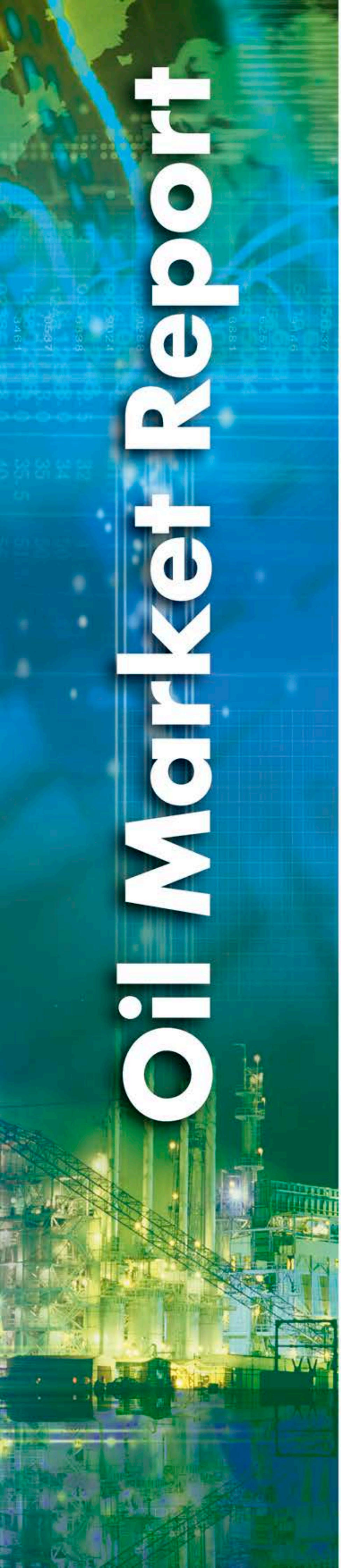

CORRIGENDUM

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14 June 2017

HIGHLIGHTS

- **Recent weaknesses in demand growth are likely to prove transitory,** particularly in post currency-reform India. Although global growth was only 0.9 mb/d in 1Q17, it accelerates in 2H17 and for the year as a whole our outlook remains unchanged at 1.3 mb/d. In 2018, growth increases modestly to 1.4 mb/d as demand reaches a record 99.3 mb/d.

- **Global oil supply rose by 585 kb/d in May to 96.69 mb/d as both OPEC and non-OPEC countries produced more.** Output stood 1.25 mb/d above a year ago, the highest annual increase since February 2016. Gains were dominated by non-OPEC, particularly the US.

- **OPEC crude output rose by 290 kb/d in May to 32.08 mb/d, the highest level so far this year, after comebacks in Libya and Nigeria, which are exempt from supply cuts.** Output from members bound by the production deal edged lower, which kept year-to-date compliance strong at 96%.

- **OECD commercial stocks rose in April by 18.6 mb (620 kb/d) on higher refinery output and imports.** They stand 292 mb above the five-year average and are higher than when OPEC decided to cut output. For May, preliminary data suggests stocks falling in Fujairah, Japan, Europe, Singapore and in vessels offshore, but rising in the US and China.

- **Benchmark crude oil prices fell after 23 May, reflecting lower expectations about the pace of global market rebalancing.** At publication time, crude prices are close to the levels when the OPEC output deal was announced. Fuel oil prices and cracks were boosted as stocks fell to their lowest level in two years due to tight supplies of sour crudes. Gasoline and naphtha prices fell.

- **Record high US refinery throughput in April and May led to upward revisions to our 2Q17 and 3Q17 forecasts.** Global refinery intake is projected to reach 80 mb/d in 2Q17 and 81.3 mb/d in 3Q17, up by about 1.1 mb/d y-o-y in each quarter. In 3Q17, throughput growth is driven by the US and China in the East.

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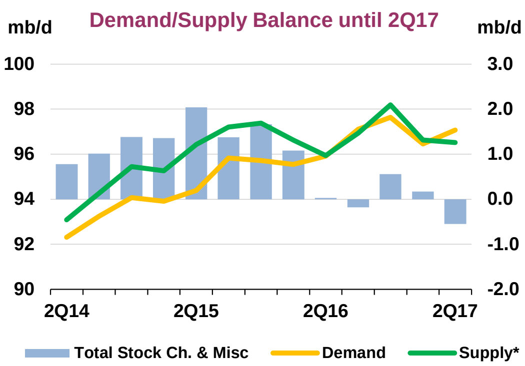
WHATEVER IT TAKES

In this *Report,* we publish our first look at what 2018 might have in store. This is timely in view of the recent extension until March of the output cuts. However, such is the volatile nature of the market today, with recent tensions in the Gulf adding to the mix, 2018 seems a long way away. Immediate concerns about stubbornly high stocks due to rising global production are pressuring oil prices, which have fallen to levels not seen since the OPEC ministerial meeting at the end of November.

In April, total OECD stocks increased by more than the seasonal norm. For the year-to-date, they have actually grown by 360 kb/d. Our provisional monthly data for May suggests that OECD stocks might, overall, be little changed, but recent US weekly data suggests that rising domestic production, high imports, low exports, and weaker gasoline demand, have combined to send stocks there higher. In last month's *Report*, the implied market deficit in 2Q17 was 0.7 mb/d but now this has narrowed to 0.5 mb/d. The reasons for this are a reduction in demand growth, mainly because of weaker Chinese and European data, and an increase in global supply. Based on our current numbers, assuming stable OPEC production, market deficits should be significant in 2H17, although adverse changes to demand and supply data can erode prospective stock draws.



Note: For scenario purposes only, IEA assumes OPEC/non-OPEC ouput cuts implemented as announced.

In the meantime, as always these days, the focus is on US production, which, as anticipated in our earlier forecasts, is rising strongly. For 2017, we expect US crude supply to grow by 430 kb/d and the year will end with production there 920 kb/d higher than at the end of 2016. Our first look at 2018 suggests that US crude production will grow year-on-year by 780 kb/d, but such is the dynamism of this extraordinary, very diverse industry it is possible that growth will be faster. For total non-OPEC production, we expect production to grow by 0.7 mb/d this year but our first outlook for 2018 makes sobering reading for those producers looking to restrain supply. In 2018, we expect non-OPEC production to grow by 1.5 mb/d, which is slightly more than the expected increase in global demand.

Back to today; while OPEC countries collectively have broadly implemented their cuts, some members have been less than wholly diligent. Iraq has achieved a compliance rate of only 55% so far this year, and Venezuela and the UAE are also laggards. Meanwhile, two OPEC members not included in the deal have recently seen increases in production: Libya's output has reached nearly 800 kb/d, a level not seen since 2014, and Nigeria has announced the lifting of force majeure for Forcados exports, potentially making available to the market more than 200 kb/d. By the nature of these two countries, production could easily fall back; indeed, in Nigeria the very recent announcement of force majeure for Bonny Light liftings is an example. However, if Libya and Nigeria continue to grow their output these extra barrels dilute the value of OPEC's output accord and contribute to delaying the re-balancing of the market.

The currency used to express re-balancing is the five-year average level of oil stocks. In this report, we show that OECD stocks are currently 292 mb above this level. Indeed, based on our current outlook for 2017 and 2018, incorporating the scenario that OPEC countries continue to comply with their output agreement, stocks might not fall to the desired level until close to the expiry of the agreement in March 2018. A lot can change of course, but, as we said at the start, 2018 seems a very long way away.

We have regularly counselled that patience is required on the part of those looking for the re-balancing of the oil market, and new data leads us to repeat the message in this *Report*. "Whatever it takes" might be the mantra, but the current form of "whatever" is not having as quick an impact as expected.

DEMAND

Summary

- **This month's *Report* includes, for the first time, a comprehensive oil demand forecast for 2018, which shows global growth accelerating modestly to 1.4 mb/d, after a gain of 1.3 mb/d in 2017.** Demand averages 97.84 mb/d in 2017, rising to 99.27 mb/d in 2018 and breaching the psychologically important 100 mb/d threshold in 4Q18.

- **Non-OECD economies account for almost all of the forecast growth in 2018** and 94% of the anticipated 2017 increase, with China and India driving the expansion. The strength of non-OECD demand growth is due to a combination of robust macroeconomic conditions, demographic factors and lower existing base levels of per-capita demand.

- **Despite the relatively robust overall demand forecast, the latest numbers (i.e. for March and April) show a net-downward revision compared to last month's *Report*.** Weaker March numbers were seen in Japan, Korea, the UK, Turkey and Spain, while significantly lower April numbers emerged for China, France, Italy, Spain and Germany. Such adjustments, coupled with the prolonged after-effects of India's currency reform, saw global year-on-year (y-o-y) demand growth ease back to a ten-quarter low of 900 kb/d in 1Q17.

- **The mixed recent Middle Eastern oil demand story remains in place,** with strong gains seen in Iran, Iraq and Kuwait while economically hamstrung Saudi Arabia continues to lag behind. Furthermore, after a relatively robust recent Qatari demand trend, March data were pulled down sharply due to a steep drop in middle distillate demand. Qatar's weakness even occurred before the recent political turmoil.

Global Oil Demand (2016-2018)

(million barrels per day)*

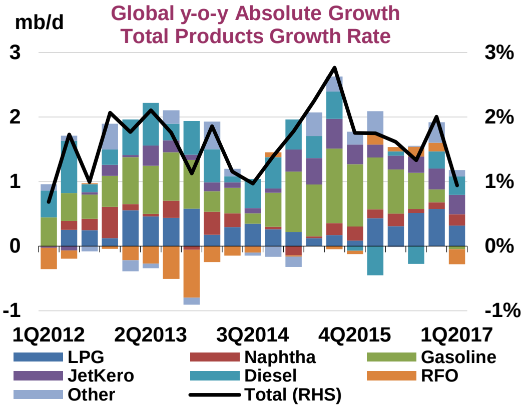
	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Africa	4.2	4.2	4.1	4.1	4.2	4.3	4.3	4.2	4.3	4.3	4.5	4.4	4.3	4.5	4.4
Americas	30.9	31.0	31.8	31.5	31.3	30.9	31.2	31.9	31.7	31.4	31.1	31.4	32.1	31.9	31.6
Asia/Pacific	33.4	32.8	32.3	33.8	33.1	34.0	33.5	33.5	34.7	33.9	35.2	34.4	34.3	35.5	34.8
Europe	14.3	14.7	15.2	14.9	14.8	14.5	14.8	15.2	14.9	14.9	14.5	14.7	15.1	14.9	14.8
FSU	4.6	4.6	4.9	5.0	4.8	4.7	4.8	5.0	5.0	4.9	4.7	4.9	5.1	5.1	5.0
Middle East	8.0	8.5	8.9	8.3	8.4	8.1	8.5	8.8	8.5	8.5	8.3	8.6	9.0	8.7	8.7
World	**95.5**	**95.9**	**97.1**	**97.6**	**96.6**	**96.5**	**97.1**	**98.6**	**99.2**	**97.8**	**98.2**	**98.5**	**99.9**	**100.5**	**99.3**
Annual Chg (%)	1.7	1.6	1.3	2.0	1.7	0.9	1.2	1.6	1.6	1.3	1.8	1.4	1.3	1.3	1.5
Annual Chg (mb/d)	1.6	1.5	1.3	1.9	1.6	0.9	1.2	1.5	1.5	1.3	1.7	1.4	1.3	1.3	1.4
Changes from last OMR (mb/d)	0.1	0.0	0.0	-0.1	0.0	-0.1	-0.2	0.1	0.1	0.0	-	-	-	-	-

* Including biofuels

Global Overview

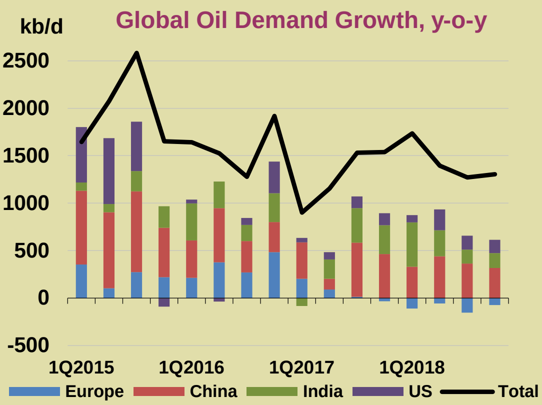
The global forecast continues to show growth of 1.3 mb/d in 2017, despite significant downgrades to estimates of 1H17 demand. We maintain our view that most of the factors that slowed growth in 1H17 are likely to prove transitory. Firstly, the negative impact of India's currency reform has already shown signs of passing (see *Other Non-OECD*) and significantly stronger Indian demand growth is forecast over the remainder of the year. Secondly, due to similar one-off factors that restrained Chinese demand growth in 2H16 (forced factory closures and flooding), growth is expected to accelerate in 2H17. Thirdly, the recent fall in crude oil values will ease upward pressure on retail prices and thus downside pressure on demand growth.

The latest data, i.e. mainly March/April releases, show global growth easing back to a ten-quarter low of 900 kb/d y-o-y in 1Q17, with demand averaging 96.5 mb/d. Although the prolonged after effects of India's currency reforms were a big factor, significant deteriorations elsewhere also played a role. Both the US and Europe, for example, saw their y-o-y demand gains ease by approximately 0.3 mb/d between 4Q16 and 1Q17, while both Japan and Korea lost approximately 0.1 mb/d of momentum. Preliminary estimates of 2Q17 global demand, at 97.1 mb/d, point towards a modest acceleration, with growth of 1.2 mb/d. Even so, 0.2 mb/d has been trimmed from the 2Q17 total demand and growth estimates as surprisingly weak Chinese and European demand numbers emerged. Chinese gasoline demand suffered particularly, while Europe saw sharp declines in gasoline, gasoil and residual fuel oil demand.



Demand forecasts for 2018 – modest growth acceleration to 1.4 mb/d

This month's *Report* includes a first look at detailed 2018 demand numbers, which show global oil demand growth accelerating modestly supported by economic growth and the one-off impact of India's recovery from the setback caused by its currency reform. Expanding by approximately 1.4 mb/d in 2018, global demand will average 99.3 mb/d, a new record.

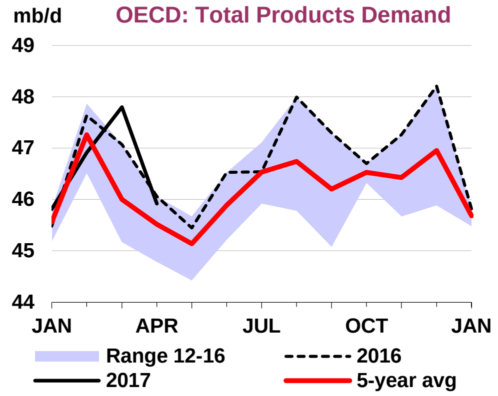


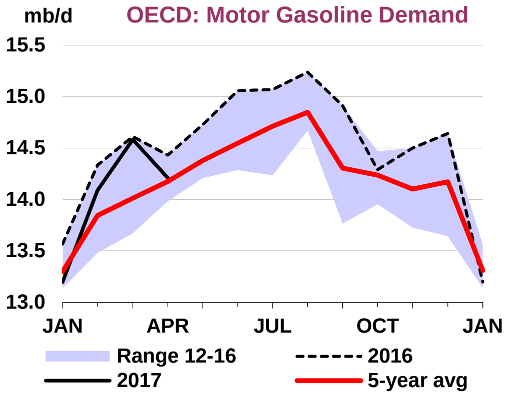
Roughly on par with the average of the last 15 years (+1.3 mb/d 2002-16), the projected 1.4 mb/d expansion will be largely driven by rebounding industrial demand. LPG (including ethane) accounts for approximately 35% of the projected global demand increase in 2018, gasoil/diesel another 30%. Transport fuels also contribute significantly (note: gasoil/diesel includes road use of diesel) to 2018 growth, with gasoline and jet/kerosene respectively accounting for 17% and 12% of the projected global growth.

Emerging markets account for almost all of the forecast global increase in demand in 2018, as demographic factors are supportive of rapid growth from a base of far lower per-capita consumption levels. The International Monetary Fund (IMF), in its April 2017 *World Economic Outlook*, forecast economic growth of approximately 4.8% in 2018 for 'emerging market and developing economies' versus 2.0% for 'advanced economies'. Within the non-OECD complex, Asia accounts for around two-thirds of the potential growth and, in turn, China and India combined contribute two-thirds of the non-OECD Asian gain. Furthermore, so important are these two countries to global demand that they will contribute 44% of the global growth forecast in 2018. Uncertainty regarding oil prices in 2018, however, complicates the picture as many non-OECD countries are heavily dependent upon revenues from oil exports. The IMF assumed a roughly flat oil price in 2018; but higher prices would adversely impact net importing developing countries, e.g China and India, while lower prices would adversely impact net exporters, e.g in the Middle East and Russia.

OECD

Recent weakness in the Americas and Asia Oceania trimmed back the overall OECD y-o-y growth rate to a four-quarter low of 130 kb/d in 1Q17, as total OECD oil demand averaged 46.8 mb/d. Europe provided the only significant growth, at 205 kb/d, but even this was its slowest y-o-y gain in seven quarters. Having seen strong gains since late 2014, the 215 kb/d y-o-y reversal in OECD gasoline demand was the main factor, although notable decelerations were also seen in gasoil, residual fuel oil and LPG. OECD demand growth will likely deteriorate further in 2H17 and 2018, as the price-driven demand support rallies fade and the long-term flat-to-declining OECD demand trend re-emerges.





OECD Demand based on Adjusted Preliminary Submissions - April 2017

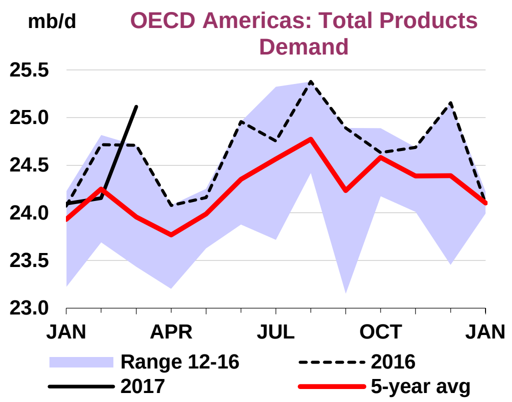
(million barrels per day)

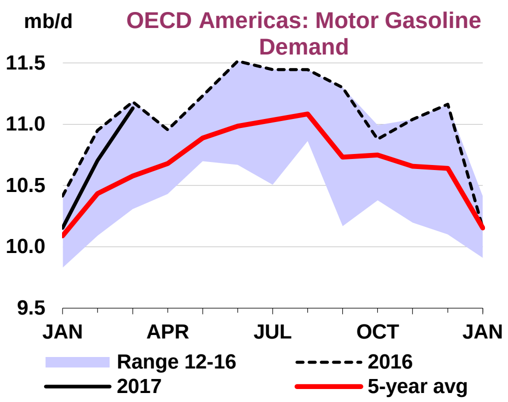
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	**10.77**	**-1.6**	**1.88**	**2.9**	**4.66**	**2.3**	**0.46**	**-0.8**	**0.71**	**-3.2**	**5.69**	**2.42**	**24.16**	**0.3**
US50	9.02	-2.1	1.60	2.5	3.81	3.6	0.13	-13.2	0.43	-10.6	4.30	2.86	19.29	0.1
Canada	0.85	1.9	0.14	5.3	0.28	-8.1	0.26	6.0	0.04	7.5	0.80	5.42	2.37	2.5
Mexico	0.78	-0.7	0.08	7.5	0.37	-2.2	0.04	0.2	0.15	19.7	0.48	-3.23	1.91	0.1
OECD Europe	**1.92**	**-1.2**	**1.37**	**1.0**	**4.96**	**1.5**	**1.30**	**-6.8**	**0.86**	**-3.5**	**3.52**	**-2.35**	**13.93**	**-1.0**
Germany	0.42	-2.4	0.19	-1.2	0.81	-0.6	0.31	-11.4	0.10	2.1	0.49	-16.91	2.32	-6.3
United Kingdom	0.29	-0.7	0.32	-3.0	0.54	1.1	0.14	2.4	0.03	-5.2	0.32	4.93	1.63	0.7
France	0.17	3.3	0.15	1.2	0.70	-1.6	0.20	-14.3	0.03	-3.7	0.37	-6.03	1.64	-3.7
Italy	0.20	-5.1	0.12	9.9	0.44	-1.6	0.07	-10.1	0.05	-28.2	0.35	-8.94	1.23	-5.4
Spain	0.12	2.9	0.13	7.9	0.47	0.8	0.14	-8.6	0.14	-8.2	0.26	1.59	1.26	-0.4
OECD Asia & Oceania	**1.51**	**-1.2**	**0.84**	**4.3**	**1.37**	**2.4**	**0.44**	**-4.9**	**0.54**	**-16.4**	**3.11**	**0.11**	**7.83**	**-1.0**
Japan	0.86	-2.2	0.46	5.2	0.40	0.5	0.32	-7.4	0.28	-11.9	1.48	-4.76	3.80	-3.4
Korea	0.21	-2.1	0.17	0.0	0.38	-2.6	0.10	-0.8	0.21	-24.7	1.38	6.85	2.46	0.1
Australia	0.31	0.5	0.16	3.6	0.50	9.0	0.00	0.0	0.03	3.6	0.17	-7.90	1.17	3.1
OECD Total	**14.21**	**-1.5**	**4.09**	**2.5**	**10.99**	**1.9**	**2.20**	**-5.3**	**2.11**	**-7.1**	**12.33**	**0.43**	**45.92**	**-0.3**

* Including US territories

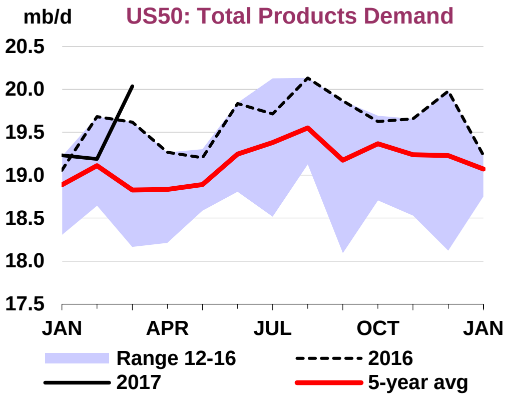
Americas

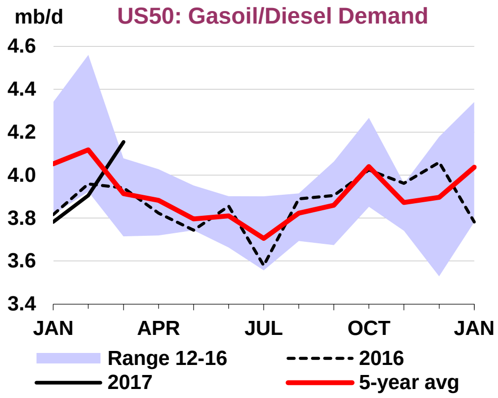
Sharp slowdowns in US demand growth in 1Q17, particularly compared to recent years, saw OECD American oil demand suffer its sharpest y-o-y decline since 4Q15. It declined by 30 kb/d y-o-y in 1Q17, having risen by 300 kb/d in 4Q16, on decelerations in the US, Canada and Chile coincided with persistent absolute declines in Mexico. Weak gasoline and LPG demand were key factors despite large upgrades to the US demand estimate for March.



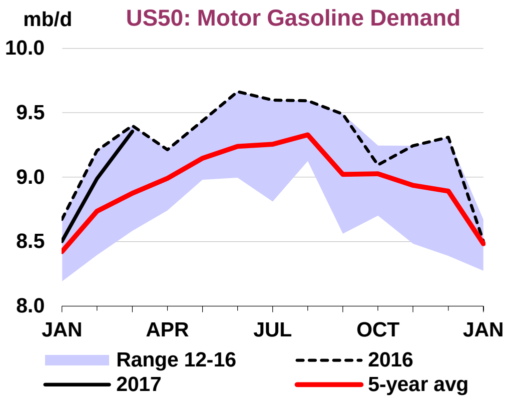


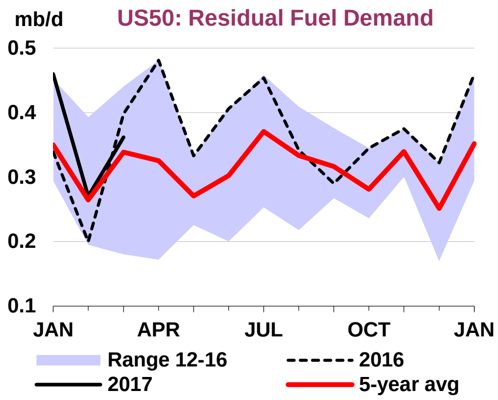
Surprisingly robust **US** data for March showed demand at 20.0 mb/d, up by 415 kb/d on the corresponding month last year and 335 kb/d up on the estimate cited in last month's *Report*. Resurgent gasoil demand led the revival; March data showed gasoil/diesel demand averaging 4.2 mb/d, up 215 kb/d on the year earlier. Gasoil demand growth strengthened as the industrial backdrop improved and US light, tight, oil output increased; the US Federal Reserve reported total US industrial activity rising by 1.5% y-o-y in March – a two-and-a-half year high.





Relatively robust March gains were also seen in US jet/kerosene, LPG (including ethane), naphtha and 'other products', up by 125 kb/d, 65 kb/d, 40 kb/d and 55 kb/d respectively y-o-y. Declines in gasoline and residual fuel oil demand provided a notable offset, however. Gasoline demand stuttered, down by 45 kb/d compared to the year earlier to 9.4 mb/d, as higher retail pump prices (the average US retail gasoline price was up 17.7% y-o-y) and a more efficient US vehicle pool had an impact. The University of Michigan's average fuel economy estimate for new vehicles sold in the US rose by 0.1 miles per gallon (mpg) in March to 25.2 mpg. The University cited the average efficiency of new vehicles sold in 2007 at approximately 20 mpg, hence a near 25% improvement in just ten years.

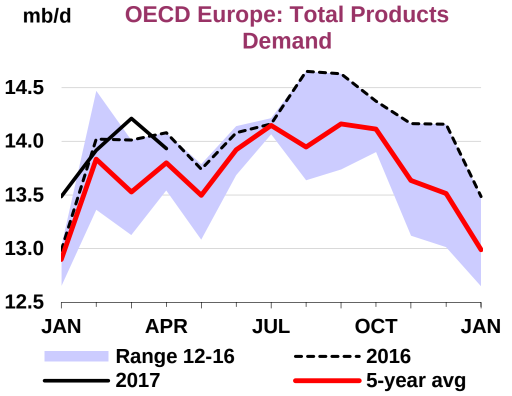


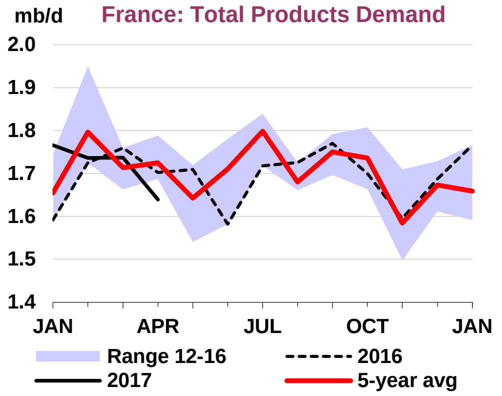


The upwardly revised 1Q17 US demand estimate, at 19.5 mb/d, shows y-o-y growth of approximately 50 kb/d, or 0.2% – a near mirror image reflection of the previously reported decline. Similarly modest gains are forecast over the remainder of the year. The latest weekly demand numbers, from the US Energy Information Administration (EIA), add weight to this argument. Adjusted for recent historical discrepancies between the weekly and monthly EIA data series, the EIA weekly numbers suggest 2Q17 demand of approximately 19.5 mb/d, 75 kb/d up on the year earlier. Growth accelerates in 2H17 to around 125 kb/d y-o-y, as new petrochemical capacity comes on-stream, requiring additional volumes of feedstocks, largely ethane (included in LPG in this *Report*). US growth further accelerates in 2018 to 145 kb/d as demand rises to 19.9 mb/d, fuelled by further additions to ethane demand.

Europe

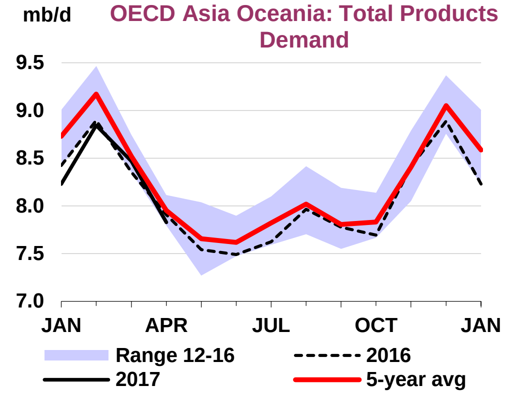
Weaker than expected April numbers show OECD European oil demand falling by 145 kb/d y-o-y, or 1%, to 13.9 mb/d. Not only was it the sharpest y-o-y drop since November 2014 but it also represented a reduction of 245 kb/d from the forecast cited in last month's *Report*. Particular weaknesses were seen in the April data for Spain, Italy, Germany and France. Falling by approximately 3.7% in April, or 65 kb/d, France saw the weakest demand conditions of all the large European economies, with particularly sharp declines in gasoil/diesel demand. Year-to-date, January-through-April, European oil product demand has averaged 13.9 mb/d, just 0.8% up (or 110 kb/d) compared to the same period in 2016, a significant slowdown on recent years. European oil product demand growth averaged 1.8% in 2015, or 235 kb/d, and 2.4%, or 335 kb/d, in 2016.

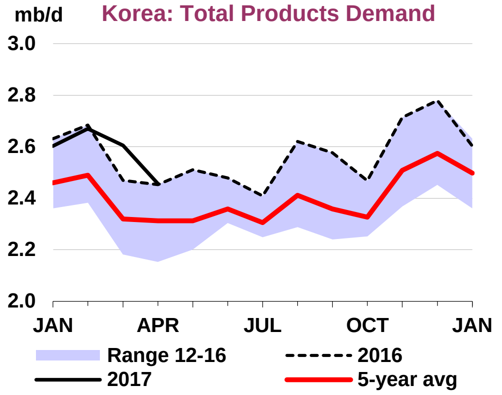




Asia Oceania

Pulled down by ongoing contractions in Japan and a dramatic deceleration in previously strong Korea, OECD Asia Oceania saw an about-face as the growth trend from 2Q16-4Q16 turned negative in 1Q17. Demand in the region as a whole eased back by 45 kb/d y-o-y to 8.5 mb/d. Japan declined by 140 kb/d in 1Q17, compared to the year earlier, having been essentially flat in 4Q16. **Korean** y-o-y growth eased to 30 kb/d in 1Q17 (and vanished altogether in April), having been above 130 kb/d since 4Q15. Gasoil, jet/kerosene and residual fuel oil demand particularly slowed as industrial growth decelerated to its second lowest level in six months in April, according to Statistics Korea.





Non-OECD

Having slowed to a 13-quarter low of 775 kb/d y-o-y in 1Q17, or 1.6%, a significant re-acceleration of non-OECD demand is now foreseen. Growth is likely to pick up, supported by the strengthening macroeconomic situation in many non-OECD economies – including some major countries recently plagued by recession, e.g. Brazil and Russia – coupled with a number of one-off supports, including the recovery in India from the disruption that followed the currency reform. Gasoline, diesel and petrochemical feedstocks will likely provide the majority of the support, while on a region-specific basis non-OECD Asia dominates.

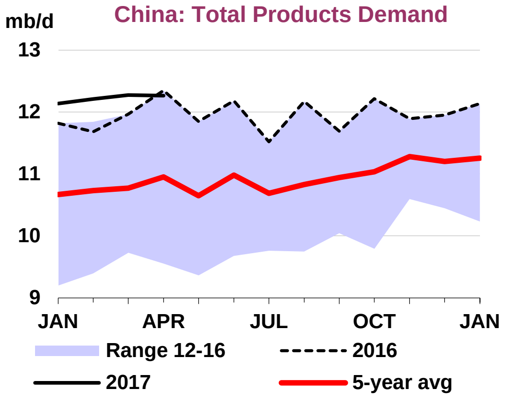
Non-OECD: Demand by Product

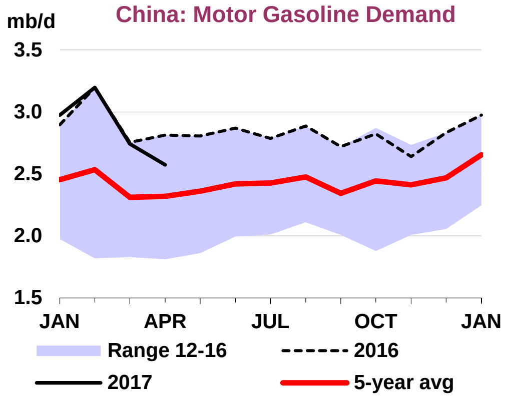
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q16	4Q16	1Q17	4Q16	1Q17	4Q16	1Q17
LPG & Ethane	5,877	6,135	6,149	533	349	9.5	6.0
Naphtha	2,613	2,697	2,670	58	5	2.2	0.2
Motor Gasoline	11,075	11,122	11,163	113	170	1.0	1.5
Jet Fuel & Kerosene	3,247	3,206	3,277	120	132	3.9	4.2
Gas/Diesel Oil	14,540	14,769	14,213	-123	8	-0.8	0.1
Residual Fuel Oil	5,428	5,448	5,344	105	-191	2.0	-3.5
Other Products	7,062	6,874	6,803	183	300	2.7	4.6
Total Products	**49,841**	**50,251**	**49,618**	**988**	**773**	**2.0**	**1.6**

China

Pulled back by a weaker economic backdrop – Moody's downgraded its sovereign debt rating for the first time since 1989 – China posted both y-o-y and month-on-month demand contractions in April, with gasoline accounting for the majority of the adjustment. Declines in car sales (-2.2% y-o-y), coupled with weaker consumer confidence and y-o-y higher retail prices drove Chinese gasoline demand down, accordingly reducing our 2Q17 demand estimate from 12.5 mb/d to 12.2 mb/d. The National Bureau of Statistics of China (NBS) showed consumer confidence down in March for the first time in four months and the largest decline since early 2016.



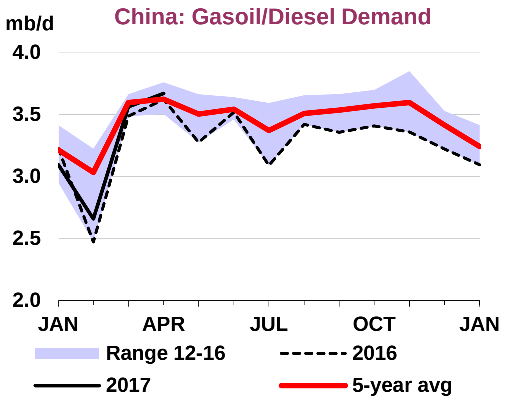


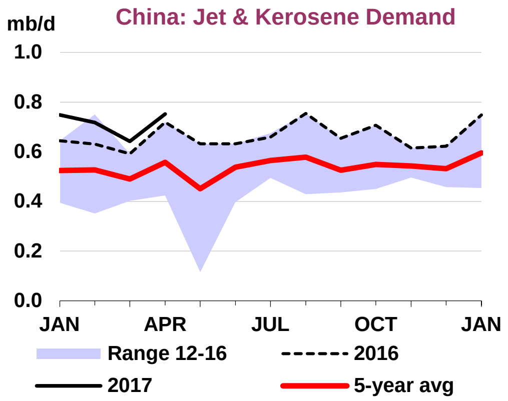
China: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2016	2017	2018	2017	2018	2017	2018
LPG & Ethane	1,379	1,532	1,644	153	112	11.1	7.3
Naphtha	1,076	1,100	1,127	24	27	2.2	2.4
Motor Gasoline	2,834	2,965	3,098	130	133	4.6	4.5
Jet Fuel & Kerosene	655	707	756	52	49	8.0	6.9
Gas/Diesel Oil	3,289	3,373	3,475	84	102	2.6	3.0
Residual Fuel Oil	360	202	182	-157	-21	-43.8	-10.2
Other Products	2,346	2,443	2,403	97	-40	4.1	-1.6
Total Products	**11,939**	**12,322**	**12,685**	**384**	**362**	**3.2**	**2.9**

We have trimmed the 2017 growth outlook for China to 385 kb/d versus the 400 kb/d cited in last month's *Report*. The downside adjustment is restrained, however, as significant upside technical gains are forecast for 3Q17, following the severity of the 3Q16 hit from forced factory closures and flooding. Using the IMF's outlook for weaker economic growth in 2018, our Chinese oil demand forecast for 2018 assumes a further deceleration of growth to 360 kb/d.

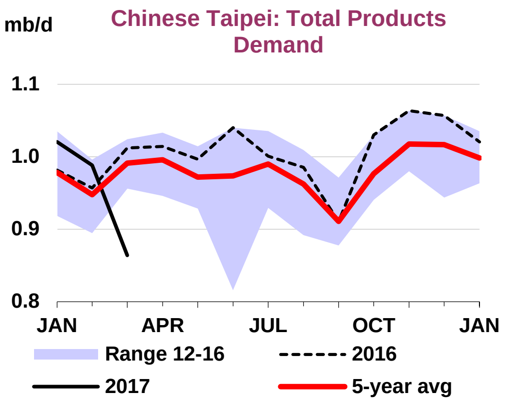


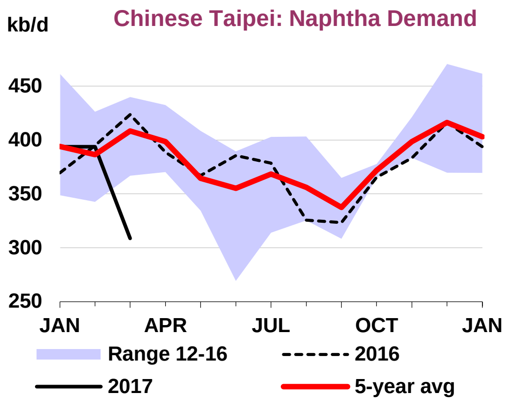


Notable fragments of strength remained in the jet fuel, residual fuel oil and diesel markets in April. Chinese jet/kerosene demand posted a relatively resilient 30 kb/d y-o-y (or 4.4%) gain, to 750 kb/d, as demand for air travel continues to rise, albeit at a slower pace. Residual fuel oil and diesel demand, meanwhile, posted y-o-y gains as overall industrial activity continues to expand, albeit once again at a slower pace, with NBS reporting industrial activity up 6.5% y-o-y in April, having risen by 7.6% as recently as March.

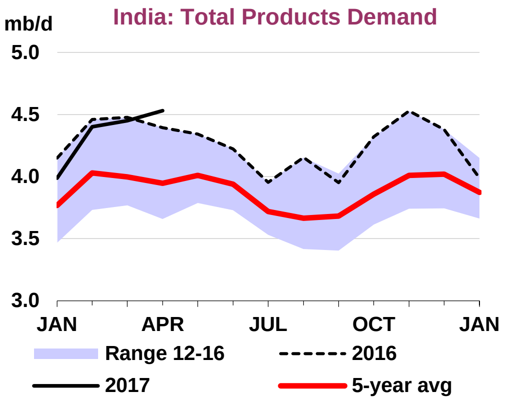
Other Non-OECD

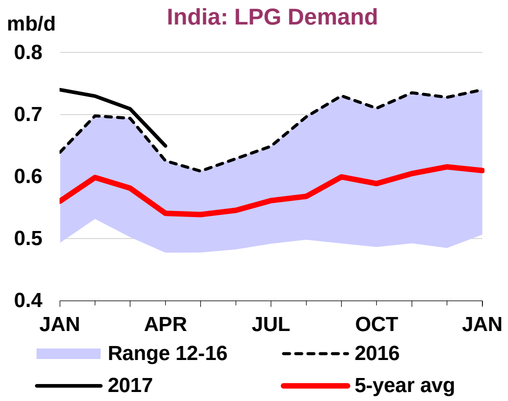
This month's *Report* includes several March non-OECD data releases showing numbers significantly below those previously envisaged. This applies particularly to Chinese Taipei, Egypt and Thailand. Sharp reductions in naphtha demand particularly impacted **Chinese Taipei**, where total demand plummeted by a largely unforeseen 150 kb/d y-o-y, to 865 kb/d – its lowest level in nearly five years. Sluggish residual fuel oil and 'other product' demand dragged back total demand in **Thailand,** which essentially remained unchanged compared to the year earlier. Offsetting upward adjustments were seen for Hong Kong, Nigeria and the Philippines, which in March came out 45 kb/d, 45 kb/d and 20 kb/d above prior forecasts, respectively.





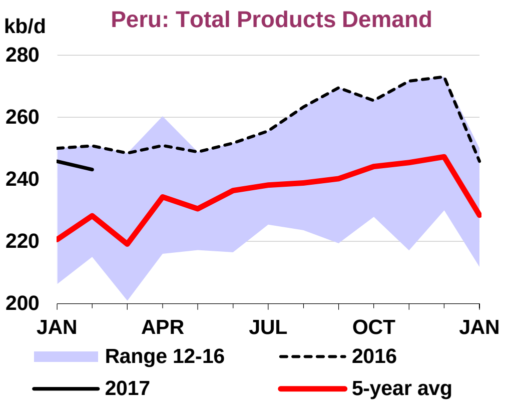
The release of official **Indian** data for April by the Petroleum Planning and Analysis Cell confirmed our long-held belief that oil demand would tentatively return to growth after the declines seen in 1Q17 following the negative impact from the recent currency reforms. April oil demand growth was approximately 140 kb/d y-o-y, exactly as forecast in last month's *Report*. We believe that impetus will be maintained until growth returns to 2016's levels, probably around mid-year. Indian oil demand growth is forecast to average 330 kb/d in 2H17, before accelerating in 1Q18 to 470 kb/d. Road transport fuels, bitumen (included in 'other products') and LPG – largely residential – will account for the majority of the strong gains foreseen.

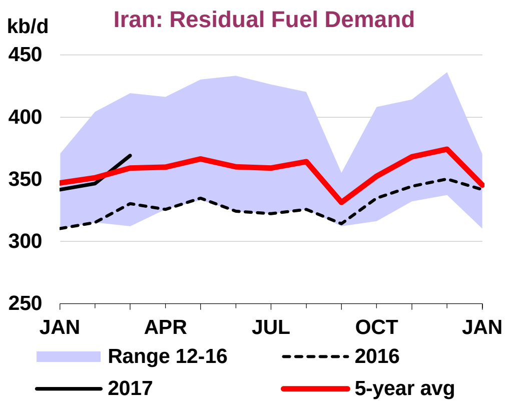




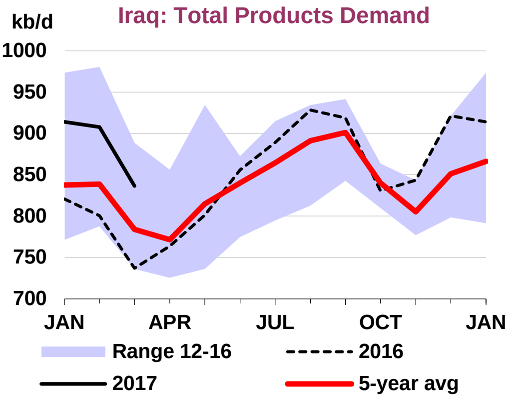
April Indian demand showed particular strength in LPG, gasoline and gasoil; the former supported by ongoing efforts to convert five million low-income households to LPG by 2019. Gasoline and diesel demand accelerated as the negative after-effects from the Indian demonetisation started to ebb and car sales recuperated. The Centre for Monitoring Indian Economy reported car registrations of 254 290 in April, their second highest level since October.

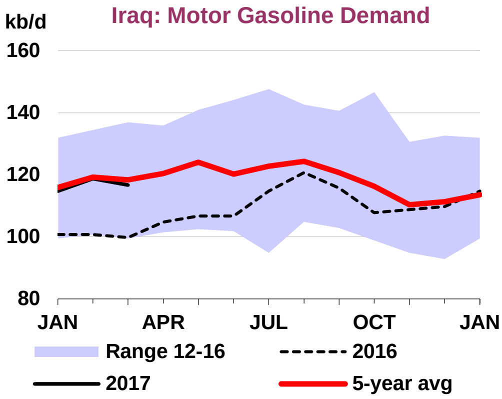
Updated **Peruvian** demand numbers for December-through-February, marginally raised the net 2016 demand estimate while curtailing the early forecast for 2017. At an upwardly revised 260 kb/d, the latest 2016 Peruvian demand estimate shows growth of approximately 10 kb/d, or 4.8%, on the year, supported by robust gains throughout the year, bar April and June. Momentum, however, quickly petered-out in 2017, with consecutive y-o-y declines seen in both January and February, as middle distillate demand fell. Having seen strong gains through most of 2015-16, demand stumbled due to sharp falls in steel production and weaker business confidence. The World Steel Association reported steel production down by approximately one-third y-o-y in February, while the Central Reserve Bank of Peru cited business confidence falling to an eight-month low in February before easing even further in March to a fresh 14-month low. The Peruvian oil demand outlook for 2017 as a whole has accordingly been reduced.





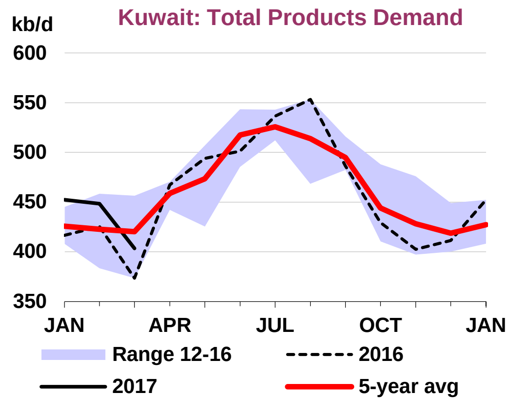
The recent uptick in **Iranian** oil use continued for a second consecutive month in March, while January's y-o-y decline was less than the heavier losses seen in 2016. Relatively robust gains in LPG and fuel oil provided the majority of the support, coupled with modest gains in gasoline and naphtha. For the year as a whole, Iranian oil demand is forecast to average 2.0 mb/d, a gain of 65 kb/d, accelerating to 75 kb/d in 2018 as underlying macroeconomic activity potentially strengthens. The IMF's April 2017 *World Economic Outlook* forecast Iranian GDP growth at 4.3% in 2018, accelerating from 2017's 3.3% rate.

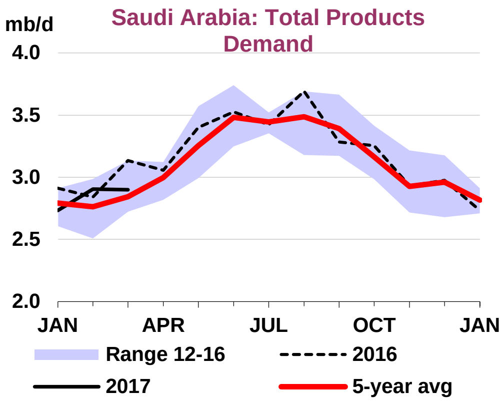




Neighbouring **Iraq** saw even stronger 1Q17 gains underpinned by rapid expansions in gasoline, jet/kerosene, gasoil and residual fuel oil use. Thus, for the year as a whole, Iraqi oil demand is expected to average 890 kb/d, 45 kb/d or 5.6% up on the year earlier, with industrial and transport fuels providing the majority of the growth. A further 35 kb/d of demand growth is envisaged for 2018, a slowdown largely attributable to decelerating (but still strong) road transport demand growth.

Kuwaiti oil product demand growth came in at around 30 kb/d y-o-y, or +8.0%, in March, underpinned by rapid gains in residual fuel oil and gasoline demand, up by 20 kb/d and 10 kb/d respectively. Thus, for 1Q17 as a whole, Kuwaiti oil demand averaged 435 kb/d, 30 kb/d up on last year, or 7.3%. Such strong momentum is not likely to be maintained, however, with the IMF predicting that GDP will fall by 0.2% in 2017, triggering a significant slowdown in Kuwaiti oil demand over the remainder of the year. As the economy is forecast to rebound in 2018, with the IMF forecasting economic growth of 3.5%, so too will oil demand growth.



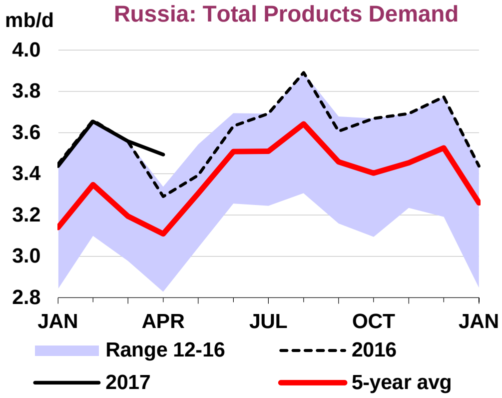


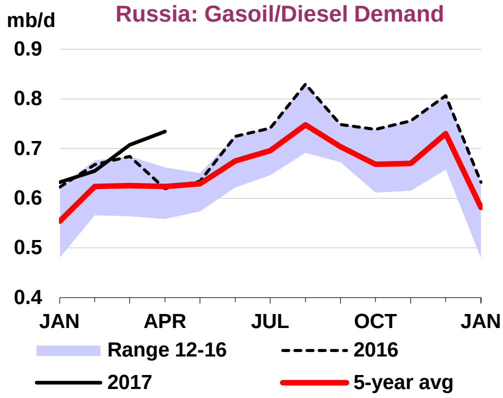
In contrast to the otherwise robust recent Middle Eastern demand trend, persistent declines continue to plague **Saudi Arabia.** Demand in March eased back by a larger than previously foreseen 235 kb/d y-o-y. Weaker activity in the construction sector particularly dampened distillate demand, which fell by 100 kb/d y-o-y to its lowest level in five years. The severity of the country's macroeconomic woes, coupled with further potential inroads from gas into the power sector, should see a second consecutive Saudi Arabian demand decline of approximately 90 kb/d in 2017 to average 3.1 mb/d in 2017. Oil demand is forecast to remain roughly flat in 2018, as tentatively improving economic conditions (+1.3% GDP growth according to the IMF's April 2017 *World Economic Outlook*) arrest the previous sharp falls in gasoil demand while the potential downside from the power sector eases as additional gas capacity wanes.

Non-OECD: Demand by Region

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	3Q16	4Q16	1Q17	4Q16	1Q17	4Q16	1Q17
Africa	4,085	4,149	4,271	18	112	0.4	2.7
Asia	24,503	25,489	25,469	983	588	4.0	2.4
FSU	4,923	4,962	4,652	227	16	4.8	0.4
Latin America	6,774	6,662	6,434	-126	-22	-1.9	-0.3
Middle East	8,853	8,291	8,114	-123	76	-1.5	1.0
Non-OECD Europe	704	698	678	9	2	1.4	0.4
Total Products	**49,841**	**50,251**	**49,618**	**988**	**773**	**2.0**	**1.6**





Rapid gains in gasoil demand underpinned **Russia's** surprisingly strong April demand number, up more than 200 kb/d compared to the year earlier. Middle distillate demand surged as industrial activity rebounded after an earlier lull. The Federal State Statistics Service reported overall industrial activity rising by 2.3% y-o-y in April, a second consecutive acceleration after gains of 0.8% in March and a decline of 2.7% y-o-y in February. The forecast for the year as a whole is for demand to average 3.7 mb/d, 65 kb/d up on the year earlier, with a similarly paced expansion foreseen in 2018.

Russia: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2016	2017	2018	2017	2018	2017	2018
LPG & Ethane	471	491	503	20	12	4.1	2.5
Naphtha	118	129	134	11	4	9.4	3.3
Motor Gasoline	823	821	827	-2	6	-0.3	0.8
Jet Fuel & Kerosene	247	257	264	10	7	4.1	2.7
Gas/Diesel Oil	715	730	740	16	10	2.2	1.3
Residual Fuel Oil	427	386	390	-41	4	-9.6	1.0
Other Products	808	860	890	52	30	6.5	3.4
Total Products	**3,609**	**3,674**	**3,747**	**65**	**73**	**1.8**	**2.0**

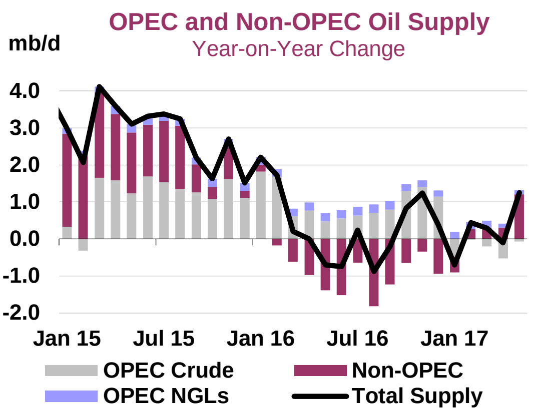
Source: Petromarket RG, IEA

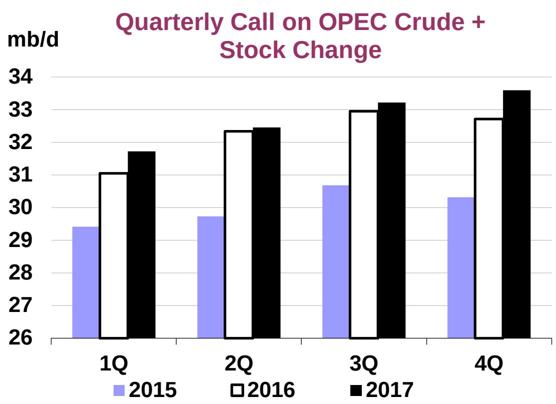
SUPPLY

Summary

- **Global oil supply rose by 585 kb/d in May to 96.69 mb/d after both OPEC and non-OPEC produced more.** Output stood 1.25 mb/d above a year ago, the highest annual increase since February 2016. Annual gains were dominated by non-OPEC.

- **OPEC and non-members led by Russia agreed on 25 May to extend a 1.8 mb/d supply cut through 1Q18. Equatorial Guinea chose to join OPEC with immediate effect.** It will be included in the OPEC output assessment starting in our July Report. Indonesia asked OPEC on 5 June to reactivate its membership, but requested that it be spared from the group's supply cut.





- **OPEC crude oil output rose by 290 kb/d in May to 32.08 mb/d, the highest level so far this year, after comebacks in Libya and Nigeria, which are exempt from supply cuts.** Output from members bound by the production deal edged lower, which kept year-to-date compliance strong at 96%. Compared to May 2016, OPEC crude production was down 65 kb/d.

- **A decision by Saudi Arabia, the UAE and Egypt to cut ties with Qatar is causing logistical headaches for lifters of Qatari oil and LNG.** Qatar is the world's largest exporter of LNG and OPEC's second biggest producer of condensates and NGLs after Saudi Arabia. Kuwait's oil minister said the crisis was unlikely to affect OPEC's supply deal.

- Non-OPEC output is seen rising by 660 kb/d this year, a slight upward revision from last month's *Report*. **In 2018, growth will accelerate to 1.5 mb/d, driven by strong US crude production** and further gains from Brazil and Canada. The UK, Kazakhstan, Ghana and Congo will also see higher production next year, while continued declines are expected from Mexico and China.

- **Non-OPEC oil output rose 295 kb/d in May as a seasonal increase in global biofuels production and higher US supplies outpaced declines from other sources.** Compliance with agreed output cuts by 11 non-OPEC countries improved in May, to 83% from 70% a month earlier.

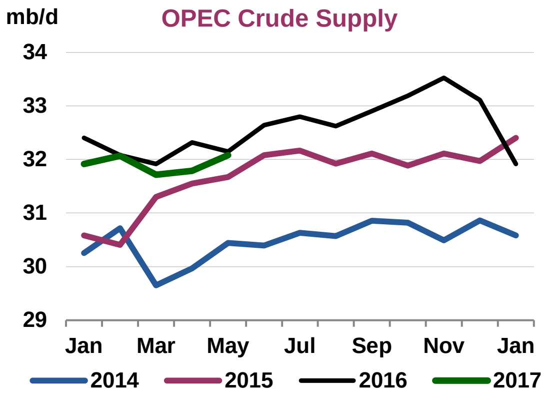
- **The forecast for total US oil production in 2017 has been revised up by 90 kb/d to 13.1 mb/d,** following further rig additions and increased spending by producers. US crude oil output is expected to rise by 430 kb/d while NGLs production adds an additional 190 kb/d. Growth accelerates through 2018, to average 1 mb/d, of which crude oil accounts for more than 75%.

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

OPEC crude oil supply

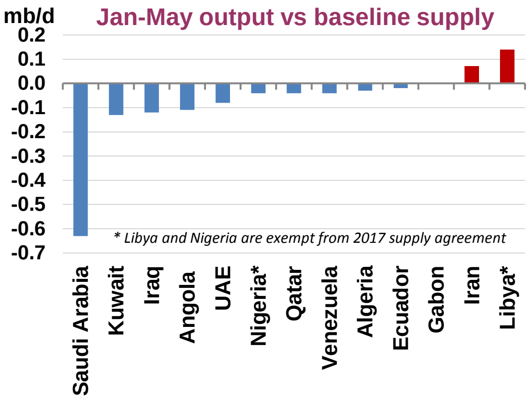
Increased output in Libya and Nigeria, both spared from supply cuts, pushed OPEC crude production up by 290 kb/d in May to 32.08 mb/d, the highest level so far this year. Conformity with the 1.2 mb/d supply pact tightened slightly in May, keeping the five-month compliance rate at 96%.

The biggest increase came from Libya, where output rose by 190 kb/d to 740 kb/d – the highest level since 2014. Supply from Nigeria climbed by 120 kb/d after exports restarted from the Forcados terminal. Output from Saudi Arabia and Angola eased. Supply from Iraq rose by 30 kb/d, making it the least compliant member after Gabon. Production from Iran, exempt from cuts, increased by a similar amount.



Total OPEC production in May was down only 65 kb/d on a year ago, just before the group began pumping at record rates. Saudi Arabia (-310 kb/d), Venezuela (-240 kb/d) and Kuwait (-160 kb/d) showed the sharpest year-on-year declines, while Libya (+460 kb/d), Iraq (+200 kb/d) and Iran (+180 kb/d) posted the biggest gains.

So far this year, the 11 members subject to the OPEC agreement produced an average 1.13 mb/d below an October baseline used to set supply targets. Libya and Nigeria between them have added 100 kb/d (January-May) compared to October and could add substantially more during 2H17. Libya is pumping at the highest level since 2014, but Nigeria's recovery may stall in June following the declaration on 8 June of *force majeure* on Bonny Light loadings.



Seeking to draw down a stubborn oil inventory overhang, OPEC and non-members led by Russia agreed on 25 May to extend a 1.8 mb/d supply cut through 1Q18. Equatorial Guinea joined OPEC with immediate effect. It will be included in the OPEC output assessment starting in our July *Report*. Indonesia asked OPEC on 5 June to reactivate its membership, but requested to be excluded from the group's supply cut.

OPEC and non-OPEC participants will meet again on 30 November and, if necessary, a decision could be taken then to extend supply cuts for longer, according to Saudi Energy Minister Khalid al-Falih. He expects inventories to fall to the five-year average by the end of this year and said that supply cuts were extended through March 2018 to prevent the typical stockbuild in the first quarter.

We expect the call on OPEC crude to rise steadily and reach 33.6 mb/d during the final quarter of the year, implying sharp stock draws if OPEC maintains robust compliance.

The main goal of the supply cut is to rebalance the oil market, but there is also a strong economic incentive, even for Saudi Arabia and Russia, to support oil prices by limiting supply (see *Balanced oil market = balanced economy*).

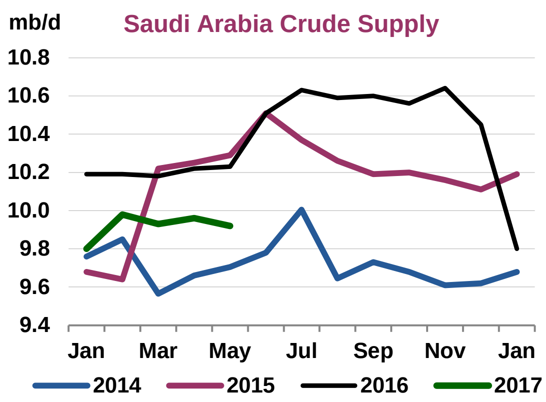
While relations are warming between Riyadh and Moscow, tensions are rising between OPEC producers after Saudi Arabia, the UAE and Egypt broke diplomatic and trade ties with Qatar, accusing it of supporting Islamist militants and Iran. Gabon also condemned Qatar (see *Arab spat leaves Qatar isolated*). Kuwait's oil minister said the crisis was unlikely to affect OPEC's supply deal.

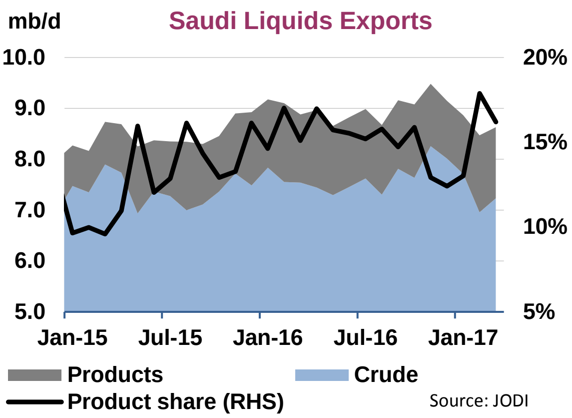
OPEC Crude Production
(million barrels per day)

	Apr 2017 Supply	May 2017 Supply	Supply Baseline[1]	Agreed Cut	May Actual Cut[2]	April Compliance	May Compliance	2017 Average Compliance
Algeria	1.06	1.06	1.09	-0.05	-0.03	58%	58%	70%
Angola	1.66	1.63	1.75	-0.08	-0.12	117%	155%	140%
Ecuador	0.53	0.53	0.55	-0.03	-0.02	69%	69%	85%
Gabon	0.20	0.20	0.20	-0.01	0.00	22%	22%	33%
Iran[3]	3.75	3.78	3.71	0.09	0.07	NA	NA	NA
Iraq	4.42	4.45	4.56	-0.21	-0.11	67%	53%	55%
Kuwait	2.71	2.72	2.84	-0.13	-0.12	98%	91%	98%
Qatar	0.62	0.63	0.65	-0.03	-0.02	93%	60%	120%
Saudi Arabia	9.96	9.92	10.54	-0.49	-0.62	120%	128%	129%
UAE	2.93	2.92	3.01	-0.14	-0.09	60%	67%	55%
Venezuela	2.02	2.00	2.07	-0.10	-0.07	49%	71%	39%
Total OPEC 11	**29.86**	**29.84**	**30.97**	**-1.16**	**-1.13**	**95%**	**97%**	**96%**
Libya[4]	0.55	0.74						
Nigeria[4]	1.38	1.50						
Total OPEC	**31.79**	**32.08**						

1 Based on October 2016 OPEC secondary source figures, except Angola which is based on September 2016.
2 From OPEC supply baseline.
3 Iran was given a slight increase.
4 Libya and Nigeria are exempt from cuts.

Supply from **Saudi Arabia** eased 40 kb/d to 9.92 mb/d in May, holding below its 10.06 mb/d output target for the fifth month running. Compared to a year ago, Saudi output was down 310 kb/d. Exports of crude, already sharply lower, are set to slow further in the coming months as more oil is consumed at domestic power plants to meet demand for summer air conditioning. The Saudi energy minister said to expect shipments to the US to "decline measurably" as a result of "marketing developments".





The latest data from the Joint Organisations Data Initiative (JODI) show that crude shipments during 1Q17 fell 670 kb/d versus record 4Q16 exports of nearly 8 mb/d. Product shipments, however, rose in 1Q17 by 90 kb/d from 1.27 mb/d during the fourth quarter of last year. The share of products in Saudi Arabia's overall exports was 16% in 1Q17 versus 14% in 4Q16. Total oil exports have fallen by 580 kb/d from 4Q16 to an average 8.66 mb/d in 1Q17.

Saudi Aramco raised its monthly formula prices for July crude shipments to Asia after the contango in Middle East crudes narrowed. The price differential for flagship Arab Light was raised by $0.60/bbl versus June to a discount of $0.25/bbl to the Oman/Dubai average. Aramco also raised its Arab Light differential to Northwest Europe by $0.35/bbl for July from the previous month. The price for Arab Light shipments to the US was raised by $0.50/bbl.

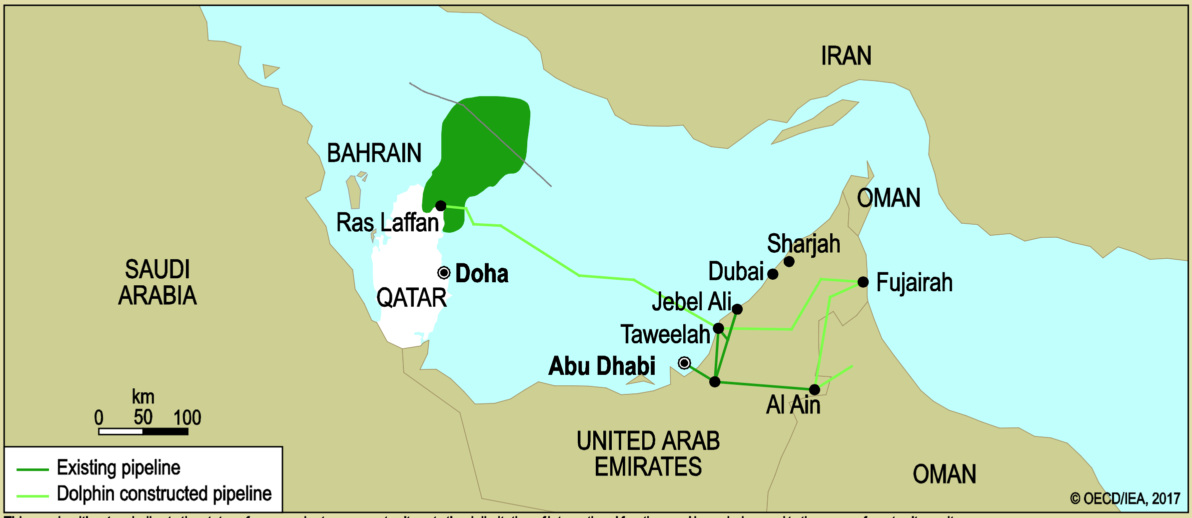
Saudi Aramco is meanwhile pressing ahead with plans to raise output from offshore fields by more than 1 mb/d by 2023 to compensate for declining onshore production. These mega-projects have to get on the drawing board now to ensure the maintenance of capacity at 12.5 mb/d and a spare cushion of 1.5 mb/d-2 mb/d. Contracts are now in train to expand Marjan, Zuluf and Berri. Aramco has awarded a five-year contract to Amec Foster Wheeler, involving a 300 kb/d expansion of Marjan, off Saudi Arabia's eastern coast. Marjan and Zuluf, which pump Arab Medium, have combined capacity of about 1.2 mb/d. Zuluf could be lifted by up to 600 kb/d. As for the Arab Extra Light-producing Berri, SNC-Lavalin reportedly has won a contract to boost output by 250 kb/d. It is now capable of pumping up to 300 kb/d. The decision to expand comes ahead of Saudi Aramco's initial public offering (IPO) that is planned for 2018.

Maintenance at the offshore fields that produce Das Blend trimmed output from the **UAE** by 10 kb/d to 2.92 mb/d in May, nudging its compliance rate to 67% - the highest this year. Production from **Kuwait** edged and **Qatar** edged up to 2.72 mb/d and 630 kb/d, respectively.

Arab spat leaves Qatar isolated

An escalation in the diplomatic crisis between Qatar and several of its Middle East neighbours is causing logistical and operational headaches for lifters of Qatari crude, condensate and LNG although supplies have yet to be disrupted.

Abu Dhabi swiftly enforced a ban on oil tankers linked to Qatar calling at ports in the UAE, which could lead to a backlog of cargoes and increased shipping costs. Qatar pumps just over 600 kb/d of crude and exports some 500 kb/d, almost exclusively to Asia. Buyers often co-load cargoes from elsewhere in the Gulf, typically sold as 500,000 barrel lots, onto larger tankers to reduce shipping costs. Due to the political row, crude from Saudi Arabia, the UAE and Bahrain cannot be co-loaded with Qatari crude, limiting co-loading of Qatari grades to crude from Iran, Iraq, Kuwait and Oman, which are not part of the dispute.

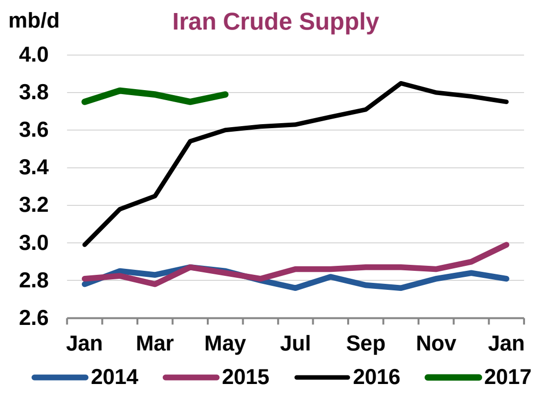


This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.

Although there are limited air, sea and land links with Qatar, so far there have been no reports of restrictions on tankers carrying Qatari crude from stopping at Saudi terminals. Egypt, meanwhile, is bound by international law to allow free passage through the Suez Canal which links the Red Sea to the Mediterranean Sea. Most of Qatar's trade is conducted on a free-on-board basis, so there are few Qatar-flagged vessels.

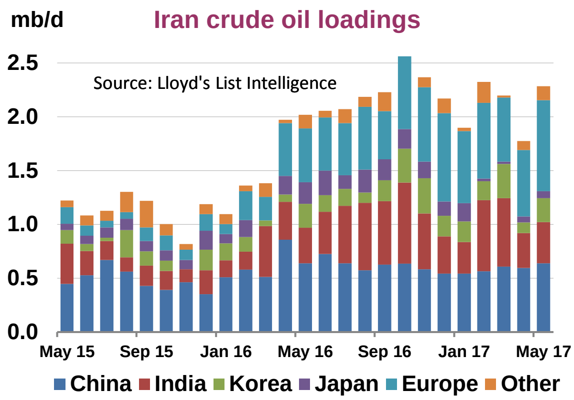
Until further notice, Platts is excluding any physical delivery of Qatari al-Shaheen crude from its market-on-close assessment process. For now, al-Shaheen cargoes may not be nominated upon the convergence of crude partials contracts without mutual consent. In January 2016 Platts added al-Shaheen and Abu Dhabi's Murban crude to three other grades — Dubai, Upper Zakum and Oman — that can be delivered to settle the Dubai contract. Al-Shaheen output is roughly 300 kb/d. Qatar also exports Qatar Land and Qatar Marine crude.

Iranian supply in May rose by 30 kb/d to 3.78 mb/d and was up 180 kb/d on a year ago. Crude oil exports leapt 510 kb/d to 2.28 mb/d during May, according to preliminary tanker tracking data. As for condensates, roughly 140 kb/d loaded from Assaluyeh in May compared to 220 kb/d the month before. At the same time, Iran increased the amount of condensate held at sea by 1 mb to 4 mb.



Iran's crude exports to Europe climbed 230 kb/d to 850 kb/d in May, the highest level since 2011 before international sanctions were tightened. Loadings for Italy more than doubled to 274 kb/d, while shipments to Spain nearly trebled to 96 kb/d. Year-to-date shipments into Europe were up 210 kb/d to 690 kb/d compared to the average of 2016.

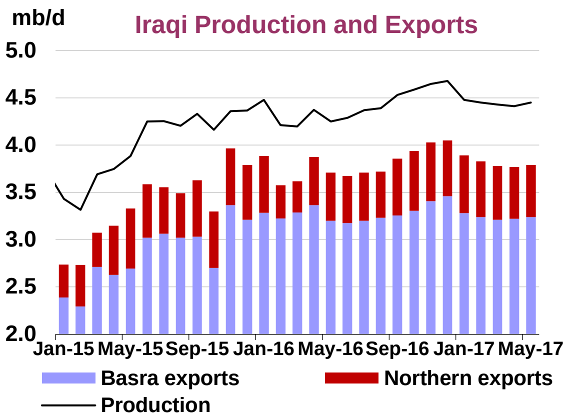
Shipments to Asia rose slightly compared to April. Korea posted the biggest increase, with liftings up 120 kb/d to 220 kb/d. China's purchases rose by 40 kb/d to 640 kb/d, while Japan's liftings inched up 10 kb/d to 60 kb/d. India's loadings rose 60 kb/d in May to 380 kb/d - down on 1Q17 volumes of more than 500 kb/d. India's state refiners have said they will cut imports from Iran unless the National Iranian Oil Co (NIOC) awards the Farzad B upstream gas contract to an Indian consortium. Oil Minister Bijan Zanganeh said discussions continue between Iran and India, although the consortium's chances seem to be fading. Zanganeh said other companies are interested in developing the field, including Gazprom.



The re-election of reformist President Hassan Rouhani has buoyed hopes that Iran will sign landmark deals this year with international oil companies. Total was the first Western oil major to sign an initial deal to develop a field - Phase 11 of the South Pars gas field - under the new Iran Petroleum Contract. Seeking to attract more foreign cash and technology, the NIOC is preparing to launch an international tender for development of its Azadegan onshore oil field.

NIOC has decided to combine the northern and southern portions of Azadegan, which between them pump around 125 kb/d, into a single project with target production of around 650 kb/d. Located in western Iran, Azadegan straddles the border with Iraq's Majnoon field, which is operated by a consortium led by Royal Dutch Shell. NIOC has qualified 29 firms - including Total, Shell, Eni, China National Petroleum Corp and Lukoil - to bid.

Iraqi crude production, including from the Kurdistan Regional Government (KRG), rose 30 kb/d to 4.45 mb/d in May. Compliance with the OPEC cut during the first five months of the year was 55%, with production down 120 kb/d from the October supply baseline. During May, crude oil exports increased by 20 kb/d to 3.79 mb/d. Shipments of Basra crude from southern terminals crept up to 3.24 mb/d. Northern exports along the KRG pipeline to Turkey held steady at 550 kb/d.



Iraq's northern oil sector got a boost after Rosneft and the KRG signed production sharing deals for five oil blocks. The Russian company is seeking to expand cooperation with the autonomous Kurdish region after it secured a pre-finance agreement guaranteed by Kurdish oil sales to Rosneft's German refineries.

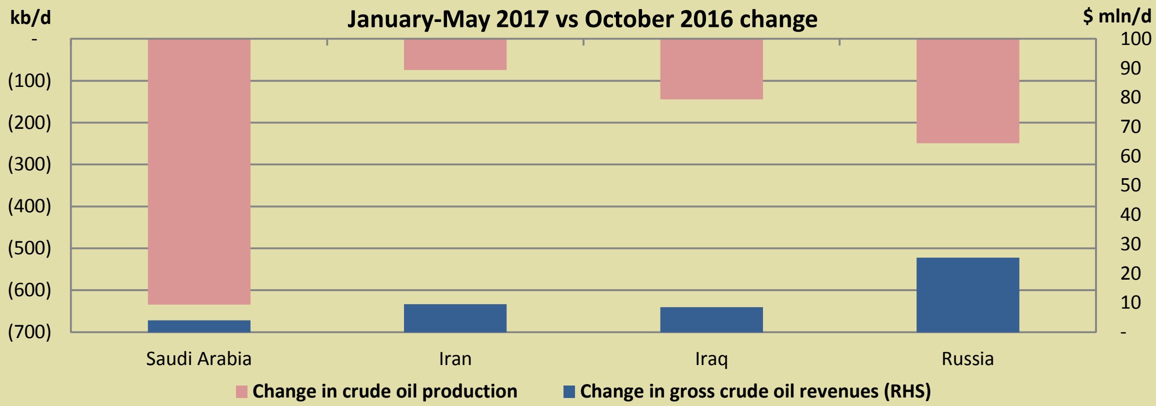
In the south of Iraq, Shell is planning to nearly double production from the Majnoon oil field. A new round of drilling is set to start within weeks that will gradually lift production capacity to roughly 420 kb/d within two to three years. Majnoon, near the oil hub of Basra, is currently pumping 220 kb/d but needs more wells to boost output. Shell, which has had to divest billions of dollars of assets after its BG acquisition, is selling at least part of its stake in Iraq's West Qurna-1 joint-venture.

Balanced oil market = balanced economy

For Saudi Arabia and Russia, there was a clear economic imperative to drive through an extension of supply cuts through March 2018. For them, and the other producers involved in the agreement, a balanced oil market will underpin their economies.

For 2017 to date, the value of the OPEC Basket is $51/bbl compared to $44/bbl just before the output agreement was announced and OPEC has earned more revenue than in 4Q16 when it pumped at record levels. In fact, the average daily revenue of OPEC and Russia so far this year is higher than in both 2015 and 2016.

According to OPEC's *Annual Statistical Bulletin*, OPEC oil earnings plunged from $952 bn in 2014 to $513 bn in 2015 and to $446 bn last year. Saudi Arabia bore the brunt of the decline, as its revenues dropped by 53% from $284 billion in 2014 to $134 bn in 2016. The OPEC Basket price in 2017 to date is an average 23% above 2016. If this price level were to be maintained, revenues would climb to $536 bn.



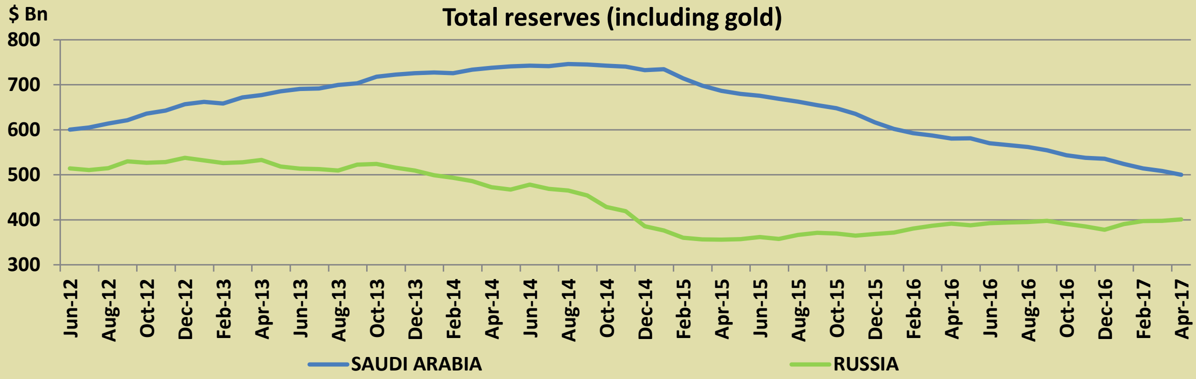
Total foreign reserves, which help oil exporting countries dampen the impact of oil price volatility, have also declined. They increased during 2011-2014 when oil prices averaged $100/bbl, but fell sharply in 2015 and 2016 when prices averaged $50/bbl. From mid-2014 to April 2017, total reserves in Saudi Arabia and Russia fell by $242 bn (-33%) and $77 bn (-16%), respectively.

At the same time, budget deficits in Saudi Arabia and Russia deepened during 2016 to -17% and -4%, respectively. To balance its budget this year, Saudi Arabia needs an estimated price of $77.70/bbl, according to the International Monetary Fund (IMF) - well above current oil prices. As long as prices remain below the fiscal breakeven level, Saudi Arabia and other producers will have to keep drawing down reserves to plug their budgetary shortfalls or reduce spending.

Saudi Arabia's real Gross Domestic Product (GDP) growth declined from 4.1% in 2015 to 1.4% in 2016 and is expected to slow to 0.4% in 2017, according to the IMF's *World Economic Outlook*, April 2017. Iraq's growth of 10.1% in 2016 is projected to be followed by a 3.1% decline in 2017. However, Nigeria, exempt from the oil production cut, is expected to reverse a 1.5% decline in 2016 and post growth of 0.8% in 2017. Real GDP growth in Russia; a non-OPEC crude oil exporting country, is projected to continue its recovery to 1.4% in 2017, up from -0.2% in 2016, supported by easier financial conditions and higher oil prices.

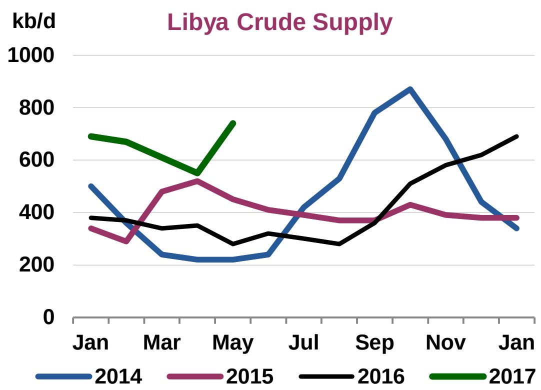
All in all, the current lower oil price environment certainly adds pressure on oil exporting countries' fiscal budgets. In this sense, the supply cut extension to March 2018 could pave the way to more balanced economies via more balanced oil markets.

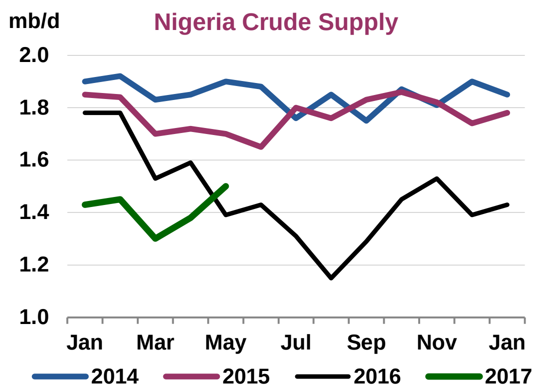
Balanced oil market = balanced economy (continued)



Source: Saudi Arabian Monetary Authority and Bank of Russia

Libyan supply surged 190 kb/d in May to 740 kb/d, the highest level since 2014. Production has, however, fluctuated widely due to technical and political issues. Power outages at the eastern oil fields of Sarir and Messla, with combined capacity of about 250 kb/d, restricted flows during May. Output recovered in early June to around 830 kb/d, but dropped sharply on 7 June after El Sharara, the country's largest oil field, was blockaded just weeks after a truce with the Petroleum Facilities Guard (PFG) allowed the field to restart. Repsol-operated El Sharara was pumping around 270 kb/d before workers at the field briefly went on strike. The field restarted on 9 June after an emergency meeting of the National Oil Corp (NOC) board and El Sharara's operating company. Stable production at the southwestern field, which has the capacity to produce 330 kb/d, is essential to sustaining the higher rates achieved during May. Despite the supply setbacks, NOC continues to target flows of 1.25 mb/d before the end of the year. Libya last reached that level four years ago.



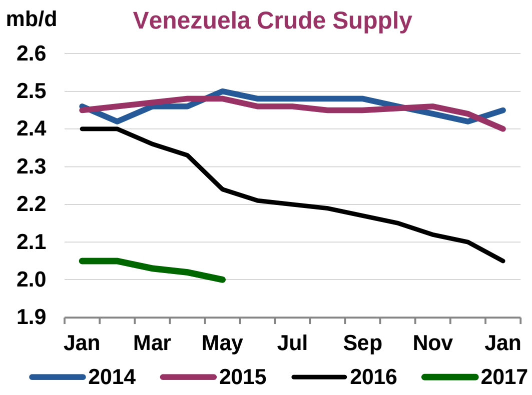


Nigerian output rose by 120 kb/d in May to 1.5 mb/d after the restart of loadings from the Forcados terminal. At least two tankers sailed from the facility during May and export schedules for June show loadings of 250 kb/d, or full capacity. Nigeria's recovery could falter, however, after Shell declared *force majeure* on Bonny Light liftings on 8 June following a leak on the Trans Niger pipeline. Shipments of some 200 kb/d of Bonny Light were planned. Shell had lifted *force majeure* on Forcados loadings the day before.

Although up from a three-decade low of around 1.2 mb/d last summer, Nigerian crude output remains some distance below capacity of 1.8 mb/d. Nigerian Oil Minister Emmanuel Kachikwu said production could reach that level towards the end of this year. The government is interacting with communities in the oil-producing Delta region in order to protect pipelines and plans to invest in economic development of the area. Militant attacks have subsided after the government intensified negotiations with Niger Delta leaders who are seeking a greater share of oil revenues.

Production in **Angola** slipped 30 kb/d in May to 1.63 mb/d. Sonangol, citing a "remarkable drop" in oil prices, has cancelled a tender for onshore blocks in Angola's Kwanza and Lower Congo basins even though eight of 10 blocks had already been awarded. Supply in **Gabon** and **Algeria** held at 200 kb/d and 1.06 mb/d, respectively. In the midst of OPEC's 25 May meeting, Algerian President Abdelaziz Bouteflika dismissed energy minister Noureddine Boutarfa as part of a cabinet reshuffle. Boutarfa, energy minister since June 2016, was replaced by Sonelgaz CEO Mustapha Guitouni.

Supply from **Venezuela** dipped 20 kb/d to 2.0 mb/d in May, 240 kbd/ below a year ago as a deepening political and economic crisis batters the oil sector. The worsening unrest has not hit operations in remote oil fields, but a shortage of cash and bad management have taken a toll, especially on ageing fields that produce light crude oil.



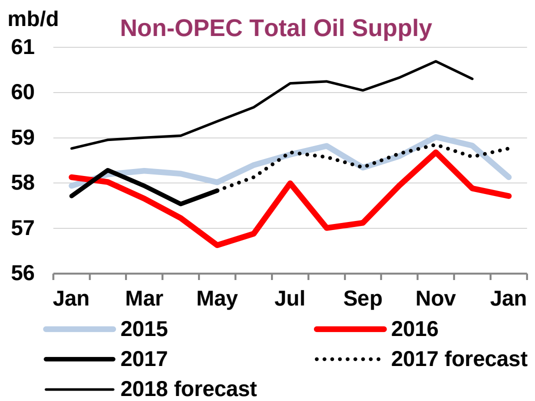
As a result, the lower value extra heavy oil being pumped from the Orinoco Belt is making up a larger portion of Venezuelan output. Petroleos de Venezuela (PDVSA) and Rosneft have started early crude output at a well in the North Carabobo-2 block which is part of the Petrovictoria joint-venture in the Orinoco Belt. Rosneft is also involved in the three producing projects - Petromonagas, Petroperija and Boqueron - which between them yield 55 kb/d for the Russian company.

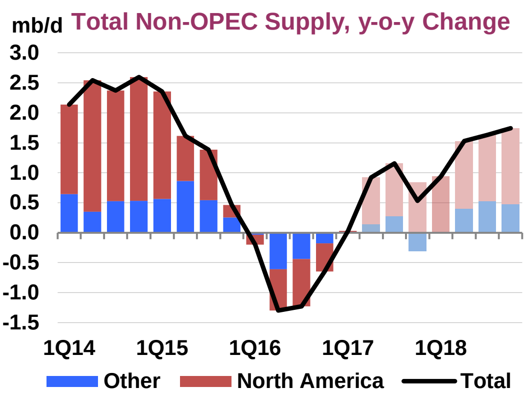
Production in **Ecuador** was steady in May at 530 kb/d. Quito is seeking to negotiate a repayment schedule with oil service companies, including Schlumberger, that are owned more than $2 billion.

Non-OPEC overview

The non-OPEC supply overview of this month's Report focuses on the roll out of our forecast to 2018, with discussion of key changes in production. The main factors behind our forecast for 2018 and beyond are explained in the Market Report Series: Oil 2017, released on 6 March 2017.

Non-OPEC oil output rose by 295 kb/d in May as a seasonal increase in global biofuels production and higher US and Brazilian oil supplies outpaced declines from other sources. At 57.8 mb/d, total non-OPEC production was 1.2 mb/d higher than a year earlier. Year-on-year (y-o-y) gains stemmed in large part from the rebound in Canadian output from last year's fire-affected levels along with the recovery in US production. Other contributors to growth were Russia, which sharply raised production during the second half of last year, along with Brazil and Kazakhstan.





The increase in non-OPEC production in May came despite improved compliance with agreed output cuts by 11 non-OPEC countries, to 83% from 70% a month earlier. Russian crude and condensate production was cut by another 47 kb/d to 278 kb/d below the October baseline – or 93% of its agreed contribution. Azerbaijan's oil supplies rose for a second month running, albeit from a very low March level. Mexico and Oman had both just about reached their targets by April, while Kazakh volumes stood some 55 kb/d above agreed production levels due to the ramping up of the massive Kashagan project.

Non-OPEC Supply Reduction Commitments

thousand barrels per day (kb/d)

Country	IEA Apr Oil Output[2]	IEA May Oil Output[2]	IEA Supply Baseline[3]	Agreed Cut	Actual Cut[3]	April Comliance	May Compliance	2017 Average Compliance
Azerbaijan	785	795	815	-35	-20	85%	57%	93%
Kazakhstan	1,822	1,810	1,778	-20	32	-218%	-159%	-151%
Mexico	2,318	2,289	2,395	-100	-106	77%	106%	79%
Oman	975	977	1,020	-45	-43	99%	95%	96%
Russia	11,366	11,319	11,597	-300	-278	77%	93%	61%
Others[1]	1,381	1,382	1,431	-58	-49	86%	84%	-1%
Total	**18,647**	**18,571**	**19,036**	**-558**	**-464**	**70%**	**83%**	**58%**

1 Bahrain, Brunei, Equatorial Guinea, Malaysia, Sudan and South Sudan

2 May total oil supply, based on market intellience sources and tanker tracking data. Russia, Azerbaijan based on preliminary country statistics.

3 Based on IEA October total supply estimates. Kazkahstan November estimate.

After having recorded an average 845 kb/d decline in 2016, total non-OPEC production is forecast to expand by 660 kb/d this year. This is a slight upward revision from last month's *Report*, as the outlook for the US continues to improve while historical production estimates for Equatorial Guinea have been revised slightly lower (see *Equatorial Guinea joins OPEC*).

The forecast for total US oil production for 2017 has been revised 90 kb/d higher for 2017, to 13.1 mb/d. US crude oil output is expected to rise by 430 kb/d, while NGLs production adds an additional 190 kb/d. Non-OPEC supply growth accelerates in 2018, rising by nearly 1.5 mb/d. As in 2017, growth will be driven by strong US crude production along with continued gains from Brazil and Canada. The US alone will contribute more than 1 mb/d of new supplies next year, of which crude oil accounts for more than 75%. The UK, Kazakhstan, Ghana and Congo will also see higher production next year, while further declines are expected from Mexico and China.

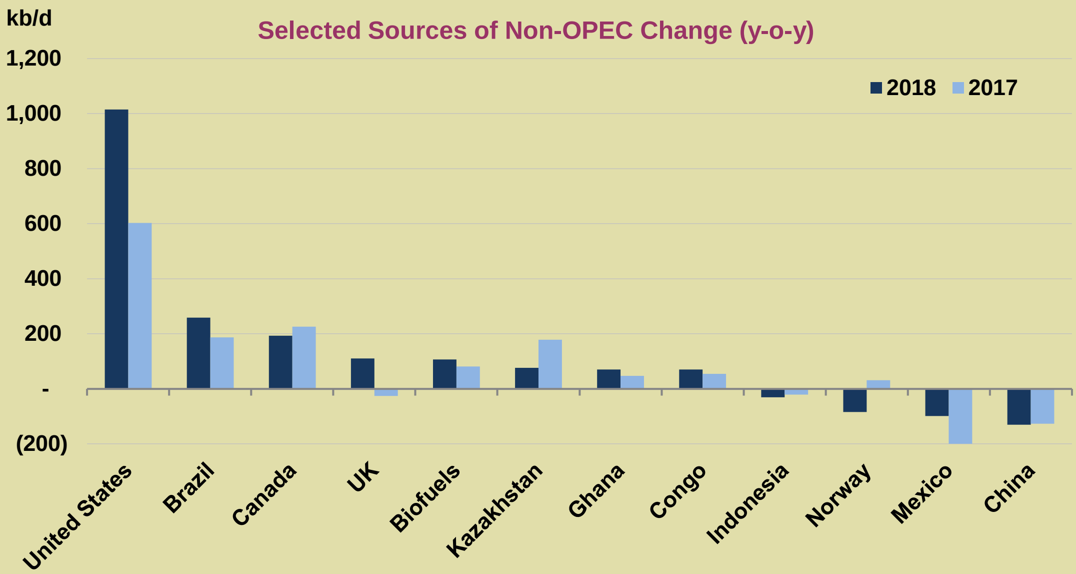
Non-OPEC Supply

(million barrels per day)

	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Americas	19.5	19.9	19.7	20.2	20.5	20.1	20.8	20.9	21.3	21.7	21.2
Europe	3.5	3.7	3.5	3.3	3.6	3.5	3.7	3.5	3.4	3.5	3.5
Asia Oceania	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total OECD	23.4	24.0	23.6	23.9	24.5	24.0	24.9	24.8	25.1	25.7	25.1
Former USSR	14.2	14.4	14.3	14.3	14.3	14.3	14.3	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
China	4.0	4.0	3.9	3.9	3.8	3.9	3.8	3.8	3.8	3.7	3.8
Other Asia	3.6	3.5	3.5	3.4	3.4	3.5	3.4	3.4	3.3	3.3	3.4
Latin America	4.5	4.6	4.5	4.7	4.7	4.6	4.7	4.8	4.9	4.9	4.8
Middle East	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.2
Africa	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Total Non-OECD	29.6	29.7	29.5	29.5	29.5	29.6	29.6	29.7	29.7	29.9	29.7
Processing Gains	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	2.0	2.4	2.8	2.5	2.4	2.1	2.5	2.9	2.6	2.5
Total Non-OPEC	57.6	58.0	57.8	58.5	58.7	58.3	58.9	59.4	60.2	60.4	59.7
Annual Chg (mb/d)	-0.8	0.0	0.9	1.1	0.5	0.7	0.9	1.5	1.6	1.7	1.5
Changes from last OMR (mb/d)	-0.1	0.0	0.0	0.0	0.0	0.0					

Non-OPEC supply forges ahead in 2018

As already outlined in our *Market Report Series: Oil 2017,* non-OPEC oil production is set for a big increase in 2018. Supplies are projected to rise by nearly 1.5 mb/d, to 59.7 mb/d. While growth will be led by the US, gains are also expected from Brazil, Canada the UK, Kazakhstan, Ghana and Congo, where long-lead time projects are set to ramp-up. In contrast, output in China, Mexico and a number of other producers is expected to continue to decline as upstream investment cuts take their toll.



While our overall growth forecast for 2018 is only slightly higher than that presented in *Oil 2017* (+0.1 mb/d), the outlook for US oil supplies has materially changed since the start of the year. Not only are producers increasing spending more sharply than initially thought, the pace and duration of new rig additions and drilling activity has exceeded all expectations. By early June, US energy firms had added oil rigs for a record 20 weeks in a row, bringing the total count up to 733, the highest since April 2015, according to Baker Hughes. That is more than double the number of rigs in action a year earlier, when the count had fallen to a six-year low of only 316. Following a 600 kb/d increase in 2017, total US oil supplies are forecast to expand by 1 mb/d next year, to reach 14.1 mb/d.

As in 2017, Brazil will be an important source of new oil supplies next year. Despite its numerous challenges, Petrobras and its international partners continue to bring on new production systems in the prolific sub-salt area. Three new floating production, storage and offloading vessels (FPSOs), each with a capacity of 150 kb/d, are set to start up this year, with a further five units scheduled to be delivered during 2018. In all, Brazil's oil production is expected to grow by 190 kb/d in 2017 and 260 kb/d next year.

Canadian oil production also continues to expand. While growth in 2017 is exaggerated by the rebound effect from last year's wildfires, a number of new greenfield projects will drive gains in 2018. Most notably, the 150 kb/d Hebron heavy oil project offshore Newfoundland and Suncor's 194 kb/d Fort Hills mine are both expected to see first oil before year-end. New offshore projects will also drive growth in the UK, Ghana and Congo, while output at the Kashagan project in Kazakhstan should continue ramping up towards its 370 kb/d capacity.

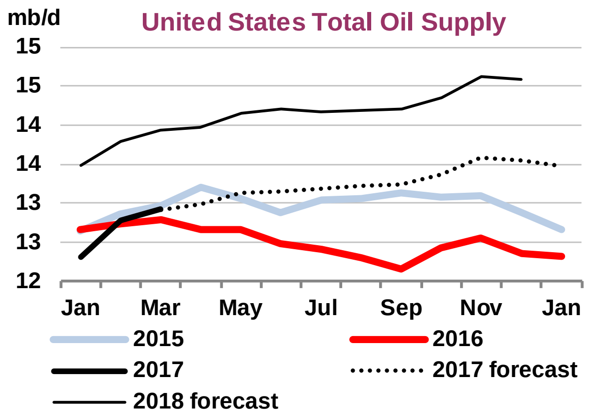
With a decline of nearly 300 kb/d in output in 2016, China reacted to lower oil prices by shutting in uneconomic wells in addition to slashing spending on new developments. Production is expected to continue to fall in 2017 and 2018, by roughly 130 kb/d each year. Lower output will also be seen in Mexico (-100 kb/d), Norway (-80 kb/d), Colombia (-20 kb/d, Vietnam (-20 kb/d), and Equatorial Guinea (-20 kb/d).

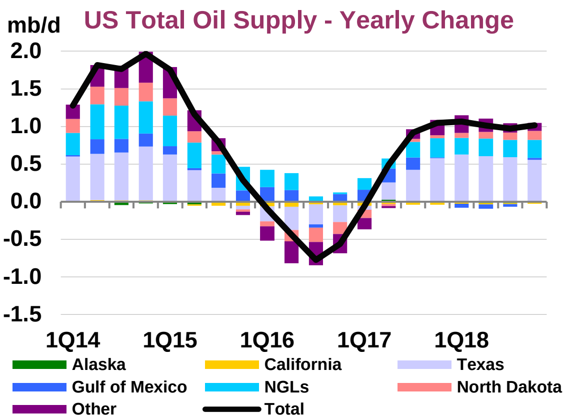
The outlook for Russian production remains a key uncertainty in our 2018 forecast. By early June, Russian producers had curbed production by more than 300 kb/d from an October 2016 high, to comply with agreed cuts which were recently extended through March 2018. At the same time, Russian producers are planning to sharply increase upstream spending this year. While this forecast only includes a slight and gradual increase in Russian output next year, there may be a surprise to the upside again.

OECD

North America

US – March actual: Following a 460 kb/d increase in February, total US oil production rose a further 145 kb/d in March. At 12.9 mb/d, total liquids output was 127 kb/d higher than a year earlier. US crude oil output rose by 62 kb/d in March to 9.1 mb/d. Lower-48 onshore production increased by 34 kb/d m-o-m, driven by higher output in Wyoming (+15 kb/d) and Oklahoma (+10 kb/d), while production in North Dakota, Texas, and New Mexico remained relatively flat m-o-m. Gulf of Mexico production rose by 14 kb/d to a new record of 1.76 mb/d. NGL production, meanwhile, increased 40 kb/d m-o-m, to 3.6 mb/d, while production of other liquids (excluding biofuels) was 42 kb/d higher.



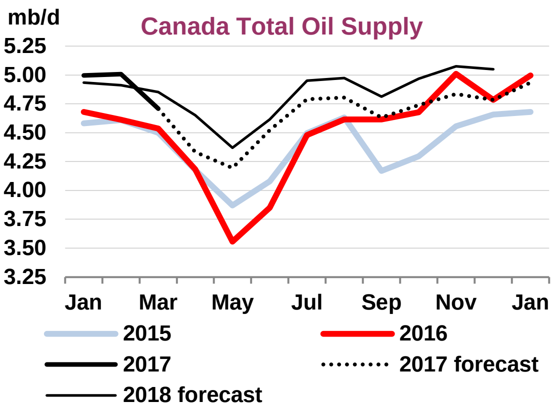


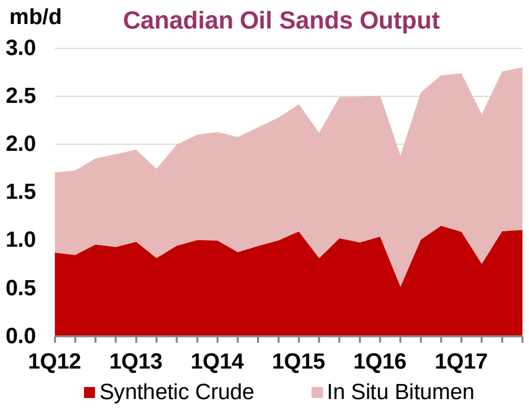
The forecast for US total oil production for 2017 has been revised 90 kb/d higher, to average 13.1 mb/d, following further rig additions and increased spending. US energy firms have added oil rigs for a record 20 weeks in a row following the recovery in crude oil prices resulting from the coordinated supply reduction agreement put in place last November. In early June, there were 733 active oil rigs operating in the US, and increase of 126% from a year earlier, when the rig count hit a six-year low. Companies are also boasting impressive productivity increases and low break-even prices, despite signs of cost inflation since the start of the year. US crude oil output is expected to rise by 430 kb/d while NGLs production adds an additional 190 kb/d. Growth accelerates through 2018, to average 1 mb/d, of which crude oil accounts for more than 75%. Outside the shale patch, Hess plans to bring on its 80 kb/d Stampede project in the Gulf of Mexico next year, while Chevron's 75 kb/d Big Foot project should also be commissioned.

Canada – March preliminary: Canadian total oil production fell by 300 kb/d in March, to 4.7 mb/d, following a 260 kb/d drop in Albertan oil sands output. Bitumen production was down 43 kb/d while mined synthetics fell by 190 kb/d. Synthetic crude oil production likely fell further in April and May as Syncrude's 350 kb/d unit remained shut in following a fire in March, cutting also output at ConocoPhillips' Surmont mine and at Nexen's Long Lake oil sands project. Canadian oil production is expected to increase by 225 kb/d in 2017, and a further 195 kb/d next year.

Growth in 2017 will in part be inflated by the recovery from the wildfires that hit Alberta last year, but there will also be organic growth as a number of projects continue to ramp up or are commissioned. These include CNRL's 80 kb/d Horizon expansion that was completed earlier this year, Cenovus's Christina Lake (Phase F) and Foster Creek (Phase G) expansions and a continued ramp up of ConocoPhillips' Surmont project. In 2018, growth will primarily be driven by the start-up of the Fort Hills oil sands mining project and the offshore Hebron field that both are expected to see first oil before the end of the year. Hebron, which is being developed by a consortium consisting of ExxonMobil, Chevron, Suncor Energy, Statoil and Nalcor Energy, will have the capacity to produce 150 kb/d of heavy oil. The

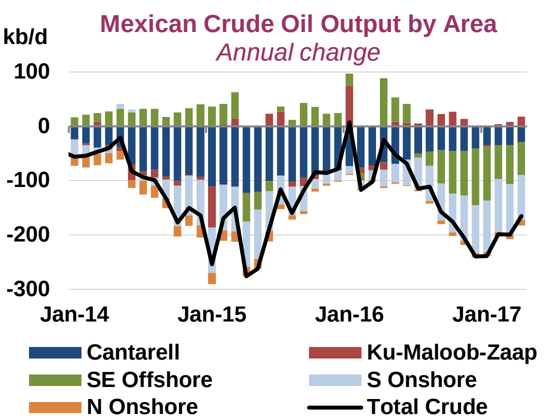
Fort Hills oil sands mining project is being developed by Suncor Energy, Total and Teck Resources and will yield an average of 194 kb/d of bitumen at full production. The consortium expects first oil by the end of 4Q17 and to achieve 90% of its planned production capacity within 12 months of start-up.

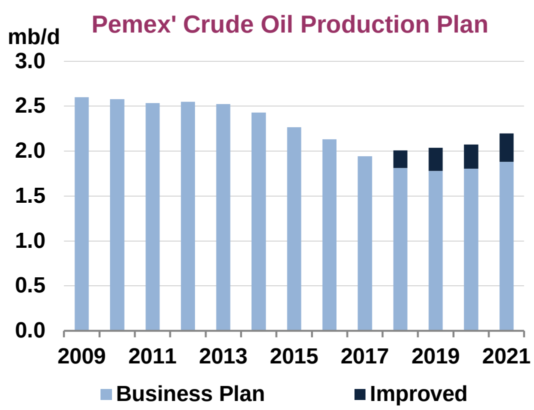




Mexico – April actual: Mexican crude oil output inched lower in April, as production at the offshore Ku field slid further. Ku, which is part of the Ku-Maloob-Zaap (KMZ) system, has declined by 44 kb/d or 27% over the last year, to average 120 kb/d in the latest month. Overall KMZ volumes were 815 kb/d in April, only 10 kb/d less than a year earlier. Total Mexican crude output stood 165 kb/d lower than a year earlier and 77 kb/d less than in October, which is used to calculate compliance with agreed cuts. Mexico committed to a 100 kb/d reduction.

For the year as a whole, Mexico's total oil production is expected to average just under 2.3 mb/d (including roughly 300 kb/d of NGLs), a decline of 200 kb/d from the year earlier. Following years of underinvestment and declining output, the slump in oil prices since 2014 forced Pemex to cut total capital expenditures by 48% from 2014 to 2016. Pemex plans to maintain capex spending at 2016 levels this year, resulting in further output drops. While Pemex hopes to reverse the trend of declining output in 2018, production is likely to fall further. In its latest business plan, Pemex targets crude oil output in a range of 1.8 mb/d and 2.0 mb/d next year, (a drop of 130 kb/d or a 50 kb/d increase), dependent on progress on energy reform, which includes an aggressive farm out program that would free up cash for field development. Our current projections are for Mexico's oil output to decline by 100 kb/d next year, to 2.16 mb/d.

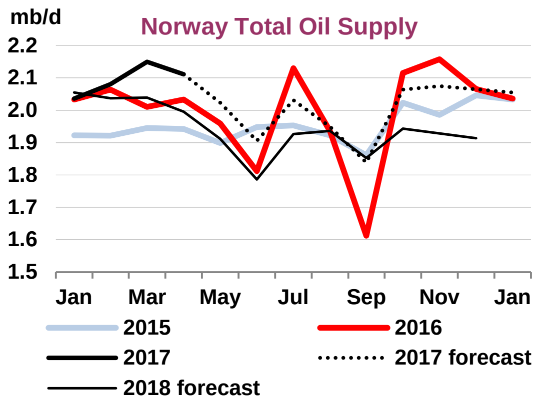


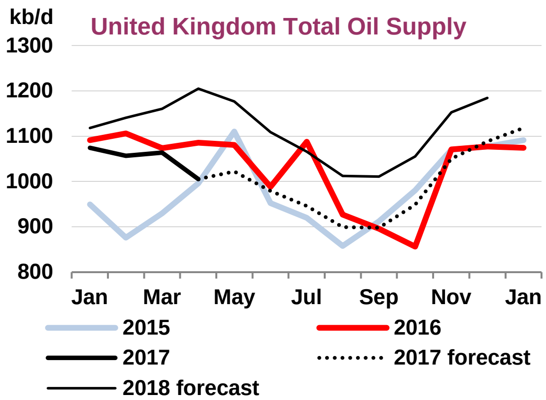


North Sea

Norway – March actual, April provisional: Norwegian oil production fell in April by 39 kb/d from a month earlier, according to preliminary figures from the Norwegian Petroleum Directorate. Averaging 2.1 mb/d, total liquids output was 78 kb/d above a year earlier. Final data through March show output rising 69 kb/d in that month as crude production at Goliat rebounded to 88 kb/d, from 44 kb/d in February. Output at Edvard Grieg rose 9 kb/d to a fresh record 98 kb/d, sixteen months after start-up.

As we head into the summer maintenance season, output is set to be supported by the commissioning of the Gina Krog field. Statoil, the operator, was granted final approval in June to start output and oil should start flowing later this month. The start-up of Total's Martin Linge project looks likely to face further delays, however. The expected departure of the platform topside modules from South Korea in June could slip after an accident halted work and after an audit by Norway's Petroleum Safety Authority (PSA) uncovered "serious" shortcomings with some equipment. The start-up had previously been pushed back to the second or third quarter of 2018 from the original date of the end of 2016. Norwegian production is expected to increase by 33 kb/d on average in 2017 and then fall by 84 kb/d next year as natural decline offsets new capacity.





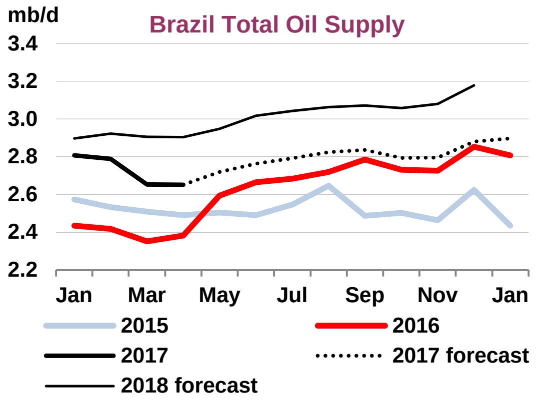
UK – March actual, April preliminary: UK oil supplies held steady in March at around 1.06 mb/d, while preliminary data for April suggested a m-o-m drop of 60 kb/d. In May, BP announced first oil from the redeveloped Schiehallion area, following the completion of the Quad 204 project in the west of Shetland region. Production from the project is expected to ramp up through the remainder of 2017 to a plateau level of 130 kb/d. Quad 2014 will be followed by the launch of Enquest's 50 kb/d Kraken field, scheduled to start up in June. Later this year, Dana Petroleum's Western Isles, Statoil's Mariner and Premier Oil's Catcher developments are expected to commence output. Another major BP-operated project, Clair Ridge, is expected online in 2018, adding 90 kb/d of capacity. Like Quad 204, Clair Ridge is located in the West of Shetland area. Total UK output is expected to rise 113 kb/d next year, reversing 2017's 26 kb/d decline.

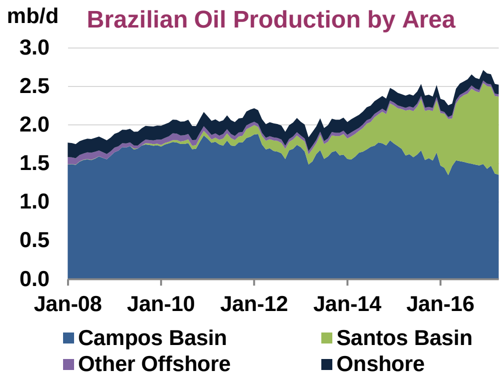
Non-OECD

Latin America

Brazil – April actual: Brazilian oil output was largely unchanged in April as planned maintenance at Marlim and the Barracuda and Caratinga fields in the Campos Basin continued. Despite a 200 kb/d decline from December's record high, production of crude, condensates and NGLs were 270 kb/d above a year earlier.

On 18 May, Petrobras commenced production from the P-66 floating production, storage and offloading vessel that was installed at the Lula South pre-salt field. The unit, which is the first of six identical floaters to be added in the Santos basin, has the capacity to produce 150 kb/d. Later this year, Petrobras intends to begin production from the P-67 FPSO at the Lula North field and an early production system at the Libra oil field. The 50 kb/d Pioneiro de Libra FPSO, which will run a series of extended well tests in the Libra area, arrived in Brazil in May and is set to start pumping in July. The delivery of P-67 is expected by July, two months behind schedule. A further five FPSOs are expected to enter operation in 2018, including an additional unit (P-70) at Lula extreme south, one at the Berbigão field (P-69) and three at the Buzios field (P-74, P-75 and P-76). In all, Brazilian production is forecast to increase by 190 kb/d in 2017, with gains ramping up to 260 kb/d in 2018.

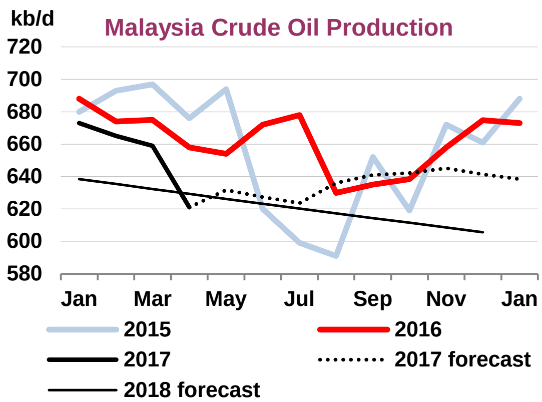




Asia

China – April actual: At the time of writing, no new monthly data had been published for China since last month's *Report*. In April, Chinese crude oil production averaged 3.89 mb/d, its smallest annual decline (-145 kb/d) in more than a year. Production fell by nearly 300 kb/d in 2016 as oil companies slashed spending and shut in uneconomic wells. While output seems to have stabilised in 1Q17, it was still 240 kb/d below a year earlier. Overall, production of liquids is expected to decline by roughly 130 kb/d in both 2017 and 2018.

Malaysia – April actual: According to data published by the Central Bank, Malaysian crude and condensate output dropped by 38 kb/d in April, to 621 kb/d. Including NGLs and non-conventional supplies, production stood at 671 kb/d, or 18 kb/d below the October baseline. Malaysia had pledged to cut output by 20 kb/d. Malaysia's total oil output is forecast to decline by 20 kb/d in 2017 to 690 kb/d and a further 20 kb/d in 2018, to 670 kb/d.



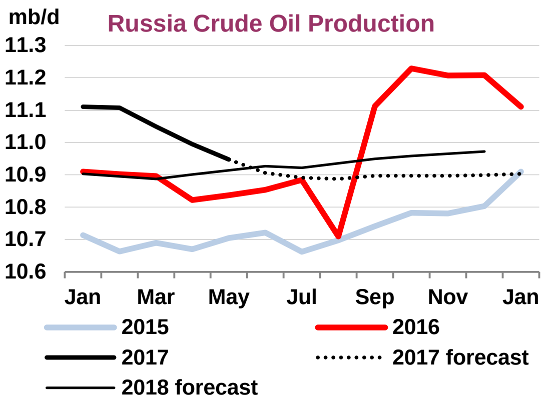
Indonesia: Following nearly two decades of flat or declining production, Indonesia's crude and condensate production rose by 55 kb/d last year, to average 831 kb/d as ExxonMobil's Banyu Urip field ramped up its 200 kb/d capacity. Production is expected to return to its downward trend over 2017 and 2018, however, as additional upstream capacity fails to offset field decline. According to SKKMigas (the Special Taskforce for Upstream Oil and Gas Business Activities, founded by the Government), only 36 kb/d of new capacity is to be brought on line in 2017 and 18 kb/d in 2018, as investment focuses more on gas production. Therefore, oil production is expected to decline by 20 kb/d in 2017 and 30 kb/d in 2018. Indonesia has not reported monthly production data to JODI since October 2016.

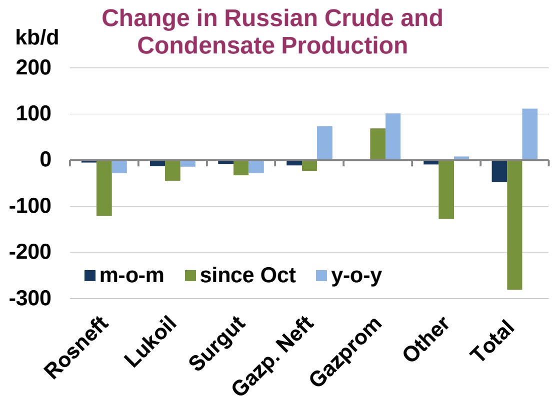
Vietnam – April actual, May preliminary: Vietnam's crude oil output is estimated at 267 kb/d in May, a decline of 11 kb/d from the previous month and 38 kb/d below a year earlier. Following a 32 kb/d (9%) decline in total output last year, production is forecast to decline by another 27 kb/d in 2017 to 288 kb/d and 20 kb/d in 2018 to 267 kb/d.

Former Soviet Union

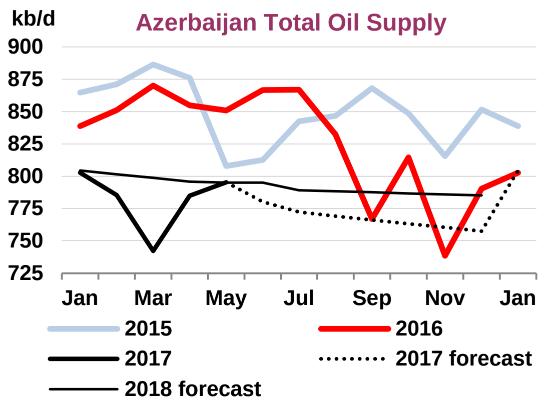
Russia – April actual, May provisional: Russian crude and condensate production dropped another 47 kb/d in May, to 10.95 mb/d. Compliance with the agreed 300 kb/d cut from an October baseline rose to 94% compared with 77% a month earlier and 61% on average year-to-date. Monthly declines stemmed from all major producers, with Lukoil (-13 kb/d) and Gazprom Neft (-12 kb/d) falling the most. Surgutneftegas, Bashneft and Rosneft recorded declines of 8 kb/d, 7 kb/d and 5 kb/d, respectively. Including estimated NGL output, total Russian production averaged 11.3 mb/d in May, some 100 kb/d higher than a year earlier, with gains stemming primarily from Gazprom and Gazpromneft.

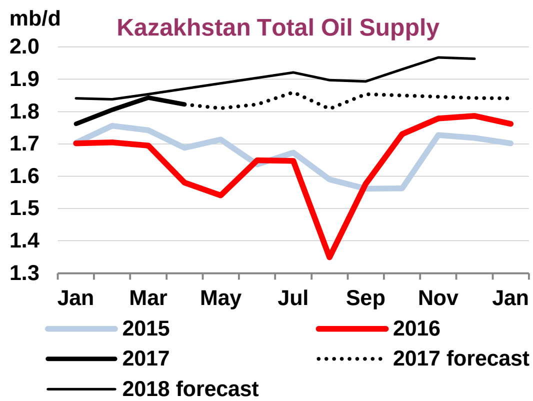
In May, Russian officials agreed to extend production cuts through March 2018. At the same time, Russia's three largest producers are all planning increased upstream spending this year. While our forecast anticipates only a slight and gradual increase in Russian output next year, production might again surprise to the upside in 2018 depending on if when production restrictions are unwound.





Azerbaijan – April actual, May preliminary: Following a 43 kb/d monthly increase in April, preliminary data suggest Azeri oil production rose a further 10 kb/d in May, to 795 kb/d. Azeri production had fallen to only 740 kb/d in March, when output at AIOCs Azeri-Chirag-Guneshli field slipped to 550 kb/d, compared with an average of 620 kb/d during 2016. At 795 kb/d, total May oil output was 20 kb/d less than in October compared with pledged output cuts of 35 kb/d, or a compliance rate of 55%. Year to date average compliance stands at a more robust 93%, following the large production fall in March.





Kazakhstan – April actual: Kazakhstan's crude and condensate output dropped by 20 kb/d in April, to 1.74 mb/d. Production at Kashagan held largely steady (at around 156 kb/d) while supplies from the two largest fields - TengizChrevroil and Karachaganak - dropped by 18 kb/d and 10 kb/d m-o-m, respectively.

The outlook for Kashagan growth this year has been slightly downgraded since last month's Report. The operator, North Caspian Operating Co, had originally set a target to reach 370 kb/d by year-end, dependent on the start-up of a gas injection program that has yet to happen. Industry sources say logistical constraints and planned maintenance could further delay the ramp up. Planned Kashagan crude oil shipments in 2017 via the Caspian Pipeline Consortium pipeline running from Kazakhstan to Russia was recently decreased from 11 million tons (220 kb/d) for to 8.1 million tons (160 kb/d). Total Kazakhstan production is nevertheless expected to grow by 180 kb/d in 2017 and a further 75 kb/d in 2018, assuming the gas injection program at Kashagan does start up early next year.

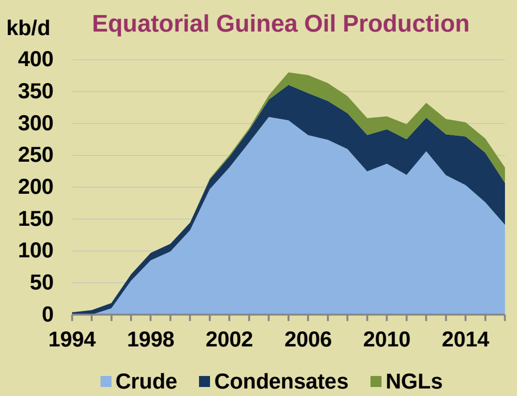
Africa

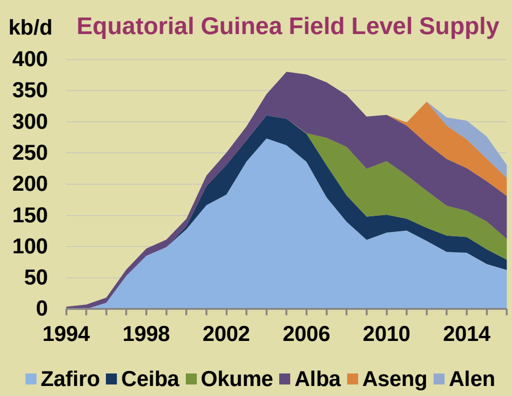
In **Ghana**, Eni started production at its Offshore Cape Three Points (OCTP) integrated oil and gas development on the Sankofa-Gye Nyame field in May. First output came two and a half years after the development plan, and three months ahead of schedule, according to the operator. The FPSO installed at the field has the capacity to produce 58 kb/d of oil and up to 210 million standard cubic feet per day of gas. The new project, along with gains from Tullow's 80 kb/d Tweneboa-Enyera-Ntomme project that started producing last August is expected to increase Ghana's total oil production by 47 kb/d to 140 kb/d in 2017 and 70 kb/d next year.

Other gains are expected to come from **Congo,** where Total recently fired up its Moho Nord development. The project, which started up in March, has a production capacity of 100 kboe/d. Total already completed the first phase of the expansion program at the Moho Bilondo license at the end of 2015– adding 40 kb/d through Moho Bilondo Phase 1bis. Eni, meanwhile, is ramping up output at its Nene Marine field. As such, Congo's oil production is set to increase by 54 kb/d this year and 70 kb/d in 2018, to reach 360 kb/d.

Equatorial Guinea joins OPEC

Having first expressed interest in joining OPEC in 2009, Equatorial Guinea became the 14th member of the group at the ministerial meeting in Vienna on 25 May 2017. The country is sub-Saharan Africa's third biggest oil producer behind Angola and Nigeria. Prior to joining OPEC, Equatorial Guinea, was one of eleven non-OPEC countries who last December agreed to reduce oil production by 558 kb/d, pledging a 12 kb/d reduction.





A review of Equatorial Guinea's oil production, based on data published by the Ministry of Energy and Mines, annual reports by foreign companies operating in the country and tanker tracking data reveals that production was already sliding before it embarked on the production cut. According to ministry data, production averaged 260 kb/d in 2015, a sharp decline from a peak of 375 kb/d reached in 2005. Following the drop in oil prices since 2014, output has fallen further as companies have scaled back operations.

Company financial and operational updates suggest output declined by 45 kb/d during 2016. Tanker tracking data confirm the drop in crude exports during 2016 and point to further declines at the start of 2017.

Compared with last month's *Report*, production estimates for Equatorial Guinea have been revised down by roughly 50 kb/d for both 2016 and 2017.

Equatorial Guinea joins OPEC *(continued)*

Equatorial Guinea currently has six active oil fields, plus a gas processing plant that produces natural gas liquids.

- The largest oil field is the **Zafiro** field complex, operated by ExxonMobil. Exxon holds a 71% interest along with GEPetrol (23.75%) and the government (5%). The Zafiro complex has produced more than 1 billion barrels since starting up in 1996, only eighteen months after discovery. According to ExxonMobil, output slumped to 63 kb/d in 2016 (31 kb/d net to Exxon after government take) from a peak of 280 kb/d reached in 2004.
- The second largest field in production is the **Alba** gas condensate field. It was discovered in 1983 and started production in 1991. Processed gas from Alba supplies the Punta Europa Gas Plant, which in 2014 produced 37 kb/d of condensates, 11.65 kb/d of propane, 6.8 kb/d of butane and 19 kb/d of methanol as well as 80 kboe/d of LNG. Alba is operated by Marathon Oil, which holds a 63% stake alongside Noble Energy and GEPetrol and produced 45 kb/d of condensates and 24 kb/d of NGLs last year.
- The **Aseng** oil field (previously known as Benita) was discovered in 2007 and brought on line in November 2011. It is operated by Noble Energy, which holds a 40% interest and other partners include Atlas Petroleum International (29%), Glencore Exploration (25%) and PA Resources (6%). Output was 29 kb/d in 2016.
- The **Alen** field, (previously known as Belinda) is a liquid-rich gas and condensate field. Production began in July 2013. The Alen field is also operated by Noble Energy, which holds a net interest in the project of 45%. The national oil company of Equatorial Guinea, GEPetrol has a 20% participating interest and a 10% carried interest. Glencore Exploration is the third partner and owns a working interest of 25%. Alen produced 21 kb/d in 2016.
- The **Okume Complex** was discovered in 2001 and started producing in December 2006. It is comprised of the Okume, Oveng, Ebano and Elon fields and peak production of 86 kb/d was achieved in 2010. The complex, located 150 miles south of Bioko Island in the Gulf of Guinea, is operated by Hess, which holds an 85% interest alongside Tullow Oil and GEPetrol. Output at Okume averaged 33 kb/d last year, compared with 45 kb/d in 2015.
- Hess also operates the adjacent **Ceiba** field (with an 85% stake), which started up production in November 2000, less than 13 months after discovery. Production, which averaged 24 kb/d in 2015, fell to 16 kb/d in 2016. Hess' total net production in Equatorial Guinea slipped to 33 kb/d in 2016, from 43 kb/d in 2015 as a drilling pause in place since mid-2015 accelerated decline rates.

Equatorial Guinea will be moved into the OPEC grouping in this *Report* starting with the July edition. In line with OMR definitions, condensates (from the Alba and Alen fields) will then be classified as NGL, rather than crude as is the practice for non-OPEC countries.

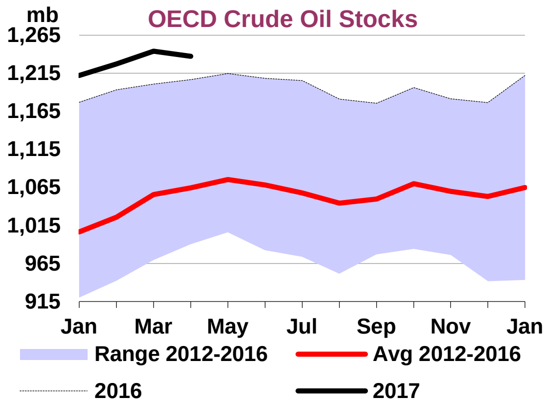
STOCKS

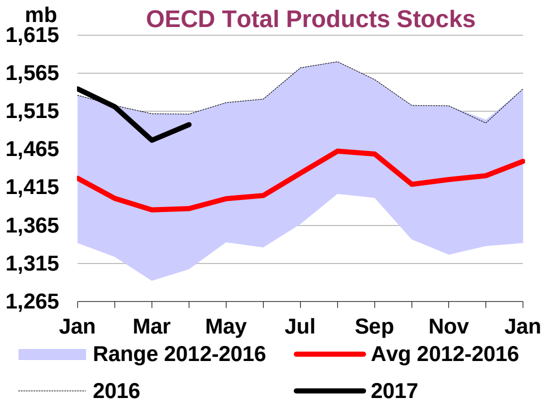
Summary

- **OECD industry stocks rose in April by 18.6 mb to 3 045 mb on higher refinery output and imports.** They remain higher than at the end of 2016 and stood 292 mb above the five-year average.

- **Fuel oil stocks in the OECD hit their lowest level in more than two years with lower Russian output** and as refiners switched to lighter crudes that yield more light and middle distillates.

- **Preliminary data show oil stocks falling in Europe, Japan, Singapore and Fujairah in May**, but rising in the US and China. Floating storage has fallen further to its lowest since December 2014.





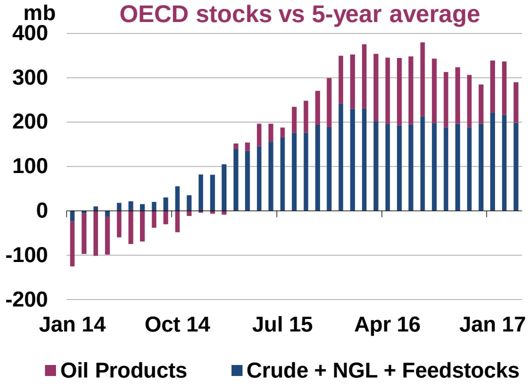
Global Overview

Certain types of stocks – chief among them floating storage and oil held far away from demand centres – have fallen noticeably in recent months. Global fuel oil stocks are likely to have decreased to their lowest level in two years in April due to reduced Russian production and with lower output from refiners. However, the latest data from JODI and the OECD show that the vast majority of tanks globally were still being filled in 1Q17 and possibly for several more weeks after. With one third of the year already gone, OECD inventories of crude, NGLs and oil products are still higher than at the end of 2016 and 292 mb above the five-year average, showing the process of destocking after OPEC's decision to cut output could take a long time. In April, stocks increased in the OECD Americas and Asia Pacific regions, but fell in Europe. They gained by 18.6 mb overall to reach 3 045 mb. May preliminary data point to higher stocks in the US and China, a reduction in Europe, Japan, Singapore, Fujairah and a further fall in floating stocks.

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

OECD industry stocks in April rose seasonally by 18.6 mb to reach 3 045 mb, as draws in US and European crude stocks were not enough to offset a large build in oil products. At end-month, OECD stocks were still above their end-2016 levels and 292 mb higher than the five-year average. Even if the overall April gain in OECD stocks was in line with seasonal norms, a closer look at the figures shows non-seasonal patterns. OECD crude stocks fell more than expected as refiners increased runs, resulting in a larger-than-usual build in oil product holdings.

Crude stockpiles reached 1 237 mb by end-April, down 6.8 mb month-on-month, with steep draws recorded in the US and Europe. Refiners on both sides of the Atlantic stepped up production during the month in response to product shortages in Latin America and as units returned from maintenance. Crude stocks in OECD Asia Pacific – especially Japan – followed the opposite path, however, as they gained 7.7 mb on higher imports and lower refinery runs. OECD oil product stocks rose significantly by 20.6 mb



in April to 1 498 mb. There were builds in all three major regions, but particularly in the OECD Americas and in Asia Pacific. Middle distillate and LPG stocks gained seasonally, while gasoline holdings also rose. However, fuel oil inventories fell to their lowest level in more than two years as refiners sought to minimise their intake of heavy and sour crudes that yield a lot of fuel oil, following OPEC's decision to cut output last year (See *Bottom of the tank – global fuel oil stocks hit two-year low*).

Preliminary Industry Stock Change in April 2017 and First Quarter 2017

	April 2017 (preliminary) (million barrels)				(million barrels per day)				First Quarter 2017 (million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	**-7.7**	**-6.8**	**7.7**	**-6.8**	**-0.26**	**-0.23**	**0.26**	**-0.23**	**0.55**	**0.18**	**-0.03**	**0.70**
Gasoline	5.2	-0.5	0.7	5.4	0.17	-0.02	0.02	0.18	0.02	0.02	-0.01	0.03
Middle Distillates	0.2	4.1	5.6	9.8	0.01	0.14	0.19	0.33	-0.12	0.06	-0.05	-0.10
Residual Fuel Oil	-1.2	-2.1	0.2	-3.1	-0.04	-0.07	0.01	-0.10	0.00	-0.03	0.01	-0.03
Other Products	5.9	0.6	1.9	8.4	0.20	0.02	0.06	0.28	-0.35	0.11	-0.03	-0.27
Total Products	**10.0**	**2.1**	**8.4**	**20.6**	**0.33**	**0.07**	**0.28**	**0.69**	**-0.45**	**0.16**	**-0.08**	**-0.37**
Other Oils[1]	2.6	-0.1	2.4	4.8	0.09	0.00	0.08	0.16	-0.04	-0.01	-0.01	-0.07
Total Oil	**4.9**	**-4.8**	**18.5**	**18.6**	**0.16**	**-0.16**	**0.62**	**0.62**	**0.06**	**0.34**	**-0.13**	**0.27**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Preliminary data for May show inventories drawing in Japan and Europe and building slightly in the US. Crude stocks in the US fell for the second straight month by 14 mb, weighed by a further increase in refinery runs to record highs. However, oil product stocks built seasonally by 18.1 mb. As in April, exports helped keep a lid on inventories for certain categories, such as diesel (-0.5 mb). In Japan, crude stocks fell back down 7 mb month-on-month as refiners worked through the surplus of oil accumulated previously and as imports fell. In Europe, crude stocks were up 2 mb and products down 3 mb. Outside the OECD, inventories fell by 5.1 mb in Singapore and by 2.8 mb in Fujairah. Oil held on floating storage was also down 4.1 mb. Preliminary customs data imply Chinese crude stocks built in May following another increase in imports.

Revisions versus May 2017 Oil Market Report

(million barrels)

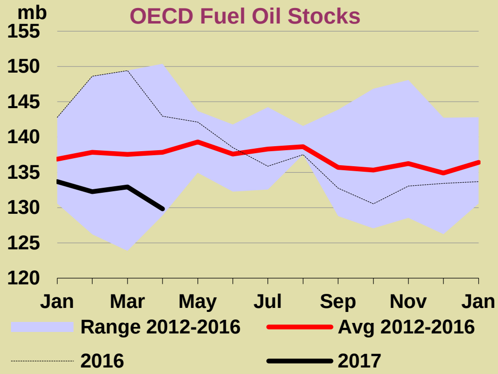
	Americas		Europe		Asia Oceania		OECD	
	Feb-17	Mar-17	Feb-17	Mar-17	Feb-17	Mar-17	Feb-17	Mar-17
Crude Oil	**-1.8**	**1.6**	**0.0**	**5.2**	**0.0**	**2.5**	**-1.8**	**9.3**
Gasoline	0.0	-0.7	-0.2	-2.1	0.0	-0.4	-0.2	-3.2
Middle Distillates	0.0	0.5	0.1	-2.0	0.0	0.0	0.1	-1.4
Residual Fuel Oil	0.0	0.7	0.0	0.4	0.0	-0.4	0.0	0.7
Other Products	0.0	-7.8	-0.1	4.7	0.0	0.5	-0.1	-2.6
Total Products	**0.0**	**-7.2**	**-0.2**	**1.0**	**0.0**	**-0.3**	**-0.2**	**-6.5**
Other Oils[1]	0.0	0.3	0.0	-2.0	0.0	-0.3	0.0	-2.0
Total Oil	**-1.8**	**-5.4**	**-0.1**	**4.2**	**0.0**	**1.9**	**-1.9**	**0.8**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Revised data shows that OECD inventories were 0.8 mb higher for March and 1.9 mb lower for February than previously reported. For March, crude stocks were revised up 9.3 mb, but this was offset by decreases in oil products (-6.5 mb) and other oils (-2 mb). Our figures continue to include an expansion in Swedish crude and product stocks for January of 16.5 mb, which represents a break with past figures. The largest changes were seen in gasoil/diesel (51%), followed by crude (25%), refinery feedstocks (11%) and residual fuel (11%). In the near future, revisions to Sweden's 2016 data are likely to be published.

Bottom of the tank – global fuel oil stocks hit two-year low

The rebalancing of oil markets is taking some time, as this *Report* makes abundantly clear. OECD stockpiles increased in the January-April period following a surge in imports from OPEC countries and slowdowns in refining activity, while stocks in most other locations also rose or failed to draw substantially. However, for fuel oil rebalancing is already well underway.



Fuel oil and bunker fuel stockpiles in the OECD fell to their lowest level in more than two years in April. At 130 mb, they were down 3.1 mb from March. Since falling below the five-year average in May last year, the deficit has grown, reaching 8 mb in April. In Singapore, the world's largest bunkering hub, fuel oil and bunker stocks dropped a further 4.4 mb on the month in May to 19 mb, their lowest level since November 2014 and stand below the five-year average for the first time in more than two years. The latest figures available from Russia – the world's largest exporter of fuel oil – show stocks at their lowest level in almost eight years last January. In certain locations, such as the US Gulf Coast or Fujairah (UAE), stockpiles have looked more stable in recent months due to increases in refining activity or higher imports, but it is clear the global deficit in fuel oil has only grown.

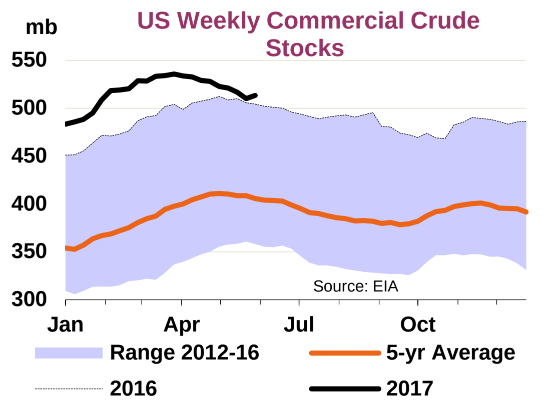
Fuel oil stocks have fallen because of structural and other changes. Chief among them is Russia's decision to embark on a huge refinery modernisation programme at the start of the decade, which has reduced fuel oil yields in favour of diesel production. Russian fuel oil exports reached a historic peak of 1.5 mb/d have at the end of 2009 and by February this year they had nearly halved to 774 kb/d. This has had a knock-on impact on stock levels in Western Europe, which are traditionally replenished by Russian supplies. Strong outflows to Singapore and China, where shipping activity has grown strongly in recent years, has helped deplete European stocks. Shippers also need less fuel oil (and more gasoil) following the implementation of Sulphur Emission Control Areas in Europe and North America at the start of 2015 and oil-fired electricity generation in the OECD has been in long-term decline due to environmental concerns. Fuel oil use in shipping is likely to fall further from 2020 when further International Maritime Organisation rules come into effect.

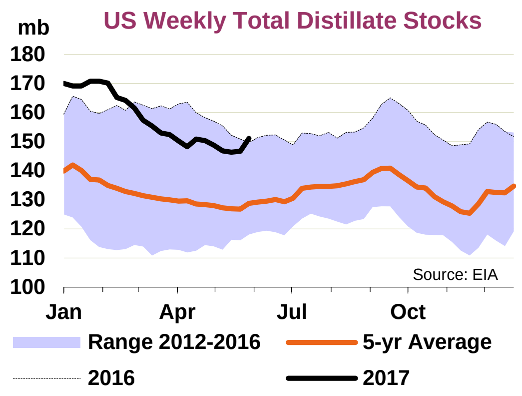
OPEC's decision to cut output of its mostly heavy and sour crudes at the end of 2016 has boosted their price and consequently refiners have increasingly sought to use lighter and sweeter grades with a lower cut of fuel oil. This has, in turn, led to the tightening of fuel oil stocks and markets in recent months. The Singapore 380 centistoke fuel oil cargo crack to Dubai crude averaged minus $3.82/bbl in May, up $5.90/bbl from the same month in 2016, as shippers scrambled to source material. The crack has been consistently supported since 4Q16 due to good demand and periodic episodes of supply tightness in Asia.

Recent OECD industry stock changes

OECD Americas

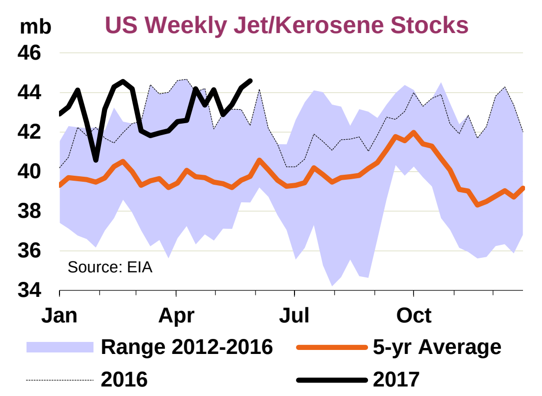
Commercial stocks in the OECD Americas rose seasonally by 4.9 mb to 1 610 mb in April. They stood 199.7 mb above the five-year average by end-month. But the overall build in April was much less than usual for the month as US refiners consumed increasing quantities of crude. As a result, crude stocks drew counter-seasonally by 7.7 mb to 688 mb whereas oil product stocks built. This was the first recorded draw in crude stocks in the OECD Americas since December, since when rising US crude production and imports from the Middle East helped to boost crude stockpiles. In April, US imports of crude rose slightly, especially in the Gulf Coast area, but crude stocks failed to gain due to a 1.1 mb/d increase in refinery runs. US crude exports, meanwhile, reached 30 mb (1 mb/d) during the month, up from March's 25.8 mb (800 kb/d) and just 1.2 mb shy of February's record figure. This was the result of steadily declining US crude prices during March versus international benchmarks. China took the most crude, followed by Canada and the Netherlands in a distant third position. At 9.69 mb (325 kb/d), China's imports of US crude were higher than Canada's for only the second time ever.

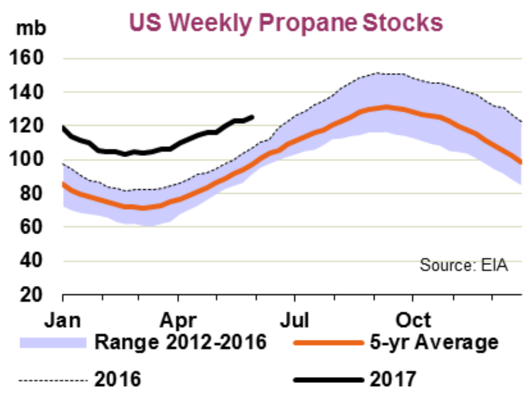




Oil product stocks built less than implied by the significant rise in US refinery runs in April. They were up 10.1 mb across the OECD Americas region to 745 mb, with gains in all product categories bar fuel oil. 'Other product' stocks (largely LPG) were up the most, by 5.9 mb to 196 mb, even if it was less than the seasonal average gain linked to falling energy use after the winter. One explanation is that US exports of propane and propylene are up around a third from a year ago following the commissioning of new export facilities in the Gulf Coast late last year. Gasoline stocks were up counter-seasonally by 5.2 mb to 275 mb with higher refinery output and higher imports into the US East Coast. Exports to Latin America continued to be strong. Finally, middle distillate inventories gained by a mere 0.2 mb on the month to 227 mb, as higher output from refiners was offset by strong exports to Latin America and Europe.

Preliminary data from the EIA for May suggest a continuation of the same trends observed in April. US crude stocks fell for the second straight month by 14 mb, weighed by a further increase in refinery runs to their highest level ever. Imports remained steady and exports rose with a new record of 1.3 mb/d established in the week ending 26 May. Market sources suggest it is now possible to load a Very Large Crude Carrier at Occidental's Ingleside terminal near Corpus Christi, Texas, though not to its full draft. Further dredging is required to enable the loading of a full 2 mb cargo, but the development highlights the falling logistical costs of US exports. The steady rise in WTI prices versus Brent and Dubai in late May, however, means US exports are likely to reduce in June.



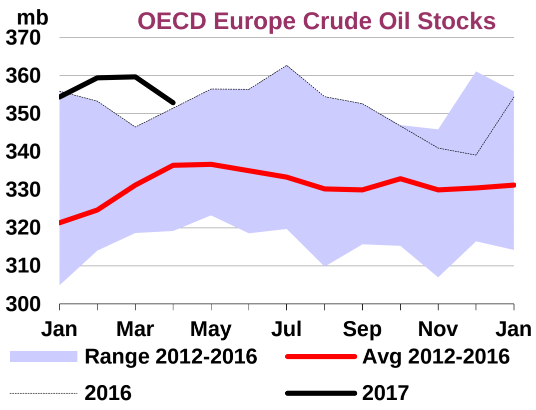


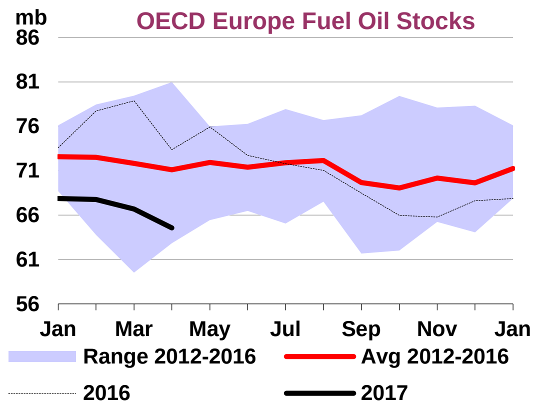
Oil product stocks built seasonally by 18.1 mb during May as a result of higher refinery production. As in April, exports helped keep a lid on inventories for certain categories, such as diesel (-0.5 mb). Gasoline stocks started declining seasonally as they fell 1.8 mb on the month with higher consumption from US drivers, despite increased imports. Propane stocks rose strongly by 9.3 mb. The May-April gain is larger than observed a year ago, a further sign of the rise in US LTO production and associated NGLs. However, not all product categories are seeing rising exports. Jet stocks were up 0.9 mb in May and at their highest level in more than a year with tepid demand in the East Coast. US jet fuel is hard to export internationally because of its higher freeze point specification.

OECD Europe

OECD Europe industry stocks fell 4.8 mb to 1 013 mb in April, their lowest level in four months and 76.6 mb above the five-year average. Crude stockpiles drew and oil product stocks built counter-seasonally, suggesting that European refiners returned from maintenance earlier than usual. Crude stocks fell 6.8 mb to 353 mb, the result of higher refinery output rather than changing import patterns. There were crude draws in France and Italy, and builds elsewhere. When taking into account the revision to Swedish baseline figures from January, European crude stockpiles are now lower than a year ago.

Oil product holdings rose 2.1 mb to 589 mb. Middle distillates stocks built 4.1 mb to 315 mb – a pattern repeated over the last few years – as importers prepared for peak summer demand. However, middle distillates stocks have been below year-ago levels since November and the gap widened in March and April. Gasoline stockpiles fell 0.5 mb on higher exports and fuel oil stocks fell 2.1 mb.





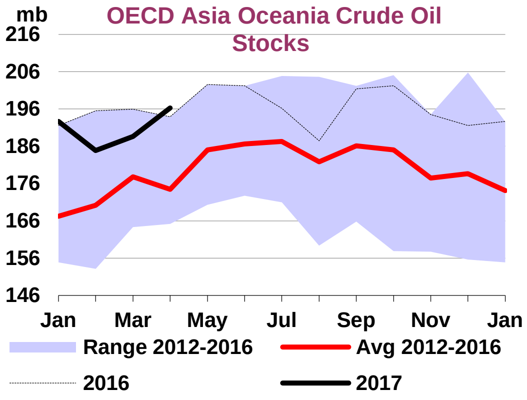
Preliminary data from Euroilstock showed crude stocks building by 2 mb in May and oil products drawing by 3 mb. The largest fall was for gasoline inventories, which fell 2.6 mb on the month. Reports concerning oil products held in independent storage in Northwest Europe showed stockpiles declining in May. Gasoline, gasoil, fuel oil and jet stocks all fell, whereas naphtha stocks increased. Oil product stocks in the area are below year-ago levels but still above the five-year average.

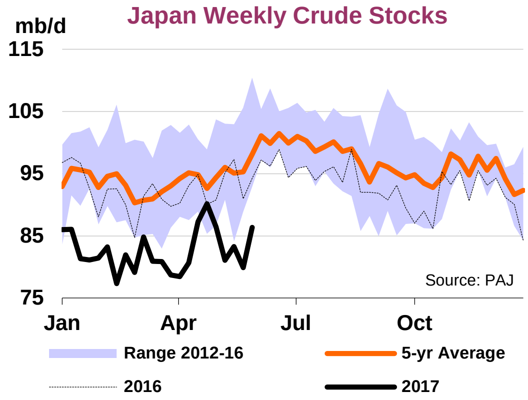
OECD Asia Oceania

Commercial stocks in OECD Asia Oceania gained significantly in April with larger-than-usual builds in both crude and oil products. They stood at 422 mb by end-month, up 18.5 mb month-on-month and 15.3 mb higher than the five-year average. Crude stocks rose counter-seasonally by 7.7 mb to 196 mb, helped by a large build in Japan discussed in the May edition of this *Report*. Japan's build coincided with a reduction in refinery runs and came after a month of strong crude imports. Japan imported 3.21 mb/d of crude during March, up slightly from the February average, according to tanker tracking company *Kpler*. Imports from Saudi Arabia, which stores crude on Okinawa island and sells crude to Japanese refiners, rose to 1.35 mb/d in March, before falling in April, the same Kpler data showed.

Oil product stocks also rose across the board in OECD Asia Oceania during the month. They were up 8.4 mb to 163 mb, with gains seen in middle distillates (+5.6 mb), other products (+1.9 mb), gasoline (+0.7 mb) and fuel oil (+0.3 mb). Middle distillate stocks in the region often rise from April onwards until August as importers and wholesalers restock after winter.

Preliminary weekly data from the *Petroleum Association of Japan* (*PAJ*) show that crude stocks fell back during May. They were down 7 mb month-on-month as refiners worked through inventory and as imports fell. Meanwhile, oil product stocks gained by 5.5 mb with increases seen in gasoline (+0.4 mb), jet/kerosene (+1.5 mb), fuel oil (+1.5 mb) and falls in gasoil/diesel (-0.4 mb) and naphtha (-0.1 mb).



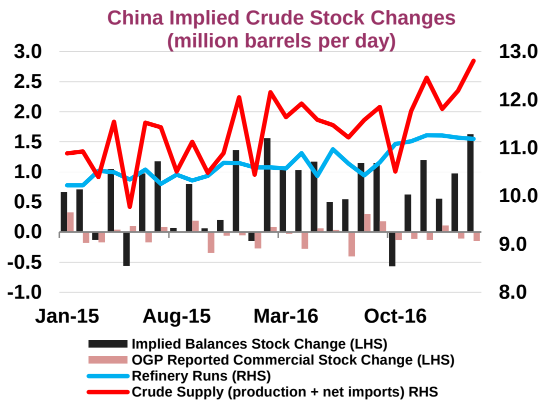


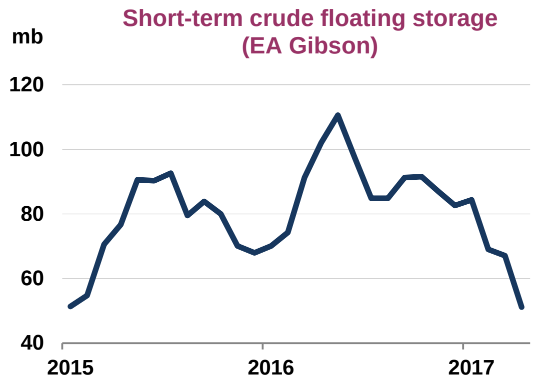
Other stock developments

It is now abundantly clear that global stockpiles failed to draw in 1Q17. In fact, oil stockpiles in the OECD built by 24.8 mb (275 kb/d) as more oil shipments arrived and refinery runs fell. Figures released by JODI last month show how total oil stocks also built overall in the non-OECD countries it covers.

Crude and NGLs stocks fell in Middle East exporting countries such as Saudi Arabia (-4.8 mb) and Qatar (-4.3 mb) and in Chinese Taipei (-1.4 mb) and the Philippines (-1.3 mb). However, they built in West African producers including Nigeria (+6.6 mb) and Angola (+3.8 mb), as well as Thailand (+2.6 mb) and Iraq (+1.6 mb). Overall, JODI data showed a crude build of 3.6 mb during 1Q17 for the countries it covers. For oil products, there were notable draws in Qatar (-2.8 mb) and Saudi Arabia (-2.1 mb) on lower refinery output, and builds in Thailand (+9.4 mb), India (+5.1 mb), Nigeria (+4.3 mb), Chinese Taipei (+2 mb) and Hong Kong (+1.7 mb). Overall, oil product stocks rose by 19.9 mb.

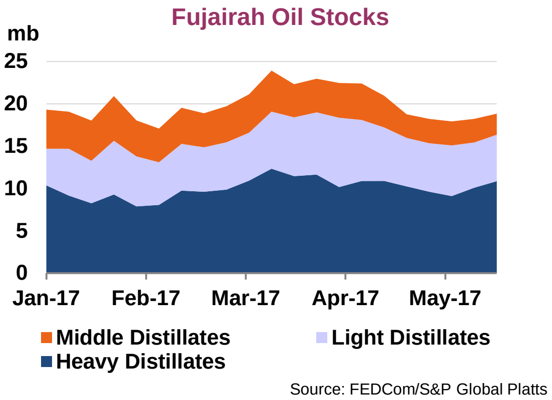
An exception has been oil held in floating storage which fell steeply in 1Q17 and continued to reduce thereafter. In May, floating stocks fell by 4.1 mb from April to 47 mb, their lowest level since December 2014, according to data from *EA Gibson*.

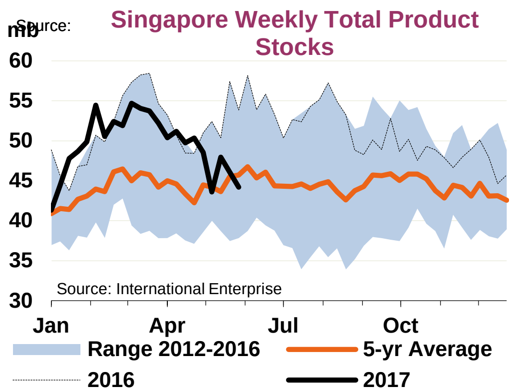




Data from *China Oil, Gas and Petrochemicals* (*China OGP*) indicate that commercial crude stocks rose by a modest 3.4 mb in April to 209.4 mb, while gasoline and kerosene stocks fell. There was also a steep drop in gasoil holdings of 13.5 mb linked to increased industrial and mining activity, as well as the onset of the farming season. During the January-May period, total Chinese crude stocks – including crude flowing into strategic reserves and independent terminals – are estimated to have risen by 150-200 mb (0.9-1.3 mb/d) following a steep rise in imports. Crude imports rose by 20 mb in May, preliminary data from Chinese customs showed, although tanker tracking data suggests they are likely to fall in June. Tanks in the northeast Shandong area – where independent refiners store crude – were almost full in mid-May, creating a queue of vessels waiting to discharge, according to market reports.

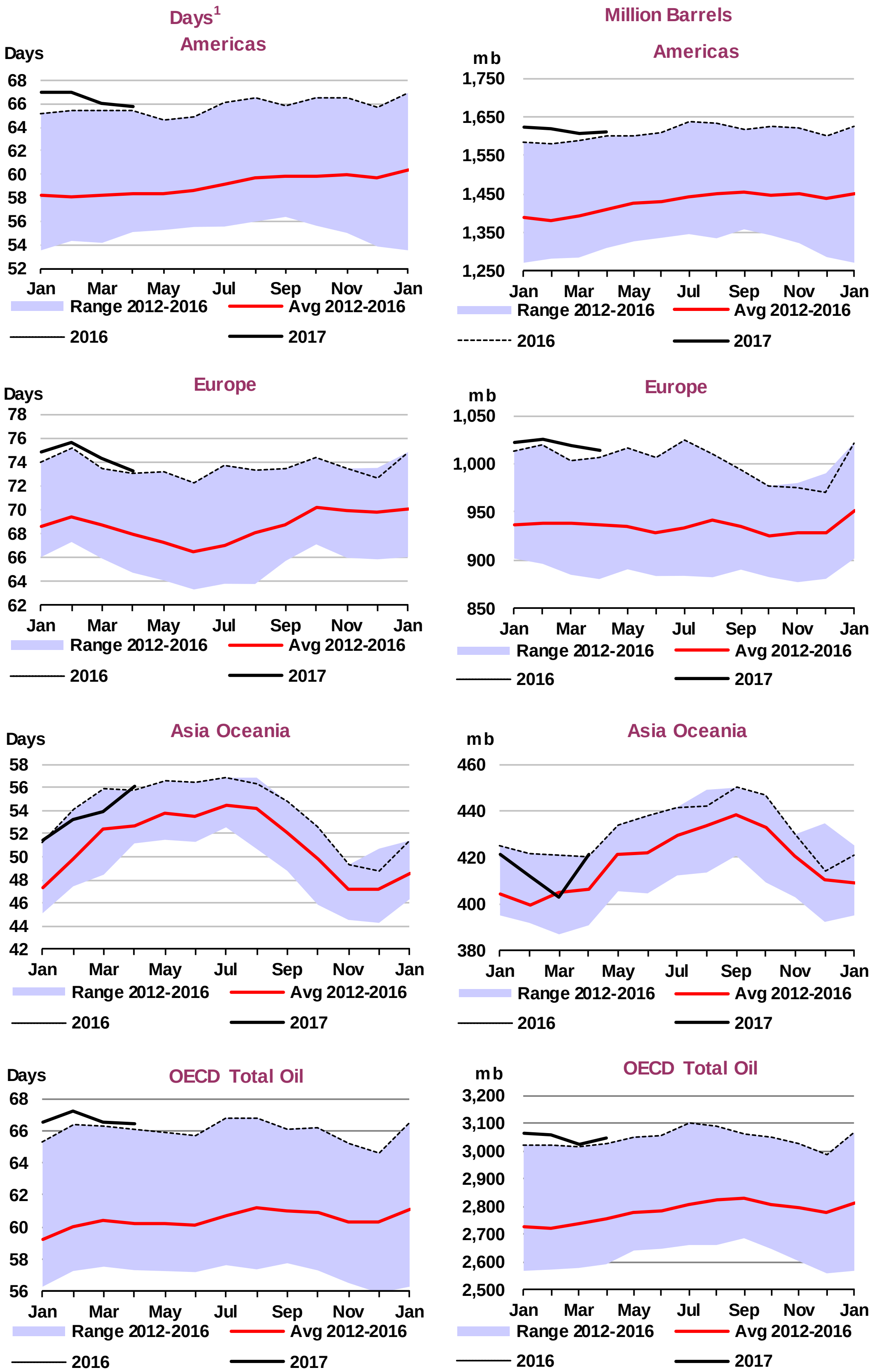
Oil inventories in Fujairah, the United Arab Emirates, fell in May across all product categories for the second straight month, data released by *FEDCom* and *S&P Global Platts* showed. Total stocks were down 2.8 mb to 18.4 mb. Light distillates reduced 1.1 mb to 5.4 mb, middle distillates fell by 1.1 mb to 2.7 mb and fuel oil and bunkers stocks decreased by 0.6 mb to 10.3 mb. Singaporean stocks fell for a third straight month, by 5.1 mb to 44.2 mb in May, according to *International Enterprise*. There were drops in fuel oil and bunkers stocks (-4.4 mb) and light distillate stocks (-2.1 mb), and an increase in middle distillate stocks (+1.4 mb). Overall, Singaporean stocks were down 13.9 mb year-on-year and were below the five-year average for the first time since December 2014, the same data showed.





Regional OECD End-of-Month Industry Stocks

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



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

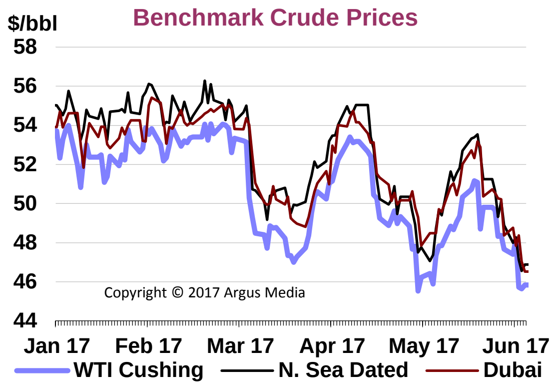
PRICES

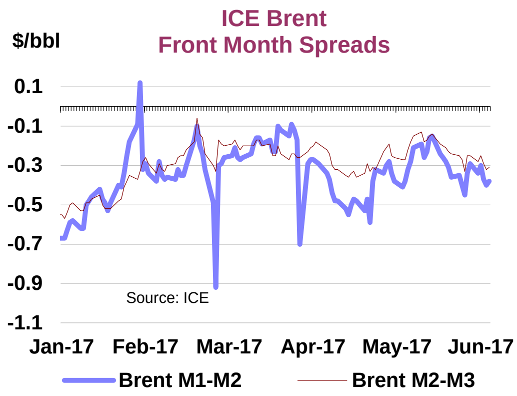
Summary

- **Benchmark crude prices fell by $1.50-2.50/bbl on average in May.** They decreased more steeply from 23 May onwards, reflecting lower expectations about the pace of a global market rebalancing.

- **Money managers built net long positions by 136 mb to reach 520 mb at the end of May,** but this has not impacted outright oil prices. Net long positions fell in early June.

- **Continuing tight supplies of sour crudes amid OPEC's output cuts boosted fuel oil prices.** Gasoline and naphtha prices both fell on the month.





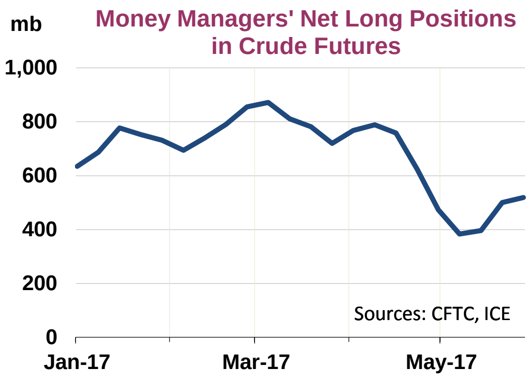
Market overview

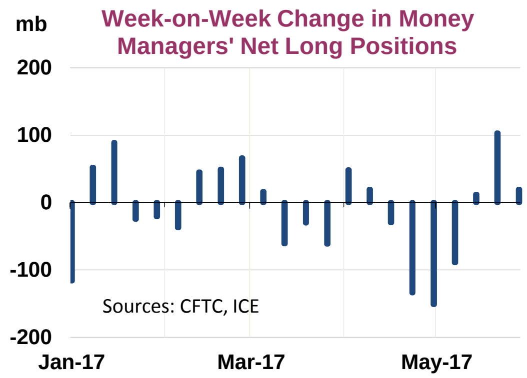
Outright benchmark crude prices have been on the back foot since 23 May, reflecting lower expectations about the pace of a global market rebalancing, despite OPEC's decision in late May to renew output cuts. Front-month Brent futures were trading at $48.25/bbl at the time of writing, close to their level before the OPEC output cut was agreed. Money managers increased their net long positions in crude and oil product futures in May, indicating increasing bullish bets and potentially supporting the market ahead of the seasonal ramp-up of crude purchases from refiners. However, it has not yet happened and in the first week of June net long positions fell once more. During May the return of many northern hemisphere refiners from maintenance and strong runs in the US boosted physical crude premiums, as opposed to outright oil prices. US crudes outperformed other grades, but the price of North Sea, Urals and many Middle Eastern grades also gained. Sour crudes maintained their premium over sweeter grades. For their part, global oil product prices decreased in May, reflecting a situation of oversupply for most products. Gasoline and naphtha prices fell steeply, while fuel oil prices remained supported by continuing higher heavy, sour crude prices and low stocks (See *Bottom of the tank – global fuel oil stocks hit two-year low*).

Futures markets

Oil futures markets followed a similar pattern in May to that in April: they rose initially before falling late in the month. Brent prices gained until 23 May to reach $54.15/bbl as traders anticipated OPEC would extend production cuts. However, they fell in the days following the OPEC meeting and in early June, partly due to disappointment that the cuts were not deepened. At the time of writing, front-month Brent futures were trading at $48.25/bbl, close to their level before the output cut deal. Money managers – the category of traders most likely to bet on the direction of oil prices – cut net long positions in crude futures to their lowest level in nine months in early May, before they rose in the weeks that followed, according to Intercontinental Exchange and the US Commodity Futures Trading Commission (CFTC).

Net long positions reached 520 mb at the end of May, showing a gain of 136 mb from trough to peak during the month. However, they were still down from February's record high of 872 mb. This means hedge funds and money managers held an average of 3.4 long positions for every short by the end of May – close to the long-run average. It was the closing of bearish short positions rather than the opening of fresh bullish ones that explained the overall gain in net long positions. This indicates that the price outlook – at least amongst this category of traders – may have stabilised, even if in the first week of June net long positions fell once more.





The Month 1-Month 2 Brent futures spread was mostly range-bound, rising in line with outright crude prices in the first half of May, before easing afterwards. Some longer-dated spreads hit their lowest level in several months in early June, showing how traders expect the global rebalancing to take longer than initially expected. By contrast, the Month 1-Month 2 WTI futures spread strengthened throughout May and from 23 May onwards WTI rose in relation to both Brent and Dubai, the result of higher US crude exports and strong refinery runs in the US that have tightened crude stockpiles.

Prompt Month Oil Futures Prices

(monthly and weekly averages, $/bbl)

	Mar	Apr	May	May-Apr Avg Chg	% Chg	Week Commencing: 08 May	15 May	22 May	29 May	05 Jun
NYMEX										
Light Sweet Crude Oil	49.67	51.12	48.54	-2.58	-5.0	47.06	49.25	50.45	48.50	46.56
RBOB	68.41	70.60	66.41	-4.19	-5.9	64.56	67.71	69.12	67.51	63.65
ULSD	64.49	66.77	63.60	-3.16	-4.7	61.79	64.58	66.61	63.54	60.44
ULSD ($/mmbtu)	11.37	11.78	11.22	-0.56	-4.7	10.90	11.39	11.75	11.21	10.66
Henry Hub Natural Gas ($/mmbtu)	2.99	3.19	3.24	0.05	1.5	3.30	3.24	3.24	3.06	3.02
ICE										
Brent	52.54	53.82	51.39	-2.43	-4.5	49.98	52.36	53.12	51.00	48.73
Gasoil	62.35	64.29	61.03	-3.26	-5.1	59.07	62.26	63.73	60.60	57.15
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-2.87	-2.70	-2.85	-0.15		-2.92	-3.11	-2.67	-2.50	-2.17
NYMEX ULSD - WTI	14.82	15.65	15.06	-0.58		14.73	15.33	16.16	15.04	13.88
NYMEX RBOB - WTI	18.74	19.48	17.87	-1.61		17.50	18.46	18.67	19.01	17.09
NYMEX 3-2-1 Crack (RBOB)	17.44	18.20	16.93	-1.26		16.57	17.42	17.83	17.69	16.02
NYMEX ULSD - Natural Gas ($/mmbtu)	8.38	8.59	7.98	-0.60		7.60	8.15	8.51	8.15	7.64
ICE Gasoil - ICE Brent	9.81	10.47	9.64	-0.83		9.09	9.90	10.61	9.60	8.42

Source: ICE, NYMEX.

Spot crude oil prices

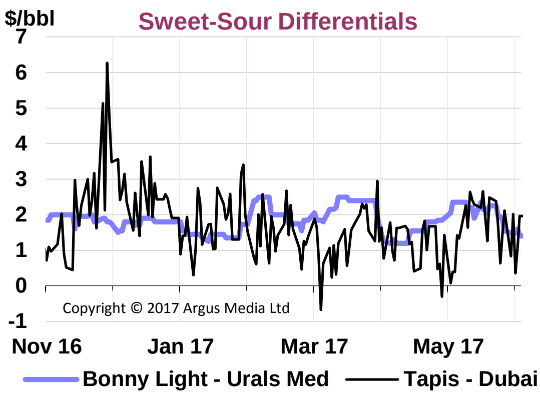
Oil futures prices decreased in May, triggering a fall in physical crude grade prices. However, the return of many northern hemisphere refiners from maintenance and strong runs in the US meant physical premiums rose. US crudes outperformed other grades in the second half of May, but the price of North Sea, Urals and many Middle Eastern grades also gained. Sour crudes maintained their premium over sweeter grades. This has been a feature of the oil market since December 2016, when OPEC cut output.

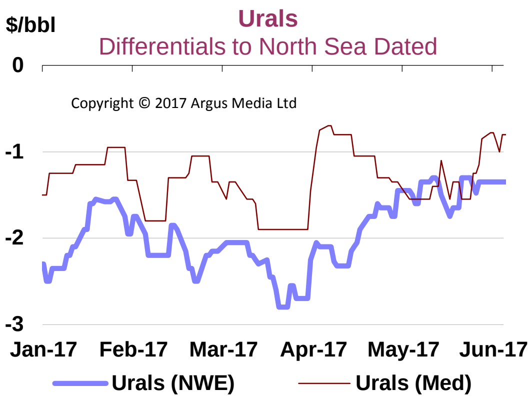
Spot Crude Oil Prices and Differentials

(monthly and weekly averages, $/bbl)

	Mar	Apr	May	May-Apr Avg Chg	%	Week Commencing: 08 May	15 May	22 May	29 May	05 Jun
Crudes										
North Sea Dated	51.60	52.46	50.42	-2.04	-3.9	48.43	51.77	52.81	49.74	47.36
Brent (Asia) Mth 1	52.60	53.59	51.57	-2.01	-3.8	49.79	52.15	53.53	51.02	48.70
WTI (Cushing) Mth 1	49.58	51.06	48.50	-2.56	-5.0	47.06	49.25	50.30	48.50	46.56
Urals (Mediterranean)	49.94	51.41	49.01	-2.40	-4.7	46.88	50.40	51.38	48.61	46.52
Dubai	51.21	52.31	50.58	-1.73	-3.3	49.06	51.07	52.29	50.03	47.70
Tapis (Dated)	52.46	53.66	52.10	-1.56	-2.9	49.87	53.31	54.41	51.69	48.96
Differential to North Sea Dated										
WTI (Cushing)	-2.02	-1.40	-1.92	-0.52		-1.37	-2.52	-2.51	-1.24	-0.81
Urals (Mediterranean)	-1.66	-1.05	-1.41	-0.36		-1.55	-1.37	-1.43	-1.13	-0.85
Dubai	-0.39	-0.15	0.16	0.31		0.63	-0.71	-0.51	0.29	0.34
Tapis (Dated)	0.86	1.20	1.68	0.48		1.43	1.54	1.60	1.95	1.60
Prompt Month Differential										
Forward Cash Brent Mth1-Mth2	-0.26	-0.46	-0.23	0.22		-0.32	-0.08	-0.15	-0.40	-0.42
Forward WTI Cushing Mth1-Mth2	-0.56	-0.40	-0.33	0.08		-0.37	-0.33	-0.29	-0.23	-0.22
Forward Dubai Mth1-Mth2	-0.17	-0.50	-0.21	0.30		-0.25	-0.23	-0.17	-0.16	-0.33

North Sea Dated prices fell in May in line with lower outright oil prices, however losses were more measured than for most other grades of crude. Refiners in Europe and the US increased runs and snapped up additional North Sea cargoes as a result, supporting differentials. Between 5-6 mb of mostly Norwegian crude was exported to the US during the month as refiners increased runs, according to market reports. Meanwhile, Forties flows to Asia continued unabated, reaching a fresh historical record of 10 mb, the result of a narrow price spread between North Sea and Dubai crudes in April. The Brent-Dubai spread widened a touch in May but remained at a level that made the arbitrage work. North Sea loadings are forecast to slow in July due to field maintenance, including at the UK's largest field, Buzzard. Ekofisk is the only grade showing increased volumes for July. Prompt North Sea swaps contracts flipped to backwardation in mid-May, indicating supply tightness, even if this lasted for just a few days. The Forties price differential to North Sea Dated rose steadily until the third week of May, before easing.





Steady interest from Asian refiners and OPEC's decision to extend production cuts by another nine months lent support to Middle Eastern crude grades in May. Sour benchmark Dubai fell by $1.73/bbl to $50.58/bbl, but gained versus other crudes. The Brent-Dubai spread reached $0.46/bbl in late April, its lowest level in seven years, and stayed below $1/bbl in May. Physical Dubai prices increased to a more than two-month high versus swaps following the extension of output cuts, and the contango on the

Dubai curve narrowed. Lighter grades such as Abu Dhabi's Murban remained under relative price pressure as output cuts are being felt primarily in heavy, sour grades. Murban fell during the second half of May, even if it recovered towards the end of the month.

Prices for West African grades also fell in line with the rest of the oil complex. Nigeria's Bonny Light averaged $51.13/bbl, down $1.81/bbl. The reopening of the Forcados terminal after a six-month shutdown and higher expected loadings of Qua Iboe following repairs to the main export line will add to supplies from Nigeria over the coming months, but reduced uncertainty about loading dates – which previously helped to dampen interest for those grades – helped to keep differentials relatively stable. By late May, part of the June Nigerian loading programme remained unsold, a sign of oversupply. One of the reasons was Chinese independent refiners' decision to reduce purchases after tanks in northeast China filled up quickly over the last few weeks. Instead, US refiners increased their buying with higher run rates and as WTI strengthened relative to Brent-linked crudes.

Russia's Urals crude for delivery in Northwest Europe fell $1.50/bbl to $48.92/bbl. The differential to North Sea Dated appreciated for the second straight month. It stood at minus $1.48/bbl by end-month, its highest in nearly two years. This was linked to a steep cut in exports from the northern port of Primorsk forecast for June due to planned work on a pipeline that will last until the end of the year. Lower loadings from Primorsk were not offset by higher loadings out of Ust-Luga, another Baltic port, or Novorossiysk, in the Black Sea. The higher price of Urals meant it was less economic to ship the crude to Asia as in previous months, reducing flows. Urals for delivery in the Mediterranean has traded at a rare premium to sweet grades such as CPC Blend since mid-May, showing how sour crudes continue to benefit from OPEC's decision to cut output.

The first half of May saw WTI prices fall further against international crudes, in turn encouraging near-record exports from the Gulf Coast to Europe and Asia. In the second half of the month, WTI rose steeply against Brent and Dubai, making the arbitrage less viable. On average, WTI for delivery in Cushing dropped $2.56/bbl to $48.50/bbl. Heavy grades such as Mars and Poseidon rose throughout the month, reflecting ongoing tight global fundamentals for sour crudes. In total, around 10 mb of US crude was on its way to Asia by late May, with grades such as Southern Green Canyon or Alaska's North Slope exported for the first time ever. Chinese Taipei's refiner CPC was also heard to have bought WTI crude for the first time, according to market reports. WTI prices for delivery in Midland, Texas, strengthened relative to prices in Cushing, Oklahoma, as Gulf Coast refiners maintained high runs and on strong export demand.

Spot product prices

Global oil product prices fell across the board in May, reflecting lower outright crude prices and an oversupply situation for most products. Gasoline and naphtha prices fell particularly steeply, while fuel oil prices remained supported by continuing high heavy, sour crude prices, and reduced production.

Fuel oil prices fell in May, but less than other oil product categories, making it the strongest performer across the barrel. Prices have been supported in the last few months by OPEC's decision to cut output, which bolstered the price of heavy, sour crudes that yield a lot of fuel oil, and lower production from Russia linked to its refinery modernisation programme. In May, Singapore 380 centistoke fuel oil cargo prices fell by $1.35/bbl to $46.76/bbl, and the crack gained $0.38/bbl. Lower viscosity 180 centistoke prices were even more buoyant due to reduced supply of higher quality blendstock in the region. Cargo arrivals into Asia are likely to be lower in June than in recent months at around 25 mb, down from 30 mb in May, as the arbitrage between Europe and Asia has been difficult to work. Despite this, supplies were thought to be mostly adequate in Asia with some volumes still held in vessels offshore and thought likely to enter onland storage over the coming weeks.

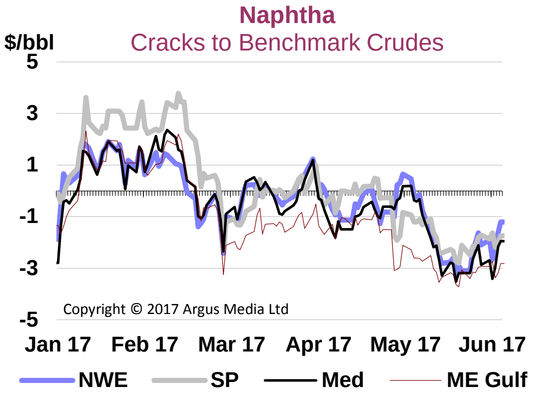
Diesel and gasoil prices followed crude lower during May, reflecting the return from maintenance of many refineries. Rotterdam diesel barge prices were down $3/bbl on the month to $61.11/bbl, and the crack fell almost $1/bbl. Loading restrictions returned on the Rhine with warmer temperatures, hampering the flow of product just at a time when demand is up seasonally. Europe has remained well supplied thanks to higher refinery production and higher exports from the US. The US to Europe diesel arbitrage window opened in May after being less workable since the start of the year due to high demand in Latin America. Nigeria and Ghana are expected to switch to lower sulphur 50 ppm gasoil specification at the start of July, potentially opening new trade routes from the US, the Middle East and Asia to West Africa and boosting diesel premiums. Singapore 500 ppm gasoil was down $3.49/bbl in May to $61.19/bbl on a general oversupply situation linked to strong exports from China and Korea. The monsoon season looks to have arrived early in India, likely dampening demand for diesel over the next few weeks as generators used to irrigate fields are turned off. However, there has also been steady demand from countries such as Thailand and Indonesia.

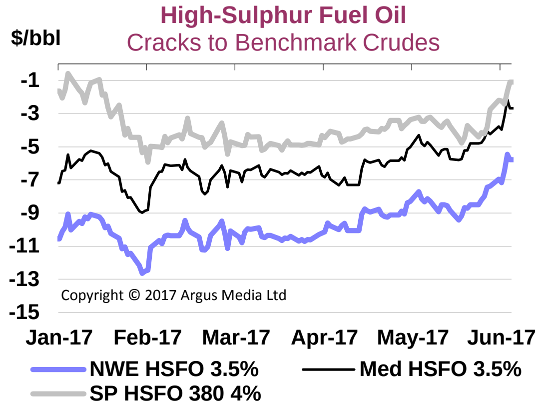
Spot Product Prices
(monthly and weekly averages, $/bbl)

	Mar	Apr	May	May-Apr		Week Commencing:					Mar	Apr	May
				Chg	*%*	08 May	15 May	22 May	29 May	05 Jun			
Rotterdam, Barges FOB											**Differential to Dated Brent**		
Premium Unl 10 ppm	60.60	65.91	62.86	-3.05	-4.6	61.26	64.12	64.80	63.86	61.87	9.00	13.45	12.45
Naphtha	51.27	52.12	48.97	-3.15	-6.0	48.27	49.61	49.88	47.74	45.43	-0.34	-0.34	-1.45
Jet/Kerosene	61.49	63.52	60.77	-2.75	-4.3	58.87	61.92	63.53	60.28	57.19	9.89	11.06	10.35
ULSD 10ppm	62.21	64.11	61.11	-3.00	-4.7	59.32	62.39	63.82	60.13	57.20	10.61	11.66	10.69
Gasoil 0.1%	61.09	62.88	59.80	-3.08	-4.9	58.00	61.12	62.38	58.77	55.83	9.48	10.42	9.38
LSFO 1%	45.12	47.21	46.23	-0.97	-2.1	44.73	47.15	48.28	46.33	45.64	-6.49	-5.25	-4.19
HSFO 3.5%	41.16	42.99	41.88	-1.10	-2.6	40.31	43.11	43.91	41.97	41.00	-10.44	-9.47	-8.54
Mediterranean, FOB Cargoes											**Differential to Urals**		
Premium Unl 10 ppm	61.37	66.75	62.86	-3.90	-5.8	60.86	63.04	65.40	64.14	61.06	11.43	15.35	13.85
Naphtha	49.55	50.67	47.31	-3.37	-6.6	46.51	47.99	48.28	46.11	43.88	-0.39	-0.73	-1.70
Jet Aviation fuel	60.34	62.60	59.91	-2.69	-4.3	57.90	61.08	62.76	59.49	56.49	10.39	11.19	10.91
ULSD 10ppm	61.84	64.04	61.35	-2.69	-4.2	59.70	62.55	63.99	60.28	57.43	11.90	12.63	12.34
Gasoil 0.1%	60.77	62.55	60.00	-2.55	-4.1	58.32	61.46	62.55	58.68	55.79	10.82	11.15	10.99
LSFO 1%	46.63	48.43	47.49	-0.94	-1.9	45.75	48.42	49.77	47.98	47.34	-3.31	-2.98	-1.52
HSFO 3.5%	43.34	44.98	43.86	-1.12	-2.5	42.15	45.05	46.02	44.22	43.36	-6.61	-6.43	-5.15
US Gulf, FOB Pipeline											**Differential to LLS**		
Super Unleaded	69.76	75.78	74.19	-1.59	-2.1	73.75	76.46	75.92	73.45	68.31	18.39	22.64	23.61
Unleaded	63.91	69.66	66.12	-3.54	-5.1	64.77	67.59	68.41	67.05	62.94	12.54	16.52	15.54
Jet/Kerosene	60.75	63.27	59.04	-4.23	-6.7	57.28	59.59	62.04	58.17	54.49	9.39	10.13	8.46
ULSD 10ppm	63.02	65.43	62.08	-3.35	-5.1	60.22	62.95	65.08	61.79	58.40	11.65	12.29	11.50
Heating Oil	57.84	59.48	56.27	-3.21	-5.4	54.88	56.99	58.56	55.38	52.52	6.47	6.34	5.69
No. 6 3%*	42.42	43.68	42.98	-0.70	-1.6	41.69	44.11	44.66	42.69	41.37	-8.94	-9.46	-7.60
Singapore, FOB Cargoes											**Differential to Dubai**		
Premium Unleaded	64.28	67.66	64.40	-3.26	-4.8	63.13	65.14	66.18	64.32	61.80	13.07	15.34	13.82
Naphtha	50.82	52.31	48.71	-3.60	-6.9	47.92	49.20	49.85	47.96	45.82	-0.39	0.00	-1.87
Jet/Kerosene	61.93	63.88	60.82	-3.06	-4.8	58.88	61.09	63.31	60.68	57.49	10.72	11.57	10.24
Gasoil 0.05%	62.94	64.68	61.19	-3.49	-5.4	59.81	61.44	63.23	60.45	57.96	11.73	12.37	10.61
LSWR Cracked	49.74	51.53	49.82	-1.71	-3.3	48.40	50.40	51.47	50.21	49.78	-1.47	-0.78	-0.76
HSFO 180 CST	47.24	49.18	48.34	-0.84	-1.7	47.26	48.93	49.74	47.88	47.08	-3.97	-3.13	-2.24
HSFO 380 CST 4%	46.38	48.11	46.76	-1.35	-2.8	45.77	47.39	48.02	46.16	45.78	-4.83	-4.20	-3.82

 * Waterborne

Naphtha markets fell seasonally on the back of higher supplies from refineries and as crackers found LPG increasingly competitive. Singapore naphtha prices averaged $48.71/bbl during May, down $3.60/bbl and the largest month-on-month fall amongst oil products in Asia. The crack was down both on a month-on-month and year-on-year basis. Asia is expected to receive around 13 mb of naphtha from the West – mainly Europe and North Africa – in June, the highest volume recorded since January. Meanwhile, Indian refiners have continued to export naphtha in larger volumes following expansions in capacity, while a previous outage at Qatar's Ras Laffan condensate splitter is resolved. This, in turn, is likely to increase supplies from the Middle East over the coming weeks. Asian prices perked up in early June following higher buying interest from Asian petrochemical crackers and as the Western arbitrage was firmly shut.

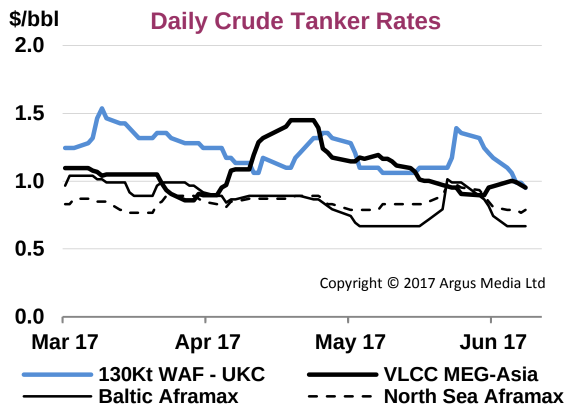


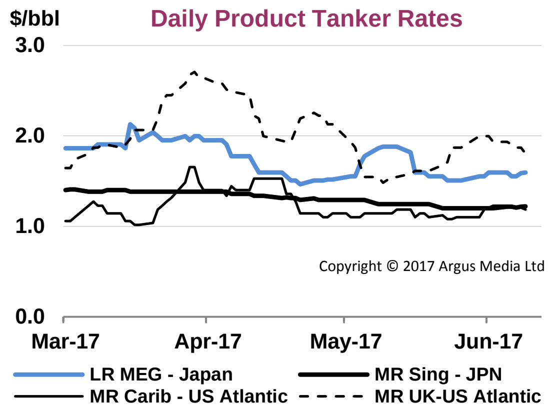


Gasoline prices fell in all surveyed markets, reflecting plentiful supplies ahead of the summer driving season. Rotterdam Eurobob gasoline barge prices were down $3.05/bbl on the month to $62.86/bbl. Exports of gasoline components from Europe to the US rose in May, but remained limited by near-record runs at US refineries and high stocks in the US East Coast. Exports to West Africa were also said to be reduced after being strong over the last few months. As a result, some European cargoes found their way to Latin America, where ongoing refinery issues increased demand for imports. Some European blending components such as reformate were also sent to Asia – in particular China – in high volumes. In Singapore, premium unleaded cargo prices fell $3.26/bbl on the month, but the price was generally better supported than for other oil products due to refinery maintenance in key gasoline consuming countries such as Indonesia and Vietnam. A supply shortage in the UAE linked to the unplanned outage at the Ruwais refinery has also helped to support demand for imports in the Middle East.

Freight

Freight for **Very Large Crude Carriers** (VLCCs) on the Middle East Gulf (MEG) to Asia route averaged $1.05/bbl, down $0.18/bbl on the month and at its lowest level since September 2016. Chinese refiners reduced their purchases from West Africa during the month, creating an oversupply of vessels. Additionally, new build vessels commissioned since the start of the year continued to weigh on prices.





Suezmaxes on the West Africa to Northwest Europe route fell $0.05/bbl to $1.15/bbl. Rising loading volumes out of West Africa were not enough to bolster rates, as an increasing supply of ships arrived from the Middle East and Asia. Baltic **Aframax** rates fell $0.10/bbl to $0.77/bbl with little activity seen.

Clean product freight on the UK Continent-US Atlantic Coast route fell from $2.25/bbl in April to $1.70/bbl in May with few windows of opportunity to send gasoline from Europe to the US East Coast, even as US gasoline inventories started falling. East of Suez, the benchmark LR MEG-Japan rate was mostly unchanged as lower demand for naphtha in Asia was offset by interest for other oil products.

REFINING

Summary

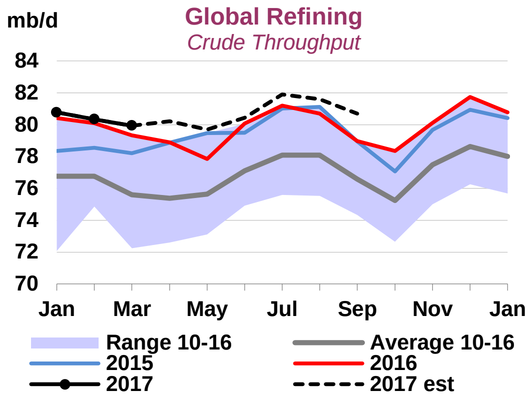
- **Our estimate for 1Q17 global refinery throughput is revised up 0.2 mb/d to 80.3 mb/d,** compared to last month's *Report*, up 0.4 mb/d year-on-year (y-o-y) on stronger finalised numbers in several non-OECD countries.

- **In 2Q17, global refinery intake is expected to decline seasonally by 0.25 mb/d to 80 mb/d,** up 1.2 mb/d y-o-y. Throughputs have been revised up by 0.4 mb/d on robust Atlantic Basin performance in April and May.

- **Refinery crude runs are forecast to reach 81.3 mb/d in 3Q17**, up by 1.3 mb/d from 2Q17, and higher by 1.1 mb/d than the year-earlier level.

Global refinery overview

With finalised March data available for most non-OECD countries, our 1Q17 global refinery throughput estimate is revised higher by 0.2 mb/d, to 80.3 mb/d. The annual growth rate, however, remained subdued. At just 0.4 mb/d, it lagged behind demand growth, especially in non-OECD countries, which, while accounting for essentially all of the global demand growth of 0.9 mb/d in 1Q17, saw throughput increasing by only 0.2 mb/d y-o-y. Impressive gains in China and smaller gains elsewhere in Asia were largely offset by lower Middle East and Latin American runs.



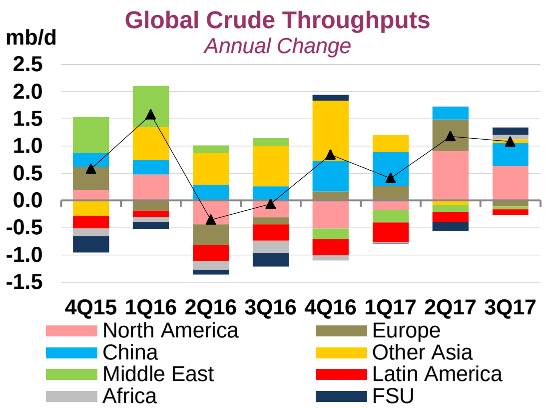
Global Refinery Crude Throughput[1]

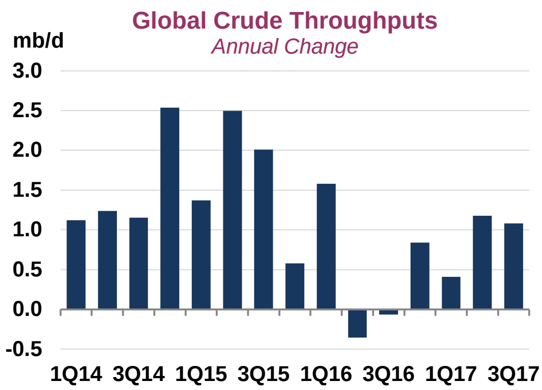
(million barrels per day)

	2016	Mar 17	1Q17	Apr 17	May 17	Jun 17	2Q17	Jul 17	Aug 17	Sep 17	3Q17
Americas	**18.9**	19.0	**18.8**	19.8	19.9	19.8	**19.8**	20.2	19.9	**19.4**	**19.8**
Europe	**11.9**	11.9	**12.0**	12.2	11.8	12.0	**12.0**	12.3	12.3	**11.9**	**12.2**
Asia Oceania	**6.9**	6.9	**7.2**	6.8	6.7	6.5	**6.6**	6.8	7.0	**6.7**	**6.8**
Total OECD	**37.7**	37.8	**38.0**	38.8	38.3	38.3	**38.5**	39.3	39.2	**38.0**	**38.8**
FSU	**6.8**	6.7	**6.9**	6.5	6.5	6.7	**6.6**	6.9	6.9	**6.9**	**6.9**
Non-OECD Europe	**0.5**	0.5	**0.5**	0.5	0.5	0.5	**0.5**	0.5	0.5	**0.5**	**0.5**
China	**10.8**	11.2	**11.2**	10.9	10.9	11.1	**11.0**	11.0	10.9	**11.1**	**11.0**
Other Asia	**10.4**	10.5	**10.5**	10.2	10.4	10.5	**10.4**	10.5	10.5	**10.5**	**10.5**
Latin America	**4.2**	4.1	**4.0**	4.1	4.1	4.0	**4.0**	4.2	4.1	**4.1**	**4.1**
Middle East	**7.2**	7.1	**7.1**	7.0	6.9	7.1	**7.0**	7.4	7.3	**7.2**	**7.3**
Africa	**2.0**	2.0	**2.1**	2.1	2.1	2.1	**2.1**	2.1	2.1	**2.1**	**2.1**
Total Non-OECD	**42.0**	42.1	**42.2**	41.4	41.2	42.1	**41.5**	42.5	42.3	**42.6**	**42.5**
Total	**79.7**	79.8	**80.3**	80.1	79.6	80.3	**80.0**	81.8	81.5	**80.6**	**81.3**
Year-on-year change	*0.5*	*0.6*	*0.4*	*1.3*	*1.8*	*0.4*	***1.2***	*0.7*	*0.9*	***1.7***	***1.1***

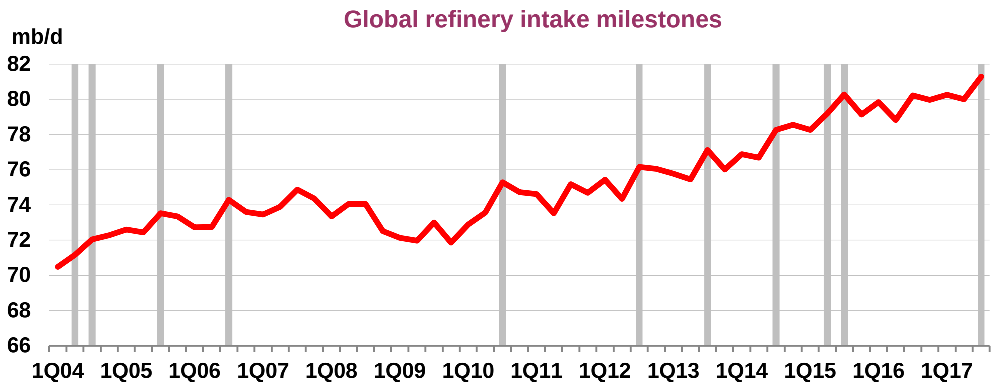
[1] Preliminary and estimated runs based on capacity, known outages, economic runcuts and global demand forecast

Preliminary data for 2Q17 suggests that the growth rate has picked up rather dramatically. Growth in US throughput of 0.8 mb/d will account for most of the global gain of 1.2 mb/d as Chinese refinery intake growth slows down. In 3Q17, refinery intake is forecast to increase at similarly strong rates of 1.1 mb/d y-o-y.

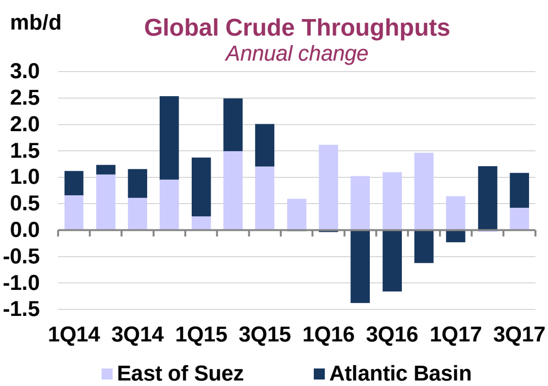


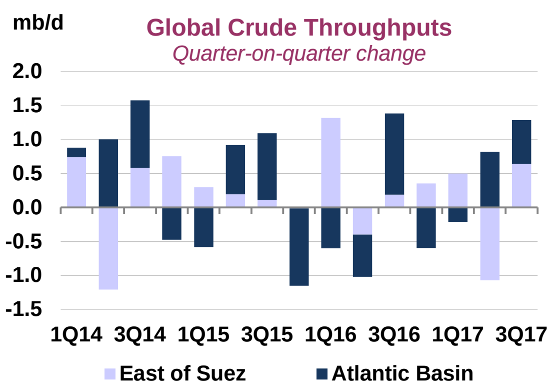


While 2Q17's growth includes a rebound effect (in 2Q16 global refinery intake was 0.4 mb/d lower y-o-y), in 3Q17 global throughput is forecast to reach the 81 mb/d mark for the first time. It is an important milestone as it comes after a long pause in refining activity growth. The previous 1 mb/d threshold gain occurred two years ago, as global runs climbed as much in both 2Q15 and 3Q15. Due to seasonal patterns, in the following two quarters global refinery throughput will almost certainly fall below 81 mb/d. However, it is still interesting to note the higher seasonal peaks in global crude oil intake.



While in 2Q17 all the annual growth is expected to come from the Atlantic Basin refiners, in 3Q17 East of Suez is contributing too. Moreover, this third quarter also sees a more even seasonal pattern. In 2Q17, the Atlantic Basin ramped up from the first quarter, while East of Suez went through a pronounced seasonal decline. In 3Q17, both hemispheres increase refining throughput at the same rate. Given that the Atlantic Basin is a net crude exporting region, seasonal activity patterns in the two main regions offer interesting clues for global crude oil market developments. For example, the relatively modest gain in oil prices following OPEC's output cuts could be explained by seasonally weaker fundamentals East of Suez, now a major crude importing region.





Margins

Despite lower average crude prices in May, refining margins fell in all regions m-o-m, even as global refinery throughput was estimated to have declined too. After impressive run rates in Europe and the US, OECD gasoline and middle distillates stocks increased in April, which, along with continuously higher US runs in May, pressured product markets. Distillates cracks largely reversed all the gains made in April, while gasoline cracks also trended lower (see *Another summer plunge in store for diesel cracks?*). Fuel oil, on the contrary, continued narrowing its differential to crude oil, helping to soften the impact from lower clean product cracks.

IEA/KBC Global Indicator Refining Margins[1]

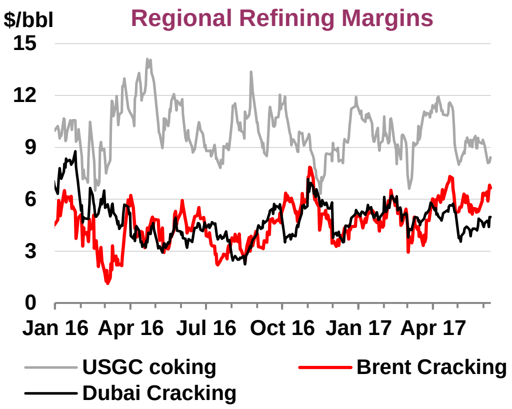
($/bbl)

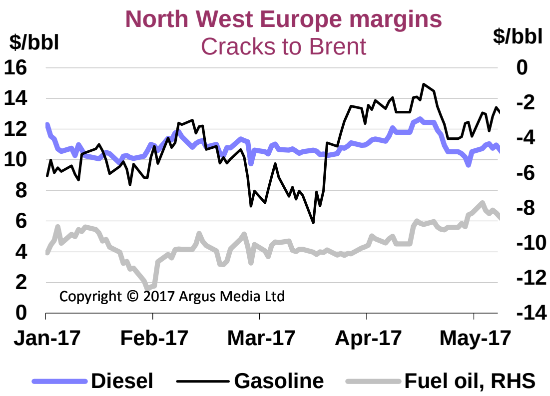
	Monthly Average				Change		Average for week ending:				
	Feb 17	Mar 17	Apr 17	May 17		May 17-Apr 17	12 May	19 May	26 May	02 Jun	09 Jun
NW Europe											
Brent (Cracking)	5.44	4.32	6.29	5.64	↓	-0.65	6.08	5.44	5.35	6.21	6.46
Urals (Cracking)	6.46	5.74	7.15	6.11	↓	-1.05	6.50	5.78	6.00	6.49	6.67
Brent (Hydroskimming)	1.56	0.75	2.34	2.14	↓	-0.20	2.62	1.88	1.82	2.65	3.27
Urals (Hydroskimming)	1.41	1.12	2.09	1.48	↓	-0.61	1.89	1.16	1.35	1.84	2.34
Mediterranean											
Es Sider (Cracking)	7.68	6.40	8.13	7.28	↓	-0.85	7.65	6.68	7.17	7.91	7.83
Urals (Cracking)	6.90	6.22	7.03	6.75	↓	-0.27	7.23	6.25	6.74	6.86	6.50
Es Sider (Hydroskimming)	4.44	3.29	4.89	4.50	↓	-0.39	4.86	3.90	4.33	5.31	5.70
Urals (Hydroskimming)	2.07	1.70	2.30	2.52	↑	0.23	3.00	2.10	2.42	2.84	3.00
US Gulf Coast											
50/50 HLS/LLS (Cracking)	7.57	7.70	9.15	8.92	↓	-0.23	8.78	9.36	9.44	8.96	7.71
Mars (Cracking)	4.96	4.90	6.10	6.00	↓	-0.11	6.10	6.39	6.14	5.92	5.37
ASCI (Cracking)	4.52	4.61	5.72	5.76	↑	0.04	5.88	6.15	5.96	5.59	5.06
50/50 HLS/LLS (Coking)	8.92	9.36	11.04	10.56	↓	-0.48	10.42	10.97	11.16	10.67	9.18
50/50 Maya/Mars (Coking)	9.51	9.65	10.98	9.02	↓	-1.96	9.13	9.20	9.28	9.25	8.23
ASCI (Coking)	9.02	9.08	10.65	9.98	↓	-0.66	10.04	10.30	10.41	9.91	8.83
US Midcon											
WTI (Cracking)	6.89	10.19	13.25	12.29	↓	-0.96	12.58	12.81	12.71	12.31	11.10
30/70 WCS/Bakken (Cracking)	7.43	9.75	11.26	10.99	↓	-0.27	11.38	11.65	11.34	11.23	10.63
Bakken (Cracking)	8.14	10.71	13.69	13.11	↓	-0.58	13.41	13.79	13.60	13.27	12.25
WTI (Coking)	8.10	11.97	15.33	14.11	↓	-1.22	14.43	14.61	14.60	14.17	12.73
30/70 WCS/Bakken (Coking)	9.63	12.53	14.37	13.67	↓	-0.70	14.09	14.32	14.17	13.96	12.97
Bakken (Coking)	8.54	11.43	14.55	13.84	↓	-0.71	14.17	14.51	14.36	14.03	12.90
Singapore											
Dubai (Hydroskimming)	1.05	0.65	0.98	0.45	↓	-0.53	0.64	0.44	0.45	0.74	1.44
Tapis (Hydroskimming)	3.75	3.02	4.07	3.41	↓	-0.67	4.12	2.57	3.03	3.91	4.40
Dubai (Hydrocracking)	5.59	4.90	5.29	4.22	↓	-1.07	4.30	4.16	4.41	4.56	4.77
Tapis (Hydrocracking)	7.03	6.04	7.07	6.01	↓	-1.07	6.72	5.15	5.69	6.34	6.46

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

Source: IEA, KBC Advanced Technologies (KBC)

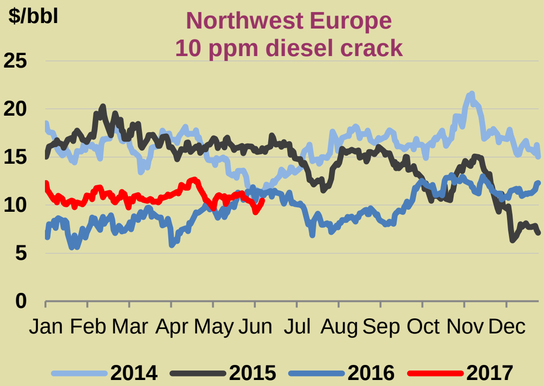
In historical terms though, margins remain at relatively comfortable levels in Europe and the US. Singapore is an exception where recent monthly values have been lower than the historical average. While Asia remains the main driver of global oil demand, Chinese product exports and higher feedstock costs (narrower Brent-Dubai differential) explain this development.



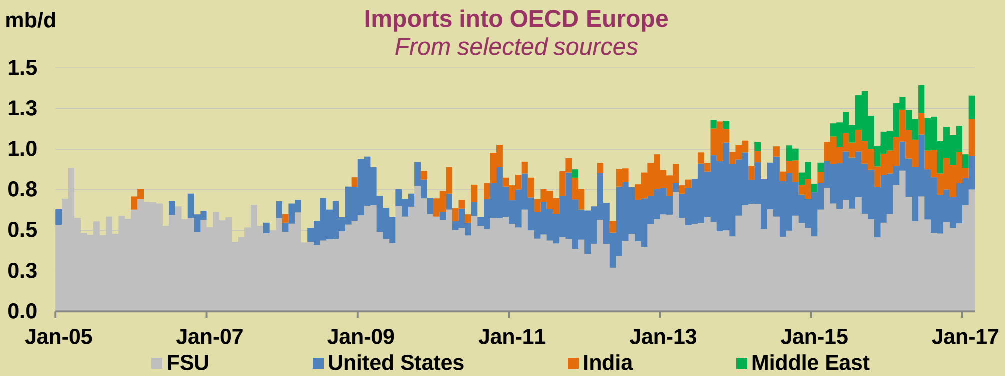


Another summer plunge in store for diesel cracks?

So far this year European diesel cracks have performed rather well compared to 2016's very weak first half, managing to stay in double-digit territory most of the time, and even enjoying a brief maintenance-related spike in April. In July last year, the cracks plunged to $7-8/bbl and did not recover until the autumn maintenance season. There are some indications that this pattern may return this summer.



In the past, we have repeatedly used the term "diesel deluge" to refer to European distillate markets. Europe is literally surrounded by exporters (Russia, US, the Middle East, and, further away, India), whose combined technical capacity to export is double Europe's import requirement. As diesel cracks reached an astronomical $40/bbl in 2008 with crude oil prices at all-time highs, they triggered new waves of exports flowing into the European markets.



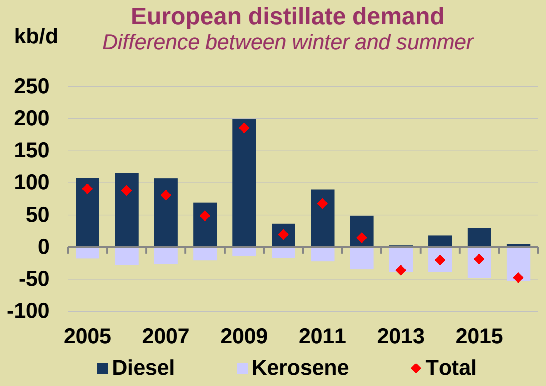
- **Russian wave**. Europe has been the most important diesel market for Russian refiners for more than two decades. Export volumes have increased noticeably in the last three years. Moreover, following an extensive modernisation programme, refiners are now exporting more and more volumes of ultra-low sulphur diesel instead of the high sulphur gasoil that was being bought by European refiners for hydrotreatment (processing in secondary units to remove sulphur). This has essentially deprived European refiners of the diesel upgrade margin (the differential between 10 ppm and 1 000 ppm diesel grades).
- **US wave.** This started in earnest in 2008-2009, when, following the sharp fall in US gasoline demand, refiners started hydrotreating more and more atmospheric gasoil instead of cracking it into gasoline. They were able to swing gasoline/diesel yields almost instantly, ramping up exports to Europe from episodic cargoes to a stable 200 kb/d flow that has been even higher in recent years.

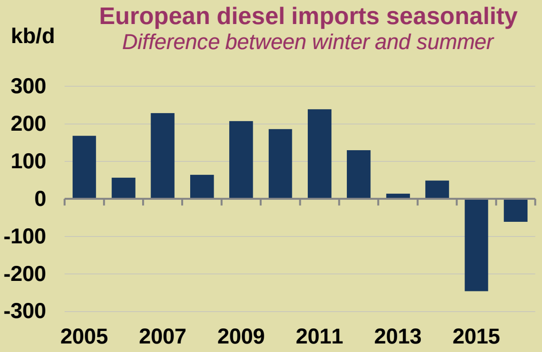
Another summer plunge in store for diesel cracks? (continued)

- **The Indian wave.** This followed the US, with the startup of the export-oriented Reliance refinery, which occurred at a rather inauspicious time, during 2009's depressed market. Exports to Europe reached visible volumes in 2010-2011 and have generally been on a rising trend.
- **Middle Eastern wave**. Qatar's GTL plant was the frontrunner of Middle Eastern exports to Europe, but it was the new refineries in Saudi Arabia's Red Sea coast and the UAE's Ruwais that brought the scale and intensity to the flow. However, imports from Saudi Arabia tend to be highly seasonal, peaking in summer, as some of their exports do not meet European winter diesel specifications.

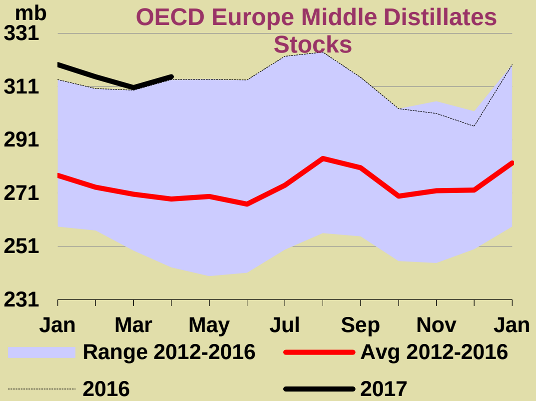
The emergence of new import sources has changed the seasonal pattern of imports into Europe. Export flows out of the US tend to be higher in summer, as the US Northeast partly relies on gasoil for heating in winter. As already discussed above, Saudi flows to Europe peak in summer too. Russia used to export significantly more diesel in winter than in summer, but the difference between seasonal flows has been narrowing. Indian flows are not subject to large volumes of seasonal variability. As a result, European imports now peak in summer. In summer 2016 for example, Europe imported a record 1.3 mb/d of diesel.

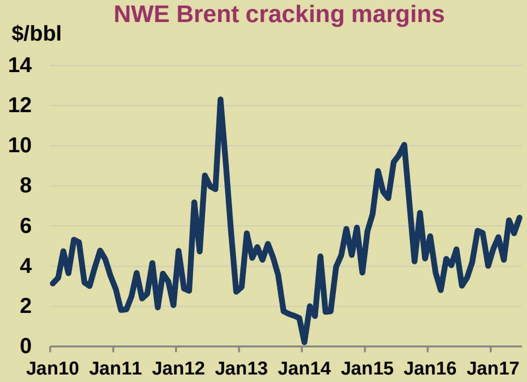
At the same time, diesel demand seasonality has changed. Until about five years ago, European middle distillates demand was strongly seasonal, with a well-visible peak in winter months. Nowadays total middle distillate demand in fact peaks in summer, as summer driving and jet fuel demand exceed the winter heating oil spike. For diesel itself, the seasonal difference is minimal, with 2016 winter and summer demand at quite similar levels. The main reason is that the use of oil for heating in Europe has been declining due to fuel replacement and energy efficiency improvements.





There is no indication that import flows this summer will be lower than in 2016. The opposite may well be the case, given that the seasonal ramp-up in Atlantic Basin refinery runs this year is much steeper than in 2016. From 1Q17 to 3Q17, refinery throughput is forecast to increase by 1.5 mb/d, compared to 2016's 0.6 mb/d. Moreover, just like last year, Europe is entering summer with near record seasonal middle distillate stocks. Given that Northwest Europe (NWE) margins are at rather comfortable levels, near $6/bbl, a $2-4/bbl slide in diesel cracks would not be too problematic for them.





OECD refinery throughput

OECD 1Q17 data is now finalised, with runs 190 kb/d higher y-o-y. Preliminary April data came in 290 kb/d higher than our forecast, showing 1.6 mb/d y-o-y growth, with oversized gains in both the US and Europe. Our forecast for 2Q17 throughput has been raised by 540 kb/d, to show 1.4 mb/d y-o-y growth. For the first time since 4Q15, the OECD region is expected to account for all the global growth in throughput. In 3Q17, though, growth is forecast to halve versus 2Q17, as 2Q17's rebound effect wanes, with a minor decline in Europe, mostly due to the impact of a permanent shutdown of France's La Mede refinery earlier this year.

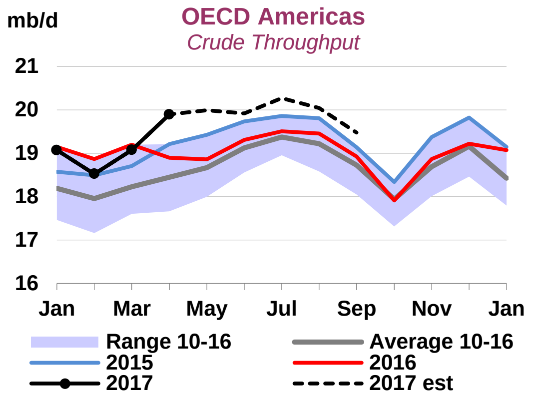
Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

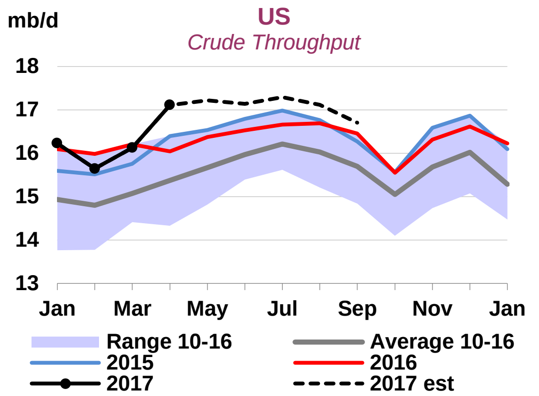
	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17	Change from *Mar 17*	Change from *Apr 16*	Utilisation rate[1] Apr 17	Utilisation rate[1] Apr 16
US[2]	16.22	16.51	16.13	15.55	16.03	17.01	0.98	1.07	0.94	0.88
Canada	1.62	1.65	1.79	1.70	1.78	1.63	-0.15	-0.02	0.85	0.86
Chile	0.16	0.19	0.20	0.20	0.18	0.17	0.00	0.02	0.77	0.68
Mexico	0.77	0.77	0.86	0.98	0.98	0.98	-0.01	-0.07	0.59	0.63
OECD Americas[3]	**18.77**	**19.12**	**18.97**	**18.42**	**18.97**	**19.80**	**0.82**	**1.00**	**0.90**	**0.86**
France	1.32	1.22	1.14	1.06	1.05	1.15	0.11	-0.05	0.93	0.86
Germany	1.94	1.99	1.92	1.84	1.84	1.95	0.11	0.17	0.96	0.88
Italy	1.38	1.40	1.40	1.34	1.31	1.33	0.02	-0.02	0.76	0.77
Netherlands	1.16	1.11	1.11	1.12	1.13	1.17	0.04	0.10	0.91	0.83
Spain	1.42	1.37	1.29	1.21	1.28	1.36	0.08	0.11	0.95	0.87
United Kingdom	1.14	1.15	1.09	1.03	1.09	1.11	0.02	0.05	0.88	0.77
Other OECD Europe	4.03	4.27	4.33	4.17	4.22	4.13	-0.09	0.42	0.85	0.76
OECD Europe	**12.39**	**12.51**	**12.29**	**11.77**	**11.92**	**12.20**	**0.28**	**0.78**	**0.88**	**0.81**
Japan	3.18	3.46	3.44	3.51	3.21	3.21	0.00	-0.11	0.93	0.90
South Korea	2.99	3.10	3.19	3.16	3.03	2.88	-0.15	0.03	0.91	0.93
Other Asia Oceania	0.76	0.79	0.79	0.72	0.63	0.67	0.05	-0.10	0.78	0.89
OECD Asia Oceania	**6.93**	**7.35**	**7.42**	**7.39**	**6.87**	**6.76**	**-0.11**	**-0.19**	**0.90**	**0.91**
OECD Total	**38.08**	**38.98**	**38.68**	**37.58**	**37.77**	**38.75**	**0.99**	**1.59**	**0.89**	**0.85**

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

2 US50

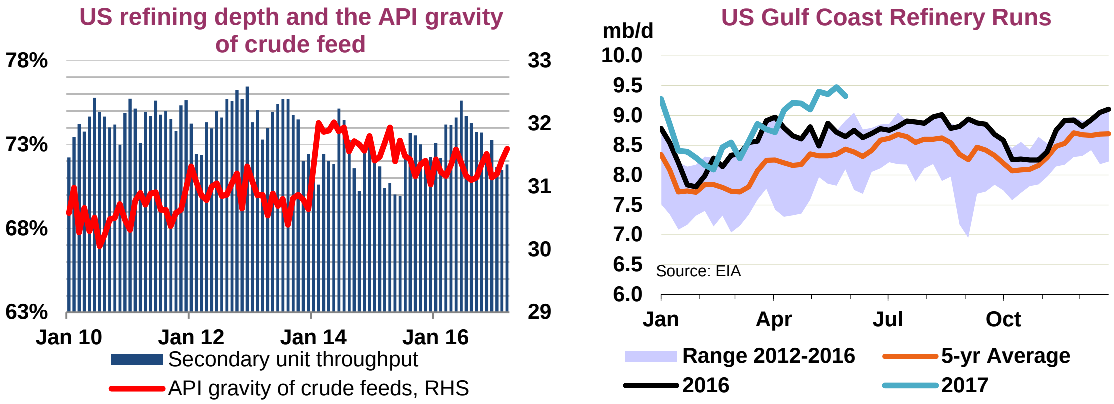
3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery



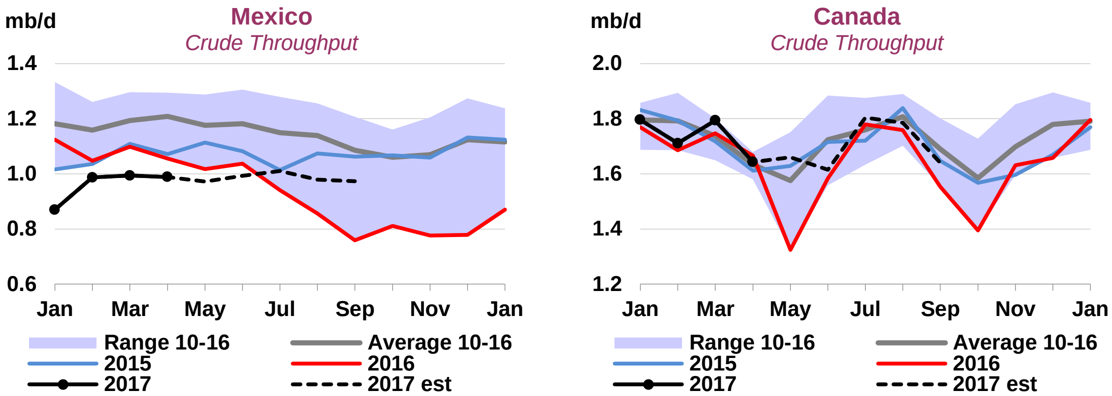


Gravity-defying US throughput levels are the main reason behind revisions to our OECD forecast. Preliminary data for May show a second consecutive monthly record throughput, with capacity utilisation rates above 94%. Contrary to our expectations, US refiners have been able to sustain operations at these very high rates for a second month in a row. The massive gains in both April and May came from the two most important refining regions – PADD 2 and 3, the Midcontinent and Gulf Coast, which host 4 mb/d and 9.8 mb/d of primary distillation capacity respectively, accounting for three-quarters of total US.

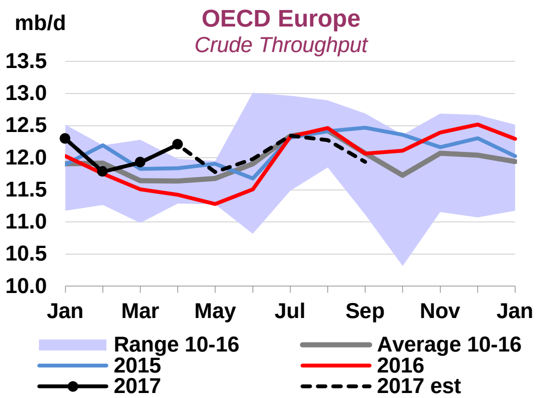
The current results achieved by the US refiners are all the more impressive given the complicated crude slate they are operating with – local and imported conventional crude oil, LTO, Canadian synthetic crudes and diluted bitumen. While Latin America continues to easily absorb exports from the US Gulf Coast, our initial scepticism as to the resilience of US refiners was based on technical, rather than market considerations. Previously, higher utilisation rates tended to be followed by unit closures and unplanned maintenance, affecting utilisation rates in subsequent months.

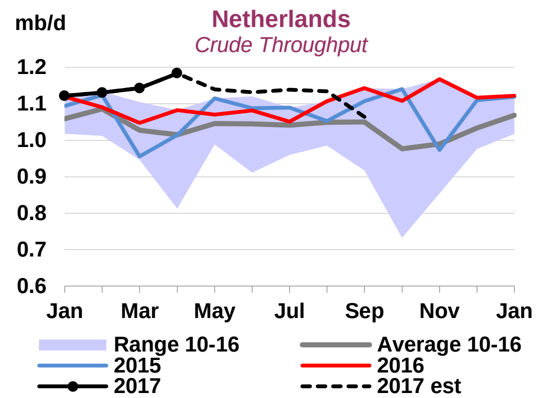


An interesting development, however, can explain the growing operational resilience of the US refining system. With higher intake of domestic lighter crude oils, which have lower residue yields, the ratio of secondary processing units relative to crude throughput has been declining. This means that higher crude distillation rates do not necessarily imply higher utilisation of secondary units (reformers, catalytic crackers, hydrocrackers and cokers), which are more prone to equipment upsets and glitches. Consequently, higher operational rates will be easier to sustain, subject to favourable margins and export markets. We have revised up our forecast for US throughput by 300 kb/d on average for 2Q17 and 3Q17, with throughput now expected to average at 17 mb/d for the period. Downward revision to our Latin American forecast (see below) provides support to higher US runs.

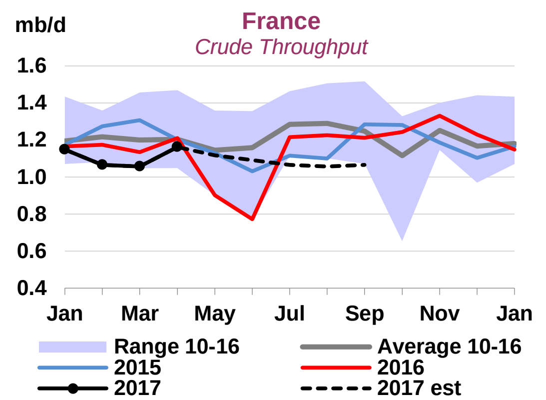


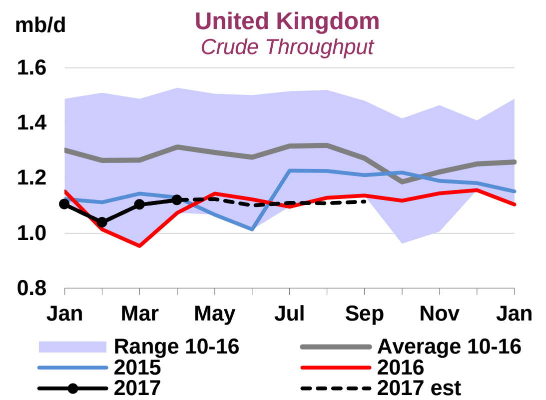
By contrast, both Canadian and Mexican preliminary numbers in April were slightly lower than our expectations, with Mexico failing to cross the 1 mb/d threshold. The energy sector reforms have generated a remarkable interest in Mexico's fuel distribution system, with international oil majors and commodity trading companies busy making forays into the retail and storage sectors, to capture margins from moving US Gulf Coast output to **Mexico's** relatively large transport fuel market. No concrete proposals have emerged for the refining sector though, which is hardly surprising, given the scale of the required investments. We have revised down our Mexican throughput forecast by 20 kb/d, with throughput expected to grow 135 kb/d y-o-y in 3Q17, rebounding from protracted refinery shutdowns in 3Q16 and 4Q16. Our forecast for **Canadian** throughput has remained largely unchanged, with throughput rebounding from wildfires that affected 2Q16 and 3Q16 refinery performance.



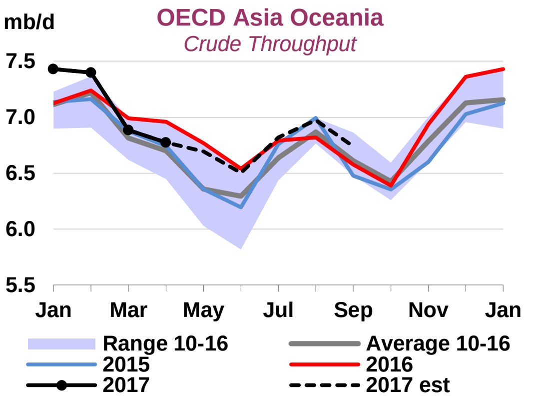


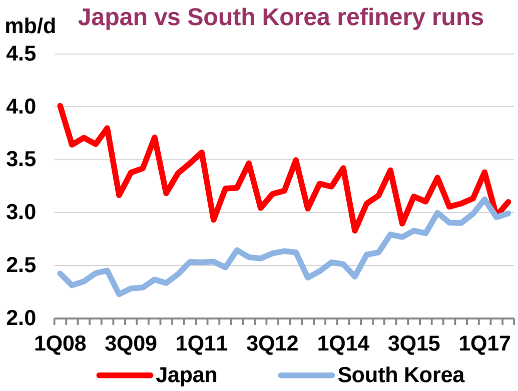
With 250 kb/d y-o-y growth in 1Q17, European refiners forged ahead in April, hiking throughput by 780 kb/d y-o-y, according to preliminary monthly data. Adjusting for seasonal turnarounds, Spain and Netherlands showed the biggest increases. While **Spanish** refiners profit from proximity to the relatively tight Mediterranean market, refiners in **Netherlands** were encouraged by higher Northwest Europe margins. In addition, permanent closures in the **UK** and **France** have resulted in refinery runs in these countries declining over the last few years, which has created more space for refiners elsewhere in the region. French 2Q17 refinery intake will rebound 160 kb/d from last year's strikes, but 3Q17 runs are expected to be 155 kb/d lower y-o-y, largely due to the permanent shutdown of La Mede refinery. Overall, OECD Europe refinery throughput is expected to grow 580 kb/d y-o-y in 2Q17, and while ramping up 200 kb/d into 3Q17, it will decline 100 kb/d y-o-y as lower French runs are only partially offset by growth elsewhere.





In **OECD Asia**, 1Q17 refinery runs grew by 120 kb/d, but 2Q17 is expected to see a decline of 100 kb/d with lower Japanese and Australian activity. With Japanese refining capacity closures and Korean expansion, throughput levels in the two countries have been converging for some time now, and are expected to cross in 2Q17, although Japanese throughput is expected to recover in 3Q following refinery maintenance. Japan's oil product use has long been on a declining trend, and the country embarked on a major programme aimed at refinery capacity optimisation, resulting in the shutdown of over a quarter of the refining capacity in the last decade. Meanwhile, Korean refiners expanded capacity primarily to meet growing demand for petrochemical exports, and to export transport fuels to other Asian markets.

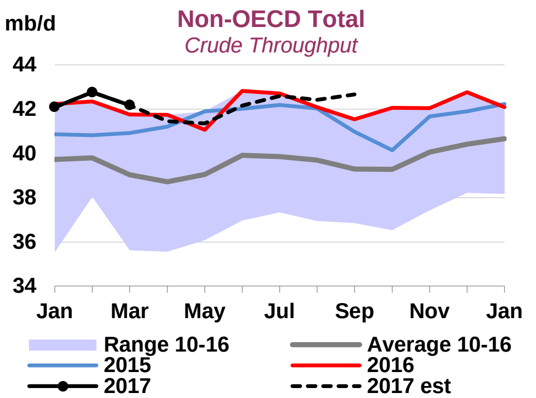


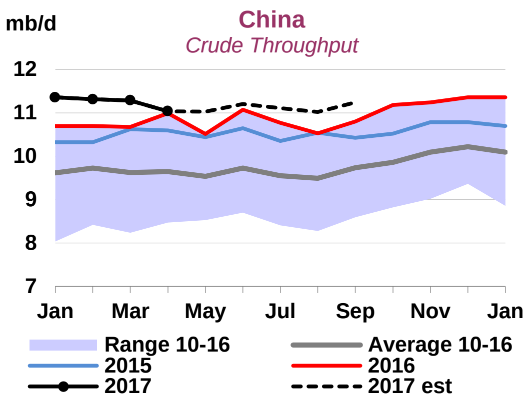


Non-OECD refinery throughput

Finalised March numbers for most non-OECD countries showed a total 415 kb/d annual gain, which pushed the 1Q17 growth rate up to 220 kb/d, still relatively modest by recent standards. In 2Q17 though, throughput is expected to go into reverse, falling y-o-y by the same amount, as slower Chinese growth does not offset declines in Latin America, Middle East and FSU. Growth resumes in 3Q17 with runs forecast to grow by 450 kb/d y-o-y, with stronger Chinese and FSU growth.

At the time of writing there were no new data on Chinese refining since our last *Report*. We have revised down our Chinese throughput forecast for 2Q17 by 100 kb/d on concerns about export opportunities for refined products. According to news reports, Chinese majors are considering an aggressive retail pricing policy to regain market share from the independents. Y-o-y change is still positive, at 230 kb/d in 2Q17, accelerating to 420 kb/d in 3Q17.

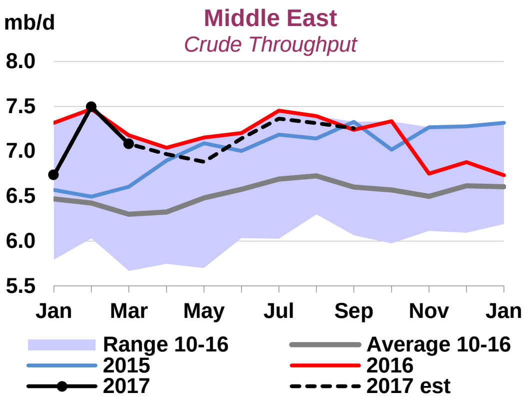


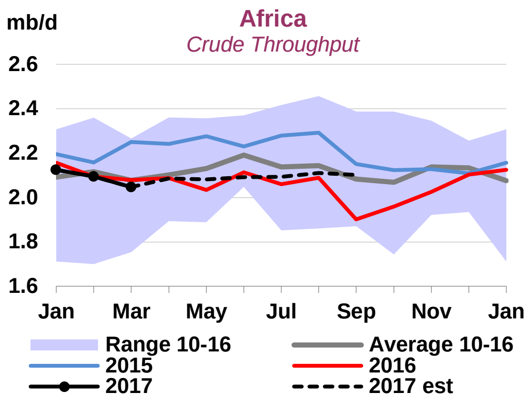


India's refining throughput in April was at 4.86 mb/d, down 40 kb/d y-o-y, the first decline in 18 months. However, our forecast for 2Q17 remains largely unchanged, up 30 kb/d y-o-y. With the incorporation of new maintenance information, including works at a number of refineries owned by Indian Oil Corporation, our forecast is revised down by 70 kb/d for 3Q17.

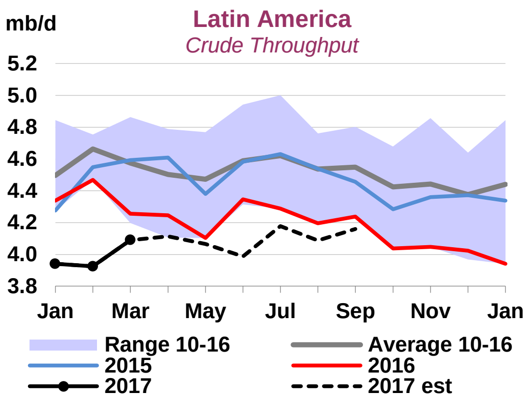
In the Middle East the zigzag pattern seen in 1Q17, mostly influenced by Saudi Arabian maintenance, was confirmed by finalised March data. While runs increased by 760 kb/d into February, March throughput declined 410 kb/d m-o-m. Despite a record monthly performance in February, 1Q17 throughput was down 230 kb/d y-o-y. The forecast for 2Q17 is revised up by 100 kb/d, with throughput some 140 kb/d lower y-o-y. Runs ramp up by 310 kb/d into 3Q17 driven by demand seasonality, still 50 kb/d down from the year earlier. Due to permanent unit closures in Iran and Kuwait, 3Q17 refining capacity in the Middle East is 175 kb/d lower y-o-y.

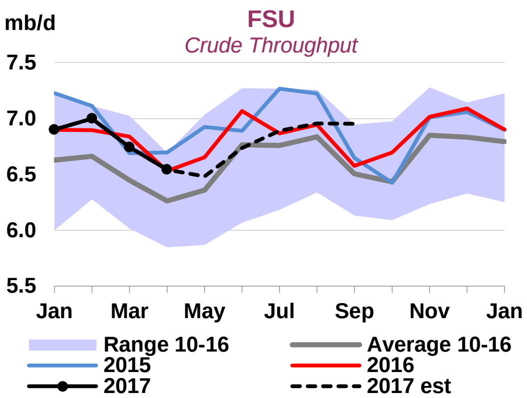
New African data for March was slightly more pessimistic, with lower than expected Egyptian throughput tipping the annual change into negative territory, with a 25 kb/d decline y-o-y. In 2Q17, however, throughput is expected to be flat y-o-y, while 3Q17 will see 80 kb/d growth thanks to the base year maintenance effect, and Nigerian runs continuing at levels close to 90 kb/d, although this is still less than 25% capacity utilisation.





The Latin American outlook has been revised lower with reports of even deeper runcuts in Venezuela. Brazil seems in no hurry to ramp up refining throughput with runs actually declining since the commissioning of new capacity two years ago. Delays in the installation of pollution abatement equipment is the official explanation behind under-utilisation of the new units. Instead, the focus has been on crude exports. April marked yet another y-o-y decline, at 110 kb/d. This trend in Brazil is not expected to reverse in the rest of 2Q17, nor in 3Q17. Overall, the continent will see 2Q17 and 3Q17 marking new seasonal lows, with throughput averaging just 4.1 mb/d.





Russian refinery throughput in May was at 5.3 mb/d, 50 kb/d higher y-o-y, as recent more impressive growth rates were affected by maintenance. **Belarus** data showed a faster than expected ramp-up in crude throughputs following a crude supply deal with Russia. Runs reached 350 kb/d in March, up from average rates of 260 kb/d in 4Q16. This is still below their highest historical rates of about 480 kb/d. Our forecast for Belarus has been revised up by 30 kb/d, averaging 360 kb/d through 2Q17 and 3Q17. Kazakhstan's April throughput was lower by 120 kb/d y-o-y due to maintenance, as expected, and the same prolonged works programme will affect runs in the remainder of 2Q17. Overall, FSU throughput is expected to decline in 2Q17 by 160 kb/d y-o-y, but will ramp up 350 kb/d into 3Q17, representing y-o-y growth of 130 kb/d.

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	24.5	24.4	25.0	24.8	24.7	24.5	24.5	25.1	24.9	24.7	24.5	24.7	25.2	25.1	24.9
Europe	13.5	13.7	13.7	14.0	14.5	14.2	14.1	13.9	14.1	14.5	14.2	14.2	13.8	14.0	14.3	14.1	14.1
Asia Oceania	8.1	8.0	8.5	7.6	7.8	8.3	8.1	8.5	7.6	7.7	8.2	8.0	8.5	7.5	7.7	8.2	8.0
Total OECD	45.8	46.4	46.7	46.0	47.3	47.4	46.8	46.8	46.2	47.3	47.4	46.9	46.8	46.2	47.3	47.4	46.9
NON-OECD DEMAND																	
FSU	4.7	4.6	4.6	4.6	4.9	5.0	4.8	4.7	4.8	5.0	5.0	4.9	4.7	4.9	5.1	5.1	5.0
Europe	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
China	10.8	11.5	11.8	12.1	11.8	12.0	11.9	12.2	12.2	12.4	12.5	12.3	12.5	12.7	12.7	12.8	12.7
Other Asia	12.0	12.5	13.1	13.1	12.7	13.5	13.1	13.3	13.6	13.4	14.0	13.6	14.1	14.2	13.9	14.5	14.2
Americas	6.8	6.8	6.5	6.7	6.8	6.7	6.6	6.4	6.7	6.8	6.7	6.7	6.6	6.7	6.9	6.8	6.7
Middle East	8.4	8.4	8.0	8.5	8.9	8.3	8.4	8.1	8.5	8.8	8.5	8.5	8.3	8.6	9.0	8.7	8.7
Africa	3.8	4.1	4.2	4.2	4.1	4.1	4.2	4.3	4.3	4.2	4.3	4.3	4.5	4.4	4.3	4.5	4.4
Total Non-OECD	47.2	48.6	48.8	49.9	49.8	50.3	49.7	49.6	50.9	51.3	51.8	50.9	51.3	52.3	52.6	53.1	52.3
Total Demand[1]	**93.0**	**95.0**	**95.5**	**95.9**	**97.1**	**97.6**	**96.6**	**96.5**	**97.1**	**98.6**	**99.2**	**97.8**	**98.2**	**98.5**	**99.9**	**100.5**	**99.3**
OECD SUPPLY																	
Americas[4]	19.1	20.0	19.9	19.0	19.3	19.6	19.5	19.9	19.7	20.2	20.5	20.1	20.8	20.9	21.3	21.7	21.2
Europe	3.3	3.5	3.6	3.4	3.3	3.6	3.5	3.7	3.5	3.3	3.6	3.5	3.7	3.5	3.4	3.5	3.5
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	0.4	0.4
Total OECD	22.9	23.9	24.0	22.8	23.1	23.7	23.4	24.0	23.6	23.9	24.5	24.0	24.9	24.8	25.1	25.7	25.1
NON-OECD SUPPLY																	
FSU	13.9	14.0	14.3	14.1	14.0	14.5	14.2	14.4	14.3	14.3	14.3	14.3	14.3	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	4.2	4.1	4.0	3.9	4.0	4.0	3.9	3.9	3.8	3.9	3.8	3.8	3.8	3.7	3.8
Other Asia[2]	3.5	3.6	3.6	3.6	3.5	3.5	3.6	3.5	3.5	3.4	3.4	3.5	3.4	3.4	3.3	3.3	3.4
Americas[2,4]	4.4	4.6	4.4	4.4	4.6	4.6	4.5	4.6	4.5	4.7	4.7	4.6	4.7	4.8	4.9	4.9	4.8
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	1.2	1.2	1.3	1.3	1.2
Africa[2]	2.1	2.1	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Total Non-OECD	29.6	30.0	29.8	29.4	29.3	29.9	29.6	29.7	29.5	29.5	29.5	29.6	29.6	29.7	29.7	29.9	29.7
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	2.0	2.4	2.8	2.5	2.4	2.1	2.5	2.9	2.6	2.5
Total Non-OPEC Supply	57.0	58.4	57.9	56.9	57.4	58.2	57.6	58.0	57.8	58.5	58.7	58.3	58.9	59.4	60.2	60.4	59.7
OPEC																	
Crude	30.5	31.7	32.1	32.4	32.8	33.3	32.6	31.9									
NGLs	6.3	6.5	6.6	6.7	6.8	6.8	6.7	6.8	6.8	6.9	6.9	6.8	6.9	7.0	6.9	6.9	6.9
Total OPEC	36.8	38.1	38.7	39.0	39.6	40.0	39.3	38.7									
Total Supply[4]	**93.8**	**96.6**	**96.6**	**95.9**	**96.9**	**98.2**	**96.9**	**96.6**									
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.4	0.8	0.3	0.4	0.1	-0.8	0.0	0.3									
Government	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0									
Total	0.4	0.8	0.4	0.4	0.1	-0.8	0.0	0.3									
Floating storage/Oil in transit	0.0	0.3	0.2	0.3	-0.2	0.2	0.1	-0.4									
Miscellaneous to balance[5]	0.4	0.5	0.5	-0.7	-0.1	1.1	0.2	0.3									
Total Stock Ch. & Misc	**0.8**	**1.6**	**1.1**	**0.0**	**-0.2**	**0.6**	**0.4**	**0.2**									
Memo items:																	
Call on OPEC crude + Stock ch.[6]	29.7	30.0	31.1	32.3	33.0	32.7	32.3	31.7	32.4	33.2	33.6	32.8	32.3	32.1	32.8	33.1	32.6

1 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply. Includes Biofuels.
2 Other Asia includes Indonesia throughout. Latin America excludes Ecuador throughout. Africa excludes Angola and Gabon 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	-	-	-	-	-	-	-	0.1	0.2	0.1	0.1	0.1					
Europe	-	-	-	-	-	-	-	-	-0.1	-	-	-					
Asia Oceania	-	-	-	-	-	-	-	-	0.1	0.1	-	-					
Total OECD	-	-	-	-	-	-	-	0.2	0.2	0.2	0.2	0.2					
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-					
Europe	-	-	-	-	-	-	-	-	-	-	-	-					
China	-	-	0.1	-	-	-	-	-	-0.2	0.1	0.1	-					
Other Asia	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-0.1					
Americas	-	-	-	-	-	-	-	-0.1	-	-	-	-					
Middle East	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1					
Africa	-	-	-	-	-	-	-	-	-	-	-	-					
Total Non-OECD	-	-	0.1	-	-	-0.1	-	-0.2	-0.4	-0.1	-	-0.2					
Total Demand	**-**	**-**	**0.1**	**-**	**-**	**-0.1**	**-**	**-0.1**	**-0.2**	**0.1**	**0.1**	**-**					
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1					
Europe	-	-	-	-	-	-	-	-	0.1	-	-	-					
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-					
Total OECD	-	-	-	-	-	-	-	0.1	0.1	0.2	0.1	0.1					
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-0.1	-					
Europe	-	-	-	-	-	-	-	-	-	-	-	-					
China	-	-	-	-	-	-	-	-	-	-	-	-					
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-					
Americas	-	-	-	-	-	-	-	-	-0.1	-	-	-					
Middle East	-	-	-	-	-	-	-	-	-	-	-	-					
Africa	-	-	-	-	-0.1	-0.1	-	-0.1	-	-	-	-					
Total Non-OECD	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1					
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-					
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-					
Total Non-OPEC Supply	-	-	-0.1	-0.1	-0.1	-0.1	-0.1	-	-	-	-	-					
OPEC																	
Crude	-	-	-	-	-	-	-	-									
NGLs	-	-	-	-	-	-	-	-	-	-	-	-					
Total OPEC	-	-	-	-	-	-	-	-									
Total Supply	**-**	**-**	**-**	**-**	**-0.1**	**-0.1**	**-0.1**	**-**									
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-									
Government	-	-	-	-	-	-	-	-									
Total	-	-	-	-	-	-	-	-									
Floating storage/Oil in transit	-	-	-	-	-	-	-	-									
Miscellaneous to balance	-	-	-0.1	-	-	-	-	0.1									
Total Stock Ch. & Misc	**-**	**-**	**-0.1**	**-**	**-**	**-**	**-**	**0.1**									
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	0.1	-	-	-	-	-0.1	-0.2	-	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	24.59	24.49	24.39	25.01	24.82	24.68	24.46	24.48	25.10	24.94	24.75	24.54	24.69	25.21	25.09	24.89
Europe	13.75	13.66	13.96	14.48	14.23	14.09	13.87	14.05	14.49	14.20	14.15	13.76	14.00	14.34	14.12	14.06
Asia Oceania	8.04	8.55	7.64	7.79	8.33	8.08	8.50	7.64	7.74	8.22	8.02	8.54	7.51	7.72	8.21	7.99
Total OECD	46.38	46.70	46.00	47.27	47.39	46.84	46.83	46.17	47.34	47.35	46.92	46.84	46.19	47.27	47.42	46.93
Asia	24.02	24.88	25.20	24.50	25.49	25.02	25.47	25.87	25.77	26.53	25.91	26.65	26.89	26.58	27.28	26.85
Middle East	8.44	8.04	8.53	8.85	8.29	8.43	8.11	8.51	8.85	8.50	8.49	8.27	8.62	9.04	8.68	8.65
Americas	6.76	6.46	6.65	6.77	6.66	6.64	6.43	6.69	6.81	6.71	6.66	6.57	6.73	6.88	6.79	6.74
FSU	4.64	4.64	4.60	4.92	4.96	4.78	4.65	4.81	5.00	5.02	4.87	4.69	4.88	5.13	5.11	4.96
Africa	4.05	4.16	4.21	4.08	4.15	4.15	4.27	4.32	4.17	4.33	4.27	4.46	4.43	4.29	4.46	4.41
Europe	0.68	0.68	0.71	0.70	0.70	0.70	0.68	0.71	0.71	0.72	0.71	0.70	0.72	0.72	0.74	0.72
Total Non-OECD	48.59	48.85	49.91	49.84	50.25	49.71	49.62	50.90	51.31	51.82	50.92	51.34	52.27	52.65	53.06	52.33
World	**94.97**	**95.55**	**95.91**	**97.11**	**97.64**	**96.56**	**96.45**	**97.07**	**98.64**	**99.18**	**97.84**	**98.18**	**98.46**	**99.91**	**100.48**	**99.27**
of which: US50	19.53	19.45	19.43	19.90	19.75	19.63	19.49	19.51	20.03	19.88	19.73	19.57	19.73	20.17	20.02	19.87
Europe 5*	8.13	8.15	8.20	8.40	8.27	8.26	8.24	8.10	8.43	8.29	8.26	8.14	8.12	8.30	8.20	8.19
China	11.54	11.82	12.12	11.79	12.02	11.94	12.21	12.23	12.36	12.48	12.32	12.54	12.67	12.73	12.80	12.68
Japan	4.12	4.43	3.66	3.75	4.13	3.99	4.29	3.57	3.62	3.95	3.85	4.27	3.39	3.57	3.93	3.79
India	3.99	4.36	4.32	4.02	4.41	4.28	4.28	4.52	4.38	4.71	4.47	4.74	4.80	4.53	4.87	4.73
Russia	3.48	3.55	3.44	3.73	3.71	3.61	3.55	3.60	3.77	3.77	3.67	3.55	3.67	3.90	3.86	3.75
Brazil	3.19	3.02	3.07	3.14	3.07	3.08	3.01	3.09	3.16	3.11	3.09	3.07	3.12	3.19	3.16	3.14
Saudi Arabia	3.30	2.96	3.33	3.47	3.05	3.20	2.84	3.20	3.35	3.05	3.11	2.83	3.16	3.38	3.07	3.11
Canada	2.41	2.39	2.37	2.52	2.46	2.43	2.40	2.40	2.50	2.43	2.43	2.38	2.39	2.46	2.43	2.42
Korea	2.41	2.59	2.48	2.53	2.65	2.57	2.62	2.51	2.56	2.71	2.60	2.69	2.55	2.58	2.70	2.63
Mexico	2.01	1.98	1.94	1.93	1.95	1.95	1.88	1.92	1.91	1.95	1.91	1.89	1.92	1.90	1.96	1.92
Iran	1.99	2.00	1.94	1.91	1.99	1.96	2.01	2.00	2.00	2.10	2.03	2.11	2.07	2.07	2.15	2.10
Total	**66.09**	**66.72**	**66.30**	**67.10**	**67.47**	**66.90**	**66.82**	**66.64**	**68.08**	**68.43**	**67.50**	**67.79**	**67.59**	**68.78**	**69.14**	**68.33**
% of World	69.6%	69.8%	69.1%	69.1%	69.1%	69.3%	69.3%	68.7%	69.0%	69.0%	69.0%	69.0%	68.6%	68.8%	68.8%	68.8%
Annual Change (% per annum)																
Americas	1.6	0.1	-0.1	0.1	1.2	0.4	-0.1	0.3	0.4	0.5	0.3	0.3	0.9	0.4	0.6	0.6
Europe	1.8	1.6	2.8	1.9	3.5	2.4	1.5	0.6	0.1	-0.2	0.5	-0.8	-0.4	-1.1	-0.5	-0.7
Asia Oceania	-0.9	-1.5	0.9	1.0	1.8	0.5	-0.5	-0.1	-0.6	-1.4	-0.7	0.4	-1.7	-0.3	-0.1	-0.4
Total OECD	1.2	0.3	0.9	0.8	2.0	1.0	0.3	0.4	0.1	-0.1	0.2	0.0	0.1	-0.1	0.1	0.0
Asia	5.2	4.9	4.5	3.3	4.0	4.2	2.4	2.6	5.2	4.1	3.6	4.7	4.0	3.2	2.8	3.6
Middle East	0.8	1.9	-0.5	-0.4	-1.5	-0.2	1.0	-0.3	-0.1	2.5	0.8	1.9	1.3	2.2	2.1	1.9
Americas	-0.9	-2.5	-1.7	-1.3	-1.9	-1.8	-0.3	0.5	0.6	0.8	0.4	2.1	0.6	1.0	1.2	1.2
FSU	-0.6	6.2	-0.7	2.6	4.8	3.1	0.4	4.5	1.5	1.2	1.9	0.7	1.5	2.7	1.7	1.7
Africa	5.9	2.1	4.1	3.1	0.4	2.4	2.7	2.5	2.1	4.3	2.9	4.5	2.6	2.8	3.1	3.3
Europe	4.4	3.4	5.1	2.2	1.4	3.0	0.4	1.1	1.1	3.7	1.6	3.0	0.9	1.4	2.9	1.9
Total Non-OECD	3.0	3.2	2.2	1.9	2.0	2.3	1.6	2.0	2.9	3.1	2.4	3.5	2.7	2.6	2.4	2.8
World	**2.1**	**1.7**	**1.6**	**1.3**	**2.0**	**1.7**	**0.9**	**1.2**	**1.6**	**1.6**	**1.3**	**1.8**	**1.4**	**1.3**	**1.3**	**1.5**
Annual Change (mb/d)																
Americas	0.40	0.04	-0.01	0.02	0.30	0.09	-0.03	0.08	0.10	0.11	0.07	0.08	0.21	0.11	0.15	0.14
Europe	0.24	0.21	0.38	0.27	0.48	0.34	0.20	0.09	0.01	-0.03	0.07	-0.11	-0.06	-0.15	-0.08	-0.10
Asia Oceania	-0.07	-0.13	0.06	0.07	0.15	0.04	-0.05	-0.01	-0.04	-0.11	-0.05	0.04	-0.13	-0.03	-0.01	-0.03
Total OECD	0.56	0.12	0.43	0.37	0.93	0.46	0.13	0.17	0.07	-0.03	0.08	0.01	0.03	-0.07	0.07	0.01
Asia	1.20	1.16	1.09	0.77	0.98	1.00	0.59	0.66	1.27	1.04	0.89	1.18	1.02	0.81	0.74	0.94
Middle East	0.07	0.15	-0.04	-0.04	-0.12	-0.01	0.08	-0.03	-0.01	0.21	0.06	0.16	0.11	0.19	0.17	0.16
Americas	-0.06	-0.16	-0.12	-0.09	-0.13	-0.12	-0.02	0.03	0.04	0.05	0.03	0.14	0.04	0.07	0.08	0.08
FSU	-0.03	0.27	-0.03	0.12	0.23	0.15	0.02	0.21	0.07	0.06	0.09	0.03	0.07	0.14	0.09	0.08
Africa	0.23	0.09	0.17	0.12	0.02	0.10	0.11	0.10	0.08	0.18	0.12	0.19	0.11	0.12	0.13	0.14
Europe	0.03	0.02	0.03	0.02	0.01	0.02	0.00	0.01	0.01	0.03	0.01	0.02	0.01	0.01	0.02	0.01
Total Non-OECD	1.43	1.53	1.10	0.91	0.99	1.13	0.77	0.98	1.47	1.57	1.20	1.72	1.37	1.34	1.24	1.42
World	**1.99**	**1.64**	**1.53**	**1.28**	**1.92**	**1.59**	**0.90**	**1.15**	**1.53**	**1.54**	**1.29**	**1.73**	**1.40**	**1.27**	**1.30**	**1.42**
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.18	0.11	0.13	0.13					
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.03	-0.09	0.03	0.01	0.00					
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.07	0.02	0.05					
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.17	0.21	0.17	0.18					
Asia	0.00	0.03	-0.01	-0.02	-0.03	-0.01	-0.10	-0.29	0.04	0.08	-0.07					
Middle East	0.01	0.03	0.01	0.01	-0.01	0.01	-0.04	-0.10	-0.12	-0.07	-0.08					
Americas	0.00	0.00	0.00	0.00	-0.01	0.00	-0.05	-0.03	-0.02	-0.05	-0.04					
FSU	0.00	-0.01	-0.02	-0.02	-0.03	-0.02	-0.02	0.04	-0.02	-0.01	0.00					
Africa	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	0.00					
Europe	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	-0.01					
Total Non-OECD	0.02	0.05	-0.02	-0.04	-0.09	-0.02	-0.22	-0.39	-0.13	-0.05	-0.20					
World	**0.02**	**0.05**	**-0.02**	**-0.04**	**-0.09**	**-0.02**	**-0.06**	**-0.22**	**0.07**	**0.12**	**-0.02**					
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.03	-0.06	0.00	0.05	-0.15	-0.04	-0.11	-0.20	0.11	0.21	0.00					

* France, Germany, Italy, Spain and UK

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

	2015	2016	2Q16	3Q16	4Q16	1Q17	Jan 17	Feb 17	Mar 17 [2]	Latest month vs. Feb 17	Latest month vs. Mar 16
Americas											
LPG and ethane	3.29	3.21	2.93	3.08	3.26	3.47	3.75	3.43	3.24	-0.19	-0.04
Naphtha	0.34	0.35	0.35	0.34	0.34	0.35	0.33	0.33	0.37	0.04	0.03
Motor gasoline	10.91	11.13	11.23	11.40	11.03	10.66	10.15	10.70	11.13	0.43	-0.05
Jet and kerosene	1.83	1.90	1.90	1.99	1.92	1.90	1.89	1.83	1.97	0.14	0.14
Gasoil/diesel oil	5.21	5.08	5.02	5.00	5.23	5.15	4.93	5.10	5.41	0.31	0.31
Residual fuel oil	0.55	0.64	0.69	0.64	0.63	0.68	0.73	0.59	0.70	0.11	-0.02
Other products	2.46	2.39	2.28	2.55	2.41	2.26	2.31	2.17	2.30	0.12	0.05
Total	**24.59**	**24.68**	**24.39**	**25.01**	**24.82**	**24.46**	**24.09**	**24.15**	**25.11**	**0.96**	**0.41**
Europe											
LPG and ethane	1.14	1.21	1.16	1.20	1.25	1.23	1.30	1.20	1.19	-0.02	0.02
Naphtha	1.12	1.16	1.11	1.17	1.14	1.28	1.27	1.29	1.28	-0.02	0.06
Motor gasoline	1.92	1.92	1.98	2.04	1.88	1.81	1.70	1.83	1.90	0.06	0.04
Jet and kerosene	1.33	1.38	1.39	1.55	1.33	1.28	1.26	1.27	1.30	0.03	0.05
Gasoil/diesel oil	6.14	6.22	6.10	6.23	6.45	6.26	5.96	6.31	6.53	0.22	0.21
Residual fuel oil	0.90	0.91	0.89	0.92	0.89	0.92	0.94	0.90	0.91	0.01	-0.03
Other products	1.20	1.29	1.32	1.38	1.29	1.09	1.06	1.11	1.12	0.01	-0.13
Total	**13.75**	**14.09**	**13.96**	**14.48**	**14.23**	**13.87**	**13.48**	**13.91**	**14.21**	**0.30**	**0.20**
Asia Oceania											
LPG and ethane	0.77	0.83	0.81	0.83	0.86	0.89	0.91	0.89	0.88	-0.01	0.03
Naphtha	1.96	1.94	1.85	1.89	2.02	2.12	2.12	2.15	2.10	-0.05	0.27
Motor gasoline	1.56	1.57	1.52	1.64	1.57	1.48	1.34	1.55	1.55	0.00	-0.01
Jet and kerosene	0.87	0.91	0.73	0.70	1.03	1.18	1.19	1.28	1.06	-0.22	0.01
Gasoil/diesel oil	1.78	1.80	1.75	1.74	1.88	1.86	1.70	1.96	1.94	-0.02	0.04
Residual fuel oil	0.64	0.65	0.60	0.60	0.65	0.64	0.68	0.66	0.59	-0.07	-0.17
Other products	0.45	0.38	0.37	0.38	0.32	0.33	0.29	0.36	0.34	-0.02	-0.05
Total	**8.04**	**8.08**	**7.64**	**7.79**	**8.33**	**8.50**	**8.23**	**8.84**	**8.47**	**-0.37**	**0.11**
OECD											
LPG and ethane	5.20	5.25	4.90	5.12	5.37	5.60	5.96	5.52	5.30	-0.22	0.01
Naphtha	3.41	3.44	3.31	3.40	3.49	3.75	3.73	3.78	3.76	-0.02	0.36
Motor gasoline	14.39	14.61	14.74	15.07	14.48	13.95	13.20	14.09	14.58	0.49	-0.03
Jet and kerosene	4.03	4.18	4.02	4.24	4.29	4.35	4.35	4.38	4.32	-0.05	0.19
Gasoil/diesel oil	13.13	13.10	12.87	12.97	13.56	13.27	12.58	13.36	13.87	0.51	0.55
Residual fuel oil	2.10	2.20	2.18	2.17	2.18	2.23	2.35	2.15	2.20	0.05	-0.22
Other products	4.12	4.05	3.98	4.31	4.02	3.69	3.66	3.64	3.76	0.12	-0.13
Total	**46.38**	**46.84**	**46.00**	**47.27**	**47.39**	**46.83**	**45.81**	**46.91**	**47.79**	**0.88**	**0.72**

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	2Q16	3Q16	4Q16	1Q17	Jan 17	Feb 17	Mar 17 [2]	Latest month vs. Feb 17	Latest month vs. Mar 16
United States[3]											
LPG and ethane	2.45	2.43	2.21	2.33	2.48	2.69	2.94	2.61	2.51	-0.10	0.07
Naphtha	0.22	0.22	0.22	0.22	0.22	0.24	0.22	0.26	0.25	0.00	0.04
Motor gasoline	9.18	9.33	9.44	9.56	9.22	8.95	8.50	8.99	9.35	0.37	-0.05
Jet and kerosene	1.55	1.61	1.62	1.69	1.64	1.61	1.61	1.53	1.67	0.14	0.12
Gasoil/diesel oil	4.00	3.88	3.81	3.79	4.02	3.95	3.78	3.91	4.15	0.25	0.21
Residual fuel oil	0.26	0.36	0.41	0.36	0.35	0.37	0.46	0.27	0.36	0.09	-0.04
Other products	1.87	1.81	1.73	1.95	1.84	1.69	1.72	1.62	1.73	0.11	0.06
Total	**19.53**	**19.63**	**19.43**	**19.90**	**19.75**	**19.49**	**19.23**	**19.19**	**20.03**	**0.85**	**0.42**
Japan											
LPG and ethane	0.43	0.44	0.42	0.42	0.44	0.50	0.49	0.49	0.52	0.03	0.04
Naphtha	0.78	0.75	0.72	0.70	0.79	0.82	0.84	0.83	0.78	-0.05	0.02
Motor gasoline	0.91	0.90	0.88	0.96	0.90	0.82	0.71	0.87	0.88	0.01	-0.03
Jet and kerosene	0.50	0.51	0.37	0.33	0.60	0.74	0.75	0.82	0.65	-0.17	0.01
Diesel	0.41	0.41	0.38	0.41	0.43	0.41	0.37	0.44	0.42	-0.02	-0.02
Other gasoil	0.35	0.35	0.32	0.31	0.37	0.40	0.37	0.42	0.40	-0.03	-0.02
Residual fuel oil	0.36	0.33	0.30	0.31	0.33	0.32	0.34	0.32	0.30	-0.03	-0.09
Other products	0.37	0.31	0.27	0.30	0.29	0.30	0.27	0.32	0.30	-0.02	-0.03
Total	**4.12**	**3.99**	**3.66**	**3.75**	**4.13**	**4.29**	**4.13**	**4.52**	**4.24**	**-0.28**	**-0.11**
Germany											
LPG and ethane	0.10	0.10	0.11	0.10	0.09	0.08	0.08	0.08	0.09	0.01	-0.02
Naphtha	0.40	0.38	0.34	0.39	0.39	0.41	0.38	0.42	0.44	0.02	0.04
Motor gasoline	0.42	0.42	0.43	0.44	0.42	0.41	0.38	0.40	0.44	0.04	0.03
Jet and kerosene	0.18	0.20	0.20	0.23	0.20	0.18	0.19	0.17	0.18	0.01	0.00
Diesel	0.75	0.77	0.79	0.81	0.78	0.76	0.69	0.75	0.84	0.09	0.08
Other gasoil	0.35	0.34	0.28	0.26	0.38	0.38	0.38	0.38	0.38	0.00	-0.06
Residual fuel oil	0.12	0.10	0.10	0.09	0.10	0.11	0.11	0.10	0.11	0.01	0.01
Other products	0.05	0.09	0.11	0.10	0.09	0.07	0.05	0.06	0.09	0.03	0.01
Total	**2.37**	**2.41**	**2.36**	**2.42**	**2.44**	**2.40**	**2.27**	**2.37**	**2.57**	**0.20**	**0.09**
Italy											
LPG and ethane	0.11	0.11	0.10	0.10	0.12	0.13	0.15	0.14	0.11	-0.03	-0.02
Naphtha	0.09	0.11	0.12	0.11	0.10	0.13	0.14	0.13	0.12	0.00	0.00
Motor gasoline	0.21	0.20	0.21	0.22	0.19	0.18	0.17	0.18	0.20	0.01	-0.01
Jet and kerosene	0.10	0.11	0.11	0.12	0.10	0.09	0.09	0.09	0.11	0.02	0.01
Diesel	0.44	0.44	0.45	0.45	0.43	0.43	0.39	0.43	0.46	0.03	0.02
Other gasoil	0.09	0.09	0.08	0.10	0.10	0.08	0.08	0.08	0.08	0.01	0.00
Residual fuel oil	0.08	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.00	0.00
Other products	0.15	0.15	0.15	0.15	0.16	0.13	0.11	0.14	0.15	0.01	0.02
Total	**1.27**	**1.27**	**1.29**	**1.31**	**1.26**	**1.25**	**1.19**	**1.25**	**1.29**	**0.04**	**0.03**
France											
LPG and ethane	0.13	0.15	0.14	0.13	0.14	0.17	0.19	0.18	0.16	-0.02	-0.01
Naphtha	0.13	0.12	0.12	0.13	0.08	0.13	0.13	0.12	0.12	-0.01	-0.01
Motor gasoline	0.16	0.17	0.18	0.18	0.16	0.16	0.15	0.16	0.18	0.02	0.02
Jet and kerosene	0.15	0.15	0.15	0.17	0.15	0.15	0.15	0.15	0.14	-0.01	0.00
Diesel	0.71	0.70	0.72	0.72	0.71	0.71	0.67	0.71	0.75	0.04	0.03
Other gasoil	0.25	0.24	0.20	0.23	0.27	0.27	0.32	0.26	0.24	-0.01	-0.04
Residual fuel oil	0.04	0.04	0.03	0.04	0.04	0.06	0.07	0.05	0.05	0.00	0.01
Other products	0.12	0.12	0.13	0.14	0.11	0.10	0.09	0.10	0.10	0.00	-0.02
Total	**1.69**	**1.69**	**1.66**	**1.74**	**1.66**	**1.75**	**1.77**	**1.74**	**1.74**	**0.00**	**-0.02**
United Kingdom											
LPG and ethane	0.14	0.16	0.16	0.16	0.16	0.16	0.17	0.16	0.16	-0.01	-0.01
Naphtha	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00
Motor gasoline	0.29	0.29	0.30	0.29	0.29	0.28	0.27	0.30	0.27	-0.04	-0.01
Jet and kerosene	0.31	0.32	0.31	0.32	0.31	0.32	0.32	0.33	0.31	-0.02	0.00
Diesel	0.50	0.52	0.52	0.51	0.53	0.50	0.43	0.57	0.52	-0.05	0.02
Other gasoil	0.13	0.13	0.13	0.15	0.12	0.12	0.10	0.12	0.13	0.01	0.00
Residual fuel oil	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.00	0.00
Other products	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.12	0.13	0.01	0.01
Total	**1.55**	**1.59**	**1.61**	**1.61**	**1.59**	**1.55**	**1.45**	**1.66**	**1.56**	**-0.10**	**0.01**
Canada											
LPG and ethane	0.38	0.40	0.36	0.40	0.43	0.42	0.44	0.43	0.37	-0.06	-0.05
Naphtha	0.09	0.10	0.10	0.10	0.10	0.09	0.10	0.06	0.11	0.05	0.00
Motor gasoline	0.82	0.86	0.86	0.90	0.85	0.81	0.78	0.82	0.84	0.02	0.02
Jet and kerosene	0.14	0.15	0.14	0.16	0.14	0.14	0.14	0.15	0.14	-0.01	0.01
Diesel	0.31	0.30	0.31	0.30	0.29	0.30	0.29	0.32	0.28	-0.04	-0.01
Other gasoil	0.26	0.26	0.25	0.27	0.28	0.28	0.25	0.26	0.32	0.06	0.10
Residual fuel oil	0.04	0.03	0.03	0.03	0.03	0.05	0.04	0.05	0.05	0.00	0.00
Other products	0.35	0.33	0.31	0.36	0.34	0.32	0.36	0.30	0.31	0.01	0.00
Total	**2.41**	**2.43**	**2.37**	**2.52**	**2.46**	**2.40**	**2.40**	**2.38**	**2.42**	**0.03**	**0.06**

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	1Q17	2Q17	3Q17	4Q17	1Q18	Mar 17	Apr 17	May 17
OPEC											
Crude Oil											
Saudi Arabia	10.42			9.90					9.93	9.96	9.92
Iran	3.55			3.78					3.79	3.75	3.78
Iraq	4.42			4.45					4.43	4.42	4.45
UAE	3.03			2.94					2.91	2.93	2.92
Kuwait	2.88			2.71					2.70	2.71	2.72
Neutral Zone	0.00			0.00					0.00	0.00	0.00
Qatar	0.65			0.60					0.61	0.62	0.63
Angola	1.71			1.64					1.64	1.66	1.63
Nigeria	1.47			1.39					1.30	1.38	1.50
Libya	0.39			0.66					0.61	0.55	0.74
Algeria	1.11			1.05					1.05	1.06	1.06
Ecuador	0.55			0.52					0.52	0.53	0.53
Venezuela	2.24			2.04					2.03	2.02	2.00
Gabon	0.23			0.20					0.20	0.20	0.20
Total Crude Oil	32.64			31.89					31.72	31.79	32.08
Total NGLs[1]	6.69	6.83	6.95	6.76	6.78	6.89	6.89	6.93	6.76	6.78	6.78
Total OPEC[2]	**39.33**			**38.65**					**38.47**	**38.57**	**38.86**
NON-OPEC[2,3]											
OECD											
Americas	19.46	20.09	21.19	19.90	19.74	20.21	20.48	20.84	19.96	19.65	19.62
United States	12.52	13.12	14.14	12.67	13.10	13.22	13.50	13.74	12.93	13.00	13.14
Mexico	2.46	2.26	2.16	2.32	2.29	2.24	2.19	2.18	2.32	2.32	2.29
Canada	4.47	4.69	4.89	4.90	4.35	4.74	4.78	4.92	4.71	4.33	4.19
Chile	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Europe	3.51	3.52	3.54	3.67	3.47	3.34	3.59	3.67	3.73	3.60	3.48
UK	1.03	1.00	1.12	1.07	1.00	0.91	1.03	1.14	1.06	1.00	1.02
Norway	1.99	2.03	1.94	2.09	2.01	1.94	2.07	2.04	2.15	2.11	2.02
Others	0.49	0.49	0.48	0.52	0.45	0.48	0.49	0.49	0.51	0.48	0.44
Asia Oceania	0.43	0.38	0.41	0.39	0.38	0.38	0.39	0.40	0.39	0.38	0.38
Australia	0.35	0.32	0.35	0.32	0.32	0.31	0.32	0.34	0.32	0.32	0.32
Others	0.08	0.07	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Total OECD	**23.40**	**23.98**	**25.14**	**23.96**	**23.59**	**23.92**	**24.46**	**24.91**	**24.08**	**23.63**	**23.49**
NON-OECD											
Former USSR	14.21	14.32	14.39	14.43	14.32	14.25	14.27	14.31	14.39	14.36	14.31
Russia	11.34	11.33	11.30	11.46	11.32	11.26	11.27	11.27	11.42	11.37	11.32
Others	2.87	2.99	3.09	2.97	3.00	2.99	3.00	3.05	2.97	2.99	2.99
Asia[2]	7.61	7.38	7.14	7.49	7.40	7.34	7.28	7.23	7.49	7.42	7.40
China	4.04	3.91	3.78	3.96	3.95	3.90	3.84	3.81	3.97	3.96	3.95
Malaysia	0.71	0.69	0.67	0.72	0.68	0.68	0.69	0.69	0.71	0.67	0.68
India	0.85	0.85	0.83	0.87	0.84	0.84	0.84	0.84	0.86	0.84	0.85
Indonesia	0.88	0.86	0.83	0.86	0.86	0.85	0.85	0.84	0.86	0.86	0.86
Others	1.13	1.07	1.04	1.09	1.07	1.06	1.06	1.05	1.08	1.08	1.07
Europe	0.14	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Americas[2]	4.49	4.61	4.84	4.56	4.55	4.65	4.67	4.72	4.42	4.48	4.57
Brazil	2.61	2.80	3.06	2.75	2.74	2.84	2.87	2.92	2.65	2.66	2.78
Argentina	0.61	0.59	0.60	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Colombia	0.89	0.85	0.83	0.85	0.84	0.85	0.85	0.84	0.81	0.86	0.83
Others	0.38	0.37	0.36	0.37	0.37	0.37	0.36	0.36	0.37	0.37	0.37
Middle East[2,4]	1.26	1.23	1.25	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23
Oman	1.01	0.98	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.98
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	0.02	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03
Others	0.21	0.20	0.22	0.20	0.20	0.20	0.20	0.21	0.20	0.20	0.20
Africa	1.89	1.89	1.99	1.88	1.90	1.90	1.91	2.01	1.89	1.89	1.89
Egypt	0.69	0.65	0.62	0.66	0.65	0.64	0.64	0.63	0.65	0.65	0.65
Others	1.19	1.25	1.37	1.22	1.25	1.26	1.27	1.38	1.24	1.23	1.24
Total Non-OECD	**29.59**	**29.56**	**29.73**	**29.72**	**29.52**	**29.51**	**29.49**	**29.63**	**29.55**	**29.50**	**29.54**
Processing gains[5]	2.27	2.29	2.32	2.29	2.29	2.29	2.29	2.32	2.29	2.29	2.29
Global Biofuels	2.34	2.42	2.53	2.00	2.44	2.79	2.45	2.05	2.03	2.11	2.51
TOTAL NON-OPEC	**57.60**	**58.26**	**59.73**	**57.97**	**57.85**	**58.52**	**58.69**	**58.91**	**57.96**	**57.53**	**57.83**
TOTAL SUPPLY	**96.93**			**96.62**					**96.43**	**96.11**	**96.69**

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 and Gabon 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			
	Dec2016	Jan2017	Feb2017	Mar2017	Apr2017*	Apr2014	Apr2015	Apr2016	2Q2016	3Q2016	4Q2016	1Q2017
OECD Americas												
Crude	645.8	665.1	683.0	695.6	687.9	505.6	607.0	661.2	-0.09	-0.31	0.26	0.55
Motor Gasoline	268.6	293.0	285.9	270.2	275.4	253.9	261.5	273.5	0.01	-0.15	0.10	0.02
Middle Distillate	237.5	242.1	239.8	226.8	227.0	193.1	201.5	231.8	-0.23	0.18	0.01	-0.12
Residual Fuel Oil	48.3	47.6	45.1	47.9	46.7	44.7	46.5	50.5	-0.04	-0.02	0.03	0.00
Total Products[3]	776.0	781.4	763.6	735.2	745.3	655.1	707.5	761.7	0.17	0.30	-0.27	-0.45
Total[4]	1599.5	1623.3	1619.4	1604.7	1609.7	1320.7	1485.6	1598.8	0.21	0.10	-0.19	0.06
OECD Europe												
Crude	339.3	354.6	359.6	359.8	353.0	319.3	350.0	351.6	0.11	-0.04	-0.15	0.18
Motor Gasoline	98.5	103.9	105.0	100.5	100.0	88.9	95.2	99.9	-0.05	-0.07	0.09	0.02
Middle Distillate	296.2	319.4	314.8	310.7	314.8	252.5	261.7	313.8	0.04	0.01	-0.20	0.06
Residual Fuel Oil	67.7	67.9	67.8	66.7	64.6	62.9	67.2	73.4	-0.07	-0.05	-0.01	-0.03
Total Products[3]	561.7	596.6	592.2	587.0	589.1	494.8	519.9	585.3	-0.05	-0.15	-0.08	0.16
Total[4]	970.8	1022.3	1025.4	1018.3	1013.5	880.6	939.5	1006.9	0.04	-0.15	-0.25	0.34
OECD Asia Oceania												
Crude	191.6	192.7	184.9	188.7	196.4	165.6	170.5	193.9	0.07	-0.01	-0.11	-0.03
Motor Gasoline	24.0	25.4	24.6	22.8	23.5	26.1	24.5	25.0	0.00	-0.03	0.00	-0.01
Middle Distillate	63.3	68.6	65.1	59.1	64.6	56.2	57.9	61.6	0.09	0.07	-0.11	-0.05
Residual Fuel Oil	17.6	18.3	19.5	18.5	18.7	21.5	19.5	19.2	-0.01	0.00	-0.02	0.01
Total Products[3]	162.0	166.4	165.4	154.8	163.2	157.7	158.0	164.3	0.10	0.13	-0.27	-0.08
Total[4]	414.5	421.0	411.6	403.2	421.7	390.9	391.1	420.3	0.18	0.13	-0.39	-0.13
Total OECD												
Crude	1176.6	1212.3	1227.5	1244.1	1237.3	990.5	1127.4	1206.7	0.08	-0.36	0.01	0.70
Motor Gasoline	391.1	422.2	415.4	393.4	398.9	368.9	381.1	398.4	-0.04	-0.25	0.20	0.03
Middle Distillate	597.0	630.0	619.7	596.6	606.4	501.7	521.1	607.2	-0.10	0.26	-0.30	-0.10
Residual Fuel Oil	133.6	133.8	132.4	133.1	130.0	129.0	133.3	143.1	-0.12	-0.06	0.01	-0.03
Total Products[3]	1499.7	1544.4	1521.2	1477.0	1497.6	1307.6	1385.3	1511.3	0.22	0.28	-0.62	-0.37
Total[4]	2984.9	3066.6	3056.4	3026.2	3044.8	2592.2	2816.2	3026.0	0.44	0.07	-0.83	0.27

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			
	Dec2016	Jan2017	Feb2017	Mar2017	Apr2017*	Apr2014	Apr2015	Apr2016	2Q2016	3Q2016	4Q2016	1Q2017
OECD Americas												
Crude	695.1	695.1	694.8	691.5	689.0	693.3	691.0	695.1	0.00	0.00	0.00	-0.04
Products	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	205.6	205.8	205.7	205.3	205.7	206.3	208.5	206.4	-0.01	0.01	-0.01	0.00
Products	271.5	273.1	273.3	273.3	271.7	259.9	260.9	265.7	-0.02	0.03	0.05	0.02
OECD Asia Oceania												
Crude	384.1	384.1	384.1	384.1	385.1	387.8	386.9	384.2	0.01	0.00	-0.01	0.00
Products	37.1	37.4	38.0	38.0	38.0	30.5	32.6	35.2	0.00	0.00	0.01	0.01
Total OECD												
Crude	1284.7	1285.0	1284.6	1280.9	1279.8	1287.4	1286.3	1285.7	0.00	0.01	-0.02	-0.04
Products	310.7	312.5	313.2	313.2	311.7	291.5	295.5	302.9	-0.02	0.03	0.06	0.03
Total[4]	1598.0	1600.4	1601.1	1597.8	1594.0	1582.8	1585.8	1591.6	-0.03	0.03	0.04	0.00

* 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 March 2016		End June 2016		End September 2016		End December 2016		End March 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	183.6	77	175.2	70	184.8	75	183.3	76	182.2	-
Chile	11.2	32	10.7	31	12.2	35	11.2	32	11.9	-
Mexico	45.9	24	48.8	25	45.7	23	47.3	25	47.5	-
United States[4]	2023.5	104	2048.9	103	2049.6	104	2032.7	104	2034.5	-
Total[4]	2286.2	94	2305.7	92	2314.4	93	2296.6	94	2298.2	95
OECD Asia Oceania										
Australia	37.0	33	38.2	35	36.7	32	33.9	29	32.9	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	559.8	153	573.5	153	586.6	142	562.5	131	546.3	-
Korea	235.7	95	238.0	94	239.3	90	230.3	88	237.8	-
New Zealand	8.2	51	9.2	57	8.7	50	9.0	50	8.2	-
Total	840.7	110	859.0	110	871.3	105	835.7	98	825.3	110
OECD Europe[5]										
Austria	25.4	93	22.5	80	21.6	80	22.8	87	24.3	-
Belgium	52.7	84	52.4	81	50.5	74	47.4	72	45.5	-
Czech Republic	22.8	130	22.8	125	22.9	112	21.9	119	22.5	-
Denmark	32.4	204	30.7	187	29.7	187	30.5	201	27.2	-
Estonia	2.2	89	2.6	89	2.4	86	2.4	77	2.6	-
Finland	46.0	226	45.4	211	44.9	211	42.3	211	44.8	-
France	165.8	100	167.5	96	166.9	100	162.2	93	167.7	-
Germany	288.9	123	288.2	119	285.0	117	285.4	119	280.8	-
Greece	33.4	116	32.6	101	30.8	98	33.9	114	35.1	-
Hungary	21.1	128	22.7	137	23.6	147	24.5	150	24.3	-
Ireland	12.2	82	12.3	84	11.7	74	11.8	78	12.8	-
Italy	119.9	93	120.9	93	127.4	101	124.3	100	134.4	-
Luxembourg	0.7	12	0.8	15	0.7	12	0.7	12	0.7	-
Netherlands	157.7	160	159.6	155	154.2	155	152.6	152	154.7	-
Norway	24.9	117	26.5	119	23.2	99	22.9	117	22.9	-
Poland	67.4	119	65.4	105	68.4	111	67.4	115	69.8	-
Portugal	24.5	100	24.9	99	23.2	100	21.9	96	26.5	-
Slovak Republic	11.9	135	12.4	132	11.3	135	12.1	144	12.8	-
Slovenia	4.6	90	4.7	85	4.4	81	4.5	96	4.9	-
Spain	142.1	112	135.9	102	139.4	106	129.0	100	136.5	-
Sweden	34.9	116	33.3	106	35.7	114	33.5	113	51.5	-
Switzerland	36.1	165	35.8	166	36.5	156	35.2	158	35.5	-
Turkey	75.9	80	78.0	76	76.5	81	79.1	100	81.4	-
United Kingdom	77.2	48	82.4	51	78.1	49	82.3	53	81.3	-
Total	1480.7	106	1480.2	102	1469.1	103	1450.5	105	1500.5	110
Total OECD	**4607.5**	**100**	**4644.8**	**98**	**4654.8**	**98**	**4582.9**	**98**	**4624.0**	**102**
DAYS OF IEA Net Imports[6]	**-**	**198**	**-**	**202**	**-**	**202**	**-**	**200**	**-**	**203**

1 Total Stocks are industry and government-controlled stocks (see breakdown in table below). Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known) they include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.
2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used for the calculation of IEA Emergency Reserves.
3 End March 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]*	
1Q2014	4164	1585	2579	93	35	57
2Q2014	4229	1580	2649	92	34	58
3Q2014	4297	1578	2718	93	34	59
4Q2014	4285	1580	2704	92	34	58
1Q2015	4372	1583	2789	96	35	61
2Q2015	4463	1585	2878	95	34	61
3Q2015	4533	1579	2954	98	34	64
4Q2015	4573	1587	2986	98	34	64
1Q2016	4608	1593	3014	100	35	66
2Q2016	4645	1591	3054	98	34	65
3Q2016	4655	1594	3061	98	34	65
4Q2016	4583	1598	2985	98	34	64
1Q2017	4624	1598	3026	102	35	67

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.
2 Days of forward demand calculated using actual demand except in 1Q2017 (when latest forecasts are used).

Table 6
IEA MEMBER COUNTRY DESTINATIONS OF SELECTED CRUDE STREAMS[1]

(million barrels per day)

	2014	2015	2016	2Q16	3Q16	4Q16	1Q17	Jan 17	Feb 17	Mar 17	Year Earlier Mar 16	Year Earlier change
Saudi Light & Extra Light												
Americas	0.65	0.63	0.69	0.72	0.69	0.62	0.74	0.54	0.90	0.79	0.72	0.07
Europe	0.84	0.78	0.79	0.73	0.78	0.87	0.64	0.64	0.61	0.67	0.63	0.04
Asia Oceania	1.17	1.25	1.40	1.44	1.22	1.56	1.65	1.67	1.66	1.63	1.42	0.21
Saudi Medium												
Americas	0.36	0.37	0.44	0.44	0.44	0.48	0.43	0.41	0.53	0.37	0.46	-0.09
Europe	0.03	0.03	0.01	0.01	0.03	0.01	0.01	-	-	0.03	-	-
Asia Oceania	0.45	0.44	0.41	0.43	0.42	0.34	0.33	0.27	0.35	0.38	0.44	-0.07
Canada Heavy												
Americas	1.71	1.90	2.04	1.85	2.12	2.07	2.31	2.29	2.29	2.33	2.08	0.25
Europe	0.00	0.01	0.01	0.01	0.02	0.01	0.01	0.02	-	-	-	-
Asia Oceania	0.00	-	-	-	-	-	-	-	-	-	-	-
Iraqi Basrah Light[2]												
Americas	0.35	0.17	0.42	0.44	0.47	0.55	0.53	0.43	0.63	0.55	0.28	0.27
Europe	0.50	0.72	0.81	0.78	0.90	0.67	0.76	0.78	0.71	0.78	0.74	0.03
Asia Oceania	0.24	0.41	0.46	0.51	0.44	0.41	0.42	0.51	0.31	0.41	0.45	-0.03
Kuwait Blend												
Americas	0.27	0.13	0.14	0.12	0.18	0.14	0.19	0.16	0.20	0.20	-	-
Europe	0.09	0.13	0.19	0.10	0.22	0.26	0.20	0.22	0.22	0.17	0.16	0.01
Asia Oceania	0.62	0.65	0.66	0.65	0.68	0.60	0.71	0.69	0.76	0.69	0.75	-0.06
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.10	0.09	0.21	0.18	0.33	0.24	0.38	0.34	0.41	0.40	0.12	0.27
Asia Oceania	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-	0.02	-	0.01	-
Iranian Heavy[3]												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.01	0.02	0.21	0.16	0.27	0.38	0.41	0.31	0.36	0.56	0.05	0.51
Asia Oceania	0.28	0.27	0.52	0.47	0.58	0.59	0.73	0.69	0.68	0.82	0.46	0.37
BFOE												
Americas	0.01	0.01	0.02	0.02	0.02	0.03	0.01	0.02	-	-	0.02	-
Europe	0.56	0.49	0.44	0.37	0.48	0.42	0.39	0.30	0.47	0.42	0.49	-0.07
Asia Oceania	0.07	0.06	0.05	0.03	-	0.08	0.09	0.09	0.14	0.03	0.03	0.00
Kazakhstan												
Americas	0.01	0.00	0.01	-	0.02	-	-	-	-	-	-	-
Europe	0.64	0.64	0.70	0.72	0.70	0.62	0.76	0.80	0.79	0.70	0.79	-0.09
Asia Oceania	0.02	0.06	0.03	0.00	0.01	0.04	0.05	0.05	0.07	0.03	0.06	-0.03
Venezuelan 22 API and heavier												
Americas	0.64	0.67	0.63	0.61	0.65	0.66	0.52	0.48	0.61	0.49	0.70	-0.21
Europe	0.08	0.09	0.05	0.05	0.04	0.05	0.06	0.12	0.03	0.04	0.07	-0.03
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.66	0.50	0.53	0.54	0.52	0.53	0.54	0.62	0.46	0.53	0.53	0.00
Europe	0.14	0.15	0.17	0.16	0.17	0.20	0.20	0.19	0.25	0.16	0.19	-0.03
Asia Oceania	-	0.01	0.05	0.04	0.06	0.07	0.06	0.09	0.01	0.07	0.02	0.04
Russian Urals												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	1.58	1.61	1.72	1.78	1.73	1.77	1.64	1.89	1.53	1.48	1.59	-0.12
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.04	0.06	0.03	-	0.06	0.04	0.05	-	0.13	0.02	-	-
Europe	0.33	0.42	0.27	0.21	0.43	0.16	0.09	0.13	0.11	0.03	0.34	-0.31
Pacific	0.01	0.02	0.01	0.02	-	-	-	-	-	-	-	-
Nigerian Light[4]												
Americas	0.00	0.02	0.07	0.06	0.08	0.07	0.01	-	-	0.03	0.05	-0.02
Europe	0.55	0.57	0.39	0.46	0.33	0.31	0.36	0.41	0.26	0.40	0.33	0.07
Asia Oceania	0.02	-	0.01	0.01	0.01	0.03	0.02	0.01	0.02	0.03	-	-
Libya Light and Medium												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.31	0.22	0.20	0.15	0.17	0.30	0.41	0.41	0.44	0.37	0.25	0.12
Asia Oceania	0.02	0.01	0.02	0.01	0.03	0.01	0.04	0.07	0.05	-	0.04	-

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report. IEA Americas includes United States and Canada. IEA Europe includes all countries in OECD Europe except Estonia, Hungary and Slovenia. IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.
2 Iraqi Total minus Kirkuk.
3 Iranian Total minus Iranian Light.
4 33° API and lighter (e.g., Bonny Light, Escravos, Qua Iboe and Oso Condensate).

Table 7
REGIONAL OECD IMPORTS[1,2]
(thousand barrels per day)

	2014	2015	2016	2Q16	3Q16	4Q16	1Q17	Jan 17	Feb 17	Mar 17	Year Earlier Mar 16	Year Earlier % change
Crude Oil												
Americas	4201	4026	4542	4663	4867	4288	4558	4772	4424	4466	4751	-6%
Europe	8679	9503	9253	8829	9647	9566	9489	9945	9310	9195	8721	5%
Asia Oceania	6371	6572	6686	6647	6616	6681	7023	7156	7048	6868	6931	-1%
Total OECD	19251	20101	20482	20139	21130	20535	21070	21873	20782	20529	20403	1%
LPG												
Americas	12	10	20	9	23	18	23	27	28	15	16	-7%
Europe	427	413	438	412	462	463	501	500	515	489	341	44%
Asia Oceania	532	518	566	576	546	550	603	549	671	595	660	-10%
Total OECD	971	940	1024	997	1032	1031	1127	1076	1214	1099	1017	8%
Naphtha												
Americas	20	14	10	7	4	18	19	6	21	31	5	571%
Europe	356	348	353	299	393	357	383	345	449	361	363	-1%
Asia Oceania	953	951	906	834	946	894	981	940	1022	984	883	11%
Total OECD	1328	1313	1269	1141	1344	1269	1383	1291	1492	1376	1251	10%
Gasoline[3]												
Americas	665	670	735	873	918	689	567	661	556	482	417	15%
Europe	131	107	99	57	42	206	146	212	28	187	32	493%
Asia Oceania	76	93	84	84	72	107	118	71	135	150	83	81%
Total OECD	871	870	919	1014	1032	1001	831	945	719	819	532	54%
Jet & Kerosene												
Americas	100	141	169	154	180	190	148	157	152	135	151	-11%
Europe	454	445	504	514	568	470	464	480	474	437	548	-20%
Asia Oceania	60	64	73	76	47	88	110	94	117	119	53	125%
Total OECD	614	650	745	744	795	749	721	731	743	691	752	-8%
Gasoil/Diesel												
Americas	95	76	67	40	84	84	81	70	122	54	43	26%
Europe	1097	1217	1359	1468	1276	1273	1354	1239	1450	1382	1507	-8%
Asia Oceania	159	164	201	225	173	225	212	180	208	248	178	39%
Total OECD	1352	1457	1626	1733	1533	1583	1646	1489	1779	1684	1729	-3%
Heavy Fuel Oil												
Americas	132	116	149	126	158	147	141	110	136	176	202	-13%
Europe	617	565	483	514	473	416	274	387	255	180	576	-69%
Asia Oceania	203	176	155	150	158	126	148	158	159	127	226	-44%
Total OECD	953	857	788	791	790	689	563	655	549	483	1004	-52%
Other Products												
Americas	671	675	652	713	663	605	705	711	667	733	577	27%
Europe	704	703	770	793	742	775	1113	1012	1065	1258	755	67%
Asia Oceania	408	352	357	347	364	332	314	324	301	315	353	-11%
Total OECD	1784	1730	1779	1853	1769	1712	2132	2047	2033	2306	1685	37%
Total Products												
Americas	1695	1702	1802	1923	2031	1751	1683	1742	1681	1626	1411	15%
Europe	3786	3799	4006	4058	3957	3960	4234	4174	4235	4293	4122	4%
Asia Oceania	2391	2318	2341	2292	2306	2323	2486	2318	2614	2539	2436	4%
Total OECD	7872	7819	8149	8273	8294	8034	8403	8233	8530	8458	7970	6%
Total Oil												
Americas	5896	5728	6344	6585	6898	6039	6241	6514	6105	6091	6162	-1%
Europe	12465	13302	13259	12888	13604	13525	13723	14118	13546	13488	12843	5%
Asia Oceania	8762	8890	9027	8939	8921	9004	9509	9474	9661	9407	9367	0%
Total OECD	27123	27919	28630	28412	29423	28569	29473	30106	29312	28986	28372	2%

1 Based on Monthly Oil Questionnaire data submitted by OECD countries in tonnes and converted to barrels.
2 Excludes intra-regional trade.
3 Includes additives.

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

For information on the data sources, definitions, technical terms and general approach used in preparing the *Oil Market Report (OMR)*, *Medium-Term Oil Market Report (MTOMR)* and *Annual Statistical Supplement* (current issue of the Statistical Supplement dated 11 August 2016), readers are referred to the *Users' Guide* at www.oilmarketreport.org/glossary.asp. It should be noted that the spot crude and product price assessments are based on daily Argus prices, converted when appropriate to US$ per barrel according to the Argus specification of products (Copyright © 2017 Argus Media Limited - all rights reserved).

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