

Oil Market Report

16 May 2018

HIGHLIGHTS

- **Global oil demand growth for 2018 has been revised slightly downwards from 1.5 mb/d to 1.4 mb/d.** While recent data confirms strong growth in 1Q18 and the start of 2Q18, we expect a slowdown in 2H18 largely attributable to higher oil prices. World oil demand is expected to average 99.2 mb/d in 2018.
- **Global oil supplies held steady in April at close to 98 mb/d.** Robust non-OPEC output offset lower OPEC production. Strong non-OPEC growth, led by the US, pushed global supplies up 1.78 mb/d on a year ago. Non-OPEC output will grow by 1.87 mb/d in 2018, a slightly higher rate than seen in last month's Report.
- **OPEC crude production eased by 130 kb/d in April, to 31.65 mb/d,** on further declines in Venezuela and lower output in Africa. Compliance with the Vienna Agreement reached a record 172%. The call on OPEC crude and stocks will average around 32.25 mb/d for the remainder of 2018, nearly 0.6 mb/d higher than April output.
- **OECD commercial stocks declined counter-seasonally by 26.8 mb in March to 2 819 mb, their lowest level since March 2015 and 214 mb below year-ago levels.** In the process, they fell 1 mb below the five-year average.
- **ICE Brent and NYMEX WTI futures prices rose to multi-year highs in recent days, and both are up by more than \$10/bbl since the start of the year.** Solid oil demand, reduced OPEC output and geopolitical developments continue to underpin price gains.
- **Global refining throughput is on the rise with runs expected to hit a record 83 mb/d in July-August.** Throughput growth, however, is not sufficient to cover all refined products demand, with stock draws expected to persist through 2Q18 and 3Q18.

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From fundamentals to geopolitics

The decision by the United States to withdraw from the Joint Comprehensive Plan of Action regulating Iran's nuclear activities has switched the focus of oil market analysis from the fundamentals to geopolitics. In these early days, there is understandable uncertainty about its potential impact on Iran's oil exports, which are currently about 2.4 mb/d. There is a 180-day period for customers to adjust their purchasing strategies and it remains to be seen how waivers and other aspects of the sanctions will be implemented. In addition, other signatories to the JCPOA have said that they will continue with the agreement.

When sanctions were imposed in 2012, Iran's exports fell by about 1.2 mb/d. It is too soon to say what will happen this time, but we should examine whether other producers could step in to ensure an orderly flow of oil to the market and offset a disruption to Iranian exports. Neither Venezuela nor Mexico can raise output in the short term, but some of the 1.5 mb/d that have been cut by other producers under the Vienna Agreement might be available to keep markets well supplied. A statement by Saudi Arabia shortly after the US announcement acknowledged the need to work with producers and consumers to mitigate possible supply shortfalls. This is especially welcome since the possibility of lower Iranian exports is not the only supply risk hanging over the market today.

In Venezuela, the pace of decline of oil production is accelerating and by the end of this year output could have fallen by several hundred thousand barrels a day. Our April data show that Venezuela's production is 550 kb/d lower than its target under the Vienna Agreement and this "excess" is more than Saudi Arabia's total commitment. The potential double supply shortfall represented by Iran and Venezuela could present a major challenge for producers to fend off sharp price rises and fill the gap, not just in terms of the number of barrels but also in terms of oil quality.

The decision by the US Administration had, to some extent, already been factored into oil prices. Even so, alongside steady demand growth, solid compliance with the Vienna Agreement, and new data showing a further fall in stocks, it contributed to Brent prices rising above \$77/bbl. As key players consider how to react to the new policy, this *Report* shows that the market balance continues to tighten, though by slightly less than seen last month. Because of rising prices, we lowered our estimate for 2018 global oil demand growth by 40 kb/d to 1.4 mb/d, and we increased our expectation for US oil production growth this year by 120 kb/d.

As the International Monetary Fund noted recently, the global economy is doing well. Therefore, we remain confident that underlying demand growth remains strong around the world, which has been an important factor in the rise in oil prices. Still, the fact is that crude oil prices have risen by nearly 75% since June 2017. It would be extraordinary if such a large jump did not affect demand growth, especially as end-user subsidies have been reduced or cut in several emerging economies in recent years.

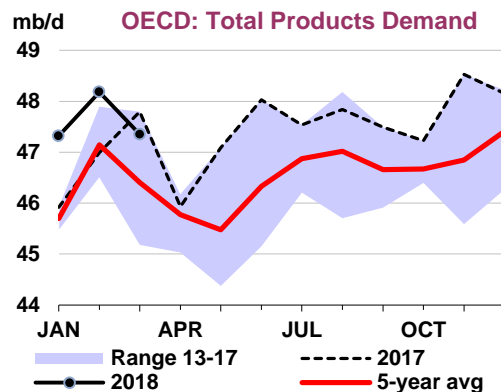
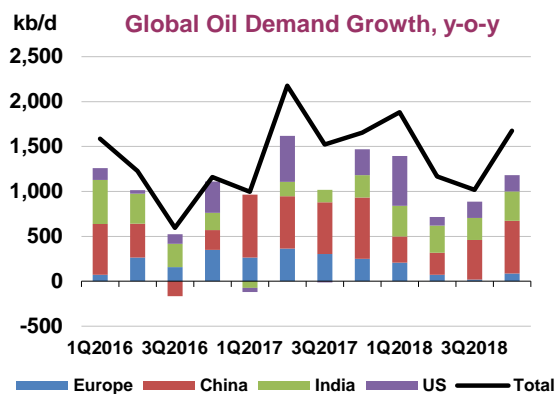
On the supply side, in today's uncertain geopolitical climate, higher production from the US will be an important contribution to compensating for lower volumes from elsewhere. For now, this *Report* shows a modest increase in our estimate for US output growth in 2018, mindful of the current logistics constraints that have manifested themselves in the extraordinary widening of the differential between WTI prices at Midland and the Gulf Coast to \$15/bbl. We note that several projects are in development to ease regional bottlenecks and to help rising US production reach markets.

For some time, the focus has been on OECD stocks, and new data show a further decline in March of 27 mb to the lowest level in three years and to 1 mb below the widely cited five-year average figure. For now, the rapidly changing geopolitical landscape will move the attention away from stocks as producers and consumers consider how to limit volatility in the oil market. For its part, the IEA will monitor developments closely and is ready to act if necessary to ensure that markets remain well supplied.

DEMAND

Summary

Global oil demand growth for 2018 has been revised slightly downwards in this *Report* from 1.5 mb/d to 1.4 mb/d. While recent data continue to point to very strong demand in 1Q18 and the start of 2Q18, we expect a slowdown in growth in 2H18. Demand at the start of the year was supported by cold weather in Europe and the US, the start-up of new petrochemical capacity in the US and a solid economic background. For the first half of the year, demand in both OECD and non-OECD countries has been revised upwards slightly. While the economic environment will continue to support oil demand - we have updated our economic forecast in line with the latest IMF outlook - support from harsh weather conditions will vanish and the recent jump in oil prices will take its toll. Therefore, world oil demand growth is expected to slow from 1.52 mb/d in 1H18 to 1.35 mb/d in 2H18.



OECD oil demand has been revised down by 60 kb/d for 2018 compared to last month *Report*, as an upward revision of 40 kb/d to 1H18 demand (mainly in 2Q18 in Australia and the US) is more than offset by a downward revision of 150 kb/d in 2H18. The lower growth for 2H18 is largely attributable to a higher oil price assumption.

Non-OECD demand in 2018 is also revised down by 60 kb/d compared with our last report due to higher prices. An upward revision of 50 kb/d in the first half of the year (evenly distributed across regions) is more than offset by a 160 kb/d downward revision in 2H18.

Global Oil Demand (2016-2018)

(million barrels per day)*

	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Africa	4.3	4.3	4.2	4.3	4.3	4.4	4.3	4.2	4.3	4.3	4.5	4.4	4.3	4.4	4.4
Americas	31.1	31.1	31.7	31.4	31.3	30.9	31.5	31.7	31.7	31.4	31.4	31.7	31.8	31.9	31.7
Asia/Pacific	33.2	32.8	32.2	33.3	32.9	33.9	33.9	33.3	34.5	33.9	34.9	34.6	33.9	35.5	34.7
Europe	14.3	14.7	15.2	14.9	14.8	14.6	15.0	15.5	15.2	15.1	14.8	15.1	15.5	15.3	15.2
FSU	4.5	4.5	4.9	4.8	4.7	4.5	4.7	5.0	4.8	4.7	4.6	4.7	5.0	4.9	4.8
Middle East	7.9	8.4	8.7	8.1	8.3	7.9	8.5	8.6	8.0	8.3	7.9	8.6	8.8	8.2	8.4
World	95.2	95.7	96.8	96.8	96.2	96.2	97.9	98.3	98.5	97.7	98.1	99.1	99.3	100.2	99.2
Annual Chg (%)	1.7	1.3	0.6	1.2	1.2	1.0	2.3	1.6	1.7	1.7	2.0	1.2	1.0	1.7	1.5
Annual Chg (mb/d)	1.6	1.2	0.6	1.2	1.1	1.0	2.2	1.5	1.7	1.6	1.9	1.2	1.0	1.7	1.4
Changes from last OMR (mb/d)	-0.2	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	-0.1	0.1	0.1	-0.3	-0.3	-0.1

* Including biofuels

Fundamentals

The global economic outlook remains supportive, and we have updated our forecast with the latest IMF projections. While the Fund's projections for non-OECD countries are mainly unchanged, the outlook for developed economies has been revised up on recent strong data. The growth outlook for Europe and the US has been revised up by 0.2 percentage points on average and by as much as 0.4 percentage point for some European countries such as Spain. In the US, growth is expected to accelerate from 2.3% in 2017 to 2.9% in 2018. Projections for some emerging countries (Brazil, South Africa) have been significantly revised upward. The IMF expects world economic growth to accelerate from 3.7% in 2017 to 3.9% in both 2018 and 2019.

Temperature variations had strong impacts on US oil demand in 1Q18 and in April. A cold snap in January was followed by temperatures in February and March closer to last year's levels. However, April temperatures were low with heating degree-days 70% higher than last year and 40% higher than the long-term average, providing another boost to LPG and heating oil demand. By contrast, Europe experienced mild temperatures in January and colder weather in February and March. In April, heating degree-days in Europe were half that of last year.

We updated our price assumption based on the ICE Brent futures curve as of early May. The average 2018 price used in our model was 5.2% higher than last month (\$70/bbl vs. \$66.5/bbl). In the second half of the year, when the full impact will be felt, prices used in this forecast are 9% higher than those used in April and almost 15% higher than in March *Report*. With demand at roughly 100 mb/d, and price elasticity close to -0.03, an increase of 9% in oil prices could result in a reduction of 270 kb/d to our projections for the second half of 2018.

The impact of higher prices on demand in several developing countries are likely to be stronger than in the past. Many of them took advantage of lower prices after 2014 to reduce or eliminate subsidies; e.g. Indonesia removed gasoline subsidies in 2015 and reduced diesel subsidies in 2016 and the most recent notable example was in Saudi Arabia where gasoline prices were approximately doubled on 1 January. These, and similar changes in many other developing countries mean that higher global oil prices will translate more directly to higher prices for end-users, unless governments decide to intervene to protect them from the full impact.

To illustrate the impact of price changes on world oil demand, we undertook an exercise using our monthly data on oil demand, real Brent prices, and a monthly indicator of world economic activity (the CPB world trade monitor industrial production index from the Netherland Bureau for Economic Policy Analysis). This index covers 85 countries accounting for 97% of global industrial production. We estimated price and economic activity elasticities in the 2009-2018 period (110 observations) using different specifications.

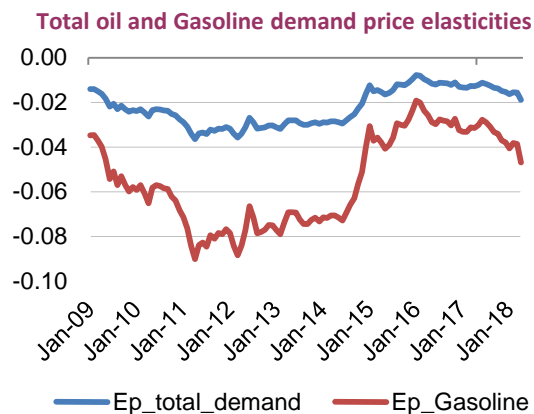
Time period: 2009-2018

Observations: 110

	Total Demand	Gasoline Demand	Gasoil Demand	Kerosene Demand
Log-Log Specification				
Economic activity elasticity	0.455	0.508	0.540	0.551
Price Elasticity	-0.020	-0.050	-	-0.048
Log-Linear Specification				
Economic activity elasticity	0.459	0.520	0.537	0.561
Price Elasticity	-0.000308 * Brent	-0.000762 * Brent	-	-0.000751 * Brent

Under a fixed elasticity specification, we found price elasticity for world oil demand close to -0.02 and activity elasticity close to 0.45. World gasoil demand seems not to respond to a change in prices. By

contrast, gasoline and kerosene demand have relatively strong price elasticity: close to -0.05. Gasoil is more a production factor, used for the transportation of industrial goods and responding strongly to economic activity indicators but indifferent to price changes. By contrast, gasoline is used by households and responds strongly to prices. Kerosene has the highest response to economic activity and a relatively strong response to prices.



Using a Log-linear formulation, under which elasticity varies with price levels, we can illustrate the changes in price elasticities with price levels. Total demand elasticity was close to -0.03 in 2011-2014 but declined in 2015-2017 with lower crude prices. As price level moves up close to \$80/bbl, elasticity is likely to increase. The effect of higher prices should in particular become apparent in gasoline demand in the next few months.

Conclusions we can draw from a global analysis of oil demand are obviously limited: each country reacts differently to oil price changes. Amongst the factors are: whether final prices are regulated or not, the structure of its oil demand, taxes, exchange rates, and income distribution. In our models as we have different elasticities by fuel and by country. The overall revision to oil demand in 2H18 after a 9% increase in prices is consistent with a theoretical global elasticity of -0.035. Of course, prices are only one factor explaining changes to our forecast. Other factors include weather variations, the economic outlook and domestic oil policies.

OECD

This month we have a complete set of data for OECD countries for February. Preliminary estimates are available for the US, Mexico, Japan, Korea and some European countries for March. Recent data point to robust demand in Europe and the US in February, with weather being one of the main factors.

OECD Demand based on Adjusted Preliminary Submissions - March 2018

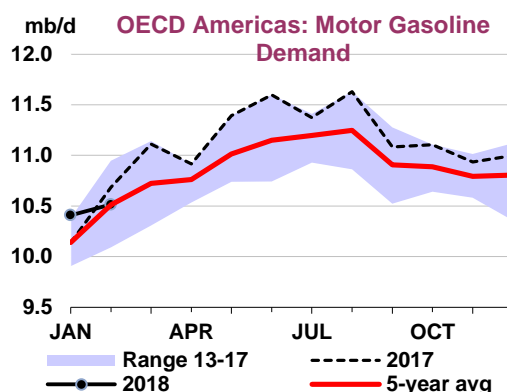
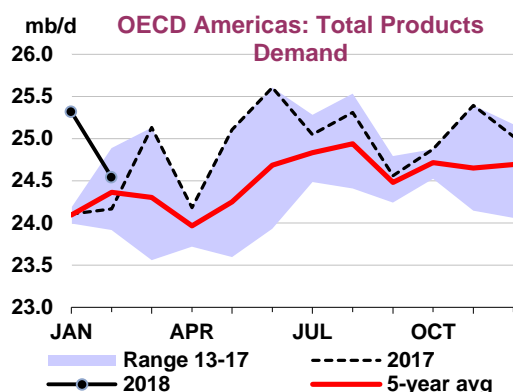
(million barrels per day)

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	11.06	-0.4	2.06	4.9	4.63	-3.6	0.51	-17.2	0.62	-10.0	6.01	0.90	24.89	-1.0
US50	9.33	-0.3	1.76	5.3	3.78	-3.6	0.22	-3.6	0.31	-15.0	4.62	2.88	20.02	-0.1
Canada	0.80	-3.8	0.13	-0.8	0.29	3.9	0.22	-26.1	0.05	2.2	0.74	-5.62	2.23	-6.1
Mexico	0.78	1.1	0.09	8.3	0.34	-8.8	0.03	-39.9	0.13	-10.8	0.53	-6.71	1.89	-4.5
OECD Europe	1.83	-1.7	1.32	-0.1	4.93	-2.1	1.61	7.5	0.92	4.0	3.65	3.27	14.27	0.9
Germany	0.42	-3.9	0.20	-3.2	0.76	-5.0	0.41	2.9	0.10	-6.6	0.62	-1.56	2.52	-2.7
United Kingdom	0.26	2.1	0.32	1.2	0.49	3.2	0.13	1.3	0.02	-16.5	0.29	0.24	1.51	1.5
France	0.18	1.0	0.14	-0.4	0.73	-2.8	0.28	10.6	0.06	-0.7	0.35	3.42	1.73	1.1
Italy	0.17	-3.4	0.10	5.5	0.48	-0.5	0.08	-8.4	0.08	19.2	0.39	4.67	1.30	1.6
Spain	0.11	-1.6	0.12	1.8	0.47	-3.6	0.17	-2.5	0.14	2.8	0.28	5.36	1.29	-0.2
OECD Asia & Oceania	1.54	-0.5	0.95	-9.6	1.48	4.1	0.49	-10.9	0.58	-1.7	3.15	-6.21	8.19	-3.9
Japan	0.88	-0.2	0.54	-16.5	0.46	5.3	0.35	-10.4	0.30	-0.5	1.49	-8.17	4.02	-6.1
Korea	0.21	-1.0	0.19	1.0	0.41	2.9	0.09	-16.2	0.23	-2.7	1.44	-5.60	2.57	-3.6
Australia	0.32	-1.1	0.16	2.6	0.54	4.8	0.00	0.0	0.03	-9.2	0.15	4.76	1.20	2.4
OECD Total	14.44	-0.6	4.32	-0.2	11.04	-1.9	2.61	-2.0	2.12	-2.0	12.81	-0.30	47.35	-0.9

* Including US territories

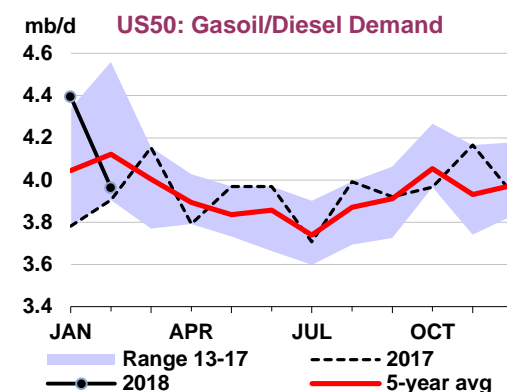
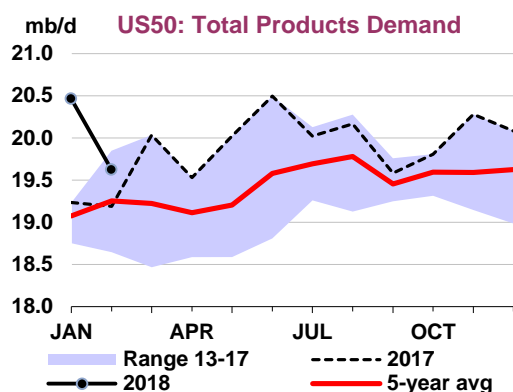
However, preliminary data for March show a slowdown in Europe and US demand to slightly below last year, reflecting in part warmer weather in the US. Low temperatures in the US triggered a rebound in heating oil demand in April.

Americas



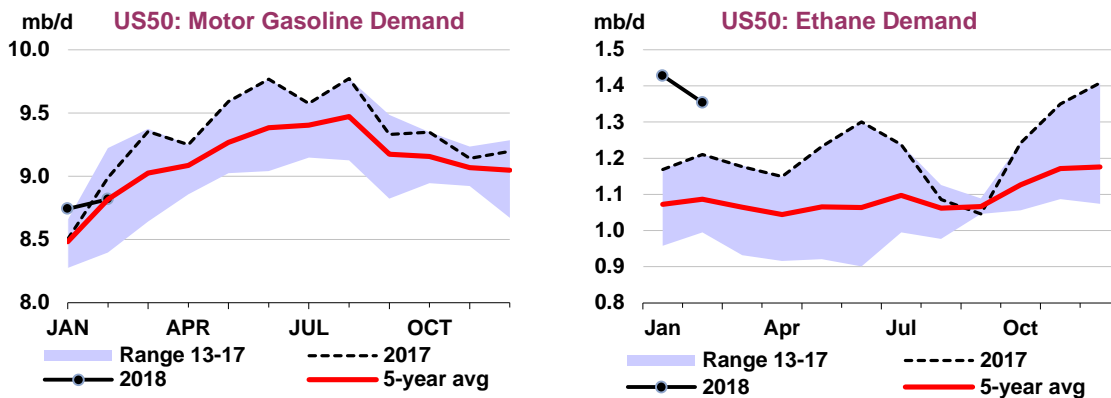
US oil demand rose by 435 kb/d year-on-year (y-o-y) in February after an increase of 1.23 mb/d in January. LPG/ethane continues to show strong growth, thanks to robust petrochemical sector, but gasoline and gasoil slowed significantly. Preliminary data (weekly estimates) point to a y-o-y decline in March but with a strong rebound in April, due to low temperatures.

Jet fuel demand rose by 70 kb/d y-o-y in February, after gains of 20 kb/d in January. The International Air Transport Association reported growth of 6.2% y-o-y in US domestic air transport in February after a weak January. In March, domestic revenue passenger miles rose by 4.7% y-o-y. Weekly data point to a moderate growth in jet kerosene demand in March (90 kb/d y-o-y), slowing to 65 kb/d in April.



US Department of Energy data shows a strong increase in LPG/ethane demand, up by 400 kb/d y-o-y in February, reflecting the start-up of the new Dow ethane cracker (1.5 mt/y capacity) at Freeport, Texas in 4Q17. Ethane demand should get a further boost in 2Q18 with the commissioning of Exxon-Mobil's Baytown cracker (1.5 mt/y capacity) and Chevron Phillips Cedar Bayou, Texas, 1.5 mt/y cracker.

US gasoil demand rose by 60 kb/d y-o-y in February. Diesel demand continues to be supported by strong global trade: the CPB world trade monitor shows an increase of 7.4% y-o-y in the volume of US imports in February. Manufacturing production rose by 4.3% y-o-y in February. Weekly data point to a drop of 3.6% y-o-y in gasoil demand in March but a jump of 7.0% in April, as heating oil demand was supported by low temperatures.



Gasoline demand fell by 170 kb/d y-o-y in February with the Department of Transportation reporting a small contraction in travel demand of 0.1% y-o-y. Traffic in the North Central and South Gulf contracted by 3.1% and 1.5% respectively. Weekly data point to a small drop of 0.3% in gasoline demand in March and an increase of 0.8% in April.

Canada's oil demand rose by 5 kb/d y-o-y in February as diesel demand growth more than offset a drop for gasoline. **Mexico's** demand continues to decline, posting y-o-y drops in February and March of 65 kb/d and 90 kb/d, respectively.

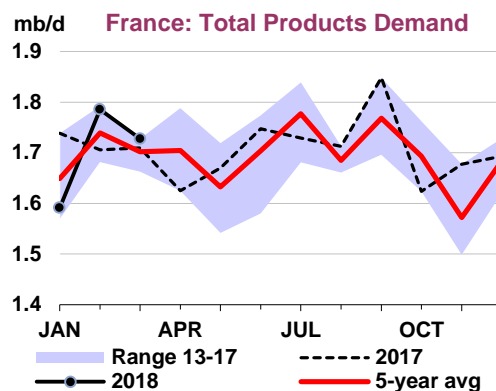
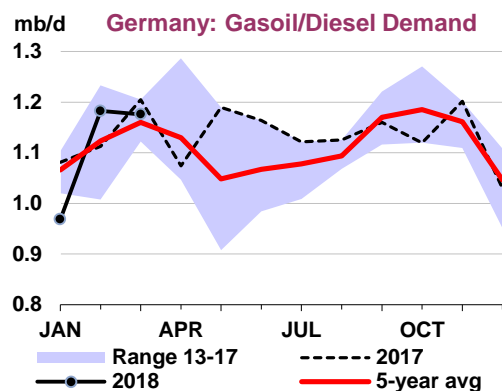
North American demand is expected to slow in 2Q18 (75 kb/d) after a strong 1Q18 (450 kb/d). LPG/ethane demand was up 335 kb/d y-o-y in 1Q18 and it should remain 150 kb/d higher than last year in 2Q18. Gasoline demand is expected to switch from growth of 25 kb/d in 1Q18 to a drop of 60 kb/d in 2Q18. Gasoil demand, benefiting from severe weather conditions, increased by 160 kb/d in 1Q18 and should slow to growth of 40 kb/d in 2Q18. Total North American oil demand, after growing by 140 kb/d in 2017, is expected to increase by 205 kb/d in 2018, supported by robust economic activity, especially in the petrochemical sector.

Europe

European oil demand rose by 700 kb/d y-o-y in February, on strong LPG and gasoil deliveries. Preliminary data point to slower growth by 125 kb/d in March.

After a drop of 180 kb/d y-o-y in January, gasoil deliveries rose by 415 kb/d y-o-y in February. A swing in temperature explains the changes in demand. Mild temperatures and a gasoil price spike in January explain low deliveries with these factors reversing in February. In March, preliminary data point to an increase of 125kb/d y-o-y in total deliveries.

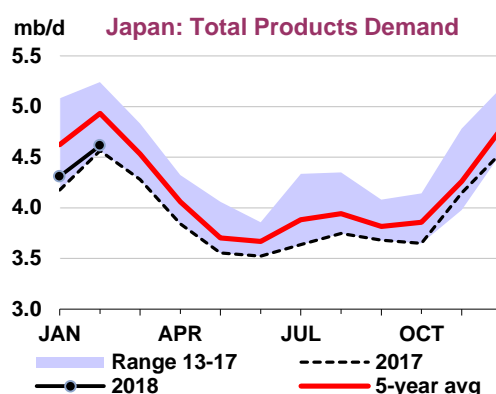
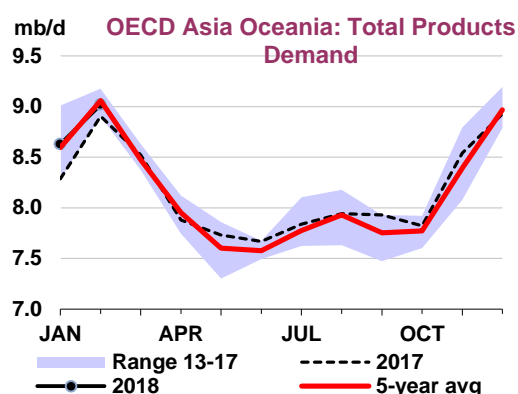
In **Germany**, oil demand rose by 65 kb/d in February. Historical data have been revised down by 35 kb/d for the year 2017 and, in particular, demand in 1Q17 was revised down by 90 kb/d. Naphtha, to a lesser extent, diesel account for most of the revisions. The data collection methodology seems to have changed in 2018 and, while we await further clarification, the January and February gasoline and naphtha data were not considered in this forecast. Oil demand in **France** increased by 80 kb/d in February, with heating oil deliveries up by 50 kb/d after a drop of 95 kb/d y-o-y in January. Heating degree-days in February were 50% higher than last year. Preliminary data point to an increase of 20 kb/d y-o-y in March. In **Italy**, oil demand rose in February and March, by 70 kb/d and 20 kb/d, respectively. Diesel demand data for February has been corrected and is 25 kb/d higher than last year. **Spain's** oil demand showed exceptional growth of 80 kb/d in February, supported by heating oil deliveries, with heating degree-days 43% higher than last year. March and April heating degree-days were also 30% above last year.



Overall, we expect 1Q18 demand growth of 210 kb/d in Europe, slowing to 70 kb/d in 2Q18, as winter weather ceases to provide support. Overall, European oil demand growth should slow to 95 kb/d in 2018 from 295 kb/d in 2017.

Asia Oceania

Asia Oceania demand rose by 115 kb/d y-o-y in February. Preliminary data point to a sharp decline of 330 kb/d in March, explained by weak naphtha and jet-kerosene deliveries.



Japanese oil demand declined by 260 kb/d in March, according to preliminary data, after an increase of 50 kb/d in February, on lower kerosene and naphtha deliveries. Demand dropped by roughly 85 kb/d in 2017 and we expect a further decline of 65 kb/d in 2018. **South Korean** demand rose by 20 kb/d in February and dropped by 100 kb/d in March, on low naphtha deliveries. Naphtha demand in East Asia was penalised by petrochemical plant turnarounds and competition from LPG.

In **Australia**, oil demand continues to grow strongly, rising by 115 kb/d y-o-y in January and 30 kb/d in February. Diesel demand has been increasing since the start of 2017, in part supported by the restarting of several coal mines at the end of 2016. Demand for other products remained stagnant.

OECD Asia oil demand increased by 40 kb/d in 1Q18 and is expected to rise by 20 kb/d in 2Q18. For the year as a whole, following growth of 40 kb/d in 2017, demand should contract by 40 kb/d in 2018.

Non-OECD

Several large non-OECD countries showed strong growth in 1Q18 with India particularly impressive. In other countries, e.g. Pakistan and Egypt, the switch to natural gas in power generation is displacing oil.

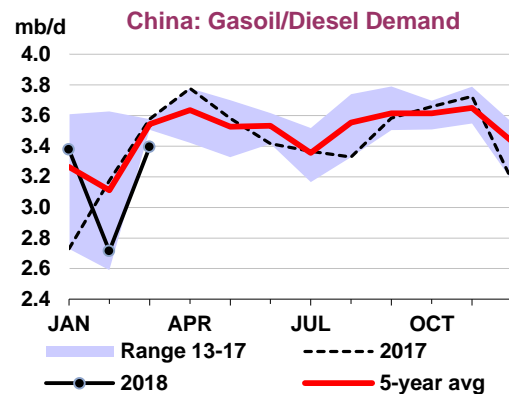
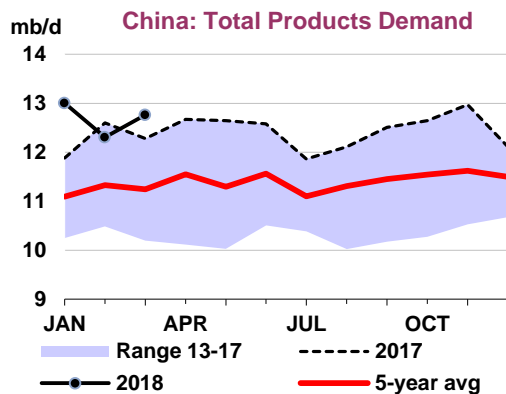
Non-OECD: Demand by Product

(thousand barrels per day)

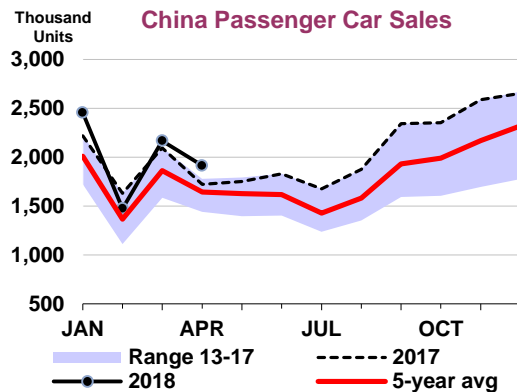
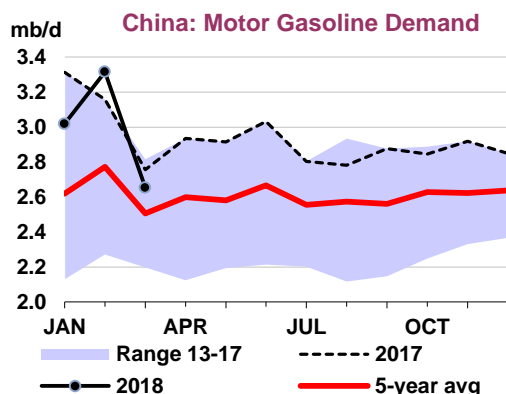
	Demand		Annual Chg (kb/d)		Annual Chg (%)		
	3Q17	4Q17	1Q18	4Q17	1Q18	4Q17	1Q18
LPG & Ethane	6,300	6,506	6,587	84	249	1.3	3.9
Naphtha	2,717	2,890	2,919	155	85	5.7	3.0
Motor Gasoline	11,350	11,419	11,374	297	130	2.7	1.2
Jet Fuel & Kerosene	3,204	3,008	3,212	60	84	2.0	2.7
Gas/Diesel Oil	14,731	14,830	14,323	209	272	1.4	1.9
Residual Fuel Oil	5,169	4,953	5,024	-220	-224	-4.2	-4.3
Other Products	7,205	6,915	7,084	528	588	8.3	9.1
Total Products	50,675	50,521	50,523	1,113	1,184	2.3	2.4

China

Chinese oil demand bounced back in March by 485 kb/d y-o-y after weak demand in February due to the New Year holiday. For 1Q18 as a whole, Chinese demand rose by 460 kb/d y-o-y.



We have revised some assumptions and data used in the computation of Chinese demand, resulting in small downward revisions for 2016 (20 kb/d) and 2017 (45 kb/d). In general, demand was revised down in the first quarter of the year and slightly up in the subsequent quarters.



Gasoline apparent demand fell sharply in March after February's peak level, with demand in 1Q18 believed to have been 90 kb/d below last year's level. Diesel demand in 1Q18 was up by 20 kb/d y-o-y. Industrial production growth declined to 6% in March, its slowest pace since the start of 2016. Trade indicators (new export orders) are weak in recent months. Data for April even show falling orders. Kerosene demand rose by 30 kb/d y-o-y, supported by strong aviation demand. Domestic air traffic rose by 15% y-o-y in March.

In the short term, we expect Chinese oil demand growth to slow from 460 kb/d in 1Q18 to 310 kb/d in 2Q18, and for the year as a whole growth should slow to 435 kb/d from 610 kb/d in 2017.

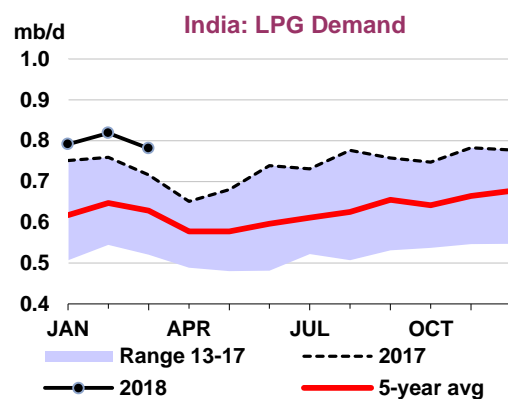
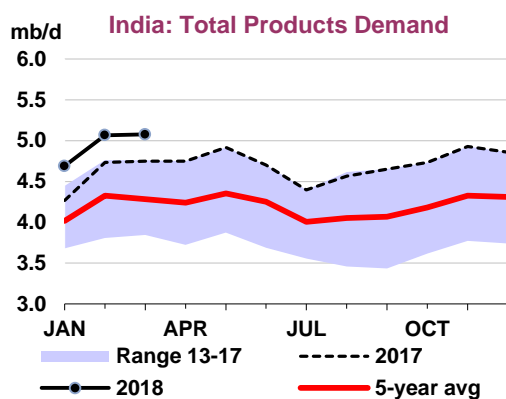
China: Demand by Product

(thousand barrels per day)

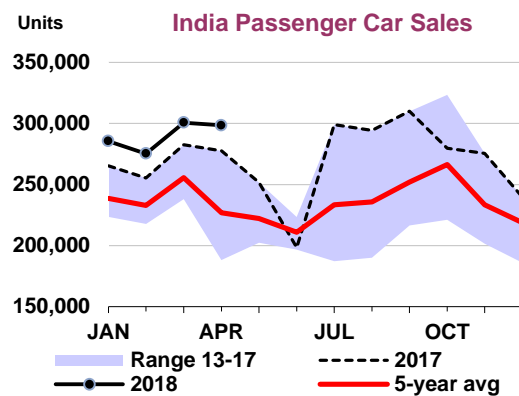
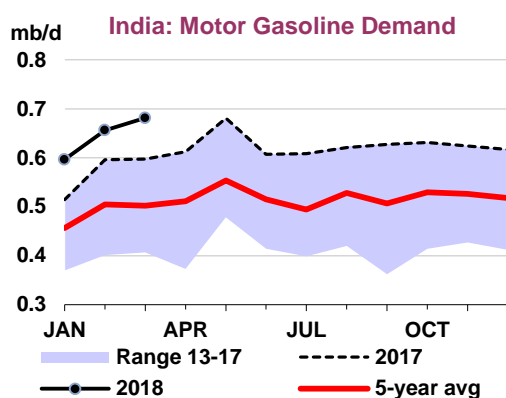
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2016	2017	2018	2017	2018	2017	2018
LPG & Ethane	1,497	1,627	1,705	130	78	8.7	4.8
Naphtha	1,110	1,169	1,223	59	54	5.4	4.6
Motor Gasoline	2,846	2,930	2,985	84	55	2.9	1.9
Jet Fuel & Kerosene	637	702	749	65	47	10.3	6.7
Gas/Diesel Oil	3,409	3,424	3,464	15	40	0.5	1.2
Residual Fuel Oil	324	371	375	48	3	14.7	0.9
Other Products	1,968	2,178	2,336	210	158	10.7	7.3
Total Products	11,790	12,402	12,837	612	435	5.2	3.5

Other Non-OECD

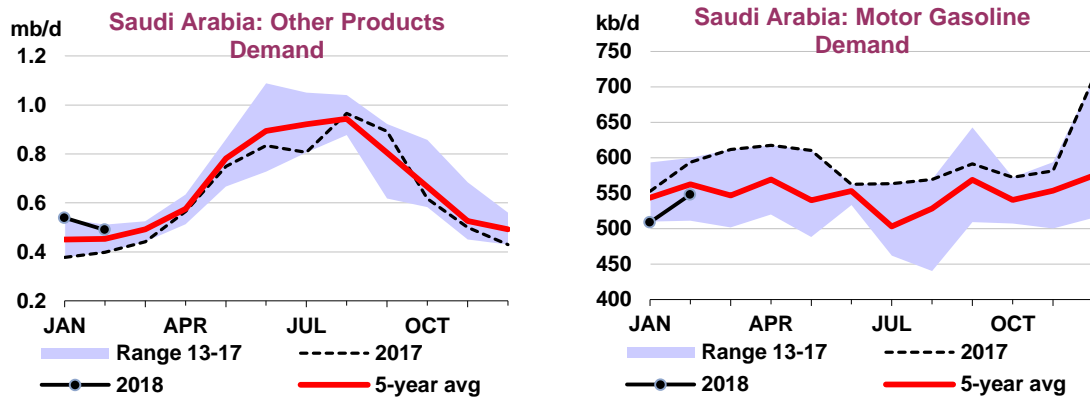
India's oil demand rose by a strong 335 kb/d in March, contributing to a growth of 360 kb/d in 1Q18. A very strong increase in gasoil deliveries (150 kb/d) is primarily responsible.



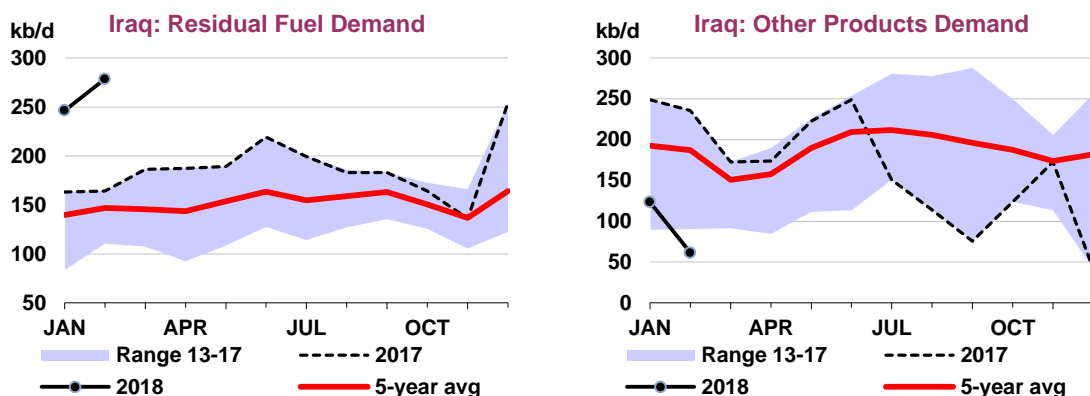
LPG demand grew by 55 kb/d in 1Q18, as government policies supported growth in the residential sector. Kerosene demand declined slightly during the quarter, as heating grades were replaced by LPG, while jet fuel received support from booming air transport. India continues to post global records in domestic air traffic growth: after rising by 23% in February, Indian revenue passenger kilometers rose by 28% in March. Gasoline demand also posted strong growth of 75 kb/d in 1Q18 on robust car sales.



Our overall oil demand forecast for India in 2018 is largely unchanged: following growth of 125 kb/d in 2017, we will see an acceleration to 300 kb/d this year. All the factors that contributed to a slowdown in 2017 are now behind us e.g. demonetisation, the imposition of the Goods and Service Tax, and the IMF forecasts a rebound in economic growth in 2018 to 7.4%.

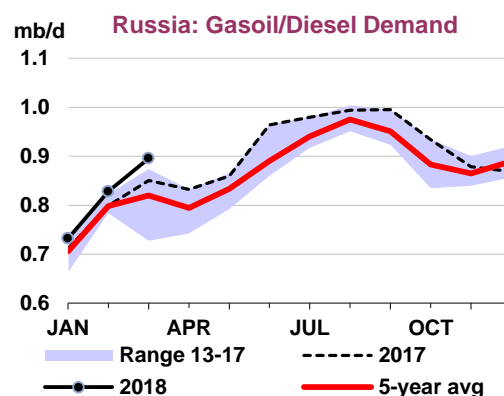
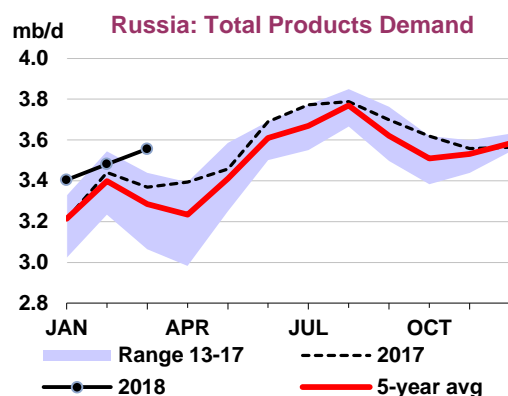


Saudi Arabian oil demand was particularly weak in February. Gasoline demand declined by 45 kb/d y-o-y, probably reflecting the impact of a sharp increase in domestic prices at the start of the year. Gasoil demand remained very weak, and was down 110 kb/d down y-o-y. Crude oil direct use, by contrast, rose by 90 kb/d y-o-y.



Iraq's fuel oil demand remained very strong in February, increasing by 115 kb/d y-o-y, confirming the assumption that Iraq crude oil is being replaced in the power sector not only by natural gas but also by fuel oil. Direct crude use remained low in February, around 50 kb/d down y-o-y. We have increased our forecast for fuel oil demand in Iraq by roughly 45 kb/d through the end of 2018. We still expect a sharp slowdown in fuel oil demand and crude direct use at the end of the year, as more natural gas from Iran becomes available.

Russian oil demand data were very strong in March, showing an increase of 190 kb/d y-o-y. Both gasoil and gasoline demand gained 45 kb/d. Demand is set to increase by 70 kb/d in 2018 after growth of 30 kb/d in 2017.



Data from the **Pakistan** Oil Companies Advisory Council show a small rebound in fuel oil demand in March. Demand in the first 10 months of 2017 was 180 kb/d, and from November 2017 to March 2018 it fell to 80 kb/d as a second LNG terminal was commissioned. A third LNG terminal should start up in 2019.

Egypt reported weak demand data for February. Gasoil demand was 30 kb/d down y-o-y, gasoline demand 15 kb/d down and fuel oil demand 55 kb/d lower. Weak fuel oil demand reflects the switch to natural gas in the power sector. Lower gasoline deliveries reflect demand reaction to last summer's subsidy cuts that formed part of an IMF-backed reform program.

Brazil's oil demand rose strongly in March (85 kb/d m-o-m), reaching its five-year historical average. The economic environment improved in 2017 and the IMF raised its forecast for economic growth in 2018 by 0.4 percentage points to 2.3%. Our forecast for oil demand growth has been revised upwards by 30 kb/d to 50 kb/d, to reach 3.14 mb/d.

Non-OECD: Demand by Region

(thousand barrels per day)

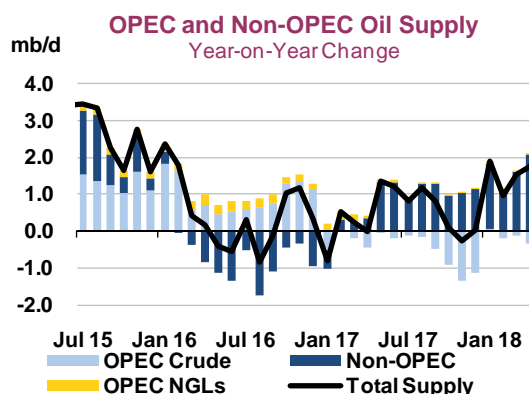
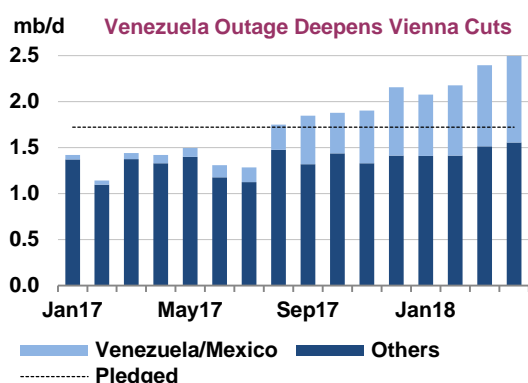
	Demand		Annual Chg (kb/d)		Annual Chg (%)		
	3Q17	4Q17	1Q18	4Q17	1Q18	4Q17	1Q18
Africa	4,235	4,323	4,450	5	33	0.1	0.8
Asia	25,411	26,088	26,334	1,184	961	4.8	3.8
FSU	4,955	4,811	4,607	-1	156	0.0	3.5
Latin America	6,679	6,577	6,462	42	17	0.6	0.3
Middle East	8,645	7,977	7,937	-145	-12	-1.8	-0.1
Non-OECD Europe	751	745	733	29	28	4.1	4.0
Total Products	50,675	50,521	50,523	1,113	1,184	2.3	2.4

SUPPLY

Summary

Venezuela’s production collapse has tightened the global oil market more quickly than many anticipated even with robust non-OPEC supply growth and now there is additional uncertainty following the withdrawal of the US from the Iran nuclear deal. Iran, the world’s fifth largest oil exporter, is currently producing 3.82 mb/d of crude and shipping 2.4 mb/d to world markets. Including condensates and NGLs, Iranian output is nearly 4.8 mb/d, or close to 5% of global oil supply.

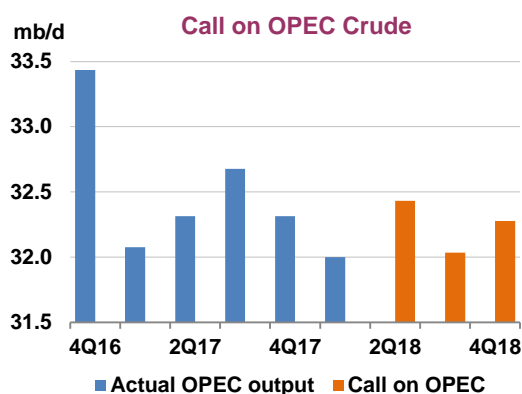
The freefall in Venezuela has already pushed compliance with the Vienna Agreement off the charts and, together with losses in Mexico, accounts for almost 40% of the 2.5 mb/d that was removed from the market in April. That is before the re-imposition of sanctions by the US on Iran. Exports of Iranian crude were cut by more than 1 mb/d when international sanctions were in force from 2012-15, but only time will tell the extent of the disruption this time round (see *Iran supply uncertainty increases as US revives sanctions*).



During April, world oil supply held steady near 98 mb/d, but was up 1.78 mb/d on a year ago thanks to booming non-OPEC supply. Record output from the US pushed non-OPEC supplies up 2.1 mb/d above year ago levels, with supply edging up month-on-month (m-o-m) to stand at 59.4 mb/d. Heavy maintenance in Canada was more than offset by continued growth in the US and seasonally rising global biofuels production.

The plunge in Venezuelan supply dragged OPEC oil output down 340 kb/d on the previous year. Venezuela’s crude oil output has sunk to 1.42 mb/d, the lowest level since the early 1950s, and continued declines could cut capacity by several hundred thousand barrels a day by the end of this year – just as the market feels the full impact of US sanctions on Iran.

It is then, too, that the call on OPEC crude climbs back to 32.3 mb/d, 610 kb/d more than the group is currently pumping. From now through the end of the year, the call on OPEC stands an average 580 kb/d above April output, implying steep stock draws should OPEC crude output remain at current levels.



So far, Saudi Arabia and core Gulf producers have not ramped up output to compensate for Venezuela’s losses. OPEC crude oil production in April fell by 130 kb/d to 31.65 mb/d, due mostly to further losses in Venezuela

and African member countries. Gulf producers continue to pump below or near their agreed supply targets. However, immediately following the US decision to quit the nuclear agreement with Iran, Saudi Arabia vowed to work with major OPEC and non-OPEC producers as well as major consumers to “mitigate the impact” of any potential shortages.

So far, the US and Canada, which together added 1.8 mb/d to world supplies in 1Q18 compared with a year ago, are helping to offset the unintended declines in Venezuela and Mexico. While production will continue to ramp up, this may not be enough to compensate for potentially steeper losses. Elsewhere in non-OPEC, growth from Brazil and Kazakhstan is offset by lower production from Mexico, China and other Asian producers.

As for the US, already impressive growth of 1.6 mb/d in 2018 is bumping up against emerging infrastructure constraints that could cap gains. Furthermore, independent producers are showing little enthusiasm to drill more wells despite higher prices and are instead prioritising capital discipline and shareholder returns. Overall non-OPEC supply this year is expected to expand by a hefty 1.87 mb/d.

Parties to the Vienna Agreement, scheduled to meet on 22 June, have signalled they intend to keep supply cuts in place until the end of 2018. Should a decision be taken to remove the cuts, only Saudi Arabia, the UAE, Kuwait and Russia are likely to be capable of a quick ramp up of substantial volumes. The four producers pumped at record rates ahead of the supply cuts and could, in theory, increase output by a combined 1.3 mb/d in short order. As of April, OPEC’s spare production capacity was 3.47 mb/d – defined as the level that can be reached within 90 days and sustained for an extended period - with Saudi Arabia accounting for roughly 60% of the total.

OPEC / Non-OPEC Output Compliance¹

(million barrels per day)

	Mar 2018 Supply	Apr 2018 Supply	Supply Baseline ²	Agreed Cut	April Actual Cut	March Compliance	April Compliance	Average Compliance	Sustainable Production Capacity ⁵	Spare Capacity vs Apr Supply
Algeria	0.98	0.99	1.09	-0.05	-0.10	218%	198%	103%	1.08	0.09
Angola	1.52	1.50	1.75	-0.08	-0.25	296%	322%	172%	1.58	0.08
Ecuador	0.52	0.52	0.55	-0.03	-0.03	108%	108%	79%	0.54	0.02
Equatorial Guinea	0.13	0.12	0.14	-0.01	-0.02	83%	167%	113%	0.13	0.01
Gabon	0.21	0.20	0.20	-0.01	0.00	-89%	22%	5%	0.21	0.01
Iran ³	3.81	3.82	3.71	0.09	0.11	NA	NA	NA	3.85	0.03
Iraq	4.44	4.41	4.56	-0.21	-0.15	58%	72%	45%	4.75	0.34
Kuwait	2.70	2.71	2.84	-0.13	-0.13	105%	98%	101%	2.93	0.22
Qatar	0.60	0.60	0.65	-0.03	-0.05	160%	160%	137%	0.63	0.03
Saudi Arabia	9.92	9.92	10.54	-0.49	-0.62	128%	128%	121%	12.04	2.12
UAE	2.87	2.87	3.01	-0.14	-0.14	103%	103%	73%	3.20	0.33
Venezuela	1.47	1.42	2.07	-0.10	-0.65	628%	681%	225%	1.46	0.04
Total OPEC 12	29.17	29.08	31.11	-1.18	-2.03	165%	172%	110%		
Libya ⁴	0.99	0.98							1.02	0.04
Nigeria ⁴	1.62	1.59							1.70	0.11
Total OPEC	31.78	31.65							35.12	3.47
Azerbaijan	0.80	0.79	0.815	-0.04	-0.03	55%	80%	77%		
Kazakhstan	1.94	1.95	1.805	-0.02	0.14	-677%	-714%	-301%		
Mexico	2.12	2.10	2.400	-0.10	-0.30	283%	296%	190%		
Oman	0.97	0.98	1.019	-0.05	-0.04	100%	94%	93%		
Russia	11.35	11.35	11.597	-0.30	-0.25	82%	83%	81%		
Others ⁵	1.23	1.26	1.224	-0.05	0.04	-3%	-77%	44%		
Total Non-OPEC	18.40	18.42	18.859	-0.55	-0.44	84%	80%	85%		

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

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

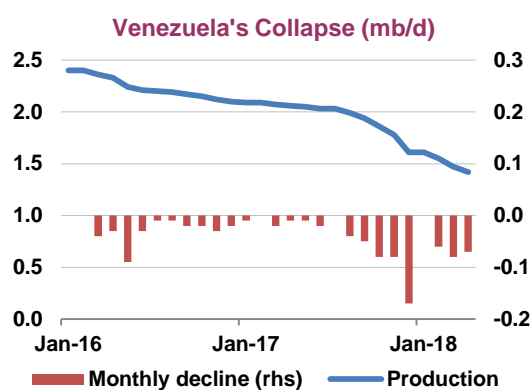
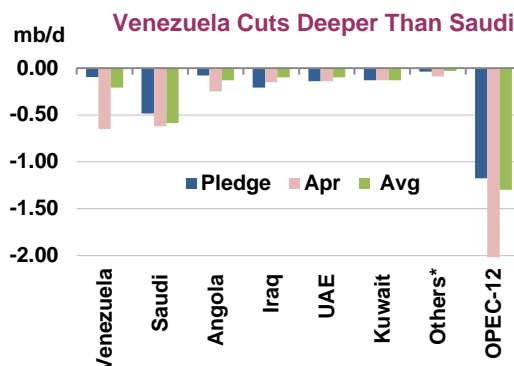
³ Iran was given a slight increase. ⁴ Libya and Nigeria are exempt from cuts. ⁵ Bahrain, Brunei, Malaysia, Sudan and South Sudan.

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

OPEC crude oil supply

Further losses in Venezuela and African member countries cut OPEC crude production by 130 kb/d to 31.65 mb/d in April, down 380 kb/d on the previous year. Deepening declines in **Venezuela** saw its production drop 650 kb/d below the October 2016 baseline for cuts, slightly more than Saudi Arabia's reduction. In just over two years, 1 mb/d of production has been lost as the oil sector deteriorates.

Output in April fell 50 kb/d m-o-m to stand at 1.42 mb/d — down 640 kb/d on a year ago - and conditions appear to be worsening. Upgraders operated by foreign joint-venture partners in the vast Orinoco heavy oil belt are running below capacity as the multiple challenges of sourcing diluents, payment woes, corruption issues, equipment break-downs and staff security grow tougher. Output from Venezuela's ageing conventional oil fields is also fast declining.

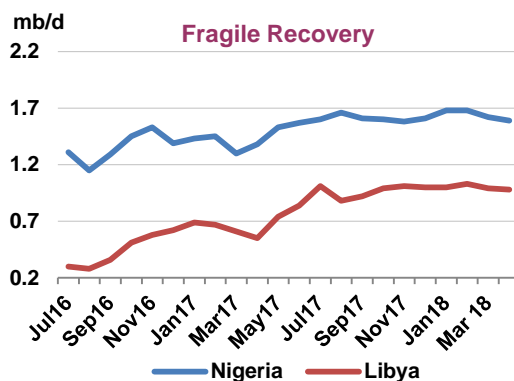


To make matters worse, Petroleos de Venezuela (PDVSA) has seen droves of its employees leave their jobs due to low wages and safety and security concerns. The Petrocedeno heavy oil joint venture is now producing 70 kb/d of crude compared to capacity of 120 kb/d partly because there are not enough people to manage operations.

There is also the potential for additional US sanctions targeting PDVSA following Venezuela's 20 May presidential election. Washington has already enforced economic measures that impair Venezuela's ability to

finance projects and pay back debt. With the oil sector spiralling deeper into crisis, it is possible that capacity could fall by several hundred thousand barrels a day by the end of the year. Production in **Ecuador** was unchanged from the previous month at 520 kb/d.

African producers, collectively, posted the largest decline for a second straight month, with output down 70 kb/d m-o-m. Output in Nigeria and Libya slipped for a second month running, although combined April output was up 640 kb/d compared to a year ago. **Nigerian** supply eased 30 kb/d in April to 1.59 mb/d along with lower exports. A lull in the militant attacks that cut supply in the summer of 2016 to a 30-year low allowed output to rise 210 kb/d above April 2017 levels. **Libyan** supply inched down to 980 kb/d with little impact from an explosion on a pipeline that links to the Es Sider export terminal. Flows are likely to fluctuate due to the rundown state of the industry and ongoing unrest. Output in **Angola** edged down to 1.50 mb/d, the lowest since March 2014, due mostly to natural declines. A rebound is expected later this year after the ramp up of Total's \$16 billion Kaombo project. At its peak, the ultra-deep-water field is expected to pump 230 kb/d. Production crept lower in **Equatorial Guinea** and **Gabon** to 120 kb/d and 200 kb/d, respectively. **Algeria** posted the only increase among African producers, with output inching up to 990 kb/d following maintenance work at the Hassi Berkine South oil field.



Production from **Iraq** slipped to 4.41 mb/d in April along with lower exports. Crude oil shipments from the south fell 110 kb/d to 3.34 mb/d mostly due to weather-related delays and maintenance at a loading facility. The Basra-area fields have been pumping more to make up for lower northern output. Iraqi forces regained control over the northern oil fields of Kirkuk in mid-October and output at core fields (over 250 kb/d) has been shut-in. Sales of northern crude via the Kurdistan Regional Government (KRG) pipeline to Turkey held at around 320 kb/d in April. Iraq's exports and production could be substantially higher if Baghdad and Erbil were able to reach a lasting political deal to use the Kurdish pipeline.

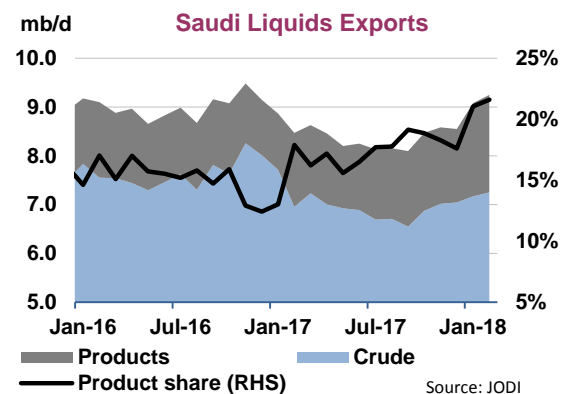
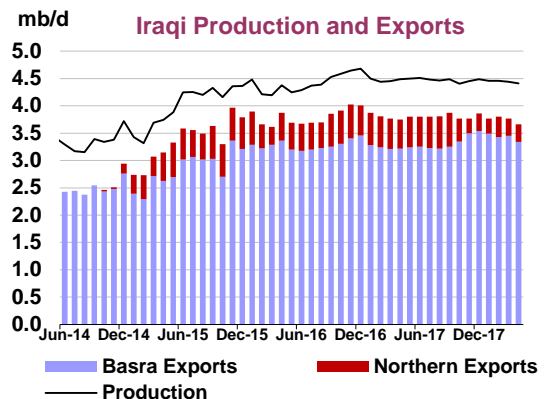
In a bid to boost production from the north, the ministry of oil and BP have agreed to expand the scope of their agreement to develop Kirkuk to include the Kurdish-controlled Khurmala dome as well as the neighbouring fields of Bai Hassan, Jambour and Khabbaz. The aim is to boost output at Kirkuk to 1 mb/d from roughly 300 kb/d now. BP will carry out technical and geological surveys and a comprehensive evaluation of the fields, wells, facilities and pipelines to resolve any technical problems, increase oil production and develop the associated gas.

Iraq meanwhile awarded six of 11 blocks on offer in its fifth licensing round for border oil and gas fields and exploration blocks, although it failed to lure the oil majors. Five of the exploration blocks on offer near the borders with Iran and Kuwait and in the offshore failed to attract bids. Three went to UAE-based Crescent Petroleum, two to China's Geo-Jade, and one to United Energy Group, also based in China. Eni made two unsuccessful bids.

Output held steady m-o-m in **Saudi Arabia** at 9.92 mb/d, leaving compliance with cuts well above 100%. The Kingdom has consistently pumped below its target and has pledged to sustain lower levels and hold crude exports below 7 mb/d through May. Saudi Aramco shipped an average 7 mb/d of crude oil to world markets last year, down 680 kb/d on 2016, after it made sharp reductions to customers in the US.

Buyers in Asia have been largely spared from cuts and shipments to China rose in 2017. From now on, however, that may not be the case. Sinopec, the world's largest refiner, reportedly intends to cut Saudi crude oil imports by 40% for a second straight month in June after Aramco set a higher-than-expected price for Arab Light crude. The monthly formula price rose by \$0.70/bbl to a premium of \$1.90/bbl to the Oman/Dubai average for June loadings of its flagship grade to Asia, the highest in nearly four years.

The latest data from the Joint Organisations Data Initiative (JODI), meanwhile, show shipments of Saudi crude in February rose to 7.25 mb/d, up 80 kb/d m-o-m, and the highest level since January 2017 as lower domestic consumption allowed for higher exports (see *Refining*). Shipments of products have been trending higher and February saw a fresh record of 2 mb/d, up 90 kb/d on January. Total oil sales rose to 9.25 mb/d in February, up 170 kb/d m-o-m, with products accounting for 22%. On the domestic front, the amount of crude used in power plants edged up 16 kb/d m-o-m to 343 kb/d in February, up 60 kb/d on a year earlier.



Production was broadly steady elsewhere in the Gulf and remained near or below OPEC supply targets. Output in **Qatar** held at 600 kb/d and at 2.87 mb/d in the **UAE**. Supply inched up to 2.71 mb/d in **Kuwait**. In a bid to boost production capacity, Kuwait plans to launch an offshore effort as early as 2019. Most of Kuwait's oil is produced onshore, with the giant Burgan field at the core. The UAE is also pressing ahead with its upstream expansion. The Abu Dhabi National Oil Co (Adnoc) has signed a deal with Inpex to become the asset leader of the 400 kb/d Lower Zakum offshore field, in which it acquired a 10% share earlier this year. An Indian consortium led by Oil & Natural Gas Corp. and China National Petroleum Corp also hold 10% stakes, while Eni and Total have 5% each. Adnoc will retain a 60% stake. As asset leader, Inpex will supervise the ramp up of Lower Zakum to 450 kb/d over the coming years.

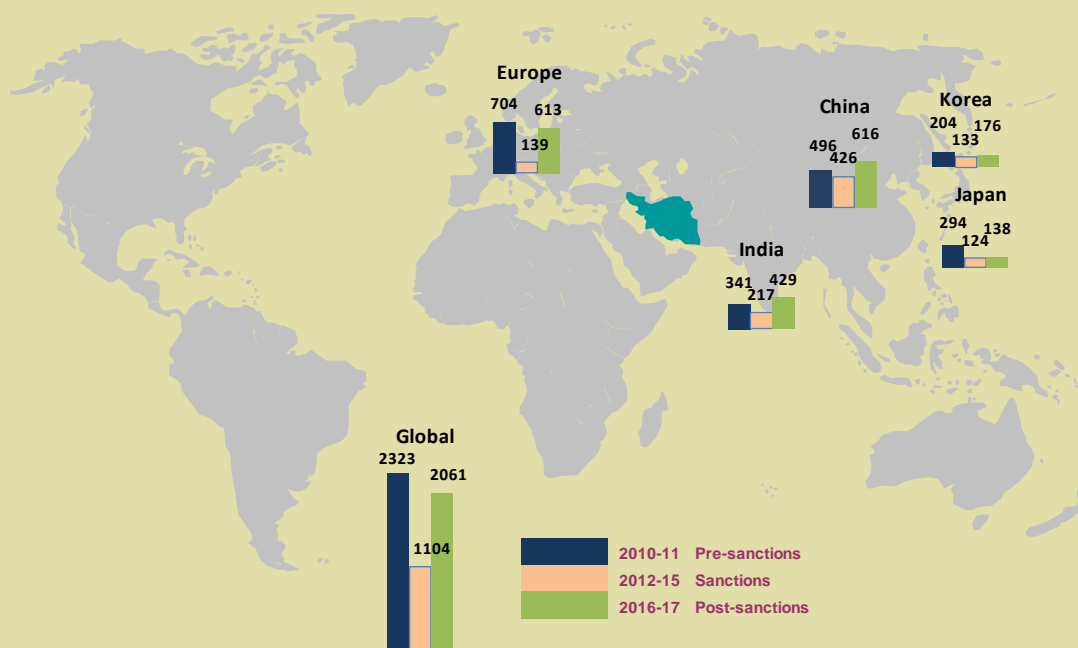
Iran supply uncertainty increases as US revives sanctions

The US on 8 May withdrew from the Joint Comprehensive Plan of Action (JCPOA) regulating Iran's nuclear activities and announced the "highest level" of sanctions against OPEC's third largest producer. The JCPOA eased international sanctions in exchange for Tehran curbing its nuclear ambitions. Iran in April was pumping 3.82 mb/d of crude, up a touch on the previous month. Shipments of crude oil surged nearly 200 kb/d on the month to 2.4 mb/d, according to tanker tracking data, perhaps in anticipation of Washington's move. Some of that volume may have been shifted out of storage.

Only time will tell how much volume will be removed by Washington's re-imposition of sanctions. The new measures will not be enforced for six months to give customers, traders and banks time to wind down their business. The full scope of sanctions compliance also remains unclear.

Iran Crude Sales 2010-2017

Thousand barrels per day



Source: Lloyd's List Intelligence, Kpler, IEA

Amidst the uncertainty, however, foreign companies are unlikely to finalise contracts for new investments in Iran or to enter into long-term sales contracts. Prior to the end-2015 JCPOA, international sanctions cut crude exports by more than 1 mb/d. Some 80% of Iran's crude oil shipments of roughly 1 mb/d of crude were moving into Asia, with China the top customer. Sales to Europe slowed to a trickle. After the removal of sanctions in 2016, Iran's oil production bounced back very quickly and it swiftly reclaimed its European customer base.

Crude oil exports this year have averaged around 2.1 mb/d with a further 0.3 mb/d of condensates exports. Buyers in Asia account for 65% and Europe the remainder. China is by far the biggest lifter, with average purchases of 650 kb/d, followed by India with 475 kb/d. Both are importing more Iranian crude now than

Iran supply uncertainty increases as US revives sanctions (continued)

before sanctions were imposed. Within Europe, Turkey, France and Italy are major consumers of Iranian crude oil. Korea lifts big volumes of condensates.

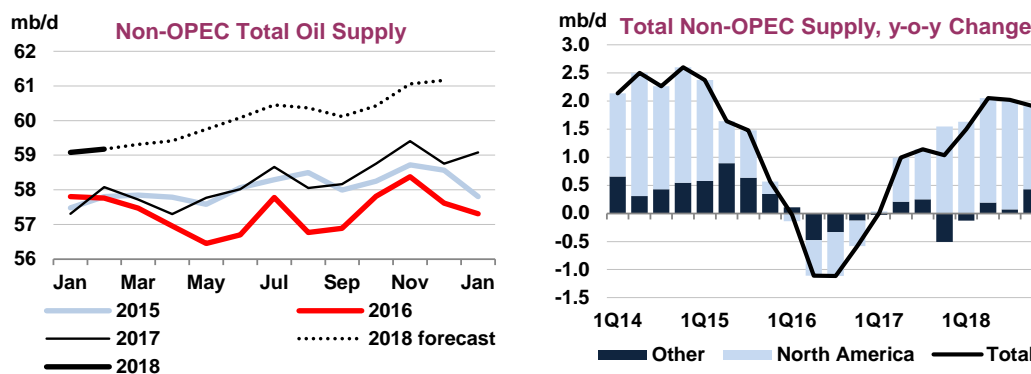
As for potential alternative sources of supply, Saudi Arabia, along with neighbours Kuwait and the UAE, and Russia have the capacity to respond swiftly and with similar-quality crude to a cutback in Iranian exports. Iraq captured much of Iran's lost market share in Europe during sanctions, but some 250 kb/d of its capacity is offline in northern Iraq due to an ongoing dispute between the federal government and the KRG. US LTO could help replace condensates.

Based on Iran's hydrocarbon reserves, it has the potential to produce more than the current volumes of nearly 5 mb/d of crude, condensates and NGLs. Iran is seeking to raise production by attracting foreign companies after years of underinvestment due to the sanctions. It is negotiating with companies from Europe, Russia and Asia with hopes of securing new upstream contracts. So far, only one deal has been signed with a Western major: Total for Phase 11 of the giant offshore South Pars gas field, though a final investment decision is still pending.

Non-OPEC overview

After expanding by 1.5 mb/d y-o-y on average in 1Q18, preliminary estimates suggest the pace of non-OPEC supply growth accelerated in April to 2.1 mb/d. As has been the case since 4Q17, the United States and Canada accounted for virtually all the net growth, with the rest of non-OPEC flat to declining.

During 1Q18, production disappointed in both the North Sea and Brazil, while output restraint from Russia offset gains in Kazakhstan. Supplies also continued to fall in China and in other Asian countries, so regional output was 190 kb/d lower than a year earlier. Mexico saw the largest decline of all the non-OPEC producers, with its production falling 175 kb/d, or 8%, from a year earlier.



Recent data show better than expected performance from the US and Canada. In their latest quarterly earnings and operational updates, US independents highlighted impressive well performance in new shale developments and continued efficiency improvements in drilling operations, which, together with higher prices, underpin an improved outlook for the sector. Concerns about cost inflation and infrastructure bottlenecks, especially in the Permian Basin, alongside a focus on investor returns are expected to limit additional growth this year. US crude oil output is nevertheless forecast to rise by more than 1.3 mb/d in 2018, 0.1 mb/d higher than in last month's *Report*. US NGL production will add another 315 kb/d of growth.

Canadian oil production is also growing strongly, despite also facing takeaway capacity constraints. During 1Q18 output was more than 200 kb/d higher than a year earlier, with the Hebron offshore field and several oil sands projects ramping up. Maintenance at upgrading and bitumen mining sites in April and May likely saw output fall sharply, however, alleviating some of the pressure on export capacity.

Indeed, the discount of WCS to WTI eased during April and May to \$15/bbl from as high as \$31/bbl reached in February, supported also by increased utilisation of the Keystone pipeline that had been running at reduced rates since late last year.

As for the 10 non-OPEC countries party to the Vienna Agreement, compliance with agreed cuts slipped to 80% from 84% a month earlier in April, removing 440 kb/d from the market. Russia's output cut was unchanged from March, accounting for 250 kb/d, or more than half the total. The largest decline nevertheless came from Mexico, which has seen its production fall by nearly 300 kb/d, compared with a pledge of 100 kb/d, from the October 2016 baseline. Kazakhstan's output is estimated to have risen by 140 kb/d over the same period. Higher flows from Sudan, South Sudan and Malaysia further diluted overall cuts.

Non-OPEC Supply

(million barrels per day)

	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Americas	19.5	19.9	19.8	20.2	21.2	20.3	21.6	21.7	22.2	22.7	22.0
Europe	3.5	3.7	3.5	3.4	3.4	3.5	3.5	3.4	3.3	3.5	3.4
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	23.7	24.0	25.0	24.2	25.5	25.4	25.9	26.6	25.9
Former USSR	14.2	14.4	14.3	14.3	14.4	14.4	14.5	14.5	14.3	14.4	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	3.9	3.9	3.8	3.8	3.9	3.8	3.8	3.8	3.7	3.8
Other Asia	3.6	3.5	3.4	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.4
Latin America	4.5	4.6	4.5	4.5	4.5	4.5	4.5	4.6	4.7	4.8	4.6
Middle East	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Africa	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.8
Total Non-OECD	29.3	29.5	29.3	29.2	29.3	29.3	29.3	29.4	29.3	29.4	29.3
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	1.9	2.4	2.8	2.4	2.4	2.1	2.5	2.8	2.5	2.5
Total Non-OPEC	57.4	57.7	57.7	58.3	59.0	58.2	59.2	59.7	60.3	60.9	60.0
Annual Chg (mb/d)	-0.7	0.0	1.0	1.1	1.0	0.8	1.5	2.1	2.0	1.9	1.9
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.1

In all, non-OPEC oil supplies are expected to expand by 1.87 mb/d this year, an upward revision of 85 kb/d since last month's *Report*.

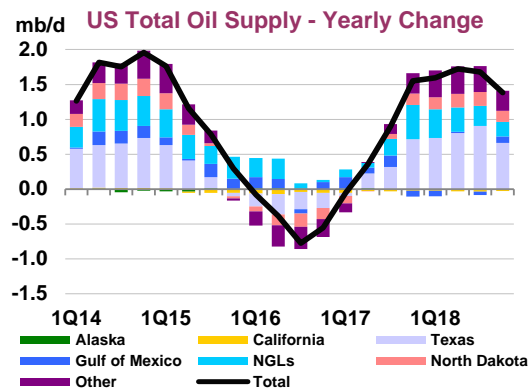
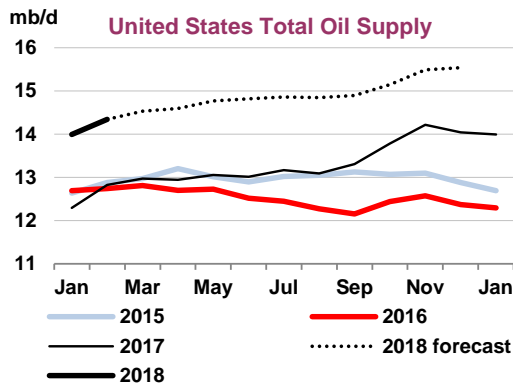
OECD

North America

US total oil supply rose by 345 kb/d m-o-m in February, to a fresh all time high of 14.34 mb/d, on continued expansion in the shale patch and as output recovered from weather-related shut-ins a month earlier. Crude and condensate production bounced 260 kb/d higher with Texas (+106 kb/d), the Gulf of Mexico (+89 kb/d) and New Mexico (+46 kb/d) accounting for most of the gains. Output in North Dakota eased to 1.15 mb/d but stood close to the record 1.2 mb/d produced in December 2014. At 10.26 mb/d, US crude output was 1.2 mb/d above a year earlier, roughly in line with annual gains seen since November. A rebound was also seen in the output of NGLs, which increased 198 kb/d m-o-m to more than 4 mb/d. NGL production has been supported by the start-up of new petrochemical facilities and has been rising by an average 470 kb/d y-o-y since October.

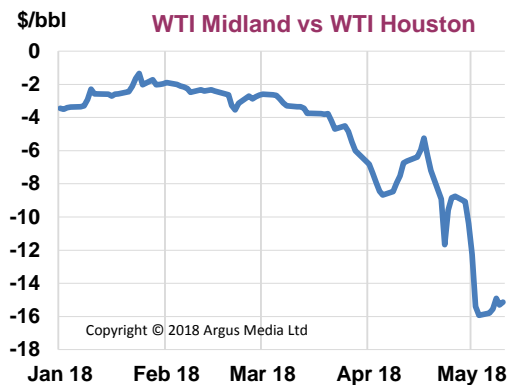
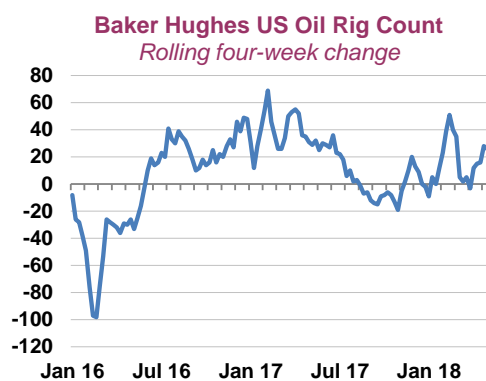
During their latest earnings updates, US independents e.g. Pioneer Natural Resources, Marathon Oil, Continental Resources, Occidental and EOG highlighted continued efficiency improvements and better well performance in the Permian and Oklahoma. Several companies said they expected a boost in

production and well productivity in 2018, though few raised spending plans for the year, prioritising instead shareholders' call for higher dividends and share buybacks.



Pioneer said it is contemplating increasing its capital budget and adding more rigs during the second half of the year, due to good results from its advanced Permian well completion designs in West Texas. Marathon raised its production growth guidance from 20-25% to 25-30% while keeping its spending unchanged. Devon hiked its growth guidance for 2018 to 16% from 14% due to a combination of efficiency gains and improving well productivity in the Delaware and STACK. Occidental, the largest producer in the Permian, equally raised its production guidance while maintaining earlier capital expenditures plans. Instead, Occidental said it would allocate cash from rising oil prices to shareholder returns. While exceeding its production targets in 1Q18, EOG kept both spending and production guidance for the year unchanged saying it would maintain its focus on dividend growth.

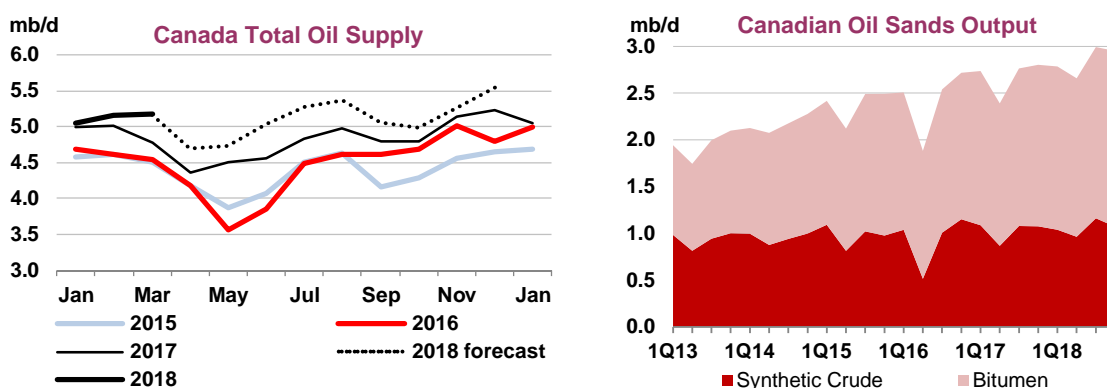
Along with capital discipline, infrastructure constraints are likely to limit upward revisions to already extensive expansion plans. By early May, the discount of WTI priced at Midland compared to Houston reached a record \$16/bbl and little new takeaway capacity is expected before mid-2019. Pioneer said that the pipelines currently planned to take oil and gas from the booming Permian and West Texas will not be enough to relieve anticipated bottlenecks in the coming years and that more pipelines must be built to move oil to the US Gulf Coast market.



US historical production data has been slightly revised since last month's Report, with 2017 output 34 kb/d higher. Crude oil production in February was 120 kb/d higher than previously expected following a 90 kb/d month-on-month increase in Gulf of Mexico output. Tight oil output was largely in line with previous estimates. NGL production rebounded to above 4 mb/d, for only the second time on record. In February, NGL production was 420 kb/d higher than a year earlier and 200 kb/d above January's output. Ethane production, which hit an all-time high of 1 605 kb/d, drove the output gains, contributing 53% of the annual increase.

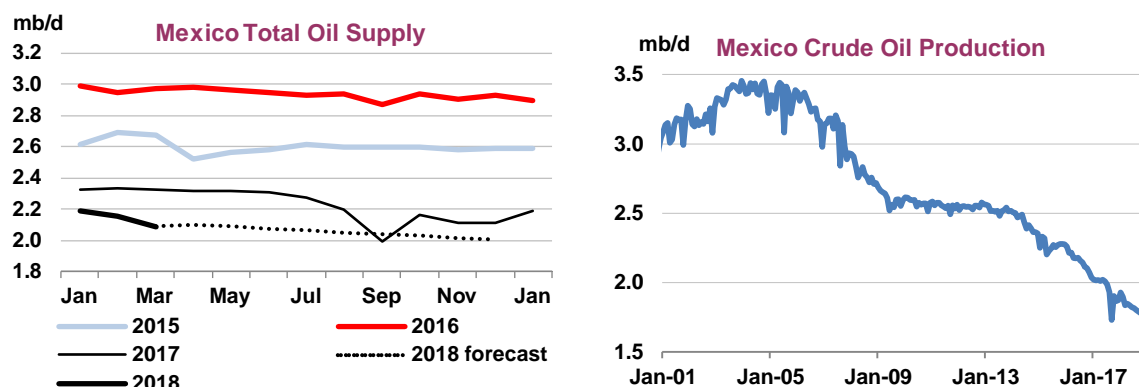
Canadian oil production held steady in March, near a record 5.2 mb/d, despite reports that oil sands producers scaled back output due to steep price discounts for Canadian grades compared to WTI in Cushing. Supply of non-upgraded oil sands rose by 42 kb/d m-o-m to 1.8 mb/d – a new record – more than offsetting slightly lower output of upgraded production. Higher output from Suncor’s Fort Hills likely contributed with the company announcing that the second of three extraction trains at the project became operational at the end of the quarter. Suncor now expects to achieve 90% of nameplate capacity ahead of an earlier schedule set for the end of the year.

Output likely fell sharply in April and May however, as maintenance at oil sands facilities intensified. Suncor has announced maintenance of both its U1 upgrader and the Syncrude facility in 2Q18. The combined impact of the works is expected to curb output by 110 kb/d on average for the quarter, with the sharpest drop in April. Maintenance is also underway at Shell’s 255 kb/d Scotford upgrader.



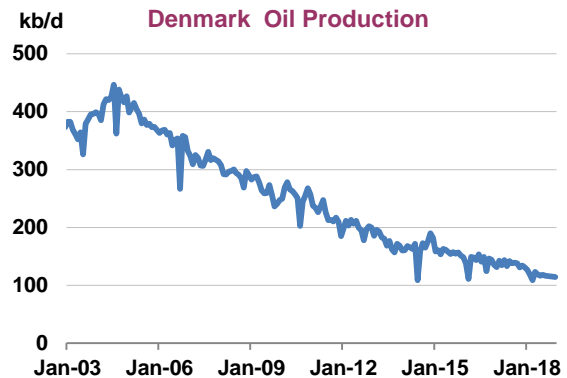
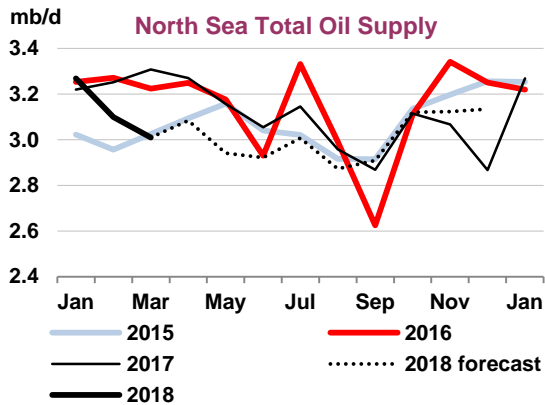
Later in the year, heavier than usual maintenance at offshore platforms is expected to curb output in the Atlantic province. The Hibernia platform, which produced an average of 145 kb/d in 2017, is planning a 45-day turnaround from September. White Rose and North Amethyst fields (40 kb/d combined) plan for a three-week maintenance period starting in the second quarter while Terra Nova (30 kb/d) plans a three-week turnaround in 3Q18. Offshore output should nevertheless rise this year, as the Hebron field, which saw its first oil in December, ramps up from March’s output of 50 kb/d to its 150 kb/d capacity.

Mexican crude oil output dropped by 30 kb/d m-o-m in March to 1.86 mb/d, from 1.90 mb/d in February. While declines were broad-based, the largest fall was recorded from the Ku-Maloob-Zaap fields, down 26 kb/d m-o-m, and the Cantarell complex, where output was 7 kb/d lower. The latest data show total oil output 210 kb/d below a year earlier and 280 kb/d lower than the October 2016 baseline for the Vienna Agreement under which Mexico pledged to cut production by 100 kb/d. Oil output is forecast to average 2.08 mb/d this year, a decline of 150 kb/d compared with 2017. Preliminary April production data was not available at the time of writing.



North Sea

North Sea oil output lagged year-earlier levels by 134 kb/d, or 4%, in 1Q18, averaging just over 3.1 mb/d. Most of the decline stemmed from **Norway**, which saw output fall by 114 kb/d compared with a year earlier to 1.96 mb/d, but also from **Denmark** where production fell to its lowest level since 1990. Danish oil production dropped to 109 kb/d in March, taking 1Q18 output 13% below a year earlier. Production peaked at 415 kb/d in 2004 and averaged 137 kb/d last year. The Danish Energy Authority projected output to decline to 141 kb/d in 2018 and 129 kb/d for 2019. **UK** output, meanwhile, was unchanged y-o-y in 1Q18, at 1.06 mb/d, but has fallen sharply from its January peak of 1.13 mb/d to 1.01 mb/d in March.

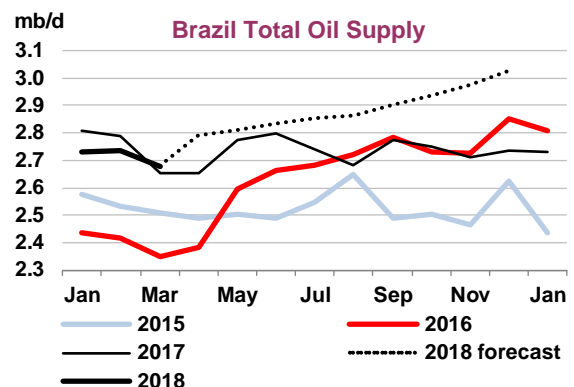


North Sea output could fall further in May, on heavy maintenance and as the unexpected three-day closure of the Brent loading terminal at Sullom Voe forced all of Brent's contributing fields, including those piped to the terminal through the Ninian pipeline, to close. Repairs to the terminal had been completed by 6 May, allowing loadings to resume.

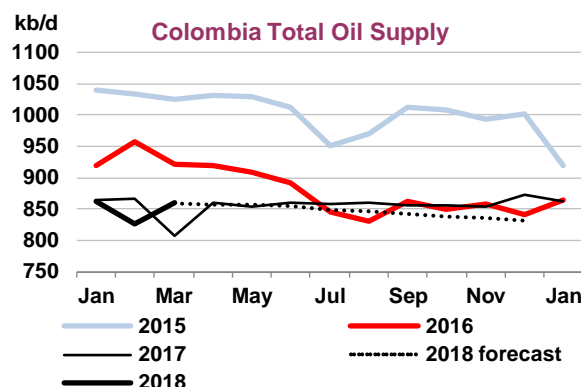
Non-OECD

Latin America

Brazilian oil production fell by 60 kb/d m-o-m in March, to 2.7 mb/d, as maintenance constrained output at the Lula field in the Santos Basin and Campos Basin output continued to fall. While flows from Lula eased by 18 kb/d from February's 850 kb/d record high due to maintenance at the Cidade de Angra dos Reis floating production, storage and offloading vessel (FPSO), it stood 193 kb/d higher than a year earlier. The largest month-on-month drop came from the Peregrino field, where output fell by 31 kb/d to 39 kb/d. Campos Basin declines are currently running around 13% per year while onshore output is declining at around 15%. Brazilian oil supplies are nevertheless set for significant growth later in the year. In May, Petrobras reported first oil from the prolific Buzios field, via the 150 kb/d P-74 FPSO. The FPSO is the first of five planned for the field. Another two identical units are scheduled to start up later in the year, followed by a fourth in 2019 and the last one by 2021. Petrobras is also nearing production start-up at the Tartaruga Verde field. The Cidade de Campos dos Goytacazes FPSO is reportedly on its way to the field after environmental permits were issued and production is expected to start in June. Petrobras is also set to take delivery of the P-67 to be deployed at Lula North later this month. Petrobras admitted that the planned start-up of the P-68 FPSO in the Berbigao field later in 2018 could possibly slip to the first part of 2019.

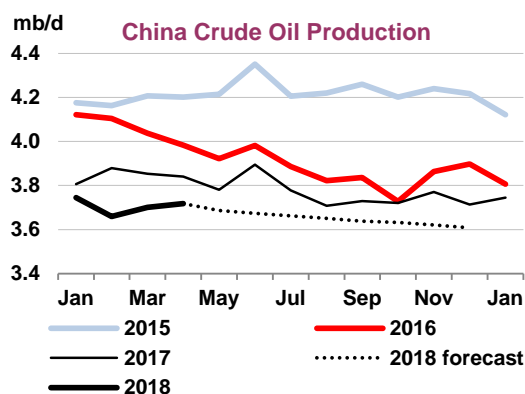


Colombian oil output rebounded to 860 kb/d in March, from 825 kb/d in February and the 2017 low of 805 kb/d reached a year ago. Production has been constrained by public protests and attacks on infrastructure, but the country's largest producer, Ecopetrol, announced it has accelerated activity at several of its oil fields to make up for last year's output fall. In February, the company was forced to suspend production at three fields in the Meta province due to protests and sabotage. The Cano Limon-Covenas pipeline was halted in January after a bomb attack. In its first quarter financial update, Ecopetrol said it had taken a series of measures to ramp up output. The company is also moving forward a project at the Apiay field, which had been scheduled for 2019, and water injection work at the Chichimene field. Ecopetrol plans to invest between \$3.5 billion and \$4 billion in 2018 to as it reboots production and exploration after severe cutbacks following the oil price decline in 2014.



Asia

Chinese crude oil production averaged 3.7 mb/d in April, roughly unchanged from the 1Q18 average according to consolidated data from the National Bureau of Statistics. Output was 125 kb/d lower than a year earlier, with the biggest declines seen in the Heilongjiang province, where China's largest field, Daqing, is located. Output at Daqing fell by nearly 40 kb/d, in 1Q18, or 5%. Output was also lower in the



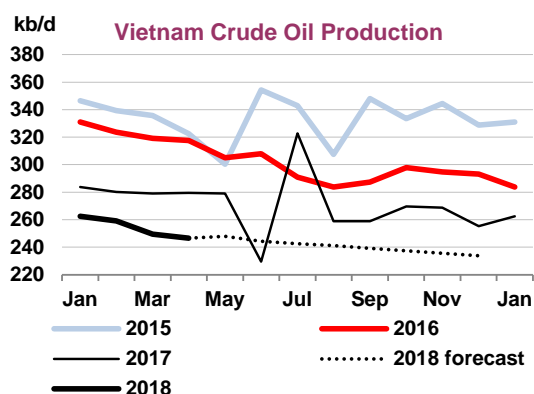
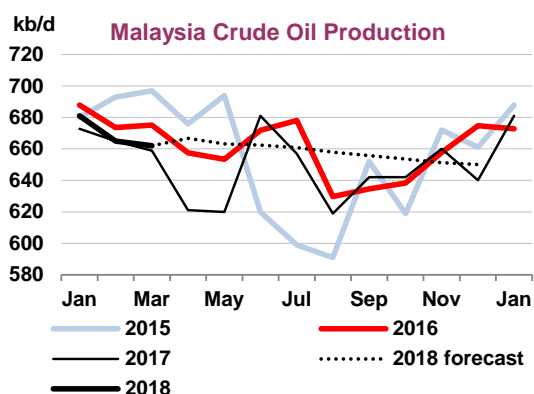
Guangdong province, which accounts for most of the offshore production. In contrast, Shengli production (Shangdong) held steady at around 425 kb/d.

PetroChina, the largest producer said its domestic crude oil output fell by 1.8% in 1Q18 compared with a year earlier. The company expects growth from overseas acquisitions and natural gas production to offset declines in its domestic crude oil output this year. CNOOC's domestic liquids production fell by 3.2%, or 24 kb/d in 1Q18 y-o-y, to 727 kb/d. Higher natural gas and overseas production offset the decline, however, so that the

company's total hydrocarbon production rose marginally. CNOOC increased its capital expenditures to \$1.5 billion in the quarter from \$1.25 billion last year according to its latest investor update. The company expects to start five new projects in 2018, of which two will be offshore. The Weizhou 6-13 oil field in the Western South China Sea already started production and the Penglai 19.-3 adjustment project will start up during the second half of the year. Together, the two projects will add roughly 40 kb/d of capacity, going some way to offset declines at mature fields. Sinopec, meanwhile, marginally raised its domestic crude oil output in 1Q18, producing 683 kb/d at home compared with 674 kb/d in 1Q17. This was partially offset by a drop in overseas production.

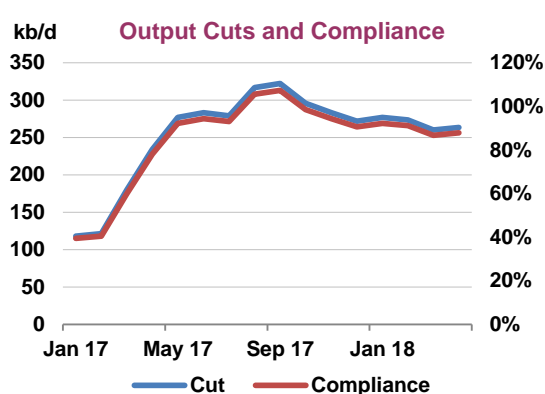
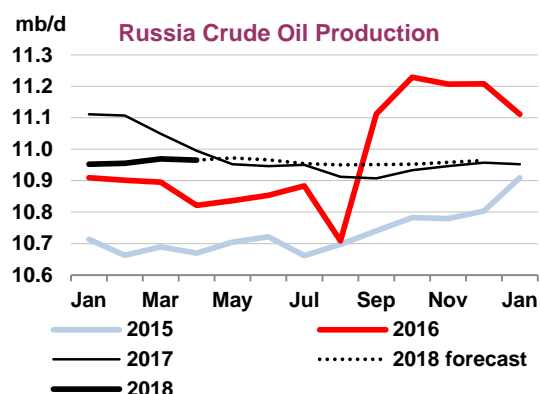
Elsewhere in Asia, crude oil production in **Malaysia** averaged 669 kb/d over the first quarter of 2018, 30 kb/d higher than in October 2016, the baseline for the Vienna Agreement. Malaysia pledged to reduce output by 20 kb/d. **Vietnam's** crude oil output was estimated by the government to have fallen to 247 kb/d in April, down 33 kb/d, or 12%, from a year earlier and 10 kb/d below the 1Q18 average. In **Indonesia**, crude and condensate production averaged 777 kb/d over January-February, 33 kb/d lower than the same period a year earlier. The country failed to meet its 2017 crude oil production target of 815 kb/d, producing only 801 kb/d and set a lower target for crude and condensate production this year

at 800 kb/d. In the first quarter, Indonesia's crude oil liftings reached 750 kb/d according to the upstream regulator SKK Migas. Liftings tend to be lower than production, with January-February average liftings reported at 715 kb/d, or some 60 kb/d below production.



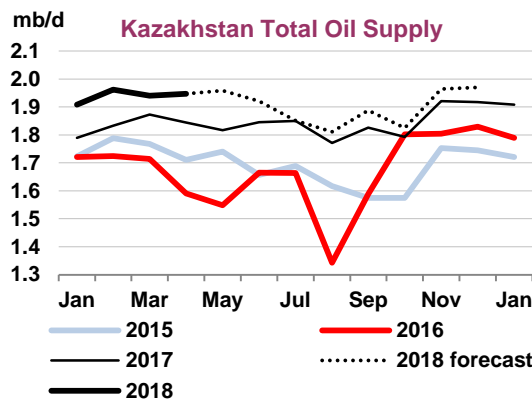
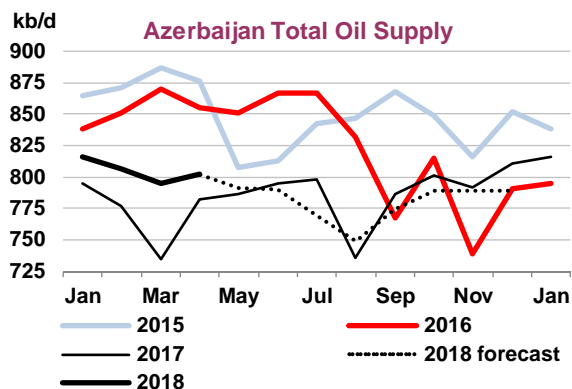
Former Soviet Union

Russian crude and condensate production held steady at around 10.97 mb/d in April, unchanged from an 11-month high in March and 50 kb/d above its target set by the Vienna Agreement to curb output. While confirming Russia's ongoing commitment to the Agreement, energy minister Alexander Novak has said that "technically, Russia can ramp up production quickly" once the agreement ends, as the country has accumulated significant spare capacity. He has also pointed out that Russian companies understand the necessity to ensure a gradual exit from the deal.



Depending on the outcome of the upcoming June meeting of Vienna Agreement producers, Rosneft could launch three fields this year, including Tagulskoye, Russkoye and Kuyumbinskoye as well as the second phase of Taas-Yuryakh. The four projects could add a combined 360 kb/d of production by 2022. The Kondinskoye and Yurubcheno-Tokhomsokoye fields launched by Rosneft last year could bring on another 140 kb/d as early as 2019. Rosneft has warned however, that it could delay the commissioning and ramping up of the new projects if the Vienna Agreement is extended beyond the end of the year. Gazprom Neft, the fastest growing oil company, has said it would be able to restart production at oil wells mothballed under the Agreement in two to three days of the pact expiring. Mikhail Cherevko, the head of Gazpromneft-Khantos, the company's largest production unit, located in Western Siberia, said the firm halted output from the least efficient wells in line with the oil production restraints.

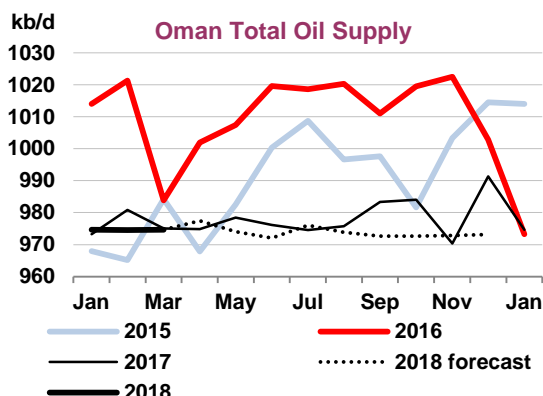
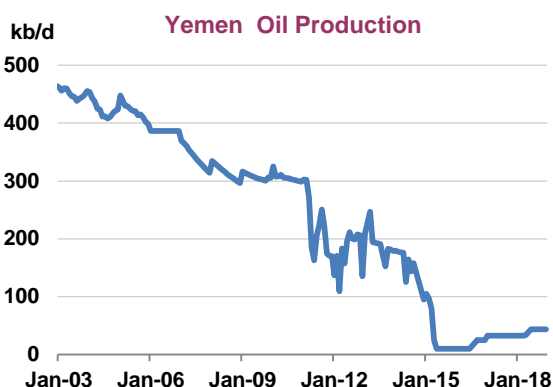
Azerbaijan's oil production fell to 785 kb/d in April, from 795 kb/d a month earlier, on lower output of condensates from Shah Deniz. Condensate production fell to 30 kb/d last month, compared with around 50 kb/d produced normally. Output was 4 kb/d higher than a year ago and 7 kb/d above the target set under the output cut agreement.



In neighbouring **Kazakhstan**, oil production held steady at around 1.95 mb/d in April. According to official figures, output at Kashagan dropped to 240 kb/d, after having reached an all-time high of 269 kb/d in February. Production of Karachaganak condensates also fell, while Tengiz volumes held steady at 654 kb/d, offset by higher output from other fields. Total supplies stood 103 kb/d above a year-earlier and 140 kb/d higher than the Vienna Agreement baseline, with virtually all of the increase coming from Kashagan. Kashagan output is set to fall in July due to maintenance at the Bolashak onshore processing complex. The Tengiz field will undergo maintenance in August while works are planned for Karachaganak in September-October.

Middle East

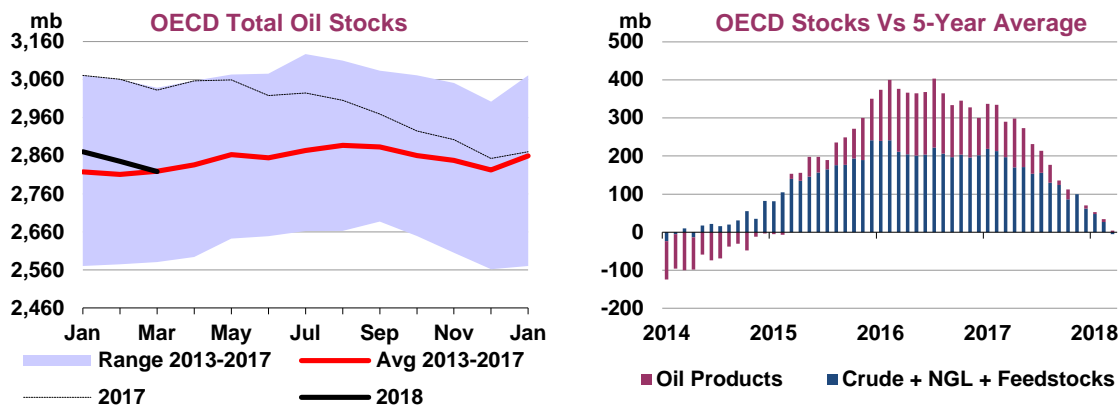
Oman’s crude and condensate production held steady at 967 kb/d for a third consecutive month in March, perfectly in line with its agreed cut of 45 kb/d from the October 2016 baseline. Petroleum Development Oman (PDO), the largest producer, plans to invest \$20 billion over the next four years, including \$4.1 billion this year, to sustain oil and gas output. PDO, which is a joint venture between the government, Shell, Total and Partex, produced 582 kb/d in 2017, or 60% of the country’s total. Investment projects include the Rabab Harweel integrated project that will add 60 kb/d of oil capacity from 2019. In Yemen, meanwhile, OMV restarted oil production at Habban field in the Shabwa basin in April. OMV reportedly plans to ramp-up output to 10-12 kb/d. The majority of Yemen’s oil production in 2017, estimated at 33 kb/d, came from the Blocks 10 and 14 in the east of the country, operated by state firm PetroMasila. OMV would be the first foreign operator to return to the country after IOCs left when conflict erupted in 2015.



STOCKS

Summary

OECD commercial stocks declined by 26.8 mb month-on-month (m-o-m) in March to 2 819 mb, their lowest level since March 2015. The drop was strongly counter-seasonal as OECD stocks typically increase slightly at this time of year. It means that, for the first time since 2014, OECD stocks were below the five-year average metric widely cited to measure the success of the OPEC/non-OPEC Vienna Agreement, by 1 mb. Since the accord was implemented, OECD stocks have declined by 233 mb.



In March, OECD crude stocks fell by 7.1 mb. There were increases in Europe (+7.5 mb) and the Americas (+1.1 mb) but a sharp fall in Asia Oceania (-15.7 mb) to an all-time recorded low owing to reduced imports. The increase seen in the Americas was less than the average for this time of year, as refiners continued to process crude at near-record rates and with high US crude exports. The increase in US crude production seen in the last year has so far failed to translate into higher crude stockpiles.

During March, OECD oil product inventories also declined, by 24.5 mb in line with seasonal patterns, due to higher demand in the northern hemisphere for motor fuels such as diesel and gasoline. Middle distillate stocks fell 13.8 mb m-o-m to 536 mb and were close to their lowest level in three years. There are only a few months left to rebuild distillate stocks ahead of the northern hemisphere summer, when demand for diesel and aviation fuels tends to increase. Gasoline stocks, meanwhile, fell 13.6 mb m-o-m in March but remain above the five-year average.

Preliminary Industry Stock Change in March 2018 and First Quarter 2018

	March 2018 (preliminary)				(million barrels per day)				First Quarter 2018			
	(million barrels)				(million barrels per day)				(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	1.1	7.5	-15.7	-7.1	0.04	0.24	-0.51	-0.23	0.02	0.18	-0.24	-0.04
Gasoline	-12.0	-1.9	0.3	-13.6	-0.39	-0.06	0.01	-0.44	0.05	0.03	0.02	0.10
Middle Distillates	-10.4	-4.7	1.2	-13.8	-0.33	-0.15	0.04	-0.45	-0.17	-0.01	-0.02	-0.20
Residual Fuel Oil	2.6	1.7	-1.0	3.3	0.08	0.05	-0.03	0.11	0.07	0.09	-0.01	0.15
Other Products	0.3	-0.7	0.1	-0.4	0.01	-0.02	0.00	-0.01	-0.34	0.02	-0.03	-0.35
Total Products	-19.4	-5.6	0.6	-24.5	-0.63	-0.18	0.02	-0.79	-0.39	0.14	-0.05	-0.31
Other Oils ¹	4.8	1.7	-1.7	4.8	0.16	0.05	-0.05	0.16	-0.06	0.05	-0.04	-0.04
Total Oil	-13.5	3.5	-16.8	-26.8	-0.44	0.11	-0.54	-0.86	-0.43	0.37	-0.33	-0.38

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Overall, for 1Q18, combined OECD commercial and government stocks fell 27.7 mb (310 kb/d). There were decreases for commercial stocks in the Americas (-38.4 mb) and Asia Oceania (-29.4 mb), but an increase in Europe (+33.3 mb) driven by higher crude and fuel oil inventories. Europe's recent stock build can be explained by a slowdown in refining activity as well as reduced fuel oil exports to Asia. OECD strategic reserves, on the other hand, increased 6.8 mb with small gains in France and the US.

In addition, oil stocks held by Chinese majors increased by a sharp 31.1 mb (nearly 350 kb/d) during the quarter, while record crude imports imply a further build in stocks held by independent refiners and for strategic purposes. China's implied build suggests that global oil stocks increased by 55.7 mb (or 620 kb/d) but as always these figures are highly uncertain due to relative lack of transparency. Preliminary data for April show modest stock increases in Japan (+4.5 mb) and the US (+0.6 mb), whereas in Europe inventories fell 4 mb. Overall, OECD stocks are unlikely to have changed significantly in that month.

1Q18 v 4Q17 Stock Estimate		
	mb	mb/d
Americas Commercial	-38.4	-0.4
Asia Oceania Commercial	-29.4	-0.3
Europe Commercial	33.3	0.4
Government Stocks	6.8	0.1
Total OECD	-27.7	-0.3
Floating storage (Gibson)	-26.6	-0.3
JODI (February)	22.9	0.3
Fujairah (FEDCom/S&P Global Platts)	1.3	0.0
Singapore (International Enterprise)	1.5	0.0
China Commercial Stocks (OGP)	31.1	0.3
Total exc China Balance	2.5	0.0
China Crude Balance	53.2	0.6
Total	55.7	0.6

OECD oil inventories were revised up by 3.5 mb in January and 4.2 mb in February, reflecting upward changes for the Americas and Asia, but which were largely offset by downward revisions in Europe.

Revisions versus April 2018 Oil Market Report

	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Jan-18	Feb-18	Jan-18	Feb-18	Jan-18	Feb-18	Jan-18	Feb-18
Crude Oil	-0.1	-2.6	-1.3	-1.6	0.4	4.3	-1.1	0.2
Gasoline	1.5	0.1	0.0	1.8	0.3	1.0	1.8	2.9
Middle Distillates	0.9	2.8	0.0	-7.6	1.1	1.0	2.0	-3.8
Residual Fuel Oil	0.2	1.8	0.0	2.9	0.0	0.1	0.2	4.7
Other Products	-0.9	7.0	0.0	-3.0	0.8	2.2	0.0	6.1
Total Products	1.7	11.6	0.0	-5.9	2.3	4.3	4.0	10.0
Other Oils ¹	1.1	-5.3	-0.5	-0.4	0.0	-0.3	0.6	-5.9
Total Oil	2.7	3.8	-1.9	-7.9	2.6	8.3	3.5	4.2

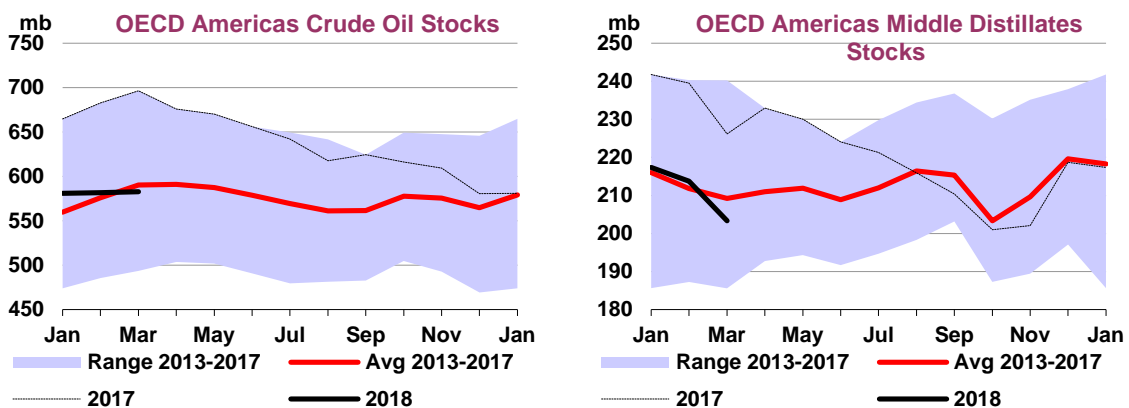
¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Recent OECD industry stock changes

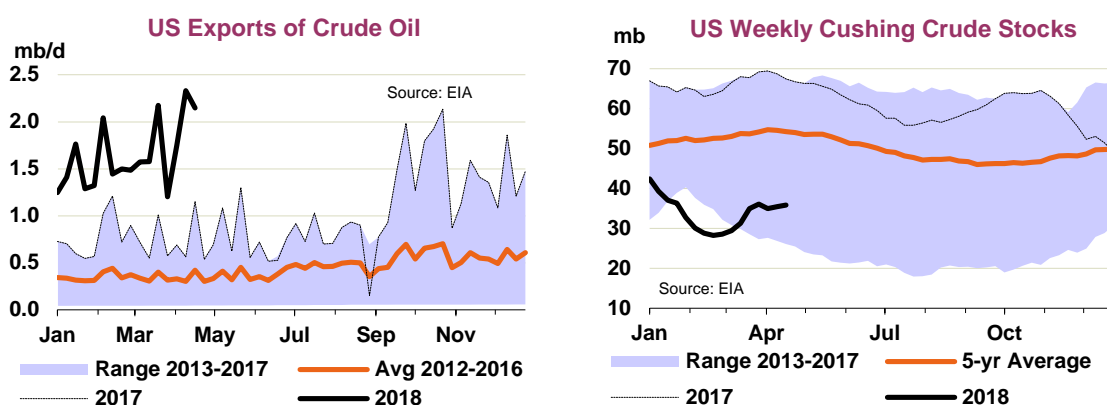
OECD Americas

Commercial stocks in the OECD Americas declined counter-seasonally by 13.5 mb in March to 1 460 mb, marking the tenth straight monthly fall and thus reaching their lowest level since March 2015. They were 8 mb above the five-year average, down from 28 mb the previous month. As in the last few months, high processing rates at US refineries kept seasonal crude stock builds in check. Crude stockpiles increased a mere 1.1 mb during the month versus a typical 14.3 mb build over the last five years. Crude exports increased more than 100 kb/d m-o-m to 1.7 mb/d, reflecting larger volumes moving from the Permian Basin to the Gulf Coast. Oil product stockpiles drew sharply, by 19.4 mb to 699 mb, a three-year low. Gasoline (-12 mb) and middle distillates (-10.4 mb) in particular showed the biggest draws, helped by a seasonal pickup in driving and higher exports to Mexico and Latin America. By contrast, other product stocks, which drew seasonally at the end of 2017 and the start of 2018, were up.

Overall, over 1Q18, stocks in the region declined by 38.4 mb (430 kb/d), coming in stark contrast to the last five years when they built by an average 44.9 mb during the quarter. The bulk of stock falls happened in the US, whereas in Canada, Chile and Mexico they were more stable. High refinery runs and exports of crude absorbed the increase in production from LTO fields seen in the US. Crude imports also eased a touch as Saudi Arabia and Venezuela curtailed flows. As a result, crude stocks increased by only 2.1 mb. Oil product holdings declined 35.5 mb during 1Q18 despite stellar refining runs in the US, as lower temperatures boosted demand for heating fuels such as gasoil and LPG and as diesel and gasoline exports to Mexico and Latin America remained high.



Preliminary data from the EIA for April show US oil stocks broadly unchanged, as higher crude inventories (+9.2 mb) offset lower oil product holdings (-8.6 mb). The rise in crude stocks can be attributed to a slowdown in refinery runs due to maintenance as well as higher imports from Canada, Iraq and Venezuela. Crude exports, meanwhile, increased further to a new historical record of 1.9 mb/d, with a weekly peak of 2.3 mb/d registered in mid-April. Cushing crude stocks, which fell to their lowest level in nearly four years earlier in 2018, continued to recover modestly in April, following the return of Canada's Keystone pipeline to full throughput and with higher Permian output. They stood at 36.4 mb at end-month, up 8.2 mb from March's low point. US gasoline stocks declined seasonally by 1.5 mb with increased vehicle use, while higher diesel exports to Brazil, Chile and the Netherlands contributed to a 10.9 mb drop in diesel stocks, whereas they typically increase at this time of year.

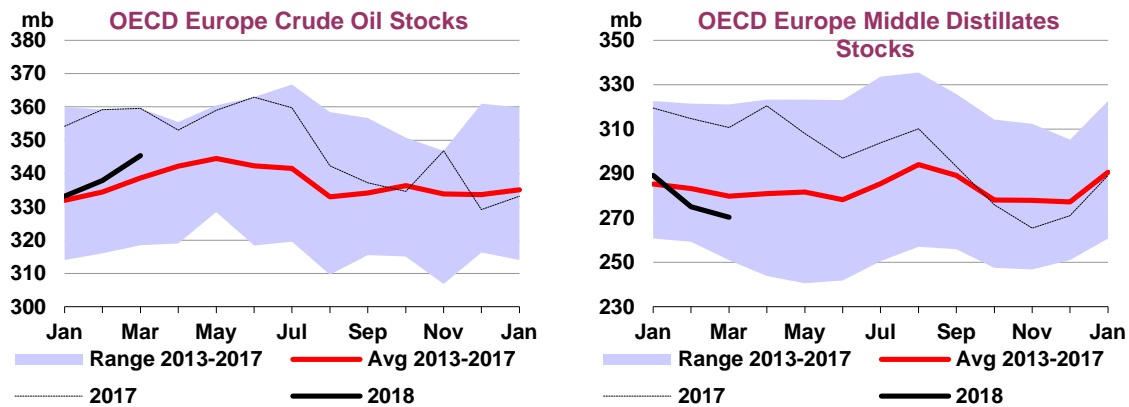


OECD Europe

Commercial stocks in OECD Europe rose in March by 3.5 mb to reach 976 mb and were 17 mb above the five-year average. For the first time in nearly ten years, the surplus of European stocks over their five-year average was higher than in the Americas. In March, crude stockpiles increased more than they normally do at this time of year, by 7.5 mb to 346 mb, because of heavy seasonal refinery maintenance. We estimate that European refinery throughput fell 650 kb/d on the month to 11.5 mb/d. Oil product

holdings fell for the same reason, by 5.6 mb to 555 mb. There were draws in gasoline (-1.9 mb), middle distillates (-4.7 mb) and other products (-0.7 mb), whereas fuel oil stocks grew by 1.7 mb.

During 1Q18, Europe is the only region to show an overall stock build. Stocks grew 33.3 mb (370 kb/d) as a seasonal slowdown in refinery runs boosted stockpiles of crude and with lower outflows of fuel oil to Asia contributing to higher stocks. Middle distillate holdings, by contrast, were broadly stable at a low level due to high demand, despite higher European imports.

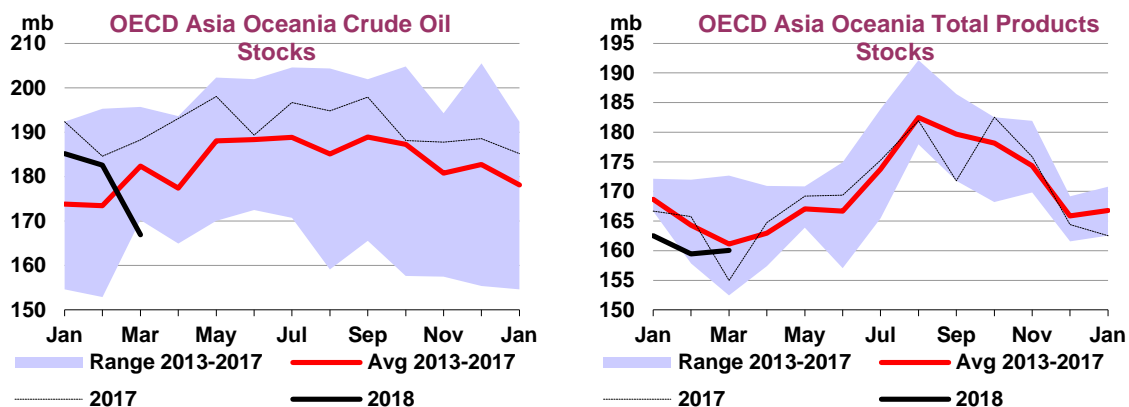


Preliminary data from Euroilstock show an overall oil stock fall of 4.2 mb in April driven by lower oil product stockpiles. Middle distillates (-1.8 mb), gasoline (-1.4 mb) and fuel oil (-0.7 mb) all fell, even as refinery throughput increased. Lower product imports from India and Russia as well higher demand for motor fuels seasonally also explain the fall. Crude stocks declined 0.2 mb, fuel oil fell 0.7 mb and naphtha inventories were unchanged.

OECD Asia Oceania

Commercial stocks in OECD Asia Oceania in March fell for the fifth successive month, this time by 16.8 mb to 383 mb. This is an all-time low since IEA data collection started and the stocks are 26 mb below the five-year average. A drop in dirty product imports as well as the expiration of international joint stockpile agreements in Korea were the main reason. Inventories for both crude and fuel oil fell by a combined 14.8 mb in Korea on the month, even as refinery runs decreased. Across OECD Asia Oceania, crude stocks fell 15.7 mb to 167 mb, fuel oil inventories declined by 1 mb, whereas gasoline (+0.3 mb) and middle distillate stocks (+1.2 mb) both increased.

During 1Q18, total stocks in OECD Asia Oceania fell by 29.4 mb (325 kb/d). The bulk of the fall was explained by crude (-21.6 mb). While regional stocks often fall at the start of the year, oil products, rather than crude, normally draw in the winter, so this year's pattern is especially noteworthy.

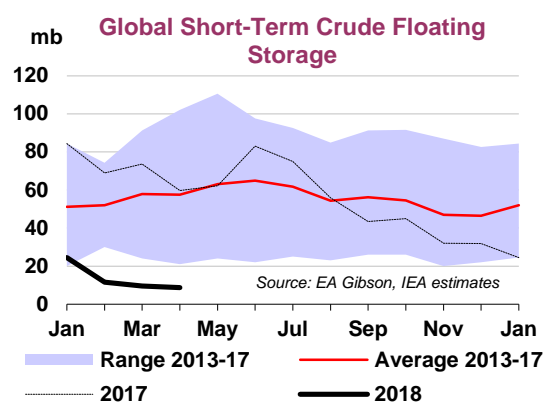
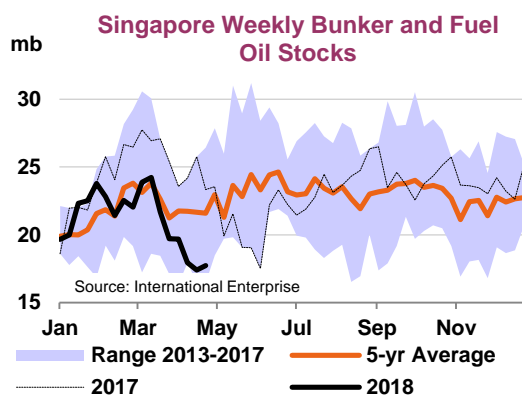


Preliminary data from the *Petroleum Association of Japan (PAJ)* show oil inventories rising seasonally in April by 4.5 mb. Diesel (+1.3 mb), fuel oil (+1 mb), gasoline (+0.4 mb) all gained on the month, whereas stocks of crude (-0.1 mb) and kerosene (-0.6 mb) fell. Japan's diesel and gasoline stocks remain below the five-year average, but kerosene stocks did not draw as much as usual in the 2017-2018 winter and stood above average at the time of writing.

Other stock developments

Stockpiles in the 24 non-OECD countries covered by the JODI database¹ increased 2.9 mb m-o-m in February. Crude stocks continued to decline in Saudi Arabia, by 3.9 mb m-o-m, to their lowest level in more than eight years. However, oil product stock gains in the Philippines, Iraq and Hong Kong compensated this loss.

Short-term floating storage fell by a further 0.9 mb to 9 mb during April, its lowest level in nearly 10 years, even though March estimates were revised higher, according to *EA Gibson*. Other figures, including from *Kpler*, also pegged floating storage at its lowest in several years, amid tightening global supplies.



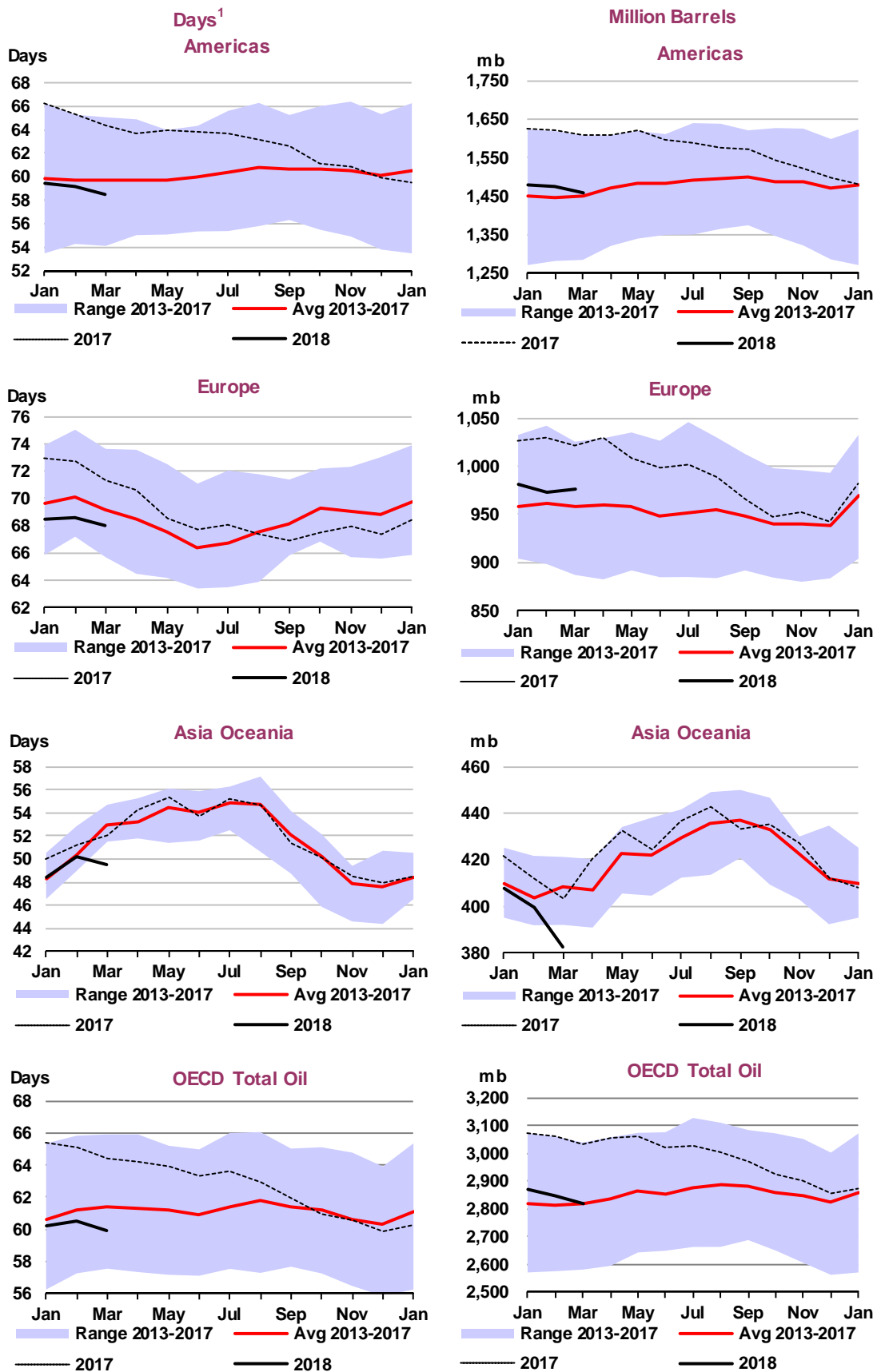
Data from *China Oil, Gas and Petrochemicals (China OGP)* covering Chinese oil majors show commercial stocks declining by 5.7 mb m-o-m in March on the back of lower crude (-4.8 mb) and diesel stocks (-5.3 mb), whereas gasoline holdings increased 4.5 mb on the month. Crude imports were around 9.2 mb/d in March, implying an overall crude stock build of 13.7 mb (440 kb/d) for the month. We estimate that crude stocks built even more in April as imports grew to 9.5 mb/d, a historical record.

Oil inventories in Fujairah gained 2.1 mb in April to 18.9 mb, their highest level since August 2017, according to figures available from *FEDCom/S&P Global Platts*. This was largely driven by a continued recovery in fuel oil and bunker inventories. Singaporean stocks, by contrast, dropped 8.1 mb m-o-m in April to 38.5 mb, their lowest level since December 2013, according to data from *International Enterprise*. Lower imports of fuel oil from Venezuela and Europe were the main reason.

¹ Saudi Arabia, Angola, Nigeria, India, Romania, Qatar, Bahrain, Bulgaria, Algeria, Slovenia, Azerbaijan, Argentina, Nicaragua, Malta, Croatia, Brunei Darussalam, Cyprus, Ecuador, Chinese Taipei, Thailand, Lithuania, Hong Kong, Iraq and the Philippines.

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

Market overview

Outright benchmark crude prices continued their upward trajectory in April due to solid oil demand, reduced OPEC output and as geopolitical events increased uncertainty over future global supply. So far this year the prices of ICE Brent and NYMEX WTI futures are both up by over \$10/bbl. Relatively high Brent prices have seen Asian buyers increasingly attracted to crudes priced off WTI and Dubai, to the detriment of Russian and African grades. In the US, LTO production growth continues apace but as infrastructure constraints start to bite, WTI Midland prices are at a significant discount to WTI in Houston. Oil product prices moved up with crude, in particular US gasoline and diesel prices.

Futures markets

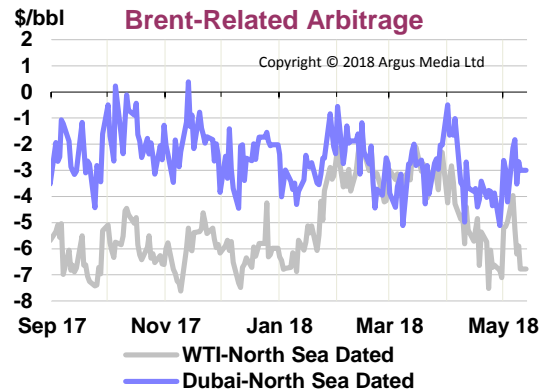
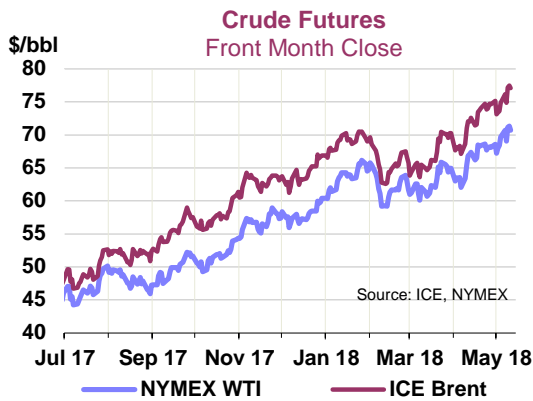
Brent and WTI futures prices reached multi-year highs of \$78.23/bbl and \$71.36/bbl on 14 May and 10 May respectively, on tightening fundamentals and in response to geopolitical factors. Given the recent reduction in global stock levels, prices have been less insulated from speculation on the future of the Iranian nuclear deal and market concerns over tensions between the US and Russia in Syria. In addition, robust global demand, outstanding compliance with the Vienna Agreement, Venezuela's production declines and emerging pipeline bottlenecks in the Permian Basin have pushed prices to levels last seen at the end of 2014. In particular, Brent prices have been bolstered, with the Brent-Dubai exchange of futures for swaps (EFS) peaking at \$4.65/bbl on 27 April, the highest since June 2014. As a result, the economic feasibility of exporting volumes priced off Brent, such as Urals and West African crudes, to Asia has suffered. US exports have been supported by the increasing premium of Brent to WTI Houston, and barrels moved to Europe, India and South Korea. The recently launched Chinese crude futures contract saw prices, open interest and traded volumes reach record levels at the beginning of May. It is believed that domestic refineries and traders continued to make up the majority of market participants.

Prompt Month Oil Futures Prices

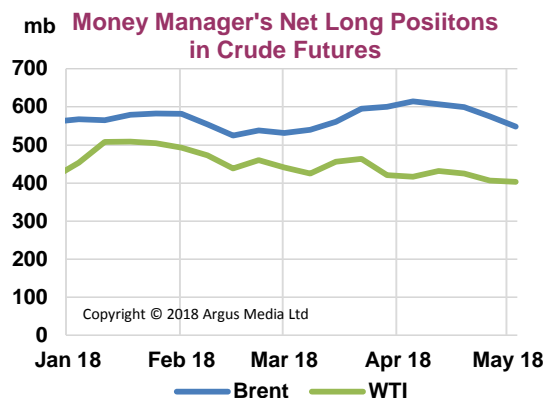
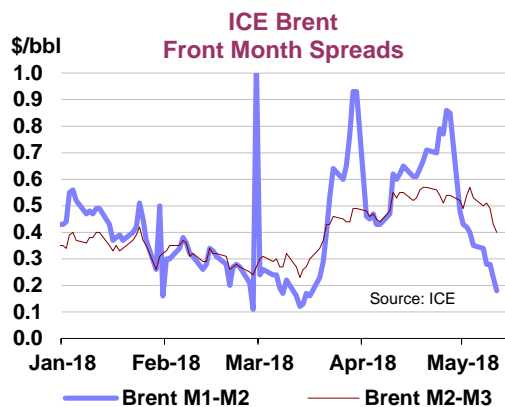
(monthly and weekly averages, \$/bbl)

	Feb	Mar	Apr	Apr-Mar Avg Chg	% Chg	Week Commencing:				
						09 Apr	16 Apr	23 Apr	30 Apr	07 May
NYMEX										
Light Sweet Crude Oil	62.18	62.77	66.33	3.56	5.7	66.04	67.58	68.14	68.38	70.60
RBOB	74.46	81.85	86.13	4.28	5.2	85.79	86.71	88.60	88.18	90.64
ULSD	81.49	81.13	87.12	5.98	7.4	86.84	87.79	90.01	89.50	92.45
ULSD (\$/mmbtu)	14.37	14.31	15.36	1.06	7.4	15.32	15.48	15.87	15.79	16.30
Henry Hub Natural Gas (\$/mmbtu)	2.66	2.70	2.72	0.03	0.9	2.69	2.73	2.78	2.75	2.77
ICE										
Brent	65.73	66.72	71.76	5.04	7.6	71.27	72.86	74.39	74.03	76.56
Gasoil	77.70	78.79	85.23	6.44	8.2	85.30	85.71	87.58	86.97	89.86
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-3.55	-3.95	-5.43	-1.48		-5.23	-5.28	-6.25	-5.65	-5.96
NYMEX ULSD - WTI	19.31	18.36	20.79	2.42		20.80	20.21	21.87	21.12	21.85
NYMEX RBOB - WTI	12.28	19.08	19.80	0.72		19.75	19.13	20.46	19.80	20.04
NYMEX 3-2-1 Crack (RBOB)	14.62	18.84	20.13	1.29		20.10	19.49	20.93	20.24	20.64
NYMEX ULSD - Natural Gas (\$/mmbtu)	11.71	11.61	12.64	1.03		12.63	12.76	13.09	13.03	13.54
ICE Gasoil - ICE Brent	11.97	12.07	13.47	1.40		14.03	12.85	13.19	12.94	13.30

Source: ICE, NYMEX.



Both Brent and WTI markets are backwardated but the premium of Brent front month futures to second month futures is higher, standing at \$0.28/bbl on 8 May, compared to \$0.09/bbl for WTI, reflecting less tightness in the US market thanks to increasing domestic production. For the Brent market, the premium for M1 to M2 deliveries increased steadily last month, reaching \$0.86/bbl on 26 April, but has since shallowed. This trend suggests that market participants see less tightness in the physical North Sea market, however, for the moment it is only the second-month contract prices that have closed the gap. Later month Brent contracts (M3, M4 etc.) maintained their discount to earlier deliveries.



Money managers net long positions in crude futures fell to 951 mb on 8 May, the lowest level since December 2017, and short positions fell to 52 mb at mid-month. Relatively speaking, speculative positions remain elevated reflecting ongoing bullish sentiment and surveys by Energy Intelligence and Argus Media indicated that market analysts have continued to raise their 2018 price outlooks. Although net long positions in both Brent and WTI are at historically high levels, speculation has been particularly focused in Brent markets. Net long positions in WTI have actually been declining since the end of March as higher levels of production and export infrastructure constraints are seen to shelter prices in the US.

Spot crude oil prices

April's increase in futures prices also saw a rise in physical outright crude prices. WTI showed moderate gains of \$3.56/bbl as pipeline capacity to transport ever-growing LTO production was fully utilised. Rising US export volumes continued to pressure competing crude grades, such as those from North and West Africa. Although it is early to assess the impact of the US' withdrawal from the Iran nuclear deal, reduced availability of Iranian exports may boost the market for alternative medium sour grades such as Urals and other Middle Eastern crudes.

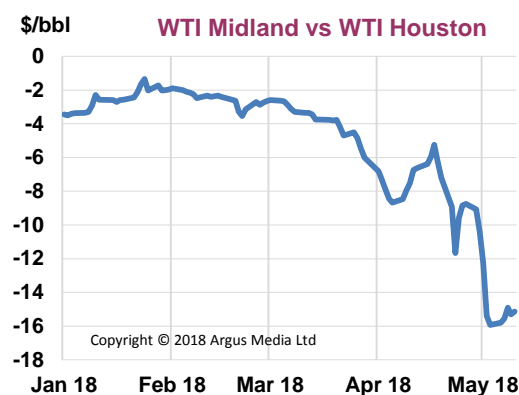
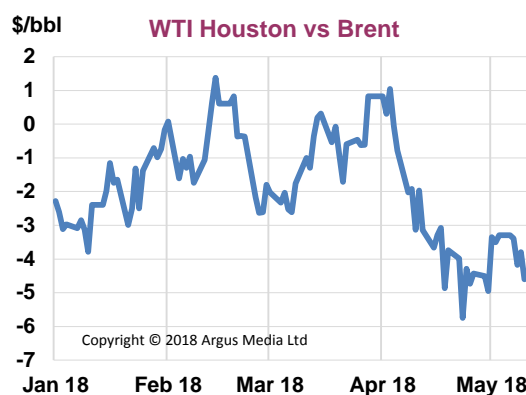
Spot crude oil prices and differentials

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The discount of WTI Houston to Brent, which reached a three-year record of \$5.75/bbl on 24 April, has continued to encourage exports of US crude and kept Houston prices at a premium to Cushing. While geopolitical risks have boosted global oil markets, price gains in the US have been more moderate due to increasing LTO supply and as stock levels at Cushing grow, albeit from a low level. US production is at record high levels and Permian Basin output now exceeds available takeaway pipeline capacity. As a result, WTI priced at Midland has fallen off a cliff relative to prices at Cushing and Houston: at the time of writing, the discounts are \$11.95/bbl and \$15.12/bbl respectively. At this level, rail and even trucking the crude to Houston is economically feasible. News that a 35 kb/d expansion to the Midland-Sealy pipeline would come online by the end of the month provided a temporary boost to the differential mid-month but significant capacity additions are not expected to be available until 2019 (See *Oil 2018 Special Feature: North American oil looking for a way out*). Increased investment in Gulf Coast infrastructure is also planned to boost exports further. Last month Enterprise Product Partners conducted tests on the feasibility of partial Very Large Crude Carrier (VLCC) loading from Houston which could reduce shipping costs and further increase the export competitiveness of US crude. Louisiana Light Sweet (LLS) and sour Mars grades saw prices strengthen against WTI Cushing in April as US refinery demand increased following maintenance.

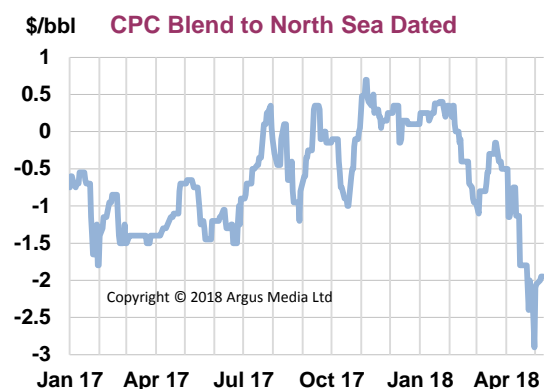
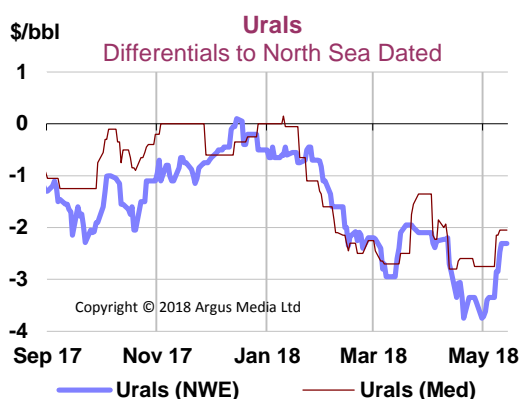


West Canadian Select (WCS) delivered in Hardisty continued to trade at a significant discount to Cushing, averaging \$17.12/bbl in April. There has been strong demand for WCS and an increase in rail exports, but the price has been further challenged by announced apportionment restrictions on the Enbridge pipeline

in May. Separately, on 8 April pipeline operator Kinder Morgan announced that it was halting all non-essential expenditure on the expansion of the Trans Mountain pipeline as it decides whether to continue the project in the face of regulatory uncertainty. This is a key project, without which the export constraints facing Canadian producers will only get worse.

Last month saw the prices of Brent, Forties, Oseberg and Ekofisk rise as demand for North Sea crude picked up on the back of expectations of reduced loadings in June, and buying interest in Asia Pacific. Despite the increasing Brent-Dubai spread, the free trade agreement between the EU and South Korea is helping to keep North Sea grades competitive there and Ekofisk's premium to North Sea Dated rose by \$0.90/bbl due to strong demand. The Brent price was supported by the unexpected closure of the Sullom Voe loading terminal on 3 May that saw several North Sea fields shut in production. The facility was offline for several days and some delays to this and next month's loadings are expected. Forties strengthened against other grades in the benchmark, thanks to healthy demand from Asia Pacific, in particular from Thailand.

In North Africa, Algeria's Saharan blend suffered due to weak demand in Europe where refiners are spoilt for choice with the availability of rival crudes from Kazakhstan, the US and Nigeria. Prices fell against North Sea Dated from a premium of \$0.55/bbl to a discount of \$0.50/bbl. Libya's Es Sider remained flat at around \$1.65/bbl discount against North Sea Dated. Supplies of crude from Nigeria and Angola were abundant and prices of all key grades fell against Dated. In particular, Angolan grades Kissanje and Dalia both fell by \$1.15/bbl against the benchmark to lows not seen since August 2017 and October 2017 respectively. Chinese, Indian and European demand has been lacklustre due to refinery maintenance and the availability of competing US supply. Exports of Angolan crude to India fell to 35 kb/d in April, according to Kpler data, the lowest in a decade.



Prices for Urals delivered to North West Europe continued to decline last month: the discount to North Sea Dated fell to \$3.75/bbl on 20 April, its widest since April 2011. In addition to weak demand, prices were pressured by the steeper backwardation of the North Sea Dated forward curve making it more challenging for sellers to offload prompt supplies. However, the growing discount supported exports to Asia, in particular India and Thailand, despite the high level of the Brent-Dubai EFS. Kazakhstan's CPC blend saw a dramatic price fall relative to Dated and on 2 May the discount was \$2.90/bbl, a six-year low. Demand for the naphtha rich CPC blend has faltered thanks to the availability of relatively cheap propane for petrochemicals and in the face of competition from US LTO for European market share. This has severely pressured differentials by coming at a time when flows from Kazakhstan's Kashagan field, and thus CPC blend exports, are on the increase. As a result, and thanks also to low freight rates, refiners in Korea and Japan are buying CPC blend as an alternative to some Middle Eastern grades.

Having been in contango in March, Dubai physical prices relative to swaps flipped into backwardation on 2 April and continued to strengthen throughout the month suggesting increasing market tightness. The

high premium of Brent to Dubai prices attracted Asia Pacific buyers, emerging from refinery maintenance, to Middle East crude. With the threat of sanctions being re-imposed, Iranian Light and Iranian Heavy differentials to North Sea Dated fell by \$1.98/bbl and \$2.13/bbl respectively. Iranian crude remains in demand in China and India, thanks to its competitive price and discounts offered on freight, and it continues to displace Urals demand in Europe.

Spot product prices

Although global product prices increased, the rapid increase in crude prices saw product cracks squeezed in Asia. The US market was supported by strong demand and extensive refinery turnarounds on the West Coast (USWC). The switch to summer specification fuel boosted gasoline cracks in Europe and the US.

Spot product prices

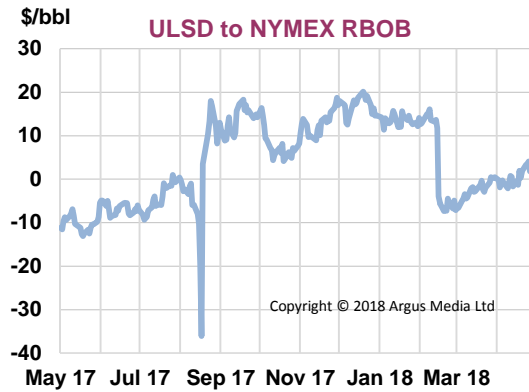
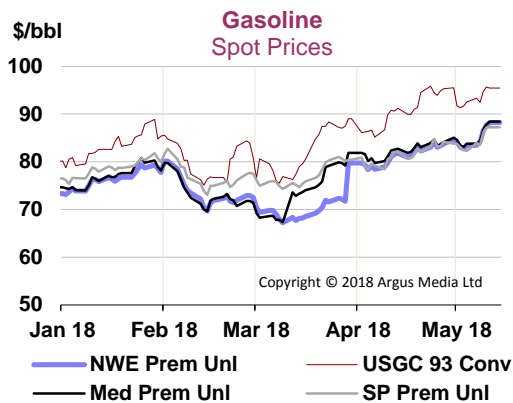
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Gasoline prices rose in April, particularly in the US where high crude prices, strong demand and refinery maintenance on the USWC saw average spot prices up 20% year-on-year. Prices eased slightly late in the month as imports arrived from Asia and Europe. Retail prices for unleaded gasoline have increased by 8% since the beginning of the year. US diesel markets are also tight, with diesel trading above gasoline on the back of strong domestic and Latin American demand and inventories sharply down since the start of the year. High outright gasoline prices in Europe disguised weakness in the physical market and the EBOB barge price was down \$1.20/bbl against the swap price due to ample supply and weak West African demand. European ultra-low sulphur diesel (USLD) prices were up \$6.85/bbl month-on-month in light of healthy demand and low supplies following European refinery maintenance and as imports from the US and Russia fell. In the first half of April, low Asian gasoline stocks boosted refining margins and the physical price rose \$0.65/bbl against swaps before falling back by \$0.35/bbl. High gasoline production in Europe and Asia means the market is well supplied and Vietnam is expected to reduce its gasoline imports following the commissioning of a new refinery in May. There was also strong demand for diesel

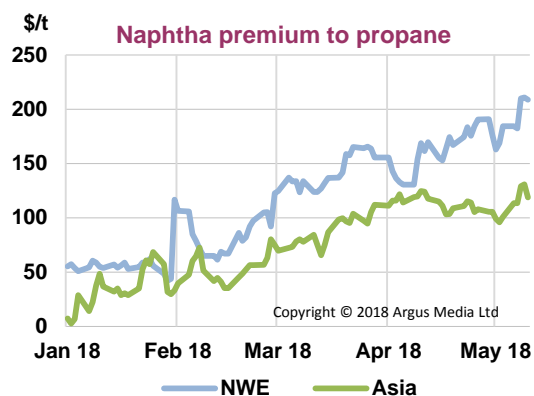
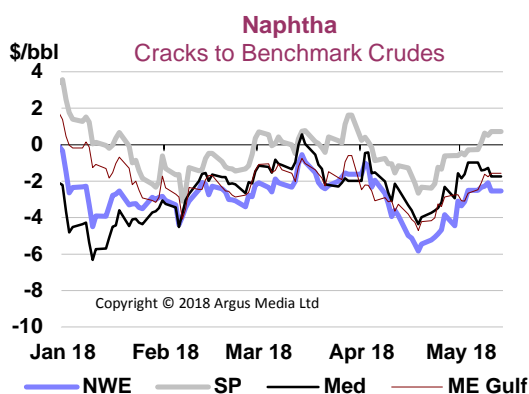
in Asia, particularly from India. Singapore gasoil prices were up \$5.98/bbl in April on improved arbitrage economics.



The price of jet and kerosene fuel rose globally thanks to strong demand, particularly in India, the US and Europe where refinery maintenance is affecting supply. North West Europe jet fuel prices were up \$1.58/bbl against ICE gasoil futures by 24 April before falling back slightly. European jet fuel stocks have been drawing and are relatively low ahead of the peak travel season.

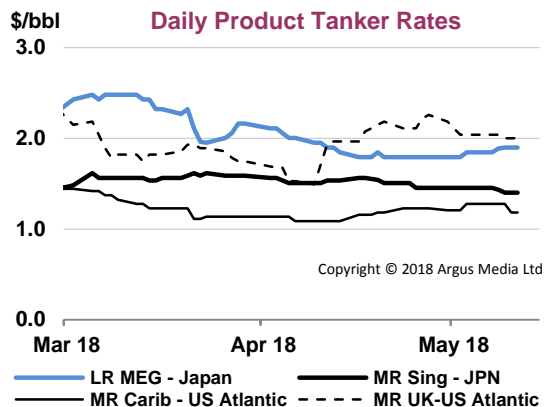
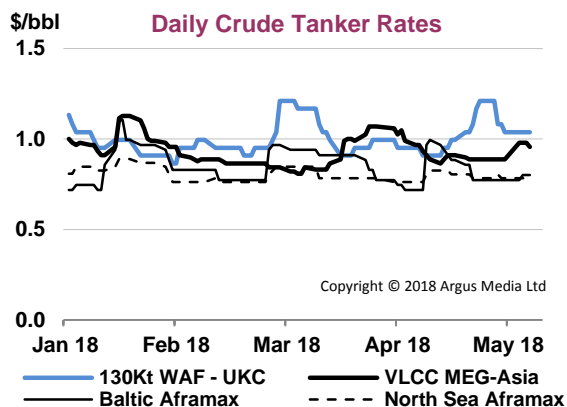
Global naphtha prices fell against crude prices in the first half of the month, as comparatively cheap propane provided competition as a petrochemical feedstock. Cracks in North West Europe plunged to a discount of \$5.83/bbl to Brent on 19 April, the lowest since January 2015, before moving up on the back of Asia Pacific and US demand. Asia markets were better insulated thanks to strong demand, reduced ability to switch to LPG and due to falling supplies of naphtha from India and alternative feedstock condensate from Abu Dhabi. Both these sources returned later in the month.

The price of high sulphur fuel oil in Singapore rose to highs not seen since December 2014 as regional demand increased and supplies, already reduced due to Russian refinery maintenance, did not meet shipping fuel specifications. The premium of high viscosity 380-centistoke fuel oil over lower viscosity fuel stood at \$8.59/bbl at the beginning of May, having dipped to the lowest since December 2016 in early April on renewed Pakistani demand for 180-centistoke fuel oil.



Freight

Excess tonnage availability continues to weigh on freight markets and, for the most part, rates remain below ship operating costs. The fleet continues to grow, thanks to the relatively low price of new build ships, however the rate of ordering has slowed since last year. Net fleet additions for 2018 so far are for 7 crude and 13 product tankers bringing the fleet size to 2 013 and 2 745 respectively.



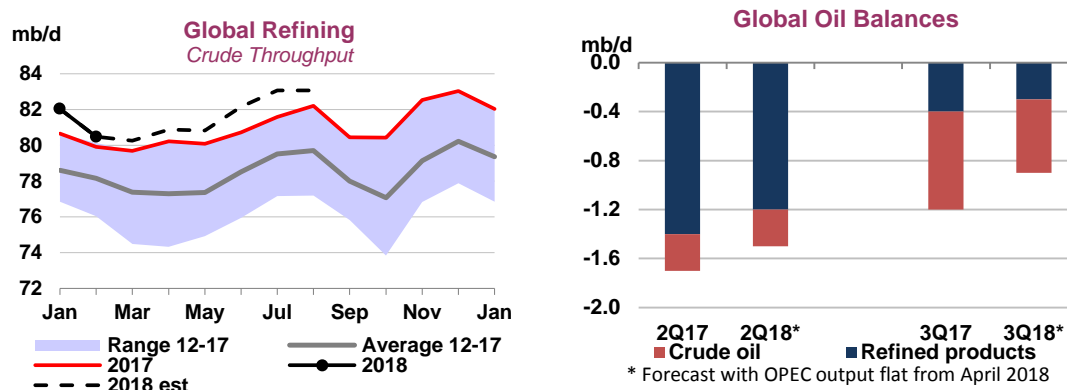
Freight rates for VLCCs travelling from the Middle East Gulf (MEG) to Asia fell from \$1.07/bbl at the end of March to \$0.89/bbl on 13 April and rates have subsequently remained at this level. In addition to the ongoing oversupply of ships, there was reduced demand during public holidays in China. Stronger demand saw Suezmax rates on the West Africa to UK route rise by \$0.22/bbl in April but they subsequently dropped back to \$1.04/bbl at the time of writing. Rates for Aframax vessels on the Baltic to UK continent route jumped by \$0.28/bbl in the second week of April, having been at a three month low. However, chartering interest was short lived.

The market for clean product freight is slightly less challenged than for crude: nevertheless, rates are also exceptionally low due to excess availability of ships. East of Suez, freight on the MEG-Japan route came down \$0.26/bbl despite stronger demand for marine diesel and naphtha. In the Atlantic Basin, rates for ships travelling between the UK continent and the US fell to \$1.49/bbl on 9 April, the lowest since November 2017. However, rates picked up by \$0.76/bbl over the subsequent two weeks as demand was strong for trade to Nigeria, the US and Latin America.

REFINING

Summary

The oil market is half way into 2Q18, which is forecast to see the highest rate of refined product drawdown this year. Demand for refined products seasonally jumps 1.4 mb/d quarter-on-quarter (q-o-q), while refinery runs increase by only 0.4 mb/d to 81.2 mb/d. It is the Atlantic Basin that drives throughput increase, adding 0.7 mb/d q-o-q, while refinery maintenance peak shifts to East of Suez, where throughput declines 0.3 mb/d. In 3Q18, global refining throughput is expected to hit a fresh record at 82 mb/d, ramping up by another 0.9 mb/d q-o-q. In July-August, crude runs are expected to reach just under 83 mb/d for the first time, before a seasonal decline in September.



Product markets, however, remain short, with implied stock draws of 1.2 mb/d in 2Q18 and third-quarter counter-seasonal stock draws continuing for the second year in a row. In 3Q17, refined products stock draws were due to Hurricane Harvey's disruption of US Gulf Coast refining activity. For refiners to ramp up runs sufficiently to meet all 3Q18 demand for refined products, the global crude oil market would need to draw by 1 mb/d or more, the highest rate since 2013. But a major uncertainty is how refining margins will react to the increasingly tight crude oil markets (see *Summer overheating*). Margins moved higher in April in Europe and the US, but this was thanks to the seasonal uptick in gasoline cracks due to tighter summer specification. Singapore margins were lower month-on-month in the absence of a seasonal switch.

Global Refinery Crude Throughput¹

(million barrels per day)

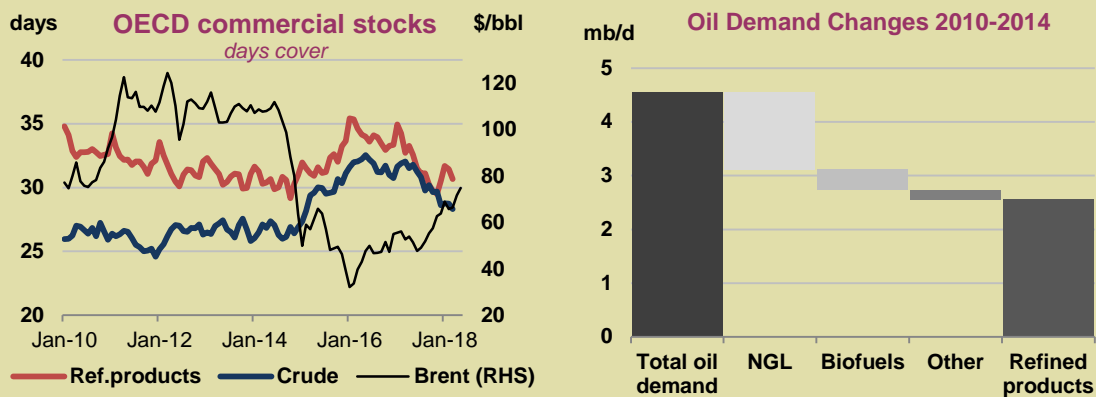
	2017	Jan 18	Feb 18	Mar 18	1Q18	Apr 18	May 18	Jun 18	2Q18	Jul 18	Aug 18
Americas	19.3	19.1	18.4	19.3	19.0	19.4	19.9	20.1	19.8	20.1	20.1
Europe	12.3	12.4	11.9	11.5	12.0	12.1	11.8	12.5	12.1	12.6	12.7
Asia Oceania	7.0	7.4	7.2	6.8	7.2	6.8	6.5	6.4	6.6	7.1	6.9
Total OECD	38.6	39.0	37.6	37.6	38.1	38.3	38.2	38.9	38.5	39.8	39.7
FSU	6.8	7.0	7.0	6.9	7.0	6.6	6.6	6.9	6.7	7.0	6.9
Non-OECD Europe	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.6
China	11.3	11.6	11.9	12.1	11.9	12.0	11.6	11.8	11.8	11.8	11.9
Other Asia	10.3	10.7	10.6	10.1	10.5	10.3	10.5	10.6	10.5	10.6	10.5
Latin America	3.9	3.7	3.6	3.5	3.6	3.7	3.5	3.5	3.6	3.5	3.6
Middle East	7.5	7.4	7.3	7.5	7.4	7.5	7.8	7.8	7.7	7.7	7.8
Africa	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Total Non-OECD	42.2	43.0	42.8	42.5	42.8	42.5	42.5	43.1	42.7	43.2	43.2
Total	80.9	81.9	80.4	80.2	80.8	80.8	80.7	82.1	81.2	83.0	83.0
<i>Year-on-year change</i>	1.2	1.4	0.6	0.6	0.9	0.7	0.8	1.4	1.0	1.5	0.9

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

Summer overheating?

In the first half of 2017, product and crude oil stock draws did not put upward pressure on oil prices as the market was clearing an overhang. Oil prices were more reactive in 3Q17, when the crude stocks draw accelerated. This year the situation is different. Our balances, assuming flat OPEC output, show a relatively modest crude stocks draw for 2Q18, but futures are \$10/bbl up since the start of the year as most of the overhang has disappeared. OECD commercial inventories are now back to pre-2015 levels in terms of forward demand coverage. Refined product stocks in particular, are measuring close to the low end of the range.

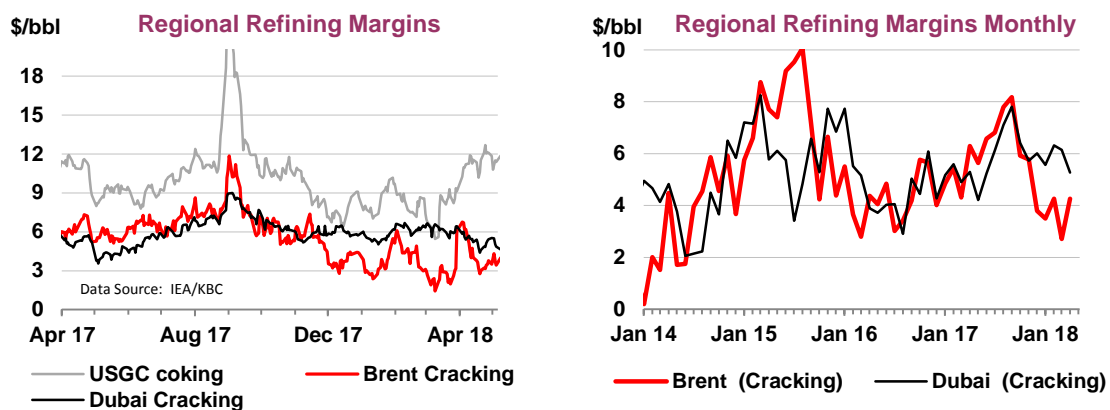
This, in theory, is good news for refiners. However, crude stock draws will accelerate in 3Q18 partly due to the seasonal increase in direct crude burn in the Middle East. Stocks are set to draw 0.6 mb/d even under flat OPEC output assumptions, before factoring in possible further deterioration of Venezuelan output and any fallout from renewed Iran sanctions (see *Supply*). Supply-driven upward pressure on crude oil prices may affect refiner margins if they do not manage to pass the cost increase to consumers.



In principle, demand could adjust, too. Even with a 110 kb/d reduction to our 2018 global oil demand forecast in this *Report* (see *Demand*), the expected rate of global refined product demand growth is at the top of the historical range for periods when the oil price was at or above \$75/bbl. Between 2010 and 2014, when Brent price held above \$75/bbl, total global demand grew by just 4.6 mb/d (or 1.1 mb/d on an annual average). Refined products accounted for just over half of this, increasing by 2.6 mb/d, or 0.6 mb/d on average. Our current estimate for refined products growth in 2018 is at 1 mb/d, out of total demand growth of 1.4 mb/d.

Margins

In view of the anticipated large drawdown of refined products stocks in 2Q18, the higher margins seen in April were not a surprise. However, technical factors also played a role. Margins were higher month-on-month in Europe and the US, supported by the switch to summer specification gasoline that happened at end-March and mid-March, respectively. Gasoline crack spreads increased by more than \$3/bbl.



In Singapore, where there is no seasonal specification change, margins declined m-o-m as increases in middle distillates cracks were more than offset by lower cracks for gasoline and fuel oil.

Significantly higher crude oil prices seen since mid-2017 (Brent crude prices have risen by about 75%) have had a clear impact on European margins. The North West Europe Brent cracking margin has been rather subdued since the start of the year, returning close to 2014 levels. At the same time, the continued strength of US Gulf Coast margins is a reflection of not only discounted US crude prices, but also higher product prices. While gasoline is traditionally priced higher in the US hubs than anywhere else, in the last two years diesel, too, has frequently registered some of the highest global prices in the US, even in the diesel-exporting US Gulf Coast (USGC). This is largely explained by increased import requirements from Latin America. Effectively, USGC prices reflect not so much the excess supply of the world's largest refining hub, but the increasing deficits in Latin American markets. Europe, which is the largest diesel-importing region, has plentiful supply alternatives e.g. Russia, the Middle East and Asia, whereas Latin America is further away from alternative product supplies.

IEA/KBC Global Indicator Refining Margins¹

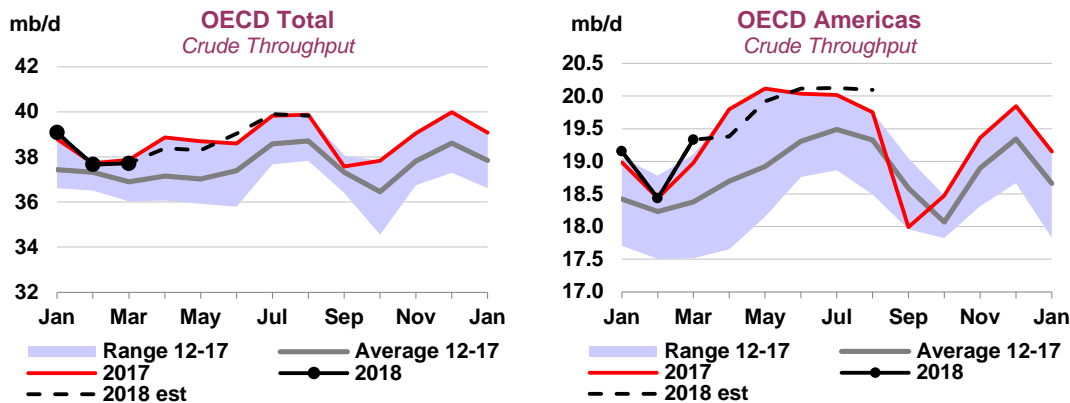
	Monthly Average				Change Apr 18-Mar 18	Average for week ending:				
	Jan 18	Feb 18	Mar 18	Apr 18		13 Apr	20 Apr	27 Apr	04 May	11 May
NW Europe										
Brent (Cracking)	3.49	4.26	2.71	4.26	↑ 1.55	4.48	3.27	3.42	3.78	4.09
Urals (Cracking)	3.27	5.18	4.43	6.00	↑ 1.57	5.77	5.44	5.56	6.23	5.63
Brent (Hydroskimming)	-1.03	-0.19	-1.30	-1.03	↑ 0.27	-0.75	-2.03	-2.00	-1.42	-0.95
Urals (Hydroskimming)	-1.89	0.27	-0.08	0.19	↑ 0.27	0.02	-0.35	-0.36	0.56	0.05
Mediterranean										
Es Sider (Cracking)	5.08	5.49	5.80	6.73	↑ 0.93	7.13	5.74	5.68	5.91	6.39
Urals (Cracking)	4.42	6.56	6.58	6.92	↑ 0.34	7.19	6.11	6.12	6.51	6.29
Es Sider (Hydroskimming)	0.82	1.37	0.05	0.00	↓ -0.05	0.00	0.00	0.00	0.00	0.00
Urals (Hydroskimming)	-1.29	1.13	0.98	0.49	↓ -0.49	0.82	-0.31	-0.55	0.27	0.19
US Gulf Coast										
50/50 HLS/LLS (Cracking)	7.92	7.50	6.82	10.05	↑ 3.23	10.21	9.94	10.65	9.87	10.60
Mars (Cracking)	3.63	3.63	2.71	4.24	↑ 1.53	3.98	4.03	4.99	4.88	5.53
ASCI (Cracking)	3.25	3.27	2.38	3.81	↑ 1.43	3.52	3.57	4.54	4.45	5.10
50/50 HLS/LLS (Coking)	9.91	9.43	8.68	12.09	↑ 3.41	12.24	11.93	12.80	11.92	12.65
50/50 Maya/Mars (Coking)	8.47	8.19	7.71	11.42	↑ 3.71	11.55	10.89	12.20	11.33	11.91
ASCI (Coking)	8.89	8.55	7.56	9.88	↑ 2.32	9.77	9.61	10.72	10.08	10.66
US Midcon										
WTI (Cracking)	11.48	7.80	9.23	12.91	↑ 3.69	12.40	13.12	14.67	14.25	15.00
30/70 WCS/Bakken (Cracking)	14.98	12.66	13.17	14.13	↑ 0.96	13.20	14.57	15.93	15.21	15.91
Bakken (Cracking)	13.16	10.12	11.44	15.76	↑ 4.32	15.35	16.36	17.74	17.02	18.02
WTI (Coking)	13.57	9.67	11.09	15.00	↑ 3.91	14.43	15.22	16.95	16.43	17.25
30/70 WCS/Bakken (Coking)	18.53	15.73	16.10	17.73	↑ 1.63	16.89	18.26	19.69	18.62	19.37
Bakken (Coking)	13.94	10.80	12.15	16.55	↑ 4.40	16.11	17.16	18.61	17.85	18.87
Singapore										
Dubai (Hydroskimming)	0.54	1.47	1.18	-0.02	↓ -1.20	0.14	-0.38	-0.23	0.22	-0.08
Tapis (Hydroskimming)	0.26	2.36	1.75	0.71	↓ -1.05	0.72	-0.12	-0.19	0.18	0.70
Dubai (Hydrocracking)	5.57	6.32	6.15	5.27	↓ -0.88	5.46	4.85	5.11	5.23	4.83
Tapis (Hydrocracking)	4.50	6.29	5.57	4.65	↓ -0.92	4.66	3.76	3.85	3.87	4.44

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

Source: IEA, KBC Advanced Technologies (KBC)

OECD refinery throughput

OECD runs in March saw a small improvement from the seasonally low February levels, but the uptick was less than expected due to an unusual decline in South Korean throughput. Runs are expected to increase seasonally in 2Q18, adding 0.4 mb/d, while remaining 0.2 mb/d lower y-o-y. In July-August, refinery intake is forecast to reach 39.8 mb/d, largely unchanged from a year earlier.



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

	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Change from		Utilisation rate ¹	
							Feb 18	Mar 17	Mar 18	Mar 17
US ²	16.06	16.84	17.27	16.60	15.93	16.71	0.78	0.69	88%	85%
Canada	1.70	1.73	1.78	1.75	1.77	1.78	0.00	0.00	88%	92%
Chile	0.17	0.19	0.20	0.19	0.20	0.20	0.00	0.02	87%	78%
Mexico	0.53	0.59	0.57	0.59	0.52	0.63	0.11	-0.35	38%	60%
OECD Americas³	18.47	19.35	19.83	19.14	18.43	19.32	0.90	0.36	85%	83%
France	1.23	1.25	1.21	1.17	1.17	1.03	-0.14	-0.02	83%	85%
Germany	1.99	1.93	2.00	1.95	1.93	1.79	-0.14	-0.05	88%	91%
Italy	1.45	1.44	1.45	1.36	1.34	1.35	0.01	0.04	78%	76%
Netherlands	0.97	1.03	1.06	1.19	1.18	1.07	-0.11	-0.06	83%	88%
Spain	1.30	1.30	1.37	1.41	1.28	1.32	0.05	0.05	94%	90%
United Kingdom	1.12	1.06	1.08	1.05	0.82	0.93	0.11	-0.16	73%	86%
Other OECD Europe	4.29	4.34	4.36	4.32	4.20	4.00	-0.20	-0.22	83%	87%
OECD Europe	12.35	12.35	12.52	12.45	11.92	11.49	-0.43	-0.43	83%	86%
Japan	2.89	3.20	3.41	3.30	3.25	3.29	0.04	0.08	92%	90%
South Korea	3.16	3.21	3.25	3.24	3.12	2.74	-0.38	-0.29	87%	96%
Other Asia Oceania	0.88	0.84	0.88	0.86	0.85	0.77	-0.08	0.13	88%	73%
OECD Asia Oceania	6.93	7.26	7.54	7.40	7.22	6.80	-0.42	-0.08	90%	90%
OECD Total	37.74	38.96	39.90	38.99	37.57	37.62	0.05	-0.16	85%	86%

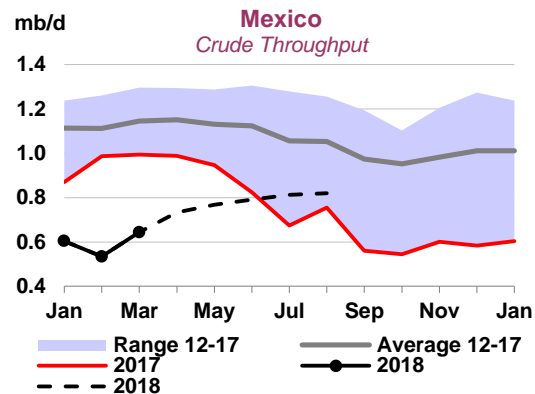
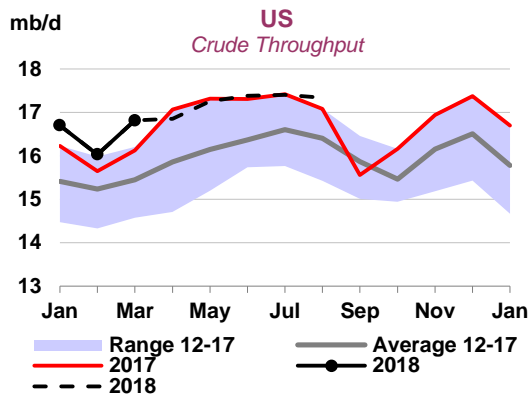
¹ Expressed as a percentage, based on crude throughput and current operable refining capacity

² US50

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

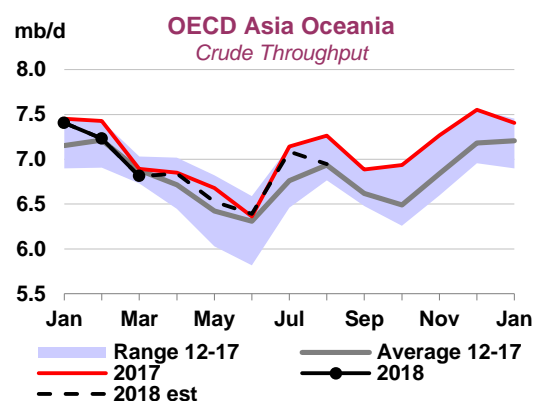
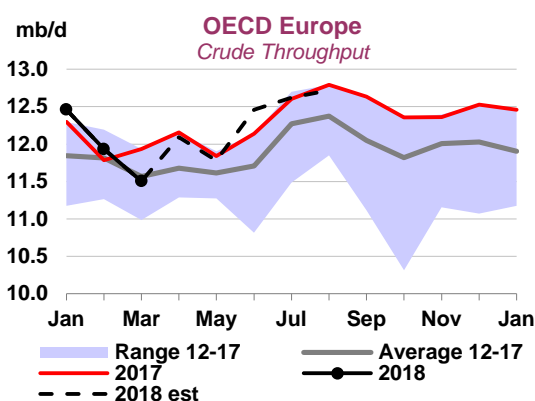
Data for **Mexican** throughput in March confirmed our expectations by increasing 110 kb/d m-o-m to 630 kb/d, still 350 kb/d lower y-o-y. Throughput is expected to reach 800 kb/d by 3Q18. **US** April throughput was 200 kb/d below our forecast on multiple refinery outages. It was also below y-o-y levels for the first time since March 2017 (excluding the disruption caused by Hurricane Harvey). US refiners are not expected to exceed the seasonal peak operating rates seen in the summer of 2017.

In late April, Marathon Petroleum Corporation, the second biggest US refiner, announced the purchase of Andeavor, the fifth biggest refiner. Andeavor was formed following the merger of Tesoro and Western Refining at the end of 2016. This biggest-ever downstream acquisition deal creates the largest US refining company with about 3 mb/d in capacity, surpassing Valero, and equal in size to Saudi Aramco's domestic capacity. The new company will be able to diversify between West Coast and Gulf Coast markets, gaining more exposure to discounted LTO (see *US PADD 3 crude diet – shale-shocked*). While the deal shows the continued attractiveness of the US refining industry, thanks to some of the strongest margins in the world, in other news, Petrobras announced it was entering into a 'binding' stage with regard to the planned divestment of its 100 kb/d Pasadena refinery in Texas.



Preliminary March data for OECD Europe showed throughput down by 430 kb/d y-o-y, in line with our expectations, and the first visible annual decline since 2016. Lower Belgian throughput was offset by higher German and Italian runs. Throughput is expected to recover in 2Q18, returning to a small annual growth of 70 kb/d, but July and August runs are expected to fall y-o-y.

ExxonMobil announced the sale of its **Italian** downstream assets to Algeria's Sonatrach, including the 170 kb/d Augusta refinery in Sicily. This seems to be well timed for the seller given the possible tightening of crude supply in the Mediterranean if imports from Iran are cut following the withdrawal of the US from the JCPOA.



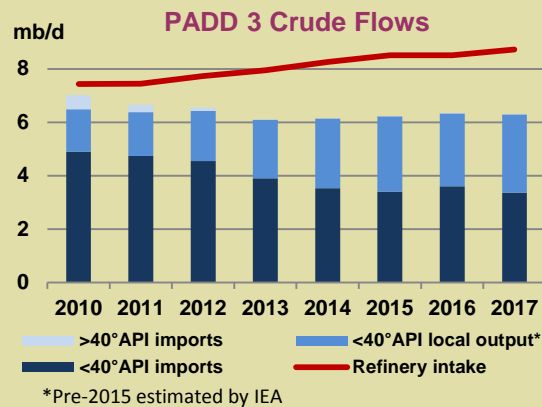
In OECD Asia, March runs turned out to be 230 kb/d below our forecast on an extensive maintenance programme in South Korea, which shut in 350 kb/d of capacity. Total regional runs fell 400 kb/d m-o-m, a steeper decline compared to normal seasonal trends. Throughput is expected to fall another 420 kb/d by June to just 6.4 mb/d, before recovering to peak summer levels in July-August at 7 mb/d.

US PADD 3 crude diet – shale-shocked

If the US PADD 3 region (which includes Texas, Louisiana, New Mexico, Alabama, Arkansas and Mississippi) was an independent country, it would be the world’s third largest crude producer (including Gulf of Mexico output) after Russia and Saudi Arabia, and the world’s second largest refiner after China. PADD 3 produces about 6 mb/d of crude oil and refines about 9 mb/d. Almost all of the production growth in recent years has come from unconventional plays, mainly light tight oil (LTO), usually called shale oil. This has altered dramatically the local refining diet, as the average API gravity of crude oil refined, according to the US Energy Information Administration, has gone up from 29.72 in 2010, at the start of the shale boom, to 32°API in 2017. There is a popular belief that shale oil has only displaced imports of light oil and not affected medium-heavy grades. In fact, due to the sheer scale of imports into PADD 3, it is the medium-heavy grades that have been hardest hit. Based on EIA data, imports of crude oil above 42°API have fallen to essentially zero in 2017 from an already low base of 0.5 mb/d in 2010. Meanwhile, imports of crude oil under 35°API have declined 1.4 mb/d to 2.8 mb/d and imports of feedstock between 35 and 42°API have decreased by 0.4 mb/d to just 0.3 mb/d.

Total available supply from local PADD 3 production and seaborne imports of under 40°API crude oil has declined from 6.5 mb/d in 2010 to 6.3 mb/d in 2017. Refinery runs, meanwhile, have increased by 1.3 mb/d to close to 9 mb/d. Pipeline imports from Canada add another 0.3 mb/d of medium-heavy barrels. This leaves a gap of about 2.5 mb/d that could only have been filled by the high-API shale oil.

There is a view that US crude oil storage has become lighter instead by companies drawing medium-heavy grades for refinery runs and storing the light crudes. In principle, PADD 3 commercial stocks should have become lighter as more infrastructure, such as pipelines and terminals, is dedicated to shale. Beyond line fills and some refinery tank content changes, however, there seems to be little further scope for this “lightening” idea. Total commercial crude oil stocks in PADD 3 amounted to just 200 mln barrels at end-2017, down 40 mb from 2016, but up 60 mb since 2010. This 200 mb capacity allows for a one-off, one year sustained drawdown of 0.5 mb/d, which would be only a fraction of the shale oil volume.



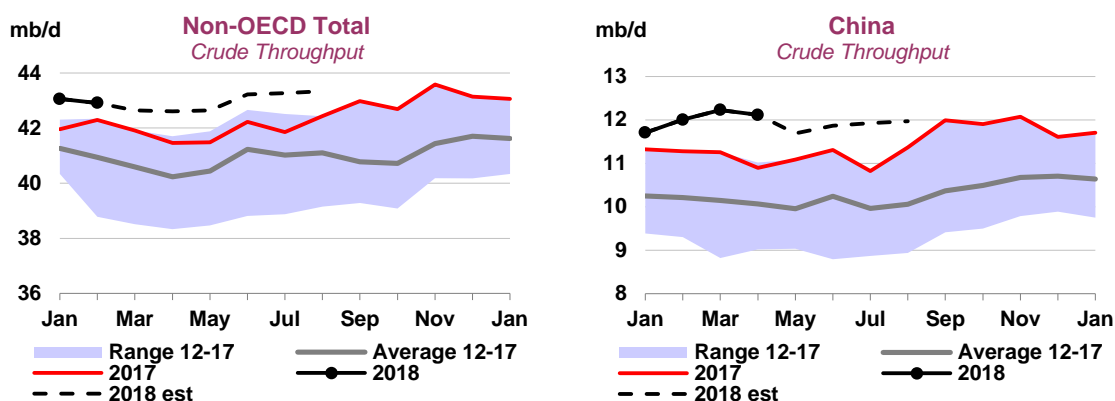
US PADD 3 refinery crude basket by main suppliers



When back-calculating EIA’s weighted average API gravity based on our estimated structure of the PADD 3 crude diet, we arrive at around 32°API in 2017. US shale has not only pushed out light import barrels, but has also replaced medium-heavy grades, especially from Mexico and Venezuela, which have seen output and exports decline in the recent years. Imports from the Middle East have not changed since 2010, but their overall market share in the growing refining industry of PADD 3 has declined. What is interesting, however, is that LTO use in the USGC continued growing even at the time of the global crude oil oversupply in 2015-2016, when crude oil prices averaged \$50/bbl, thanks to the incremental margin that discounted LTO provided. In the global markets, too, LTO attractiveness will depend on relative margin economics.

Non-OECD refinery throughput

Our estimate of non-OECD refinery throughput for 2017 has been revised up by 100 kb/d on new data from the UAE and Kuwait. For 1Q18, we have raised our estimate for runs by 70 kb/d due to higher than expected Chinese runs in March. For 2Q18 and the July-August period, however, we have lowered our forecast for runs based on problems at Curacao and maintenance elsewhere. Throughput in China, India and the Middle East remains very strong, but is declining in Africa, Latin America and the FSU.

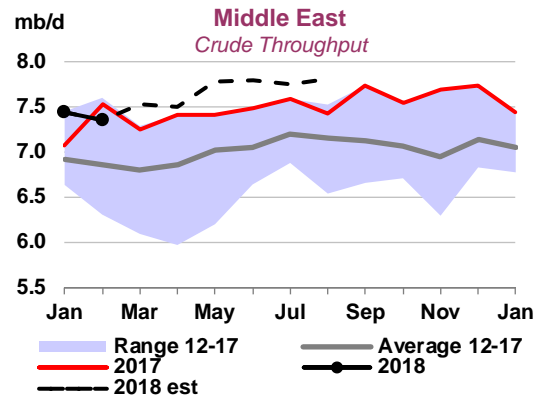
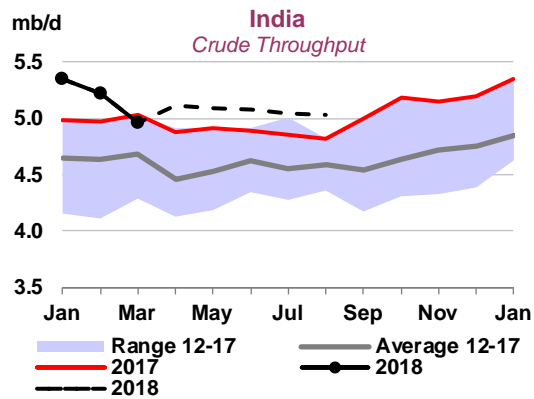


Chinese throughput in March surged to a record 12.1 mb/d, some 0.4 mb/d above our forecast and saw a marginal decline to 12 mb/d in April, with y-o-y growth surging to 1.1 mb/d. Throughput growth in Yunnan and Guangdong provinces, where new refineries started up in 3Q17, accounts for only one third of this increase. Instead, Shandong dominates the growth, up by almost 600 kb/d y-o-y. Independent refiners account for three quarters of total capacity there, and the strong rate of growth probably reflects better coverage of independent refining activity by the National Bureau of Statistics (NBS). In fact, a survey of independent refiners by JLC, a Chinese data provider, shows a lower crude run rate for Shandong in March than NBS data. The same data source shows higher operating rates in Hebei province, which appears with unusually low rates in official sources (see August 2017 Report). The discrepancy with the official data is about 130 kb/d, but we have not adjusted yet, pending further analysis. 2Q18 throughput is forecast to decline by 0.1 mb/d on refinery maintenance and closure of ports in Shandong in June due to an intergovernmental summit. Throughput recovers in 3Q18.

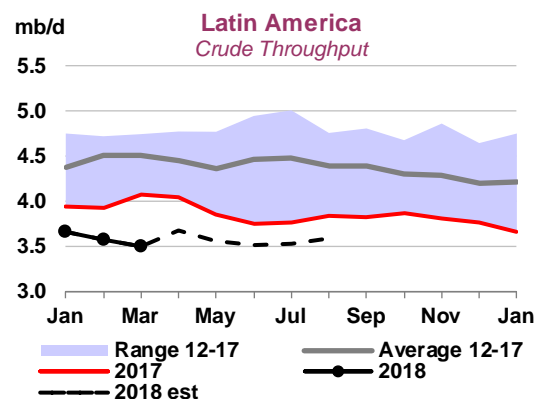
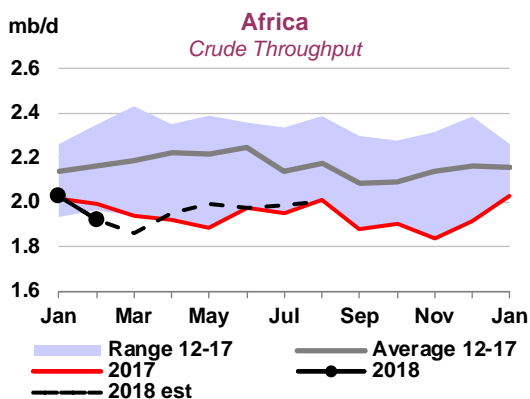
Indian throughput fell below 5 mb/d in March, declining 250 kb/d m-o-m on refinery maintenance, which is also expected to be reflected in April data. Our forecast is somewhat subdued compared to the higher rates seen in January-February, but we anticipate lower run rates due to higher crude oil prices. Runs in **Chinese Taipei** increased in February to 960 kb/d but are estimated to have declined to 760 kb/d in March on a large maintenance programme. **Vietnam** is expected to double throughput as the new Nghi Son refinery was reported starting up in May.

In the latest update of the JODI database, monthly data for **UAE** throughput, along with some missing months for **Kuwait** were made available. This led to a 100 kb/d upward revision of our historical series. In **Saudi Arabia**, February throughput saw a small decline due to maintenance and runs fell to 2.5 mb/d. More works were planned for March and April, but 2Q18 refinery intake is expected to be slightly higher than 1Q18.

In the FSU region, **Belarus** throughput for January and February were 40 kb/d below our forecast, while **Russian** April throughput was finalised 60 kb/d lower from our previous estimate. Overall, the regional 2Q18 forecast is revised down by 100 kb/d, unchanged from year earlier.



Refining activity remains rather lacklustre in the remaining two crude exporting regions, Africa and Latin America, where throughput is showing new seasonal lows. African runs are some 200 kb/d lower than the five-year average, mostly due to the shutdown of **Morocco's** Samir refinery in 2015. In **Algeria**, Sonatrach was announced as the buyer of ExxonMobil's Augusta refinery in Italy. **Algeria** is currently a net importer of refined products, and Sonatrach has been looking for ways to expand refined product output. Planned domestic capacity additions are not materialising as quickly as hoped for.



In Latin America, there are more problems: **Venezuela's** PDVSA is likely to stop refining activity in Curacao, to avoid asset seizures in a legal dispute with ConocoPhillips. Earlier, a potential rescue deal for PDVSA's refineries in Venezuela was rejected by CNPC and Rosneft. In **Brazil**, data for March showed throughput disappointing again, with runs 120 kb/d lower than our forecast, at 1.6 mb/d. A small, 30 kb/d refinery in **Argentina** has been implicated in bankruptcy proceedings and ceased operations in February. Overall, the continent's throughput declined by 0.4 mb/d y-o-y in 1Q18, and is forecast to decline by 0.3 mb/d in 2Q18 in the absence of any new developments.

Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	2014	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
OECD DEMAND																	
Americas	24.2	24.6	24.6	24.5	25.1	24.8	24.7	24.5	25.0	25.0	25.1	24.9	24.9	25.0	25.1	25.2	25.1
Europe	13.5	13.8	13.6	13.9	14.4	14.2	14.0	13.9	14.3	14.7	14.4	14.3	14.1	14.4	14.8	14.5	14.4
Asia Oceania	8.1	8.1	8.6	7.7	7.8	8.4	8.1	8.6	7.8	7.9	8.4	8.2	8.6	7.8	7.8	8.3	8.1
Total OECD	45.8	46.4	46.8	46.1	47.3	47.4	46.9	46.9	47.0	47.6	48.0	47.4	47.6	47.2	47.7	48.1	47.6
NON-OECD DEMAND																	
FSU	4.7	4.6	4.5	4.5	4.9	4.8	4.7	4.5	4.7	5.0	4.8	4.7	4.6	4.7	5.0	4.9	4.8
Europe	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8
China	10.8	11.6	11.6	12.1	11.6	11.9	11.8	12.2	12.6	12.2	12.6	12.4	12.7	12.9	12.6	13.1	12.8
Other Asia	11.8	12.4	13.0	13.0	12.7	13.0	12.9	13.1	13.5	13.3	13.5	13.3	13.6	13.9	13.5	14.0	13.8
Americas	6.9	6.7	6.5	6.6	6.7	6.5	6.6	6.4	6.6	6.7	6.6	6.6	6.5	6.6	6.7	6.6	6.6
Middle East	8.4	8.4	7.9	8.4	8.7	8.1	8.3	7.9	8.5	8.6	8.0	8.3	7.9	8.6	8.8	8.2	8.4
Africa	4.1	4.3	4.3	4.3	4.2	4.3	4.3	4.4	4.3	4.2	4.3	4.3	4.5	4.4	4.3	4.4	4.4
Total Non-OECD	47.4	48.6	48.5	49.6	49.4	49.4	49.2	49.3	50.9	50.7	50.5	50.4	50.5	51.9	51.6	52.1	51.5
Total Demand¹	93.1	95.0	95.2	95.7	96.8	96.8	96.2	96.2	97.9	98.3	98.5	97.7	98.1	99.1	99.3	100.2	99.2
OECD SUPPLY																	
Americas ⁴	19.1	20.0	19.9	19.0	19.3	19.7	19.5	19.9	19.8	20.2	21.2	20.3	21.6	21.7	22.2	22.7	22.0
Europe	3.3	3.5	3.6	3.4	3.3	3.6	3.5	3.7	3.5	3.4	3.4	3.5	3.5	3.4	3.3	3.5	3.4
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	22.9	23.1	23.7	23.4	24.0	23.7	24.0	25.0	24.2	25.5	25.4	25.9	26.6	25.9
NON-OECD SUPPLY																	
FSU	13.9	14.1	14.3	14.1	14.0	14.6	14.2	14.4	14.3	14.3	14.4	14.4	14.5	14.5	14.3	14.4	14.4
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.2	4.3	4.1	4.0	3.9	3.9	4.0	3.9	3.9	3.8	3.8	3.9	3.8	3.8	3.8	3.7	3.8
Other Asia ²	3.5	3.6	3.7	3.6	3.5	3.5	3.6	3.5	3.4	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.4
Americas ^{2,4}	4.4	4.6	4.3	4.4	4.6	4.6	4.5	4.6	4.5	4.5	4.5	4.5	4.5	4.6	4.7	4.8	4.6
Middle East	1.3	1.3	1.3	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
Africa ²	1.8	1.8	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.8
Total Non-OECD	29.2	29.7	29.5	29.1	29.1	29.7	29.3	29.5	29.3	29.2	29.3	29.3	29.3	29.4	29.3	29.4	29.3
Processing gains ³	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.2	2.3	1.9	2.5	2.7	2.3	2.3	1.9	2.4	2.8	2.4	2.4	2.1	2.5	2.8	2.6	2.5
Total Non-OPEC Supply	56.6	58.1	57.7	56.7	57.1	57.9	57.4	57.7	57.7	58.3	59.0	58.2	59.2	59.7	60.3	60.9	60.0
OPEC																	
Crude	30.7	31.8	32.3	32.5	32.9	33.4	32.8	32.1	32.3	32.7	32.3	32.3	32.0				
NGLs	6.4	6.6	6.6	6.8	6.9	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.0
Total OPEC	37.1	38.4	39.0	39.3	39.8	40.2	39.6	38.9	39.2	39.6	39.2	39.2	38.9				
Total Supply⁴	93.6	96.5	96.6	96.0	96.9	98.2	97.0	96.6	96.9	97.9	98.1	97.4	98.1				
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.4	0.8	0.4	0.4	0.1	-0.9	0.0	0.3	-0.2	-0.5	-1.3	-0.4	-0.4				
Government	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0				
Total	0.4	0.8	0.4	0.4	0.1	-0.8	0.0	0.3	-0.3	-0.6	-1.4	-0.5	-0.3				
Floating storage/Oil in transit	0.0	0.3	0.2	0.3	-0.2	0.2	0.1	-0.3	-0.3	-0.7	0.3	-0.3	-0.2				
Miscellaneous to balance ⁵	0.1	0.4	0.8	-0.4	0.2	1.9	0.6	0.4	-0.4	0.9	0.8	0.4	0.5				
Total Stock Ch. & Misc	0.5	1.5	1.4	0.3	0.2	1.4	0.8	0.4	-1.0	-0.4	-0.3	-0.4	0.0				
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	30.2	30.4	30.9	32.2	32.8	32.1	32.0	31.7	33.3	33.1	32.7	32.7	32.0	32.4	32.0	32.3	32.2

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

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

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

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

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

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

Table 1a
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1

(million barrels per day)

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

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

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2015	1Q16	2Q16	3Q16	4Q16	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
Demand (mb/d)																
Americas	24.55	24.59	24.47	25.05	24.85	24.74	24.47	24.96	24.98	25.09	24.88	24.93	25.04	25.12	25.25	25.08
Europe	13.83	13.60	13.93	14.44	14.19	14.04	13.86	14.29	14.74	14.44	14.34	14.07	14.36	14.76	14.52	14.43
Asia Oceania	8.06	8.57	7.70	7.84	8.38	8.12	8.56	7.76	7.90	8.43	8.16	8.60	7.78	7.79	8.31	8.12
Total OECD	46.44	46.76	46.10	47.33	47.42	46.91	46.90	47.01	47.62	47.96	47.38	47.60	47.18	47.67	48.08	47.63
Asia	23.96	24.63	25.09	24.33	24.90	24.74	25.37	26.12	25.41	26.09	25.75	26.33	26.84	26.08	27.14	26.60
Middle East	8.37	7.87	8.40	8.70	8.12	8.27	7.95	8.48	8.65	7.98	8.26	7.94	8.57	8.84	8.24	8.40
Americas	6.71	6.47	6.58	6.66	6.53	6.56	6.45	6.57	6.68	6.58	6.57	6.46	6.62	6.69	6.63	6.60
FSU	4.59	4.50	4.51	4.86	4.81	4.67	4.45	4.69	4.95	4.81	4.73	4.61	4.73	5.00	4.87	4.81
Africa	4.26	4.32	4.33	4.18	4.32	4.29	4.42	4.31	4.23	4.32	4.32	4.45	4.40	4.27	4.42	4.39
Europe	0.69	0.69	0.73	0.72	0.72	0.71	0.71	0.74	0.75	0.75	0.74	0.73	0.76	0.76	0.77	0.76
Total Non-OECD	48.58	48.48	49.64	49.44	49.41	49.25	49.34	50.91	50.68	50.52	50.37	50.52	51.92	51.64	52.07	51.55
World	95.02	95.24	95.75	96.77	96.83	96.15	96.24	97.93	98.30	98.48	97.74	98.12	99.09	99.31	100.16	99.18
of which: US50	19.53	19.54	19.50	19.94	19.77	19.69	19.49	20.01	19.92	20.05	19.87	20.05	20.11	20.11	20.24	20.13
Europe 5*	8.13	8.09	8.14	8.34	8.21	8.19	8.21	8.33	8.49	8.29	8.33	8.23	8.30	8.47	8.35	8.34
China	11.56	11.60	12.05	11.61	11.89	11.79	12.24	12.63	12.16	12.57	12.40	12.70	12.94	12.56	13.14	12.84
Japan	4.12	4.44	3.70	3.79	4.18	4.03	4.33	3.64	3.69	4.12	3.94	4.30	3.57	3.63	4.01	3.88
India	4.24	4.65	4.63	4.40	4.56	4.56	4.58	4.79	4.54	4.84	4.69	4.94	5.10	4.76	5.14	4.99
Russia	3.45	3.43	3.36	3.68	3.58	3.51	3.34	3.51	3.75	3.58	3.55	3.48	3.54	3.79	3.64	3.61
Brazil	3.18	3.02	3.07	3.13	3.07	3.07	3.01	3.05	3.17	3.12	3.09	3.03	3.13	3.20	3.18	3.14
Saudi Arabia	3.42	3.02	3.39	3.53	3.11	3.26	2.88	3.35	3.57	3.08	3.22	2.89	3.41	3.62	3.19	3.28
Canada	2.37	2.33	2.32	2.46	2.40	2.38	2.35	2.34	2.50	2.50	2.42	2.30	2.32	2.46	2.46	2.39
Korea	2.47	2.66	2.55	2.60	2.72	2.63	2.69	2.56	2.64	2.72	2.65	2.70	2.62	2.57	2.68	2.64
Mexico	2.01	2.05	2.02	2.01	2.03	2.03	1.96	1.98	1.90	1.88	1.93	1.90	1.97	1.90	1.88	1.91
Iran	1.84	1.84	1.82	1.79	1.82	1.82	1.84	1.85	1.81	1.82	1.83	1.86	1.92	1.87	1.89	1.89
Total	66.31	66.69	66.55	67.27	67.34	66.96	66.92	68.04	68.14	68.58	67.93	68.38	68.93	68.94	69.80	69.02
% of World	69.8%	70.0%	69.5%	69.5%	69.5%	69.6%	69.5%	69.5%	69.3%	69.6%	69.5%	69.7%	69.6%	69.4%	69.7%	69.6%
Annual Change (% per annum)																
Americas	1.6	0.7	0.5	0.4	1.5	0.8	-0.5	2.0	-0.3	1.0	0.6	1.8	0.3	0.6	0.6	0.8
Europe	2.2	0.5	1.9	1.1	2.5	1.5	1.9	2.6	2.1	1.8	2.1	1.5	0.5	0.1	0.6	0.7
Asia Oceania	0.1	-1.3	1.1	1.2	2.1	0.8	-0.1	0.8	0.8	0.5	0.5	0.5	0.3	-1.4	-1.4	-0.5
Total OECD	1.5	0.3	1.0	0.8	1.9	1.0	0.3	2.0	0.6	1.1	1.0	1.5	0.4	0.1	0.3	0.5
Asia	5.9	5.0	3.8	1.4	2.9	3.3	3.0	4.1	4.5	4.8	4.1	3.8	2.7	2.6	4.0	3.3
Middle East	-0.6	1.1	-1.4	-1.5	-2.6	-1.2	1.0	1.0	-0.6	-1.8	-0.1	-0.1	1.0	2.2	3.3	1.6
Americas	-2.1	-2.4	-2.2	-1.8	-2.6	-2.3	-0.3	-0.2	0.3	0.6	0.1	0.3	0.7	0.1	0.9	0.5
FSU	-1.7	4.8	-1.9	1.5	3.2	1.8	-1.2	3.8	2.1	0.0	1.2	3.5	1.0	1.0	1.2	1.6
Africa	3.0	2.8	3.7	1.1	-4.1	0.7	2.3	-0.5	1.3	0.1	0.8	0.8	2.1	0.9	2.2	1.5
Europe	3.9	4.5	6.1	3.1	2.2	4.0	1.5	2.0	4.0	4.1	2.9	4.0	3.3	1.4	3.6	2.9
Total Non-OECD	2.6	3.1	1.6	0.5	0.6	1.4	1.8	2.6	2.5	2.3	2.3	2.4	2.0	1.9	3.1	2.3
World	2.0	1.7	1.3	0.6	1.2	1.2	1.0	2.3	1.6	1.7	1.7	2.0	1.2	1.0	1.7	1.5
Annual Change (mb/d)																
Americas	0.39	0.18	0.11	0.11	0.36	0.19	-0.12	0.49	-0.07	0.25	0.14	0.45	0.07	0.14	0.16	0.20
Europe	0.29	0.07	0.26	0.16	0.35	0.21	0.26	0.36	0.30	0.25	0.30	0.21	0.07	0.02	0.09	0.10
Asia Oceania	0.01	-0.11	0.09	0.09	0.17	0.06	-0.01	0.06	0.06	0.04	0.04	0.04	0.02	-0.11	-0.12	-0.04
Total OECD	0.69	0.14	0.46	0.36	0.88	0.46	0.14	0.91	0.29	0.54	0.47	0.70	0.16	0.05	0.12	0.26
Asia	1.33	1.16	0.93	0.34	0.69	0.78	0.75	1.04	1.08	1.18	1.01	0.96	0.71	0.67	1.05	0.85
Middle East	-0.05	0.09	-0.12	-0.13	-0.22	-0.10	0.08	0.08	-0.05	-0.15	-0.01	-0.01	0.08	0.19	0.27	0.13
Americas	-0.14	-0.16	-0.15	-0.12	-0.18	-0.15	-0.02	-0.01	0.02	0.04	0.01	0.02	0.05	0.01	0.06	0.03
FSU	-0.08	0.21	-0.09	0.07	0.15	0.08	-0.05	0.17	0.10	0.00	0.06	0.16	0.05	0.05	0.06	0.08
Africa	0.13	0.12	0.15	0.04	-0.19	0.03	0.10	-0.02	0.05	0.01	0.03	0.03	0.09	0.04	0.10	0.06
Europe	0.03	0.03	0.04	0.02	0.02	0.03	0.01	0.01	0.03	0.03	0.02	0.03	0.02	0.01	0.03	0.02
Total Non-OECD	1.21	1.44	0.77	0.23	0.28	0.67	0.86	1.27	1.23	1.11	1.12	1.18	1.00	0.97	1.55	1.18
World	1.89	1.59	1.23	0.59	1.16	1.14	1.00	2.18	1.52	1.66	1.59	1.88	1.17	1.02	1.68	1.44
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.10	0.04	-0.08	-0.09	-0.06
Europe	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.04	-0.02	0.00	-0.03	0.08	0.02	-0.04	-0.10	-0.01
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.05	0.02	-0.01	0.01
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	-0.09	-0.04	-0.02	0.00	-0.03	-0.03	0.11	-0.10	-0.20	-0.06
Asia	0.00	-0.13	0.04	0.03	0.03	-0.01	-0.20	0.02	0.01	0.03	-0.04	0.04	-0.03	-0.19	-0.09	-0.07
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.03	-0.01	0.00	0.00	0.00	0.02	-0.02	-0.02	-0.01	-0.01
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.02	0.01	0.01	0.01	0.01
FSU	0.00	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	0.00	-0.01	0.00	-0.01	0.02	0.01	-0.02	-0.01	0.00
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.01
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Non-OECD	0.00	-0.15	0.02	0.01	0.01	-0.03	-0.19	0.00	0.00	0.02	-0.04	0.09	0.00	-0.22	-0.09	-0.06
World	0.00	-0.15	0.02	0.01	0.01	-0.03	-0.27	-0.04	-0.02	0.02	-0.07	0.06	0.11	-0.32	-0.29	-0.11
Revisions to Oil Demand Growth from Last Month's																

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

	2016	2017	1Q17	2Q17	3Q17	4Q17	Dec 17	Jan 18	Feb 18 ²	Latest month vs.	
										Jan 18	Feb 17
Americas											
LPG and ethane	3.27	3.25	3.50	3.07	2.96	3.45	3.76	4.21	3.85	-0.37	0.39
Naphtha	0.35	0.34	0.35	0.36	0.34	0.33	0.32	0.27	0.29	0.02	-0.05
Motor gasoline	11.10	11.08	10.64	11.30	11.36	11.01	11.00	10.41	10.51	0.11	-0.17
Jet and kerosene	1.90	1.98	1.89	1.97	2.04	2.03	2.04	1.90	1.89	-0.01	0.08
Gasoil/diesel oil	5.07	5.15	5.14	5.10	5.10	5.26	5.11	5.58	5.18	-0.40	0.08
Residual fuel oil	0.60	0.66	0.67	0.69	0.60	0.69	0.62	0.63	0.57	-0.06	-0.02
Other products	2.44	2.42	2.28	2.48	2.58	2.33	2.18	2.31	2.25	-0.07	0.06
Total	24.74	24.88	24.47	24.96	24.98	25.09	25.02	25.32	24.54	-0.78	0.38
Europe											
LPG and ethane	1.21	1.19	1.26	1.17	1.14	1.17	1.23	1.28	1.33	0.04	0.08
Naphtha	1.11	1.19	1.24	1.10	1.18	1.22	1.22	1.33	1.26	-0.07	0.00
Motor gasoline	1.90	1.91	1.79	1.98	2.01	1.88	1.85	1.71	1.85	0.14	0.03
Jet and kerosene	1.37	1.45	1.29	1.47	1.64	1.40	1.35	1.30	1.38	0.08	0.10
Gasoil/diesel oil	6.28	6.47	6.31	6.42	6.53	6.63	6.48	5.85	6.77	0.92	0.41
Residual fuel oil	0.89	0.89	0.89	0.86	0.90	0.93	0.94	0.86	0.93	0.06	0.07
Other products	1.28	1.24	1.10	1.30	1.34	1.21	1.13	1.03	1.11	0.07	0.00
Total	14.04	14.34	13.86	14.29	14.74	14.44	14.20	13.37	14.62	1.25	0.70
Asia Oceania											
LPG and ethane	0.83	0.79	0.89	0.77	0.74	0.78	0.87	0.86	0.89	0.03	0.01
Naphtha	1.96	2.09	2.14	1.98	2.05	2.17	2.19	2.14	2.19	0.05	0.02
Motor gasoline	1.55	1.55	1.47	1.53	1.62	1.57	1.63	1.46	1.55	0.09	0.01
Jet and kerosene	0.90	0.92	1.17	0.73	0.72	1.06	1.27	1.27	1.35	0.08	0.08
Gasoil/diesel oil	1.84	1.92	1.90	1.90	1.89	1.98	2.02	1.89	2.04	0.15	0.04
Residual fuel oil	0.65	0.56	0.64	0.51	0.52	0.56	0.63	0.65	0.68	0.04	0.03
Other products	0.40	0.34	0.35	0.34	0.35	0.31	0.32	0.35	0.30	-0.05	-0.08
Total	8.12	8.16	8.56	7.76	7.90	8.43	8.93	8.63	9.02	0.39	0.11
OECD											
LPG and ethane	5.31	5.23	5.65	5.01	4.85	5.40	5.85	6.35	6.06	-0.29	0.49
Naphtha	3.42	3.61	3.73	3.44	3.57	3.72	3.74	3.74	3.74	0.00	-0.02
Motor gasoline	14.55	14.54	13.90	14.81	15.00	14.46	14.47	13.58	13.91	0.33	-0.13
Jet and kerosene	4.17	4.35	4.34	4.16	4.41	4.49	4.66	4.48	4.63	0.15	0.26
Gasoil/diesel oil	13.20	13.54	13.35	13.42	13.52	13.87	13.61	13.32	13.99	0.67	0.54
Residual fuel oil	2.15	2.11	2.20	2.06	2.01	2.17	2.18	2.14	2.18	0.04	0.08
Other products	4.11	3.99	3.73	4.12	4.27	3.85	3.63	3.70	3.65	-0.04	-0.03
Total	46.91	47.38	46.90	47.01	47.62	47.96	48.15	47.32	48.18	0.86	1.19

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

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

² Latest official OECD submissions (MOS).

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

	2016	2017	1Q17	2Q17	3Q17	4Q17	Dec 17	Jan 18	Feb 18 ²	Latest month vs.	
										Jan 18	Feb 17
United States³											
LPG and ethane	2.47	2.49	2.69	2.36	2.26	2.66	2.92	3.36	3.02	-0.34	0.40
Naphtha	0.22	0.23	0.24	0.24	0.21	0.22	0.22	0.21	0.22	0.01	-0.04
Motor gasoline	9.32	9.32	8.95	9.54	9.56	9.23	9.20	8.74	8.82	0.08	-0.17
Jet and kerosene	1.62	1.69	1.61	1.69	1.72	1.73	1.76	1.63	1.60	-0.03	0.07
Gasoil/diesel oil	3.88	3.94	3.95	3.91	3.87	4.02	3.93	4.39	3.96	-0.43	0.06
Residual fuel oil	0.33	0.36	0.37	0.37	0.30	0.39	0.39	0.34	0.28	-0.06	0.01
Other products	1.86	1.85	1.69	1.91	2.01	1.79	1.66	1.79	1.72	-0.07	0.10
Total	19.69	19.87	19.49	20.01	19.92	20.05	20.08	20.46	19.62	-0.84	0.43
Japan											
LPG and ethane	0.44	0.42	0.50	0.40	0.37	0.42	0.49	0.48	0.49	0.01	0.00
Naphtha	0.76	0.78	0.83	0.75	0.75	0.81	0.82	0.78	0.82	0.04	-0.02
Motor gasoline	0.90	0.88	0.82	0.87	0.95	0.90	0.94	0.82	0.87	0.05	0.00
Jet and kerosene	0.50	0.51	0.73	0.36	0.33	0.61	0.79	0.77	0.87	0.09	0.05
Diesel	0.43	0.42	0.43	0.41	0.42	0.43	0.45	0.38	0.45	0.07	-0.02
Other gasoil	0.35	0.35	0.39	0.32	0.31	0.37	0.42	0.39	0.44	0.05	0.02
Residual fuel oil	0.34	0.29	0.33	0.27	0.27	0.29	0.33	0.34	0.39	0.05	0.06
Other products	0.31	0.29	0.30	0.27	0.29	0.29	0.31	0.34	0.29	-0.06	-0.04
Total	4.03	3.94	4.33	3.64	3.69	4.12	4.55	4.31	4.61	0.30	0.05
Germany											
LPG and ethane	0.10	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.11	-0.01	-0.02
Naphtha	0.38	0.38	0.40	0.37	0.36	0.37	0.39	0.41	0.42	0.01	-0.01
Motor gasoline	0.42	0.43	0.41	0.44	0.44	0.42	0.41	0.38	0.41	0.03	0.01
Jet and kerosene	0.20	0.22	0.20	0.22	0.24	0.21	0.20	0.17	0.19	0.01	0.00
Diesel	0.76	0.76	0.74	0.77	0.78	0.76	0.70	0.64	0.73	0.09	0.02
Other gasoil	0.36	0.37	0.40	0.37	0.36	0.36	0.33	0.33	0.45	0.13	0.05
Residual fuel oil	0.09	0.09	0.10	0.08	0.08	0.10	0.10	0.11	0.11	0.00	0.01
Other products	0.10	0.10	0.09	0.11	0.12	0.09	0.06	0.06	0.07	0.01	-0.01
Total	2.41	2.47	2.46	2.48	2.50	2.43	2.32	2.22	2.49	0.27	0.06
Italy											
LPG and ethane	0.11	0.11	0.13	0.10	0.10	0.12	0.14	0.12	0.14	0.01	0.01
Naphtha	0.09	0.11	0.11	0.11	0.12	0.11	0.10	0.12	0.11	-0.01	0.00
Motor gasoline	0.18	0.17	0.16	0.18	0.18	0.17	0.17	0.16	0.17	0.01	0.01
Jet and kerosene	0.10	0.10	0.08	0.11	0.13	0.09	0.09	0.09	0.09	0.00	0.02
Diesel	0.46	0.47	0.45	0.47	0.46	0.48	0.47	0.45	0.48	0.04	0.02
Other gasoil	0.09	0.09	0.08	0.08	0.09	0.10	0.10	0.06	0.09	0.03	0.01
Residual fuel oil	0.06	0.07	0.07	0.06	0.08	0.06	0.06	0.06	0.07	0.01	0.01
Other products	0.16	0.16	0.15	0.16	0.16	0.16	0.14	0.15	0.16	0.01	0.00
Total	1.25	1.28	1.23	1.28	1.32	1.30	1.27	1.21	1.31	0.10	0.07
France											
LPG and ethane	0.12	0.11	0.14	0.10	0.10	0.11	0.12	0.14	0.14	0.00	0.00
Naphtha	0.10	0.10	0.12	0.10	0.11	0.07	0.08	0.11	0.12	0.00	0.00
Motor gasoline	0.17	0.18	0.16	0.19	0.20	0.18	0.18	0.16	0.17	0.01	0.01
Jet and kerosene	0.15	0.16	0.15	0.16	0.18	0.15	0.16	0.15	0.15	0.00	0.00
Diesel	0.70	0.72	0.71	0.73	0.73	0.72	0.72	0.66	0.71	0.06	0.00
Other gasoil	0.25	0.25	0.28	0.21	0.25	0.26	0.28	0.23	0.32	0.08	0.05
Residual fuel oil	0.04	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.00	0.00
Other products	0.12	0.12	0.09	0.14	0.13	0.11	0.10	0.08	0.11	0.03	0.02
Total	1.66	1.71	1.72	1.68	1.76	1.66	1.69	1.59	1.79	0.19	0.08
United Kingdom											
LPG and ethane	0.16	0.15	0.16	0.15	0.14	0.14	0.14	0.14	0.16	0.03	0.00
Naphtha	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.02	0.03	0.01	0.00
Motor gasoline	0.29	0.29	0.28	0.30	0.29	0.28	0.28	0.27	0.30	0.04	0.00
Jet and kerosene	0.31	0.32	0.32	0.31	0.33	0.32	0.33	0.32	0.35	0.03	0.02
Diesel	0.52	0.52	0.49	0.53	0.52	0.54	0.54	0.46	0.59	0.13	0.02
Other gasoil	0.13	0.14	0.12	0.14	0.15	0.14	0.13	0.10	0.14	0.03	0.01
Residual fuel oil	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.00	0.01
Other products	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.10	0.10	0.00	-0.01
Total	1.59	1.58	1.53	1.59	1.60	1.60	1.60	1.44	1.70	0.27	0.05
Canada											
LPG and ethane	0.37	0.36	0.39	0.32	0.32	0.40	0.43	0.41	0.39	-0.02	0.00
Naphtha	0.10	0.10	0.09	0.09	0.11	0.10	0.10	0.06	0.06	0.00	0.00
Motor gasoline	0.85	0.85	0.80	0.86	0.89	0.85	0.84	0.78	0.78	0.00	-0.03
Jet and kerosene	0.14	0.15	0.13	0.14	0.17	0.14	0.14	0.12	0.15	0.03	0.01
Diesel	0.30	0.29	0.30	0.29	0.29	0.29	0.29	0.25	0.27	0.03	-0.04
Other gasoil	0.24	0.29	0.26	0.26	0.32	0.33	0.29	0.31	0.31	-0.01	0.06
Residual fuel oil	0.04	0.05	0.05	0.06	0.05	0.04	0.04	0.08	0.05	-0.02	0.00
Other products	0.34	0.34	0.33	0.32	0.36	0.35	0.34	0.33	0.32	-0.01	0.01
Total	2.38	2.42	2.35	2.34	2.50	2.50	2.45	2.34	2.33	-0.01	0.00

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

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION

(million barrels per day)

	2016	2017	2018	4Q17	1Q18	2Q18	3Q18	4Q18	Feb 18	Mar 18	Apr 18
OPEC											
Crude Oil											
Saudi Arabia	10.42	9.96		9.99	9.95				9.96	9.92	9.92
Iran	3.55	3.80		3.81	3.81				3.82	3.81	3.82
Iraq	4.42	4.47		4.45	4.45				4.46	4.44	4.41
UAE	3.05	2.93		2.90	2.84				2.80	2.87	2.87
Kuwait	2.88	2.71		2.70	2.70				2.70	2.70	2.71
Neutral Zone	0.00	0.00		0.00	0.00				0.00	0.00	0.00
Qatar	0.65	0.61		0.61	0.60				0.58	0.60	0.60
Angola	1.71	1.64		1.62	1.55				1.57	1.52	1.50
Nigeria	1.47	1.53		1.60	1.66				1.68	1.62	1.59
Libya	0.39	0.83		1.00	1.01				1.03	0.99	0.98
Algeria	1.11	1.05		1.02	1.01				1.04	0.98	0.99
Equatorial Guinea	0.14	0.13		0.13	0.13				0.13	0.13	0.12
Ecuador	0.55	0.53		0.53	0.52				0.51	0.52	0.52
Venezuela	2.24	1.97		1.75	1.54				1.55	1.47	1.42
Gabon	0.23	0.20		0.21	0.21				0.20	0.21	0.20
Total Crude Oil	32.80	32.35		32.31	31.99				32.03	31.78	31.65
Total NGLs ¹	6.78	6.87	6.96	6.85	6.91	6.93	6.98	7.01	6.91	6.91	6.93
Total OPEC²	39.59	39.22		39.17	38.90				38.94	38.69	38.58
NON-OPEC^{2,3}											
OECD											
Americas											
United States	12.53	13.23	14.82	14.01	14.29	14.73	14.87	15.39	14.34	14.53	14.59
Mexico	2.47	2.23	2.08	2.13	2.15	2.09	2.06	2.02	2.15	2.12	2.10
Canada	4.47	4.83	5.12	5.06	5.13	4.82	5.24	5.27	5.17	5.17	4.70
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.52	3.48	3.43	3.42	3.53	3.37	3.32	3.52	3.50	3.40	3.48
UK	1.03	1.01	1.07	0.99	1.06	1.05	1.03	1.15	1.04	1.01	1.05
Norway	1.99	1.97	1.86	1.91	1.96	1.83	1.79	1.87	1.95	1.90	1.92
Others	0.49	0.50	0.50	0.52	0.51	0.50	0.50	0.50	0.51	0.49	0.51
Asia Oceania	0.42	0.39	0.41	0.38	0.40	0.40	0.40	0.43	0.40	0.40	0.41
Australia	0.34	0.31	0.34	0.31	0.34	0.34	0.33	0.36	0.33	0.34	0.34
Others	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07
Total OECD	23.42	24.17	25.87	25.00	25.51	25.43	25.89	26.63	25.57	25.64	25.30
NON-OECD											
Former USSR											
Russia	14.24	14.36	14.41	14.38	14.46	14.45	14.32	14.42	14.48	14.46	14.45
Others	11.34	11.36	11.34	11.33	11.34	11.35	11.33	11.34	11.34	11.35	11.35
Others	2.90	3.00	3.07	3.05	3.11	3.10	2.98	3.08	3.14	3.11	3.11
Asia²	7.57	7.33	7.18	7.27	7.25	7.22	7.15	7.09	7.20	7.24	7.25
China	3.98	3.87	3.79	3.84	3.82	3.81	3.77	3.75	3.77	3.82	3.83
Malaysia	0.71	0.69	0.71	0.69	0.72	0.71	0.70	0.70	0.71	0.71	0.71
India	0.85	0.86	0.84	0.85	0.85	0.84	0.84	0.83	0.85	0.87	0.84
Indonesia	0.88	0.85	0.83	0.84	0.83	0.84	0.83	0.82	0.82	0.85	0.84
Others	1.15	1.06	1.01	1.05	1.03	1.01	1.01	0.99	1.04	1.00	1.01
Europe	0.14	0.13	0.12	0.13	0.13	0.12	0.12	0.12	0.13	0.13	0.13
Americas²	4.48	4.54	4.64	4.55	4.51	4.62	4.67	4.76	4.47	4.50	4.60
Brazil	2.61	2.74	2.85	2.73	2.71	2.81	2.87	2.98	2.73	2.68	2.79
Argentina	0.61	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
Colombia	0.88	0.86	0.85	0.86	0.85	0.86	0.85	0.83	0.83	0.86	0.86
Others	0.38	0.37	0.37	0.37	0.36	0.37	0.37	0.37	0.33	0.38	0.38
Middle East^{2,4}	1.27	1.25	1.24	1.23	1.21	1.24	1.25	1.25	1.20	1.23	1.24
Oman	1.01	0.98	0.97	0.98	0.97	0.97	0.97	0.97	0.97	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	0.04	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03
Others	0.21	0.21	0.20	0.19	0.18	0.20	0.20	0.20	0.17	0.20	0.20
Africa	1.66	1.69	1.76	1.73	1.75	1.78	1.78	1.74	1.73	1.74	1.77
Egypt	0.67	0.64	0.62	0.65	0.64	0.63	0.62	0.61	0.64	0.63	0.63
Others	0.99	1.05	1.14	1.08	1.11	1.16	1.16	1.14	1.09	1.10	1.14
Total Non-OECD	29.34	29.31	29.35	29.29	29.29	29.45	29.28	29.38	29.21	29.29	29.44
Processing gains ⁵	2.27	2.29	2.32	2.29	2.32	2.32	2.32	2.32	2.32	2.32	2.32
Global Biofuels	2.34	2.40	2.50	2.38	2.06	2.55	2.82	2.55	2.08	2.06	2.35
TOTAL NON-OPEC	57.36	58.16	60.04	58.97	59.19	59.75	60.31	60.88	59.18	59.31	59.41
TOTAL SUPPLY	96.95	97.38		98.13	98.09				98.12	98.00	98.00

¹ Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. NGLs in Qatar and Nigeria and non-oil inputs to Saudi Arabian MTBE.

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

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

⁴ Includes small amounts of production from Jordan and Bahrain.

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

Table 4
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Nov2017	Dec2017	Jan2018	Feb2018	Mar2018*	Mar2015	Mar2016	Mar2017	2Q2017	3Q2017	4Q2017	1Q2018
OECD Americas												
Crude	609.7	580.9	581.1	581.9	583.0	593.6	661.4	696.7	-0.44	-0.34	-0.48	0.02
Motor Gasoline	253.9	267.8	277.7	284.5	272.5	267.6	273.0	271.0	-0.03	-0.18	0.17	0.05
Middle Distillate	202.4	219.0	217.7	214.0	203.7	201.7	240.5	226.5	-0.02	-0.15	0.09	-0.17
Residual Fuel Oil	37.7	35.2	37.6	38.6	41.2	46.1	50.8	48.1	-0.08	0.02	-0.08	0.07
Total Products ³	722.1	734.8	722.5	718.8	699.4	700.8	756.7	736.3	0.19	-0.06	-0.14	-0.39
Total ⁴	1523.3	1498.7	1481.1	1473.8	1460.3	1458.5	1592.0	1607.6	-0.13	-0.26	-0.79	-0.43
OECD Europe												
Crude	347.1	329.5	333.5	338.2	345.6	344.4	350.8	359.9	0.04	-0.28	-0.09	0.18
Motor Gasoline	92.1	98.8	101.2	103.5	101.7	102.1	100.9	100.5	-0.09	-0.06	0.13	0.03
Middle Distillate	265.8	271.3	289.4	275.4	270.7	261.8	321.4	311.0	-0.15	-0.04	-0.24	-0.01
Residual Fuel Oil	60.4	59.0	62.8	65.5	67.1	65.6	82.5	69.2	-0.04	-0.07	0.00	0.09
Total Products ³	531.2	543.1	574.2	561.0	555.3	526.5	603.3	591.3	-0.30	-0.09	-0.13	0.14
Total ⁴	952.5	942.4	981.5	972.2	975.7	941.7	1025.5	1021.7	-0.25	-0.37	-0.25	0.37
OECD Asia Oceania												
Crude	188.1	188.9	185.5	182.9	167.2	178.0	196.0	188.6	0.01	0.09	-0.10	-0.24
Motor Gasoline	23.7	22.7	23.9	23.9	24.2	23.0	26.1	23.0	0.02	-0.02	0.00	0.02
Middle Distillate	66.2	63.2	63.1	60.1	61.3	56.0	59.0	59.4	0.04	0.03	-0.04	-0.02
Residual Fuel Oil	21.1	19.0	19.8	19.0	18.0	18.3	19.9	18.4	0.03	-0.02	0.00	-0.01
Total Products ³	176.1	164.7	162.9	159.8	160.3	152.8	166.1	155.3	0.16	0.03	-0.08	-0.05
Total ⁴	426.9	412.1	407.8	399.5	382.7	392.1	421.3	403.5	0.23	0.10	-0.23	-0.33
Total OECD												
Crude	1144.8	1099.2	1100.1	1103.0	1095.9	1116.0	1208.2	1245.1	-0.39	-0.53	-0.67	-0.04
Motor Gasoline	369.7	389.4	402.8	411.9	398.3	392.7	400.0	394.5	-0.09	-0.26	0.29	0.10
Middle Distillate	534.3	553.5	570.2	549.4	535.6	519.5	620.9	596.8	-0.13	-0.15	-0.19	-0.20
Residual Fuel Oil	119.1	113.2	120.2	123.0	126.3	130.0	153.1	135.7	-0.09	-0.08	-0.08	0.15
Total Products ³	1429.4	1442.6	1459.5	1439.5	1415.0	1380.1	1526.1	1482.9	0.04	-0.13	-0.35	-0.31
Total ⁴	2902.7	2853.2	2870.4	2845.5	2818.7	2792.3	3038.7	3032.9	-0.16	-0.53	-1.27	-0.38

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Nov2017	Dec2017	Jan2018	Feb2018	Mar2018*	Mar2015	Mar2016	Mar2017	2Q2017	3Q2017	4Q2017	1Q2018
OECD Americas												
Crude	661.3	662.8	664.2	665.5	665.5	691.0	695.1	691.5	-0.14	-0.06	-0.12	0.03
Products	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.00	0.00	0.00	0.00
OECD Europe												
Crude	207.0	206.0	205.0	204.1	206.7	208.9	206.5	205.3	0.03	0.00	-0.02	0.01
Products	266.7	270.6	274.8	275.1	274.8	259.5	267.9	275.0	-0.03	-0.06	0.04	0.05
OECD Asia Oceania												
Crude	385.4	384.4	383.4	383.4	383.4	386.9	384.2	384.1	0.01	0.00	-0.01	-0.01
Products	38.6	38.7	38.7	38.7	38.7	32.6	35.2	38.0	0.00	0.00	0.00	0.00
Total OECD												
Crude	1253.7	1253.2	1252.6	1252.9	1255.6	1286.8	1285.8	1280.9	-0.09	-0.06	-0.15	0.03
Products	307.4	311.3	315.5	315.7	315.5	294.1	305.1	315.0	-0.03	-0.05	0.04	0.05
Total ⁴	1564.6	1567.6	1571.0	1571.6	1574.4	1584.4	1594.8	1599.5	-0.12	-0.12	-0.11	0.08

* estimated

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

2 Closing stock levels.

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

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

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

Table 5
TOTAL STOCKS ON LAND IN OECD COUNTRIES¹
(millions of barrels¹ and 'days'²)

	End March 2017		End June 2017		End September 2017		End December 2017		End March 2018 ³	
	Stock Level	Days Fwd ² Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
OECD Americas										
Canada	184.9	79	182.7	73	185.7	74	189.2	-	-	-
Chile	11.9	35	11.2	32	12.5	37	11.5	-	-	-
Mexico	47.6	24	49.3	26	46.5	25	43.8	-	-	-
United States ⁴	2034.5	102	2011.2	101	1980.3	99	1897.0	-	-	-
Total⁴	2301.1	92	2276.5	91	2247.2	90	2163.5	87	2127.7	85
OECD Asia Oceania										
Australia	33.3	28	35.4	30	33.7	28	34.2	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	546.3	150	566.3	154	571.3	139	562.8	-	-	-
Korea	237.8	93	236.4	89	243.5	89	230.6	-	-	-
New Zealand	8.2	48	9.0	54	8.1	44	7.5	-	-	-
Total	825.6	106	847.1	107	856.6	102	835.1	97	804.7	103
OECD Europe⁵										
Austria	24.3	94	21.8	76	22.1	83	21.4	-	-	-
Belgium	47.8	76	46.6	72	44.1	66	41.4	-	-	-
Czech Republic	22.5	101	21.4	93	21.4	97	21.5	-	-	-
Denmark	27.2	169	27.3	172	23.6	146	23.4	-	-	-
Estonia	2.6	94	2.7	98	2.2	80	3.0	-	-	-
Finland	44.8	224	43.4	214	44.7	236	41.1	-	-	-
France	167.7	100	165.4	94	165.2	99	165.7	-	-	-
Germany	280.3	113	276.7	111	273.9	113	278.8	-	-	-
Greece	35.1	118	32.4	100	32.3	109	32.4	-	-	-
Hungary	24.3	144	25.2	145	26.2	148	25.4	-	-	-
Ireland	12.8	86	12.1	79	10.1	63	11.0	-	-	-
Italy	134.4	105	133.7	101	127.7	98	125.1	-	-	-
Latvia	2.4	58	3.3	77	1.5	43	2.5	-	-	-
Luxembourg	0.7	11	0.7	12	0.6	11	0.6	-	-	-
Netherlands	154.7	158	156.1	162	149.7	161	142.5	-	-	-
Norway	22.9	107	22.0	98	22.0	81	23.3	-	-	-
Poland	69.8	110	69.5	103	69.2	104	71.8	-	-	-
Portugal	26.5	110	24.0	96	24.1	101	22.9	-	-	-
Slovak Republic	12.8	151	13.0	140	12.1	122	11.4	-	-	-
Slovenia	4.9	94	5.1	92	4.7	88	5.2	-	-	-
Spain	136.5	106	128.7	98	127.2	98	119.1	-	-	-
Sweden	52.6	162	53.2	160	42.3	131	35.6	-	-	-
Switzerland	35.5	162	34.5	160	35.4	148	33.9	-	-	-
Turkey	81.4	83	84.0	76	83.9	81	83.2	-	-	-
United Kingdom	81.2	51	80.7	50	77.5	49	80.1	-	-	-
Total	1505.7	105	1483.4	101	1443.9	100	1422.2	101	1460.7	102
Total OECD	4632.4	99	4606.9	97	4547.6	95	4420.9	93	4393.1	93
DAYS OF IEA Net Imports⁶ -	203	-	196	-	192	-	187	-	-	-

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

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

³ End March 2018 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	
		Millions of Barrels				Days of Fwd. Demand ²	
1Q2015	4377	1584		2792	96	35	61
2Q2015	4467	1587		2880	95	34	61
3Q2015	4538	1581		2957	98	34	64
4Q2015	4577	1588		2989	98	34	64
1Q2016	4633	1595		3039	101	35	66
2Q2016	4668	1592		3076	99	34	65
3Q2016	4679	1596		3084	99	34	65
4Q2016	4602	1600		3002	98	34	64
1Q2017	4632	1600		3033	99	34	65
2Q2017	4607	1588		3018	97	33	63
3Q2017	4548	1578		2970	95	33	62
4Q2017	4421	1568		2853	93	33	60
1Q2018	4393	1574		2819	93	33	60

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 1Q2018 (when latest forecasts are used).

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

	2015	2016	2017	1Q17	2Q17	3Q17	4Q17	Dec 17	Jan 18	Feb 18	Year Earlier	
											Feb 17	change
Saudi Light & Extra Light												
Americas	0.63	0.69	0.59	0.70	0.75	0.44	0.47	0.52	0.44	0.62	0.77	-0.15
Europe	0.78	0.79	0.69	0.64	0.78	0.64	0.68	0.49	0.48	0.62	0.61	0.01
Asia Oceania	1.25	1.40	1.56	1.65	1.49	1.56	1.53	1.61	1.53	1.67	1.66	0.01
Saudi Medium												
Americas	0.37	0.44	0.33	0.43	0.35	0.28	0.27	0.28	0.24	0.19	0.53	-0.35
Europe	0.03	0.01	0.01	0.01	0.00	0.01	0.02	0.02	0.04	0.02	-	-
Asia Oceania	0.44	0.41	0.37	0.33	0.33	0.41	0.41	0.57	0.36	0.40	0.35	0.05
Canada Heavy												
Americas	1.90	2.04	2.23	2.31	2.25	2.21	2.17	2.38	2.34	2.23	2.29	-0.06
Europe	0.01	0.01	0.02	0.01	-	0.03	0.04	0.01	0.03	0.02	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	0.01	-	-
Iraqi Basrah Light²												
Americas	0.17	0.42	0.63	0.53	0.67	0.55	0.75	0.74	0.66	0.79	0.63	0.16
Europe	0.72	0.81	0.77	0.76	0.84	0.76	0.71	0.68	0.79	0.57	0.71	-0.14
Asia Oceania	0.41	0.46	0.40	0.42	0.39	0.41	0.39	0.45	0.62	0.29	0.31	-0.02
Kuwait Blend												
Americas	0.13	0.14	0.11	0.19	0.18	0.04	0.03	0.09	0.07	-	0.20	-
Europe	0.13	0.19	0.20	0.20	0.22	0.25	0.14	0.18	0.13	0.13	0.22	-0.08
Asia Oceania	0.65	0.66	0.68	0.71	0.68	0.67	0.67	0.62	0.79	0.76	0.76	0.01
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.09	0.21	0.27	0.38	0.25	0.25	0.20	0.22	0.20	0.32	0.41	-0.09
Asia Oceania	0.01	0.01	0.01	0.01	0.00	0.02	0.01	0.01	0.03	0.01	0.02	-0.01
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.02	0.21	0.52	0.41	0.52	0.59	0.54	0.40	0.49	0.39	0.36	0.03
Asia Oceania	0.27	0.52	0.57	0.73	0.43	0.57	0.54	0.49	0.43	0.50	0.68	-0.18
BFOE												
Americas	0.01	0.02	0.02	0.02	0.01	0.02	0.01	-	-	-	-	-
Europe	0.49	0.44	0.45	0.39	0.41	0.49	0.52	0.74	0.44	0.44	0.47	-0.03
Asia Oceania	0.06	0.05	0.10	0.09	0.06	0.09	0.14	0.20	0.07	0.14	0.14	0.00
Kazakhstan												
Americas	0.00	0.01	-	-	-	-	-	-	-	-	-	-
Europe	0.64	0.70	0.75	0.76	0.78	0.74	0.72	0.82	1.04	0.66	0.79	-0.12
Asia Oceania	0.06	0.03	0.10	0.05	0.09	0.15	0.13	0.14	0.21	0.04	0.07	-0.04
Venezuelan 22 API and heavier												
Americas	0.67	0.63	0.48	0.52	0.61	0.41	0.39	0.37	0.36	0.32	0.61	-0.29
Europe	0.09	0.05	0.04	0.06	0.04	0.05	0.03	0.01	0.02	0.02	0.03	-0.01
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.50	0.53	0.58	0.54	0.63	0.50	0.67	0.62	0.79	0.44	0.46	-0.02
Europe	0.15	0.17	0.20	0.20	0.18	0.17	0.26	0.23	0.23	0.34	0.25	0.09
Asia Oceania	0.01	0.05	0.07	0.06	0.07	0.07	0.10	0.10	0.02	0.11	0.01	0.10
Russian Urals												
Americas	-	-	0.01	-	-	0.02	0.01	-	-	-	-	-
Europe	1.61	1.72	1.64	1.64	1.57	1.68	1.66	1.49	1.31	1.36	1.53	-0.17
Asia Oceania	-	-	0.01	-	0.02	0.02	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.11	0.16	0.07	0.04	-	0.17	0.07	0.14	-	-	0.11	-
Europe	0.42	0.27	0.11	0.09	0.07	0.17	0.10	0.12	0.09	0.21	0.11	0.10
Pacific	0.02	0.01	0.01	-	0.01	0.03	-	-	-	-	-	-
Nigerian Light⁴												
Americas	0.02	0.07	0.04	0.02	0.04	0.05	0.06	-	0.09	-	-	-
Europe	0.57	0.39	0.39	0.36	0.46	0.38	0.38	0.39	0.44	0.50	0.26	0.23
Asia Oceania	-	0.01	0.02	0.02	0.03	0.03	0.01	0.01	0.01	-	0.02	-
Libya Light and Medium												
Americas	-	-	0.02	-	-	0.03	0.03	-	-	-	-	-
Europe	0.22	0.20	0.54	0.41	0.37	0.67	0.70	0.69	0.66	0.67	0.44	0.22
Asia Oceania	0.01	0.02	0.03	0.04	0.04	0.01	0.03	0.03	0.02	0.04	0.05	-0.02

¹ Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report. IEA Americas includes United States and Canada. IEA Europe includes all countries in OECD Europe except Estonia, Hungary, Slovenia and Latvia. IEA Asia Oceania includes Australia, New Zealand, Korea and Japan.

² Iraqi Total minus Kirkuk.

³ Iranian Total minus Iranian Light.

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

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

	2015	2016	2017	1Q17	2Q17	3Q17	4Q17	Dec 17	Jan 18	Feb 18	Year Earlier	
											Feb 17	% change
Crude Oil												
Americas	4026	4542	4361	4558	4664	4289	3941	3797	4068	3634	4424	-18%
Europe	9505	9253	9709	9490	9632	9779	9930	9533	9667	9756	9279	5%
Asia Oceania	6573	6669	6826	7006	6450	6921	6926	7265	7180	7079	7029	1%
Total OECD	20103	20464	20896	21055	20745	20989	20797	20596	20914	20469	20731	-1%
LPG												
Americas	10	20	20	23	16	15	25	22	38	38	28	37%
Europe	418	445	437	505	425	421	400	416	480	512	520	-1%
Asia Oceania	518	566	548	603	586	467	537	557	532	674	672	0%
Total OECD	947	1031	1005	1132	1028	903	962	995	1050	1224	1219	0%
Naphtha												
Americas	14	10	19	19	19	18	20	3	4	21	21	-3%
Europe	345	348	369	369	355	363	389	415	444	284	429	-34%
Asia Oceania	950	905	978	980	976	968	988	907	996	1099	1021	8%
Total OECD	1309	1263	1366	1368	1350	1350	1397	1325	1444	1404	1472	-5%
Gasoline³												
Americas	670	735	727	575	891	880	560	391	451	457	556	-18%
Europe	105	100	162	151	141	130	224	256	74	230	35	549%
Asia Oceania	93	84	100	119	97	94	92	81	104	158	135	17%
Total OECD	868	919	989	845	1129	1103	876	728	629	844	726	16%
Jet & Kerosene												
Americas	141	169	171	148	144	181	210	158	151	125	152	-17%
Europe	445	504	506	465	469	552	535	459	496	358	477	-25%
Asia Oceania	66	74	78	112	68	46	89	86	81	162	119	37%
Total OECD	651	747	755	724	681	780	833	702	728	646	747	-14%
Gasoi/Diesel												
Americas	76	67	77	81	37	48	144	221	237	226	122	86%
Europe	1161	1340	1381	1393	1377	1394	1360	1422	1398	1537	1488	3%
Asia Oceania	158	195	194	204	206	188	178	159	195	193	201	-4%
Total OECD	1395	1601	1652	1677	1620	1629	1682	1802	1830	1956	1811	8%
Heavy Fuel Oil												
Americas	116	149	131	141	103	153	128	116	192	134	136	-1%
Europe	537	477	240	271	215	299	174	188	186	224	247	-9%
Asia Oceania	173	153	146	145	180	106	153	185	183	193	156	24%
Total OECD	826	779	517	557	498	559	456	489	562	551	539	2%
Other Products												
Americas	675	652	717	705	694	722	745	759	759	669	667	0%
Europe	701	774	1009	1114	1119	829	979	999	984	1125	1062	6%
Asia Oceania	343	344	260	301	244	243	253	238	282	220	288	-24%
Total OECD	1719	1770	1986	2121	2057	1794	1977	1996	2024	2014	2017	0%
Total Products												
Americas	1702	1802	1862	1692	1904	2018	1832	1670	1833	1670	1681	-1%
Europe	3712	3988	4104	4268	4101	3988	4062	4154	4062	4271	4258	0%
Asia Oceania	2301	2321	2305	2464	2357	2111	2291	2213	2372	2699	2591	4%
Total OECD	7715	8110	8271	8424	8363	8117	8184	8037	8267	8640	8531	1%
Total Oil												
Americas	5728	6344	6223	6250	6568	6307	5773	5467	5900	5304	6105	-13%
Europe	13216	13241	13813	13758	13733	13767	13992	13688	13729	14027	13537	4%
Asia Oceania	8874	8990	9131	9471	8807	9032	9217	9478	9551	9778	9620	2%
Total OECD	27818	28574	29167	29478	29108	29106	28982	28633	29181	29109	29262	-1%

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

2 Excludes intra-regional trade.

3 Includes additives.

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