	307.8	307.5	305.3	305.8	289.8	295.2	311.0	0.06	0.03	-0.03	-0.05
Total[4]	1583.9	1583.2	1577.7	1570.2	1563.4	1580.0	1581.7	1602.9	0.04	0.00	-0.12	-0.12

* 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 COUNTRIES[1]
('millions of barrels' and 'days')

	End September 2016		End December 2016		End March 2017		End June 2017		End September 2017[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	184.8	77	183.3	78	184.9	79	182.7	73	185.6	-
Chile	12.2	37	11.2	33	11.9	35	11.2	32	12.5	-
Mexico	45.7	23	47.3	24	47.6	24	49.3	26	46.5	-
United States[4]	2053.2	104	2031.6	104	2034.5	102	2011.2	101	1980.3	-
Total[4]	2318.0	93	2295.5	94	2301.1	92	2276.5	91	2247.1	90
OECD Asia Oceania										
Australia	36.7	33	33.9	30	33.3	28	35.4	30	33.7	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	586.6	140	562.5	130	546.3	150	566.3	154	571.3	-
Korea	239.3	88	230.3	86	237.8	93	236.4	89	243.5	-
New Zealand	8.7	50	8.9	48	8.2	48	9.0	54	8.1	-
Total	871.3	104	835.6	98	825.6	106	847.1	107	856.6	104
OECD Europe[5]										
Austria	21.6	81	22.8	88	24.3	94	21.8	76	22.1	-
Belgium	50.5	74	47.4	71	47.8	76	46.6	72	44.1	-
Czech Republic	22.9	111	21.9	115	22.5	101	21.4	93	21.4	-
Denmark	29.7	187	30.5	201	27.2	169	27.3	171	23.6	-
Estonia	2.4	81	2.4	72	2.6	94	2.7	98	2.2	-
Finland	44.9	219	42.3	220	44.8	224	43.4	214	44.7	-
France	166.9	102	162.2	94	167.7	100	165.4	94	165.2	-
Germany	285.0	117	285.4	113	280.7	112	277.1	111	274.7	-
Greece	30.8	99	33.9	115	35.1	118	32.4	100	32.3	-
Hungary	23.6	148	24.5	151	24.3	144	25.2	145	26.2	-
Ireland	11.7	74	11.8	78	12.8	86	12.1	79	10.1	-
Italy	127.4	102	124.3	101	134.4	105	133.7	101	127.7	-
Latvia	4.4	118	2.4	69	2.4	58	3.3	77	1.5	-
Luxembourg	0.7	12	0.7	12	0.7	12	0.7	12	0.6	-
Netherlands	154.2	158	152.6	155	154.7	157	154.5	160	150.8	-
Norway	23.2	96	22.9	113	22.9	107	22.0	98	22.0	-
Poland	68.4	113	67.4	116	69.8	110	69.5	103	69.2	-
Portugal	24.3	107	22.7	101	26.5	110	24.0	96	24.1	-
Slovak Republic	11.3	138	12.1	147	12.8	151	13.0	138	12.1	-
Slovenia	4.4	81	4.5	96	4.9	94	5.1	92	4.7	-
Spain	139.4	107	129.0	101	136.5	106	128.7	98	127.2	-
Sweden	35.7	109	33.5	107	51.5	159	52.0	156	42.3	-
Switzerland	36.5	156	35.2	158	35.5	162	34.5	160	35.4	-
Turkey	76.5	81	79.1	100	81.4	83	84.0	76	83.9	-
United Kingdom	78.1	49	82.3	54	81.2	51	80.7	50	77.6	-
Total	1474.6	104	1453.8	104	1505.0	105	1480.9	100	1445.9	107
Total OECD	**4663.9**	**98**	**4584.9**	**98**	**4631.7**	**98**	**4604.4**	**97**	**4549.6**	**97**
DAYS OF IEA Net Imports[6]	**-**	**202**	**-**	**200**	**-**	**203**	**-**	**197**	**-**	**193**

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 2017 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	Industry	Total	Government[1] controlled	Industry
		Millions of Barrels			*Days of Fwd. Demand[2]*	
3Q2014	4300	1580	2719	93	34	59
4Q2014	4288	1582	2706	92	34	58
1Q2015	4377	1584	2792	96	35	61
2Q2015	4467	1587	2880	95	34	61
3Q2015	4538	1581	2957	98	34	64
4Q2015	4577	1588	2989	98	34	64
1Q2016	4616	1595	3021	100	35	66
2Q2016	4652	1592	3060	98	34	65
3Q2016	4664	1596	3068	98	34	65
4Q2016	4585	1600	2985	98	34	64
1Q2017	4632	1600	3032	98	34	64
2Q2017	4604	1588	3016	97	33	63
3Q2017	4550	1578	2972	97	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 3Q2017 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS[1]
(million barrels per day)

	2014	2015	2016	4Q16	1Q17	2Q17	3Q17	Aug 17	Sep 17	Oct 17	Year Earlier Oct 16	Year Earlier change
Saudi Light & Extra Light												
Americas	0.65	0.63	0.69	0.62	0.70	0.75	0.44	0.38	0.37	0.43	0.62	-0.18
Europe	0.84	0.78	0.79	0.87	0.64	0.78	0.64	0.62	0.62	0.69	0.88	-0.19
Asia Oceania	1.17	1.25	1.40	1.56	1.65	1.49	1.56	1.62	1.38	1.36	1.49	-0.13
Saudi Medium												
Americas	0.36	0.37	0.44	0.48	0.43	0.35	0.28	0.29	0.25	0.18	0.55	-0.37
Europe	0.03	0.03	0.01	0.01	0.01	0.00	0.01	0.00	0.04	0.04	0.00	0.03
Asia Oceania	0.45	0.44	0.41	0.34	0.33	0.33	0.41	0.35	0.50	0.26	0.37	-0.11
Canada Heavy												
Americas	1.71	1.90	2.04	2.07	2.31	2.25	2.21	2.24	2.26	2.13	1.94	0.19
Europe	0.00	0.01	0.01	0.01	0.01	-	0.03	0.02	0.03	0.03	0.02	0.01
Asia Oceania	0.00	-	-	-	-	-	-	-	-	-	-	-
Iraqi Basrah Light[2]												
Americas	0.35	0.17	0.42	0.55	0.53	0.67	0.55	0.50	0.51	0.73	0.61	0.12
Europe	0.50	0.72	0.81	0.67	0.76	0.84	0.76	0.69	0.87	0.77	0.69	0.08
Asia Oceania	0.24	0.41	0.46	0.41	0.42	0.39	0.41	0.43	0.27	0.30	0.29	0.01
Kuwait Blend												
Americas	0.27	0.13	0.14	0.14	0.19	0.18	0.04	-	-	-	-	-
Europe	0.09	0.13	0.19	0.26	0.20	0.22	0.25	0.23	0.25	0.17	0.28	-0.11
Asia Oceania	0.62	0.65	0.66	0.60	0.71	0.68	0.67	0.68	0.67	0.63	0.64	-0.01
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.10	0.09	0.21	0.24	0.38	0.25	0.25	0.28	0.25	0.14	0.22	-0.08
Asia Oceania	0.01	0.01	0.01	0.01	0.01	0.00	0.02	-	0.04	0.02	0.02	0.00
Iranian Heavy[3]												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.01	0.02	0.21	0.38	0.41	0.52	0.59	0.52	0.57	0.61	0.27	0.34
Asia Oceania	0.28	0.27	0.52	0.59	0.73	0.43	0.57	0.51	0.67	0.58	0.41	0.16
BFOE												
Americas	0.01	0.01	0.02	0.03	0.02	0.01	0.02	0.02	0.03	0.02	0.04	-0.02
Europe	0.56	0.49	0.44	0.42	0.39	0.41	0.49	0.54	0.44	0.39	0.26	0.13
Asia Oceania	0.07	0.06	0.05	0.08	0.09	0.06	0.09	0.07	0.11	0.13	0.05	0.08
Kazakhstan												
Americas	0.01	0.00	0.01	-	-	-	-	-	-	-	-	-
Europe	0.64	0.64	0.70	0.62	0.76	0.78	0.74	0.81	0.70	0.64	0.54	0.10
Asia Oceania	0.02	0.06	0.03	0.04	0.05	0.09	0.15	0.21	0.18	0.10	-	-
Venezuelan 22 API and heavier												
Americas	0.64	0.67	0.63	0.66	0.52	0.61	0.41	0.48	0.34	0.43	0.68	-0.25
Europe	0.08	0.09	0.05	0.05	0.06	0.04	0.05	0.10	0.03	0.05	0.04	0.00
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.66	0.50	0.53	0.53	0.54	0.63	0.50	0.47	0.41	0.68	0.51	0.17
Europe	0.14	0.15	0.17	0.20	0.20	0.18	0.17	0.16	0.14	0.32	0.17	0.16
Asia Oceania	-	0.01	0.05	0.07	0.06	0.07	0.07	0.11	0.03	0.11	0.06	0.05
Russian Urals												
Americas	-	-	-	-	-	-	0.02	0.02	0.02	0.02	-	-
Europe	1.58	1.61	1.72	1.77	1.64	1.57	1.68	1.61	1.72	1.76	1.82	-0.06
Asia Oceania	-	-	-	-	-	0.02	0.02	0.03	-	-	-	-
Cabinda and Other Angola												
North America	0.04	0.11	0.16	0.13	0.04	-	0.17	0.22	0.15	0.08	0.14	-0.06
Europe	0.33	0.42	0.27	0.16	0.09	0.07	0.17	0.16	0.19	0.06	0.21	-0.15
Pacific	0.01	0.02	0.01	-	-	0.01	0.03	-	0.06	-	-	-
Nigerian Light[4]												
Americas	0.00	0.02	0.07	0.07	0.02	0.04	0.05	0.03	-	0.18	-	-
Europe	0.55	0.57	0.39	0.31	0.36	0.46	0.38	0.40	0.36	0.43	0.33	0.10
Asia Oceania	0.02	-	0.01	0.03	0.02	0.03	0.03	0.02	0.03	0.04	0.03	0.01
Libya Light and Medium												
Americas	-	-	-	-	-	-	0.03	-	-	-	-	-
Europe	0.31	0.22	0.20	0.30	0.41	0.37	0.67	0.76	0.64	0.55	0.27	0.27
Asia Oceania	0.02	0.01	0.02	0.01	0.04	0.04	0.01	0.02	0.02	0.03	0.02	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, Slovenia and Latvia. 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)

	2014	2015	2016	4Q16	1Q17	2Q17	3Q17	Aug 17	Sep 17	Oct 17	Year Earlier Oct 16	Year Earlier % change
Crude Oil												
Americas	4201	4026	4542	4288	4558	4664	4289	4453	4005	4130	4044	2%
Europe	8679	9505	9253	9566	9473	9613	9778	9634	9752	9810	9509	3%
Asia Oceania	6366	6573	6669	6664	7006	6450	6921	7115	6613	6561	6126	7%
Total OECD	19246	20103	20464	20518	21038	20726	20989	21203	20370	20501	19679	4%
LPG												
Americas	12	10	20	18	23	16	15	13	21	20	20	2%
Europe	433	418	445	468	499	417	431	424	430	389	489	-20%
Asia Oceania	531	518	566	551	603	586	467	482	367	529	555	-5%
Total OECD	975	947	1031	1036	1126	1020	912	919	817	938	1064	-12%
Naphtha												
Americas	20	14	10	18	19	19	18	9	35	31	16	93%
Europe	352	345	348	354	392	364	365	390	398	402	387	4%
Asia Oceania	952	950	905	893	980	976	968	978	982	1054	835	26%
Total OECD	1324	1309	1263	1265	1391	1360	1351	1377	1415	1486	1238	20%
Gasoline[3]												
Americas	665	670	735	689	575	891	880	841	1013	795	815	-2%
Europe	117	105	100	209	151	131	142	151	83	209	169	24%
Asia Oceania	75	93	84	107	119	97	94	141	73	94	124	-24%
Total OECD	857	868	919	1004	845	1119	1115	1133	1169	1098	1108	-1%
Jet & Kerosene												
Americas	100	141	169	190	148	144	181	175	239	279	208	34%
Europe	455	445	503	466	460	475	551	461	618	533	510	5%
Asia Oceania	60	66	74	89	112	68	46	28	52	85	73	17%
Total OECD	615	651	746	746	719	687	779	664	909	898	790	14%
Gasoil/Diesel												
Americas	95	76	67	84	81	37	48	58	36	74	54	36%
Europe	1043	1161	1334	1275	1390	1353	1401	1512	1230	1305	1321	-1%
Asia Oceania	152	158	195	219	204	206	188	193	174	177	186	-5%
Total OECD	1291	1395	1596	1579	1675	1596	1637	1763	1440	1556	1561	0%
Heavy Fuel Oil												
Americas	132	116	149	147	141	103	153	166	128	116	116	-1%
Europe	596	537	469	416	261	296	292	180	440	218	314	-30%
Asia Oceania	200	173	153	123	145	180	106	97	104	150	102	47%
Total OECD	928	826	770	687	546	580	551	442	673	484	533	-9%
Other Products												
Americas	671	675	652	605	705	694	722	718	818	733	695	5%
Europe	692	701	772	775	1116	982	833	904	748	833	786	6%
Asia Oceania	399	343	344	320	301	244	243	271	275	236	380	-38%
Total OECD	1762	1719	1768	1700	2122	1920	1798	1893	1842	1802	1861	-3%
Total Products												
Americas	1695	1702	1802	1751	1692	1904	2018	1980	2290	2048	1925	6%
Europe	3687	3712	3971	3962	4269	4020	4015	4023	3947	3889	3974	-2%
Asia Oceania	2369	2301	2321	2303	2464	2357	2111	2189	2028	2324	2256	3%
Total OECD	7751	7715	8093	8016	8424	8281	8143	8192	8265	8261	8155	1%
Total Oil												
Americas	5896	5728	6344	6039	6250	6568	6307	6433	6295	6178	5969	3%
Europe	12366	13216	13224	13528	13742	13633	13793	13657	13699	13699	13483	2%
Asia Oceania	8735	8874	8990	8967	9471	8807	9032	9304	8641	8885	8382	6%
Total OECD	26997	27818	28558	28534	29462	29008	29132	29394	28635	28762	27834	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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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)*, *Market Report Series_Oil* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 11 August 2017), 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 © 2018 Argus Media Limited - all rights reserved).

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