

Oil Market Report

15 March 2019

HIGHLIGHTS

- **Global oil demand growth slowed sharply in 4Q18 to 0.95 mb/d due to lower OECD demand**, which declined by 0.3 mb/d year-on-year. Large falls were seen in Europe and Asia and there was slower growth in the Americas.
- **Our global growth estimate for 2018 and our forecast for 2019 are nevertheless unchanged, at 1.3 mb/d and 1.4 mb/d**, respectively, supported by solid non-OECD growth. Data for parts of the Middle East and Asia have been revised upwards.
- **Global oil production fell by 340 kb/d in February as OPEC and non-OPEC cuts deepened**. Output of 99.7 mb/d was still up a hefty 1.5 mb/d on a year ago, led by non-OPEC and the US. Non-OPEC growth will slow from 2018's record 2.8 mb/d to 1.8 mb/d in 2019.
- **OPEC crude oil production in February dropped by 240 kb/d, to 30.68 mb/d**, on losses in Venezuela and lower output from Saudi Arabia and Iraq. Outperformance by Saudi Arabia and its Gulf allies with supply cuts pushed OPEC compliance to 94%.
- **Global refining throughput returned to growth, with 1Q19 expected to be up 0.8 mb/d y-o-y**. China accounts for over 90% of the increase, while weaker performance in other regions supported product cracks, resulting in the first gains in refinery margins since November.
- **OECD commercial oil stocks rose 8.6 mb on the month in January to their highest level since November 2017**. However, the increase was lower than the seasonal norm. Preliminary data for February points to a sharp drop in inventories.
- **Brent futures reached a four-month high, above \$67/bbl, in mid-March on reduced production from OPEC**. Tighter medium-heavy supplies boosted crudes such as Mars and Dalia and sent the Brent-Dubai EFS to a nine-year low.

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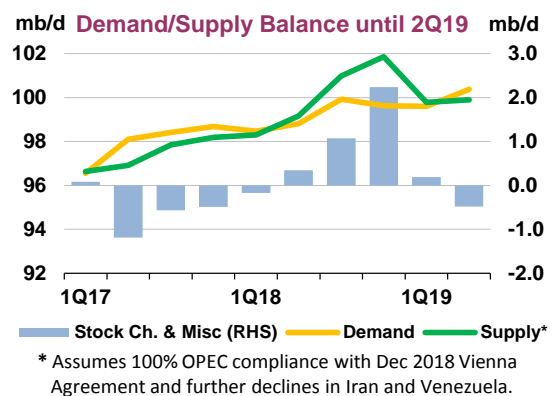
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Supply cushion insures against losses

The electricity crisis in Venezuela has paralysed most of the country for significant periods of time. Although there are signs that the situation is improving, the degradation of the power system is such that we cannot be sure if the fixes are durable. Until recently, Venezuela's oil production had stabilised at around 1.2 mb/d. During the past week, industry operations were seriously disrupted and ongoing losses on a significant scale could present a challenge to the market. As it happens, 1.2 mb/d is also the size of the output cuts agreed by OPEC countries and some non-OPEC producers. The cuts were implemented in January and compliance by OPEC reached 94% in February, with Saudi Arabia cutting back by about 170 kb/d more than required. The non-OPEC countries are complying more slowly at a rate of 51%, with Russia reducing its output very gradually. Due to the cuts, OPEC members are sitting on about 2.8 mb/d of effective spare production capacity (Iran and Venezuela are excluded from the calculation), with Saudi Arabia holding two-thirds of it. Much of this spare capacity is composed of crude oil similar in quality to Venezuela's exports. Therefore, in the event of a major loss of supply from Venezuela, the potential means of avoiding serious disruption to the oil market is theoretically at hand.

Before the seriousness of the situation in Venezuela became apparent, our oil balances for the first half of 2019, which have not changed significantly since our last *Report*, suggested that the market is tightening. On the basis of solid oil demand growth, modest declines in OPEC production due to Iran and Venezuela, and rising US output, the market could show a modest surplus in 1Q19, before flipping into deficit in 2Q19 by about 0.5 mb/d. This does not take into account Saudi Arabia's announced plans to reduce its exports further in April.

Although we must await developments in Venezuela, if there were to be a collapse in production, it could provide an opportunity for other producers who can supply comparable barrels. Venezuela currently ships about 400 kb/d to both China and India. Elsewhere, other producers have already taken advantage of Venezuela's problems: as exports to the US have slumped following the imposition of sanctions, Russia has taken the opportunity to increase its shipments to the US from relatively modest levels to around 150 kb/d.



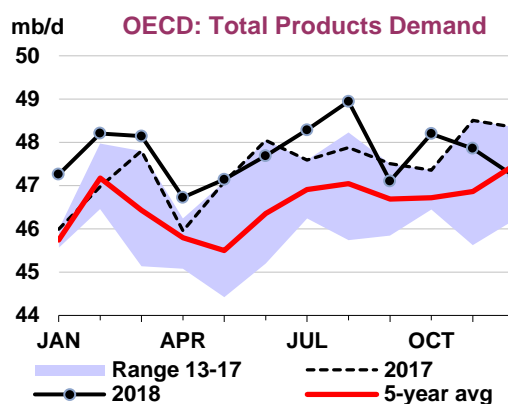
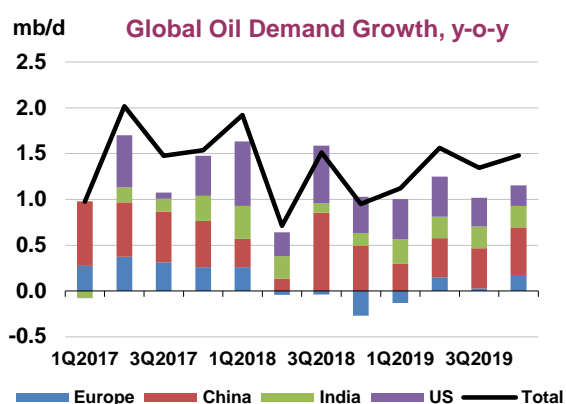
Geopolitics has added another complication to the global oil market. At the same time, production cuts have increased the spare capacity cushion. This is especially important now as economic sentiment is becoming more pessimistic and the global economy could be entering a vulnerable period. Another way in which the world is better placed to weather geopolitical storms is shown in the IEA's five-year oil market outlook *Oil 2019 – Analysis and Forecasts to 2024*, which we published on 11 March. A key theme is the growing importance of the US in global markets. Rising production there is not a new story; what is game changing is that the US in 2021 will become a net oil exporter on an annual average basis. With Canadian production also increasing, and most of its exports moving to US refineries, this frees up US crude for export. This year US seaborne oil trade will move into surplus with net exports rising to nearly 4 mb/d of by 2024. The rising profile of the US not only brings greater choice to consumers, but, crucially, it enhances security of supply, especially when, as now, there are heightened geopolitical concerns.

DEMAND

Summary

World oil demand growth slowed sharply to 0.95 mb/d in 4Q18 from 1.5 mb/d in 3Q18. Feeble growth in OECD countries was responsible. Total OECD demand declined by 0.3 mb/d year-on-year in 4Q18 with sharp drops seen in Europe and Asia. North America demand rose by only 0.3 mb/d, a big fall from the 0.7 mb/d seen in 3Q18.

Our forecasts for oil demand growth in 2018 and 2019 are nevertheless unchanged, at 1.3 mb/d and 1.4 mb/d, respectively. December data were weaker than expected and November numbers were revised down in the OECD Americas. Demand in the Middle East and parts of Asia, however, was revised slightly upwards. The economic growth assumptions underpinning our forecasts are largely unchanged, although we see further weakness emerging in Europe.



For 2018, overall, total OECD demand increased by 310 kb/d and we expect growth to be broadly similar in 2019 at 335 kb/d. Complete data for 2018 show that the US was the largest contributor to growth in 2018. Non-OECD growth accelerated from 1.1 mb/d in 3Q18 to 1.3 mb/d in 4Q18. Within non-OECD, Asia demand increased by 870 kb/d in 2018 and will be slightly lower in 2019 at 830 kb/d. Total non-OECD demand increased by 965 kb/d in 2018, and growth is projected to accelerate to 1.05 mb/d in 2019.

Global Oil Demand (2017-2019)

	(million barrels per day)*														
	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
Africa	4.4	4.3	4.2	4.3	4.3	4.3	4.3	4.2	4.4	4.3	4.5	4.4	4.3	4.4	4.4
Americas	30.9	31.6	31.7	31.8	31.5	31.6	31.7	32.3	32.1	31.9	32.0	32.2	32.6	32.3	32.3
Asia/Pacific	34.2	34.1	33.5	34.7	34.1	35.1	34.7	34.3	35.2	34.8	35.7	35.3	35.0	36.1	35.5
Europe	14.5	15.0	15.5	15.2	15.0	14.8	15.0	15.4	14.9	15.0	14.7	15.1	15.5	15.1	15.1
FSU	4.3	4.5	4.7	4.6	4.5	4.5	4.6	4.9	4.8	4.7	4.6	4.7	5.0	5.0	4.8
Middle East	8.2	8.7	8.9	8.2	8.5	8.2	8.5	8.8	8.2	8.4	8.1	8.6	8.9	8.2	8.5
World	96.6	98.1	98.4	98.7	97.9	98.5	98.8	99.9	99.6	99.2	99.6	100.4	101.3	101.1	100.6
Annual Chg (%)	1.0	2.1	1.5	1.6	1.6	2.0	0.7	1.5	1.0	1.3	1.1	1.6	1.3	1.5	1.4
Annual Chg (mb/d)	1.0	2.0	1.5	1.5	1.5	1.9	0.7	1.5	0.9	1.3	1.1	1.6	1.3	1.5	1.4
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	-0.5	0.0	0.1	0.1	0.1	-0.3	0.0

* Including biofuels

Growth in the Americas in 2019 will continue to be supported by petrochemical demand in the US and should rise by 0.4 mb/d. Asia Pacific growth will continue at 0.7 mb/d. Middle East oil demand will reverse its 2018 decline and post a modest increase of 0.1 mb/d.

Global Demand by Product

(thousand barrels per day)

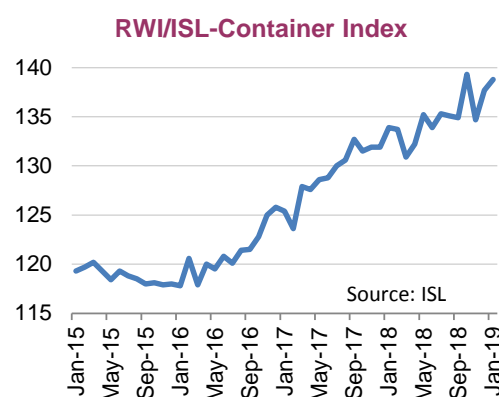
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q18	3Q18	4Q18	3Q18	4Q18	3Q18	4Q18
LPG & Ethane	11,968	12,112	12,453	762	336	6.7	2.8
Naphtha	6,168	6,254	6,391	-10	-200	-0.2	-3.0
Motor Gasoline	26,186	26,637	26,333	219	480	0.8	1.9
Jet Fuel & Kerosene	7,682	8,012	7,744	362	97	4.7	1.3
Gas/Diesel Oil	28,609	28,369	28,943	170	293	0.6	1.0
Residual Fuel Oil	6,896	6,972	6,740	-14	-154	-0.2	-2.2
Other Products	11,304	11,566	11,029	25	98	0.2	0.9
Total Products	98,814	99,923	99,633	1,513	949	1.5	1.0

Fundamentals

Our economic assumptions are based on the January World Economic Outlook Update published by the International Monetary Fund (IMF). The IMF's projection for 2019 global GDP growth was revised down by 0.2 percentage points to 3.5%. However, for emerging economies – the source of most oil demand growth – there was no change to the outlook.

Projections for Europe were revised down. The IMF reported several concerns: the introduction of revised automobile emissions tests affecting car manufacturers (the automobile industry accounts for 14% of GDP in Europe's largest economy Germany); concerns about sovereign and financial risks in Italy; and the negative impact of street protests in France. In addition, a "no-deal" Brexit could disrupt European trade. The projected growth for the Euro Area in 2019 was revised down by 0.3 percentage points to 1.6%.

Data from China's National Bureau of Statistics showed that GDP growth in 2018 was 6.6%, the lowest rate seen in 30 years. The IMF projects an even lower growth rate of 6.2% for both 2019 and 2020. A Chinese slowdown affects growth and trade prospects around the world, even if this is not yet visible in all economic indicators. While Chinese and German exports slowed sharply at the start of this year, the RWI/ISL¹ Container Throughput Index continues to show strong growth in trade. Current trade tensions could also start to impact container trade in the next few months, however.



Not all recent economic news is negative, as there have been some upwards revisions to data in some economies. Brazil's growth estimate for 2019 was raised to 2.5%. India also saw a modest upgrade with growth in 2018 now thought to have been slightly stronger at 7.3% and with a revised outlook for 2019 of 7.5%.

Our oil price assumption, based on the Brent forward curve, is up to \$65/bbl compared with the \$62/bbl used in the previous *Report*. However, annual Brent prices still show a decline of around 9% from 2018 levels, which should be supportive overall for oil consumers.

Temperatures in the northern hemisphere during winter tend to have a strong impact on heating oil demand. In January, temperatures were slightly higher than normal in the US with heating degree-days (HDDs) 0.7% below the 10-year average. In Europe, they were mixed: 3% more HDDs in France and 6%

¹ The RWI – Leibniz Institute for Economic Research and the ISL - Institute of Shipping Economics and Logistics

fewer in Germany. The weather was particularly mild in February in Europe, with 19% and 31% fewer HDDs in France and Germany, respectively.

OECD

We now have complete data for OECD countries for the whole of 2018. For January 2019, preliminary estimates are available for Mexico, Japan, Korea and some European countries. US weekly data are available through to the end of February.

OECD Demand based on Adjusted Preliminary Submissions - January 2019

(million barrels per day)

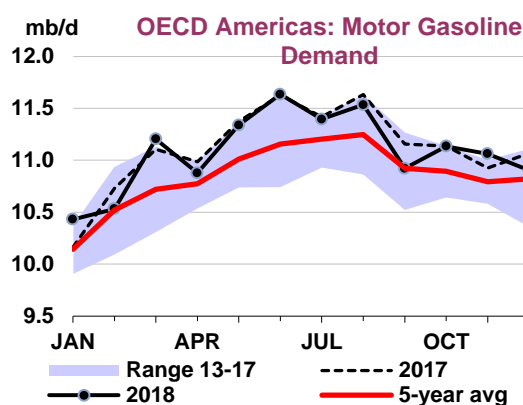
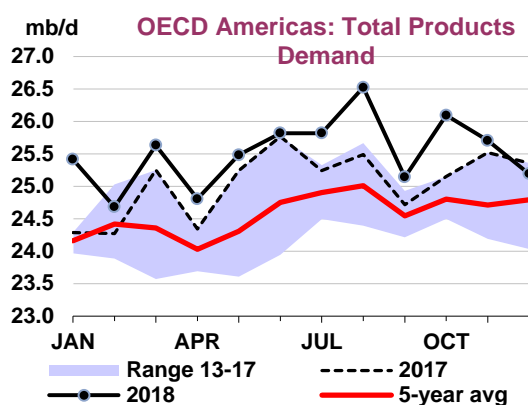
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	10.68	2.4	1.95	2.6	5.01	-0.7	0.55	2.6	0.64	-3.9	6.98	2.0	25.80	1.5
US50	8.98	2.7	1.66	2.0	4.21	0.1	0.19	0.1	0.31	-7.6	5.44	1.6	20.79	1.6
Canada	0.79	2.2	0.14	15.5	0.26	5.7	0.28	-4.7	0.06	-27.5	0.87	4.2	2.41	2.0
Mexico	0.76	-0.6	0.09	-2.7	0.31	-15.8	0.06	91.1	0.17	15.6	0.55	3.6	1.93	0.1
OECD Europe	1.77	1.7	1.37	4.7	4.48	-0.1	1.72	24.0	0.91	5.3	3.51	-1.3	13.74	3.1
Germany	0.44	3.2	0.21	18.4	0.64	-0.7	0.45	37.6	0.09	-4.3	0.48	-8.6	2.32	5.2
United Kingdom	0.27	2.0	0.33	1.0	0.47	1.2	0.12	12.0	0.02	-6.1	0.28	10.6	1.49	3.6
France	0.17	4.5	0.16	5.4	0.63	-3.3	0.28	20.0	0.05	-1.5	0.35	4.2	1.64	3.4
Italy	0.14	1.8	0.10	5.9	0.46	2.8	0.06	17.6	0.07	-4.5	0.36	1.6	1.20	2.8
Spain	0.10	0.5	0.11	0.6	0.44	-0.6	0.20	5.8	0.16	10.0	0.30	4.8	1.31	2.9
OECD Asia & Oceania	1.46	0.6	1.22	-3.7	1.35	2.9	0.54	0.5	0.62	-8.0	3.12	-4.9	8.31	-2.5
Japan	0.79	-2.4	0.72	-7.2	0.39	0.1	0.37	-4.5	0.34	2.5	1.47	-5.7	4.08	-4.1
Korea	0.24	12.6	0.27	1.1	0.42	14.2	0.11	16.2	0.24	-20.6	1.40	-4.2	2.68	-1.0
Australia	0.31	-0.3	0.17	3.2	0.48	-2.7	0.00	0.0	0.02	-9.0	0.16	-4.4	1.13	-1.3
OECD Total	13.91	2.1	4.54	1.4	10.83	0.0	2.81	14.2	2.17	-1.6	13.60	-0.5	47.85	1.3

* Including US territories

Gasoline demand in OECD countries rose by 2.1% year-on-year (y-o-y) in January, according to provisional data. Diesel demand was roughly flat. Jet/kerosene demand fell sharply in Asia Oceania on relatively high temperatures.

OECD Americas

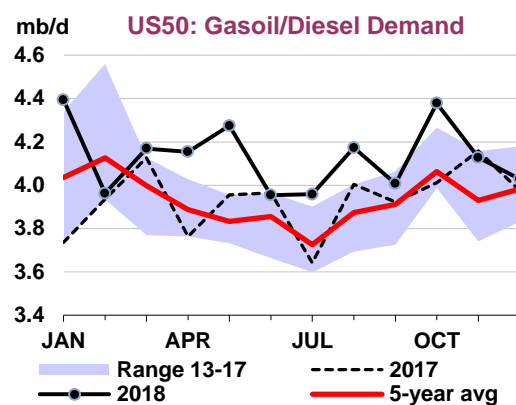
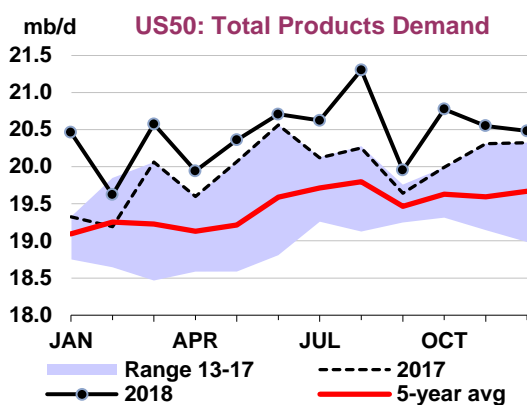
Data released for 4Q18 in OECD Americas were particularly weak, with demand revised down by a significant 340 kb/d. For the US, November data were lowered by 345 kb/d and December data was 145 kb/d below our forecast. Canadian data were also cut by 70 kb/d for November, and December demand showed a contraction of 170 kb/d. Finally, Mexican oil demand declined by 165 kb/d y-o-y in December.



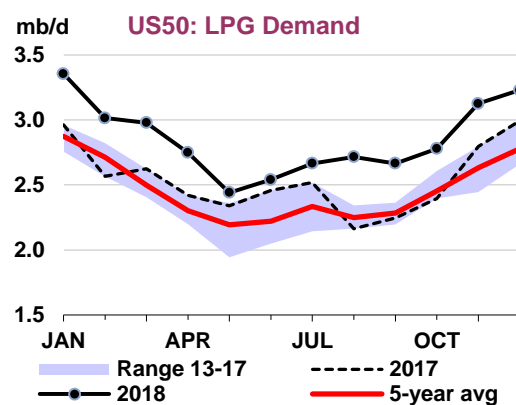
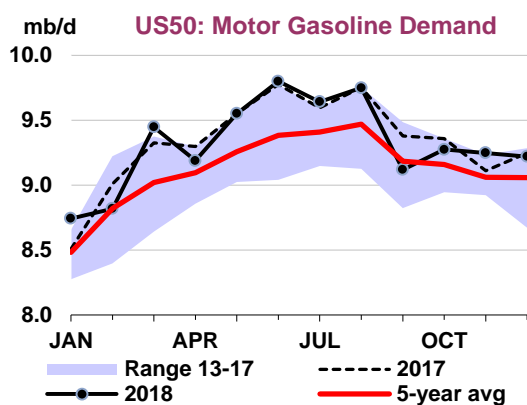
The US changes led to an overall downward revision of 160 kb/d for 4Q18, even if overall demand growth remains supported by strong LPG/ethane deliveries. We estimate that the US saw the largest oil demand growth of all countries worldwide in 2018, with 495 kb/d.

LPG/ethane demand growth is estimated at 315 kb/d y-o-y in 4Q18, due to the start-up of ethane based ethylene crackers. LPG/ethane demand grew by 330 kb/d y-o-y in November and 235 kb/d in December. For 2018 as a whole, LPG/ethane demand growth was 315 kb/d, supported by very cold temperatures at the start of the year, the lack of a strong hurricane season versus 2017 and the start-up of petrochemical projects. Once again, in 2019, growth in the petrochemicals sector will support LPG/ethane demand growth of 150 kb/d.

Gasoil demand growth slowed to 130 kb/d y-o-y in 4Q18 from 190 kb/d in 3Q18, with growth particularly weak in November and December at only 10 kb/d. Truck transport demand in 2018 has been supported by the continued growth in e-commerce sales and booming economic activity, although industrial production started to slow in 4Q18. Shale oil production contributed to higher diesel demand, via trucks used in the transport of sands and heavy equipment. Trucks are also used to move crude oil out of some producing areas. US gasoil and diesel demand increased by 200 kb/d in 2018 but is expected to expand by only 15 kb/d in 2019, as the US economy is starting to slow and new pipelines will reduce the need to transport crude oil by truck.



Gasoline demand was roughly unchanged y-o-y in 4Q18, increasing by only 5 kb/d. The latest US data point to a rebound in gasoline demand in November (135 kb/d) and a small decline in December (25 kb/d). US vehicle miles travelled increased by a very low 0.3% y-o-y in November, according to the Federal Highway Administration. The strong price increase experienced in 2018 cut gasoline demand by 10 kb/d for the year as a whole. In 2019, the forward curve points to a fall in prices, so we expect a strong rebound with growth close to 120 kb/d.



Jet fuel demand dropped by 30 kb/d y-o-y in 4Q18, after strong growth of 65 kb/d in 3Q18. Demand declined by 5 kb/d on average in November-December. Domestic air traffic (revenue passenger kilometres or RPK) rose by 4.0% in December and accelerated to 5.8% in January.

Canada's oil consumption declined sharply in December, on low LPG/ethane and naphtha demand. For 4Q18 as a whole, demand contracted by 35 kb/d y-o-y. Gasoline demand rose by 30 kb/d in 4Q18 and gasoil/diesel demand by 35 kb/d. **Mexico's** oil demand declined by 50 kb/d y-o-y in 4Q18, on poor gasoline numbers. Theft from pipelines and government efforts to combat it may have resulted in shortages.

Total **North American** oil demand, after rising strongly by 475 kb/d in 2018, will see a small slowdown in 2019, with growth easing to 400 kb/d. A large part of the growth will come from LPG/ethane (170 kb/d) while gasoline demand should see a strong rebound after a weak 2018.

OECD Europe

European oil demand fell back significantly at the end of 2018, on strong declines in naphtha, gasoil and fuel oil deliveries. This partly reflects a sharp deceleration in economic activity and disaffection for diesel cars.

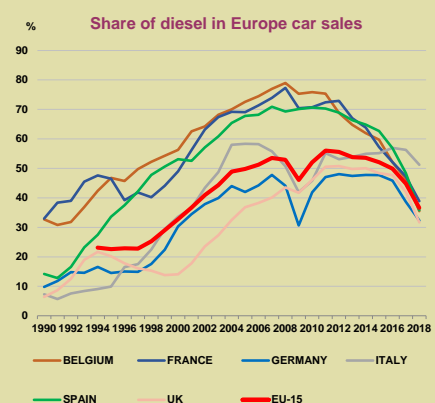
Europe disaffection for diesel accelerated in 2018

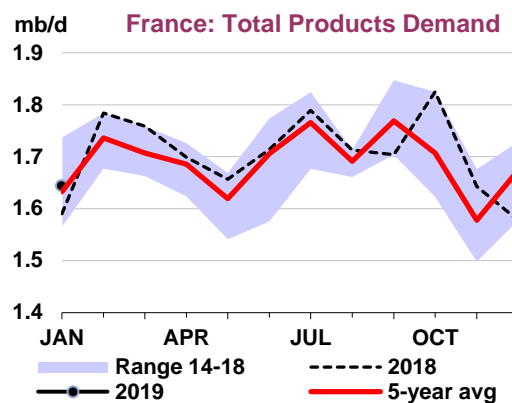
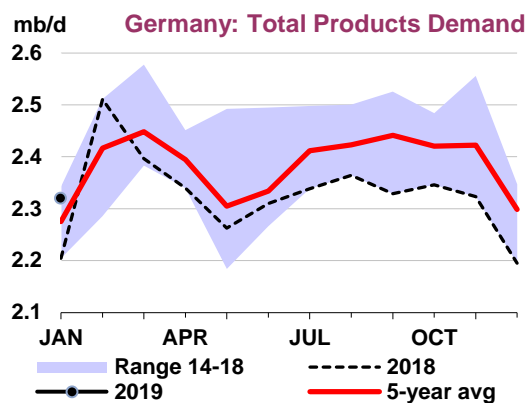
Diesel engines cause air pollution problems in large cities because of the emission of particulate matter (PM) and nitrogen oxides (NOx). PM can penetrate deep into human lungs, while NOx contributes to breathing difficulties by increasing ground level ozone. In Europe, the problem is not the lack of stringent regulations limiting air pollution. The Euro 6 standard is one of the toughest in the world, yet enforcement in real world situations has been a big issue. German courts have imposed bans on diesel cars in certain specific areas of several cities, including Hamburg, Dusseldorf, Munich and Stuttgart. Several other European cities are considering similar measures, including Madrid, Paris, London and Athens. Rome plans to ban private diesel vehicles from 2024.

In recent years, there has been a massive change in consumer demand affecting the automotive industry. In spite of assurances by the industry that new diesel cars have very low NOx and PM emission, sales have fallen sharply to be replaced mainly by gasoline cars and a modest penetration of electric vehicles. The European Automobile Manufacturers Association reported that in 2018, the share of diesel in total car sales in the European Union fell to 35.9% from 44% in 2017 while the share of gasoline cars rose to 56.7% from 50.3%. Only 2% of new cars sold in 2018 were electric.

Gasoline car sales rose 12.8% in 2018 in Europe, but the sales of diesel cars dropped by 18.3%. In the main markets, diesel car sales dropped by 16.9% in Germany, 12.1% in Italy, 15.4% in France 29.6% in the UK and 20.7% in Spain. In the meantime, gasoline car sales rose by 7.9% in Germany, 18.3% in France 8.7% in the UK, 7.9% in Italy and 29.7% in Spain.

Last year, 14 million gasoline and diesel cars were sold in Europe. Diesel car sales declined by 1.21 million in 2018 compared with 2017 while gasoline cars sales rose by 0.97 million. These changes will have a significant impact on transport fuel sales in the medium term.





German oil demand declined by 135 kb/d y-o-y in 4Q18 after a drop of 150 kb/d in 3Q18, on very low naphtha and gasoil demand. In 4Q18, naphtha demand dropped by 90 kb/d and gasoil demand by 20 kb/d.

Gasoil deliveries dropped by 85 kb/d y-o-y in November and 20 kb/d in December. In January, according to provisional data, gasoil demand jumped by 120 kb/d y-o-y. These variations partly reflect logistical constraints. Very low water levels on the Rhine during extended periods of time constrained supplies of gasoil to Germany and Switzerland and freight rates for barges on the Rhine reached an historical high on 30 November. Water levels rose in December and the German market is now better supplied.

Diesel demand has been impacted by slowing economic activity and concerns about pollution and falling resale values of diesel vehicles. GDP declined by 0.2% in 3Q18 and remained unchanged in 4Q18. Industrial production dropped by 3.3% y-o-y in January.

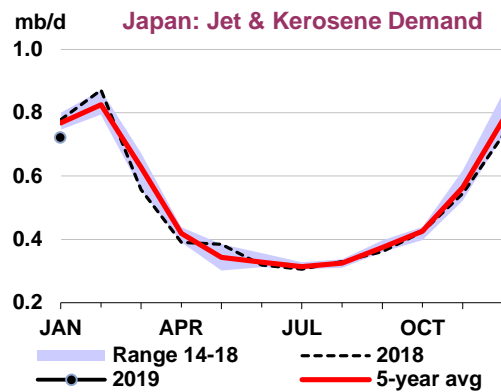
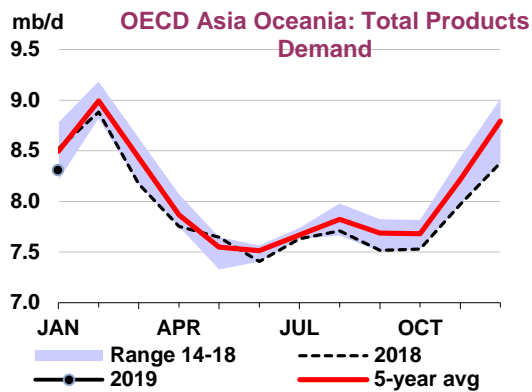
Oil demand in **France** rose by 20 kb/d in 4Q18, but demand fell by 115 kb/d y-o-y in December on low gasoil/diesel deliveries. Provisional data point to total products demand growth of 55 kb/d in January, supported by a rebound in gasoil/diesel deliveries. In **Italy**, oil demand rose by 5kb/d in 4Q18 after growth of 20 kb/d in 3Q18. Gasoil demand remains strong.

Overall, European oil demand fell by 270 kb/d in 4Q18 and is projected to drop by a further 130 kb/d in 1Q19. For 2018 as a whole, demand fell by 25 kb/d, but there will be a rebound in 2019 to 55 kb/d.

OECD Asia Oceania

OECD Asia Oceania demand declined by 365 kb/d y-o-y in 4Q18. The slowdown was reflected in the majority of products.

Japanese demand fell by 165 kb/d y-o-y in 4Q18, on lower deliveries of almost all products. Higher than normal temperatures reduced kerosene demand. In December, air passenger traffic rose by 4.7% y-o-y but kerosene deliveries were lower. In 1Q19, there will be another, smaller, drop of 140 kb/d. In January, domestic RPK grew by 3%. For 2018 as a whole, Japan's oil demand fell by 115 kb/d and in 2019, there is likely to be a further fall of 105 kb/d.



Korean demand dropped by 225 kb/d in 4Q18. The economy is very dependent on exports and has started to suffer from trade tensions and a slowdown in China's growth. The government announced six-month fuel tax cuts in September to help consumers. In **Australia**, oil demand rose by 25 kb/d y-o-y in 4Q18 on strong diesel deliveries.

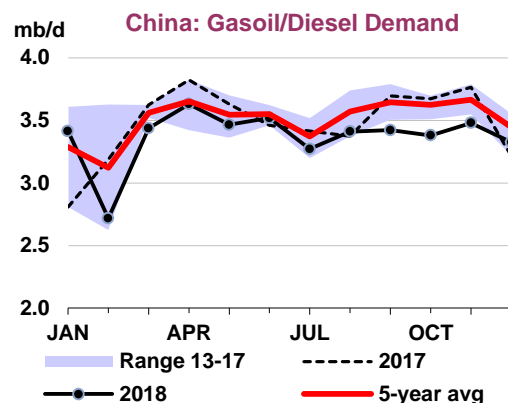
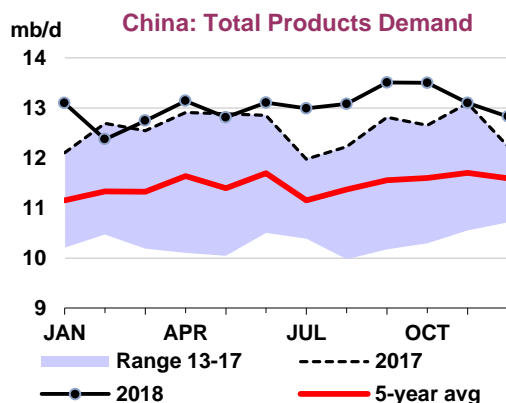
OECD Asia Oceania oil demand contracted by 145 kb/d in 2018 and there will be a smaller decline of 125 kb/d in 2019, but the outcome depends partly on the resolution of trade tensions.

Non-OECD

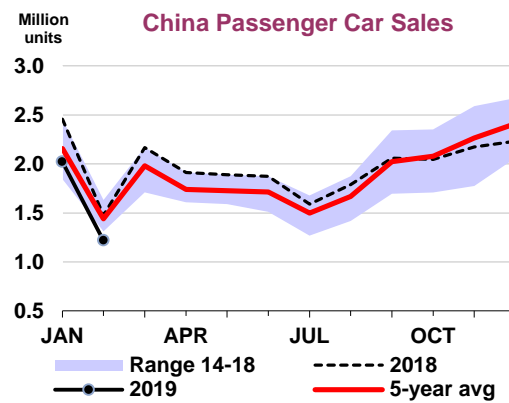
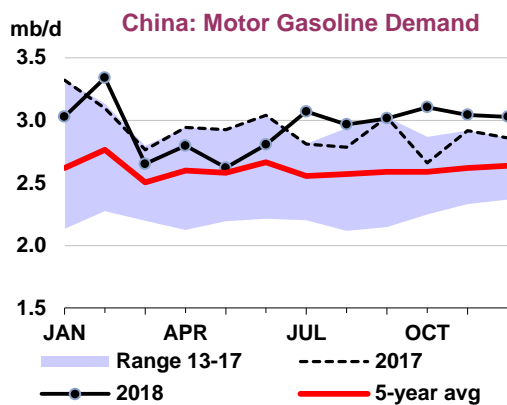
China

Due to the Lunar New Year holiday, Chinese data for refining activity in January/February is unavailable at the time of publication and it is therefore impossible to calculate apparent demand figures.

The Chinese government recently lowered its GDP growth target for 2019 to between 6% to 6.5%. In the meantime, prompt indicators point to a significant slowdown in economic activity. These indicators may be difficult to interpret as Lunar New Year celebrations always cause distortions for January and February. Data for the period show a significant contraction in exports, falling 20.7% y-o-y in February, after growth of 9.1% in January. Customs data for the combined January-February period show a 4.6% decline. Imports dropped by 3.1% for the first two months, highlighting some weakness in domestic demand.



Weakness in passenger car sales has continued into 2019, with January-February seeing a decline of 17.5%. This is attributed to market saturation in some wealthy cities and a drop in consumer confidence. Electric vehicle sales continued to boom, however, with sales doubling in the first two months of 2019 versus the same period in 2018.



After growth of 450 kb/d in 2018, we expect the pace of oil demand growth to slacken in 2019 to 420 kb/d. The recent sharp slowdown in economic activity introduces a downward risk to the forecast.

China: Demand by Product

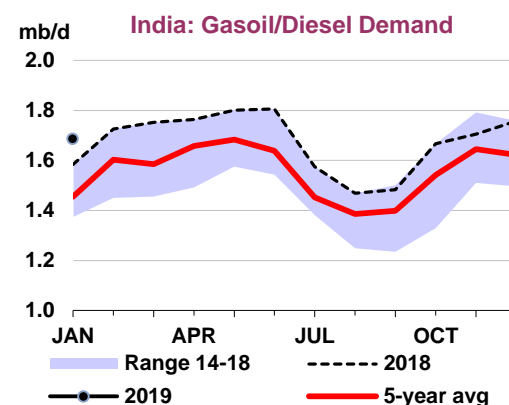
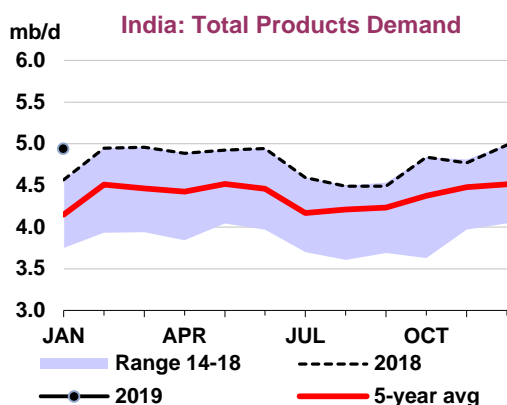
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2017	2018	2019	2018	2019	2018	2019
LPG & Ethane	1,523	1,616	1,718	93	102	6.1	6.3
Naphtha	1,171	1,243	1,334	72	92	6.1	7.4
Motor Gasoline	2,927	2,954	3,006	27	53	0.9	1.8
Jet Fuel & Kerosene	710	800	850	90	50	12.8	6.2
Gas/Diesel Oil	3,473	3,377	3,414	-96	38	-2.8	1.1
Residual Fuel Oil	437	412	429	-24	17	-5.6	4.0
Other Products	2,336	2,624	2,694	288	70	12.3	2.7
Total Products	12,576	13,025	13,446	449	420	3.6	3.2

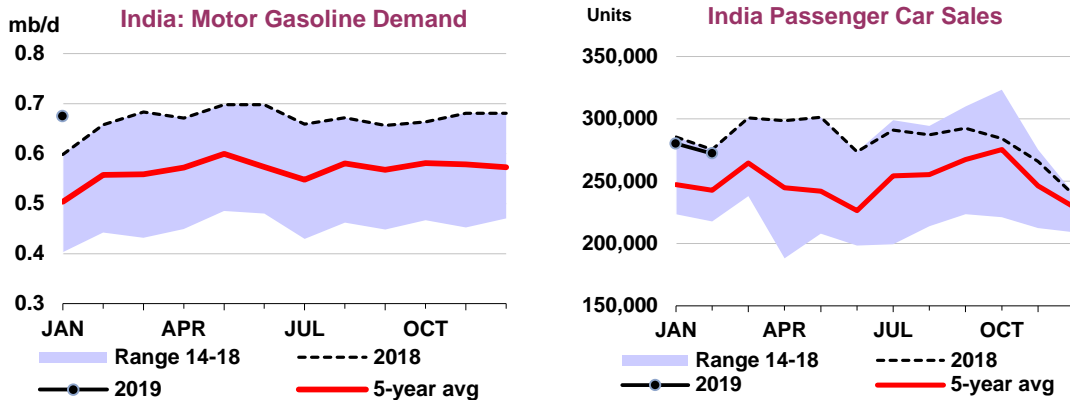
India

Revised data show that Indian oil demand increased by 215 kb/d in 2018 following growth of 125 kb/d in 2017. At the start of 2019, we have seen very strong growth in January of 365 kb/d based on robust gasoil and LPG/ethane demand, which were up by 100 kb/d and 85 kb/d, respectively. LPG utilisation has increased due to a government policy to promote its use in the domestic sector. This is largely at the expense of kerosene.

Gasoil demand rose by 70 kb/d in 2018, supported by strong economic activity, although GDP expansion in 4Q18 fell back to 6.6%, the lowest rate since 2017.



Consumer spending has been weak, and car sales declined in the second part of 2018. Although car sales have not returned to growth in the first two months of 2019, gasoline demand has increased by 75 kb/d in January.



Rising demand for jet fuel, boosted by the booming aviation sector, did not completely offset the fall in kerosene use by households and total jet/kerosene demand declined by 5 kb/d. India's domestic RPK grew by 14.8% y-o-y in December 2018 and 12.4% in January 2019. We expect strong growth in total oil demand to continue in 2019, reaching 245 kb/d y-o-y.

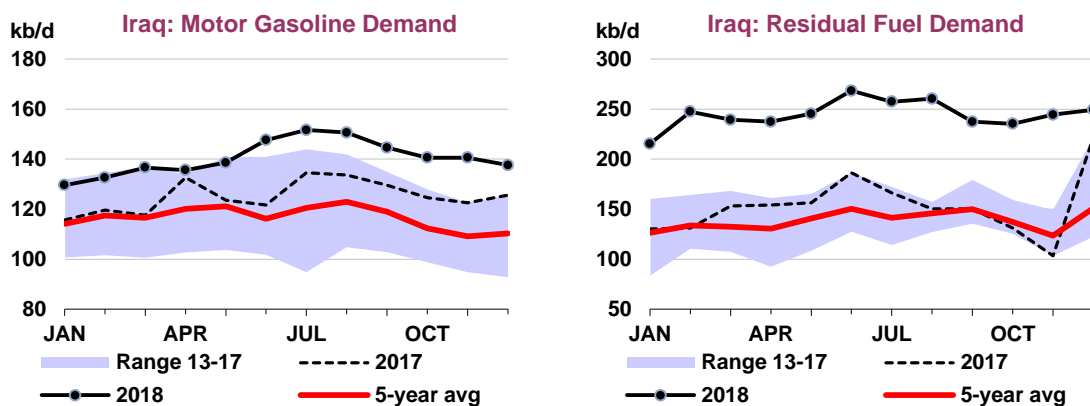
India: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2017	2018	2019	2018	2019	2018	2019
LPG & Ethane	740	781	828	40	47	5.5	6.0
Naphtha	283	317	330	34	13	11.9	4.1
Motor Gasoline	615	668	704	53	36	8.6	5.4
Jet Fuel & Kerosene	242	247	263	5	16	2.1	6.6
Gas/Diesel Oil	1,605	1,673	1,748	69	75	4.3	4.5
Residual Fuel Oil	145	143	148	-2	5	-1.4	3.8
Other Products	938	954	1,006	15	53	1.6	5.5
Total Products	4,568	4,782	5,027	214	245	4.7	5.1

Other Non-OECD

Iraq's oil demand remained very strong in December, increasing by 105 kb/d y-o-y, led by crude oil, gasoil and fuel oil. Crude oil direct use, however, remains well below its five-year average, having largely been replaced by fuel oil and natural gas imported from Iran. Fuel oil demand rose by 30 kb/d y-o-y in December.

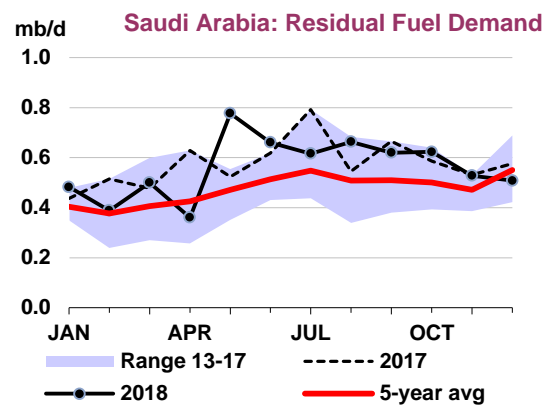
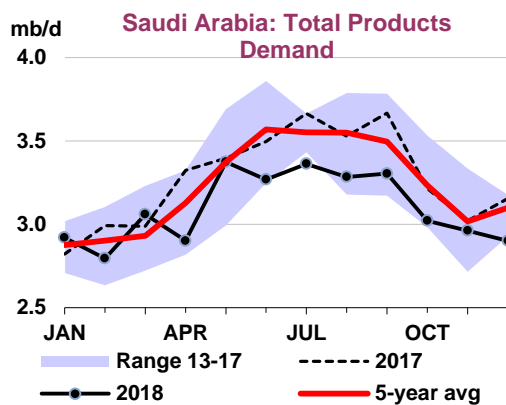


Non-OECD: Demand by Region

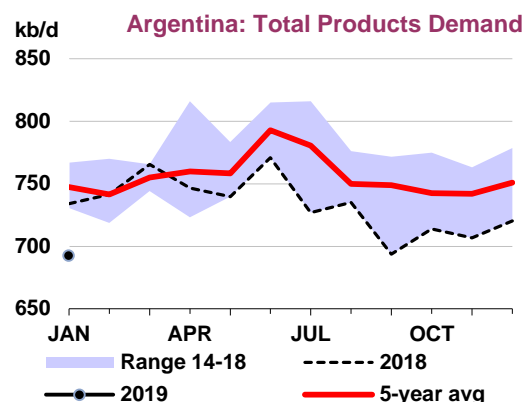
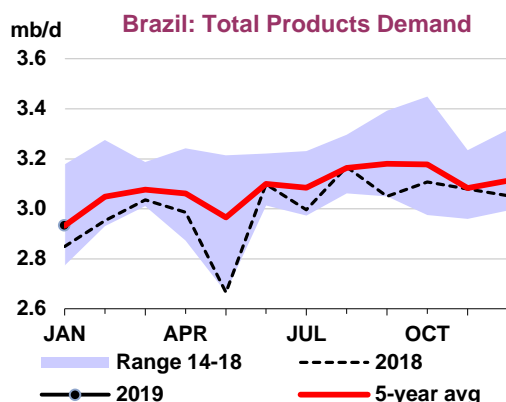
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q18	3Q18	4Q18	3Q18	4Q18	3Q18	4Q18
Africa	4,289	4,197	4,427	7	162	0.2	3.8
Asia	27,069	26,704	27,209	1,054	866	4.1	3.3
FSU	4,636	4,906	4,830	178	232	3.8	5.0
Latin America	6,355	6,465	6,422	-100	-27	-1.5	-0.4
Middle East	8,541	8,760	8,208	-98	-1	-1.1	0.0
Non-OECD Europe	744	774	784	11	27	1.4	3.6
Total Products	51,635	51,805	51,880	1,052	1,259	2.1	2.5

Saudi Arabian oil demand continues to be extremely weak, declining by 255 kb/d y-o-y in December, with sharp drops in gasoline, gasoil and kerosene. Gasoline demand declined by 140 kb/d y-o-y, however this compares with an exceptionally strong number for December 2017 when deliveries were pushed up by impending price rises. Gasoil demand declined by 65 kb/d y-o-y, reflecting a slowing economy and a reduction in its use in power generation. Crude direct use rose while fuel oil declined 70 kb/d y-o-y.



Saudi oil demand declined by 175 kb/d in 2018, after a drop of 25 kb/d in 2017. With a more favourable economic environment and the boost from government spending, demand is likely to grow again in 2019, albeit by only 50 kb/d.



Brazilian oil demand rose by 85 kb/d y-o-y in January, with gasoil rising by 50 kb/d and gasoline increasing by 40 kb/d. Domestic air traffic rose by 3.4% y-o-y in December but growth slowed to 0.3% in January. Overall, demand remained flat in 2018 but is expected to increase by 60 kb/d in 2019, reflecting faster economic growth.

Argentina's oil demand dropped by 40 kb/d y-o-y in January, reflecting the impact of the recent slowdown in economic activity. In 2018, oil demand fell 25 kb/d y-o-y and in 2019, we project a further contraction of 30 kb/d.

Non-OECD: Demand by Product

(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q18	3Q18	4Q18	3Q18	4Q18	3Q18	4Q18
LPG & Ethane	6,849	6,841	6,880	317	158	4.9	2.4
Naphtha	2,940	2,928	3,079	184	158	6.7	5.4
Motor Gasoline	11,397	11,754	11,882	341	491	3.0	4.3
Jet Fuel & Kerosene	3,353	3,474	3,265	219	102	6.7	3.2
Gas/Diesel Oil	14,994	14,740	14,939	22	156	0.2	1.1
Residual Fuel Oil	4,838	4,834	4,697	-81	-21	-1.6	-0.5
Other Products	7,263	7,235	7,138	48	215	0.7	3.1
Total Products	51,635	51,805	51,880	1,052	1,259	2.1	2.5

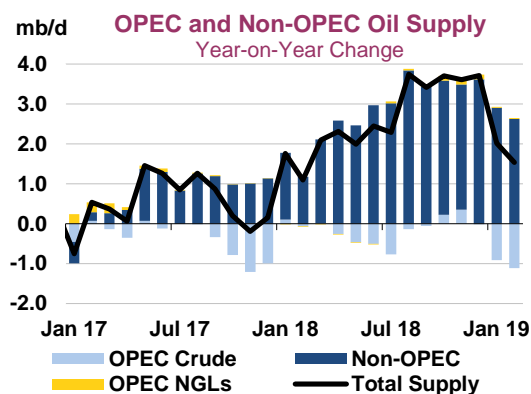
For **Iran**, we considered quarterly data from the Ministry of Energy. Demand for 2017 was revised down by 20 kb/d, while for 2018 it was revised up by 40 kb/d. Within the total, gasoline demand was revised up significantly, while gasoil demand and fuel oil demand was revised down. These changes have been incorporated into our 2019 forecast resulting in stronger gasoline demand, and lower gasoil and fuel oil demand. In the end, the total level of demand is unchanged. **Malaysia's** oil demand was also revised slightly up, by 25 kb/d for 2018.

SUPPLY

Summary

A second month of OPEC and non-OPEC (OPEC+) supply cuts, further losses in Venezuela and Canada and a seasonal drop in biofuels knocked 340 kb/d off global oil production in February. OPEC led the decline, with crude oil output dropping 240 kb/d month-on-month (m-o-m) to 30.68 mb/d, down 1.1 mb/d on a year ago. However, total liquids supply of 99.7 mb/d was still up 1.5 mb/d on a year ago thanks to a strong performance by non-OPEC countries, led by the US.

In 2018, the US contributed 79% of the 2.8 mb/d of non-OPEC growth. The relentless pace continues into 2019, when US supply is expected to expand by 1.5 mb/d and account for 83% of non-OPEC growth of 1.8 mb/d. Record production in the latter part of last year in the US, Saudi Arabia, Russia and Iraq contributed to a substantial build in inventories. This led OPEC, Russia and nine other non-OPEC countries to agree to cut production by 1.2 mb/d from January to June.



OPEC / Non-OPEC Output¹
(million barrels per day)

	Jan 2019 Supply	Feb 2019 Supply	Supply Baseline ²	Agreed Cut	New Target	February Compliance	Sustainable Production Capacity ⁵	Spare Capacity vs Feb Supply ⁶
Algeria	1.03	1.03	1.06	0.032	1.03	84%	1.05	0.02
Angola	1.46	1.47	1.53	0.047	1.48	123%	1.50	0.03
Congo	0.33	0.34	0.33	0.010	0.32	-150%	0.35	0.01
Ecuador	0.52	0.52	0.52	0.016	0.51	25%	0.54	0.02
Equatorial Guinea	0.11	0.12	0.13	0.004	0.12	175%	0.12	0.00
Gabon	0.20	0.21	0.19	0.006	0.18	-383%	0.20	-0.01
Iraq	4.75	4.68	4.65	0.141	4.51	-19%	4.90	0.22
Kuwait	2.72	2.70	2.81	0.085	2.72	128%	2.93	0.23
Nigeria ³	1.64	1.64	1.65	0.053	1.60	19%	1.72	0.08
Saudi Arabia	10.24	10.14	10.63	0.322	10.31	153%	12.02	1.88
UAE	3.07	3.05	3.17	0.096	3.07	123%	3.39	0.34
Total OPEC 11	26.07	25.90	26.66	0.812	25.85	94%		
Iran ⁴	2.72	2.74					3.85	-
Libya ⁴	0.89	0.90					0.90	0.00
Venezuela ⁴	1.24	1.14					1.14	0.00
Total OPEC	30.92	30.68					34.61	2.83
Azerbaijan	0.79	0.81	0.80	0.020	0.78	-49%		
Bahrain	0.21	0.21	0.22	0.005	0.21	108%		
Brunei	0.12	0.12	0.11	0.003	0.11	-117%		
Kazakhstan	2.01	1.99	2.03	0.040	1.99	100%		
Malaysia	0.72	0.71	0.70	0.015	0.68	-71%		
Mexico	1.86	1.93	1.99	0.040	1.95	148%		
Oman	0.98	0.97	1.00	0.025	0.98	137%		
Russia	11.71	11.67	11.75	0.230	11.52	36%		
Sudan	0.07	0.07	0.07	0.002	0.07	89%		
South Sudan	0.13	0.13	0.12	0.003	0.12	-78%		
Total Non-OPEC	18.60	18.60	18.80	0.383	18.41	51%		

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

² Based on Oct-2018 production, except for Azerbaijan and Kuwait based on Sept-2018 and Kazakhstan Nov-2018. Non-OPEC supply baseline based on IEA estimates

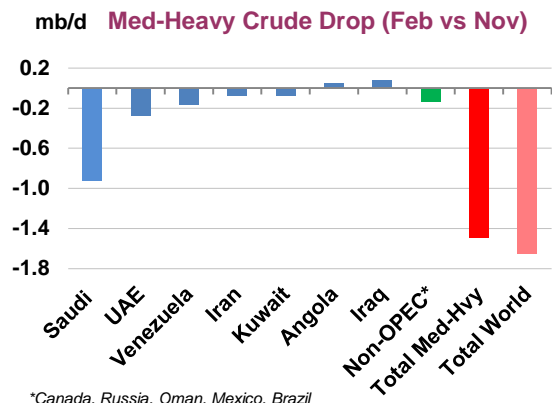
³ Nigeria supply baseline based on IEA estimates, which exclude Akpo and Agbami condensates.

⁴ Iran, Libya, Venezuela exempt from cuts

⁵ Capacity levels can be reached within 90 days and sustained for an extended period

⁶ Spare capacity excludes Iranian crude supply that is offline due to sanctions.

Thanks to outperformance by Saudi Arabia and its Gulf allies, those cuts are starting to work. In February, OPEC+ production was 240 kb/d above the target of 44.3 mb/d, which delivered a compliance rate of 80%. OPEC’s compliance was a robust 94%, compared to 51% from non-OPEC. Russia continues to adjust



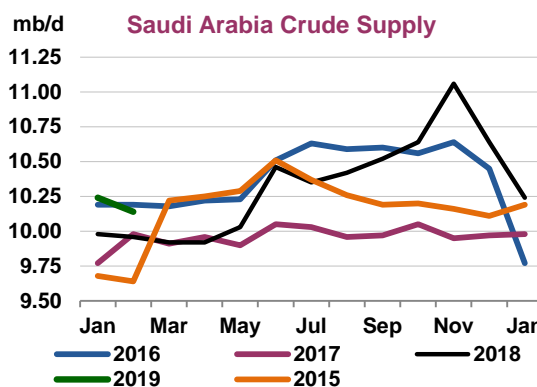
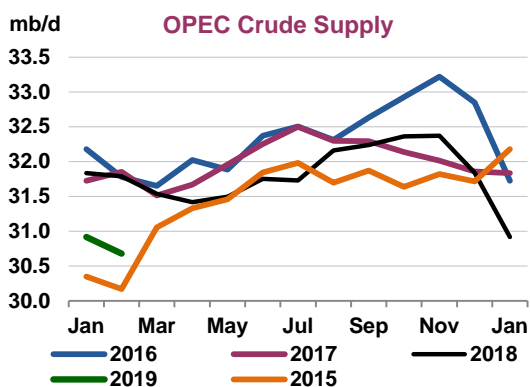
its production gradually. If the producers deliver on their promises, the market could return to balance in the second quarter. The call on OPEC crude rises to 30.9 mb/d in 2Q19, 200 kb/d more than the group produced in February. OPEC and its allies are scheduled to meet on 17-18 April to review the pact, although Saudi Energy Minister Khalid al-Falih has said it would be too early to change policy then.

The OPEC+ deal, US sanctions against Iran and Venezuela and Alberta’s production cuts have had a major impact on the supply of medium-heavy oil. Compared to November, when Saudi Arabia, Russia and Iraq were pumping at or near record rates, supply of these grades has fallen by nearly 1.5 mb/d (see *Prices and Refining* sections). That is 90% of the overall reduction in global crude supply since November. In March, medium-heavy output is likely to fall further with Venezuela’s oil sector hit hard by power outages on top of US sanctions and if Saudi Arabia delivers on planned reductions.

OPEC crude oil supply

Losses in Venezuela and lower output from Saudi Arabia and Iraq cut OPEC crude production in February by 240 kb/d m-o-m to 30.68 mb/d, its lowest in four years. March output could be lower still with Venezuela’s oil sector crippled by a massive power outage and if Saudi Arabia follows through on announced supply cuts. During February, lower crude output raised OPEC’s effective spare capacity to 2.83 mb/d.

Demonstrating its resolve to remove excess oil from the market, Saudi Arabia pumped 170 kb/d below its OPEC+ supply target in February. Overall compliance from the OPEC members taking part was a robust 94%, with Kuwait and the UAE joining Saudi Arabia in cutting back by more than required. Iraq made little effort to reduce production. The three countries exempt from cuts – Venezuela, Libya and Iran – have racked up losses of 600 kb/d since November.



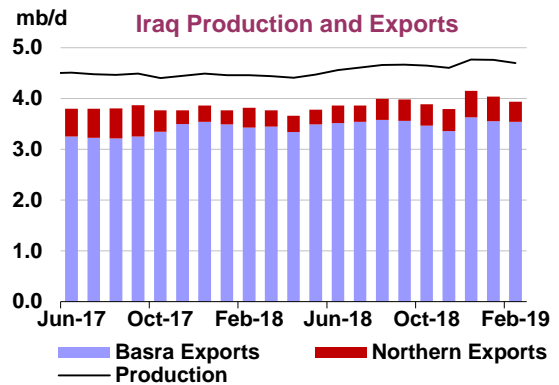
Saudi Arabia has throttled back 920 kb/d from its record high November production. In February, output was down for the third successive month, this time by 100 kb/d m-o-m to 10.14 mb/d. Energy Minister Khalid al-Falih has said crude output in March will drop to 9.8 mb/d, 510 kb/d below the Kingdom’s supply target, and could remain at around that level in April.

In February, exports of crude oil fell by 210 kb/d to 7.15 mb/d, according to *Kpler* data. In March, Saudi Aramco plans to export less than 7 mb/d, down from roughly 7.7 mb/d in 4Q18. Minister al-Falih was quoted as saying that Saudi Arabia “could have pushed barrels onto the international market but the Kingdom is driven by the bigger objective - and that bigger objective is to bring inventories down”.

Elsewhere in the Gulf, the UAE and Kuwait trimmed supply. Output in the **UAE** edged down 20 kb/d m-o-m to 3.05 mb/d, yet was up 250 kb/d on a year ago. **Kuwaiti** production inched down to 2.7 mb/d.

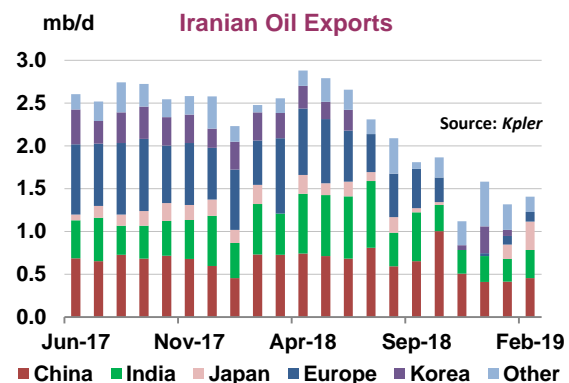
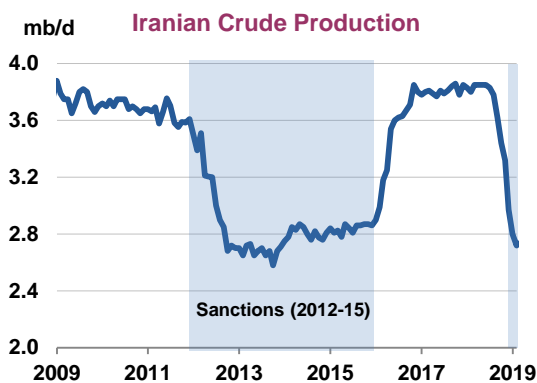
Production in **Iraq**, including the Kurdistan Regional Government (KRG), fell by 70 kb/d in February to 4.68 mb/d - well above its OPEC+ supply target. During the last round of cuts, Baghdad cut production by less than 50% of its commitment.

Iraq has clearly stated its capacity building aims. By the tail end of last year, it was producing at 4.77 mb/d, its highest ever level, as oil fields in the south ramped up. Oil output from the Halfaya field is due to rise by about 50 kb/d and hit its target level of 400 kb/d in March.



On the export front, overall shipments to world markets were down around 110 kb/d to 3.96 mb/d. The lion’s share of Iraq's crude is shipped via its southern ports. As for the north, exports in February slowed after flows via the KRG-controlled pipeline system to Ceyhan were cut by maintenance along the Iraq-Turkey pipeline.

Output from **Iran** edged up to 2.74 mb/d in February, but was down 1.1 mb/d compared to when US sanctions were announced in May. Production so far this year is running at the lowest level since late 2013, during the previous round of sanctions. As for exports, total shipments of crude and condensates rose 90 kb/d m-o-m to 1.4 mb/d in February. Exports of crude oil edged up to nearly 1.1 mb/d, according to tanker tracking data, with condensates making up the remainder.



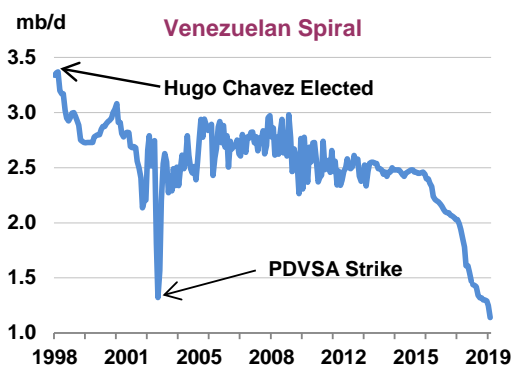
Of the eight countries given waivers by the US to buy Iranian oil, China, India, Japan, Korea and Turkey are, on average, lifting at or slightly above their allowed volumes. Italy and Greece have lifted nothing since November, while Taiwan has not loaded any Iranian barrels since September, *Kpler* data show.

Libyan crude supply crept up to 900 kb/d in February and looks set to recover in March. The National Oil Corp lifted *force majeure* at El Sharara in early March after the removal of an armed group that had taken over the oil field in early December. The country’s largest field is currently pumping roughly 180 kb/d, which suggests that overall production could soon push back above 1 mb/d for the first time

since early December. Crude output recovered in 2018 to a five-year high of 1.15 mb/d, although the oil sector remains vulnerable to security and political challenges.

In **Nigeria**, output was stable at 1.64 mb/d in February, supported by the early 2019 start of the offshore Egina field. However, a brief disruption in flows through a major pipeline underscores the ongoing risk that militant attacks pose to oil operations. Crude output sank to a three-decade low in 2016, a year after President Muhammadu Buhari came to power. Having won a second term in February, Buhari will have another chance to reform the energy industry. Output from other African producers was broadly steady m-o-m. Supply held at 1.03 mb/d in **Algeria** and inched up in **Angola, Congo, Gabon and Equatorial Guinea**.

Struggling after the imposition of US sanctions in January, **Venezuela's** production fell 100 kb/d in February to 1.14 mb/d, down 410 kb/d on a year ago. Deeper declines are likely in March after power blackouts throughout the country took a further toll on production and exports. The power outage is an additional challenge for Venezuela, where oil sector operations have already been set back by chronic under-investment, lack of maintenance and US sanctions.

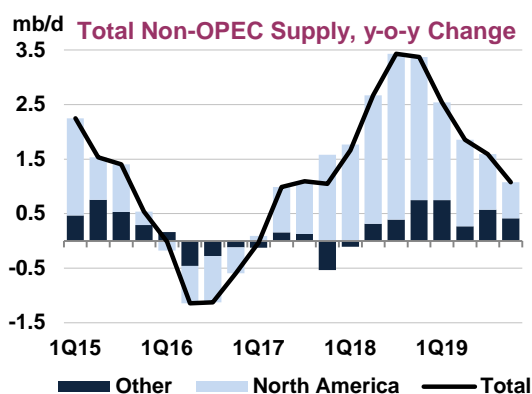
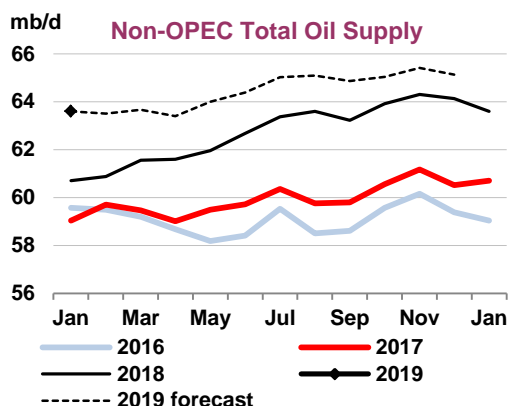


The measures, banning US refiners from buying Venezuelan crude, also disrupted flows of diluent that are needed to blend with extra heavy oil from the Orinoco Belt. The US had been delivering more than 100 kb/d of diluent, but some supplies from Russia reportedly are on the way. Meanwhile, Washington is considering additional measures that could hit trade of nearly all crude and products. It is also mulling secondary sanctions aimed at crude and product flows between Petroleos de Venezuela (PDVSA) and non-US entities.

Output slumped dramatically in 2018, falling 570 kb/d. However, the deteriorating political situation and further economic and infrastructure damage caused by the power cuts make it difficult to forecast the scale of further declines. Output from **Ecuador** was unchanged from January at 520 kb/d.

Non-OPEC overview

Following a steep drop of more than 0.5 mb/d in January, non-OPEC oil supply eased by another 100 kb/d last month. Since November's high, output has fallen by 800 kb/d, with Canada, the United States and global biofuels accounting for most of the decline. Lower output from countries participating in output cuts also contributed. At 63.5 mb/d, output was nevertheless 2.6 mb/d higher than a year ago.



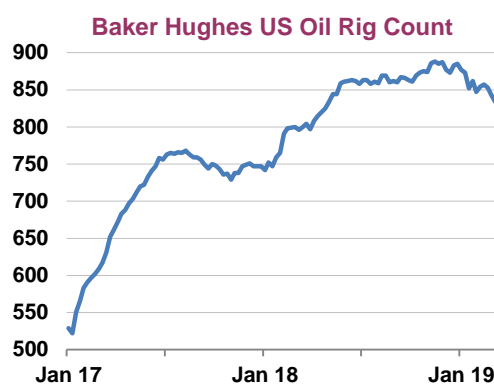
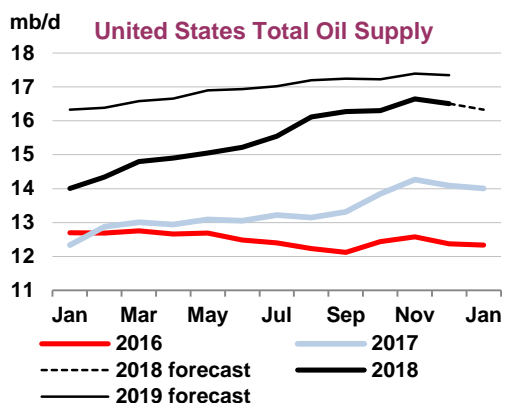
For the year as a whole, non-OPEC oil supply growth is expected to slow from a record 2.8 mb/d in 2018 to 1.8 mb/d. The US continues to account for the bulk of the expansion, adding 1.5 mb/d, or 83% of the total. Other increases will come from Brazil, where a number of new production units are currently ramping up. Despite renewed output cuts, gains will also come from Russia, with production at the start of 2019 410 kb/d higher than a year ago. In contrast, further declines are expected from Mexico, Norway and China.

Non-OPEC Supply

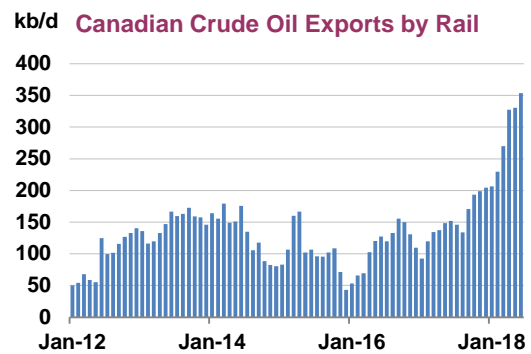
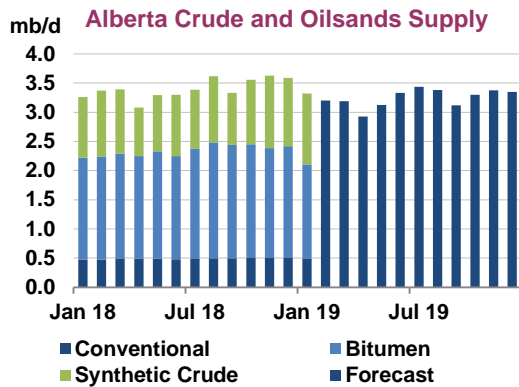
(million barrels per day)

	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
Americas	20.3	21.7	22.2	23.3	23.9	22.8	23.5	23.8	24.3	24.5	24.0
Europe	3.5	3.6	3.4	3.3	3.5	3.5	3.5	3.4	3.4	3.5	3.5
Asia Oceania	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Total OECD	24.2	25.7	26.0	27.0	27.8	26.6	27.5	27.6	28.3	28.6	28.0
Former USSR	14.3	14.4	14.4	14.6	14.8	14.6	14.8	14.5	14.6	14.8	14.7
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.9	3.8	3.9	3.8	3.9	3.8	3.9	3.8	3.8	3.7	3.8
Other Asia	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
Latin America	4.5	4.5	4.5	4.4	4.6	4.5	4.6	4.8	5.0	5.1	4.9
Middle East	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Africa	1.4	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5
Total Non-OECD	30.9	30.9	31.0	31.0	31.4	31.1	31.4	31.2	31.4	31.6	31.4
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	2.5	2.1	2.8	3.1	2.5	2.6	2.3	2.8	3.0	2.7	2.7
Total Non-OPEC	59.9	61.1	62.1	63.4	64.1	62.7	63.6	63.9	65.0	65.2	64.4
Annual Chg (mb/d)	0.8	1.7	2.7	3.4	3.4	2.8	2.5	1.9	1.6	1.1	1.8

Total US oil supply dropped by 140 kb/d in December, to 16.5 mb/d, with both crude oil and NGL production falling. Crude oil output eased by 55 kb/d, to 11.85 kb/d, its first decline in eight months and in stark comparison to November's 345 kb/d surge. Lower Gulf of Mexico output accounted for most of the drop, sliding 125 kb/d m-o-m. Onshore production growth slowed to 70 kb/d from average monthly growth of almost 170 kb/d during the previous six months. Gains came from Texas (+35 kb/d), North Dakota (+18 kb/d) and New Mexico (+13 kb/d). Following the sharp decline in prices towards the end of last year, US producers have scaled back activity. According to Baker Hughes, the number of active oil rigs has dropped by 51 since the start of the year, so that 834 were operating in early March. December output was nevertheless 1.8 mb/d higher than a year earlier. Crude production is expected to rise by 1.1 mb/d on average this year, compared with gains of 1.6 mb/d in 2018. Total oil output growth slows from 2.2 mb/d to 1.5 mb/d.



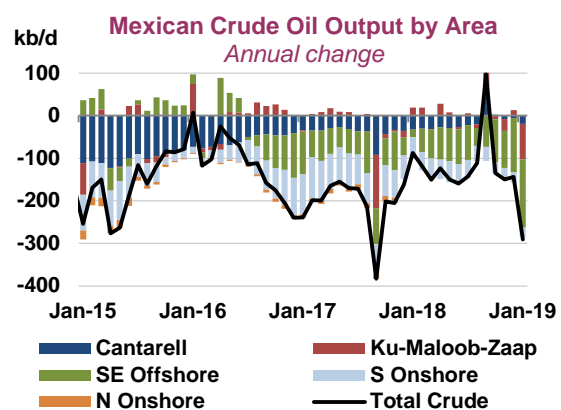
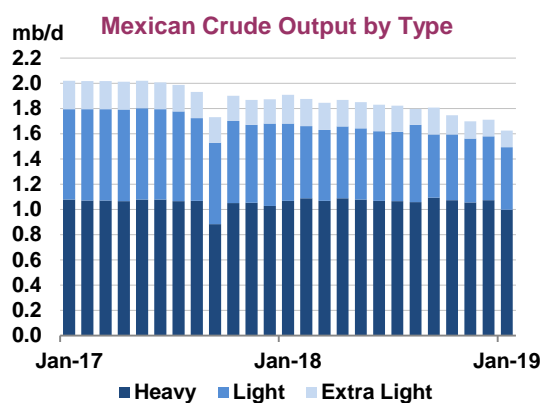
Canadian oil output dropped by 235 kb/d in January, as Alberta’s producers complied with mandatory curtailments. Albertan crude and oil sands production fell by 270 kb/d m-o-m, to 3.4 mb/d, with a 295 kb/d drop in raw bitumen partly offset by slightly higher synthetic crude oil output. Offshore output inched up to 250 kb/d, an increase of nearly 70 kb/d from November’s low when several platforms were shut due to bad weather. The White Rose field remained shut due to a spill in November.



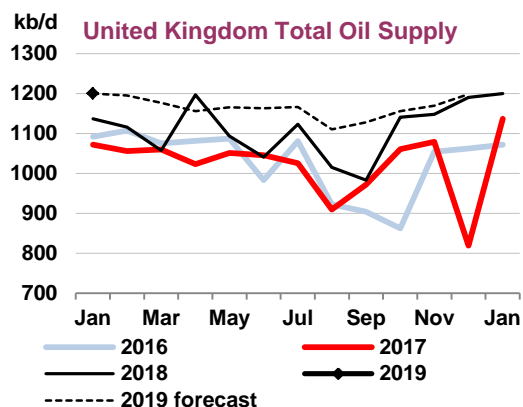
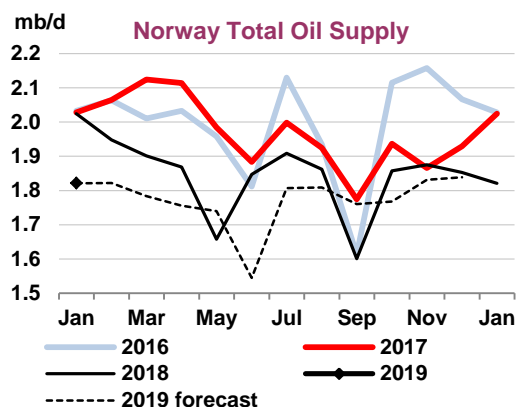
Source: National Energy Board, Canada

In early March, Enbridge announced a delay in its Line 3 replacement project by as much as a year due to permitting issues in Minnesota. The project will boost export capacity by 370 kb/d and is now likely to start during the second half of 2020, meaning that companies will have to continue to rely on rail to move much of their production. Rail shipments of Canadian crude rose to 350 kb/d in December, an increase of 200 kb/d compared with a year earlier and a record high.

Mexican oil supply plunged another 70 kb/d in January, mainly on lower production from the Ku-Maloob-Zaap (KMZ) fields. Output from KMZ fell by 65 kb/d m-o-m to 800 kb/d. At 1.86 mb/d, total Mexican oil output was 330 kb/d below a year earlier and at its lowest in nearly 40 years. Crude and condensate supply, at 1.64 mb/d, stood 290 kb/d lower than a year ago, led by super light and light crude, which dropped by roughly 100 kb/d and 120 kb/d, respectively. Heavy crude production fell by 30 kb/d to below 1 mb/d. Natural gas liquids production increased 20 kb/d m-o-m but was 40 kb/d lower than a year ago. Total oil output is expected to fall by 170 kb/d on average this year, compared with a decline of 155 kb/d last year.



Norway’s oil output dropped by 30 kb/d in January to 1.82 mb/d, 200 kb/d below a year earlier. A complete set of data for 2018 shows oil supply falling by 120 kb/d, or 6%. The biggest declines came from the Oseberg-Troll fields, which saw a combined drop of 50 kb/d. Fields feeding into the Sleipner-Frigg system saw a decline of nearly 40 kb/d. Output at Statfjord-Gullfaks fields dropped by 20 kb/d while the Ekofisk area fell by only 10 kb/d. Following a decline of 80 kb/d this year, output is expected to get a significant boost in 2020, when the Johan Sverdrup field starts up towards year-end.



Following the submission of revised data from UK's Oil and Gas Authority (OGA), oil production estimates for 2018 have been raised by 75 kb/d compared with last month's *Report*. The new data show production rose to 1.1 mb/d last year, up nearly 9% on 2017 and the highest UK oil production level since 2011. According to a new OGA report, *Projections of UK Oil and Gas Production and Expenditure*, the increase is attributed to the start-up of over 30 new fields since 2015, improved production efficiency and asset integrity, the realisation of enhanced oil recovery projects and the UK's offshore licensing rounds' continued focus on associated exploration, appraisal and development commitments. The Report also found that total operating costs rose by 6.4% last year, driven by higher activity, while unit operating costs increased only marginally by 2.2%, from \$14.7/boe in 2017 to \$15.5/boe in 2018. While capital expenditure fell for the fourth straight year, a 4% increase is expected in 2019.

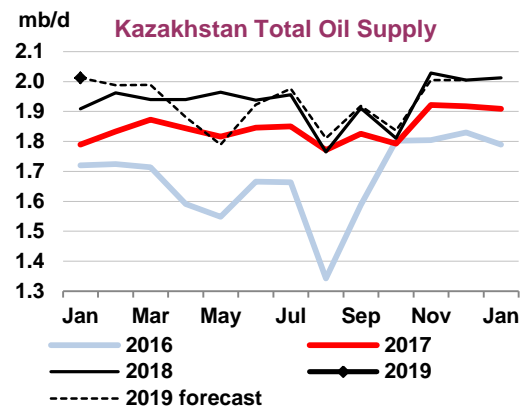
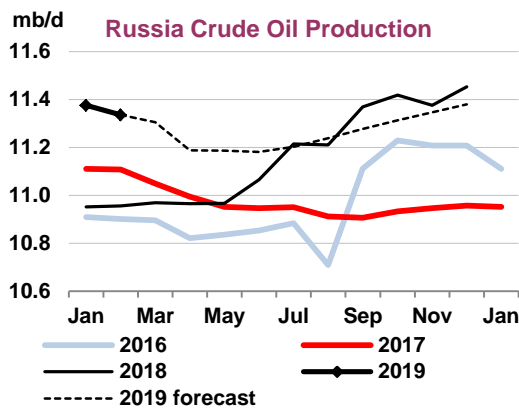
Russian crude and condensate output fell by 40 kb/d in February, to 11.34 mb/d. Rosneft and Gazprom Neft made the biggest reductions, cutting output by 23 kb/d and 14 kb/d, respectively. In contrast, supply from production sharing agreements (PSAs) rose 17 kb/d m-o-m to 416 kb/d. Sakhalin 1, led by Exxon Mobil, is actively ramping up output after having approved a new development scheme for three new fields offshore Sakhalin. The PSAs output reached a record near 270 kb/d in September, but has since fallen back to around 220 kb/d currently. Despite the month-on-month drop, Russian oil output was 380 kb/d higher than a year ago, and only 80 kb/d lower than the October baseline from which compliance with agreed cuts is calculated. Russia pledged to reduce output by 230 kb/d, but has said the cut will be implemented gradually.

Russian Crude Oil Production by Company (kb/d)

	February Output	Change M-o-M	Change Y-o-Y	Change since Oct-18
Rosneft	3,961	-23	149	-42
Lukoil	1,657	-8	26	-15
Surgutneftegaz	1,233	-6	26	6
Gazprom Neft	762	-14	-18	-42
Tatneft	597	-4	18	-6
Bashneft	380	-1	-3	-1
Gazprom	447	-4	31	12
PSA operators	416	17	55	10
Slavneft	283	-1	16	-1
Other Oil Companies	1,259	1	49	0
Total	11335	-40	380	-83

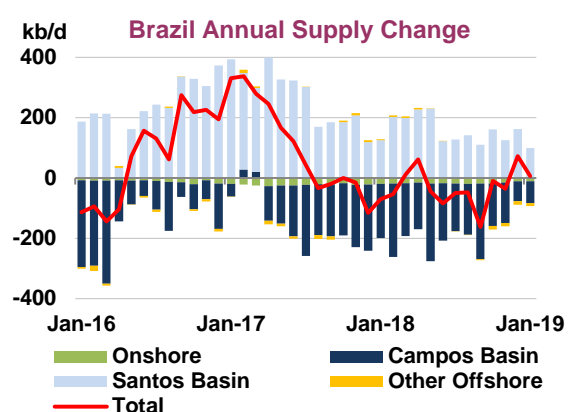
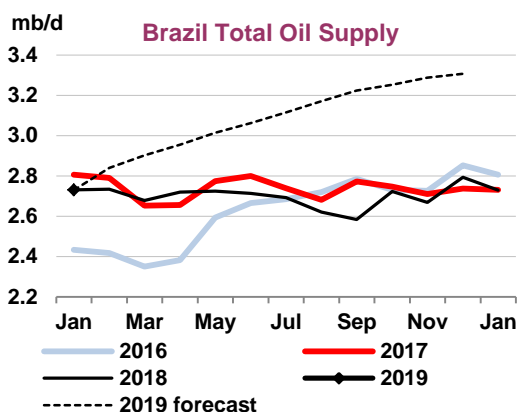
Crude oil exports outside the former Soviet Union fell more sharply in February, however.

Shipments dropped from 5.21 mb/d in January to 5 mb/d, but were nearly 8% higher than a year ago. Exports via the Transneft system averaged 4.05 mb/d last month, up from 3.77 mb/d a year ago, with higher shipments from the Baltic Sea outlets of Primorsk and Ust-Luga and from the Pacific port of Kozmino. Pipeline exports to China were also up year-on-year.



Kazakhstan's oil production held steady at just over 2 mb/d in January, but was up more than 100 kb/d from a year ago thanks to the continuing ramp-up of the offshore Kashagan field. Kashagan, developed by the North Caspian Operating Co. (NCOC), which includes Exxon Mobil, Royal Dutch Shell, Total and Eni, saw production up by 55% over the year at 310 kb/d. Output likely rose further in February when, according to Total, the field achieved its full Phase 1 capacity of 380 kb/d. This spring, NCOC will shut down Kashagan entirely for 45 days maintenance, the first time this has happened since production began. The Tengiz field will shut for maintenance in August, with Karachaganak following in September. January production was 15 kb/d lower than November's all-time high that also serves as Kazakhstan's reference point for 40 kb/d of output cuts. **Azeri** crude and condensate output rose by 13 kb/d to 807 kb/d in February, despite a pledge to cut production by 20 kb/d along with other OPEC and non-OPEC countries.

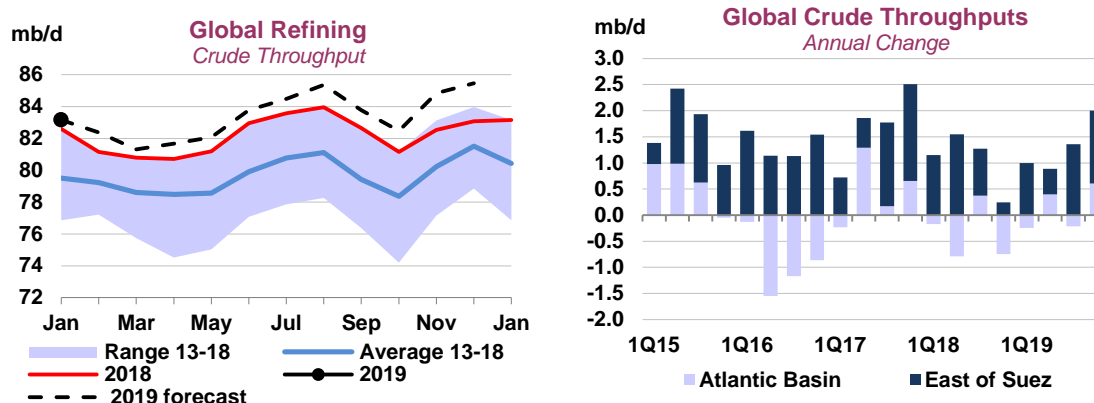
Brazilian oil output dropped by 65 kb/d in January, to 2.73 mb/d. Production was steady compared with a year ago, as maintenance and declines from mature fields offset growth from new start-ups. According to ANP, Brazil's national oil, gas and biofuels agency, the main reason for the fall was maintenance shutdowns at the P-74 and FPSO Cidade de São Paulo platforms, in the Búzios and Sapinhoá fields, respectively. Output should rise in February following the start-up of the P-67 platform in the Lula Norte area and the P-76 at Buzios. P-76 is the third 150 kb/d unit to enter production in the Búzios field since last April. According to Petrobras' Strategic Plan, another two FPSO will enter operations this year. As a result, we expect Brazilian production to increase by an average 375 kb/d this year, to around 3.3 mb/d by year-end.



REFINING

Summary

Developments since the start of the year contain both good news and bad news for global refiners. The good news is that margins finally started improving in February, which saw the first monthly gains since November for most regions. The bad news is that the likely reason was refining underperformance. 4Q18 global refining throughput declined 0.5 mb/d year-on-year (y-o-y), for the first time since 2016. Moreover, since the January edition of this *Report*, we have revised down our assessment of January through February throughput by 0.2 mb/d on average due to extended maintenance and unplanned shutdowns. Product cracks simply reacted to tighter markets. Additionally, the support came mainly from fuel oil cracks. This was, again, mostly a supply-side factor (see *Margins*).



Most of the annual growth in refining throughput in 2019 will be back-end loaded, as additions start up very gradually. Growth is almost entirely found East of Suez, which will account for 1.1 mb/d out of the global total 1.2 mb/d. After seeing peak maintenance in March, runs are expected to ramp-up by 4 mb/d by August. As global throughput grows, seasonal variations will increase in amplitude, potentially adding to crude oil price volatility.

Global Refinery Crude Throughput¹

(million barrels per day)

	Dec 18	4Q18	2018	Jan 19	Feb 19	Mar 19	1Q19	2Q19	3Q19	4Q19	2019
Americas	19.8	19.4	19.4	19.3	18.4	19.3	19.0	19.8	20.0	19.7	19.6
Europe	12.4	12.0	12.0	12.2	12.1	11.7	12.0	12.1	12.5	12.3	12.2
Asia Oceania	7.2	7.0	7.0	7.0	7.3	7.0	7.1	6.8	7.1	6.9	7.0
Total OECD	39.4	38.3	38.4	38.4	37.8	38.0	38.1	38.7	39.6	39.0	38.8
FSU	7.2	7.1	7.0	7.1	6.9	6.9	7.0	6.9	6.9	6.9	6.9
Non-OECD Europe	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.6
China	12.0	12.2	12.0	12.6	12.6	12.3	12.5	12.4	12.7	12.6	12.5
Other Asia	10.5	10.6	10.6	10.9	10.7	10.2	10.6	10.3	10.9	11.1	10.7
Latin America	3.1	3.2	3.5	3.0	3.1	3.0	3.0	3.2	3.3	3.2	3.2
Middle East	8.1	8.1	7.9	8.2	8.3	8.1	8.2	8.3	8.4	8.6	8.4
Africa	2.2	2.2	2.0	2.1	2.2	2.2	2.1	2.0	2.1	2.1	2.1
Total Non-OECD	43.6	43.8	43.7	44.6	44.5	43.2	44.1	43.7	44.9	45.2	44.5
Total	83.0	82.2	82.1	83.1	82.3	81.2	82.2	82.4	84.5	84.2	83.3
<i>Year-on-year change</i>	<i>-0.9</i>	<i>-0.5</i>	<i>0.6</i>	<i>0.6</i>	<i>1.2</i>	<i>0.5</i>	<i>0.8</i>	<i>0.9</i>	<i>1.1</i>	<i>2.0</i>	<i>1.2</i>

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

Margins

Heavy maintenance and unscheduled outages on both sides of the Atlantic helped refining margins climb in February in all regions. Despite strong average month-on-month (m-o-m) increases in crude prices, refined product cracks improved. US Midwest margins doubled and are now back in double-digit territory as PADD 2 refining throughput plunged almost 400 kb/d m-o-m. Developments elsewhere, i.e. the seaborne hubs of the US Gulf Coast, Europe and Singapore, were more nuanced. In these regions, simple refinery margins gained more than complex margins as fuel oil cracks saw the strongest increases among refined products.

IEA/KBC Global Indicator Refining Margins¹

	(\$/bbl)									
	Monthly Average				Change	Average for week ending:				
	Nov 18	Dec 18	Jan 19	Feb 19	Feb 19-Jan 19	08 Feb	15 Feb	22 Feb	01 Mar	08 Mar
NW Europe										
Brent (Cracking)	6.03	3.30	2.80	3.12	↑ 0.32	2.72	3.18	2.78	4.41	5.24
Urals (Cracking)	6.71	4.13	3.03	3.84	↑ 0.81	3.55	3.72	3.29	5.60	6.43
Brent (Hydroskimming)	3.87	1.02	0.86	1.38	↑ 0.53	1.22	1.52	0.84	2.53	3.26
Urals (Hydroskimming)	3.80	1.09	0.17	1.32	↑ 1.15	1.19	1.23	0.60	3.10	3.97
Mediterranean										
Es Sider (Cracking)	9.38	6.53	5.98	6.55	↑ 0.57	6.14	6.73	6.19	7.67	8.70
Urals (Cracking)	8.88	5.93	4.58	6.03	↑ 1.44	5.49	6.13	5.49	7.83	8.63
Es Sider (Hydroskimming)	6.30	3.51	3.37	4.24	↑ 0.87	4.10	4.55	3.83	4.89	5.75
Urals (Hydroskimming)	4.27	1.19	0.12	2.06	↑ 1.94	1.70	2.22	1.45	3.71	4.54
US Gulf Coast										
50/50 HLS/LLS (Cracking)	5.24	4.83	3.70	5.43	↑ 1.73	4.65	5.14	6.06	6.80	8.59
Mars (Cracking)	2.43	2.05	0.39	1.78	↑ 1.39	0.97	1.55	2.42	2.99	4.02
ASCI (Cracking)	2.34	1.87	0.41	1.90	↑ 1.49	0.99	1.72	2.73	3.07	3.99
50/50 HLS/LLS (Coking)	5.93	5.68	4.44	5.85	↑ 1.41	4.98	5.45	6.53	7.31	9.25
50/50 Maya/Mars (Coking)	1.46	2.68	1.08	1.61	↑ 0.53	1.14	1.12	1.75	3.02	4.55
ASCI (Coking)	5.34	4.70	2.86	3.35	↑ 0.49	2.47	2.85	4.03	4.82	6.03
US Midwest										
WTI (Cracking)	12.32	7.93	6.06	12.87	↑ 6.81	11.82	13.01	13.60	14.01	15.10
30/70 WCS/Bakken (Cracking)	30.00	10.53	5.72	12.71	↑ 6.99	11.08	13.09	13.94	13.71	14.74
Bakken (Cracking)	26.92	9.02	5.50	12.44	↑ 6.94	11.34	12.58	13.14	13.57	15.18
WTI (Coking)	13.22	8.58	6.39	13.43	↑ 7.04	12.32	13.46	14.20	14.67	15.84
30/70 WCS/Bakken (Coking)	32.09	11.70	6.14	13.56	↑ 7.42	11.98	13.68	14.67	14.83	15.95
Bakken (Coking)	27.08	9.12	5.42	12.43	↑ 7.01	11.31	12.51	13.14	13.61	15.28
Singapore										
Dubai (Hydroskimming)	2.74	0.40	0.50	0.62	↑ 0.12	0.97	0.83	0.19	0.74	1.50
Tapis (Hydroskimming)	3.99	0.84	-0.04	0.74	↑ 0.77	0.75	0.41	0.36	2.59	3.26
Dubai (Hydrocracking)	4.31	2.24	2.42	2.50	↑ 0.08	2.47	2.43	2.22	3.07	3.60
Tapis (Hydrocracking)	5.17	2.14	1.05	1.72	↑ 0.66	1.48	1.21	1.46	3.84	4.45

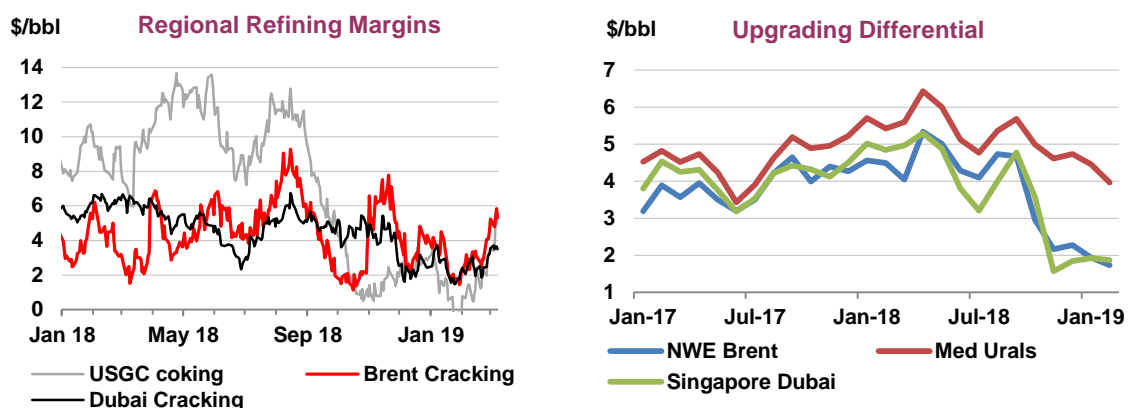
¹ Global Indicator Refining Margins are calculated for various complexity configurations, each optimised for processing the specific crude(s) in a specific refining centre. Margins include energy cost, but exclude other variable costs, depreciation and amortisation. Consequently, reported margins should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

Source: IEA, KBC Advanced Technologies (KBC)

The strength of fuel oil cracks and simple refining margins may look somewhat counterintuitive given the impending implementation in 2020 of the International Maritime Organisation's rules on sulphur in marine fuel. In our five-year outlook in *Oil 2019 – Analysis and Forecasts to 2024* (Oil 2019) published on 11 March we forecast high-sulphur fuel oil use in marine bunkers to drop 60% from the 2019 level to just 1.4 mb/d in 2020. However, spot fuel oil cracks are pricing in only current market fundamentals and not future expectations. Output of high sulphur fuel oil has already started to decline well before the

implementation of the new IMO rules. In this regard, supply adjustments, both voluntary and accidental, have come ahead of demand changes. By voluntary adjustments, we mean upgrading units, such as cokers, vacuum distillation units, and solvent de-asphalting that have come online in recent months and reduced fuel oil yields. Accidental fuel oil supply decreases relate to the cuts in production of global medium-heavy crude grades (see Supply). The estimated 1.4 mb/d reduction in the output of these grades since November could have led to almost 500 kb/d less primary distillation output of fuel oil.

Most straight-run residual oil is used as feedstock for secondary units to produce lighter products. Typically, less than a quarter of fuel oil ends up in final product markets. Still, the volume loss is large enough to make a difference in fuel oil cracks, which have gained strength in the last five months. This has had an interesting effect on refining margins, by shrinking the upgrading differential. The difference between simple and complex margins for the same crude type narrowed sharply last November and has not recovered since.



When taking into account expected developments in crude oil markets and refining this year it is difficult to envisage a reversal of the situation. Supply of medium-heavy grades will likely remain constrained due to a combination of geopolitical and operational factors (Venezuela, OPEC+ agreement, Iran, etc). Refining capacity coming online this year is complex, with some sites boasting zero yields of marketable fuel oil. In this context, the recent announcement by Rosneft of a delay in commissioning its fleet of hydrocrackers and cokers from 2019 to late 2020-early 2021 may make commercial sense. On the other hand, the company is a traditional laggard in Russia's long-running refinery modernisation programme, having mostly focused on upstream projects.

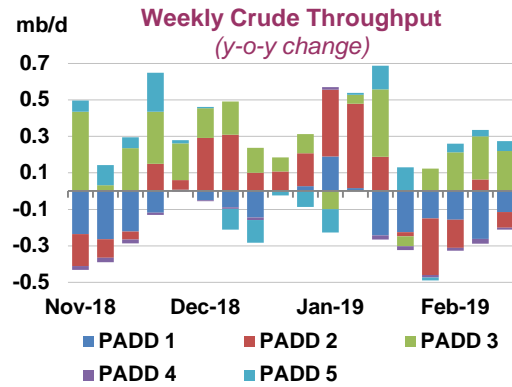
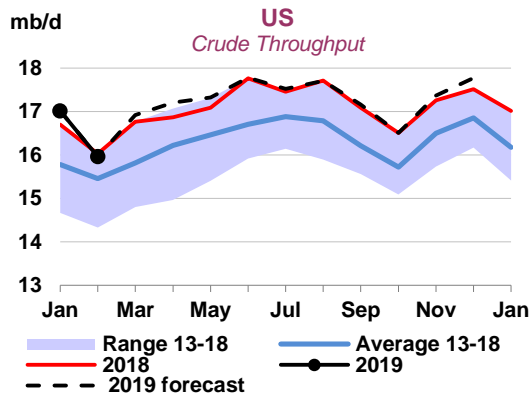
The margin premium that complex refineries have enjoyed for many years is slowly disappearing as increasing complexity is confronted by a lightening of the global average crude barrel. As we noted in *Oil 2019*, we might be seeing the beginning of the reversal of the historical trend, with the emphasis moving from more complex to simpler refining operations.

OECD refinery throughput

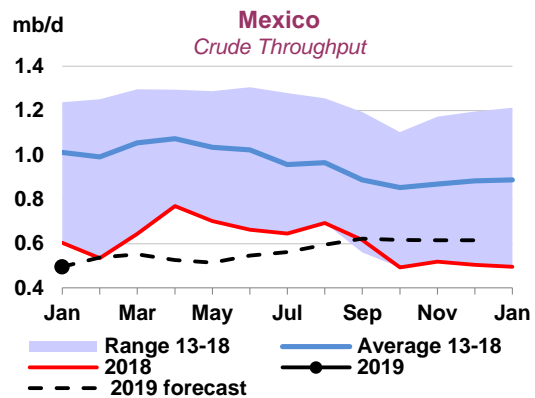
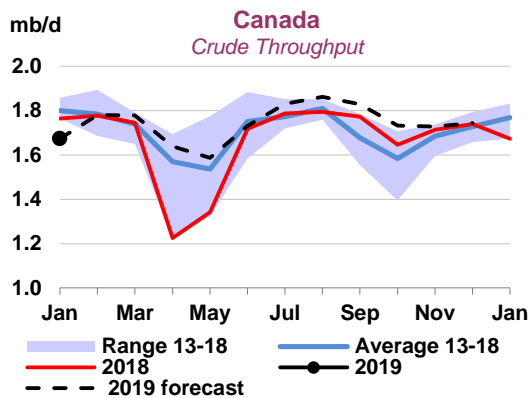
OECD refining throughput in January fell 0.9 mb/d m-o-m, 0.5 mb/d down y-o-y. The monthly change was mostly due to a seasonal slowdown in the US in January, but the annual decrease came from the two large refining centres of OECD Asia: Japan and Korea. After a 250 kb/d y-o-y decline in 2018, 2019 throughput is expected to increase by 430 kb/d, mostly thanks to US and European growth.

US February throughput was much more subdued than expected, some 330 kb/d lower than our forecast. Runs declined by 1.1 mb/d m-o-m to 15.9 mb/d and were 70 kb/d below a year earlier, the first annual decline since May 2018. Since December 2018, US runs have fallen by 1.5 mb/d, but they are expected to recover from March towards the summer peak in July-August, adding 1.7 mb/d.

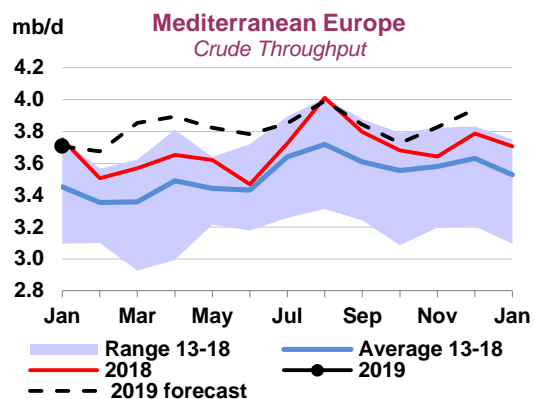
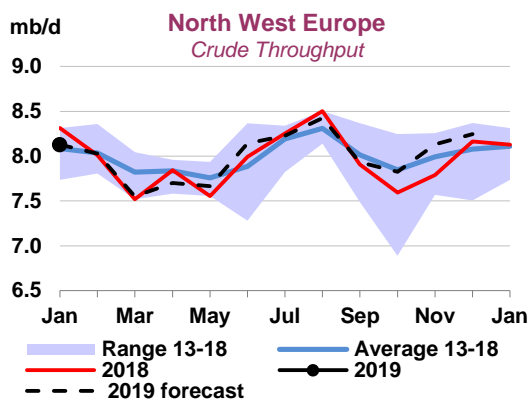
PADD 2 (US Midwest) and PADD 3 (Gulf Coast) accounted for most of the monthly decline in February. Nevertheless, PADD 3 throughput remained robust, up 200 kb/d y-o-y and at a new seasonal record at 8.5 mb/d. The underperformance was mostly due to PADD 1 (down 170 kb/d) and PADD 2 (down by 120 kb/d).



Canadian throughput in January was at the lowest seasonal level in our monthly records. This follows a generally lacklustre 2018 when runs were down 110 kb/d y-o-y. The largest declines were due to extensive refinery maintenance in the Eastern Canada/Quebec and Western Canada regions. We expect a recovery this year, with runs up 110 kb/d y-o-y.



Mexican throughput in January also failed to recover, and, at 485 kb/d was only slightly higher than the lowest monthly number in our records. We have revised down our 2019 forecast by 100 kb/d to just 560 kb/d.



OECD Europe's December throughput was finalised 50 kb/d higher and preliminary data for January came in 70 kb/d below our expectations. The maintenance season started in February and is expected to peak in May. Overall, regional refinery intake in 2018 was down 260 kb/d y-o-y, and is expected to recover partially, by 195 kb/d, in 2019. The growth will come mostly from the Mediterranean region as a new refinery in **Turkey** reaches full operating rates this year. Shell has reportedly reached a deal with HES tank terminal firm to partially restart the Wilhelmshaven refinery in **Germany**, previously operated by ConocoPhillips. One of the vacuum distillation units could be run on heavy sweet crude feedstock to produce marine bunker material to meet the new IMO 2020 specifications.

Refinery Crude Throughput and Utilisation in OECD Countries

(million barrels per day)

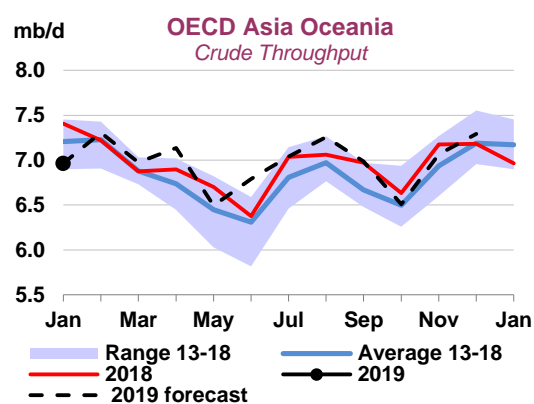
	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Change from		Utilisation rate ¹	
							Dec 18	Jan 18	Jan 19	Jan 18
US ²	17.61	16.99	16.41	17.15	17.41	16.91	-0.50	0.31	89%	88%
Canada	1.78	1.76	1.64	1.70	1.73	1.66	-0.07	-0.09	83%	87%
Chile	0.19	0.19	0.19	0.19	0.20	0.19	-0.01	0.00	84%	86%
Mexico	0.68	0.61	0.48	0.51	0.50	0.49	-0.01	-0.11	29%	36%
OECD Americas³	20.27	19.54	18.72	19.55	19.83	19.25	-0.58	0.11	84%	84%
France	1.22	1.24	1.22	1.09	1.13	1.16	0.03	-0.01	93%	94%
Germany	1.89	1.56	1.53	1.69	1.75	1.79	0.04	-0.16	88%	96%
Italy	1.44	1.35	1.29	1.38	1.38	1.28	-0.10	-0.08	74%	79%
Netherlands	1.13	1.00	0.98	1.02	1.17	1.15	-0.03	-0.04	89%	92%
Spain	1.47	1.38	1.42	1.38	1.35	1.39	0.04	-0.03	98%	100%
United Kingdom	1.17	1.16	1.15	1.11	1.15	1.13	-0.02	0.08	90%	83%
Other OECD Europe	4.60	4.42	4.10	4.16	4.43	4.34	-0.09	0.03	93%	97%
OECD Europe	12.91	12.09	11.68	11.82	12.36	12.23	-0.13	-0.22	90%	93%
Japan	3.22	3.05	2.60	3.18	3.21	3.10	-0.11	-0.19	87%	93%
South Korea	2.97	2.98	3.12	3.08	3.05	3.04	-0.01	-0.21	91%	100%
Other Asia Oceania	0.87	0.93	0.91	0.91	0.91	0.82	-0.10	-0.04	94%	98%
OECD Asia Oceania	7.05	6.96	6.62	7.17	7.17	6.95	-0.22	-0.44	90%	96%
OECD Total	40.23	38.60	37.02	38.54	39.36	38.44	-0.93	-0.55	87%	89%

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

² US\$0

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

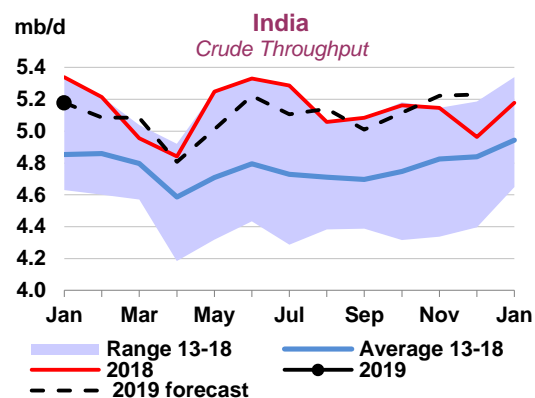
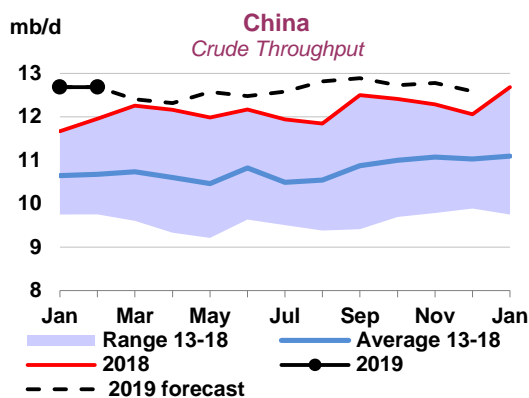
OECD Asia January throughput plunged 440 kb/d y-o-y, some 470 kb/d below our expectations, driven by counter seasonal slowdowns in **Japan** and **Korea**. This was an extension of the equally poor December performance. In Korea, where crude imports also registered declines in December and January, a partial displacement of crude feedstocks by cheaper naphtha for the mixed-feed crackers could explain the lower crude runs. For Japan, the issues are structural based on declining domestic demand, and less involvement in export markets.



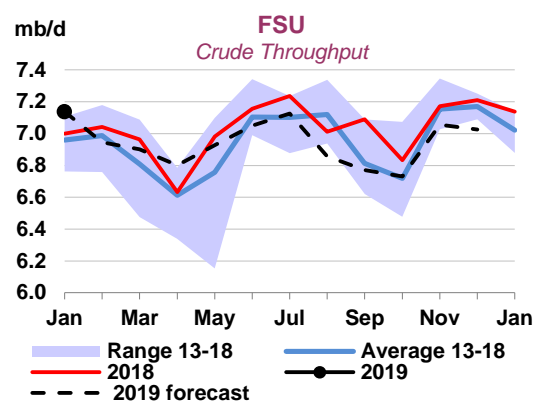
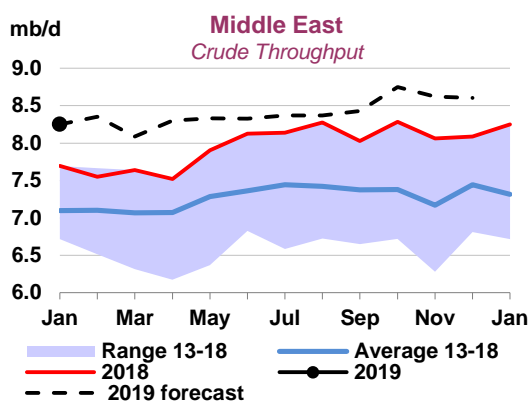
Non-OECD refinery throughput

December data updates for non-OECD countries resulted in an 85 kb/d downward revision of our throughput numbers. Runs were down 355 kb/d y-o-y, as declines in Latin America were only partially offset by growth elsewhere. Changes to **Thailand's** historical statistics resulted in a downward revision to our 2017 throughput estimate (-11 kb/d) and upward revision to our 2018 number (+35 kb/d). Annual growth for non-OECD countries is expected to moderate from 870 kb/d last year to 700 kb/d in 2019.

China's National Bureau of Statistics reported cumulative data for January-February due to the Lunar New Year holiday break. Average throughput jumped 0.6 mb/d from December to 12.6 mb/d, up 0.9 mb/d y-o-y. This was 0.3 mb/d higher than our forecast. These record run rates came as a surprise as traditionally there is a slowdown around the holiday. Nevertheless, the major maintenance programme announced for spring will cause a slowdown from the heady January-February numbers.



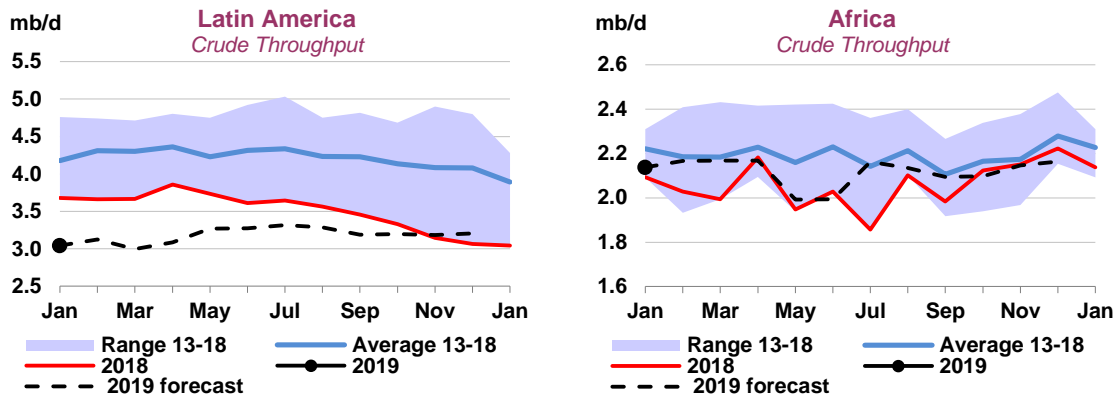
Indian runs climbed 215 kb/d m-o-m in January but remained 160 kb/d down y-o-y. Our forecast for 2019 is largely unchanged. Elsewhere in Asia, the growth comes from **Malaysia, Vietnam** and **Brunei**, which are either commissioning or ramping up new units.



Official December statistics for **Saudi Arabian** throughput came in 140 kb/d below our expectations at 2.7 mb/d and were 140 kb/d down y-o-y. Overall Middle East throughput growth in 2019 is revised up by 95 kb/d to 450 kb/d.

Updates for **Russia** and other FSU countries did not change the picture much. After growth of 160 kb/d in 2018 for the region as a whole, throughput is expected to decline by 80 kb/d in 2019, on lower Russian intake.

Brazil and **Argentina** reported lower than expected runs in January, by 120 and 30 kb/d, respectively. In the case of Brazil, they are expected to have recovered in February as the country's largest refinery, Replan, returned to full operations following several months of reduced rates due to a fire. We have also pushed back the closure of **Jamaica's** sole refinery to end-2019. The government announced that they will buy back Petroleos de Venezuela S.A's share in Petrojam, the refinery's owner, and seek an international partner to invest into a vacuum distillation unit. Without this necessary upgrade, the refinery is unlikely to survive after the IMO 2020 bunker specification change.



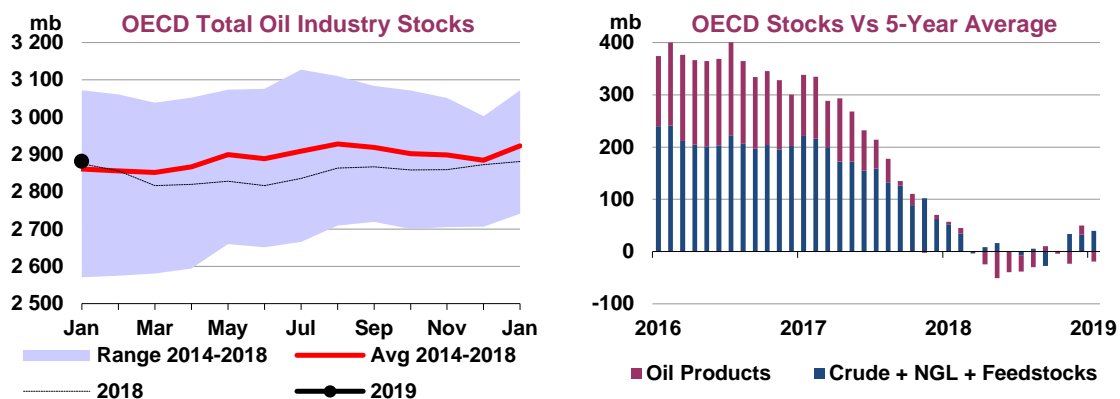
Only two countries in Africa reported December runs. **Algerian** runs were up 33 kb/d y-o-y to 700 kb/d, while **Angola's** only operating refinery near Luanda showed signs of a comeback from maintenance that lasted for three months. Runs were up 10 kb/d m-o-m to 13 kb/d in December. The continent's throughput is expected to be 2.1 mb/d in 2019, up by 60 kb/d y-o-y.

STOCKS

Summary

OECD commercial stocks rose 8.6 mb month-on-month (m-o-m) in January to 2 881 mb, the third straight monthly increase and the eighth in the last year. Stocks reached their highest level since November 2017. However, the gain was less than usual for the time of year, when maintenance at refineries and lower consumption of motor fuels boosts both crude and product stocks. The surplus to the five-year average fell from 50 mb in December to 21 mb.

Crude stocks built 20.3 mb on the month to reach 1 102 mb, a nine-month high, with gains recorded in all three OECD regions. NGL and feedstock holdings rose 1.9 mb m-o-m and remained close to the historical high reached at the end of last year. By contrast, oil product holdings declined counter-seasonally, by 13.6 mb m-o-m to 1 445 mb, due to lower refining output and higher demand for heating fuels in the northern hemisphere. OECD middle distillate inventories fell 10.1 mb and stood 33 mb below the five-year average at end-month, just 11 months before the implementation of the International Maritime Organisation's new bunker sulphur rules that will boost demand for gasoil.



Preliminary data for February show stocks declining in all three OECD regions and by 29.8 mb overall. If confirmed, this would be the largest downward movement in OECD stocks for 11 months and return the bloc's inventories to below the five-year average. The steepest fall was seen in the United States, where product stocks declined 19.6 mb due to refinery maintenance. Crude stocks continued to build with higher light tight oil (LTO) output and despite record high crude exports.

Preliminary Industry Stock Change in January 2019 and Fourth Quarter 2018

	January 2019 (preliminary)				(million barrels per day)				Fourth Quarter 2018			
	(million barrels)								(million barrels per day)			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	7.7	9.0	3.6	20.3	0.25	0.29	0.12	0.65	0.37	-0.05	0.17	0.48
Gasoline	10.9	3.6	0.4	14.9	0.35	0.12	0.01	0.48	0.09	0.11	0.00	0.20
Middle Distillates	3.7	-5.1	-8.7	-10.1	0.12	-0.16	-0.28	-0.33	0.01	-0.13	-0.05	-0.16
Residual Fuel Oil	1.5	3.5	0.5	5.5	0.05	0.11	0.02	0.18	-0.01	-0.01	0.01	-0.01
Other Products	-18.8	-1.2	-3.8	-23.8	-0.61	-0.04	-0.12	-0.77	-0.26	-0.02	-0.01	-0.29
Total Products	-2.7	0.8	-11.6	-13.6	-0.09	0.03	-0.38	-0.44	-0.17	-0.05	-0.05	-0.27
Other Oils ¹	3.4	0.4	-1.9	1.9	0.11	0.01	-0.06	0.06	-0.17	0.04	-0.01	-0.15
Total Oil	8.3	10.2	-10.0	8.6	0.27	0.33	-0.32	0.28	0.03	-0.07	0.11	0.07

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

OECD stocks were revised up by 15.1 mb in December. The biggest adjustment was in the Americas, particularly in Mexico, where crude stocks increased 1.2 mb m-o-m to 29 mb, their highest in 15 months, due to low refinery runs. Middle distillate stock figures were also revised up significantly in the Americas and in Europe. Finally, November stock figures were also changed, in this case down by 4.3 mb.

Revisions versus February 2019 Oil Market Report

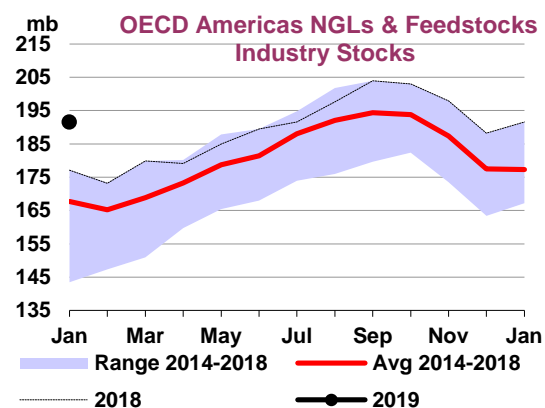
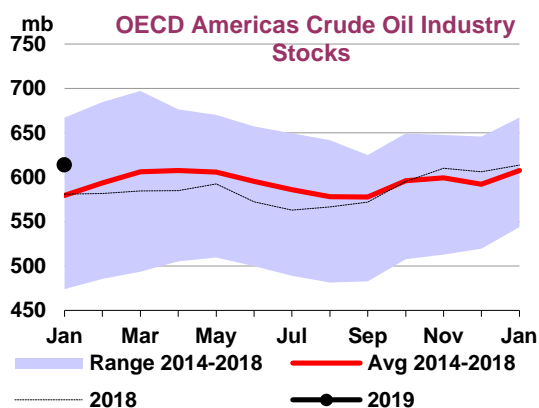
	(million barrels)							
	Americas		Europe		Asia Oceania		OECD	
	Nov-18	Dec-18	Nov-18	Dec-18	Nov-18	Dec-18	Nov-18	Dec-18
Crude Oil	-0.4	-2.0	-2.2	-5.2	-0.3	2.5	-3.0	-4.7
Gasoline	0.0	2.7	0.6	1.1	0.0	0.3	0.6	4.2
Middle Distillates	0.0	11.0	-0.6	5.4	0.0	2.7	-0.6	19.2
Residual Fuel Oil	0.0	-0.5	-0.8	-1.0	0.0	-0.2	-0.8	-1.7
Other Products	0.0	4.6	-0.7	-2.4	0.0	-0.4	-0.7	1.8
Total Products	0.0	17.8	-1.4	3.2	0.0	2.4	-1.4	23.4
Other Oils ¹	0.0	-3.7	0.0	0.4	0.0	-0.3	0.0	-3.6
Total Oil	-0.4	12.2	-3.6	-1.7	-0.3	4.6	-4.3	15.1

¹ Other oils includes NGLs, feedstocks and other hydrocarbons.

Recent OECD industry stock changes

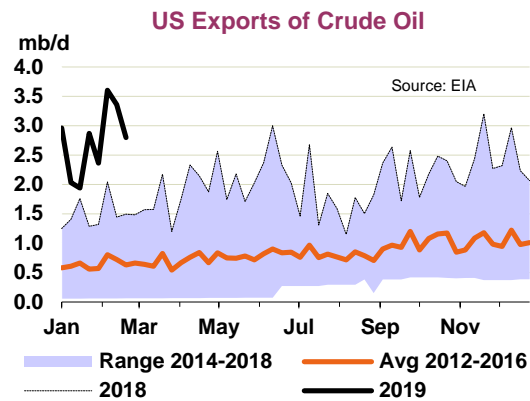
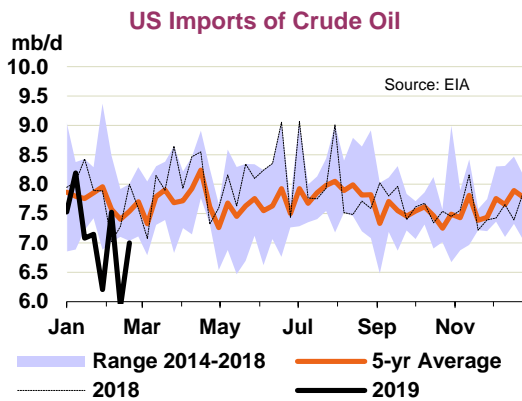
OECD Americas

Commercial stocks in the OECD Americas climbed 8.3 mb m-o-m in January to 1 552 mb, a 17-month high. This was in line with the five-year average increase for the month but means the region's stocks were 71.2 mb higher year-on-year. Most of the increase over the last year has occurred in crude (+32.9 mb) and NGLs (+14.4 mb) and can be attributed to higher US LTO and Canadian output. Gasoline (+11.5 mb) and other product inventories (+10.9 mb) also increased as refiners processed increasing volumes of crude. Inventory gains for NGLs and other products, which encompass LPG and naphtha, would have been greater without the large increase in petrochemical production (and thus product demand) seen in the US during 2018.



In January, crude stocks increased 7.7 mb m-o-m to 614 mb, their highest since October 2017, as some refineries in the US and Canada entered seasonal maintenance and reduced their crude intake. Crude imports also gained slightly on the month, whereas crude exports fell. Oil product inventories behaved seasonally, falling by 2.7 mb. Gasoline stocks went up 10.9 mb to 289 mb, middle distillates rose 3.7 mb to 221 mb, and fuel oil increased 1.5 mb to 36 mb. Other product stocks (largely US LPG) drew 18.8 mb to 200 mb. This was largely in keeping with the five-year average draw, despite the very cold temperatures recorded in Canada and the US late in the month.

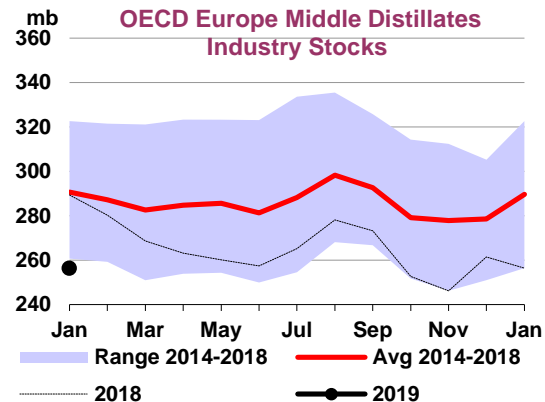
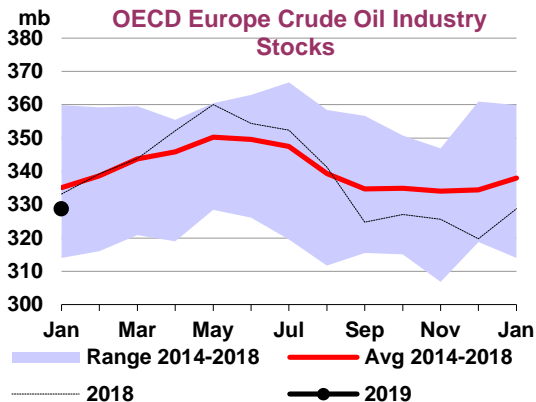
Preliminary February data from the *Energy Information Administration* show US stocks declining due to further refinery maintenance. Oil product stocks fell by a combined 19.6 mb m-o-m with draws seen in gasoline (-6.5 mb) for the first time in several months as well as diesel (-3 mb) and propane (-6.2 mb). By contrast, crude stocks increased by 4.9 mb. US crude imports fell significantly by around 800 kb/d to 6.7 mb/d, whereas crude exports climbed nearly 600 kb/d to a new all-time record of 3 mb/d. In the week ended 15 February, crude exports peaked at 3.6 mb/d.



OECD Europe

Commercial stocks in OECD Europe increased 10.2 mb m-o-m to 939 mb at the end of January. This was about one third of the average increase for the last five years. On an annual basis, stocks were down 45.3 mb versus January 2018 following the steep draws in oil products recorded during the year on the back of lower refining output.

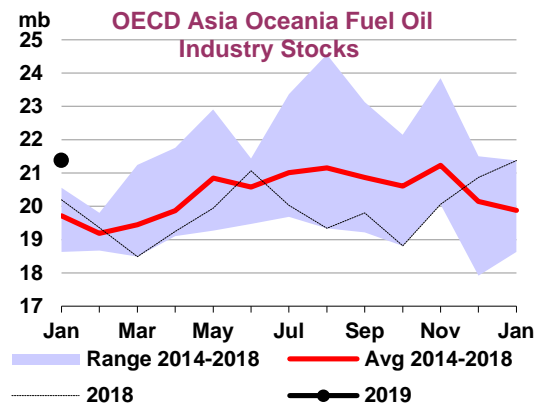
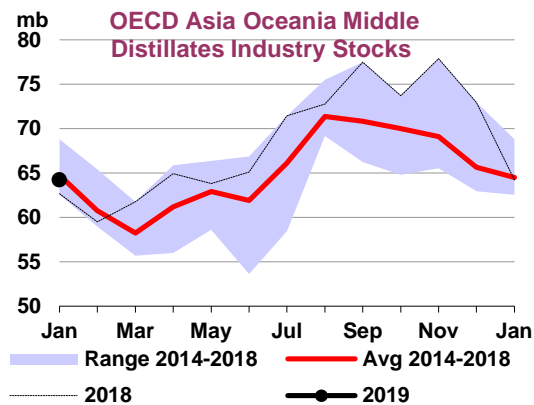
In January, oil product inventories rose a mere 0.8 mb on the month versus an average of 28 mb and were thus responsible for the lower-than-expected overall build. Clean product imports were their highest in at least 18 months and refinery runs were down only a little on the month, suggesting that higher end-user demand (particularly for diesel and gasoil) helped to deplete stocks. Gasoline stocks increased 3.6 mb m-o-m to 99 mb and middle distillate holdings fell counter-seasonally by 5.1 mb to 257 mb. Meanwhile, crude stocks increased 9 mb to reach 329 mb at the end of the month.



Preliminary data for February from *Euroilstock* showed European oil stocks falling counter-seasonally by 3.9 mb thanks to steep draws in gasoline (-2.7 mb), fuel oil (-1 mb), naphtha (-0.9 mb) and crude (-0.9 mb). Middle distillate (+1.6 mb) was the only category to show an increase.

OECD Asia Oceania

Commercial holdings in Asia Oceania declined sharply in January, by 10 mb m-o-m to 390 mb, their lowest level since September 2018. By far the largest decrease was seen in middle distillates stocks, which declined 8.7 mb to 64 mb owing to decreases in Korea (-5.3 mb) and Japan (-3.4 mb) amid colder temperatures and seasonal gains in kerosene consumption. Lower refinery output in Japan also played a part. Other product inventories (-3.8 mb) and NGL stocks (-1.9 mb) also fell, whereas crude (+3.6 mb), gasoline (+0.4 mb) and fuel oil (+0.5 mb) gained.

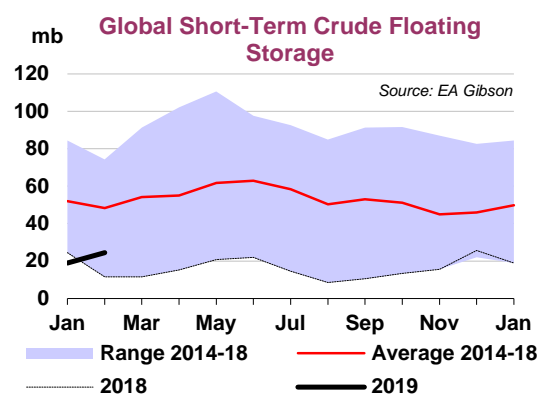
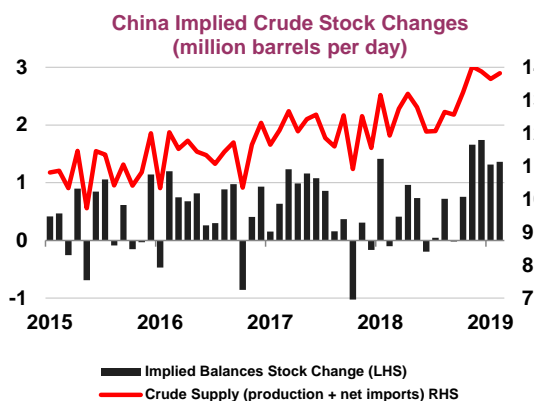


Preliminary data for February from the *Petroleum Association of Japan* (PAJ) show stocks fell sharply across most categories. Crude inventories declined 4.2 mb m-o-m as imports fell 200 kb/d m-o-m to 2.9 mb/d, according to *Kpler*. Crude stocks remain at the bottom of the five-year range following destocking and refinery closures over the last few years. Oil product holdings also fell seasonally by 6.9 mb with draws recorded in kerosene (-2.3 mb) linked to higher demand as well as gasoline (-0.7 mb), jet fuel (-0.2 mb) and fuel oil (-1 mb). Naphtha stocks increased.

Other stock developments

Chinese crude stocks continued to build at a rapid pace of around 1 mb/d in January and February, following a record stock increase of 1.4 mb/d in 4Q18, according to figures derived from IEA forecasts for crude production, refinery runs and customs crude import data. This implies that, over the last few months, China has absorbed most of the surplus barrels in the global crude oil market, whereas stocks in the OECD are little changed.

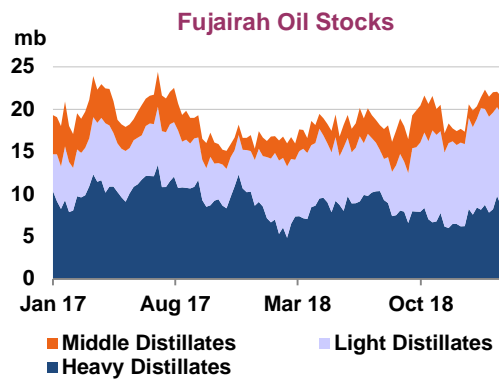
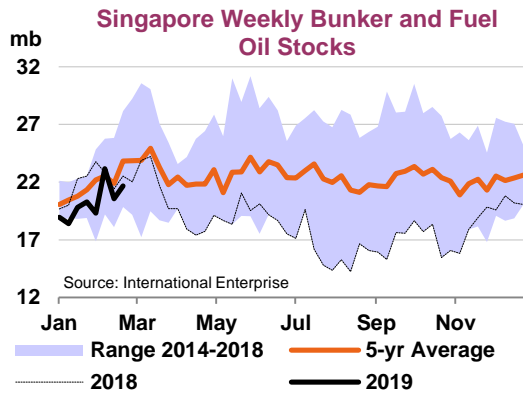
Short-term crude floating storage went up 5.5 mb in February to 24 mb, following builds in the Middle East Gulf, according to *EA Gibson*. The Middle East is now responsible for almost all of the global floating storage volumes following the imposition of sanctions against Iran.



Stockpiles in the 19 non-OECD countries covered by the JODI database fell 7.9 mb m-o-m in December to finish the year 2018 at 609 mb, 22.8 mb higher versus end-2017. Saudi crude stocks declined 39.6 mb during the year and, at 205 mb at the end of December, reached their lowest level since 2009. Saudi Arabia's oil product holdings, by contrast, increased by 7.1 mb to 95 mb in response to higher refinery output and reduced product demand amidst higher prices.

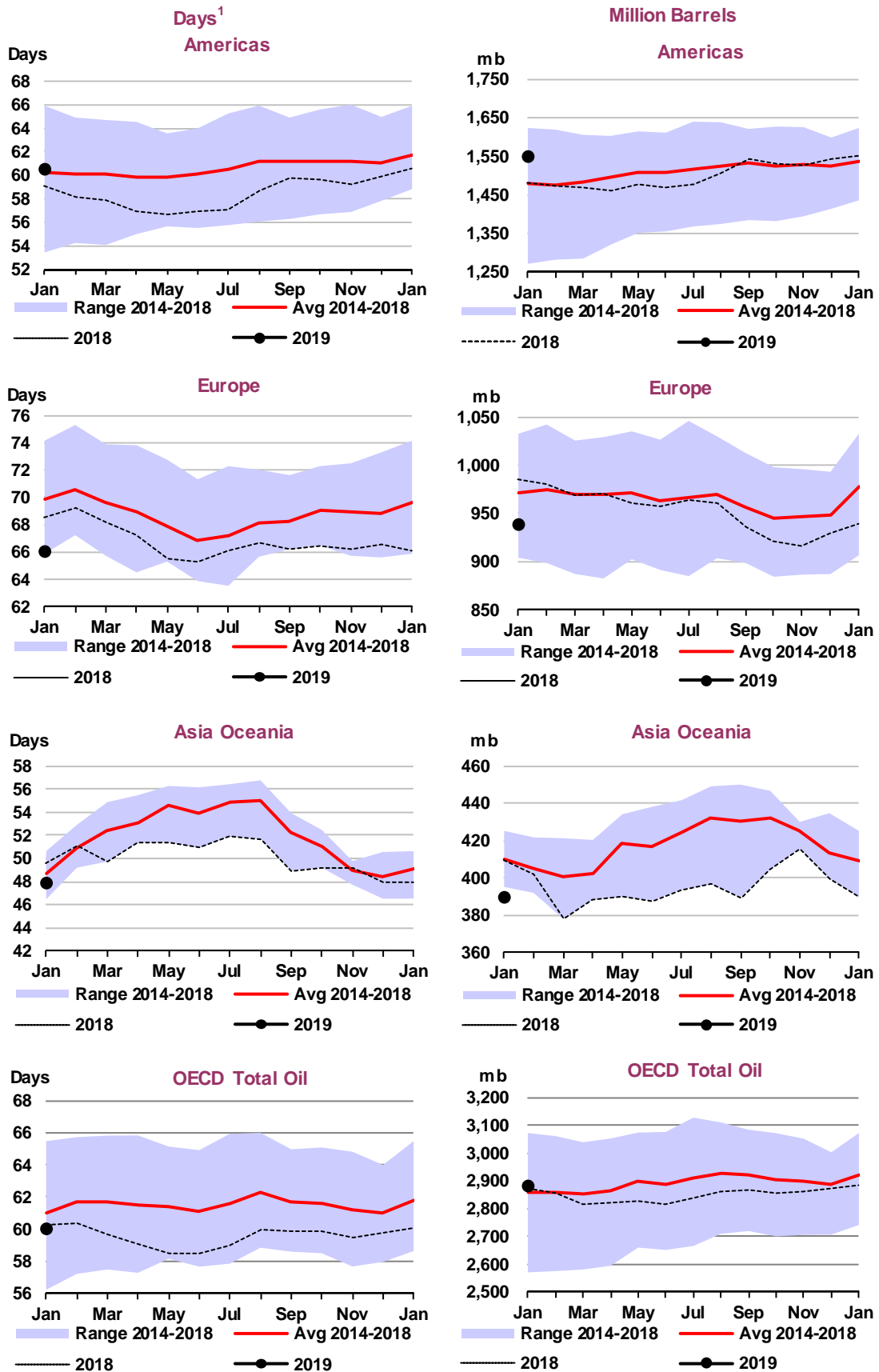
Oil stocks in Singapore rose for the fourth straight month in February to reach 50 mb, their highest level since August 2017, according to *Enterprise Singapore*. As in recent months, most of the gains came from

the bunker and fuel oil category, which increased 1.3 mb m-o-m and stood at the highest level in a year, in stark contrast with the OECD where fuel oil stocks have continued to decline in recent months. Sales of marine fuels in Singapore fell 9% year-on-year to 3.78 million tonnes, a three-year-low, according to figures from the country's *Maritime and Port Authority*, as fewer ships called at the port during the Chinese New Year holidays. Fujairah's stocks were almost unchanged in February, rising a mere 0.1 mb to 22 mb, data from *S&P Global Platts* showed. However, as in Singapore, fuel oil stocks went up, by 0.9 mb and reached their highest level since July 2018.



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

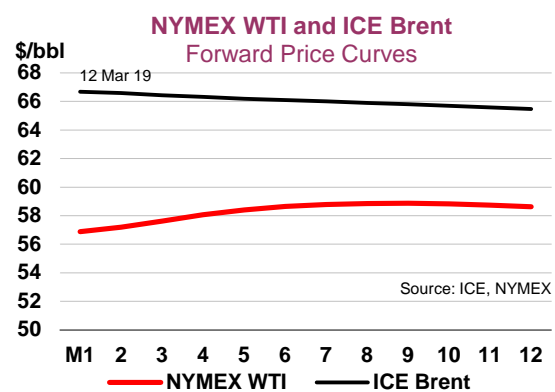
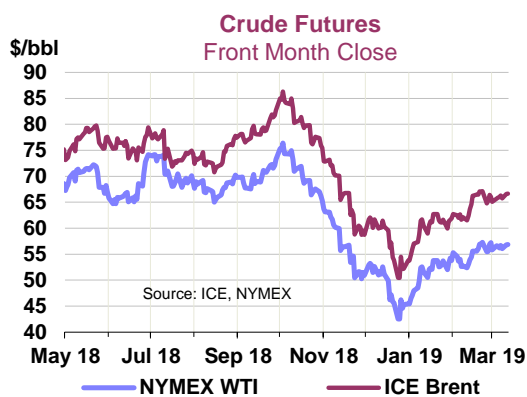
PRICES

Market overview

Oil prices increased month-on-month (m-o-m) in February as Vienna Agreement members cut output and supplies from Iran and Venezuela declined further. ICE Brent rose above \$65/bbl for the first time in three months and NYMEX WTI maintained an almost \$10/bbl discount to Brent. Medium-heavy crudes, in particular, are in short supply and there is potential for further market tightening as Saudi Arabia has announced it will again reduce output into April and Iranian sanction waivers are due to expire in May. This has boosted the price of crudes such as Mars, which is currently trading at a premium of over \$7/bbl to WTI, a five-year high. Elsewhere, sour Dubai has been priced higher than sweet North Sea crude since 21 February and this has made Brent-linked crude from the North Sea and West Africa more attractive to Asian buyers. In product markets, gasoline cracks have recovered from multi-year lows. Refinery maintenance and outages helped to clear the global supply glut and the US began the transition to higher-cost summer fuel. The reduced availability of heavy crude means that refiners are producing less fuel oil and this supported prices for high- and low- sulphur fuel oil.

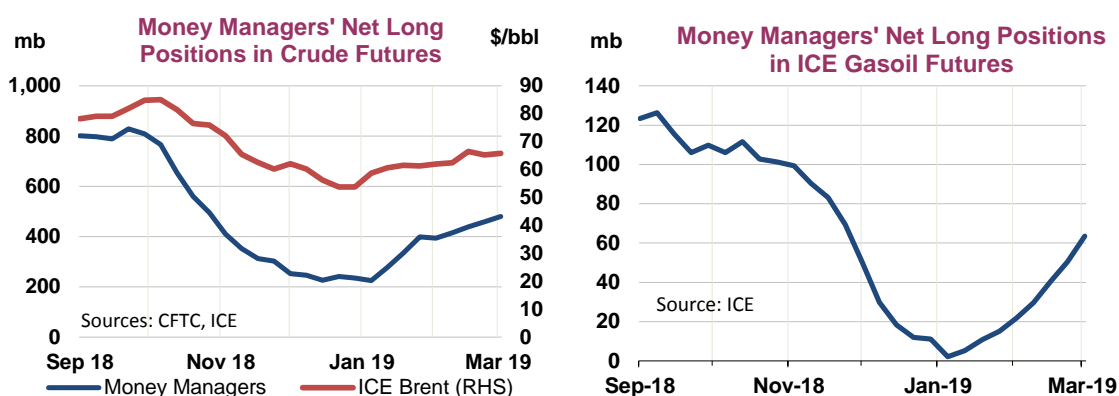
Futures markets

Benchmark crude futures prices rose in February, for the second consecutive month, as members of the Vienna Agreement restrained output, Canadian producers cut and growth in the US shale patch slowed. ICE Brent gained \$4.19/bbl m-o-m, while NYMEX WTI increased by \$3.43/bbl as lower US refinery runs weighed on the benchmark. The Brent futures curve has flipped entirely to backwardation, with the price of barrels delivered in May 2019 \$1.21/bbl above those to be delivered 12 months out. Meanwhile, the WTI futures curve is in contango with April 2019 contract prices standing \$1.76/bbl below March 2020 prices. Currently, US markets are well supplied thanks to high rates of domestic production and lower-than-usual refinery activity. Meanwhile, sour crude markets are tighter as output from Iran, Venezuela and Vienna Agreement members has been taken off the market. This has caused the DME Oman futures curve to display steeper backwardation. On the other hand, in addition to rising US LTO, the re-start of Libya's El-Sharara field increases the supply of lighter crude.



Money manager's net long positions in ICE Brent and NYMEX WTI crude futures have more than doubled since the beginning of January and now stand at 480 mb. Bets by funds that oil prices will increase have not been at this level since October 2018, when the oil price was around \$75/bbl. Those betting on higher prices have been encouraged by positive news relating to US-China trade talks and as members of the Vienna Agreement have demonstrated their commitment to output cuts. Net long positions are, however, a long way from the record of over 1 000 mb seen in May 2018 and the long-to-short ratio is currently 5:1, having been as high as 15:1 during the last 12 months. Net long positions in ICE gasoil futures have increased from 2 mb in early January to 63 mb at the end of February. Bullish sentiment reflects the tightness in gasoil markets due to reduced heavy sour (gasoil-rich) crude availability. The ICE

gasoil futures curve has displayed increasingly steep backwardation since 29 January. Meanwhile, the NYMEX RBOB gasoline futures curve had been in contango since early January due to a supply glut but the discount of near-term supplies narrowed to close to zero in early March.



Prompt Month Oil Futures Prices

(monthly and weekly averages, \$/bbl)

	Dec	Jan	Feb	Feb-Jan	%	Week Commencing:				
				Avg Chg	Chg	04 Feb	11 Feb	18 Feb	25 Feb	04 Mar
NYMEX										
Light Sweet Crude Oil	48.98	51.55	54.98	3.43	6.7	53.52	53.88	56.81	56.19	56.42
RBOB	58.28	58.10	63.67	5.57	9.6	60.39	62.10	67.07	68.25	74.87
ULSD	75.54	77.97	82.38	4.41	5.7	80.02	81.73	84.84	84.16	84.50
ULSD (\$/mmbtu)	13.32	13.75	14.53	0.78	5.7	14.11	14.41	14.96	14.84	14.90
Henry Hub Natural Gas (\$/mmbtu)	3.93	3.10	2.68	-0.42	-13.5	2.62	2.62	2.68	2.83	2.86
ICE										
Brent	57.67	60.24	64.43	4.19	7.0	62.18	63.67	66.84	65.49	65.91
Gasoil	73.18	75.06	80.60	5.54	7.4	77.83	79.79	82.89	82.85	83.07
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-8.69	-8.69	-9.45	-0.76		-8.66	-9.79	-10.03	-9.30	-9.49
NYMEX ULSD - WTI	26.56	26.42	27.40	0.98		26.50	27.85	28.03	27.97	28.08
NYMEX RBOB - WTI	9.30	6.55	8.69	2.14		6.87	8.22	10.26	12.06	18.45
NYMEX 3-2-1 Crack (RBOB)	15.05	13.17	14.92	1.75		13.41	14.76	16.18	17.36	21.66
NYMEX ULSD - Natural Gas (\$/mmbtu)	9.40	10.65	11.85	1.20		11.49	11.79	12.29	12.01	12.04
ICE Gasoil - ICE Brent	15.51	14.82	16.17	1.35		15.65	16.12	16.05	17.36	17.16

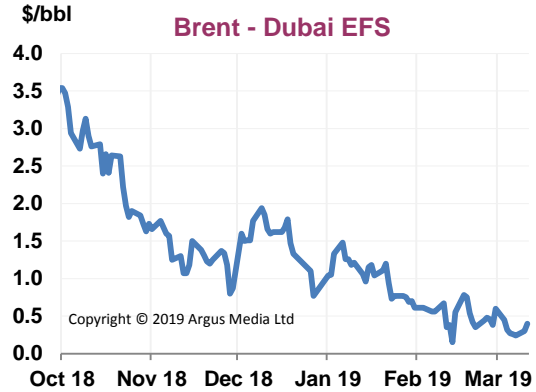
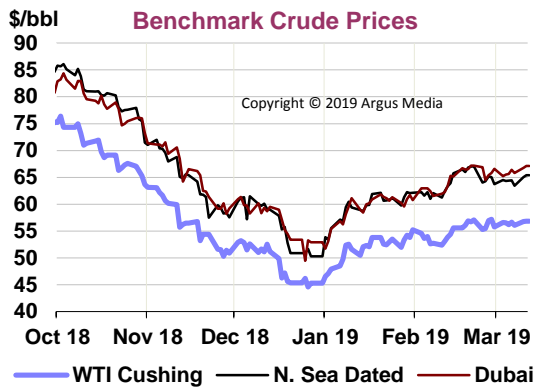
Source: ICE, NYMEX.

Spot crude oil prices

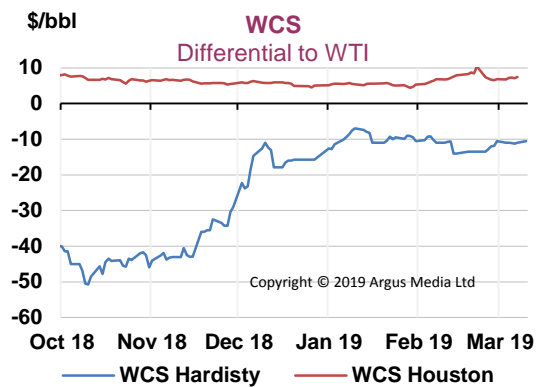
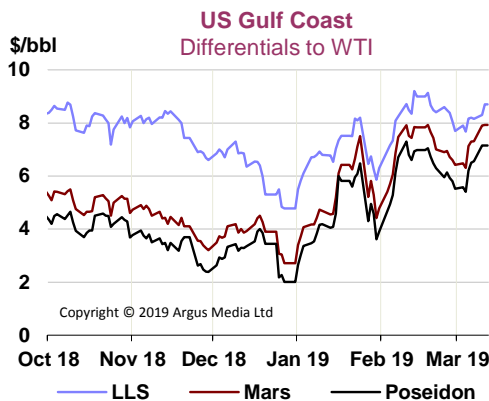
Dubai prices were on average \$0.42/bbl above North Sea Dated in February due to tightness in sour crude markets. The Brent-Dubai Exchange of Futures for Swaps (EFS) fell to a nine-year low of \$0.15/bbl on 14 February and this enhanced the attractiveness of Brent-linked oil in Asian markets. WTI's discount to North Sea Dated widened by \$1.20/bbl m-o-m as lower domestic refinery demand capped US price gains.

The announcement of sanctions against Petroleos de Venezuela S.A., which will remove sour crude volumes from the market, boosted alternatives such as Mars, Poseidon and Maya. These gained \$1.73/bbl, \$1.61/bbl and \$1.49/bbl m-o-m, respectively, against WTI. The premium of Louisiana Light Sweet (LLS) to Mars averaged \$1.28/bbl in February, having been \$3.37/bbl on average in 2018. The price of LTO in the Permian Basin gained \$3.24/bbl against WTI in February, and traded at a premium for the later part of the month. As recently as December, it had traded at a \$9/bbl discount, and had fallen as low as \$17.75/bbl below WTI in August 2018 due to strong output growth running against infrastructure constraints. Permian prices have recovered as pipeline capacity, such as Enterprise

Product Partners' NGL pipeline conversion and an expansion of Enterprise's Midland to Sealy line, is becoming available earlier than expected. Although US refinery runs fell, there was healthy export demand for US crude from Europe and Asia Pacific. This caused WTI prices in Houston to gain \$0.43/bbl m-o-m against North Sea Dated.



The Western Canadian Select (WCS) differential to WTI has narrowed by \$5.45/bbl since output cuts were implemented at the start of the year. The success of the curbs in reducing the WCS price discount, which reached \$50.75/bbl in October 2018, has led to a relaxation of the restrictions. In February, WCS actually declined \$2.29/bbl m-o-m against WTI due to the temporary shut-down of two key export pipelines (TransCanada's Keystone and Enbridge's Platte) which disrupted exports. As this reduced supplies of WCS on the US Gulf Coast the price of the crude in Houston gained \$1.22/bbl m-o-m against WTI. On 4 March, Enbridge announced a one year delay to the start-up of its Line 3 replacement project. This much needed boost to Canadian export capacity is now expected to be in service in mid-2020. In the meantime, the Albertan government is making more rail transport available, but moving volumes by train can cost \$10 - \$15/bbl. For rail transport to make economic sense the WCS discount needs to exceed this cost. Since the WCS discount narrowed in late 2018, rail export volumes have fallen.



Prices for Forties, Brent, Ekofisk and Oseberg gained against North Sea Dated in February. Forties was up \$0.17/bbl m-o-m on higher Asia Pacific demand, aided by the lower Brent-Dubai EFS. However, at the end of the month Forties fell to \$0.85/bbl below North Sea Dated as refinery maintenance in Europe and Asia weighed on demand and alternative crudes such as Urals were more competitively priced. Loading schedules indicate that North Seas supplies will decline in April which should help to bolster prices.

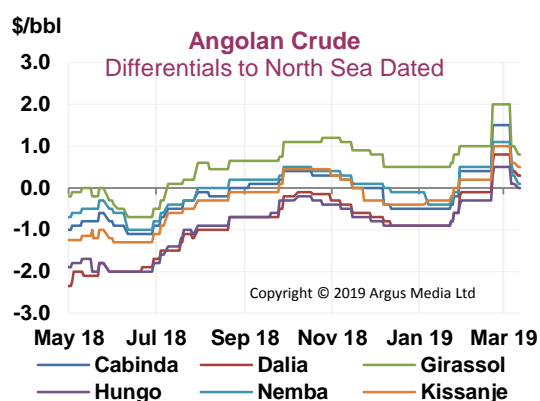
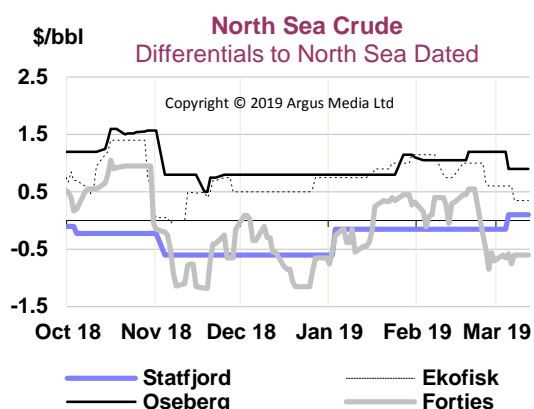
Spot crude oil prices and differentials

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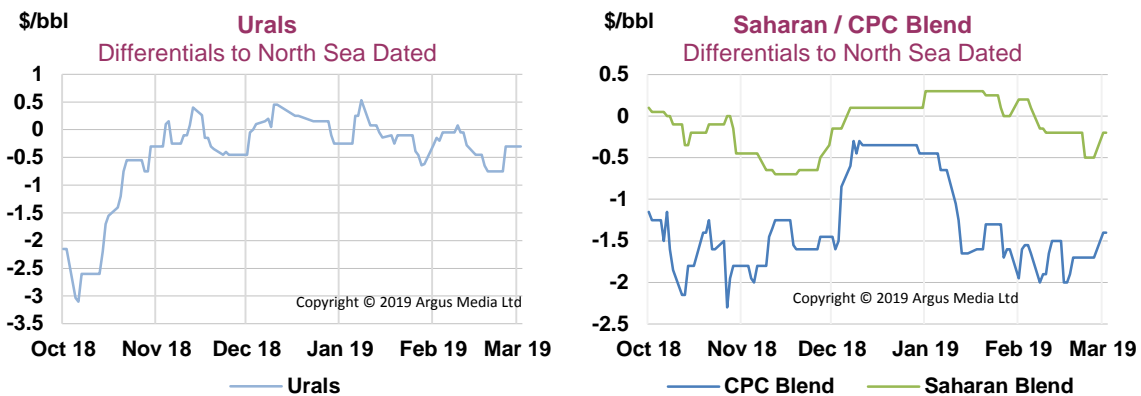
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As previously reported (*January 2018 OMR*), S&P Global Platts (*Platts*) proposed the inclusion of deals for North Sea crudes delivered to Rotterdam, adjusted for freight costs, in its North Sea Dated benchmark. This is intended to enhance the liquidity underpinning the assessment, and, on 26 February, Platts confirmed the reform will be effective from October. On 15 February, rival price reporting agency Argus launched the “New North Sea Dated” price. This assessment will incorporate Bonny Light, Qua Iboe, Escravos, BTC Blend, Saharan Blend and WTI Houston grades, along with the five North Sea crudes that make up North Sea Dated. The lowest priced grade will set the benchmark. Historically WTI Houston is often the cheapest of these 11 crudes and so is expected to often set the price, resulting in a divergence between North Sea Dated and New North Sea Dated. The change is intended to increase the number of deals included in the price assessment and also ensure the benchmark reflects the wider market for light sweet crude in North East Europe. For the moment, the changes proposed by Platts are expected to have a limited impact on the benchmark price, although they pave the way for the inclusion of other CIF-delivered crudes. Rather than directly changing its key North Sea Dated benchmark, Argus will report both the new and old benchmarks in parallel.



Key Angolan and Nigerian crudes were also supported by the lower Brent-Dubai EFS. Chinese buyers turned to Angola to replace supplies from Venezuela. In particular, heavy grades such as Dalia and Girassol gained \$0.92/bbl and \$0.70/bbl m-o-m against North Sea Dated, respectively, in February. Loading programmes show a reduction in Angolan shipments in April, while exports from the new Egina field will see Nigerian exports increase.

Urals prices declined against North Sea Dated in February, by \$0.78/bbl in the Mediterranean and \$0.26/bbl in North West Europe m-o-m, despite robust fuel oil cracks and demand from Asia Pacific. Purchases are down from European refiners who are undergoing maintenance and upcoming turnarounds in Russia means that higher exports are scheduled for April. The expectation that Libyan supplies that had been under force majeure would return to the market put downward pressure on competing CPC Blend and Saharan Blend, which declined \$0.80/bbl and \$0.24/bbl, respectively, m-o-m. Furthermore, shipping delays in the Turkish straits hampered deliveries of CPC Blend and Urals, while Saharan Blend is unaffected.

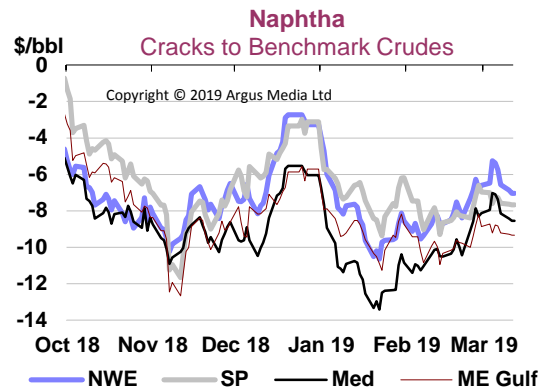
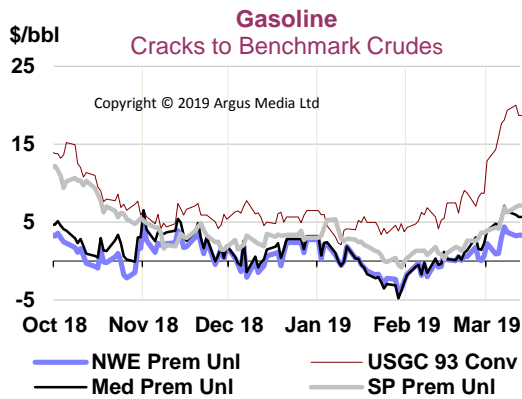


Medium and heavy sour crudes from the Middle East, such as Al-Shaheen and Upper Zakkum, were in strong demand in Asia Pacific as supplies from elsewhere declined. Chinese demand saw Basra Heavy gain \$0.31/bbl m-o-m against Dubai. While light sour crude from the region has recently been under pressure due to falling gasoline and naphtha margins, these stabilised in February. This, and increased demand from Japan and Thailand, caused Murban to gain \$0.09/bbl against Dubai in February, reversing the losses from January.

Spot product prices

Refinery outages in Asia Pacific, Europe and the US saw gasoline margins increase in February, having fallen in December and January. Gasoline cracks in North West Europe and the Mediterranean bounced off seven-year lows and back into positive territory mid-February. Global supplies declined due to refinery maintenance, particularly in the US, which upped imports from Europe. In Singapore, cracks for premium unleaded gasoline rose by \$3.70/bbl over the month as Indian and Indonesian buying increased and on upcoming refinery maintenance in China, Japan, Taiwan and Singapore. Furthermore, Chinese exports fell due to unexpected outages, including an explosion at CNOOC's Huizhou refinery, and higher domestic demand. Looking ahead, two 400 kb/d Chinese refineries are ramping up which will give a sizable boost to future gasoline supplies. Global gasoline cracks continued to gain in early March as European refineries began maintenance.

The pick-up in gasoline markets had a positive knock-on impact for naphtha in North West Europe and the Mediterranean. Rotterdam barge quotes gained \$4.67/bbl m-o-m and cargoes in the Mediterranean were up \$4.89/bbl. In Singapore, quotes for naphtha cargoes increased by \$4.58/bbl m-o-m as demand from petrochemical facilities in Korea and Japan is set to pick up following maintenance and on higher prices for rival feedstock LPG. In the Middle East Gulf, the naphtha differential to Dubai prices ticked up in the last week of February as refinery maintenance in Saudi Arabia reduced regional supplies.



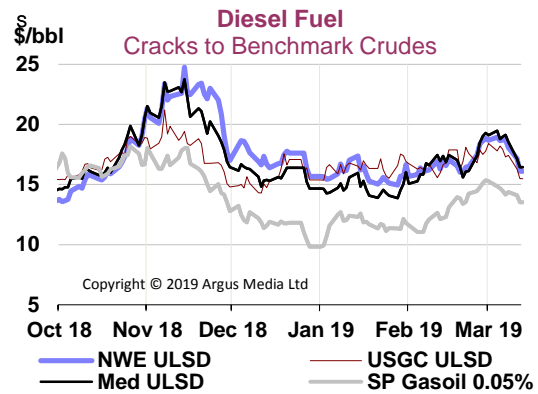
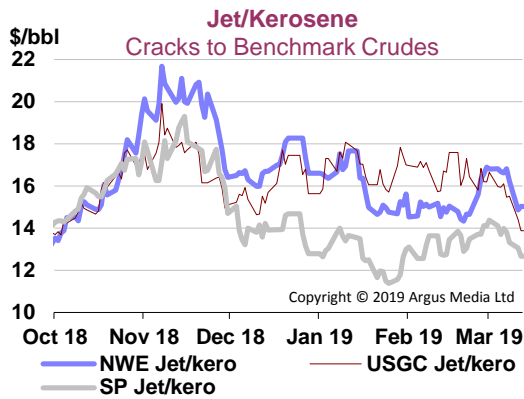
Spot product prices

Table Unavailable

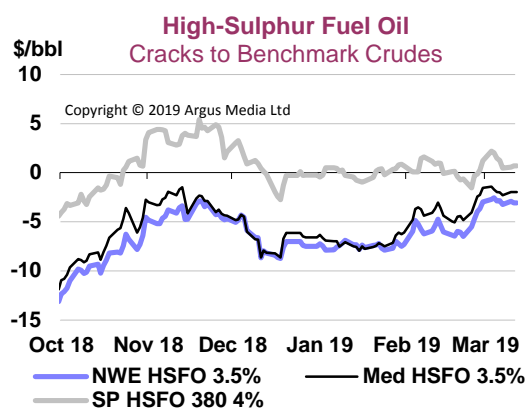
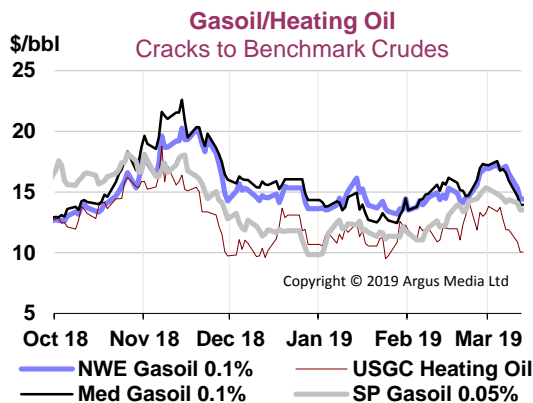
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For most of February, jet fuel cracks in Rotterdam trended slightly downwards. However, since 20 February, cracks have gained \$0.69/bbl as regional refinery maintenance has reduced supply while demand has been robust. Higher prices in North West Europe have attracted more imports from India and the Middle East, thus tightening Asia Pacific markets. Cracks in Singapore gained \$0.67/bbl m-o-m in February, having come up from an 18-month low on 25 January. Demand has been seasonally weak due to a mild winter in North East Asia. In the US, air travel was disrupted by bad weather. On the US Gulf Coast, jet fuel cracks declined by \$0.35/bbl m-o-m.



Cracks for ultra-low sulphur diesel, against benchmark crudes, gained in February in North West Europe, the Mediterranean and on the US Gulf Coast. Barge quotes in Rotterdam were up \$5.51/bbl m-o-m as regional refinery maintenance reduced supplies to the market. However, the impact was offset by higher Russian exports. Healthy domestic demand, at a time when maintenance is reducing the availability of diesel, saw US Gulf Coast pipeline prices gain \$0.42/bbl against LLS.

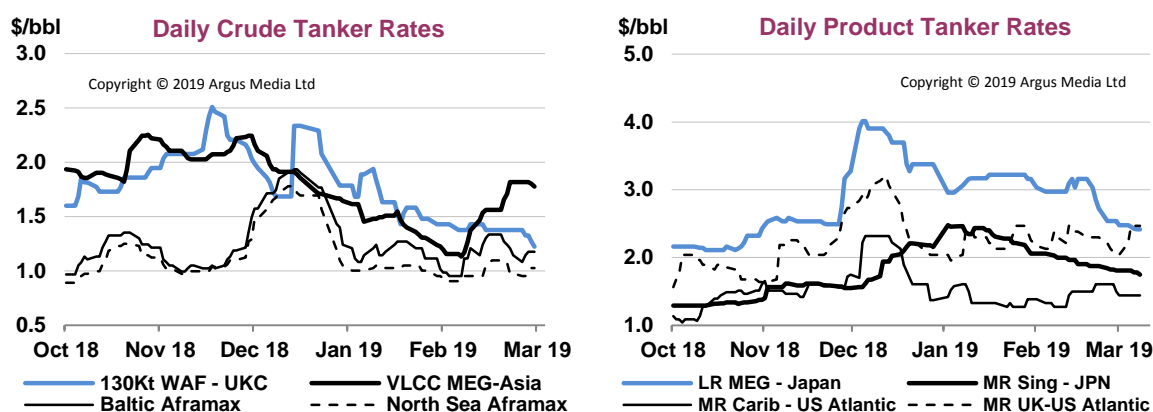


February was a strong month for gasoil, with cracks in all regions increasing. Heating demand in Europe saw prices for gasoil 0.1% in Rotterdam gain \$0.68/bbl m-o-m against North Sea Dated. This also supported prices in Singapore which increased by \$1.47/bbl against Dubai. With demand expected to wane seasonally and refiners completing maintenance these higher prices may not be sustained.

Supply concerns, triggered by sanctions against Venezuela, and strong demand boosted fuel oil markets in February. As sour crude from Venezuela, Iran and other OPEC countries is taken off the market less fuel oil is being produced in refineries. Furthermore, the re-start of some secondary units in the Middle East and Asia, will see some fuel oil being processed rather than exported. Fuel oil stocks in Rotterdam and Singapore have declined, while demand in Asia Pacific and the US, is robust. Cracks for high sulphur fuel oil (180-centistoke and 360-centistoke) cargoes in Singapore are positive, albeit below the premiums in excess of \$5/bbl seen when markets peaked in November 2018. In Europe, where refinery yields are lightening as refiners process more US LTO and new upgrade projects come online, cracks for HSFO 3.5% increased by \$1.85/bbl m-o-m in Rotterdam, and \$3.10/bbl in the Mediterranean. Narrowing to a discount of \$2.56/bbl to North Sea Dated in early March, cracks in North West Europe are the slimmest in 20 years.

Freight

Rates to ship crude from the Middle East Gulf (MEG) to Asia on Very Large Crude Carriers (VLCCs) bottomed out at \$1.13/bbl on 12 February, a six-month low. They have since increased to \$1.78/bbl as Chinese demand picked up after the New Year holiday and as ship availability tightened. Increasing US exports have drawn VLCCs to the US Gulf Coast, reducing tonnage elsewhere. Although VLCCs are too large to access Gulf Coast ports directly, they are able to load offshore and, as production rises, they are increasingly in demand to export US crude. According to *Kpler*, nine VLCCs left PADD 3 bound for Asia and Europe in February, up from seven in January. In 2018, on average three VLCCs per month were used to export US crude from the Houston region. Weak demand for Suezmaxes travelling between West Africa and the UK-Continent pressured rates down by \$0.27/bbl m-o-m. Rates for Aframaxes travelling in the Baltic and North Sea were flat in February. These remained relatively depressed at \$1.15/bbl and \$0.98/bbl on average, respectively.



Rates to ship clean products on Long Range (LR) vessels between the MEG and North East Asia fell by \$0.24/bbl m-o-m. They currently stand at \$2.41/bbl, the lowest since November 2018. Freight rates to ship products on Medium Range (MR) vessels between Singapore and Japan have also been declining since early January and now stand at \$1.75/bbl. In both cases, demand has been weak and tonnage plentiful. Rates for MRs travelling in the Atlantic basin were flat m-o-m.

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

	2015	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
OECD DEMAND																	
Americas	24.6	24.9	24.6	25.1	25.2	25.3	25.1	25.3	25.4	25.8	25.7	25.5	25.7	25.8	26.2	26.0	25.9
Europe	13.8	14.0	13.8	14.3	14.7	14.4	14.3	14.1	14.2	14.7	14.1	14.3	14.0	14.4	14.7	14.3	14.3
Asia Oceania	8.1	8.1	8.5	7.7	7.8	8.3	8.1	8.5	7.6	7.6	8.0	7.9	8.3	7.4	7.5	8.0	7.8
Total OECD	46.5	47.0	46.9	47.0	47.7	48.1	47.4	47.9	47.2	48.1	47.8	47.7	48.0	47.6	48.4	48.2	48.1
NON-OECD DEMAND																	
FSU	4.6	4.5	4.3	4.5	4.7	4.6	4.5	4.5	4.6	4.9	4.8	4.7	4.6	4.7	5.0	5.0	4.8
Europe	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	11.6	12.0	12.4	12.9	12.3	12.7	12.6	12.7	13.0	13.2	13.1	13.0	13.0	13.4	13.6	13.7	13.4
Other Asia	12.5	13.1	13.3	13.5	13.3	13.7	13.5	13.8	14.1	13.5	14.1	13.9	14.3	14.4	13.9	14.4	14.3
Americas	6.7	6.4	6.3	6.5	6.6	6.4	6.5	6.3	6.4	6.5	6.4	6.4	6.3	6.4	6.4	6.4	6.4
Middle East	8.5	8.5	8.2	8.7	8.9	8.2	8.5	8.2	8.5	8.8	8.2	8.4	8.1	8.6	8.9	8.2	8.5
Africa	4.2	4.3	4.4	4.3	4.2	4.3	4.3	4.3	4.3	4.2	4.4	4.3	4.5	4.4	4.3	4.4	4.4
Total Non-OECD	48.8	49.5	49.6	51.1	50.8	50.6	50.5	50.6	51.6	51.8	51.9	51.5	51.6	52.8	52.9	52.9	52.5
Total Demand¹	95.3	96.4	96.6	98.1	98.4	98.7	97.9	98.5	98.8	99.9	99.6	99.2	99.6	100.4	101.3	101.1	100.6
OECD SUPPLY																	
Americas	20.0	19.5	20.0	19.8	20.3	21.2	20.3	21.7	22.2	23.3	23.9	22.8	23.5	23.8	24.3	24.5	24.0
Europe	3.5	3.5	3.7	3.5	3.4	3.4	3.5	3.6	3.4	3.3	3.5	3.5	3.5	3.4	3.4	3.5	3.5
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Total OECD⁴	23.9	23.4	24.0	23.7	24.0	25.0	24.2	25.7	26.0	27.0	27.8	26.6	27.5	27.6	28.3	28.6	28.0
NON-OECD SUPPLY																	
FSU	14.0	14.2	14.4	14.3	14.2	14.3	14.3	14.4	14.4	14.6	14.8	14.6	14.8	14.5	14.6	14.8	14.7
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	4.3	4.0	3.9	3.9	3.8	3.8	3.9	3.8	3.9	3.8	3.9	3.8	3.9	3.8	3.8	3.7	3.8
Other Asia	3.6	3.6	3.5	3.4	3.4	3.4	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
Americas	4.6	4.5	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.6	4.5	4.6	4.8	5.0	5.1	4.9
Middle East	3.3	3.3	3.2	3.2	3.3	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Africa	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5
Total Non-OECD⁴	31.4	31.1	31.1	30.9	30.8	30.9	30.9	30.9	31.0	31.0	31.4	31.1	31.4	31.2	31.4	31.6	31.4
Processing gains ³	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Global Biofuels	2.3	2.4	2.0	2.5	2.8	2.5	2.5	2.1	2.8	3.1	2.5	2.6	2.3	2.8	3.0	2.7	2.7
Total Non-OPEC Supply	59.8	59.1	59.4	59.4	60.0	60.7	59.9	61.1	62.1	63.4	64.1	62.7	63.6	63.9	65.0	65.2	64.4
OPEC²																	
Crude	31.4	32.4	31.7	32.0	32.4	32.0	32.0	31.7	31.6	32.0	32.2	31.9					
NGLs	5.2	5.4	5.6	5.5	5.5	5.4	5.5	5.5	5.5	5.5	5.6	5.5	5.6	5.6	5.6	5.6	5.6
Total OPEC	36.6	37.8	37.2	37.5	37.9	37.4	37.5	37.3	37.1	37.6	37.8	37.4					
Total Supply	96.4	96.9	96.6	96.9	97.8	98.2	97.4	98.3	99.2	101.0	101.9	100.1					
STOCK CHANGES AND MISCELLANEOUS																	
Reported OECD																	
Industry	0.8	0.0	0.3	-0.1	-0.5	-1.3	-0.4	-0.5	0.0	0.5	0.1	0.0					
Government	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.1	-0.1	0.0	-0.2	-0.1					
Total	0.8	0.0	0.3	-0.3	-0.7	-1.4	-0.5	-0.4	-0.1	0.5	-0.1	0.0					
Floating storage/Oil in transit	0.3	0.2	0.0	-0.1	0.5	1.0	0.4	-1.0	0.3	-0.3	0.6	0.0					
Miscellaneous to balance ⁵	0.1	0.3	-0.2	-0.9	-0.4	-0.1	-0.4	1.2	0.2	0.9	1.8	0.9					
Total Stock Ch. & Misc	1.1	0.5	0.1	-1.2	-0.6	-0.5	-0.5	-0.2	0.3	1.1	2.2	0.9					
Memo items:																	
Call on OPEC crude + Stock ch. ⁶	30.3	31.9	31.6	33.1	32.9	32.5	32.6	31.9	31.2	31.0	30.0	31.0	30.4	30.9	30.7	30.4	30.6

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

² OPEC data based on today's membership throughout the time series.

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)

	2015	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
OECD DEMAND																	
Americas	-	-	-	-	-	-	-	-	-	-	-0.3	-0.1	0.2	0.1	0.1	-0.2	-
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.5	-0.1	0.1	-	-	-0.4	-0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-	-	0.1	0.1
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	0.1	0.1	0.1	-0.1	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	0.1	0.1	0.1	-	0.1	-	0.1	0.1	0.1	0.1
Total Demand	-	-	-	-	-	-	-	0.1	0.1	0.1	-0.5	-	0.1	0.1	0.1	-0.3	-
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.1	-0.1	-	-	-
Europe	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.1	-	0.1	0.1	0.1
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	0.1	0.1	0.2	0.1	-	-0.1	0.1	0.1	-
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	0.1	0.1	0.2	0.1	0.2	-0.1	-	-	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Supply	-	-	-	-	-	-	-	-	0.1	0.1	0.2	0.1	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-	-	-	-	-	-0.1	-0.1	-	0.5	0.1	-	-	-	-	-
Total Stock Ch. & Misc	-	-	-	-	-	-	-	-0.1	-0.1	-	0.7	0.1	-	-	-	-	-
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	0.1	0.1	-	-0.6	-0.1	-0.1	0.1	-	-0.3	-0.1

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

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

	2017	2018	1Q18	2Q18	3Q18	4Q18	Oct 18	Nov 18	Dec 18 ²	Latest month vs.	
										Nov 18	Dec 17
Americas											
LPG and ethane	3.33	3.63	3.99	3.29	3.48	3.77	3.55	3.87	3.91	0.04	0.04
Naphtha	0.34	0.29	0.28	0.27	0.31	0.32	0.34	0.30	0.31	0.01	-0.01
Motor gasoline	11.11	11.08	10.73	11.28	11.29	11.03	11.13	11.06	10.90	-0.16	-0.17
Jet and kerosene	1.98	2.03	1.95	2.04	2.12	2.01	1.97	2.08	1.98	-0.10	-0.06
Gasoil/diesel oil	5.14	5.38	5.39	5.38	5.30	5.47	5.78	5.46	5.16	-0.30	0.02
Residual fuel oil	0.68	0.67	0.63	0.68	0.71	0.67	0.65	0.64	0.71	0.07	0.13
Other products	2.47	2.44	2.31	2.42	2.62	2.40	2.67	2.29	2.22	-0.07	-0.12
Total	25.06	25.53	25.26	25.37	25.83	25.66	26.09	25.70	25.19	-0.51	-0.16
Europe											
LPG and ethane	1.12	1.15	1.24	1.11	1.14	1.10	1.06	1.10	1.16	0.06	-0.01
Naphtha	1.18	1.06	1.18	1.04	1.05	0.97	0.93	0.95	1.04	0.09	-0.18
Motor gasoline	1.89	1.93	1.82	2.00	2.01	1.90	1.90	1.92	1.87	-0.05	0.05
Jet and kerosene	1.46	1.52	1.36	1.55	1.70	1.47	1.60	1.40	1.39	-0.01	0.03
Gasoil/diesel oil	6.48	6.45	6.45	6.33	6.45	6.58	6.80	6.74	6.21	-0.53	-0.28
Residual fuel oil	0.89	0.88	0.89	0.89	0.90	0.84	0.86	0.83	0.84	0.01	-0.09
Other products	1.28	1.28	1.14	1.30	1.42	1.26	1.42	1.24	1.13	-0.11	-0.04
Total	14.30	14.27	14.08	14.21	14.67	14.13	14.57	14.18	13.64	-0.53	-0.52
Asia Oceania											
LPG and ethane	0.75	0.72	0.82	0.72	0.65	0.70	0.63	0.69	0.78	0.09	-0.04
Naphtha	2.04	1.99	2.04	1.92	1.97	2.02	1.97	2.02	2.07	0.05	-0.08
Motor gasoline	1.54	1.53	1.51	1.51	1.59	1.52	1.45	1.53	1.58	0.05	-0.04
Jet and kerosene	0.91	0.91	1.18	0.74	0.72	1.01	0.84	0.98	1.20	0.22	-0.06
Gasoil/diesel oil	1.89	1.92	1.95	1.90	1.88	1.95	1.86	2.02	1.98	-0.04	-0.02
Residual fuel oil	0.58	0.55	0.66	0.49	0.52	0.53	0.55	0.51	0.54	0.03	-0.11
Other products	0.35	0.30	0.35	0.32	0.30	0.23	0.23	0.22	0.24	0.02	-0.09
Total	8.06	7.92	8.51	7.60	7.62	7.96	7.53	7.97	8.38	0.41	-0.45
OECD											
LPG and ethane	5.20	5.50	6.05	5.12	5.27	5.57	5.23	5.65	5.84	0.18	-0.02
Naphtha	3.56	3.34	3.50	3.23	3.33	3.31	3.24	3.27	3.42	0.15	-0.27
Motor gasoline	14.55	14.55	14.06	14.79	14.88	14.45	14.48	14.52	14.36	-0.16	-0.16
Jet and kerosene	4.35	4.46	4.49	4.33	4.54	4.48	4.41	4.46	4.57	0.11	-0.09
Gasoil/diesel oil	13.51	13.76	13.78	13.61	13.63	14.00	14.44	14.23	13.35	-0.88	-0.28
Residual fuel oil	2.15	2.11	2.18	2.06	2.14	2.04	2.06	1.98	2.09	0.11	-0.07
Other products	4.10	4.02	3.80	4.04	4.33	3.89	4.32	3.76	3.59	-0.16	-0.25
Total	47.42	47.73	47.85	47.18	48.12	47.75	48.19	47.85	47.22	-0.64	-1.13

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)

	2017	2018	1Q18	2Q18	3Q18	4Q18	Oct 18	Nov 18	Dec 18 ²	Latest month vs.	
										Nov 18	Dec 17
United States³											
LPG and ethane	2.54	2.85	3.12	2.58	2.68	3.04	2.78	3.13	3.23	0.10	0.24
Naphtha	0.23	0.23	0.21	0.20	0.24	0.24	0.27	0.22	0.24	0.01	0.01
Motor gasoline	9.33	9.32	9.01	9.51	9.51	9.25	9.27	9.25	9.22	-0.03	-0.03
Jet and kerosene	1.69	1.72	1.65	1.73	1.78	1.70	1.67	1.77	1.67	-0.10	-0.09
Gasoil/diesel oil	3.93	4.13	4.18	4.13	4.05	4.18	4.38	4.13	4.03	-0.10	0.05
Residual fuel oil	0.34	0.32	0.28	0.32	0.34	0.34	0.31	0.32	0.40	0.08	0.09
Other products	1.90	1.88	1.78	1.86	2.04	1.85	2.11	1.73	1.70	-0.04	-0.12
Total	19.96	20.45	20.24	20.33	20.63	20.60	20.77	20.55	20.48	-0.07	0.16
Japan											
LPG and ethane	0.39	0.37	0.46	0.35	0.31	0.36	0.31	0.36	0.40	0.05	-0.06
Naphtha	0.77	0.73	0.75	0.66	0.70	0.80	0.78	0.82	0.79	-0.03	-0.01
Motor gasoline	0.88	0.87	0.84	0.85	0.92	0.86	0.82	0.84	0.91	0.07	-0.03
Jet and kerosene	0.51	0.50	0.73	0.37	0.33	0.57	0.42	0.55	0.73	0.18	-0.07
Diesel	0.43	0.45	0.43	0.44	0.45	0.48	0.47	0.48	0.48	0.00	0.02
Other gasoil	0.35	0.33	0.40	0.29	0.28	0.33	0.30	0.32	0.36	0.04	-0.06
Residual fuel oil	0.28	0.28	0.34	0.23	0.27	0.27	0.29	0.26	0.27	0.01	-0.06
Other products	0.28	0.26	0.31	0.24	0.27	0.24	0.22	0.24	0.26	0.02	-0.05
Total	3.89	3.78	4.27	3.43	3.53	3.89	3.62	3.86	4.20	0.34	-0.30
Germany											
LPG and ethane	0.13	0.11	0.11	0.13	0.11	0.09	0.09	0.09	0.10	0.01	-0.02
Naphtha	0.38	0.31	0.35	0.32	0.30	0.29	0.27	0.27	0.32	0.04	-0.08
Motor gasoline	0.43	0.44	0.45	0.45	0.45	0.43	0.42	0.44	0.42	-0.01	0.02
Jet and kerosene	0.22	0.22	0.19	0.23	0.24	0.21	0.22	0.21	0.21	-0.01	0.01
Diesel	0.76	0.73	0.70	0.74	0.76	0.73	0.77	0.78	0.63	-0.15	-0.07
Other gasoil	0.37	0.33	0.41	0.27	0.29	0.37	0.39	0.34	0.37	0.04	0.05
Residual fuel oil	0.08	0.07	0.09	0.08	0.07	0.06	0.05	0.06	0.07	0.01	-0.03
Other products	0.09	0.10	0.07	0.09	0.12	0.11	0.14	0.13	0.07	-0.06	0.02
Total	2.46	2.33	2.37	2.30	2.34	2.29	2.35	2.32	2.19	-0.13	-0.11
Italy											
LPG and ethane	0.10	0.10	0.12	0.09	0.09	0.11	0.09	0.10	0.12	0.02	-0.01
Naphtha	0.09	0.07	0.09	0.06	0.07	0.05	0.05	0.06	0.04	-0.01	-0.03
Motor gasoline	0.16	0.16	0.15	0.17	0.17	0.15	0.16	0.15	0.16	0.01	0.00
Jet and kerosene	0.11	0.11	0.09	0.11	0.13	0.10	0.12	0.09	0.09	0.00	0.00
Diesel	0.47	0.50	0.50	0.50	0.49	0.50	0.52	0.50	0.49	-0.01	0.02
Other gasoil	0.08	0.08	0.07	0.08	0.09	0.09	0.10	0.09	0.08	-0.01	-0.01
Residual fuel oil	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.06	-0.01	0.00
Other products	0.15	0.17	0.15	0.17	0.18	0.18	0.19	0.18	0.16	-0.03	0.01
Total	1.24	1.27	1.25	1.27	1.29	1.26	1.32	1.25	1.20	-0.05	-0.02
France											
LPG and ethane	0.11	0.11	0.14	0.10	0.09	0.10	0.09	0.09	0.11	0.01	-0.01
Naphtha	0.11	0.12	0.12	0.14	0.13	0.09	0.09	0.08	0.10	0.02	0.01
Motor gasoline	0.18	0.19	0.17	0.20	0.20	0.19	0.20	0.19	0.17	-0.02	-0.01
Jet and kerosene	0.16	0.17	0.15	0.17	0.19	0.16	0.18	0.15	0.16	0.00	0.00
Diesel	0.72	0.70	0.70	0.71	0.70	0.70	0.75	0.71	0.65	-0.06	-0.07
Other gasoil	0.25	0.24	0.27	0.19	0.23	0.25	0.29	0.24	0.22	-0.02	-0.05
Residual fuel oil	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.00
Other products	0.12	0.13	0.10	0.13	0.14	0.13	0.16	0.13	0.11	-0.01	0.02
Total	1.71	1.70	1.71	1.69	1.74	1.68	1.82	1.64	1.58	-0.07	-0.11
United Kingdom											
LPG and ethane	0.14	0.13	0.14	0.14	0.12	0.13	0.12	0.14	0.15	0.01	0.02
Naphtha	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.00	0.00
Motor gasoline	0.29	0.28	0.27	0.29	0.28	0.29	0.26	0.31	0.28	-0.03	0.00
Jet and kerosene	0.32	0.34	0.34	0.33	0.34	0.33	0.34	0.32	0.34	0.02	0.00
Diesel	0.52	0.53	0.52	0.53	0.53	0.54	0.50	0.58	0.54	-0.04	-0.01
Other gasoil	0.14	0.15	0.13	0.15	0.16	0.15	0.15	0.16	0.14	-0.02	0.01
Residual fuel oil	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.00	0.00
Other products	0.12	0.12	0.11	0.12	0.13	0.12	0.12	0.11	0.12	0.00	0.00
Total	1.58	1.60	1.57	1.62	1.61	1.61	1.54	1.67	1.62	-0.05	0.02
Canada											
LPG and ethane	0.39	0.35	0.42	0.30	0.38	0.32	0.35	0.33	0.28	-0.05	-0.18
Naphtha	0.10	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.00	-0.04
Motor gasoline	0.85	0.84	0.78	0.83	0.88	0.87	0.93	0.89	0.80	-0.09	-0.03
Jet and kerosene	0.15	0.17	0.14	0.16	0.19	0.16	0.16	0.16	0.17	0.01	0.03
Diesel	0.29	0.26	0.26	0.27	0.26	0.26	0.25	0.26	0.26	-0.01	-0.03
Other gasoil	0.27	0.32	0.28	0.29	0.34	0.37	0.44	0.37	0.29	-0.08	0.03
Residual fuel oil	0.06	0.08	0.06	0.09	0.07	0.09	0.08	0.08	0.10	0.02	0.05
Other products	0.35	0.36	0.32	0.36	0.38	0.36	0.37	0.37	0.35	-0.02	0.01
Total	2.45	2.43	2.32	2.34	2.56	2.49	2.64	2.51	2.31	-0.21	-0.17

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

² Latest official OECD submissions (MOS).

³ US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION

(million barrels per day)

	2017	2018	2019	3Q18	4Q18	1Q19	2Q19	3Q19	Dec 18	Jan 19	Feb 19
OPEC											
Crude Oil											
Saudi Arabia	9.96	10.33		10.43	10.78				10.64	10.24	10.14
Iran	3.81	3.58		3.62	3.03				2.80	2.72	2.74
Iraq	4.47	4.56		4.65	4.67				4.77	4.75	4.68
UAE	2.93	3.00		3.00	3.26				3.25	3.07	3.05
Kuwait	2.71	2.75		2.79	2.78				2.80	2.72	2.70
Neutral Zone	0.00	0.00		0.00	0.00				0.00	0.00	0.00
Angola	1.64	1.49		1.48	1.45				1.45	1.46	1.47
Nigeria	1.53	1.60		1.62	1.63				1.63	1.64	1.64
Libya	0.83	0.97		0.90	1.08				0.99	0.89	0.90
Algeria	1.05	1.04		1.06	1.07				1.06	1.03	1.03
Congo	0.26	0.32		0.33	0.33				0.33	0.33	0.34
Gabon	0.20	0.19		0.19	0.18				0.20	0.20	0.21
Equatorial Guinea	0.13	0.12		0.12	0.11				0.11	0.11	0.12
Ecuador	0.53	0.52		0.53	0.52				0.52	0.52	0.52
Venezuela	1.97	1.40		1.33	1.30				1.29	1.24	1.14
Total Crude Oil	32.01	31.88		32.04	32.19				31.84	30.92	30.68
Total NGLs ¹	5.51	5.55	5.57	5.55	5.57	5.57	5.57	5.57	5.57	5.57	5.57
Total OPEC^{2,3}	37.52	37.42		37.59	37.75				37.41	36.49	36.25
NON-OPEC^{2,3}											
OECD											
Americas	20.32	22.77	24.03	23.29	23.87	23.53	23.75	24.31	23.91	23.42	23.47
United States	13.27	15.48	16.94	15.97	16.48	16.43	16.83	17.15	16.51	16.33	16.38
Mexico	2.23	2.08	1.91	2.07	1.95	1.91	1.92	1.90	1.93	1.86	1.93
Canada	4.82	5.20	5.18	5.24	5.42	5.17	4.99	5.24	5.46	5.22	5.14
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.49	3.46	3.45	3.32	3.54	3.51	3.36	3.45	3.56	3.52	3.53
UK	1.01	1.10	1.17	1.04	1.16	1.19	1.16	1.13	1.19	1.20	1.20
Norway	1.97	1.85	1.77	1.79	1.86	1.81	1.68	1.79	1.85	1.82	1.82
Others	0.50	0.51	0.52	0.49	0.52	0.51	0.51	0.52	0.52	0.50	0.51
Asia Oceania	0.39	0.41	0.50	0.42	0.44	0.48	0.49	0.51	0.44	0.47	0.48
Australia	0.31	0.34	0.44	0.35	0.37	0.41	0.43	0.45	0.37	0.41	0.41
Others	0.07	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.06	0.06
Total OECD	24.20	26.65	27.99	27.03	27.84	27.51	27.60	28.26	27.91	27.42	27.48
NON-OECD											
Former USSR	14.30	14.56	14.66	14.60	14.83	14.80	14.50	14.59	14.92	14.85	14.80
Russia	11.32	11.49	11.61	11.59	11.75	11.67	11.52	11.57	11.78	11.71	11.67
Others	2.98	3.07	3.06	3.00	3.08	3.13	2.98	3.02	3.14	3.15	3.13
Asia²	7.34	7.18	7.03	7.10	7.21	7.15	7.05	6.96	7.24	7.19	7.15
China	3.87	3.84	3.80	3.81	3.89	3.87	3.82	3.76	3.94	3.90	3.87
Malaysia	0.72	0.72	0.70	0.69	0.71	0.71	0.70	0.68	0.72	0.72	0.71
India	0.86	0.84	0.82	0.83	0.82	0.82	0.81	0.82	0.83	0.82	0.82
Indonesia	0.84	0.80	0.77	0.80	0.79	0.77	0.77	0.76	0.78	0.78	0.78
Others	1.05	0.98	0.95	0.97	0.99	0.97	0.96	0.94	0.99	0.97	0.97
Europe	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Americas²	4.54	4.50	4.87	4.42	4.55	4.64	4.82	4.97	4.62	4.55	4.66
Brazil	2.74	2.70	3.07	2.63	2.73	2.82	3.01	3.17	2.79	2.73	2.84
Argentina	0.57	0.58	0.59	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Colombia	0.86	0.87	0.87	0.87	0.89	0.89	0.88	0.87	0.89	0.89	0.89
Others	0.37	0.35	0.33	0.33	0.35	0.34	0.34	0.33	0.35	0.34	0.34
Middle East^{2,4}	3.22	3.27	3.26	3.28	3.29	3.26	3.25	3.26	3.28	3.26	3.26
Oman	0.98	0.99	0.97	0.99	1.00	0.97	0.96	0.97	1.00	0.98	0.97
Qatar	1.97	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.00	2.01	2.01
Syria	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Yemen	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Others	0.21	0.21	0.21	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Africa	1.41	1.45	1.46	1.47	1.43	1.45	1.46	1.45	1.42	1.45	1.45
Egypt	0.64	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Others	0.77	0.80	0.81	0.82	0.78	0.81	0.81	0.81	0.77	0.80	0.81
Total Non-OECD	30.93	31.08	31.40	30.99	31.43	31.42	31.20	31.36	31.60	31.42	31.43
Processing gains ⁵	2.29	2.32	2.35	2.32	2.32	2.35	2.35	2.35	2.32	2.35	2.35
Global Biofuels	2.46	2.62	2.70	3.06	2.52	2.30	2.78	3.03	2.29	2.41	2.24
TOTAL NON-OPEC	59.88	62.67	64.43	63.41	64.12	63.59	63.93	65.00	64.13	63.60	63.50
TOTAL SUPPLY	97.40	100.10		100.99	101.87				101.54	100.09	99.75

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, Congo, 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			
	Sep2018	Oct2018	Nov2018	Dec2018	Jan2019*	Jan2016	Jan2017	Jan2018	1Q2018	2Q2018	3Q2018	4Q2018
OECD Americas												
Crude	572.3	595.8	610.5	606.4	614.1	632.6	667.4	581.1	0.04	-0.14	0.00	0.37
Motor Gasoline	270.2	261.2	257.6	278.3	289.2	292.2	294.0	277.7	0.06	-0.07	0.04	0.09
Middle Distillate	216.2	196.2	193.8	217.3	221.0	238.7	243.4	217.7	-0.15	-0.16	0.27	0.01
Residual Fuel Oil	35.2	34.9	35.1	34.2	35.6	50.4	45.6	37.6	0.06	-0.06	0.00	-0.01
Total Products ³	764.7	733.7	717.9	749.1	746.4	780.4	778.7	722.5	-0.35	0.06	0.61	-0.17
Total ⁴	1541.3	1532.8	1526.7	1544.0	1552.3	1587.1	1623.4	1481.1	-0.34	0.03	0.76	0.03
OECD Europe												
Crude	325.1	327.3	325.9	320.1	329.1	360.2	354.5	333.5	0.16	0.12	-0.32	-0.05
Motor Gasoline	85.3	87.1	89.8	95.3	98.9	102.4	103.9	101.2	-0.02	-0.14	0.01	0.11
Middle Distillate	273.6	253.0	246.6	261.8	256.7	322.9	319.8	289.6	-0.03	-0.12	0.17	-0.13
Residual Fuel Oil	57.6	57.1	58.6	56.7	60.2	77.3	70.9	62.1	0.03	-0.01	-0.03	-0.01
Total Products ³	534.6	514.5	511.3	529.7	530.5	602.5	602.0	573.2	0.03	-0.28	0.15	-0.05
Total ⁴	935.7	920.7	916.7	929.3	939.5	1032.5	1026.4	984.8	0.25	-0.13	-0.24	-0.07
OECD Asia Oceania												
Crude	139.8	157.2	160.7	155.3	158.9	191.6	192.6	185.9	-0.31	0.01	-0.24	0.17
Motor Gasoline	24.0	26.3	25.0	24.1	24.5	25.4	25.5	24.0	0.01	0.00	0.00	0.00
Middle Distillate	77.7	73.9	78.1	73.2	64.4	64.5	69.0	62.9	-0.01	0.04	0.13	-0.05
Residual Fuel Oil	19.5	18.5	19.8	20.6	21.1	18.9	18.3	19.9	-0.01	0.03	-0.01	0.01
Total Products ³	184.3	182.3	187.6	180.0	168.4	167.2	167.5	163.1	-0.04	0.04	0.22	-0.05
Total ⁴	389.5	404.6	415.7	399.6	389.6	425.2	422.1	409.2	-0.38	0.11	0.02	0.11
Total OECD												
Crude	1037.2	1080.3	1097.1	1081.7	1102.0	1184.4	1214.6	1100.6	-0.11	-0.01	-0.56	0.48
Motor Gasoline	379.5	374.5	372.4	397.7	412.6	419.9	423.5	402.8	0.05	-0.20	0.05	0.20
Middle Distillate	567.5	523.1	518.5	552.3	542.2	626.0	632.2	570.2	-0.18	-0.24	0.58	-0.16
Residual Fuel Oil	112.2	110.5	113.5	111.4	116.9	146.6	134.8	119.6	0.08	-0.04	-0.04	-0.01
Total Products ³	1483.6	1430.4	1416.8	1458.9	1445.3	1550.0	1548.2	1458.8	-0.36	-0.18	0.98	-0.27
Total ⁴	2866.5	2858.0	2859.0	2872.9	2881.4	3044.8	3071.9	2875.1	-0.47	0.00	0.54	0.07

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			
	Sep2018	Oct2018	Nov2018	Dec2018	Jan2019*	Jan2016	Jan2017	Jan2018	1Q2018	2Q2018	3Q2018	4Q2018
OECD Americas												
Crude	660.0	654.8	649.6	649.1	649.1	695.1	695.1	664.2	0.03	-0.06	0.00	-0.12
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	209.1	210.2	209.2	208.2	206.1	206.8	205.8	205.0	0.02	0.01	0.01	-0.01
Products	269.4	265.6	264.6	266.3	269.3	265.9	274.9	274.8	0.04	-0.01	-0.04	-0.03
OECD Asia Oceania												
Crude	383.4	382.7	380.8	381.1	381.0	383.6	384.1	383.4	-0.01	0.00	0.00	-0.02
Products	38.7	38.7	38.7	38.8	38.8	34.2	37.4	38.7	0.00	0.00	0.00	0.00
Total OECD												
Crude	1252.5	1247.7	1239.6	1238.4	1236.2	1285.5	1285.0	1252.6	0.04	-0.05	0.01	-0.15
Products	310.2	306.3	305.3	307.1	310.1	302.1	314.2	315.5	0.04	-0.01	-0.04	-0.03
Total ⁴	1562.7	1554.0	1544.9	1545.5	1546.3	1587.6	1599.2	1568.1	0.08	-0.06	-0.05	-0.19

* 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 December 2017		End March 2018		End June 2018		End September 2018		End December 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	189.2	81	191.9	82	190.3	74	195.5	79	194.3	-
Chile	11.5	31	10.8	29	12.3	34	11.6	32	10.4	-
Mexico	43.8	22	47.3	23	39.1	20	40.6	22	54.7	-
United States ⁴	1896.6	94	1863.8	92	1869.2	91	1933.6	94	1913.5	-
Total⁴	2163.2	86	2135.9	84	2133.1	83	2203.3	86	2195.1	85
OECD Asia Oceania										
Australia	34.2	29	40.3	33	42.4	35	42.6	35	40.7	-
Israel	-	-	-	-	-	-	-	-	-	-
Japan	562.8	132	538.6	157	549.4	155	561.2	144	564.8	-
Korea	230.6	88	213.0	84	209.6	84	200.0	82	205.8	-
New Zealand	7.6	42	8.0	50	8.4	50	7.8	43	8.1	-
Total	835.3	98	800.0	105	809.8	106	811.6	102	819.5	98
OECD Europe⁵										
Austria	21.4	84	23.0	83	21.2	74	20.2	73	20.9	-
Belgium	41.4	59	46.0	73	43.3	68	44.0	67	42.0	-
Czech Republic	21.5	108	22.7	104	21.4	97	21.5	99	22.8	-
Denmark	23.4	151	22.1	135	22.8	142	20.6	126	20.3	-
Estonia	3.0	113	2.5	81	2.6	89	2.6	91	2.9	-
Finland	41.1	186	41.0	190	40.8	183	40.0	186	39.9	-
France	165.7	97	166.0	98	168.5	97	164.6	98	160.1	-
Germany	278.8	118	279.9	121	278.2	119	273.0	119	271.3	-
Greece	32.4	116	33.3	115	32.1	99	34.4	113	32.1	-
Hungary	25.4	152	26.1	147	25.2	138	25.6	143	25.6	-
Ireland	11.0	68	11.4	73	10.0	65	9.9	60	10.2	-
Italy	125.1	100	125.8	99	125.4	97	124.5	99	125.1	-
Latvia	2.5	67	3.1	72	3.6	79	2.3	59	2.4	-
Luxembourg	0.6	10	0.6	9	0.4	7	0.5	8	0.5	-
Netherlands	142.5	154	147.8	159	142.4	151	143.8	158	139.2	-
Norway	23.3	92	27.2	126	26.4	99	24.1	112	26.7	-
Poland	71.8	113	75.0	111	75.7	105	74.1	108	76.8	-
Portugal	22.9	99	24.8	106	23.8	94	23.5	98	24.6	-
Slovak Republic	11.4	146	12.1	132	11.6	135	12.0	131	11.8	-
Slovenia	5.2	99	5.1	92	4.9	85	4.8	89	5.0	-
Spain	119.5	91	124.7	94	117.9	88	119.7	89	115.9	-
Sweden	35.6	127	38.7	115	37.7	119	34.5	107	35.8	-
Switzerland	33.9	159	33.1	158	33.6	159	33.0	142	30.8	-
Turkey	83.2	90	84.1	87	90.1	80	87.0	100	87.6	-
United Kingdom	80.1	51	79.0	49	83.4	52	76.8	48	75.4	-
Total	1422.6	101	1454.9	102	1443.1	98	1416.8	100	1405.8	101
Total OECD	4421.0	92	4390.9	93	4386.0	91	4431.7	93	4420.3	92
DAYS OF IEA Net Imports⁶ -	187	-	186	-	190	-	191	-	190	-

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

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

³ End December 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	
4Q2015	4577	1588	2989	2989	98	34	64
1Q2016	4633	1595	3039	3039	100	35	66
2Q2016	4668	1592	3076	3076	99	34	65
3Q2016	4679	1596	3084	3084	99	34	65
4Q2016	4602	1600	3002	3002	98	34	64
1Q2017	4630	1600	3031	3031	98	34	64
2Q2017	4608	1588	3019	3019	97	33	63
3Q2017	4547	1578	2969	2969	95	33	62
4Q2017	4421	1568	2853	2853	92	33	60
1Q2018	4391	1575	2816	2816	93	33	60
2Q2018	4386	1570	2816	2816	91	33	59
3Q2018	4432	1565	2866	2866	93	33	60
4Q2018	4420	1547	2873	2873	92	32	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 4Q2018 (when latest forecasts are used).

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

	2016	2017	2018	1Q18	2Q18	3Q18	4Q18	Oct 18	Nov 18	Dec 18	Year Earlier	
											Dec 17	change
Saudi Light & Extra Light												
Americas	0.69	0.59	0.66	0.54	0.79	0.64	0.65	0.74	0.59	0.62	0.52	0.10
Europe	0.79	0.69	0.69	0.58	0.70	0.76	0.72	0.71	0.66	0.79	0.49	0.30
Asia Oceania	1.40	1.56	1.45	1.50	1.42	1.36	1.50	1.57	1.42	1.51	1.61	-0.10
Saudi Medium												
Americas	0.44	0.33	0.30	0.20	0.28	0.37	0.33	0.35	0.31	0.34	0.28	0.06
Europe	0.01	0.01	0.01	0.02	0.01	0.01	0.01	-	-	0.04	0.02	0.02
Asia Oceania	0.41	0.37	0.41	0.40	0.42	0.41	0.39	0.46	0.39	0.34	0.57	-0.23
Canada Heavy												
Americas	2.04	2.23	2.41	2.33	2.48	2.39	2.43	2.39	2.49	2.39	2.38	0.01
Europe	0.01	0.02	0.04	0.03	0.04	0.05	0.02	0.02	-	0.04	0.01	0.03
Asia Oceania	-	-	0.00	0.00	0.00	-	0.01	-	0.01	0.01	-	-
Iraqi Basrah Light²												
Americas	0.42	0.63	0.50	0.66	0.63	0.41	0.32	0.45	0.32	0.19	0.74	-0.55
Europe	0.81	0.76	0.76	0.65	0.61	0.87	0.92	0.98	0.94	0.83	0.68	0.15
Asia Oceania	0.46	0.40	0.43	0.42	0.48	0.42	0.42	0.41	0.43	0.42	0.45	-0.02
Kuwait Blend												
Americas	0.14	0.11	0.02	0.03	0.04	-	-	-	-	-	0.09	-
Europe	0.19	0.20	0.13	0.13	0.08	0.17	0.13	0.09	0.16	0.14	0.18	-0.04
Asia Oceania	0.66	0.68	0.66	0.68	0.66	0.67	0.62	0.61	0.63	0.60	0.62	-0.02
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.21	0.27	0.16	0.24	0.26	0.13	0.03	0.06	-	0.02	0.22	-0.20
Asia Oceania	0.01	0.01	0.01	0.02	0.01	0.01	-	-	-	-	0.01	-
Iranian Heavy³												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.21	0.52	0.35	0.42	0.44	0.41	0.11	0.32	0.01	0.00	0.40	-0.39
Asia Oceania	0.52	0.57	0.28	0.49	0.36	0.24	0.02	0.05	-	-	0.49	-
BFOE												
Americas	0.02	0.02	0.00	-	0.00	0.00	-	-	-	-	-	-
Europe	0.44	0.45	0.35	0.41	0.25	0.43	0.31	0.31	0.26	0.35	0.74	-0.39
Asia Oceania	0.05	0.10	0.09	0.09	0.09	0.07	0.10	0.12	0.07	0.10	0.20	-0.10
Kazakhstan												
Americas	0.01	-	-	-	-	-	-	-	-	-	-	-
Europe	0.70	0.75	0.75	0.84	0.73	0.70	0.71	0.59	0.76	0.78	0.82	-0.05
Asia Oceania	0.03	0.10	0.19	0.13	0.19	0.21	0.22	0.20	0.21	0.25	0.14	0.11
Venezuelan 22 API and heavier												
Americas	0.63	0.48	0.44	0.40	0.47	0.45	0.45	0.46	0.46	0.42	0.37	0.06
Europe	0.05	0.04	0.03	0.02	0.02	0.03	0.06	0.03	0.09	0.06	0.01	0.05
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.53	0.58	0.63	0.64	0.63	0.75	0.50	0.53	0.69	0.29	0.62	-0.33
Europe	0.17	0.20	0.21	0.27	0.22	0.17	0.17	0.13	0.20	0.18	0.23	-0.05
Asia Oceania	0.05	0.07	0.08	0.06	0.10	0.08	0.09	0.12	0.09	0.06	0.10	-0.05
Russian Urals												
Americas	-	0.01	0.01	-	-	-	0.02	0.02	-	0.05	-	-
Europe	1.72	1.64	1.39	1.38	1.46	1.37	1.37	1.27	1.46	1.39	1.49	-0.10
Asia Oceania	-	0.01	0.00	-	0.01	-	-	-	-	-	-	-
Cabinda and Other Angola												
North America	0.16	0.07	0.06	-	0.10	0.11	0.02	0.07	-	-	0.14	-
Europe	0.27	0.11	0.14	0.14	0.11	0.22	0.08	0.06	0.10	0.09	0.12	-0.03
Pacific	0.01	0.01	0.01	-	0.00	-	0.03	0.03	0.05	-	-	-
Nigerian Light⁴												
Americas	0.07	0.04	0.01	0.03	0.01	-	-	-	-	-	-	-
Europe	0.39	0.39	0.53	0.48	0.49	0.54	0.62	0.58	0.68	0.60	0.39	0.21
Asia Oceania	0.01	0.02	0.02	0.02	0.03	0.01	0.02	0.02	-	0.05	0.01	0.04
Libya Light and Medium												
Americas	-	0.02	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.54	0.62	0.65	0.64	0.55	0.65	0.79	0.56	0.60	0.69	-0.09
Asia Oceania	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.03	0.01	0.03	0.03	0.00

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

	2016	2017	2018	1Q18	2Q18	3Q18	4Q18	Oct 18	Nov 18	Dec 18	Year Earlier	
											Dec 17	% change
Crude Oil												
Americas	4542	4361	3759	3827	4085	3905	3223	3241	3350	3081	3797	-19%
Europe	9253	9711	9529	9502	9433	9728	9452	9585	9101	9659	9544	1%
Asia Oceania	6659	6843	6704	6849	6571	6513	6884	6823	7137	6701	7282	-8%
Total OECD	20455	20916	19992	20178	20089	20146	19559	19649	19588	19441	20623	-6%
LPG												
Americas	20	20	22	33	14	17	24	21	15	35	22	62%
Europe	445	437	473	492	469	430	500	488	471	541	416	30%
Asia Oceania	567	549	555	595	567	503	555	544	568	555	558	-1%
Total OECD	1032	1006	1050	1120	1050	951	1080	1053	1055	1131	996	13%
Naphtha												
Americas	10	19	8	10	5	6	11	26	1	7	3	108%
Europe	348	369	371	411	371	346	358	456	394	225	415	-46%
Asia Oceania	908	981	1021	1031	958	1007	1088	1048	1109	1110	910	22%
Total OECD	1266	1369	1401	1453	1333	1360	1458	1529	1504	1341	1328	1%
Gasoline³												
Americas	735	727	773	559	1060	968	504	623	352	533	391	36%
Europe	100	162	103	155	67	85	104	107	106	99	256	-61%
Asia Oceania	87	102	108	123	123	92	96	119	82	86	83	4%
Total OECD	922	990	984	837	1250	1144	704	848	541	719	730	-2%
Jet & Kerosene												
Americas	169	171	140	131	136	178	115	106	132	107	158	-32%
Europe	504	506	510	426	538	601	475	496	613	320	459	-30%
Asia Oceania	73	77	85	112	60	53	117	90	127	135	85	60%
Total OECD	745	754	736	669	733	832	707	692	871	563	701	-20%
Gasoi/Diesel												
Americas	67	77	124	179	63	130	125	124	125	127	221	-43%
Europe	1340	1381	1379	1409	1381	1455	1272	1240	1228	1346	1422	-5%
Asia Oceania	196	194	255	214	256	232	319	314	343	302	160	89%
Total OECD	1602	1653	1759	1802	1700	1817	1717	1678	1696	1775	1803	-2%
Heavy Fuel Oil												
Americas	149	131	161	158	161	195	130	170	103	118	116	1%
Europe	477	240	232	239	227	249	211	172	237	224	188	20%
Asia Oceania	153	146	162	192	156	151	150	112	170	169	185	-9%
Total OECD	779	517	555	589	544	595	491	454	509	511	489	4%
Other Products												
Americas	652	717	679	722	658	699	637	711	636	564	759	-26%
Europe	774	1009	1036	1059	979	1126	980	876	1043	1021	999	2%
Asia Oceania	348	255	265	277	250	255	278	274	282	279	233	20%
Total OECD	1774	1981	1980	2057	1886	2080	1895	1861	1961	1864	1990	-6%
Total Products												
Americas	1802	1862	1908	1793	2095	2194	1547	1781	1364	1491	1670	-11%
Europe	3988	4104	4103	4190	4031	4293	3900	3835	4092	3777	4154	-9%
Asia Oceania	2331	2304	2452	2543	2371	2292	2604	2499	2681	2636	2213	19%
Total OECD	8121	8270	8463	8526	8497	8779	8052	8116	8137	7904	8037	-2%
Total Oil												
Americas	6344	6223	5666	5620	6180	6100	4770	5022	4714	4572	5467	-16%
Europe	13241	13815	13632	13693	13464	14021	13351	13420	13194	13436	13699	-2%
Asia Oceania	8991	9147	9156	9392	8942	8805	9489	9322	9818	9336	9495	-2%
Total OECD	28575	29186	28455	28704	28586	28925	27610	27765	27725	27345	28660	-5%

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

² Excludes intra-regional trade.

³ Includes additives.

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Oil Market Report Contacts

Editor	Neil Atkinson ☎ +33 (0)1 40 57 65 90 ✉ Neil.Atkinson@iea.org
Demand	Christophe Barret ☎ +33 (0)1 40 57 65 16 ✉ Christophe.Barret@iea.org
OPEC Supply	Peg Mackey ☎ +33 (0)1 40 57 65 81 ✉ Peg.Mackey@iea.org
Non-OPEC Supply	Toril Bosoni ☎ +33 (0)1 40 57 67 18 ✉ Toril.Bosoni@iea.org
Refining	Kristine Petrosyan ☎ +33 (0)1 40 57 66 05 ✉ Kristine.Petrosyan@iea.org
Stocks	Olivier Lejeune ☎ +33 (0)1 40 57 67 58 ✉ Olivier.Lejeune@iea.org
Prices	Anne Kloss ☎ +33 (0)1 40 57 67 28 ✉ Anne.Kloss@iea.org
Analyst	Jing Wang ☎ +33 (0)1 40 57 67 78 ✉ Jing.Wang@iea.org
Analyst	Masataka Yarita ☎ +33 (0)1 40 57 67 64 ✉ Masataka.Yarita@iea.org
Statistics	Pierre Monferrand ☎ +33 (0)1 40 57 66 67 ✉ Pierre.Monferrand@iea.org
Statistics	Luis Fernando Rosa ☎ +33 (0)1 40 57 65 56 ✉ LuisFernando.Rosa@iea.org
Editorial Assistant	Deven Moonesawmy ☎ +33 (0)1 40 57 65 03 ✉ Deven.Moonesawmy@iea.org
Media Enquiries IEA Press Office	☎ +33 (0)1 40 57 66 94 ✉ ieapressoffice@iea.org

Subscription and Delivery Enquiries

Oil Market Report Subscriptions

International Energy Agency

BP 586-75726 PARIS Cedex 15, France

✉ OMRSubscriptions@iea.org

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☎ +33 (0)1 40 57 66 90

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