International Energy Agency
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11 April 2019

HIGHLIGHTS

- **Our global demand growth estimates for 2018 and 2019 are again unchanged at 1.3 mb/d and 1.4 mb/d, respectively.** After a slow start to the year, OECD growth will be 0.3 mb/d, with non-OECD growing by 1.1 mb/d.

- **Demand in China, India and the US is estimated to have grown by 1 mb/d in Jan-Feb 2019.** OECD demand fell in 4Q18 for the first time since end-2014 and also in 1Q19, mainly on weaker European numbers, but it will recover, led by the US.

- **Global oil supply dropped 340 kb/d in March, as OPEC+ cuts deepened and Venezuelan output fell sharply.** At 99.2 mb/d, it was 3.1 mb/d below November 2018 and up 530 kb/d y-o-y. In 2019, non-OPEC production will grow 1.7 mb/d versus 2.8 mb/d last year.

- **OPEC crude oil production tumbled 550 kb/d in March, to 30.1 mb/d,** on further cuts from Saudi Arabia and steep losses in Venezuela. Saudi output dropped to its lowest in over two years, boosting compliance with supply cuts to 153%. The call on OPEC rises to 30.9 mb/d in 2Q19.

- **Global refining throughput fell by 2.5 mb/d in March** as unplanned outages and accidents hindered the US in particular. Our 2019 growth estimate is revised down to 0.7 mb/d on tighter crude market fundamentals: 3Q19 could see the largest draws since 2011.

- **OECD oil stocks fell by 21.7 mb on the month in February after three months of increases.** The decrease was more than the five-year average of 5.1 mb due to larger gasoline draws and a lower crude build. March preliminary data show a significant crude build in Europe.

- **ICE Brent reached a five-month high above $71/bbl in early April on supply concerns**. New infrastructure capacity in the US helped WTI to narrow its discount to Brent to $7/bbl. Gasoline markets continued to rally, while cracks for most other refined products fell in March.

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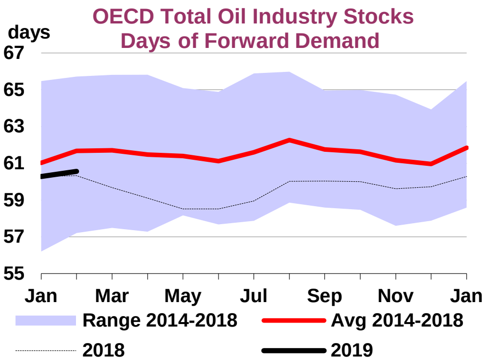
Mixed signals

The huge increase in oil production we saw in 2H18 has reversed following the implementation of the new Vienna Agreement and the increasing effectiveness of sanctions against Iran and Venezuela. Production by OPEC countries in March was 2.2 mb/d lower than in November and now there is uncertainty concerning Libya. Production by non-OPEC producers in 1Q19 was 0.7 mb/d lower than in 4Q18. This turnaround in supply has contributed to a dramatic increase in prices, with Brent crude rising from $50/bbl at the end of December to more than $70/bbl today.

Tightness in the oil market, however, is not just a supply story. In recent months, the resilience of demand has received less attention than the vicissitudes of production, but it is very important too. Data for 2018 is still incomplete but we can be confident that demand growth was about 1.3 mb/d. As far as 2019 is concerned, amongst the analyst community there is an extraordinarily wide divergence of view as to how strong growth will be. We maintain our forecast of 1.4 mb/d, but accept that there are mixed signals about the health of the global economy, and differing views about the likely level of oil prices.

In terms of real numbers for 2019, although it is still early days the major centres of oil demand growth are performing strongly. In China, the economy seems to be reacting to the government's stimulus measures with purchasing managers' indices increasing and export orders recovering, although there are signs that air cargo volumes might be falling. Preliminary oil demand numbers for the January-February period show solid growth of 410 kb/d year-on-year. Elsewhere, demand was strong in the same period, with India growing by 300 kb/d, and the US, which continues to be supported by the petrochemical sector, by 295 kb/d.



Although the main sources of growth are doing well, there are mixed signals from elsewhere. Overall demand in the OECD countries fell by 0.3 mb/d y-o-y in 4Q18, the first such fall for any quarter since the end of 2014, and it is likely to have fallen again in 1Q19 due to weakness in some European economies, with perhaps more to come if there is a disorderly Brexit. There are uncertainties in Argentina and Turkey and signs of only modest demand recovery in the Middle East despite the stimulus provided by rising crude oil prices. Concerns about trade talks linger, and the mood will be influenced by the recent downgrade to global GDP growth by the International Monetary Fund, although it should be noted that the IMF does not expect a recession in the near term. Clearly, oil prices at $70/bbl for Brent, are less comfortable for consumers than they were at the start of the year and the IEA has regularly warned of the dangers of prices rising even higher. Only time will tell if our current demand forecast proves accurate, but the risks are currently to the downside.

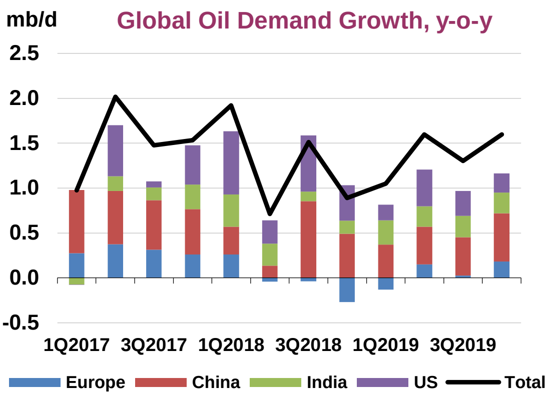
When the first Vienna Agreement to cut oil production was made in 2017, progress was measured by total OECD stocks falling to the five-year average level. The second Agreement is underway, and data for February show that stocks are above the average by 16 mb. However, in terms of days of forward demand cover, which is a more relevant assessment, they are below it, and have been for some time. Incidentally, it is worth mentioning middle distillate stocks, particularly in light of January's implementation of new International Maritime Organisation fuel specifications. If half the increase in marine gasoil demand resulting from the regulations were in OECD countries, about 540 kb/d, current middle distillate stocks would represent 29.3 days of forward cover, about 3.5 days below the average.

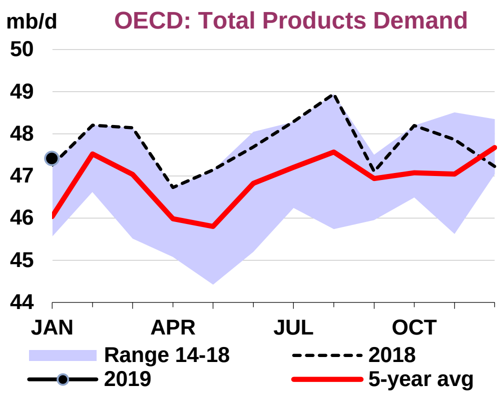
The oil market shows signs of tightening as we move into 2Q19, but we see mixed signals in terms of the outlook for demand and whether stock levels are yet "normal".

DEMAND

Summary

Demand data for the US and Canada in 1Q19 were weaker than expected, in particular for gasoline, probably due to harsh weather conditions. Strong demand in China and India and a recovery in growth in the Middle East provided counter-balances. Our overall projections for global demand remain largely unchanged, as we expect economic growth to pick up in the second half of 2019 in key consuming countries after a weak start. The exception is Europe for which our economic growth forecasts were lowered slightly.





In 1Q19, global oil demand growth is estimated at 1.05 mb/d y-o-y. OECD oil demand declined but non-OECD demand remained strong, provisional data showed. Harsh weather in North America slowed gasoline demand and boosted heating oil, while warm weather in Europe and Japan reduced heating. As a result, total OECD demand is likely to have dropped by 140 kb/d. OECD demand is projected to increase by 270 kb/d in 2019, supported by North America and despite the slow start to the year.

Non-OECD demand has been strong in the early part of the year, with growth estimated at 1.2 mb/d in 1Q19. In particular, non-OECD Asia demand increased by 870 kb/d with significant gains in China and India. Total non-OECD demand is projected to expand by 1.1 mb/d in 2019. Globally, we continue to forecast oil demand growth of 1.3 mb/d in 2018 and 1.4 mb/d in 2019. Non-OECD Asia and the OECD Americas will remain the fastest growing regions.

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	31.7	32.2	32.6	32.3	32.2
Asia/Pacific	34.2	34.1	33.5	34.7	34.1	35.1	34.7	34.3	35.1	34.8	35.8	35.3	35.1	36.1	35.6
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	8.2	8.6	8.8	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**	**99.5**	**100.4**	**101.2**	**101.2**	**100.6**
Annual Chg (%)	1.0	2.1	1.5	1.6	1.6	2.0	0.7	1.5	0.9	1.3	1.1	1.6	1.3	1.6	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	1.0	1.6	1.3	1.6	1.4
Changes from last OMR (mb/d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0	0.1	0.0

* Including biofuels

Global Demand by Product

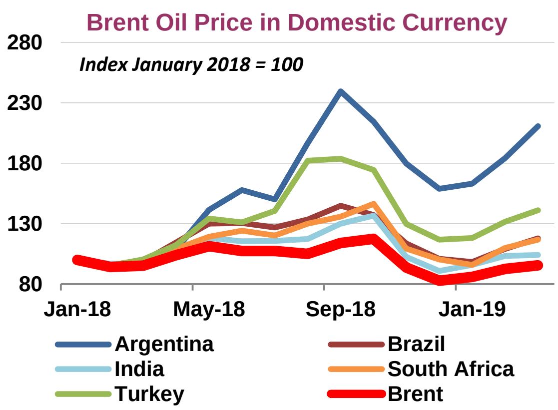
(thousand barrels per day)

	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2Q18	3Q18	4Q18	3Q18	4Q18	3Q18	4Q18
LPG & Ethane	11,968	12,112	12,450	762	334	6.7	2.8
Naphtha	6,118	6,204	6,342	19	-173	0.3	-2.7
Motor Gasoline	26,236	26,687	26,346	190	418	0.7	1.6
Jet Fuel & Kerosene	7,682	8,012	7,741	362	93	4.7	1.2
Gas/Diesel Oil	28,609	28,368	28,928	171	278	0.6	1.0
Residual Fuel Oil	6,896	6,972	6,718	-14	-176	-0.2	-2.6
Other Products	11,304	11,566	11,047	25	115	0.2	1.1
Total Products	**98,814**	**99,923**	**99,573**	**1,514**	**890**	**1.5**	**0.9**

Fundamentals

World economic activity lost momentum in 4Q18 and 1Q19 with the effect of US tax cuts fading, tighter monetary conditions and slowing international trade. Prompt indicators point to manufacturing weakness in 1Q19. However, policy measures to support growth seemed to show some results at the end of the quarter.

The International Monetary Fund (IMF) published its latest forecasts on 9 April, too late to be fully incorporated in our projections. We had however already implemented very similar revisions for key countries after the release of the OECD *Interim Economic Outlook* in March. In addition, IMF revisions were largely anticipated. Ahead of the release of the April World Economic Outlook, IMF executive director Christine Lagarde revealed that growth forecasts have been revised down, although the Fund does not expect a recession in the near term. Ms Lagarde highlighted the negative impact of rising trade tensions and financial tightening in the second half of 2018. In the second half of 2019, by contrast, growth should benefit from prudent monetary policies and government stimulus in China.

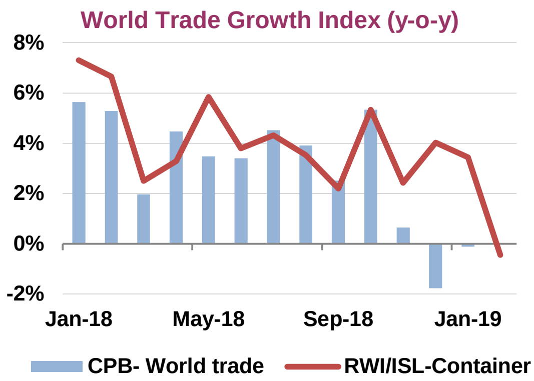


While the US Federal Reserve raised interest rates four times in 2018, it left them unchanged at its first two meetings of 2019 and indicated in March that rates are unlikely to be raised in 2019. The European Central Bank is also likely to retain an accommodating stance. China has used the traditional stimulus of infrastructure investment to support growth. At the end of 2018, the Chinese government approved debt issuance by provinces and asked them to increase infrastructure spending. In January-February, local bond issuance rose to $116 billion.

These policies have already had a positive impact on growth. The latest advanced indicators point to a likely rebound in world economic activity in some regions at the end of 2Q19. The Chinese Purchasing Managers Index surprised on the upside in March, as the Caixin China services purchasing managers index rose to a 14-month high of 54.4 from February's 51.1, which was a four-month low. The manufacturing PMI came in at 50.8 for March, compared to 49.9 in February. New orders climbed to their highest level in four months, and the new export orders component returned to above 50, regarded as an expansionary signal. In the US, fears of an economic slowdown were alleviated after the non-farm-payroll rose by 196 000 in March, a strong increase on February.

Some regions remain in a more difficult situation. Europe experienced a sharp deceleration in 2H18 and a return to strong growth in 2019 appears unlikely. German industrial activity has slowed considerably on lower international trade. Exports fell by 1.3% month-on-month (m-o-m) in February and factory orders fell 4.2% m-o-m (8.4% y-o-y). It was the biggest fall since January 2017, as domestic orders dropped by 1.6% while foreign orders declined by 6% m-o-m. The political uncertainty surrounding Brexit has increased, opening up the possibility of short-term disruptions in trade and economic activity. Japan is also suffering from a slowdown in trade, particularly with China, with machinery orders and industrial production falling sharply at the start of 2019. While financial flows to emerging markets appear to have stabilised in the past few months, Turkey and Argentina continue to experience a currency crisis. In Argentina, the central bank raised interest rates to 62% as inflation reached an annualised level of above 50%. The Turkish economic environment continues to deteriorate and the country entered a severe recession in 2H18.

Part of the difficulties experienced in Europe and Asia are due to a very significant slowdown in trade in the past few months. Both the CPB World trade monitor and the RWI/ISL container index point to a sharp deceleration in trade at the start of 2019. The recent slowdown in goods trade occurred mainly in Europe and Asia. The latest International Air Transport Association Air Freight Market Analysis gives a very clear illustration of the recent drop in international trade. Industry-wide freight tonnes kilometres (FTK) dropped by 4.7% y-o-y in February and FTK flown by Asia Pacific airlines dropped by 11.5% y-o-y in February. World trade could however get a significant boost in 2H19 if China and the US reach an agreement.



Our oil price assumption, based on the forward curve, has been revised up slightly to $67/bbl compared with the previous *Report* when it stood at $65/bbl. This may theoretically slightly reduce oil consumption compared to last month's forecast. Currently, oil prices remain about 6% below year-ago levels.

Weather in the northern hemisphere has a strong impact on heating oil demand. In February and March, temperatures were low in the US with heating degree days (HDD) 7.5% above the 10-year average. In Europe, temperatures were warm in February-March: HDD were 16% lower y-o-y in France and 27% lower in Germany.

OECD

Oil demand in the OECD has fallen for two quarters in a row, for the first time since 2014. We estimate that demand declined 310 kb/d year-on-year in 4Q18 and 140 kb/d y-o-y in 1Q19. In 4Q18, naphtha was the largest contributor with a 330 kb/d reduction centred on Italy, Germany, Korea and the Netherlands. This was likely due to maintenance shutdowns at petrochemical crackers. This *Report* incorporates January data for all OECD countries and February data for Italy, France and the US. In addition, we have factored in US weekly data through to 29 March.

Although 1Q19 data are incomplete, they point to reduced consumption of fuel oil, gasoline and heating oil. Demand for gasoline, the largest OECD oil product by volume, has been falling since 1Q18. In this *Report*, we have downgraded our forecast for gasoline demand in 1Q19 by 120 kb/d following the release of data showing much lower demand in the US, where two bouts of very cold weather in January and March reduced travel.

Consumption of ethane grew in both 4Q18 and 1Q19, as US petrochemical plants boosted intake with the commissioning of new capacity. However, growth has been slowing. We estimate LPG/ethane demand grew by 90 kb/d y-o-y in 1Q19, the lowest rate recorded since 4Q17. Meanwhile, gasoil demand rose by a strong 250 kb/d y-o-y in 4Q18. Growth then moderated to 40 kb/d in 1Q19, according to provisional data. We have revised down our overall OECD demand forecast by 320 kb/d for 1Q19.

Looking ahead, OECD oil demand is expected to rebound in 2Q19 on the back of much higher LPG, gasoline and jet fuel consumption, and to grow robustly thereafter, more than offsetting the poor start to the year. We expect total growth in OECD oil demand of 270 kb/d in 2019, with LPG/ethane by far the largest contributor, followed by jet/kerosene and gasoline. By contrast, demand for fuel oil and other products will decline. Our forecast takes account of expanding petrochemical capacity in North America.

OECD Demand based on Adjusted Preliminary Submissions - February 2019

(million barrels per day)

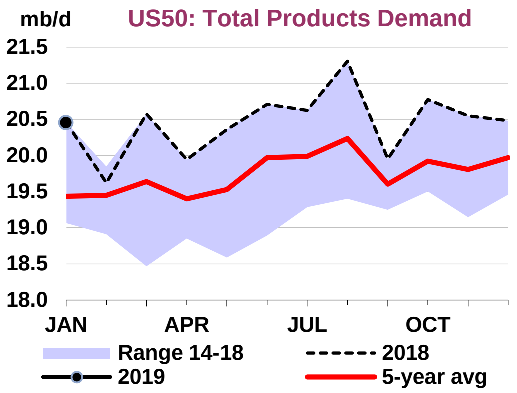
	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
OECD Americas*	**10.60**	**0.7**	**1.94**	**2.4**	**4.77**	**2.5**	**0.58**	**9.1**	**0.58**	**-5.4**	**6.85**	**6.1**	**25.32**	**2.6**
US50	8.87	0.6	1.65	3.0	3.87	2.7	0.20	2.7	0.24	-13.4	5.38	8.5	20.22	3.0
Canada	0.78	0.9	0.15	-1.3	0.27	-0.9	0.32	14.4	0.07	20.1	0.81	-3.6	2.40	1.1
Mexico	0.79	0.8	0.09	-2.6	0.39	1.8	0.03	9.7	0.16	-4.7	0.54	0.1	2.01	0.3
OECD Europe	**1.89**	**-1.4**	**1.41**	**1.6**	**4.90**	**-2.7**	**1.53**	**-14.8**	**0.93**	**1.0**	**3.52**	**-1.7**	**14.18**	**-3.1**
Germany	0.48	-7.3	0.19	0.0	0.66	-9.5	0.38	-17.3	0.10	5.5	0.48	-9.1	2.28	-9.1
United Kingdom	0.30	-1.4	0.36	1.2	0.58	-1.9	0.14	1.0	0.03	1.1	0.29	-1.1	1.69	-0.7
France	0.18	4.5	0.16	4.9	0.68	-4.4	0.27	-15.2	0.06	12.1	0.37	-1.4	1.72	-3.5
Italy	0.15	-1.0	0.10	3.2	0.52	-1.1	0.07	-11.8	0.07	-14.8	0.36	0.3	1.28	-1.9
Spain	0.11	2.2	0.12	0.9	0.48	1.1	0.21	-3.3	0.15	-6.4	0.31	7.5	1.37	1.0
OECD Asia & Oceania	**1.56**	**1.8**	**1.23**	**-8.2**	**1.44**	**0.1**	**0.55**	**-4.4**	**0.62**	**-13.4**	**3.20**	**-2.7**	**8.59**	**-3.3**
Japan	0.86	0.3	0.78	-10.8	0.45	-2.1	0.39	-10.5	0.36	-5.7	1.56	0.7	4.40	-3.5
Korea	0.22	4.1	0.23	-6.8	0.39	4.5	0.10	25.1	0.21	-26.0	1.37	-8.2	2.52	-6.2
Australia	0.34	4.8	0.16	-0.3	0.53	-1.8	0.00	0.0	0.03	1.1	0.18	7.8	1.24	1.6
OECD Total	**14.06**	**0.5**	**4.58**	**-0.9**	**11.11**	**-0.2**	**2.65**	**-8.4**	**2.13**	**-5.3**	**13.57**	**1.8**	**48.09**	**-0.2**

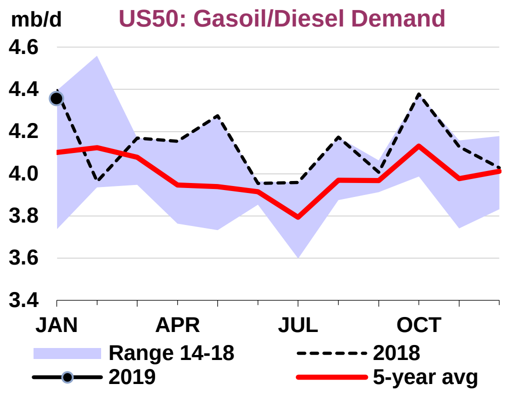
* Including US territories

OECD Americas

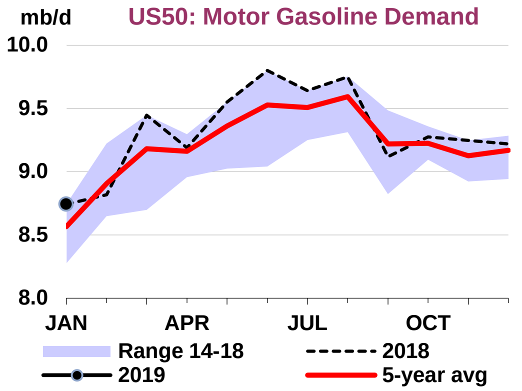
Oil consumption in the **OECD Americas** region is expected to have grown by 160 kb/d y-o-y in 1Q19, according to provisional data, the slowest quarterly growth since 3Q17. Compared with last month's *Report*, demand was revised down 330 kb/d due to lower-than-expected gasoline figures in the US in the face of cold weather. A "polar vortex" hit in late January, bringing below-freezing temperatures to large swathes of the Northeast. In March, another storm affected western states and there were extensive floods in the Midwest. These storms triggered school closures and incentivised people to stay home.

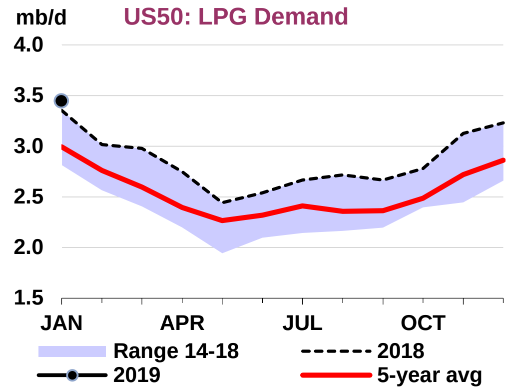
Despite the polar vortex, overall oil demand was largely flat y-o-y in the **US** in January with stable gasoline demand and growth in ethane offsetting declines in fuel oil and other products. Data for February was robust with growth of 600 kb/d y-o-y, albeit from a weak February 2018 base. US gasoline demand grew 60 kb/d y-o-y in February, gasoil/diesel by 110 kb/d and jet/kerosene by 50 kb/d. Fuel oil was the only product showing a decline.





US preliminary March data was much weaker, however. Gasoline deliveries fell by a significant 140 kb/d whereas gasoil/diesel consumption grew 100 kb/d.





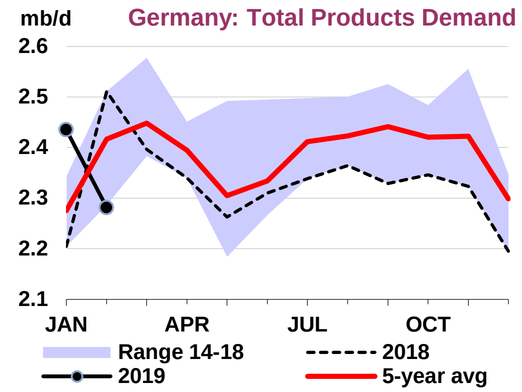
January data for **Canada** came in 180 kb/d below our forecast. Oil demand fell 140 kb/d y-o-y with declines registered for LPG, gasoline and gasoil, despite lower temperatures. **Mexico**'s oil demand was largely unchanged during January, as rising fuel oil and naphtha consumption offset a decline in motor fuels. February demand was revised 20 kb/d lower.

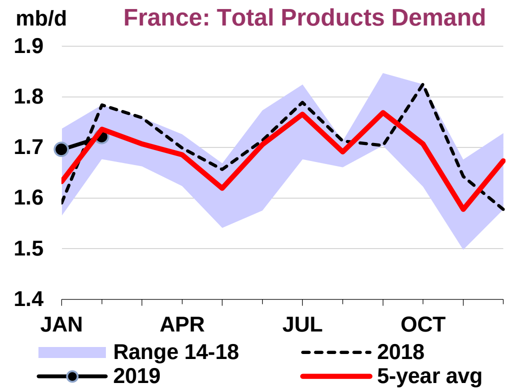
Overall, for 2019 we forecast demand growth in the OECD Americas' region of 290 kb/d y-o-y. It is likely to accelerate from 1Q19 levels with robust demand for LPG and ethane from the petrochemical sector growing by 170 kb/d in 2Q-4Q19 compared to 130 kb/d in 1Q19. Gasoline deliveries will be helped by lower prices compared with 2018. We also expect jet/kerosene demand to grow 50 kb/d thanks to robust air traffic, whereas other oil products will stay flat or decline.

OECD Europe

Oil demand in **OECD Europe** grew by a robust 480 kb/d y-o-y in January, amid lower temperatures. This was almost entirely supported by deliveries of gasoil/diesel and jet/kerosene, which grew by 560 kb/d and 80 kb/d, respectively. A population-weighted index of temperature data for the region showed heating degree days rising 20% y-o-y. The largest gains were registered in Central Europe and in big demand centres such as France, Germany and Italy.

German oil demand increased 230 kb/d y-o-y in January, supported by gasoil/diesel consumption (+210 kb/d), naphtha (+30 kb/d) and jet/kerosene (+30 kb/d). Temperatures fell, boosting demand, and water levels on the Rhine returned to normal, allowing for higher oil product deliveries from the Amsterdam-Rotterdam-Antwerp refining hub. Interestingly, diesel demand also increased during the month, despite recent economic weakness.





This month, we have revised our demand estimates for German gasoline and naphtha prior to 2018. The statistical authorities changed their questionnaire, allowing separate reporting for gasoline components previously classified by industry as naphtha. As a result, from January 2018, the volume reported under gasoline expanded whereas the volume reported as naphtha shrunk. The German statistical authority does not provide historical values for this gasoline component before 2018 because the data were not collected. In order to allow historical comparisons and to maintain the consistency of our series we have corrected higher our historical gasoline estimates, based on the current proportion of the gasoline component previously reported as naphtha blended in gasoline (18%). The volume varies slightly from month to month but is close to 80 kb/d on average. Naphtha demand was revised down by the same amount and there was no impact on overall German oil demand.

Oil demand in **France** increased 110 kb/d y-o-y in January. The gains were shared among all major oil product categories, except LPG. Gasoil and diesel contributed 50 kb/d of the total increase. However, preliminary figures for February show oil consumption declining by 60 kb/d. Milder weather is likely to have played a large part, as gasoil/diesel demand fell 80 kb/d y-o-y.

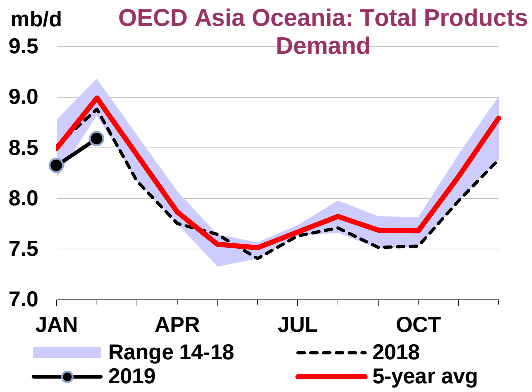
In **Italy**, oil demand fell 70 kb/d y-o-y in January with reductions in LPG, naphtha, gasoline, jet/kerosene and fuel oil. Gasoil/diesel was the only product to show a gain, amid colder weather. In February, oil demand fell another 30 kb/d, preliminary figures showed. Demand has declined for four out of the last seven years because of a broader slowdown in economic activity. The IMF just revised down its GDP growth forecast for Italy in 2019 by 0.5 percentage points to 0.9%. We forecast another decline of 10 kb/d for 2019.

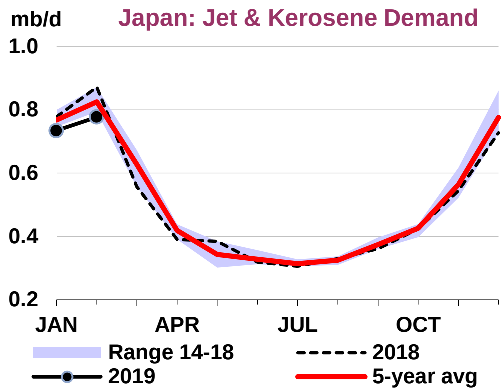
Oil demand in OECD Europe is thought to have declined by 130 kb/d in 1Q19, weighed down by warmer-than-usual weather during February and March, petrochemical cracker maintenance and reduced gasoline sales. Demand should then grow modestly during the rest of the year to bring a small gain of 60 kb/d for 2019 as a whole. In our forecast, demand for most oil products grows, except diesel, which falls by 40 kb/d, dampened by slower economic growth (the IMF just revised down its GDP growth forecast for the Euro Area in 2019 by 0.3 percentage points to 1.3%) and falling car sales.

OECD Asia Oceania

Oil demand in **OECD Asia Oceania** fell 190 kb/d y-o-y in January, due to reduced consumption of fuel oil (-140 kb/d) and other products (-140 kb/d). Jet/kerosene consumption (-30 kb/d) also declined as temperatures were higher than in January 2018. Temperature data showed heating degree days falling 10% y-o-y during the month.

Japanese oil demand was down 200 kb/d y-o-y with declines registered in most categories, except naphtha and gasoil/diesel.





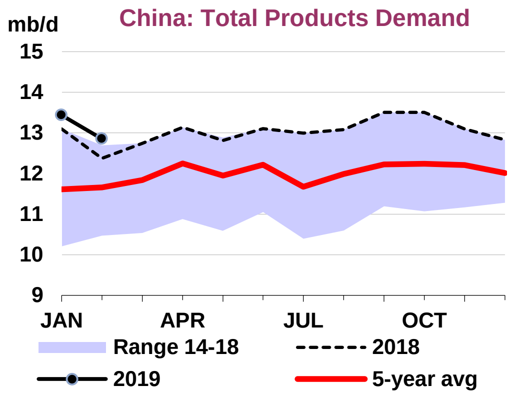
Korean consumption eased by 30 kb/d y-o-y. Cracker maintenance reduced naphtha intake and milder weather pressured the consumption of heating oil. Demand for motor fuels such as diesel and gasoline increased. In **Australia**, oil demand rose 10 kb/d y-o-y, as rising diesel consumption more than offset falling gasoline sales. Diesel has been responsible for the bulk of demand gains in recent years.

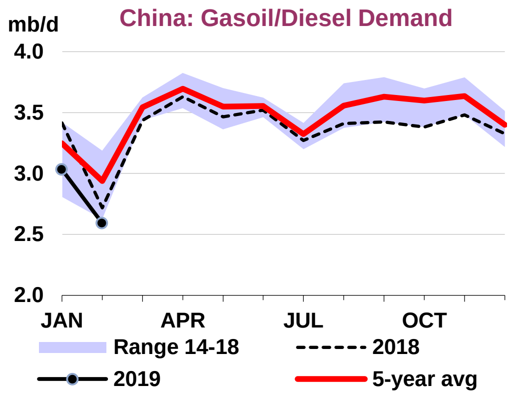
We forecast oil demand in OECD Asia Oceania to fall by a significant 170 kb/d in 1Q19 and by 80 kb/d for the whole year, weighed by other products, fuel oil and gasoline. Japan will be the main contributor, but consumption is also likely to decline in Australia and in Korea.

Non-OECD

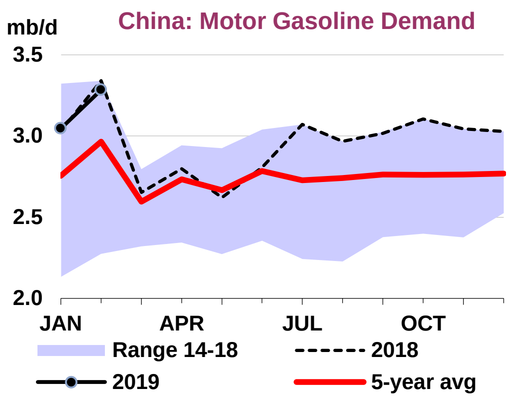
China

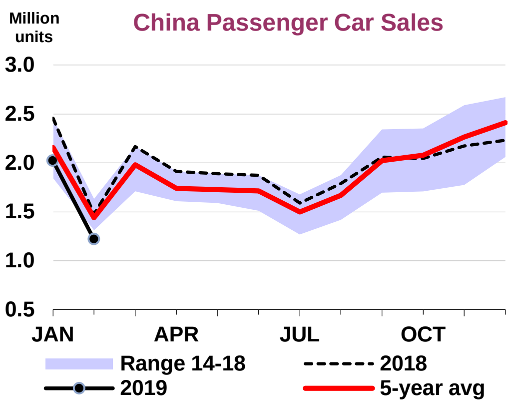
New data covers the Chinese New Year celebration and the 40 day period of intensive travel around it, from 21 January to 1 March, during which the government estimates that 3 billion journeys were made. It is thought that 2.46 billion of these journeys were made by long-distance buses or passenger cars, 413 million by rail and 73 million by air. The Civil Aviation Administration of China authorised 532 000 flights during those 40 days, 10% more than last year.





Due to the extended holiday, China's *National Bureau of Statistics* reports combined refining data for January and February. These form part of the calculation of apparent demand, together with trade and stock data. However, recently there has been a large gap between the production of main products and refinery runs. This difference increases the implied production (and apparent demand) for 'other products', defined as niche oil products or products that could not be classified. The gap may be due to the lower quality of data reported during the New Year holiday.





China's oil demand grew by 410 kb/d on average in January-February, supported mainly by growth in other product demand estimated from the difference between refinery runs and the production of main products. Apparent gasoline demand contracted by 20 kb/d y-o-y during the period and gasoil demand fell by 255 kb/d. March car sales data were not available in time for this *Report*. In January-February, sales dropped by an average of 17.5% y-o-y. The decline was attributed to market saturation in some major cities and a drop of consumer confidence. Electric vehicle sales did not follow the same trend; they doubled in the first two month of 2019. Kerosene demand posted strong growth, supported by New Year travel demand. Chinese Revenue Passenger Kilometres (RPK) rose strongly, by 14.5% y-o-y in January and 11.4% y-o-y in February. Jet and kerosene demand rose by 55 kb/d on average in January-February.

China: Demand by Product

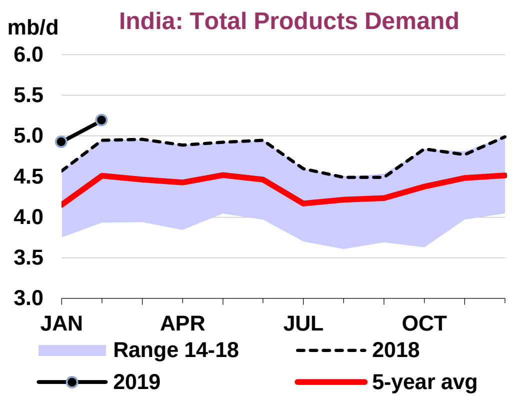
(thousand barrels per day)

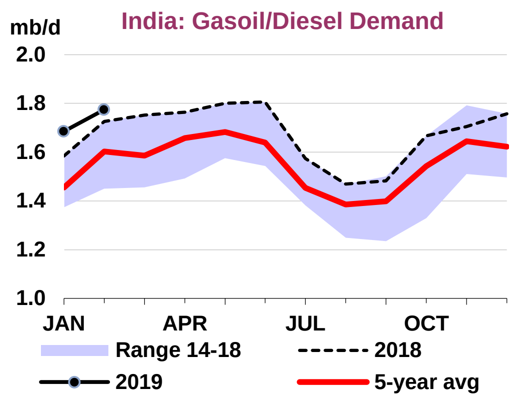
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2017	2018	2019	2018	2019	2018	2019
LPG & Ethane	1,523	1,616	1,731	93	115	6.1	7.1
Naphtha	1,171	1,243	1,324	72	82	6.1	6.6
Motor Gasoline	2,927	2,954	3,003	27	50	0.9	1.7
Jet Fuel & Kerosene	710	800	854	90	54	12.8	6.8
Gas/Diesel Oil	3,473	3,377	3,347	-96	-30	-2.8	-0.9
Residual Fuel Oil	437	412	425	-24	13	-5.6	3.0
Other Products	2,336	2,624	2,781	288	157	12.3	6.0
Total Products	**12,576**	**13,025**	**13,465**	**449**	**440**	**3.6**	**3.4**

While Chinese economic activity lost significant momentum at the end of 2018 (December to February PMIs are all below 50), the March NBS manufacturing PMI jumped to 50.5. It may indicate that the recent stimulus package is starting to work. An improvement in economic activity is likely to support oil demand growth in 2019 at 440 kb/d, almost exactly the same as last year.

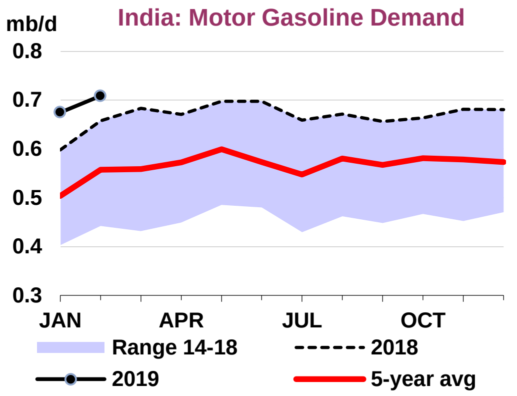
India

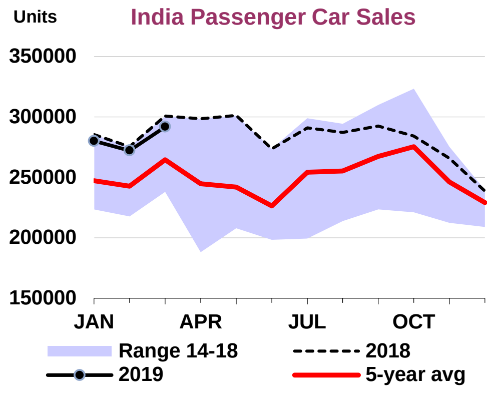
Indian oil demand rose by 215 kb/d in 2018, and in the early part of 2019 we have seen strong growth. In February, demand rose by 245 kb/d y-o-y, supported by solid LPG, gasoline and gasoil sales. Gasoline and gasoil demand grew by 50 kb/d on steady economic activity. The manufacturing PMI, however, declined significantly in March, to a six-month low of 52.6, due to a slowdown in trade.





Passenger car sales grew by only 2.1% in fiscal year 2018-19 (April to March), the slowest pace in five years due to measures implemented by the Central Bank to reduce bad loans. There was no increase in the first three months of 2019. The current monetary policy appears to be supportive and the Society of Indian Manufacturers expects growth of passenger vehicles of 3% to 5% this year. Domestic sales of trucks and buses grew 18% in the last fiscal year. Sales of two wheelers grew by 4.9%. LPG/ethane demand rose by 110 kb/d in February 2019, as the government promotes the use of LPG in the domestic sector (largely at the expense of kerosene) by providing free connections to 50 million households over a period of three years. The number of LPG consumers grew from 148 million in 2014/2015 to 224 million in 2017/2018. More than 63 million free LPG connections have been provided since the launch of the scheme in May 2016 and this number should reach 80 million by March 2020.





Rising demand for jet fuel, boosted by the booming aviation sector, offset the fall in kerosene used by households and total jet/kerosene demand rose by 5 kb/d in February. Indian RPK growth remained strong but slowed from 12.3% in January to 10% in February.

India: Demand by Product

(thousand barrels per day)

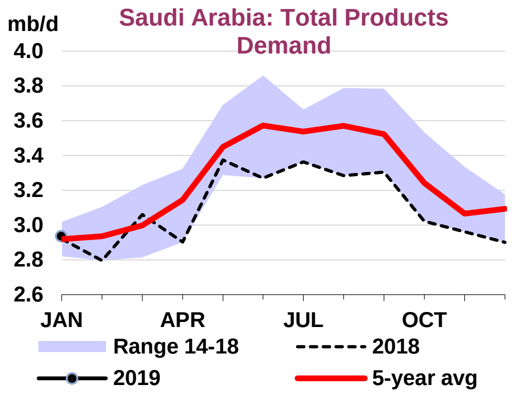
	Demand			Annual Chg (kb/d)		Annual Chg (%)	
	2017	2018	2019	2018	2019	2018	2019
LPG & Ethane	740	781	832	40	51	5.5	6.6
Naphtha	283	317	333	34	16	11.9	5.0
Motor Gasoline	615	668	705	53	37	8.6	5.5
Jet Fuel & Kerosene	242	247	261	5	15	2.1	6.0
Gas/Diesel Oil	1,605	1,673	1,745	69	72	4.3	4.3
Residual Fuel Oil	145	143	148	-2	5	-1.4	3.3
Other Products	938	954	1,000	15	46	1.6	4.8
Total Products	**4,568**	**4,782**	**5,023**	**214**	**241**	**4.7**	**5.0**

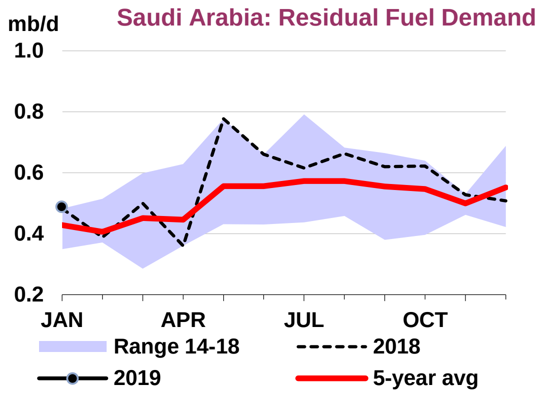
The economic environment seems to have improved recently, and the rupee has appreciated by 4% versus the US dollar since October 2018. This should help slow the rise in domestic retail product prices. Strong investment and a modest acceleration in economic growth will help support oil demand and for 2019, we expect growth of 240 kb/d.

Other Non-OECD

Iraq's oil demand slowed in January, increasing by 35 kb/d, led by gasoil. Crude oil direct use declined to 20 kb/d and was well below its five-year average. Crude has been largely replaced by fuel oil and natural gas imported from Iran.

Saudi Arabian oil demand recorded little y-o-y change in January, halting nine months of consecutive declines. Gasoline demand rose by 20 kb/d. Gasoil demand remained roughly unchanged (5 kb/d down). Crude oil direct use rose slightly to 375 kb/d. 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 a boost from government spending, consumption is likely to start growing again in 2019, by 60 kb/d.





Brazilian oil demand rose by 130 kb/d y-o-y in February, with gasoil rising by 60 kb/d and gasoline increasing by 70 kb/d. Domestic air traffic rose by 5.8% y-o-y in February, an acceleration from 2.6% in January. Overall, demand remained flat in 2018 but it is expected to increase by 85 kb/d in 2019, reflecting healthier economic growth rates.

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	4,379	7	113	0.2	2.7
Asia	27,069	26,704	27,184	1,053	841	4.1	3.2
FSU	4,636	4,906	4,830	178	232	3.8	5.0
Latin America	6,355	6,465	6,421	-99	-27	-1.5	-0.4
Middle East	8,541	8,760	8,208	-98	-1	-1.1	0.0
Non-OECD Europe	744	774	794	11	37	1.4	5.0
Total Products	**51,634**	**51,805**	**51,816**	**1,052**	**1,196**	**2.1**	**2.4**

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	6,879	317	157	4.9	2.3
Naphtha	2,940	2,928	3,080	184	159	6.7	5.4
Motor Gasoline	11,397	11,754	11,845	341	455	3.0	4.0
Jet Fuel & Kerosene	3,353	3,474	3,264	220	102	6.7	3.2
Gas/Diesel Oil	14,994	14,740	14,921	22	138	0.2	0.9
Residual Fuel Oil	4,838	4,834	4,676	-81	-42	-1.6	-0.9
Other Products	7,262	7,235	7,151	48	227	0.7	3.3
Total Products	**51,634**	**51,805**	**51,816**	**1,052**	**1,196**	**2.1**	**2.4**

Argentinian oil demand declined by 20 kb/d y-o-y in February. The country continues to experience financial difficulties and demand is expected to decline by 20 kb/d in 2019 after a fall of 25 kb/d in 2018.

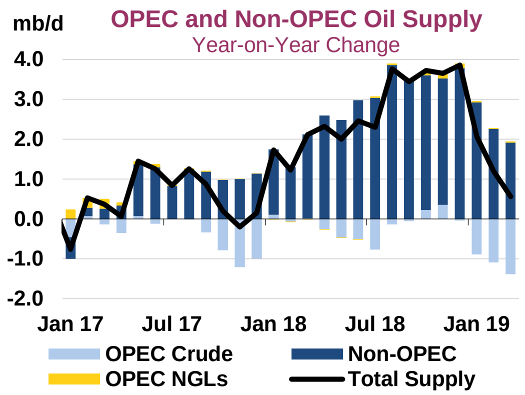
Russian oil demand rose by a strong 220 kb/d in February, supported by gasoil and fuel oil deliveries. Consumption expanded by 145 kb/d in 2018, however the pace will ease to 75 kb/d in 2019.

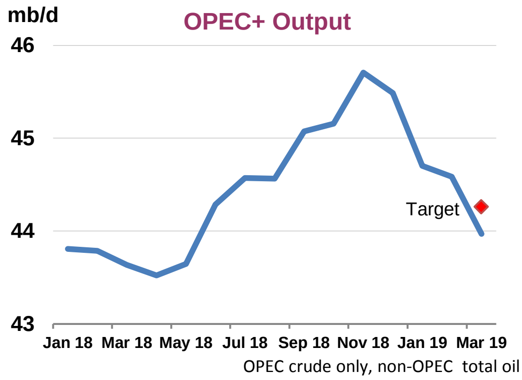
Pakistani oil demand declined by 50 kb/d y-o-y in January, as gasoil and fuel oil demand dropped by 40 kb/d and 10 kb/d, respectively.

SUPPLY

Summary

Global oil supply fell 340 kb/d in March after OPEC and non-OPEC (OPEC+) producers cut output by more than required and Venezuela racked up further losses. OPEC led the decline, with crude output falling 550 kb/d month-on-month (m-o-m) to 30.13 mb/d, down 1.4 mb/d on a year ago. At 99.2 mb/d, global output was 3.1 mb/d below a November 2018 peak. An annual gain of 0.5 mb/d on March 2018 came on the back of non-OPEC growth driven by the US.





Non-OPEC supply growth has decelerated sharply from the breakneck pace seen in 2H18 when output surged by 3.4 mb/d year-on-year (y-o-y). The pace slowed to 2.4 mb/d in 1Q19, with the US accounting for 92% compared with 80% over the course of 2018. Excluding the US, growth plunged from nearly 1 mb/d in 4Q18 to 185 kb/d in 1Q19, its lowest in a year. Moreover, output cuts in Canada and from OPEC+ producers, steep declines in the North Sea and seasonally weaker biofuels output saw total non-OPEC production in 1Q19 fall by 740 kb/d compared to 4Q18.

While non-OPEC supply is expected to rebound from 2Q19 onwards, the pace of growth is set to ease further. A slowdown in drilling activity at the start of the year, lower capital budget allocations, increasing base decline and parent-child well interference underpins our weaker growth projections for the US. Expansions in Canada, which averaged nearly 400 kb/d last year, have stalled and further declines are expected in Mexico and the North Sea. Brazil is set to rebound, however, as new units ramp up For the year as a whole, non-OPEC growth slows from last year’s record 2.8 mb/d to 1.7 mb/d.

That slowdown combined with the implementation of cuts agreed by OPEC, Russia and nine other non-OPEC countries will tighten world markets. So far, OPEC+ has been very effective in terms of compliance with its 1.2 mb/d supply cuts, thanks in large part to the outperformance of Saudi Arabia. In March, OPEC+ production was 290 kb/d below the target of 44.3 mb/d, for a compliance rate of 124%.

However, OPEC is mainly responsible for this, with compliance at a remarkable 153% compared to 64% by the non-OPEC countries. Russia continues to adjust output gradually. If the producers deliver on their promises, the market could return to balance in 2Q19. The call on OPEC crude rises to 30.9 mb/d in 2Q19, roughly 800 kb/d more than the group produced in March.

OPEC and its allies called off a planned meeting on 17-18 April to review the pact and will decide instead whether to extend the cuts on 25-26 June. At that time, a clearer assessment could be made of the crisis in Venezuela and the impact of US sanctions on Iran.

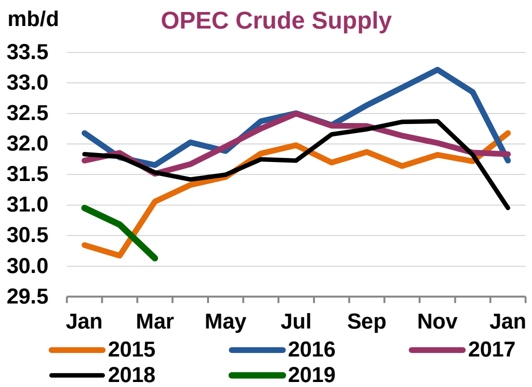
OPEC / Non-OPEC Output[1]
(million barrels per day)

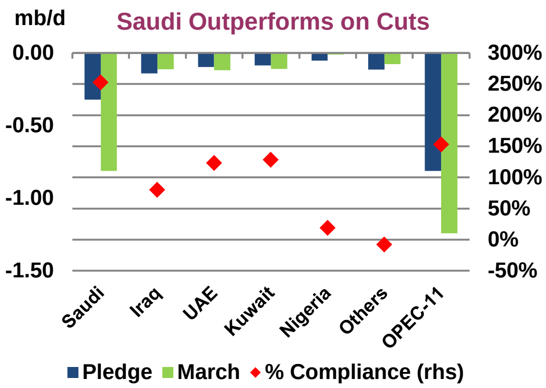
	Feb 2019 Supply	Mar 2019 Supply	Supply Baseline[2]	Agreed Cut	New Target	March Compliance	Sustainable Production Capacity[5]	Spare Capacity vs Mar Supply[6]
Algeria	1.03	1.02	1.06	0.032	1.03	116%	1.05	0.03
Angola	1.43	1.45	1.53	0.047	1.48	166%	1.50	0.05
Congo	0.35	0.35	0.33	0.010	0.32	-250%	0.35	0.00
Ecuador	0.53	0.53	0.52	0.016	0.51	-38%	0.54	0.01
Equatorial Guinea	0.11	0.12	0.13	0.004	0.12	175%	0.12	0.00
Gabon	0.21	0.20	0.19	0.006	0.18	-217%	0.20	0.00
Iraq	4.66	4.54	4.65	0.141	4.51	80%	4.90	0.36
Kuwait	2.71	2.70	2.81	0.085	2.72	128%	2.93	0.23
Nigeria[3]	1.68	1.64	1.65	0.053	1.60	19%	1.72	0.08
Saudi Arabia	10.14	9.82	10.63	0.322	10.31	252%	12.02	2.20
UAE	3.05	3.05	3.17	0.096	3.07	123%	3.39	0.34
Total OPEC 11	**25.90**	**25.42**	**26.66**	**0.812**	**25.85**	**153%**		
Iran[4]	2.74	2.74					3.85	-
Libya[4]	0.90	1.10					1.10	0.00
Venezuela[4]	1.14	0.87					0.87	0.00
Total OPEC	**30.68**	**30.13**					**34.54**	**3.30**
Azerbaijan	0.81	0.79	0.80	0.020	0.78	17%		
Bahrain	0.21	0.21	0.22	0.005	0.21	148%		
Brunei	0.12	0.12	0.12	0.003	0.11	-284%		
Kazakhstan	2.02	1.97	2.03	0.040	1.99	150%		
Malaysia	0.71	0.71	0.70	0.015	0.68	-53%		
Mexico	1.95	1.95	1.99	0.040	1.95	119%		
Oman	0.98	0.98	1.00	0.025	0.98	101%		
Russia	11.67	11.63	11.75	0.230	11.52	52%		
Sudan	0.08	0.07	0.07	0.002	0.07	101%		
South Sudan	0.15	0.13	0.12	0.003	0.12	-78%		
Total Non-OPEC	**18.69**	**18.55**	**18.80**	**0.383**	**18.41**	**64%**		

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 that can be reached in 90 days and sustained for an extended period.
6 Spare capacity excludes Iranian crude supply that is offline due to sanctions.

OPEC crude oil supply

OPEC crude output fell for a fourth straight month as Saudi Arabia cut back further and Venezuela suffered deeper losses from power outages and sanctions. Production in March tumbled 550 kb/d m-o-m to 30.13 mb/d, hovering at a four-year low. Despite Venezuela's accelerating decline, Saudi Arabia and its Gulf allies are proceeding with deeper than promised supply cuts to rebalance the market. Underscoring its commitment to remove surplus barrels from the market, Saudi Arabia produced nearly 500 kb/d below its OPEC+ target in March. That outperformance raised overall compliance from OPEC members taking part in cuts to 153% from 94% in February. As a result, OPEC's effective spare capacity during March rose to 3.3 mb/d, with Saudi Arabia accounting for 67%.





Since November, when Saudi Arabia, Iraq and the UAE were all producing at or near record rates, OPEC's crude production has fallen by 2.2 mb/d. Saudi Arabia has cut back by 1.2 mb/d. Venezuela and Iran, exempt from cuts, have notched up losses of almost 700 kb/d between them since November. Libya's production has dipped just 10 kb/d since November, but recent events may change this (see *page 17*).

Saudi Arabia turned in the biggest decrease during March after it cut output by 320 kb/d to 9.82 mb/d, the lowest since January 2017. Energy Minister Khalid al-Falih has signalled that output could remain at this level during April. Saudi Aramco planned to export less than 7 mb/d during March, down from roughly 7.7 mb/d in 4Q18. Data from *Kpler* show shipments of around 7 mb/d, down 100 kb/d m-o-m.

Saudi lifts lid on its oil resources

A bond prospectus released in early April has provided potential investors with unprecedented insight into the Saudi energy sector as Aramco aims to raise revenue for its $69.1 billion purchase of a 70% stake in Saudi Basic Industries Corp. The document shows that at end-2018, Saudi Arabia held proven reserves of 256.9 billion barrels of oil equivalent, including 201.4 billion barrels of crude and condensate, 25.4 billion barrels of NGLs and 185.7 trillion cubic feet of natural gas. This equates to some 52 years of production at end-2018 rates, according to the prospectus. About 80% of Saudi Arabia's crude oil reserves had a recovery factor between 41%-80% due to the high quality of its reservoirs.

Saudi Arabia's Upstream[1]

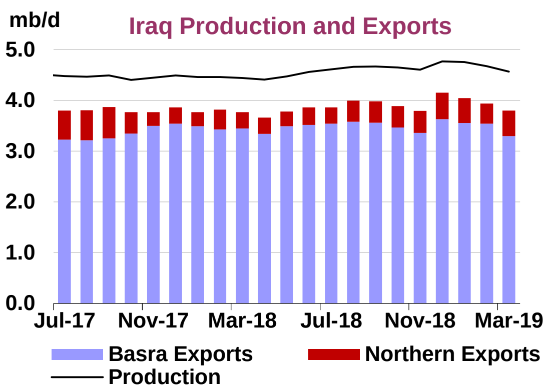
Field	Liquids Reserves[2] mln bbls	Combined Reserves mln boe	Maximum Sustainable Capacity mb/d
Ghawar	48,254	58,319	3.800
Khurais	20,100	21,402	1.450
Safaniyah	33,664	34,029	1.300
Shaybah	13,617	14,864	1.000
Zuluf	30,417	31,313	0.825
Others	80,718	96,963	3.625
Total	226,770	256,890	12.000

[1] Saudi Aramco figures as of 31 Dec 2018; [2] Crude oil, condensate and NGLs

Of particular interest was the insight provided into the state of Ghawar, the world's largest conventional oil field, along with four other major fields. The prospectus revealed that Ghawar's maximum production capacity of 3.8 mb/d is lower than assumed given that a decade ago capacity was thought to be around 5 mb/d. Even so, Ghawar still produces more than twice as much as Iraq's Rumaila field, another of the world's super giants.

Ghawar is crucial for Saudi Arabia because it has "accounted for more than half of the total cumulative crude oil production in the kingdom," according to the bond prospectus. It confirmed that Saudi Aramco has the ability to produce a maximum 12 mb/d (excluding the 500 kb/d Neutral Zone shared with Kuwait). This capacity is required to uphold the kingdom's long-standing policy to keep a spare cushion of up to 2 mb/d, which costs an estimated $2 billion a year to maintain. For years, Aramco has been bringing new projects online without boosting capacity above 12 mb/d. This compensates for declines and enables older reservoirs in Ghawar to run at lower rates. Aramco is now turning to higher cost offshore fields such as Marjan, Zuluf and Berri for that effort.

Iraq moved closer to its OPEC+ supply target of 4.51 mb/d after exports were curtailed by bad weather in the Gulf and output decreased at some oil fields. Production fell by 120 kb/d in March to 4.54 mb/d, 230 kb/d below a record high reached at the end of last year. Loading disruptions in the south caused storage tanks to fill, which reportedly led to reductions at some southern oil fields - including Majnoon.

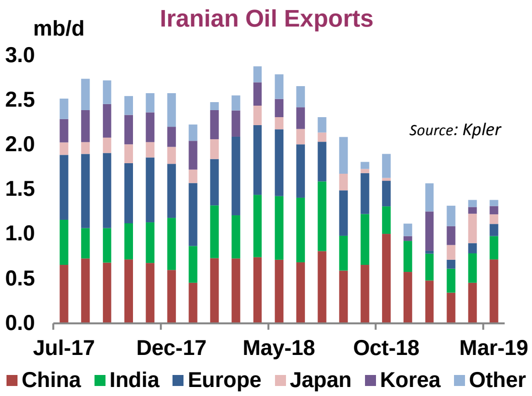


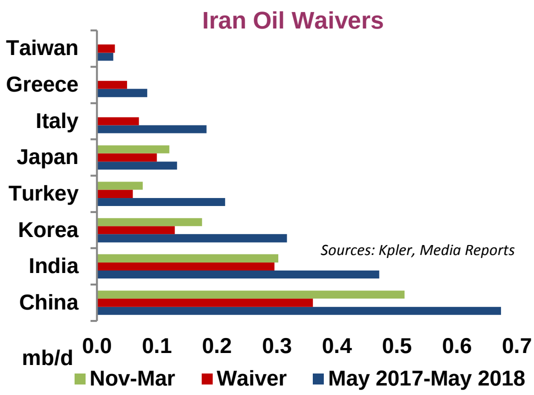
Total shipments to world markets were down around 160 kb/d to 3.8 mb/d as a substantial drop in southern exports was partly offset by higher oil sales from the north via the KRG-controlled pipeline to Turkey. The KRG shipped about 400 kb/d, while Federal oil sales rose to 100 kb/d making for an overall increase of about 100 kb/d from February. The southern ports, from where most of Iraq's crude is exported, handled 3.3 mb/d during March – down 240 kb/d m-o-m.

Elsewhere in the Gulf, supply from **Kuwait** inched down to 2.7 mb/d, while the **UAE** held steady at 3.05 mb/d. Capacity building continues apace in the UAE. OMV has reached output targets at the Umm Lulu and Satah al-Ras boot (Sarb) fields, with production rising to 125 kb/d at the end of 2018. OMV took a 20% stake in the offshore fields in April 2018. Output from the Sarb fields is expected to rise to 215 kb/d in 2023.

Output from **Iran** held at 2.74 mb/d in March, down 1.1 mb/d compared to when US sanctions were announced in May. Production has held broadly steady so far this year as US sanctions waivers have eased the pace of decline. Even so, output is running at the lowest level since late 2013, during the previous round of sanctions. On the export front, total shipments of crude and condensates were steady at nearly 1.4 mb/d in March, 1.4 mb/d below May. Exports of crude oil held at around 1.1 mb/d, according to tanker tracking data, with condensates making up the remainder.

Of the eight jurisdictions given waivers until May by the US to buy Iranian oil, China, Japan, Korea and Turkey have, on average, lifted above their allowed volumes. India has lifted roughly the allowed amount. Italy, Greece and Taiwan have not loaded any Iranian barrels since November, Kpler data show.



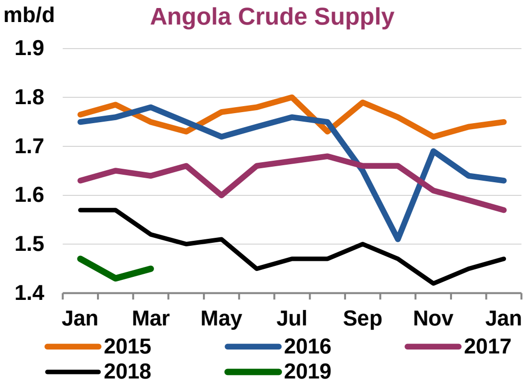


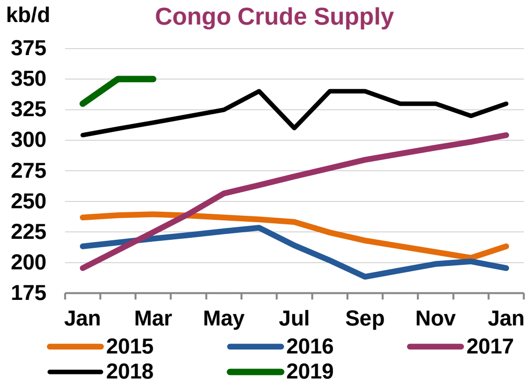
Libya turned in the biggest production increase in March, with output rising by 200 kb/d after the El Sharara oil field, its largest, returned to full capacity. At 1.1 mb/d, monthly output was up 100 kb/d on a year ago. By the end of March, production reached 1.2 mb/d, the highest level since 2013. Despite the recovery, the oil sector once again looks vulnerable as the Libyan National Army (LNA), led by General Khalifa Haftar, marches on Tripoli, escalating the conflict with Libya's internationally recognised government.

In **Algeria**, there has been significant political change following the resignation of President Bouteflika, ending his 20-year rule. Barring a large-scale break-down in security, production and exports are unlikely to be affected by political change as mass protests against the political establishment are peaceful and taking place far from energy infrastructure. Natural gas provides the single largest source of export revenues with oil close behind and these sectors will remain crucial to any future Algerian government. At the end of March, Bouteflika appointed a new government headed by Prime Minister Noureddine Bedoui. Mohamed Arkab, former head of state utility Sonelgaz, is the new energy minister. Crude oil production in March crept down to 1.02 mb/d.

Elsewhere in Africa, production was relatively steady during March. In **Nigeria**, output edged down 40 kb/d to 1.64 mb/d but was supported by the Egina field that started operations in January. Oil Minister Emmanuel Kachikwu said the offshore field was producing around 80 kb/d and building towards full capacity of 200 kb/d. Meanwhile, Exxon Mobil reportedly is weighing whether to offer stakes in Nigerian oil and gas fields as it seeks to focus on new developments in US shale and Guyana. In recent years, western oil firms have divested blocks in the volatile Niger Delta. Supply in **Angola** edged up to

1.45 mb/d, but was down 70 kb/d on a year ago. Output should get a lift towards 1.57 mb/d by the end of the year after Total started producing from the second phase of the ultra-deep water Kaombo project.

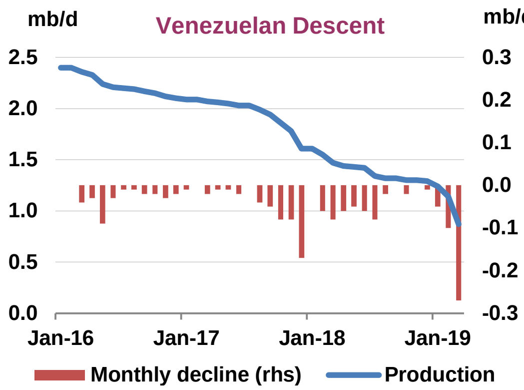




The start-up of Kaombo Sul, the second floating production, storage and offloading (FPSO) vessel in the project, will add 115 kb/d and boost capacity of the full Kaombo development to 230 kb/d. The $16 billion project, given the go-ahead before the oil price crash of 2014, is Angola's largest offshore development.

Production in **Congo** held at a peak of 350 kb/d, up 35 kb/d on March 2018. The near-term boost is thanks to deep-water fields such as Total's Moho Bilondo and Moho Nord that are helping to compensate for declines at mature fields. Output in **Gabon** inched down to 200 kb/d and crept up to 120 kb/d in **Equatorial Guinea**.

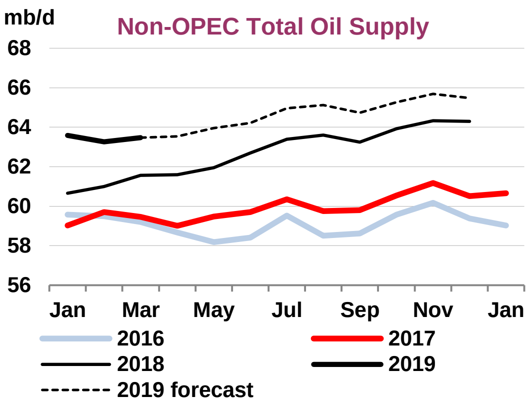
Venezuela posted the second largest m-o-m decline during March, losing 270 kb/d as widespread blackouts and sanctions took a toll. Output of 870 kb/d was down 600 kb/d on a year ago and further declines are expected in April. Power outages hampered operations at four heavy crude upgraders run by Petroleos de Venezuela (PDVSA) along with foreign partners Chevron, Total, Equinor and Rosneft and at the main oil export port of Jose. Shipments of crude from Venezuela plunged 340 kb/d from February to 890 kb/d.

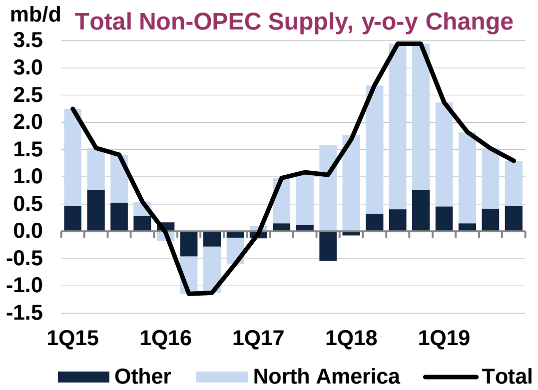


The blackouts are an additional challenge for Venezuela's oil sector, already set back by economic collapse, corruption, mismanagement and - more recently - by US sanctions. The ban on US refiners buying Venezuelan crude has also disrupted flows of diluent that are needed to blend with extra heavy oil from the Orinoco Belt. Output from Ecuador was unchanged from February at 530 kb/d.

Non-OPEC overview

Non-OPEC oil production is estimated to have risen by around 210 kb/d in March, to 63.5 mb/d, in large part due to a rebound in US and Brazilian output. A sharp drop in drilling activity and harsh winter weather curbed US crude oil output over January and February, while, in the same period, Brazil's production once again disappointed due to outages. Steep declines were also registered for the North Sea, with Norwegian production trailing year-earlier levels by more than 200 kb/d in the first two months of 2019, and loading schedules suggest subdued output extending into March and April. Compliance with agreed output cuts from the ten non-OPEC countries party to the Vienna Agreement rose to 64% in March, from 28% a month earlier, as Russia extended cuts and Kazakhstan output eased from near record highs. In contrast, Mexican and Chinese output recovered from recent lows.





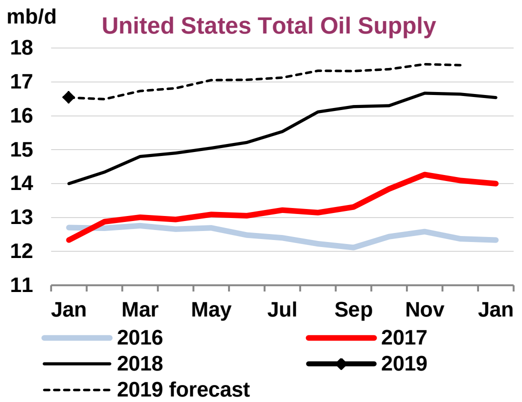
The outlook for non-OPEC supply in 2019 of 64.4 mb/d is largely unchanged from last month's *Report*. Growth falls from a record 2.8 mb/d seen last year to just over 1.7 mb/d. A slightly higher projection for the US has been offset by a downgrade to our expectations for Brazil, following yet more disappointing supply data. For the US, higher prices are expected to underpin a rebound in activity towards year-end. Indeed, after registering its sharpest decline in three years in 1Q19, the rig count is showing tentative signs of a reversal. The number of shale oil fracking crews has also recovered from a January low. While the impact of severe flooding in the Midwest in March is still not clear, the forecast for US oil supply has been lifted marginally since last month's *Report* to 1.6 mb/d, of which 1.2 mb/d is crude.

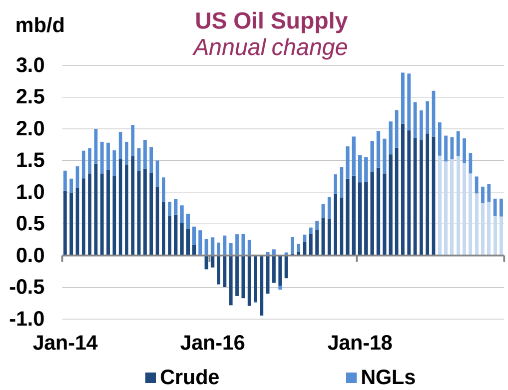
Non-OPEC Supply

(million barrels per day)

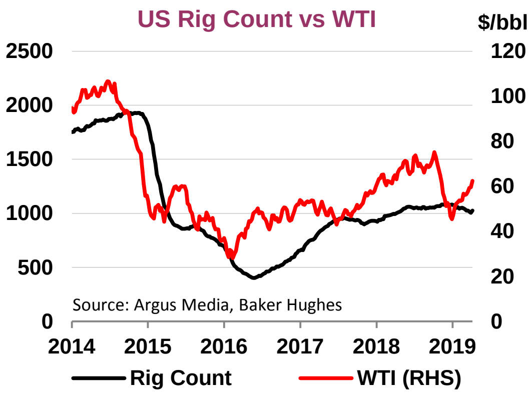
	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
Americas	**20.3**	21.7	22.2	23.3	23.9	**22.8**	23.6	23.8	24.4	24.8	**24.2**
Europe	**3.5**	3.6	3.4	3.3	3.5	**3.5**	3.4	3.3	3.4	3.5	**3.4**
Asia Oceania	**0.4**	0.4	0.4	0.4	0.4	**0.4**	0.4	0.5	0.5	0.5	**0.5**
Total OECD	**24.2**	25.7	26.0	27.0	27.9	**26.7**	27.5	27.6	28.3	28.8	**28.1**
Former USSR	**14.3**	14.4	14.4	14.6	14.8	**14.6**	14.8	14.4	14.5	14.7	**14.6**
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	3.8	**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**	4.5	4.8	5.0	5.1	**4.8**
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**	31.3	31.2	31.3	31.7	**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	64.2	**62.7**	63.4	63.9	64.9	65.5	**64.4**
Annual Chg (mb/d)	**0.8**	1.7	2.7	3.4	3.4	**2.8**	2.4	1.8	1.5	1.3	**1.7**
Changes from last OMR (mb/d)	**0.0**	0.0	0.0	0.0	0.1	**0.0**	-0.1	0.0	-0.1	0.3	**0.0**

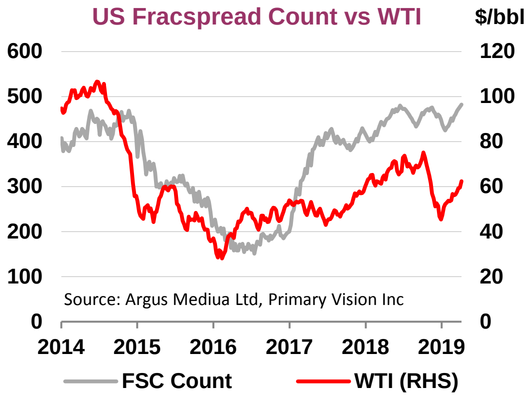
In January, **US** total oil supply fell in line with expectations, as companies slashed fracking activity in response to the sharp oil price drop at the end of 2018 and as freezing temperatures hampered operations. Crude output dropped by 90 kb/d m-o-m, to 11.87 mb/d, with Texas accounting for the largest decline (-64 kb/d). Smaller reductions were registered in other states, most notably Colorado (-13 kb/d), while North Dakota rose marginally to a new record high of 1 376 kb/d. Following a significant upward revision to Gulf of Mexico supplies for December of more than 100 kb/d, the Energy Information Administration held offshore output steady for January at just over 1.9 mb/d. Field level data from the US Bureau of Safety and Environmental Enforcement, however, show output dropping m-o-m, so it is possible that January data will be revised down. NGLs output increased by 65 kb/d m-o-m to 4.5 mb/d, which is 720 kb/d above the year earlier level. Total liquids output stood 2.5 mb/d above a year ago.





The forecast for US oil supply for the remainder of the year has been revised slightly higher since last month's *Report*. While output was likely constrained due to freezing temperatures in North Dakota and Texas in February, and then by severe floods in the Midwest in March, higher prices should spur an increase in activity in coming months. In 1Q19, the rig count registered its largest quarterly drop since 2016, shedding 69 units. In the first week of April, the count rose by 15, however, with a sharp increase in horizontal rigs added to the Permian. Moreover, according to Primary Vision, the number of shale oil fracking crews continues to rise, increasing by five last week. The total frack crew count is up by 57 since the trough in January, to a new five year high of 482.



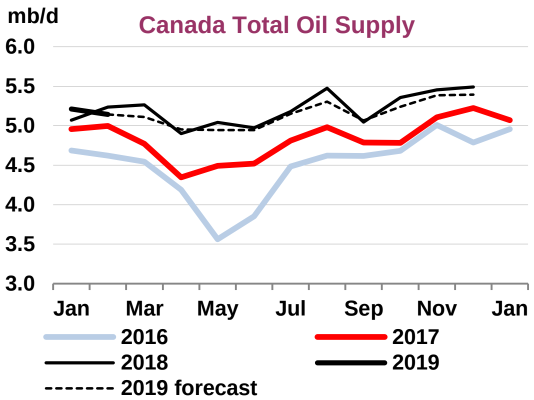


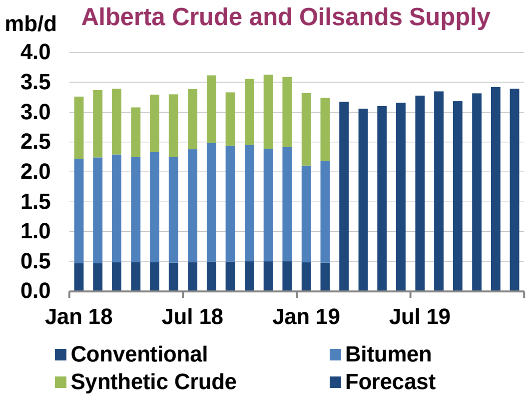
With the price of oil rising by more than $15/bbl since the start of the year, we expect further activity increases ahead. However, capital discipline considerations, steep base decline and parent-child well interference is expected to cap gains, so that the increase in output will likely lag last year's record level. US crude oil output is forecast to rise by 1.2 mb/d on average this year, compared with 1.6 mb/d in 2018.

Sharp drops have also been seen in the number of oil and gas rigs in **Canada**. The total rig count dropped by 144 over the past five weeks and at 68 in early April stood 43 below a year ago. The oil industry has scaled back drilling to comply with mandatory output cuts and constrained pipeline capacity.

Oil production fell by another 70 kb/d in February, to 5.14 mb/d. Output had already dropped by 280 kb/d m-o-m in January, after mandatory production curtailments took effect. January's decline was entirely accounted for by lower output of raw bitumen, while February's drop stemmed from lower production of synthetic crude oil, which fell by 155 kb/d to 1.06 mb/d according to the latest data published by the Alberta Energy Regulator. In contrast, raw bitumen output rose by 80 kb/d m-o-m to 1.7 mb/d. Offshore crude oil production inched marginally higher to 260 kb/d, as the White Rose field resumed production after a spill last November shuttered operations. White Rose produced an average of 6 kb/d in February, compared to normal levels of roughly 30 kb/d.

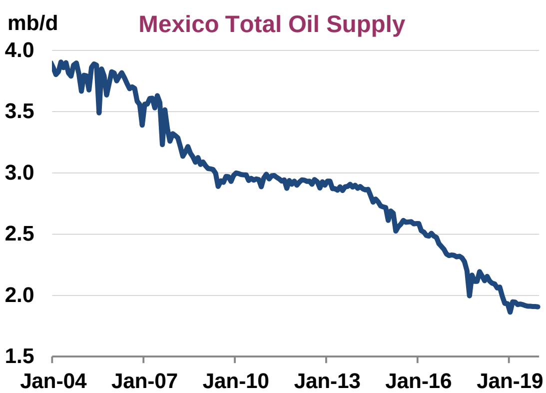
The Government of Alberta has made several adjustments to the curtailment rules announced in December. The initial plan ordered Alberta's oil producers to cut supply by a combined 325 kb/d in the first quarter and then by 95 kb/d on average for the remainder of the year. The production baseline was calculated as the average of the six highest months over the November 2017 - October 2018 period. By early February, however, the government eased the curtailments after storage levels dropped faster than expected. The government allowed operators to increase production in February and March by 75 kb/d. Further increases, of 25 kb/d each for April, May and June have subsequently been announced, so that by June the required cuts are 150 kb/d less than in January. Because of seasonal maintenance, production is not expected to reach the curtailment level during the second and third quarters, although the timing and depth of works are a key uncertainty in the forecast.

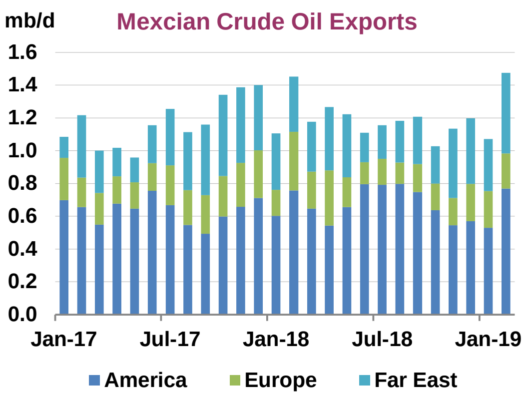




The announcement of a delay in the commissioning of the Enbridge Line 3 project from October 2019 to the second half of 2020 increases the need to move crude oil by rail and the likelihood that production curtailment may remain in place until the end of 2019. The discount of Western Canadian Select to WTI held steady around $10/bbl in March, a level generally not seen supporting rail shipments. Overall, Canadian oil production is expected to average 5.2 mb/d this year, marginally lower than last year's level.

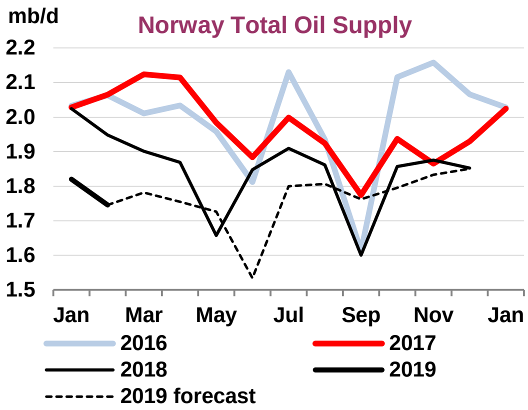
In February, **Mexican** oil production recovered from the near 40-year low hit a month earlier. Despite the 80 kb/d m-o-m increase, total oil output of 1.95 mb/d was 210 kb/d below a year earlier compared with an annual drop of more than 330 kb/d in January. Crude oil production averaged 1.72 mb/d, 175 kb/d lower than a year ago with light and super light crude accounting for the bulk of the decline. Output at both Ku-Maloob-Zaap and the Cantarell fields rose m-o-m, by 65 kb/d and 16 kb/d, respectively.

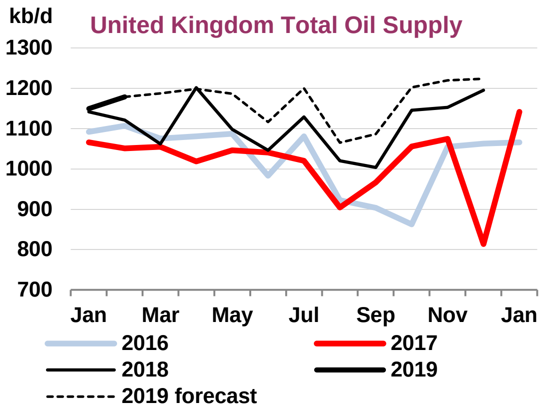




According to Pemex, crude oil production has now stabilised and it expects output to reach 1.77 mb/d by the end of this year and 2.6 mb/d by 2024. Our own forecast is slightly more pessimistic, seeing crude oil production decline to around 1.68 mb/d by year-end. Meanwhile, crude oil exports rose by more than 400 kb/d m-o-m in February, to a nine year high of nearly 1.5 mb/d. Shipments to the Far East increased by 175 kb/d m-o-m. A sharp stock draw underpinned the higher shipments.

Official data peg **Norway**'s oil output at 1.75 mb/d in February, down 200 kb/d y-o-y. Declining production and heavy maintenance at the Ekofisk field, scheduled for June, is expected to keep supply below year-ago levels for most of 2019. For the year as whole output is likely to be 85 kb/d lower than in 2018. The Johan Svedrup development is due to start up at end of the year and this will give a significant boost to Norwegian production in 2020. In addition, Equinor will re-start production from the Njord and Hyme fields in late 2020, and further ahead Lundin Petroleum recently sanctioned the Luno 2 project and an extended well test for its Rolvsnes discovery. Both will be tied back to the Edvard Grieg platform, giving a boost to production of 30 kb/d at plateau. Var Energi announced that turnarounds are planned at the Goliat field to combat steep declines that had seen production down 38 kb/d (36%) y-o-y in January, but no specific date for the work was provided.





The incorporation of field-level production data from the **UK**'s Oil and Gas Authority (OGA) shows that, despite the Forties pipeline returning to service following the discovery of a crack, total oil production fell 37 kb/d m-o-m in January. Output fell at Premier Oil's Catcher field, which had ramped up to capacity of 50 kb/d by November 2018, and is set to return to this level by 2Q19. In addition, the ramp up of production at BP's West of Shetlands Schiehallion field faltered with output falling to 71 kb/d. Schiehallion, along with the neighboring Clair Ridge field and Equinor's Mariner field in the northern North Sea, are the main sources of UK production growth of 35 kb/d for 2019 to 1.15 mb/d. On 28 March, Neptune Energy announced the approval of the Seagull project, oil from which will be transported by the Forties pipeline and could add 40 kb/d to UK output from 2022.

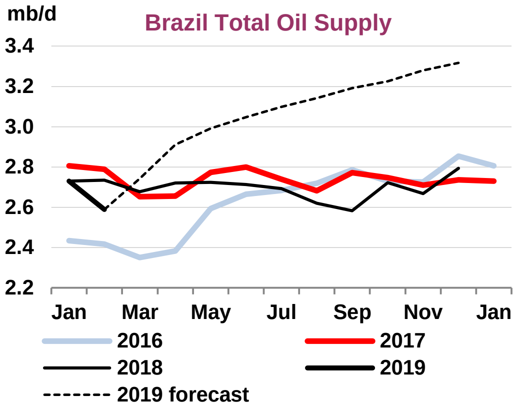
Denmark's crude production increased by 10% m-o-m in February to 118 kb/d, according to Danish Energy Agency data. The country's largest producing assets, the Dan and Halfdan fields, increased output by 23 kb/d (43%) and 39 kb/d (2%) m-o-m, respectively.

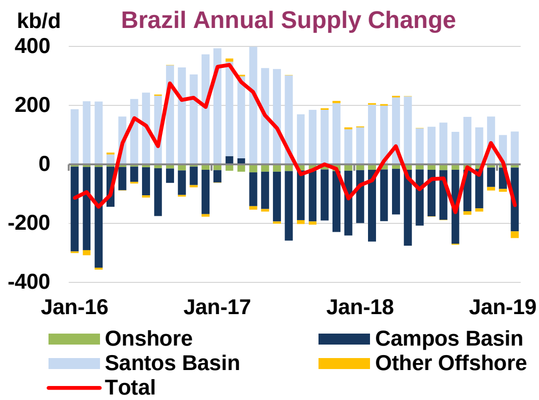
The release of May loading programmes shows that flows from the North Sea will increase to 1.03 mb/d in May, up 82 kb/d m-o-m, ahead of heavy maintenance scheduled for the Ekofisk field in June and the Buzzard field in July.

Following another month of disappointing data, our estimate for **Brazilian** oil production growth for 2019 has been cut by 50 kb/d since last month's *Report*. The start-up of eight new production units over 2018-2019, five in the last six months, is nevertheless expected to underpin growth of 325 kb/d this year. Petrobras reported first oil for the P-67 and P-76 FPSOs installed at the Lula Norte and Búzios fields, respectively, in February. In March, the fourth FPSO planned for the Búzios field (P-77) started up.

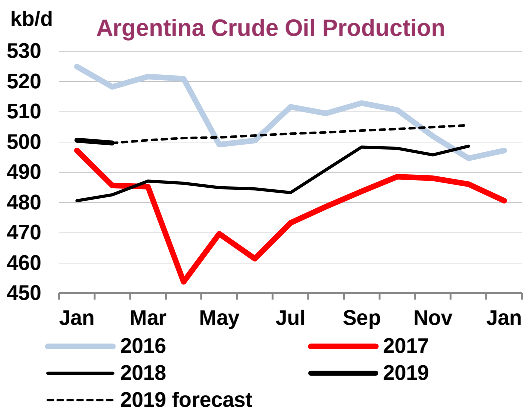
In February, total oil output plunged by 140 kb/d m-o-m, to just shy of 2.6 mb/d. Despite the start-up of new fields, steep declines at mature fields and a number of unplanned outages saw output fall 145 kb/d below a year earlier. According to ANP, the main reasons for the shortfall was the shutdown of the P-43 platform that operates the Barracuda and Caratinga fields as well as scheduled maintenance work at the

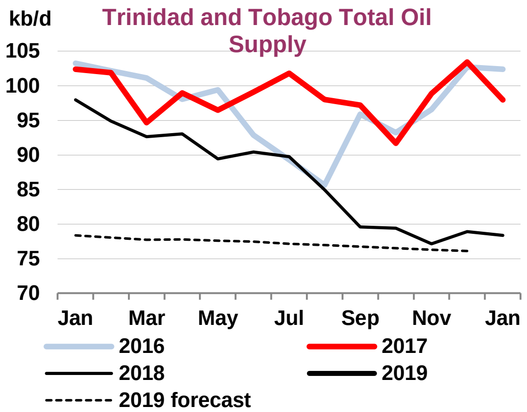
Jubarte and Cachalote fields. The P-43, which produced 48 kb/d in January, was closed by the ANP between February 7 and 28, for safety reasons. Petrobras had previously reported that production had fallen in February due to operational problems on the P-18 and P-20 platforms, which operate in the Marlim field, in the Campos Basin, and in the FPSO Cidade de Angra dos Reis, located in the Lula field. Output at the Marlim cluster of fields declined by a combined 48 kb/d m-o-m, to 264 kb/d, while output at Jubarte fell by 29 kb/d to 144 kb/d. Output at Lula held largely steady at around 885 kb/d.





Elsewhere in Latin America, **Colombian** oil production eased marginally to 900 kb/d in February but stood nearly 70 kb/d higher than the low-point a year earlier. Production has risen steadily over recent months, as companies have significantly hiked spending and moved more rigs back into service. Ecopetrol, the country's larger oil producer, boosted spending by 32% last year and increased the number of rigs from 27 at the start of the year to 46 by December. It also put additional efforts into its enhanced recovery program.



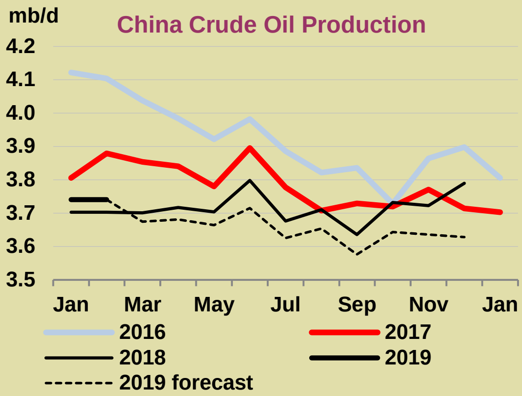


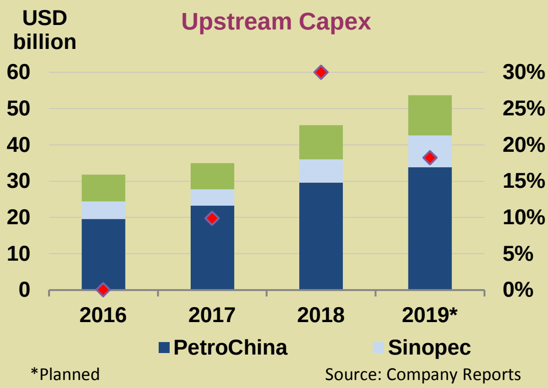
Argentinean crude oil production held steady at around 500 kb/d in February, up 17 kb/d y-o-y, on the back of higher tight oil output. Production from tight oil plays rose to 78 kb/d, an increase of 56% y-o-y. Conventional output declined by around 4% y-o-y.

In **Peru**, total oil production held steady at around 140 kb/d in March, of which roughly 50 kb/d was crude oil and the remainder natural gas liquids. Sharp declines were seen in **Trinidad and Tobago** over 2018, with total oil output dropping from close to 100 kb/d at the start of the year to less than 80 kb/d by December.

China: Ready to reverse declines?

Following several years of steep declines, **Chinese** crude oil production is showing tentative signs of reversing the trend. Already in December, crude oil output rose to 3.79 mb/d, posting its first significant y-o-y increase since the end of 2015. While production eased over January and February to 3.74 mb/d (the National Bureau of Statistics publish data for the two months combined due to the Chinese New Year holiday), output stood 40 kb/d higher than a year ago.





The improvement is the result of a significant increase in spending by the country's largest producers. PetroChina, Sinopec and CNOOC boosted upstream investments by a combined 58 billion yuan ($10.5 billion) last year, and plan a further 62 billion ($8.3 billion) increase this year, in response to President Xi's call to improve national security by boosting domestic production and reserves.

PetroChina, Asia's largest oil and gas producer, increased expenditures by 18% last year and plans another 17% in 2019, when total capital spending will reach 300 billion yuan ($45 billion). Of this, 76% is dedicated to upstream activities. The group expects crude oil output this year to reach 2.48 mb/d (including its international operations) compared with output of 2.44 mb/d last year.

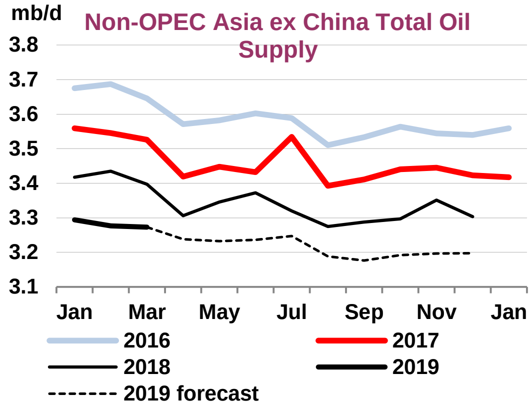
China's second largest producer, Sinopec boosted spending on exploration and production by 35% last year as crude oil reserves tumbled at its biggest oilfield. The company plans a further 41% increase in upstream capital expenditure this year, to 59.6 billion yuan ($8.8 billion), its highest since 2014, as it prepares to ramp up exploration at the Shengli oil field and shale gas blocks in the southwestern Sichuan province. Sinopec is projecting steady oil output in 2019, compared with the 2018 average.

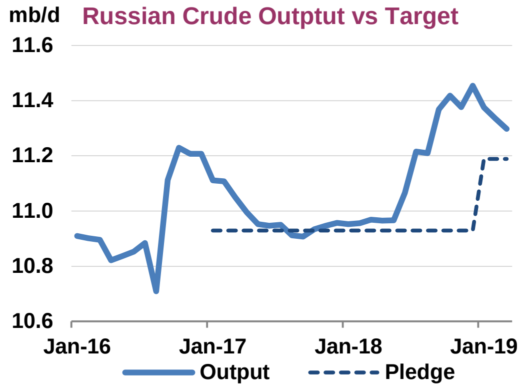
CNOOC raised spending by around 25% in 2018 and this year it plans to raise capital expenditure by around 20% to RMB 70-80 billion ($10.4-11.9 billion). The company intends to allocate about RMB 12 billion ($1.8 billion), or 76% of total exploration spending, for domestic drilling, while the remaining 24% will be used for overseas work. The 2019 exploration drilling budget is 20% up from the 2018 level. Since 2016, CNOOC has doubled its drilling budget.

For 2019, CNOOC projects net oil and gas production in the range of 1.3 mboe/d, up very slightly on 2018. About 63% of this will be produced in China and 37% overseas. In 2018, 706 kb/d of company output was accounted for by domestic crude oil production. In 2019, the company plans to launch six new projects, of which the Egina oilfield in Nigeria and a major project in the offshore Huizhou field have already started. The other four projects, Appomattox in the US Gulf of Mexico, the Bozhong 34-9 oil field, the Caofeidian and Wenchang offshore projects will begin production later this year. Internationally, CNOOC will accelerate spending on its projects in Guyana, which it is developing alongside Exxon and Hess.

If the companies follow through on their pledges, it is possible that our Chinese forecast for 2019 will have to be revised higher. For now, we are projecting a drop of 50 kb/d – still a marked improvement on declines of 290 kb/d, 140 kb/d and 70 kb/d registered over 2016, 2017 and 2018, respectively.

Elsewhere in Asia, output continues to slide. In 2018, total oil production from the region (excluding China) dropped by another 120 kb/d with all countries registering declines. Vietnam's and Indonesia's production fell by 30 kb/d, while India and Thailand fell by roughly 20 kb/d each. Output is expected to drop a further 110 kb/d during 2019.

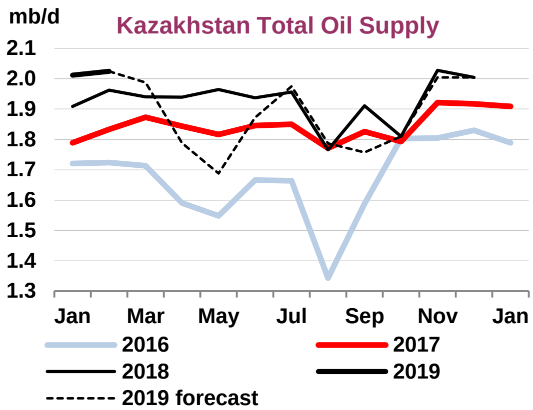


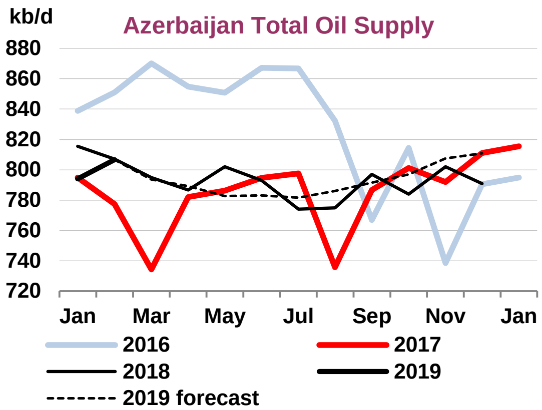


Russian crude and condensate production eased by another 40 kb/d in March, to 11.3 mb/d. The decline was spread across all companies with the exception of Production Sharing Agreements from which output increased by 12 kb/d. Overall supply was 120 kb/d lower than the October 2018 baseline, compared with a promised 230 kb/d reduction. Russian Energy Minister Alexander Novak said earlier this month that by the end of March output was 225 kb/d lower than the baseline and that by April Russia would be fully compliant with its agreed cuts. Including natural gas liquids, total Russian oil production was estimated at 11.6 mb/d.

Crude oil exports held steady at around 5 mb/d in March, but were up some 380 kb/d compared with a year ago. They are expected to rise sharply in April as refinery maintenance intensifies.

Kazakhstan's oil production inched up by 12 kb/d in February to 2.02 mb/d - close to record highs. The largest fields, Tengiz, Kashagan and Karachaganak contributed 675 kb/d, 327 kb/d and 267 kb/d, respectively. Overall supplies were up by 60 kb/d compared to a year ago and stood 5 kb/d below the November baseline from which Kazakhstan pledged to cut output by 40 kb/d. Production likely held up in March, despite a fire at the Kalamkas oil field towards the end of the month. CPC loadings rose 60 kb/d from February, with Tengiz shipments increasing by 74 kb/d to 715 kb/d on average. Kashagan shipments eased slightly to 282 kb/d compared with 312 kb/d in February. Output is expected to drop sharply in April, when Kashagan goes offline for planned maintenance for 45 days from mid-month. Later this year, there will be turnarounds at Tengiz in August and Karachaganak in September-October.



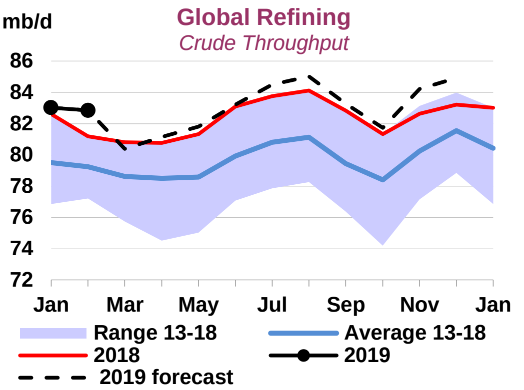


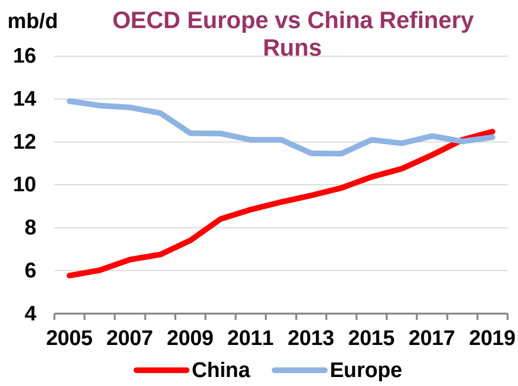
Azerbaijan's oil output rose by 13 kb/d to 810 kb/d in February, 10 kb/d above its September baseline despite a pledge to cut supply by 20 kb/d. Growth came from condensate, supply of which rose to 84 kb/d as BP's Shah Deniz field continued to ramp up.

REFINING

Summary

Global refinery throughput in March is estimated to have plummeted 2.5 mb/d month-on-month (m-o-m) from the upwardly revised February number. Only a fraction of the expected recovery in US throughput materialised, with heavier than expected maintenance as well as industrial accidents affecting the heart of the refining industry in PADD 3. As a result, the US saw the largest annual decline since Hurricane Harvey's impact in September 2017, as March throughput fell 0.7 mb/d year-on-year (y-o-y). This helped propel gasoline cracks from negative levels to solid single-digits in March in all regions, also supported by the seasonal specification change. In a rare occurrence in recent times, gasoline strength boosted regional margins despite higher crude prices, as the seasonal element of the light distillate complex weakness wore off, just in time to offset the impact from weaker middle distillate cracks.





Global refinery throughput is expected to start climbing towards a seasonal peak in August, increasing by 4.6 mb/d. In addition to this, our 4Q19 forecast incorporates start-ups of several major projects, boosting y-o-y growth to 1.2 mb/d. This upward climb may, however, face strong headwinds from increasingly tight crude markets (see *Global crude oil and products balances*). Our forecast for global refinery intake growth in 2019 has been revised down by 0.4 mb/d to 0.7 mb/d, to reflect unfavourable crude market fundamentals, particularly in the second half of this year. Meanwhile, most of the growth continues to be East of Suez, with China and the Middle East accounting for the bulk of it. In 2018, China overtook OECD Europe in terms of refining activity levels and is set to pull further ahead this year.

Global Refinery Crude Throughput[1]
(million barrels per day)

	4Q18	2018	Jan 19	Feb 19	Mar 19	1Q19	Apr 19	2Q19	3Q19	4Q19	2019
Americas	19.4	19.4	19.2	18.5	18.5	18.8	19.2	19.7	20.0	19.4	19.5
Europe	12.0	12.0	12.2	12.5	11.9	12.2	11.9	12.0	12.6	12.1	12.2
Asia Oceania	7.0	7.0	7.1	7.3	7.0	7.1	7.0	6.8	7.1	6.9	7.0
Total OECD	38.3	38.4	38.6	38.3	37.4	38.1	38.1	38.5	39.6	38.4	38.6
FSU	7.1	7.0	7.1	7.2	6.9	7.1	6.7	6.8	7.0	6.9	7.0
Non-OECD Europe	0.6	0.6	0.6	0.6	0.4	0.5	0.6	0.6	0.6	0.6	0.6
China	12.3	12.1	12.7	12.6	12.3	12.5	12.2	12.2	12.6	12.6	12.5
Other Asia	10.6	10.6	10.8	10.9	10.2	10.6	10.2	10.6	10.7	11.0	10.7
Latin America	3.2	3.5	3.1	3.2	3.1	3.1	3.2	3.3	3.3	3.3	3.2
Middle East	8.1	7.9	7.9	7.9	7.8	7.9	8.0	8.1	8.2	8.5	8.2
Africa	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1
Total Non-OECD	44.0	43.8	44.3	44.5	42.9	43.9	43.0	43.5	44.6	45.1	44.3
Total	82.3	82.2	82.9	82.7	80.3	82.0	81.1	82.0	84.2	83.5	82.9
Year-on-year change	*-0.4*	*0.7*	*0.4*	*1.7*	*-0.4*	*0.5*	*0.4*	*0.3*	*0.7*	*1.2*	*0.7*

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

Global crude oil and products balances

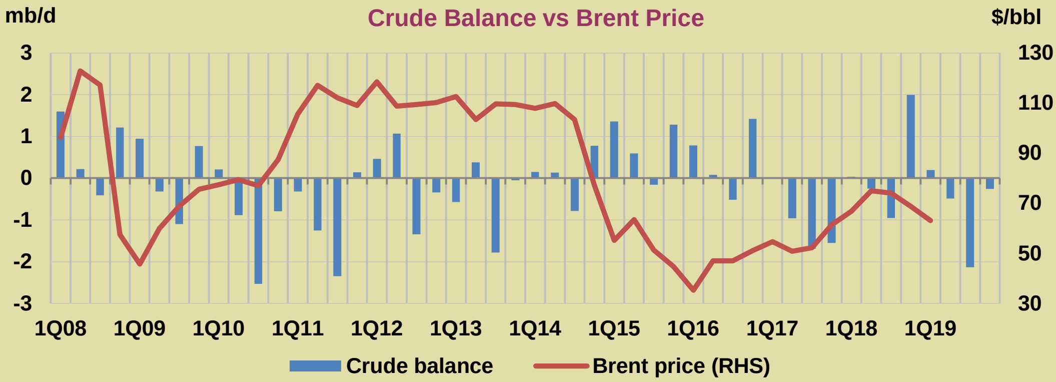
In 4Q18, global oil balances show a massive build of 2.4 mb/d, as supply surged to almost 102 mb/d, while demand stayed below 100 mb/d. This was the largest build observed in our quarterly balances since 2008. The breakdown shows that most of the build was in crude oil, as refining activity was particularly low, with global crude runs falling 0.4 mb/d y-o-y. Nevertheless, refined product balances also built, by about 0.9 mb/d, while non-refined products (OECD LPG and ethane stocks) drew by 0.8 mb/d.

Crude Oil and Product Balances
(million barrels per day)

	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19
World total demand	**96.4**	96.6	98.1	98.4	98.7	**97.9**	98.5	98.8	99.9	99.6	**99.2**	99.5
World total supply	**96.9**	96.6	96.9	97.8	98.2	**97.4**	98.3	99.2	101.0	101.9	**100.1**	99.6
World balance[1]	**0.5**	0.1	-1.2	-0.6	-0.5	**-0.5**	-0.1	0.4	1.1	2.4	**0.9**	0.1
Crude oil balance	**0.4**	0.0	-1.0	-1.7	-1.5	**-1.1**	0.0	-0.2	-1.0	2.0	**0.2**	0.2
of which												
OECD crude oil actual stock change	**0.0**	0.7	-0.6	-0.6	-0.8	**-0.3**	-0.1	-0.1	-0.6	0.3	**-0.1**	
Crude oil in transit	**0.2**	-0.1	0.1	-0.5	0.8	**0.1**	-0.5	0.3	-0.1	0.2	**0.0**	
China crude oil balance	**0.5**	0.7	1.1	0.5	-0.3	**0.5**	0.6	0.4	0.1	1.1	**0.6**	
Other Non-OECD crude oil stock change	**-0.3**	-1.3	-1.6	-1.1	-1.2	**-1.3**	0.0	-0.9	-0.4	0.4	**-0.2**	
Refined product balance	**-0.1**	0.5	-1.0	0.3	1.4	**0.3**	0.3	-0.1	1.3	0.9	**0.6**	0.3
of which												
OECD refined product actual stock change[2]	***0.0***	*-0.1*	*-0.3*	*-0.6*	*0.1*	***-0.2***	*0.0*	*-0.5*	*0.5*	*0.0*	***0.0***	
Non-OECD refined product implied stock change	***-0.1***	*0.6*	*-0.6*	*0.8*	*1.3*	***0.5***	*0.4*	*0.4*	*0.7*	*0.9*	***0.6***	
OECD non-refined product stock change[3]	**-0.1**	-0.5	0.6	0.7	-0.5	**0.1**	-0.6	0.6	0.5	-0.8	**-0.1**	-0.6

[1] OPEC throughput assumed flat from March 2019 level
[2] Refined product inventories include gasoline, middle distillates and fuel oil. See *Stocks* for detailed discussion of observed stock changes
[3] Based on OECD LPG stock draws until December 2018, and a seasonal average stock change expectation for the forecast period
Note: totals may not add up to the headline World balance due to incomplete data on non-refined products

The global crude oil balance of 2 mb/d in 4Q18 was the largest since 1Q08. OECD stocks remain the only reliably reported data, and these increased by just 0.3 mb/d, leaving the bulk of the build unaccounted for by official statistics. Chinese crude balances amounted to 1.1 mb/d (after deducting a total of 0.4 mb/d of direct use and potentially underreported runs). Crude oil in transit increased by about 0.2 mb/d in 4Q18. This implies a 0.4 mb/d crude build in the rest of non-OECD.

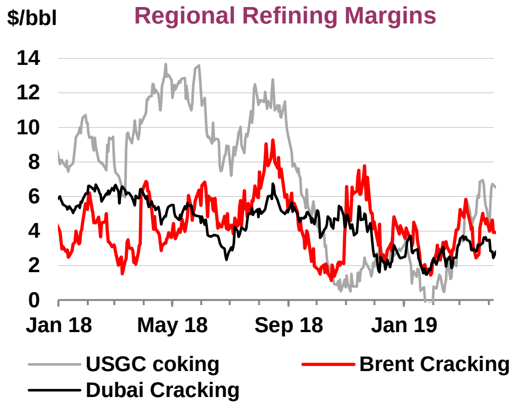


The recovery of oil prices from the nadir of $35/bbl in 1Q16 occurred in two legs. First, a rise to $50/bbl in 4Q16, a level that was workable for most of the US shale production. Afterwards, seven consecutive quarters of flat or drawing crude balances took Brent to $75/bbl in 3Q18. The builds in 4Q18-1Q19 caused a cumulative $10/bbl drop in quarterly average prices, with daily prices swinging in a much wider range ($86/bbl in early October to $50/bbl at the end of the year).

However, upward pressure on crude prices has resumed as the crude balance will likely draw for the rest of the year assuming the Vienna Agreement and sanctions against Iran and Venezuela remain in place. While the large 4Q18 unobserved stock changes have revived the topic of "missing barrels" in historical data, the near-term balances are pointing at real missing barrels, needed to plug the gap particularly in 3Q19 crude supply-demand balances.

Margins

Despite the $2/bbl increase in crude prices in March, refining margins were up m-o-m in all regions on extensive refinery shutdowns in the US. US Gulf Coast margins rebounded particularly strongly as PADD 3 refining fell 0.4 mb/d y-o-y. Globally, the main support came from gasoline cracks, which surged from negative levels in February on supply disruptions and the switch to more expensive summer grades in Europe and the US. Middle distillate cracks, meanwhile, moved lower m-o-m with the conclusion of the northern hemisphere heating season, and before summer travel demand kicks off, which is beneficial to European diesel and jet fuel demand. Fuel oil cracks were stronger m-o-m in Europe, reflecting high feedstock demand in the Atlantic Basin. However, in Singapore, fuel oil cracks started subsiding, returning to negative levels on a monthly average basis for the first time since October.



IEA/KBC Global Indicator Refining Margins[1]

($/bbl)

	Monthly Average				Change	Average for week ending:				
	Dec 18	Jan 19	Feb 19	Mar 19	Mar 19-Feb 19	08 Mar	15 Mar	22 Mar	29 Mar	05 Apr
NW Europe										
Brent (Cracking)	3.30	2.80	3.12	4.27	↑ 1.16	5.24	4.08	2.88	4.70	4.23
Urals (Cracking)	4.13	3.03	3.84	4.95	↑ 1.11	6.43	4.84	3.47	4.74	3.59
Brent (Hydroskimming)	1.02	0.86	1.38	2.02	↑ 0.63	3.26	2.24	0.68	1.64	0.98
Urals (Hydroskimming)	1.09	0.17	1.32	2.15	↑ 0.83	3.97	2.37	0.69	1.18	-0.10
Mediterranean										
Es Sider (Cracking)	6.53	5.98	6.55	7.16	↑ 0.62	8.70	7.41	5.85	6.46	5.18
Urals (Cracking)	5.93	4.58	6.03	6.57	↑ 0.54	8.63	6.89	5.19	5.15	4.14
Es Sider (Hydroskimming)	3.51	3.37	4.24	4.35	↑ 0.11	5.75	4.90	3.09	3.43	2.12
Urals (Hydroskimming)	1.19	0.12	2.06	2.57	↑ 0.51	4.54	3.16	1.20	0.97	0.03
US Gulf Coast										
50/50 HLS/LLS (Cracking)	4.83	3.70	5.43	9.44	↑ 4.01	8.77	8.55	9.87	10.90	9.94
Mars (Cracking)	2.05	0.39	1.78	3.92	↑ 2.13	4.15	3.35	3.89	4.29	4.40
ASCI (Cracking)	1.87	0.41	1.90	3.86	↑ 1.95	4.10	3.27	3.83	4.17	4.33
50/50 HLS/LLS (Coking)	5.68	4.44	5.85	10.27	↑ 4.42	9.42	9.27	10.89	11.90	11.08
50/50 Maya/Mars (Coking)	2.68	1.08	1.61	5.27	↑ 3.66	4.66	4.75	5.93	6.06	5.98
ASCI (Coking)	4.70	2.86	3.35	6.39	↑ 3.05	6.14	5.61	6.84	7.12	7.15
US Midwest										
WTI (Cracking)	7.93	6.06	12.87	17.58	↑ 4.71	15.25	17.00	18.46	20.33	19.30
30/70 WCS/Bakken (Cracking)	10.53	5.72	12.71	16.54	↑ 3.83	14.88	16.02	16.90	18.94	17.62
Bakken (Cracking)	9.02	5.50	12.44	18.00	↑ 5.56	15.34	17.26	18.75	21.48	20.18
WTI (Coking)	8.58	6.39	13.43	18.64	↑ 5.21	15.99	17.90	19.75	21.74	20.78
30/70 WCS/Bakken (Coking)	11.70	6.14	13.56	18.21	↑ 4.65	16.08	17.52	18.90	21.08	19.54
Bakken (Coking)	9.12	5.42	12.43	18.27	↑ 5.84	15.44	17.45	19.14	21.94	20.68
Singapore										
Dubai (Hydroskimming)	0.40	0.50	0.62	0.76	↑ 0.14	1.50	0.65	0.20	0.54	-0.15
Tapis (Hydroskimming)	0.84	-0.04	0.74	2.24	↑ 1.50	3.26	2.79	1.38	1.03	-0.13
Dubai (Hydrocracking)	2.24	2.42	2.50	3.33	↑ 0.83	3.60	3.08	3.06	3.52	2.89
Tapis (Hydrocracking)	2.14	1.05	1.72	3.75	↑ 2.04	4.45	4.20	3.10	2.87	1.71

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

Source: IEA, KBC Advanced Technologies (KBC)

OECD refinery throughput

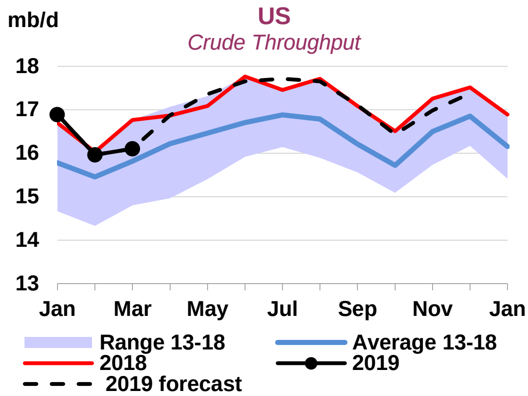
After four consecutive months of y-o-y declines, in February OECD refining throughput increased by 0.7 mb/d on a year earlier, with better than expected performance in Europe. March estimates, however, were revised down based on lower than expected US activity levels.

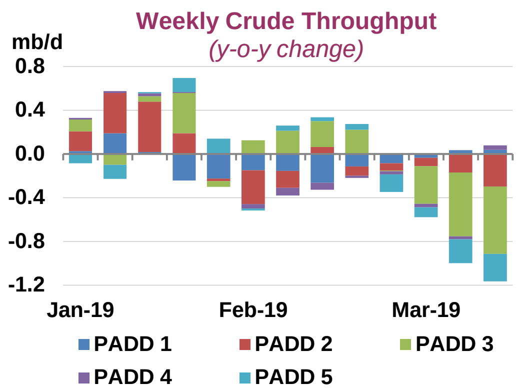
Refinery Crude Throughput and Utilisation in OECD Countries
(million barrels per day)

	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Change from Jan 19	Change from Feb 18	Utilisation rate[1] Feb 19	Utilisation rate[1] Feb 18
US[2]	16.99	16.41	17.15	17.41	16.79	15.86	-0.92	-0.07	83%	84%
Canada	1.76	1.64	1.70	1.72	1.75	1.88	0.13	0.11	94%	88%
Chile	0.19	0.19	0.19	0.20	0.21	0.21	0.00	0.02	94%	86%
Mexico	0.61	0.48	0.51	0.50	0.49	0.55	0.07	0.03	33%	32%
OECD Americas[3]	**19.54**	**18.72**	**19.55**	**19.82**	**19.23**	**18.51**	**-0.72**	**0.09**	**81%**	**81%**
France	1.24	1.22	1.09	1.13	1.15	1.17	0.02	0.00	95%	95%
Germany	1.56	1.53	1.69	1.75	1.82	2.07	0.26	0.14	102%	95%
Italy	1.35	1.29	1.38	1.38	1.28	1.20	-0.08	-0.14	69%	77%
Netherlands	1.00	0.98	1.02	1.17	1.19	1.17	-0.02	-0.01	91%	92%
Spain	1.38	1.42	1.38	1.35	1.39	1.29	-0.10	0.01	92%	91%
United Kingdom	1.16	1.15	1.11	1.15	1.13	1.13	0.00	0.31	89%	65%
Other OECD Europe	4.42	4.10	4.16	4.43	4.29	4.44	0.15	0.24	95%	94%
OECD Europe	**12.09**	**11.68**	**11.82**	**12.36**	**12.25**	**12.47**	**0.23**	**0.55**	**92%**	**89%**
Japan	3.05	2.60	3.18	3.21	3.24	3.23	-0.01	-0.03	91%	91%
South Korea	2.98	3.12	3.08	3.05	3.04	3.20	0.17	0.08	96%	96%
Other Asia Oceania	0.93	0.91	0.91	0.91	0.85	0.84	-0.01	0.00	97%	96%
OECD Asia Oceania	**6.96**	**6.62**	**7.17**	**7.17**	**7.13**	**7.27**	**0.15**	**0.06**	**94%**	**94%**
OECD Total	**38.60**	**37.02**	**38.54**	**39.35**	**38.60**	**38.25**	**-0.35**	**0.70**	**86%**	**86%**

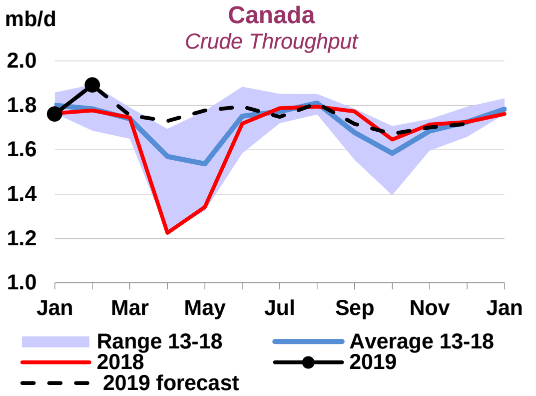
1 Expressed as a percentage, based on crude throughput and current operable refining capacity
2 US50
3 OECD Americas includes Chile and OECD Asia Oceania includes Israel. OECD Europe includes Slovenia and Estonia, though neither country has a refinery

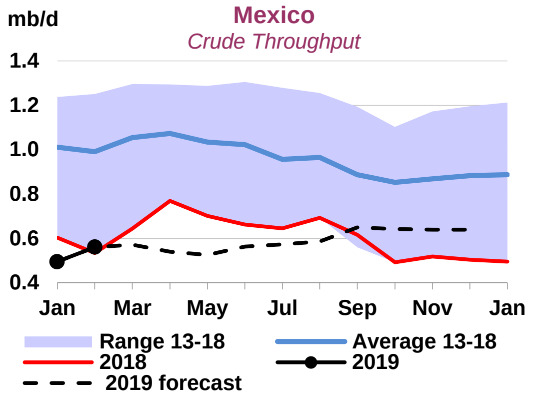
In the **US**, March runs increased by only 140 kb/d from February, plunging 670 kb/d below the year earlier level. The impact from planned maintenance was not particularly high, which suggests unplanned stoppages and reduced runs. A petrochemical facility fire in Houston in mid-March restricted crude supply and product exports for several refineries depending on the Houston Ship Channel for logistics. PADD 3 throughput, which includes Texas and Louisiana, dipped 300 kb/d in the week ending 22 March, falling to the lowest weekly level in more than a year.



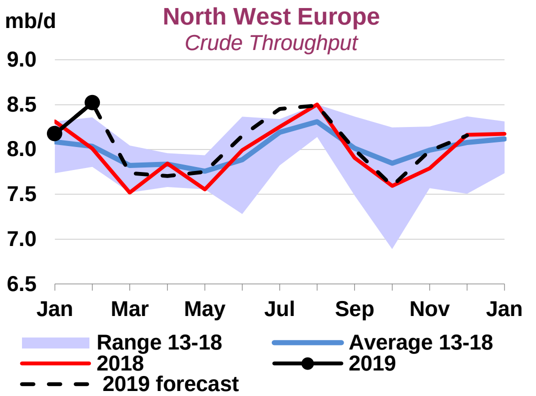


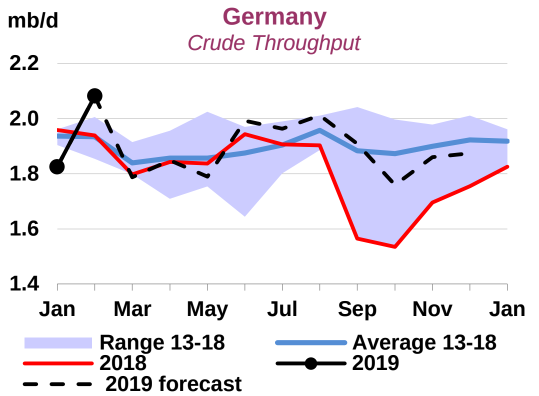
Mexican throughput in February climbed 70 kb/d m-o-m to 550 kb/d, the highest level since September and up a modest 30 kb/d y-o-y. The government wants to increase utilisation rates from the current 33% to 70% by the end of the year. Our forecast is for a more modest rate of 40%. **Canadian** refinery intake surged 130 kb/d m-o-m, for the first annual gain since February 2018.





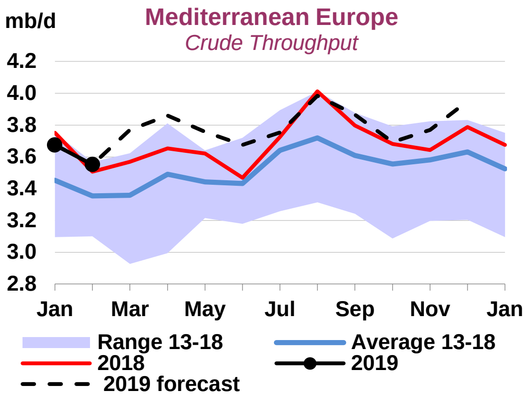
Preliminary data for February were particularly strong for North West Europe, as refinery intake in Germany, France, the UK and Belgium exceeded expectations. **German** runs climbed 260 kb/d in February, but are set to decline in March-April on maintenance. On top of spring maintenance outages, strike actions unfolding in several European refineries will contribute to lower activity. Union workers at Galp's Sines, the larger of **Portugal's** two refineries, went on a month-long strike in March. Workers at the 400 kb/d Pernis refinery in Netherlands, Europe's biggest, started strike action on 8 April. Essar's Stanlow refinery in the **UK** may also face strike action protesting the planned closure of the associated chemicals plant.

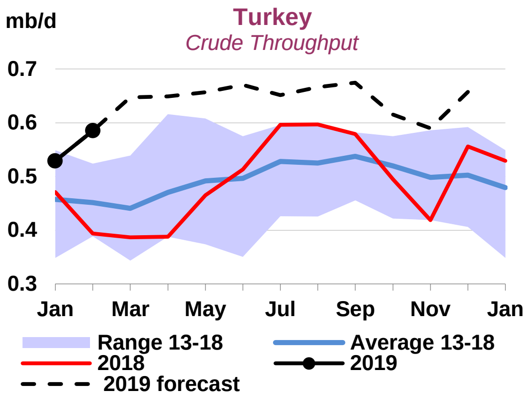




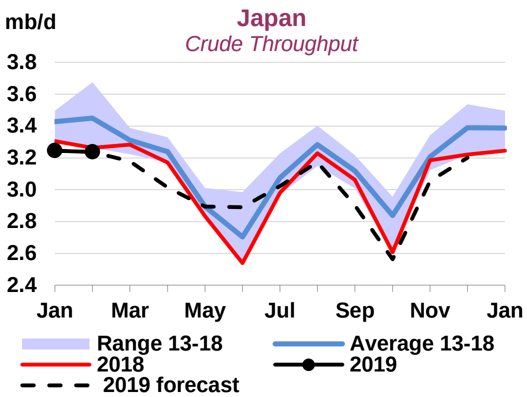
In the Mediterranean, a 190 kb/d y-o-y rebound in **Turkish** refinery throughput offset declines in Italy and Greece as the new Socar refinery reportedly started running at commercial rates. Lukoil announced in March its decision to hold off on the sale of its 320 kb/d ISAB complex in **Italy**, due to the lack of attractive bids.

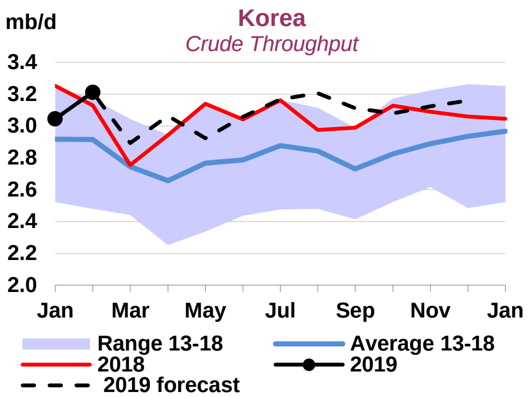
Overall, the European maintenance impact is expected to peak in May, with close to 0.9 mb/d capacity offline. In 2019, throughput is forecast to increase by 200 kb/d y-o-y, after 2018's annual loss of 260 kb/d.





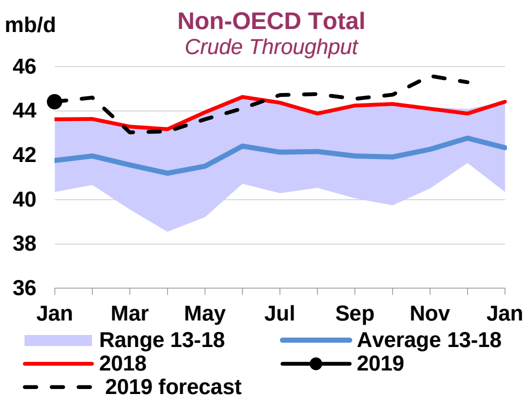
In **OECD Asia**, January throughput in Japan was finalised 130 kb/d higher compared to preliminary numbers, but the level remained below seasonal averages, with no improvement in February. **Korean** throughput, however, rebounded 170 kb/d m-o-m in February, returning to annual growth. Planned maintenance will see regional runs falling 350 kb/d in 2Q19.

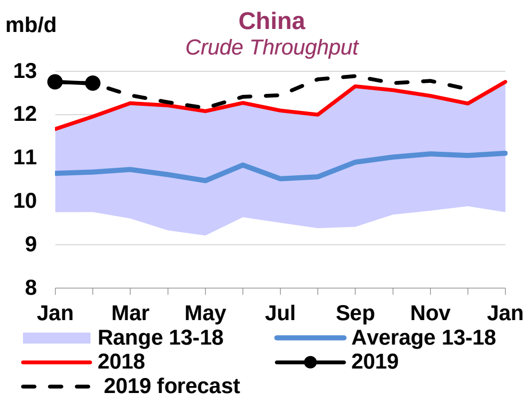




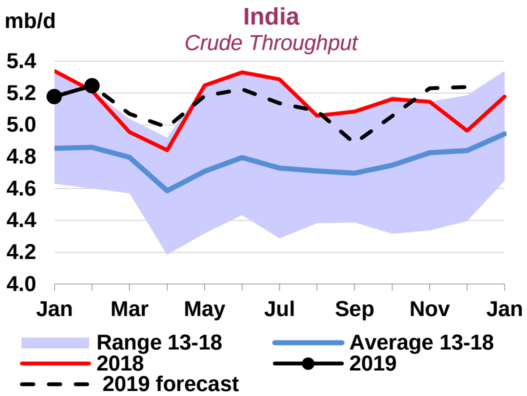
Non-OECD refinery throughput

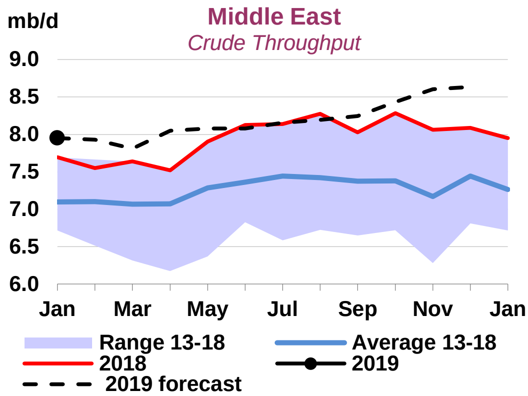
January throughput for non-OECD countries was revised down by 310 kb/d partly on actual statistics, but also on lower estimates for non-reporting countries. Nevertheless, non-OECD runs returned to an annual growth of 790 kb/d, after a 210 kb/d decline in December.





There were no new data reported for **China**, but we have updated our forecast based on maintenance programmes. Announced plans affect March-June runs, peaking at a record 1.7 mb/d of offline capacity in May, divided mostly between Sinopec and CNPC refineries. Our throughput forecast for these months has been revised down by 170 kb/d on average. Chinese refiners restarted imports of US crude after a gap of several months.

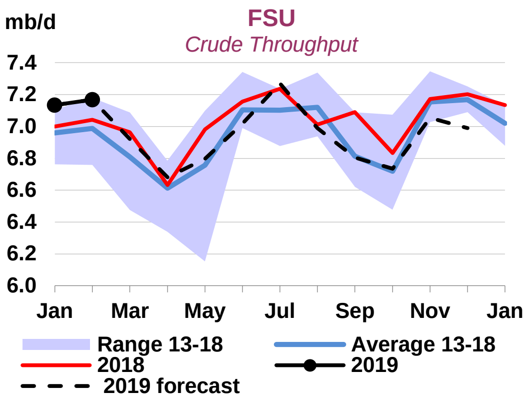


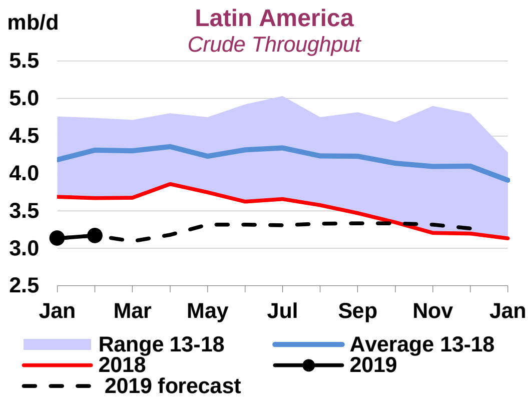


Indian refining throughput increased counter-seasonally in February, moving above 5.2 mb/d. This is likely to be the highest level for this year with heavier than usual maintenance affecting utilisation rates for the rest of the year. Indian refiners may also need to find alternatives for potentially both Venezuelan and Iranian crude barrels in an increasingly tight crude oil market. Asia's largest new refinery outside China, **Malaysia's** 300 kb/d RAPID complex, is expected to start operations by the end of the year, according to Saudi Aramco's recently released bond prospectus.

According to the same source, the 400 kb/d Jazan refinery in **Saudi Arabia** is also likely to start up by the end of this year. Saudi January throughput rose by 75 kb/d in January, to a new seasonal high of just under 2.8 mb/d. **Iraq's** throughput declined to 610 kb/d, but we expect runs to reach 700 kb/d in 4Q19.

Russian throughput in February was finalised 200 kb/d higher compared to the preliminary data, at 5.8 mb/d, up 70 kb/d y-o-y. Maintenance is expected to have driven runs down by a cumulative 475 kb/d lower over March and April. Overall, FSU 2Q19 runs will see a 240 kb/d decline quarter-on-quarter, followed by a 190 kb/d rebound in 3Q19.





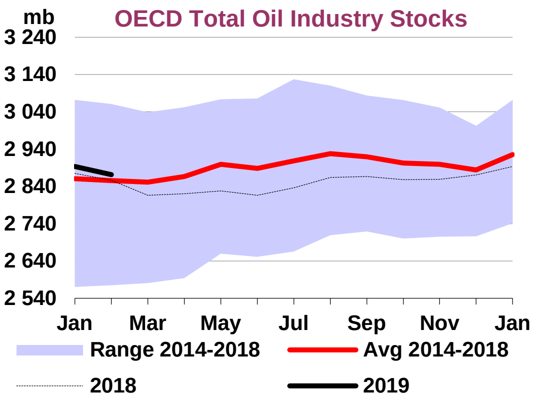
Brazil's refinery intake increased m-o-m in February as expected, while **Argentina's** runs declined further. We updated missing **Colombian** throughput data for 2018 based on Ecopetrol's quarterly earnings, which resulted in a 10 kb/d upward revision. Latin America's regional throughput decline is expected to accelerate slightly this year, to 300 kb/d from 270 kb/d in 2018, even as the pace of decline slows towards year-end.

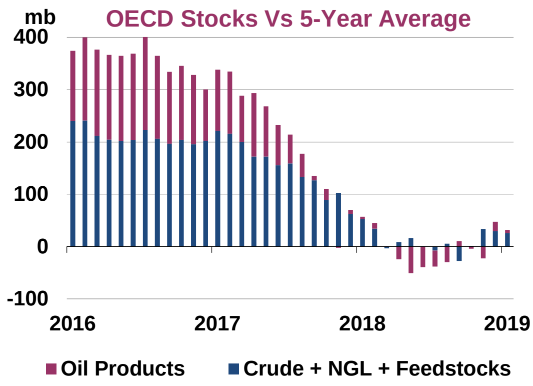
STOCKS

Summary

OECD industry stocks fell by 21.7 mb month-on-month (m-o-m) in February to 2 871 mb, the first reduction after three months of increases. Stocks fell by more than the five-year average of 5.1 mb for the month due to larger-than-usual gasoline draws and a lower-than-seasonal build in crude holdings. Total stocks remain 16 mb above the five-year average, but on a forward demand basis they are below it, by 1.1 day, at 60.6 days.

Crude stocks rose 10.4 mb on the month in February to reach 1 103 mb, which is close to last year's level. However, the gain was lower than usual for the time of year as OECD Americas drew counter-seasonally by 4.2 mb while OECD Europe built crude oil stocks by 7.5 mb and OECD Asia Pacific also gained by 7.1 mb. Stocks of oil products fell by 30.2 mb to 1 440 mb. Gasoline stocks declined by 9.5 mb versus a normal 0.8 mb increase. Middle distillates draws were 5.8 mb compared with normal 10.3 mb.





Preliminary data for March are mixed, as a build in Europe offset inventory falls in the US and Japan. US inventories declined by 15.6 mb in total due to lower refinery throughput and amid continued high crude exports. Japanese preliminary data fell by 5.4 mb m-o-m, which is mainly attributable to falling stocks of middle distillates. European stocks, on the other hand, increased by a significant 26.9 mb due to 22.8 mb of crude inventory build.

Preliminary Industry Stock Change in February 2019 and Fourth Quarter 2018

	February 2019 (preliminary)								Fourth Quarter 2018			
	(million barrels)				*(million barrels per day)*				*(million barrels per day)*			
	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total	Am	Europe	As. Ocean	Total
Crude Oil	**-4.2**	**7.5**	**7.1**	**10.4**	**-0.15**	**0.27**	**0.25**	**0.37**	**0.35**	**-0.05**	**0.16**	**0.45**
Gasoline	-8.9	-0.8	0.2	-9.5	-0.32	-0.03	0.01	-0.34	0.09	0.11	0.00	0.20
Middle Distillates	-5.5	1.0	-1.4	-5.8	-0.20	0.04	-0.05	-0.21	0.01	-0.13	-0.04	-0.16
Residual Fuel Oil	-2.2	-1.1	0.3	-3.0	-0.08	-0.04	0.01	-0.11	-0.01	-0.01	0.01	-0.01
Other Products	-11.6	0.2	-0.5	-11.9	-0.41	0.01	-0.02	-0.43	-0.26	-0.02	-0.01	-0.29
Total Products	**-28.1**	**-0.7**	**-1.4**	**-30.2**	**-1.00**	**-0.03**	**-0.05**	**-1.08**	**-0.17**	**-0.05**	**-0.04**	**-0.26**
Other Oils[1]	1.7	0.3	-3.9	-1.9	0.06	0.01	-0.14	-0.07	-0.17	0.04	-0.01	-0.15
Total Oil	**-30.6**	**7.1**	**1.8**	**-21.7**	**-1.09**	**0.25**	**0.06**	**-0.77**	**0.01**	**-0.07**	**0.11**	**0.04**

1 Other oils includes NGLs, feedstocks and other hydrocarbons.

For January, OECD stocks were revised up by 11.5 mb. The biggest adjustment was a 20.1 mb upward revision for product stocks in Europe, particularly middle distillates in Spain and Turkey. December stock figures were revised down by 2.5 mb.

Revisions versus March 2019 Oil Market Report
(million barrels)

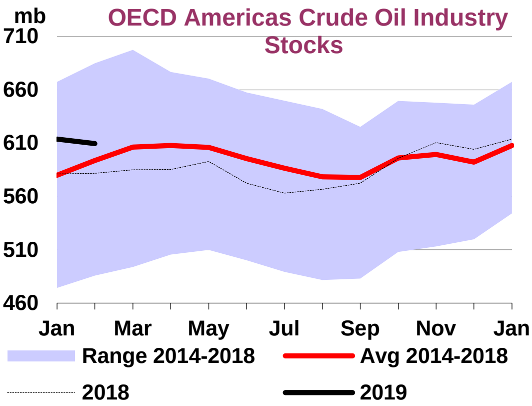
	Americas		Europe		Asia Oceania		OECD	
	Dec-18	Jan-19	Dec-18	Jan-19	Dec-18	Jan-19	Dec-18	Jan-19
Crude Oil	**-2.1**	**-0.4**	**0.0**	**-2.8**	**-0.9**	**-6.1**	**-3.0**	**-9.3**
Gasoline	0.0	3.0	0.0	9.2	0.0	1.8	0.0	14.0
Middle Distillates	0.0	-4.2	-0.2	6.9	0.6	0.0	0.4	2.8
Residual Fuel Oil	0.0	0.2	-0.1	0.4	-0.1	-0.5	-0.2	0.1
Other Products	0.0	5.0	0.1	3.6	0.2	-0.1	0.3	8.5
Total Products	**0.0**	**4.0**	**-0.1**	**20.1**	**0.7**	**1.3**	**0.5**	**25.4**
Other Oils[1]	0.0	-6.7	0.0	1.9	0.0	0.3	-0.1	-4.6
Total Oil	**-2.1**	**-3.1**	**-0.2**	**19.2**	**-0.2**	**-4.5**	**-2.5**	**11.5**

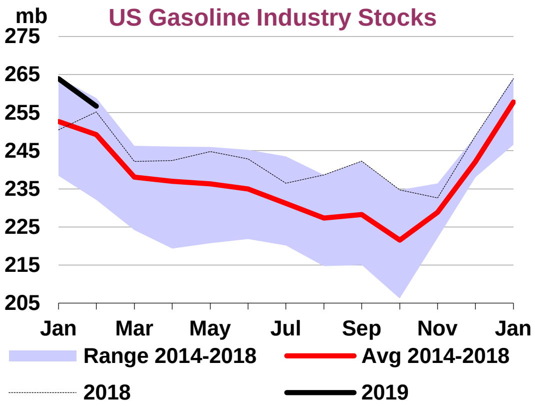
1 Other oils includes NGLs, feedstocks and other hydrocarbons.

Recent OECD industry stock changes

OECD Americas

In February, total commercial stocks in the OECD Americas fell 30.6 mb m-o-m to 1 519 mb, but remained 41.5 mb above the five-year average. This was a much larger-than-usual decline for the month. The largest fall was for oil products, which declined 28.1 mb m-o-m, more than twice as much as usual, while crude holdings fell counter-seasonally, by 4.2 mb.





Normally, crude stocks rise in February due to seasonal maintenance at refineries. However, this year, crude stocks decreased by 4.2 mb m-o-m to 610 mb. In Mexico, crude stocks fell by 9.9 mb, three times more than usual, to their lowest level since September 2018. While the fall is very large for Mexico, it partly offsets the significant gain registered at the end of 2018 and came amid higher exports and low crude production. Crude stocks in the US gained 5.7 mb m-o-m but this was less than usual. Lower crude imports and record high crude exports during the month help explain the change.

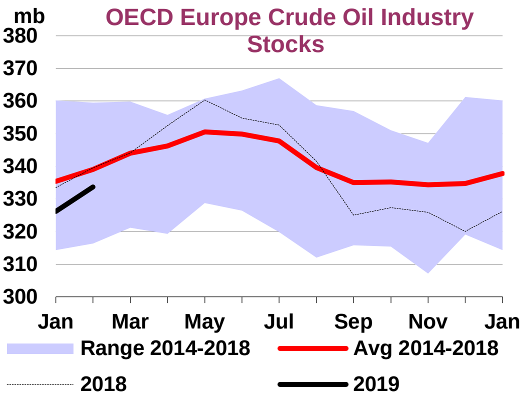
As for product stocks, gasoline (-8.9 mb), middle distillates (-5.5 mb), residual fuel oil (-2.2 mb) and other products (-11.6 mb) fell due to lower refinery throughput in the US. US gasoline stocks declined 7.2 mb m-o-m to 257 mb, as refiners prioritised other oil products due to poor cracks. US gasoline stocks remain above the five-year average.

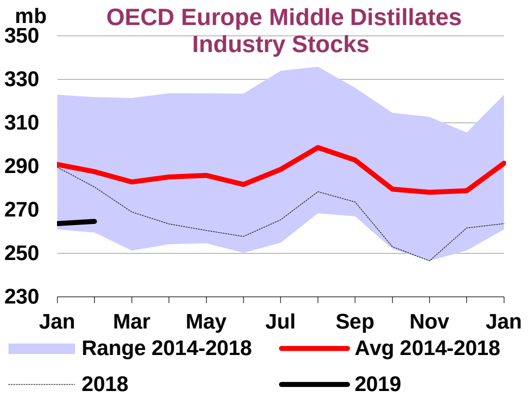
Preliminary March data from the *Energy Information Administration* (EIA) show both US product and crude stocks declining due to lower refinery runs and continued high crude exports. Total oil product stocks fell by 13.2 mb m-o-m with a second month of large draws seen in gasoline (-14.5 mb) and lower diesel holdings (-7.4 mb) due to refinery runs (-665 kb/d y-o-y). Crude oil stocks also decreased counter-seasonally by 2.4 mb. US crude imports in March increased by 80 kb/d to 6.7 mb/d, while crude exports declined by 150 kb/d to 2.9 mb/d, but were still close to the previous month's historical record.

OECD Europe

Commercial stocks in OECD Europe increased seasonally by 7.1 mb m-o-m in February to 966 mb. Crude stocks built 7.5 mb to 334 mb, driving the overall stock gain.

In February, oil product inventories saw a small fall of 0.7 mb. Middle distillates and other products increased counter-seasonally by 1 mb and 0.2 mb respectively, suggesting lower heating oil demand due to relatively mild temperatures in February. In contrast, gasoline stocks fell by 0.8 mb (particularly in France and the UK) despite higher refinery runs y-o-y (+550 kb/d). Higher end-user demand supported by increased gasoline car sales in 2018 could partly explain this phenomenon.

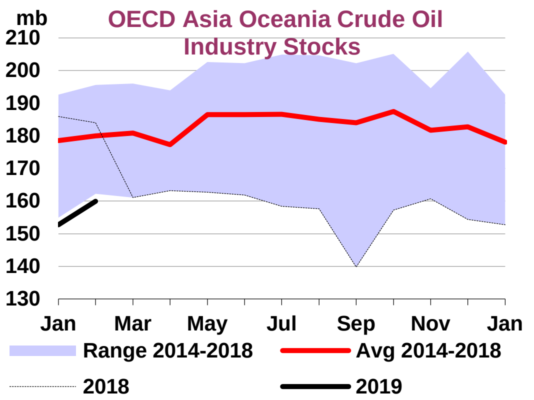


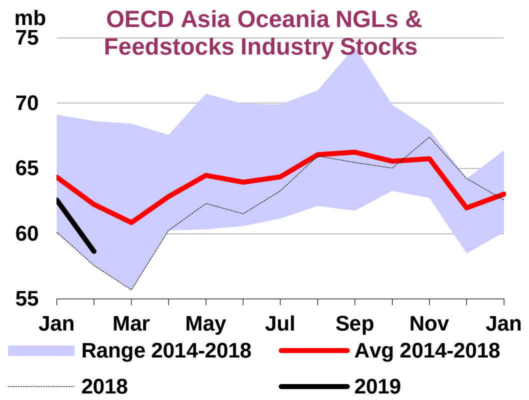


Preliminary data for March from *Euroilstock* showed an increase of total stocks of 26.9 mb as crude inventories gained by 22.8 mb. Oil products increased by 4.1 mb with draws observed in gasoline (-1.4 mb) and builds recorded in middle distillates (3.8 mb).

OECD Asia Oceania

Commercial inventories in OECD Asia Oceania increased counter-seasonally by 1.8 mb to 387 mb. However, they remain 17.6 mb below the five-year average. Crude oil stocks increased by 7.1 mb to 160 mb as Korea built its inventories by 9.3 mb. The largest decrease, of 3.9 mb, was seen in NGLs and feedstocks. Lower refinery throughput in Japan played a role and helped to deplete stocks by 4.4 mb. Middle distillates drew by 1.4 mb, less than usual for the time of year, owing to mild temperatures in Japan and Korea, which both consume kerosene for space heating.



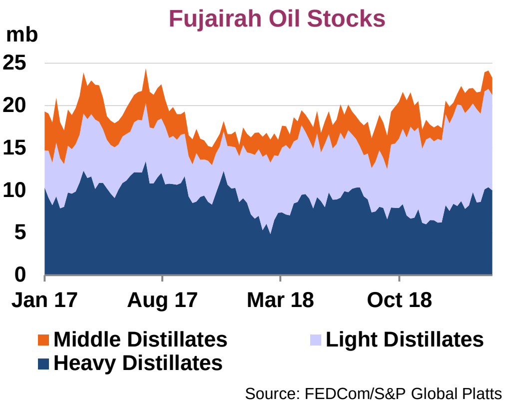


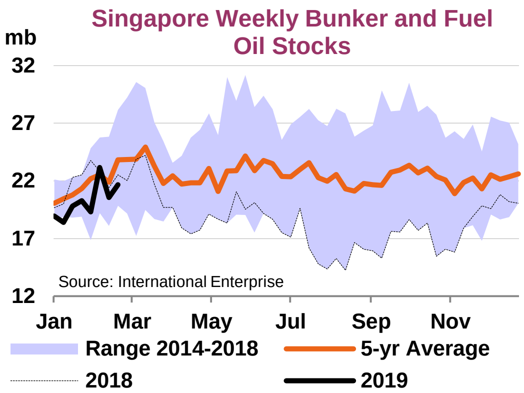
Preliminary data for March from the *Petroleum Association of Japan* (PAJ) show total stocks fell by 5.4 mb m-o-m, in line with the five-year average. Total product inventories decreased more than usual by 3.9 mb with larger draws seen in middle distillates (-2.2 mb). Gasoline increased slightly by 0.1 mb and naphtha declined counter-seasonally by 1.3 mb. Crude stocks gained by 1.8 mb.

Other stock developments

Chinese crude stocks built by 27 mb (870 kb/d) in March and 85 mb over 1Q19 (1 mb/d), according to figures derived from IEA forecasts for crude production and refinery runs. For March, no customs figures were available at the time of publication, but we estimate that crude imports increased 16 mb m-o-m, using data from *Kpler*. Even if the 1Q19 stocks build was less than the 1.3 mb/d recorded over 4Q18, this remains one of the largest quarterly increases on record. Figures from *Kayrros* derived from satellite images show a 1 mb build in March and 19 mb over 1Q19, much less than implied by other data sources.

Short-term crude floating storage fell 6.7 mb to 20 mb at the end of March, according to *EA Gibson,* and for 1Q19 as a whole floating storage was down 5.8 mb. The reduction was driven by falling volumes in the Middle East Gulf, which remains nonetheless the largest venue of storage due to US sanctions on Iranian oil sales. Meanwhile, volumes of crude in seaborne transit rose in March but have fallen by around 61 mb over 1Q19, according to figures from *Kpler*.

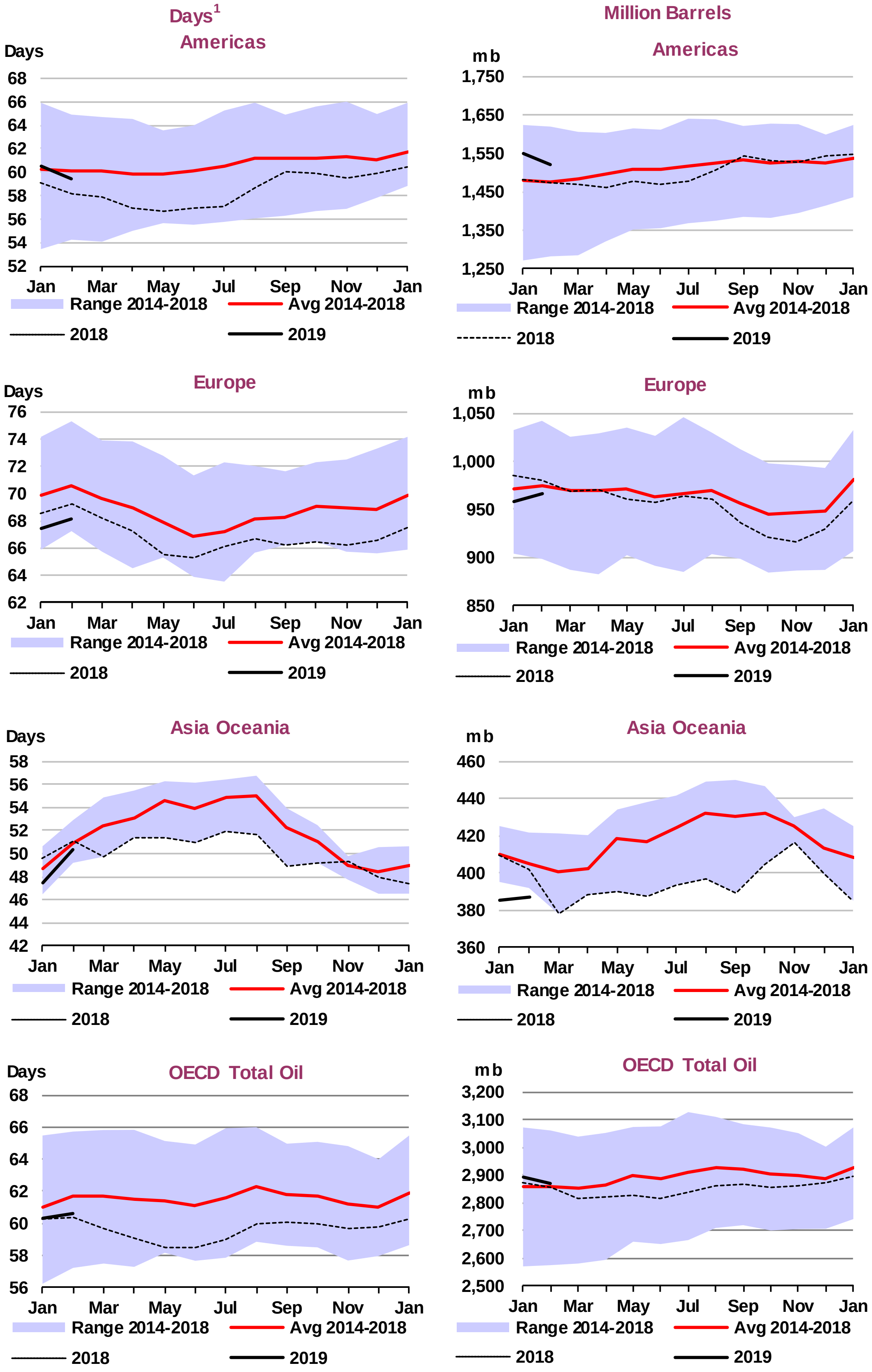




Crude and oil product stockpiles in the 18 non-OECD countries covered by the JODI database rose by a combined 11.3 mb m-o-m to 567 mb in January. The largest gains were seen in Nigeria (+8.7 mb), Angola (+2.5 mb) and Iraq (+1.1 mb) whereas stocks fell in Saudi Arabia (-2.7 mb) with smaller declines in some other countries. Oil stocks were below the level recorded in January 2018, excluding Nigeria for which there have been significant data revisions.

Oil product stocks in Singapore fell for the first time in six months in March, by 2.8 mb m-o-m to 48 mb, according to *Enterprise Singapore*. Light, middle and heavy distillate inventories all saw reductions. Fujairah's stocks, by contrast, increased 1.6 mb to 23 mb, data from *S&P Global Platts* showed. Stocks of heavy distillates, largely composed of high sulphur fuel oil, stood at 10 mb, their highest level since July 2018. Market sources suggest that slower trade activity globally at the start of 2019 has contributed to reduced bunker fuel sales and an increase in inventories.

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 for the third consecutive month in March. Tighter global supplies due to strong compliance with Vienna Agreement cuts, sanctions against Venezuela and Iran and unrest in Libya offset bearish factors such as concern over the health of the global economy. In early April, ICE Brent Futures settled above $70/bbl for the first time since November 2018, having risen by over 30% since the start of 2019. NYMEX WTI futures have gained 40% so far in 2019, narrowing WTI's discount to Brent to $7/bbl at the time of writing, as US infrastructure constraints eased. Gasoline prices moved higher, particularly in the US, where the price of super unleaded on the Gulf Coast rose by 22.5% month-on-month (m-o-m). Support came from the switch to summer-specification fuel in the US and Europe, while supplies tightened due to refinery shutdowns and maintenance. Higher crude prices and weaker demand saw a fall in cracks for most other refined products.

Futures markets

Concerns about global oil supplies boosted crude oil futures in March. WTI gained $3.19/bbl (5.8%) m-o-m while Brent prices rallied by $2.60/bbl (4%), and WTI's discount to Brent narrowed to $8.86/bbl on average. Additional support for the US benchmark came from domestic factors as new infrastructure provided relief to capacity-constrained pipelines and US stock levels declined.

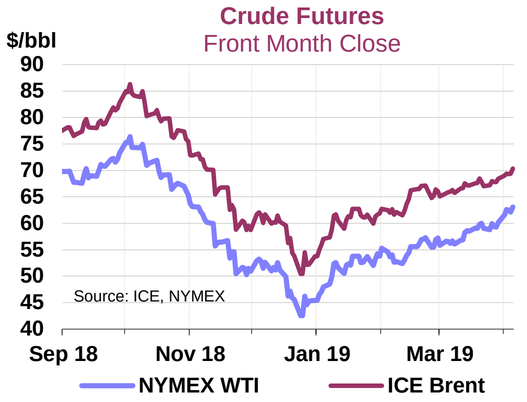
Prompt Month Oil Futures Prices

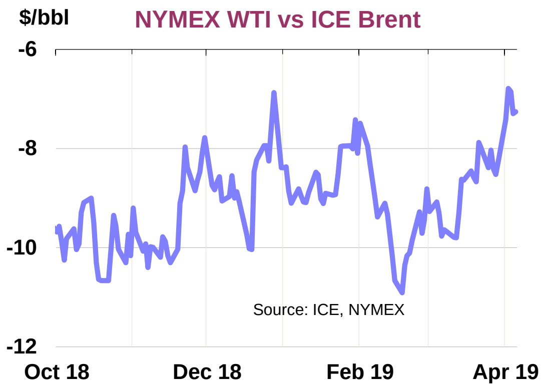
(monthly and weekly averages, $/bbl)

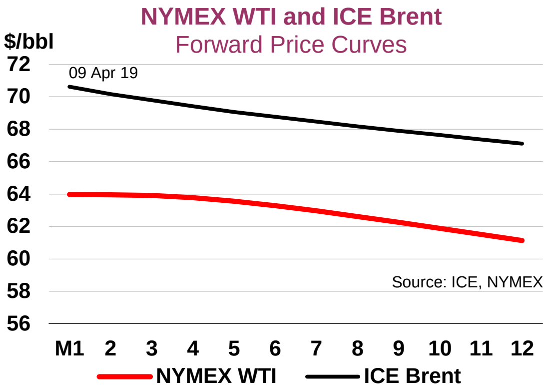
	Jan	Feb	Mar	Mar-Feb Avg Chg	% Chg	Week Commencing: 04 Mar	11 Mar	18 Mar	25 Mar	01 Apr
NYMEX										
Light Sweet Crude Oil	51.55	54.98	58.17	3.19	5.8	56.42	57.81	59.39	59.52	62.36
RBOB	58.10	63.67	77.90	14.24	22.4	74.87	77.33	80.13	80.34	81.37
ULSD	77.97	82.38	83.60	1.22	1.5	84.50	83.37	83.33	83.13	84.50
ULSD ($/mmbtu)	13.75	14.53	14.74	0.22	1.5	14.90	14.70	14.70	14.66	14.90
Henry Hub Natural Gas ($/mmbtu)	3.10	2.68	2.81	0.12	4.5	2.86	2.81	2.82	2.72	2.68
ICE										
Brent	60.24	64.43	67.03	2.60	4.0	65.91	67.04	67.71	67.84	69.49
Gasoil	75.06	80.60	82.00	1.40	1.7	83.07	81.90	81.62	81.32	82.29
Prompt Month Differentials										
NYMEX WTI - ICE Brent	-8.69	-9.45	-8.86	0.59		-9.49	-9.23	-8.32	-8.32	-7.13
NYMEX ULSD - WTI	26.42	27.40	25.43	-1.97		28.08	25.56	23.94	23.61	22.14
NYMEX RBOB - WTI	6.55	8.69	19.73	11.05		18.45	19.52	20.74	20.82	19.01
NYMEX 3-2-1 Crack (RBOB)	13.17	14.92	21.63	6.71		21.66	21.53	21.80	21.75	20.06
NYMEX ULSD - Natural Gas ($/mmbtu)	10.65	11.85	11.94	0.09		12.04	11.90	11.87	11.95	12.23
ICE Gasoil - ICE Brent	14.82	16.17	14.97	-1.20		17.16	14.86	13.91	13.48	12.80

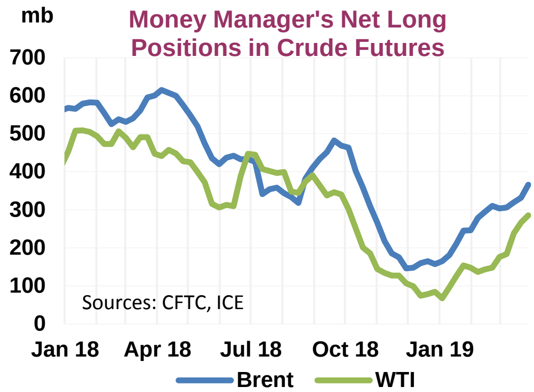
Source: ICE, NYMEX.

As front-month prices have risen, the backwardation of the Brent futures curve has steepened, with deliveries in June 2019 priced over $3/bbl higher than deliveries in June 2020. The WTI futures curve has flipped to shallow backwardation, and is effectively flat for May to July 2019 contracts. For the third month in a row, hedge funds increased their bets that oil prices will increase. Net long positions in crude futures rose to 651 mb in early April, with holdings of WTI seeing particularly sharp gains.

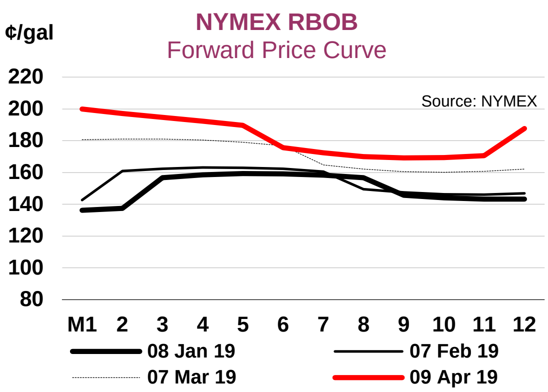


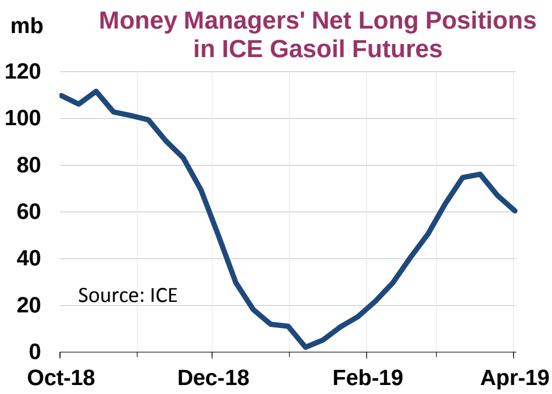






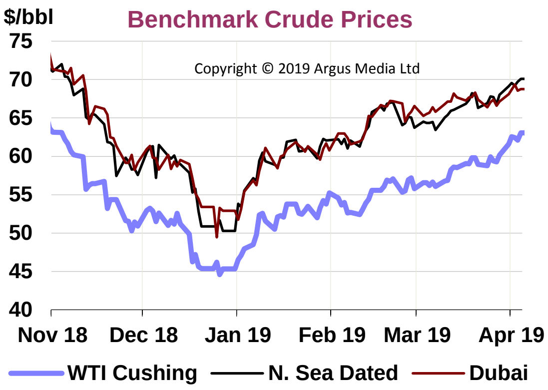
In product futures markets, backwardation of the NYMEX RBOB curve steepened as short-term gasoline supply concerns pushed up prompt prices. On 26 March, a few days after the closure of the Houston Ship Channel and related refinery outages, the M1-M2 premium reached $2.09/bbl although it has subsequently narrowed. The ICE gasoil curve flipped into backwardation in early March. Money managers’ net long positions in low sulphur gasoil futures reached 60 mb on 2 April, around half the level seen late last year. This is despite expectations that the tightening of the International Maritime Organisation’s shipping fuel sulphur regulations will result in higher gasoil prices in 2020. Meanwhile, money managers’ net length in NYMEX ultra-low sulphur diesel (ULSD) has been falling since October 2017 and now stands at only 5 mb on average for March.

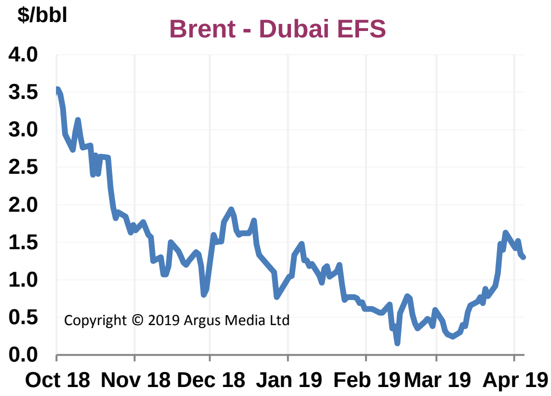




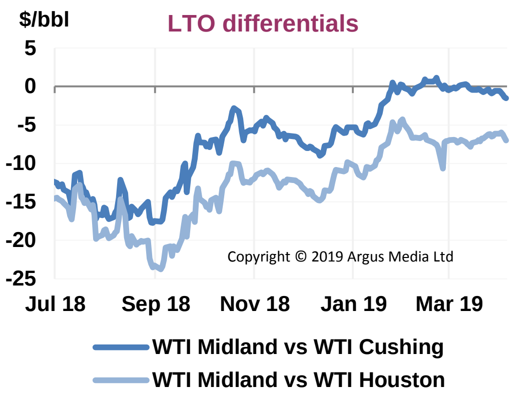
Spot crude oil prices

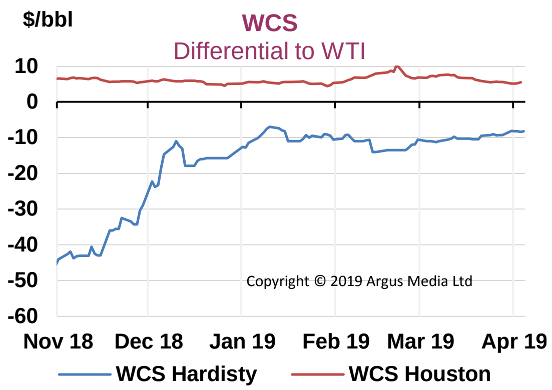
By the end of March, the Brent-Dubai Exchange of Futures for Swaps (EFS) had risen by $1.25/bbl to $1.63/bbl, the highest since December 2018. This will reduce the attractiveness of Brent-linked crudes for buyers in Asia Pacific. With the price of waterborne WTI fob Houston $1.91/bbl below Dubai on average in March, US crude remains competitive in Asia Pacific, particularly as freight rates have declined. Ship tracking data for March from *Kpler* show US exports of nearly 800 kb/d to Asia Pacific, with Korea the largest buyer. In 1Q19, Korea imported 310 kb/d of US crude, up by 100 kb/d from the 2018 average level.





On 22 March, a tank fire and subsequent petrochemicals leak caused a section of the Houston Ship Channel to be closed for four days. Traffic continues to be restricted due to clean-up operations, which have been impeded by severe weather. This has hampered crude imports to regional refiners, causing some to reduce operations, and exports from the Gulf Coast. As a result, despite healthy demand for US crude in Asia Pacific, price differentials for grades such as WTI Houston, Louisiana Light Sweet (LLS), Poseidon and Mars fell against WTI Cushing m-o-m. The premiums for Mars and Poseidon had reached five-year highs of $7.95/bbl and $7.20/bbl above WTI Cushing, respectively, on 12 March, owing to the global tightness in sour crude markets. The WTI Midland differential to Cushing widened by $0.44/bbl m-o-m, to a discount of over $1/bbl in early-April, as US refineries reduced purchases due to maintenance. However, the earlier-than-anticipated availability of Permian-to-Cushing export capacity has kept discounts well below the levels of $17.70/bbl seen in August 2018. The discount of WTI Midland to WTI Houston remains wide at $6.95/bbl on average for March, indicating the lack of sufficient capacity to take production to the US Gulf Coast. Further infrastructure additions that fully alleviate currently constrained production are due online later in 2019.





The government of Alberta relaxed output restrictions so that by June production can rise by 150 kb/d from January levels. Despite this, the West Canada Select (WCS) discount to WTI narrowed by $1.75/bbl on average m-o-m. This may be due to higher demand from US refineries for sour Canadian crude in the absence of imports from Venezuela and seasonal maintenance at oil sands production facilities.

Spot crude oil prices and differentials

Table Unavailable

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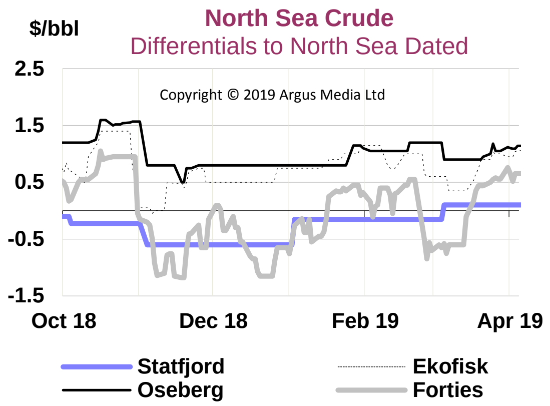
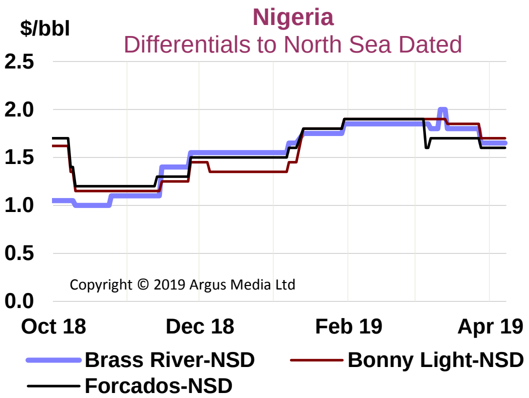
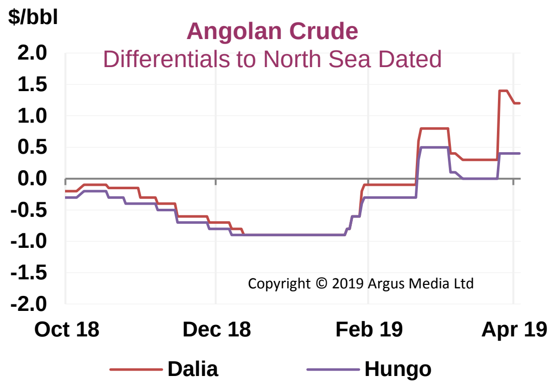
Differentials for North Sea crudes Forties, Brent, Ekofisk and Oseberg declined by between $0.12/bbl and $0.29/bbl, m-o-m, against North Sea Dated in March on weaker demand as European refineries undertook maintenance and competing US exports flowed to the region. However, from a three-month low of -$0.85/bbl on 27 February, the Forties differential has gained by $1.41/bbl in early April as demand from China ticked up. Further support came from loading programmes that show Forties production will decline significantly in July when the Buzzard field undergoes maintenance. The Ekofisk differential gained $0.40/bbl over the course of the month on strong Chinese demand, with heavy June maintenance scheduled to shut-in production at the Ekofisk field.

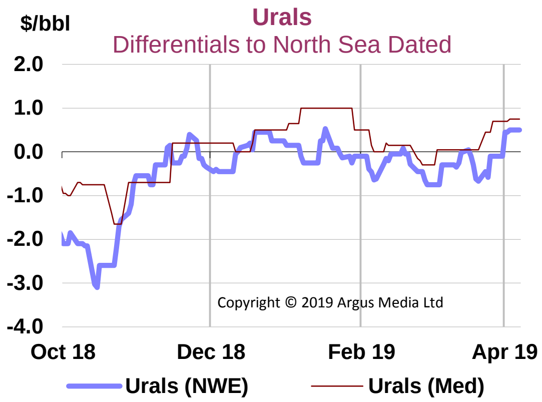




Healthy Asia Pacific demand, in particular Chinese buying of Angolan crude and Indian purchases of Nigerian supplies, supported markets in West Africa. Heavy grades such as Dalia and Hungo gained by $0.44/bbl and $0.23/bbl m-o-m against North Sea Dated, respectively. However, Chinese refinery maintenance weighed on demand for lighter grades. Having risen to a one-year high of $2.00/bbl in mid-March, the premium of Qua Iboe fell to $1.60 by end-month as demand for Nigerian crude eased.

Urals in North West Europe and the Mediterranean jumped to a premium of $0.45/bbl and $0.70/bbl to North Sea Dated, respectively, in early-April. Despite high levels of crude exports as Russian refineries undergo maintenance, Urals was boosted as strong Asia Pacific demand for fuel oil has seen Chinese buying increase. In a rare market development, Urals was also shipped to the US where refineries are looking to replace sour Venezuelan crude. CPC Blend gained $0.25/bbl m-o-m against North Sea Dated as loading programmes showed that exports will fall in April due to maintenance at the Kashagan field. The return of Libyan production that had been under force majure weighed on competing regional supplies, although developments in early April suggest more interruptions could be imminent. Saharan Blend declined by $0.21/bbl m-o-m against North Sea Dated, despite the pick-up in gasoline cracks boosting demand for the light sweet crude.

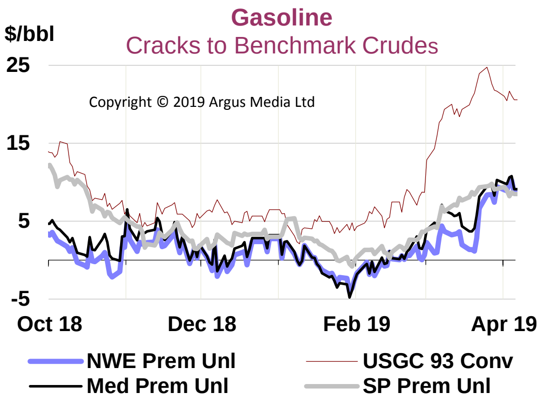


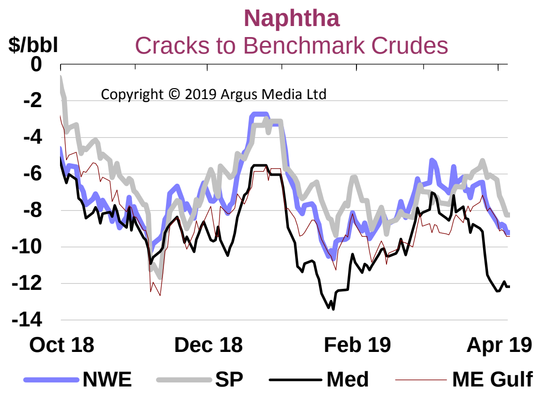


The upcoming refinery maintenance season in Asia Pacific stymied demand for lighter Middle East grades such as Murban and Upper Zakkum, for which differentials fell by $0.02/bbl and $0.05/bbl m-o-m against Dubai, respectively. There was strong Korean and Chinese demand for Iraqi crude, in particular Basra Heavy, as refiners look to replace barrels from Venezuela. Basra Heavy gained $0.21/bbl m-o-m against Dubai to reach a premium of $1.20/bbl, an 11-month high.

Spot product prices

Product markets diverged in March. While seasonal factors and supply disruptions caused gasoline prices to rise much faster than underlying crude prices, weaker demand weighed on jet fuel and diesel prices. In early April, product cracks have been under pressure as more supplies from North East Asia become available, following maintenance.





Gasoline markets, particularly in the US, continued the recovery started last month. Cracks for super unleaded on the US Gulf Coast hit a nine-month high of $24.72/bbl against LLS on 25 March. Part of the gain is due to predictable seasonal patterns, as the market transitions to the more expensive summer-specification fuel and demand picks up in the run-up to the peak driving season. However, supply concerns, caused by unplanned refinery outages in Texas, California and Louisiana, and heavier-than-usual maintenance in the midcontinent, have also played a part in the quadrupling of cracks since

January. Furthermore, Mexican demand has picked up, with additional volumes of gasoline and diesel exported by rail to make up for disruptions to shipping out of Houston. In other regions, gains were more muted. In Singapore, cracks for premium unleaded gasoline rose by $5.81/bbl m-o-m, amid shutdowns in Vietnam and Korea and upcoming regional refinery maintenance. Meanwhile, India stepped up purchases and Chinese demand looks likely to increase around the April and May holidays. The price of Premium Unleaded on Rotterdam barges increased by 9.9% (FOB basis) in March, and prices in the Mediterranean gained 12.6%, helped by the change to the more expensive summer grade and on regional and export demand.

Naphtha markets followed gasoline as blenders increased purchases. In North West Europe and the Mediterranean, cracks for FOB cargoes gained $1.63/bbl and $1.52/bbl m-o-m, respectively, as higher blending offset reduced petrochemicals demand. Rival petrochemical feedstock LPG is more competitively priced than naphtha, particularly as US LPG demand for space heating has declined seasonally. In Singapore, naphtha prices gained $1.38/bbl against Dubai, on demand from Korean petrochemical facilities, at a time when maintenance in the Middle East has reduced supplies. However, since the beginning of April, cracks in all regions have fallen as petrochemical facilities in Europe undergo turnarounds.

Spot product prices

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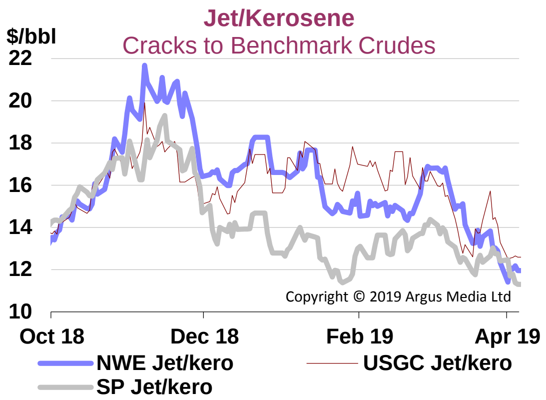
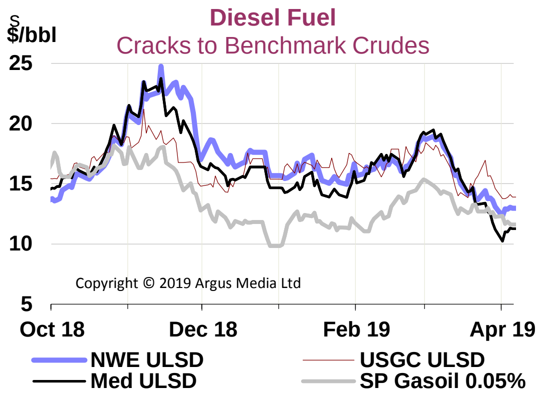
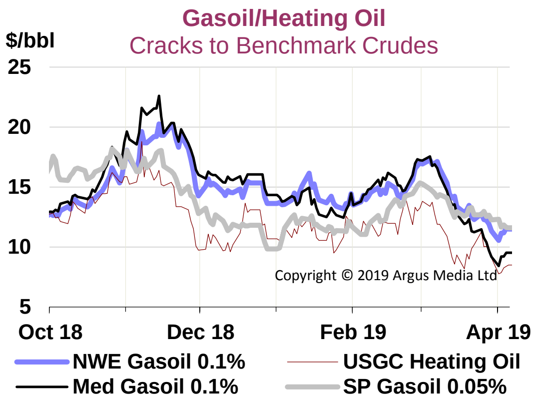
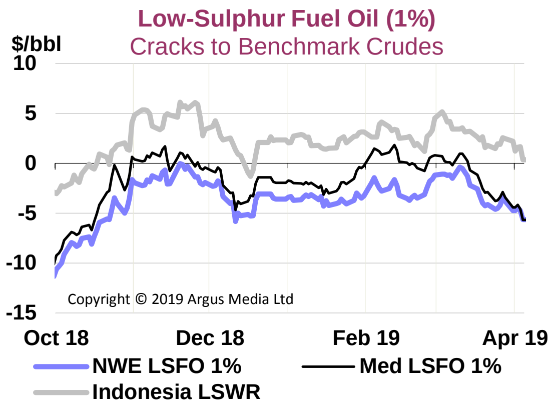
Currently in the low demand season, global jet fuel cracks fell in March. In Europe the market is well supplied with imports from East of Suez and cracks in Rotterdam fell by $0.53/bbl m-o-m to a six-month low of $12.33/bbl. Weak demand in the US saw cracks on the Gulf Coast down $2.15/bbl m-o-m while in Singapore, cracks fell by a smaller $0.44/bbl as Indian demand provided some support. There was little impact on jet fuel prices from the grounding of Boeing 737 MAX aircraft fleet; neither downward pressure due to flight cancellations, nor upward pressure from less-efficient aircraft replacing those removed from service.





Cracks for ULSD in Rotterdam and the Mediterranean declined by $1.01/bbl and $1.28/bbl m-o-m, respectively, in March with ample imports from the Middle East and Russia. In the US, markets are well supplied and milder weather has reduced heating demand. In Asia Pacific, gasoil demand picked up, in particular from India where refinery turnarounds have reduced domestic production. Cracks for 0.05% gasoil in Singapore increased by $0.21/bbl m-o-m against Dubai. However, they have trended downwards in early-April on higher Chinese exports. In Europe, imports from Asia kept markets well supplied and gasoil cracks declined in the North West and Mediterranean, by $0.64/bbl and $2.03/bbl m-o-m, respectively.

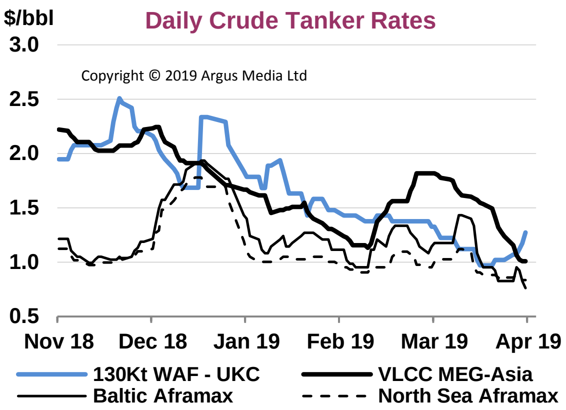


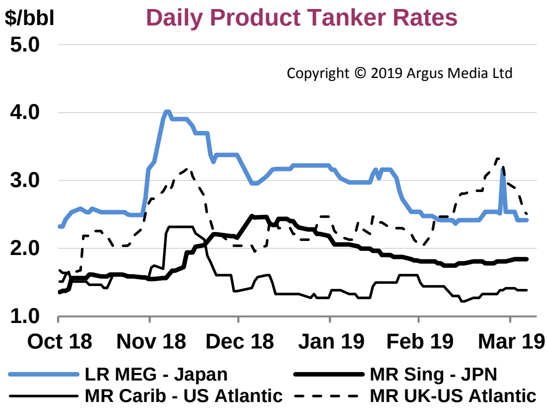


The recent strength in fuel oil markets eased but prices remain relatively strong due to reduced sour crude supply. Demand in Asia Pacific fell back, particularly for bunkers, and higher stocks in Singapore contributed to 380-centistoke high sulphur fuel oil (HSFO) cracks falling by $0.53/bbl. Reflecting the looser market, on 2 April the 180-centistoke HSFO forward curve flipped to contango, having been in backwardation since February 2018. In Europe, there was moderate fuel oil demand for shipping and for power generation in the Middle East. In Rotterdam, low sulphur fuel oil (LSFO) gained $0.15/bbl and HSFO gained $1.08/bbl m-o-m, against North Sea Dated.

Freight

Rates to ship crude fell in March. On 5 April, rates for Very Large Crude Carriers (VLCCs) travelling between the Middle East Gulf (MEG) and Asia declined to $1.01/bbl, a ten-month low, as demand fell and ship availability increased. Rates for VLCCs on this route had peaked at $1.82/bbl in late-February when VLCCs in the MEG region had been scarce on high demand in the US. An oversupply of ships caused rates for Suezmaxes to fall. Rates for vessels travelling between the UK-Continent and West Africa declined to $0.97/bbl on 21 March, and although they have since ticked-up by $0.30/bbl, are down 31% since the start of 2019. On a downward trend since November 2018, declines accelerated in March as shipping delays in the Turkish Straits eased, increasing ship availability.





Rates to ship products on long-range vessels between the MEG and Japan spiked up on 28 March, but otherwise were flat at around $2.50/bbl. Likewise, rates for medium range (MR) ships travelling between Singapore and Japan and within the Caribbean were little changed. Strong demand caused rates for MRs travelling between the UK and the US to jump up to a multi-year high of $3.32/bbl on 26 March. European products are being exported to West Africa and the US, where planned and unplanned refinery outages have reduced domestic production.

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	25.4	25.8	26.1	25.9	25.8
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	13.9	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	7.5	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	47.7	47.6	48.4	48.2	48.0
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	13.1	13.4	13.6	13.7	13.5
Other Asia	12.5	13.1	13.3	13.5	13.3	13.7	13.5	13.8	14.1	13.5	14.0	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	8.2	8.6	8.8	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	51.8	51.5	51.8	52.8	52.9	52.9	52.6
Total Demand[1]	**95.3**	**96.4**	**96.6**	**98.1**	**98.4**	**98.7**	**97.9**	**98.5**	**98.8**	**99.9**	**99.6**	**99.2**	**99.5**	**100.4**	**101.2**	**101.2**	**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	23.6	23.8	24.4	24.8	24.2
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	3.4	3.3	3.4	3.5	3.4
Asia Oceania	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Total OECD[4]	23.9	23.4	24.0	23.7	24.0	25.0	24.2	25.7	26.0	27.0	27.9	26.7	27.5	27.6	28.3	28.8	28.1
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	14.4	14.5	14.7	14.6
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	3.8	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	4.5	4.8	5.0	5.1	4.8
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-OECD[4]	31.4	31.1	31.1	30.9	30.8	30.9	30.9	30.9	31.0	31.0	31.4	31.1	31.3	31.2	31.3	31.7	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	64.2	62.7	63.4	63.9	64.9	65.5	64.4
OPEC[2]																	
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	30.6				
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	37.7	37.4	36.1				
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**	**99.6**				
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	0.0	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	-0.2	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	1.3	0.2	0.9	1.9	1.0					
Total Stock Ch. & Misc	**1.1**	**0.5**	**0.1**	**-1.2**	**-0.6**	**-0.5**	**-0.6**	**-0.1**	**0.4**	**1.1**	**2.4**	**0.9**	**0.1**				
Memo items:																	
Call on OPEC crude + Stock ch.[6]	30.3	31.9	31.6	33.2	32.9	32.5	32.6	31.9	31.2	31.0	29.8	31.0	30.5	30.9	30.7	30.1	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
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-	-	-	-0.1
NON-OECD DEMAND																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.1	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.3	-	-0.1	-	0.1
Total Demand	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.1**	**-**	**-0.1**	**-**	**-**	**0.1**	**-**
OECD SUPPLY																	
Americas	-	-	-	-	-	-	-	-	-	-	0.1	-	0.1	0.1	0.1	0.2	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-0.1	-	-
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.2	0.1
NON-OECD SUPPLY																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Americas	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Global Biofuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC Supply	-	-	-	-	-	-	-	-	-	-	0.1	-	-0.1	-	-0.1	0.3	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-					
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-					
Total Supply	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**					
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-	-	-					
Government	-	-	-	-	-	-	-	-	-	-	-	-					
Total	-	-	-	-	-	-	-	-	-	-	-	-					
Floating storage/Oil in transit	-	-	-	-	-	-	-	-	-	-	-	-					
Miscellaneous to balance	-	-	-	-	-	-	-	-	-	-	0.1	-					
Total Stock Ch. & Misc	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**					
Memo items:																	
Call on OPEC crude + Stock ch.	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	0.1	-	-0.2	-

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

Table 2
SUMMARY OF GLOBAL OIL DEMAND

	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
Demand (mb/d)																
Americas	24.88	24.61	25.12	25.15	25.34	25.06	25.26	25.37	25.83	25.66	25.53	25.41	25.80	26.15	25.92	25.82
Europe	13.99	13.82	14.25	14.70	14.40	14.30	14.08	14.21	14.67	14.13	14.27	13.95	14.36	14.69	14.31	14.33
Asia Oceania	8.11	8.48	7.66	7.80	8.32	8.06	8.51	7.60	7.62	7.96	7.92	8.35	7.49	7.54	8.01	7.84
Total OECD	46.97	46.91	47.02	47.66	48.06	47.42	47.85	47.18	48.12	47.76	47.73	47.71	47.65	48.37	48.25	48.00
Asia	25.05	25.71	26.41	25.65	26.34	26.03	26.54	27.07	26.70	27.18	26.88	27.41	27.85	27.53	28.10	27.72
Middle East	8.49	8.22	8.65	8.86	8.21	8.49	8.20	8.54	8.76	8.21	8.43	8.21	8.65	8.85	8.21	8.48
Americas	6.44	6.34	6.46	6.56	6.45	6.45	6.33	6.36	6.46	6.42	6.39	6.33	6.39	6.44	6.40	6.39
FSU	4.51	4.30	4.51	4.73	4.60	4.54	4.48	4.64	4.91	4.83	4.72	4.61	4.72	4.97	5.00	4.83
Africa	4.26	4.36	4.30	4.19	4.27	4.28	4.33	4.29	4.20	4.38	4.30	4.50	4.41	4.27	4.41	4.40
Europe	0.72	0.72	0.75	0.76	0.76	0.75	0.73	0.74	0.77	0.79	0.76	0.75	0.77	0.79	0.80	0.78
Total Non-OECD	49.47	49.64	51.08	50.75	50.62	50.53	50.62	51.63	51.80	51.82	51.48	51.81	52.77	52.85	52.92	52.60
World	**96.44**	**96.55**	**98.10**	**98.41**	**98.68**	**97.95**	**98.47**	**98.81**	**99.92**	**99.57**	**99.21**	**99.52**	**100.41**	**101.23**	**101.17**	**100.60**
of which: US50	19.69	19.54	20.07	20.01	20.21	19.96	20.24	20.33	20.63	20.60	20.45	20.41	20.74	20.91	20.81	20.72
Europe 5*	8.15	8.16	8.28	8.44	8.24	8.28	8.21	8.21	8.32	8.18	8.23	8.19	8.26	8.39	8.27	8.28
China	11.99	12.44	12.88	12.33	12.65	12.58	12.75	13.02	13.19	13.14	13.03	13.12	13.44	13.62	13.68	13.47
Japan	4.01	4.30	3.58	3.63	4.06	3.89	4.27	3.43	3.53	3.89	3.78	4.16	3.38	3.48	3.86	3.72
India	4.44	4.46	4.67	4.42	4.72	4.57	4.82	4.92	4.53	4.87	4.78	5.09	5.15	4.76	5.10	5.02
Russia	3.33	3.14	3.31	3.50	3.34	3.32	3.29	3.39	3.63	3.55	3.47	3.40	3.45	3.67	3.64	3.54
Brazil	2.98	2.92	2.96	3.08	3.04	3.00	2.95	2.91	3.07	3.08	3.00	3.01	3.05	3.16	3.14	3.09
Saudi Arabia	3.30	2.93	3.41	3.62	3.13	3.27	2.93	3.18	3.32	2.96	3.10	2.91	3.29	3.40	3.02	3.16
Canada	2.47	2.37	2.36	2.52	2.52	2.45	2.32	2.34	2.56	2.49	2.43	2.30	2.35	2.56	2.47	2.42
Korea	2.61	2.62	2.49	2.57	2.65	2.58	2.63	2.55	2.48	2.44	2.52	2.56	2.49	2.45	2.51	2.50
Mexico	2.05	2.02	2.03	1.95	1.93	1.98	1.99	2.02	1.97	1.88	1.97	1.99	2.03	1.99	1.94	1.99
Iran	1.96	2.10	2.01	1.98	1.98	2.02	2.07	2.07	2.08	2.08	2.07	2.03	1.98	1.97	1.95	1.98
Total	**66.98**	**67.01**	**68.06**	**68.07**	**68.49**	**67.91**	**68.47**	**68.37**	**69.31**	**69.15**	**68.83**	**69.18**	**69.60**	**70.37**	**70.41**	**69.89**
% of World	69.4%	69.4%	69.4%	69.2%	69.4%	69.3%	69.5%	69.2%	69.4%	69.4%	69.4%	69.5%	69.3%	69.5%	69.6%	69.5%
Annual Change (% per annum)																
Americas	1.1	-0.5	2.1	-0.1	1.4	0.7	2.6	1.0	2.7	1.3	1.9	0.6	1.7	1.2	1.0	1.1
Europe	1.2	2.0	2.7	2.2	1.8	2.2	1.9	-0.3	-0.3	-1.9	-0.2	-0.9	1.0	0.2	1.3	0.4
Asia Oceania	0.0	-1.4	-0.3	0.0	-0.2	-0.5	0.4	-0.7	-2.3	-4.3	-1.8	-2.0	-1.5	-1.1	0.6	-1.0
Total OECD	1.0	0.1	1.9	0.6	1.3	0.9	2.0	0.3	1.0	-0.6	0.7	-0.3	1.0	0.5	1.0	0.6
Asia	4.1	3.2	3.8	4.5	4.1	3.9	3.3	2.5	4.1	3.2	3.3	3.3	2.9	3.1	3.4	3.2
Middle East	-0.4	1.4	0.2	-0.6	-1.3	-0.1	-0.3	-1.3	-1.1	0.0	-0.7	0.1	1.2	1.0	0.0	0.6
Americas	-4.1	-0.2	0.0	0.5	0.7	0.2	-0.1	-1.6	-1.5	-0.4	-0.9	0.0	0.5	-0.4	-0.3	-0.1
FSU	-1.3	-1.1	3.6	0.9	-1.1	0.5	4.3	2.8	3.8	5.0	4.0	3.0	1.7	1.4	3.5	2.4
Africa	1.1	1.7	-0.1	1.1	-0.5	0.6	-0.6	-0.2	0.2	2.7	0.5	3.8	2.7	1.8	0.7	2.2
Europe	4.8	1.7	2.2	4.2	4.3	3.1	2.5	-0.9	1.4	5.0	1.9	2.3	3.0	2.6	0.8	2.2
Total Non-OECD	1.4	1.9	2.3	2.4	1.9	2.1	2.0	1.1	2.1	2.4	1.9	2.4	2.2	2.0	2.1	2.2
World	**1.2**	**1.0**	**2.1**	**1.5**	**1.6**	**1.6**	**2.0**	**0.7**	**1.5**	**0.9**	**1.3**	**1.1**	**1.6**	**1.3**	**1.6**	**1.4**
Annual Change (mb/d)																
Americas	0.28	-0.11	0.51	-0.03	0.36	0.18	0.65	0.25	0.68	0.33	0.48	0.16	0.43	0.31	0.26	0.29
Europe	0.16	0.27	0.37	0.31	0.26	0.31	0.26	-0.04	-0.04	-0.27	-0.02	-0.13	0.15	0.02	0.18	0.06
Asia Oceania	0.00	-0.12	-0.02	0.00	-0.02	-0.04	0.03	-0.05	-0.18	-0.36	-0.14	-0.17	-0.12	-0.08	0.05	-0.08
Total OECD	0.45	0.04	0.86	0.28	0.60	0.45	0.94	0.15	0.46	-0.31	0.31	-0.14	0.47	0.26	0.49	0.27
Asia	0.98	0.79	0.97	1.10	1.04	0.98	0.84	0.66	1.05	0.84	0.85	0.87	0.78	0.82	0.91	0.85
Middle East	-0.04	0.12	0.02	-0.05	-0.11	-0.01	-0.02	-0.11	-0.10	0.00	-0.06	0.01	0.10	0.09	0.00	0.05
Americas	-0.28	-0.01	0.00	0.03	0.04	0.01	-0.01	-0.10	-0.10	-0.03	-0.06	0.00	0.03	-0.02	-0.02	0.00
FSU	-0.06	-0.05	0.16	0.04	-0.05	0.02	0.18	0.12	0.18	0.23	0.18	0.13	0.08	0.07	0.17	0.11
Africa	0.05	0.07	0.00	0.04	-0.02	0.02	-0.03	-0.01	0.01	0.11	0.02	0.16	0.12	0.07	0.03	0.10
Europe	0.03	0.01	0.02	0.03	0.03	0.02	0.02	-0.01	0.01	0.04	0.01	0.02	0.02	0.02	0.01	0.02
Total Non-OECD	0.69	0.94	1.16	1.20	0.93	1.06	0.98	0.56	1.05	1.20	0.95	1.19	1.13	1.05	1.10	1.12
World	**1.14**	**0.98**	**2.02**	**1.48**	**1.53**	**1.50**	**1.92**	**0.71**	**1.51**	**0.89**	**1.26**	**1.05**	**1.60**	**1.30**	**1.60**	**1.39**
Revisions to Oil Demand from Last Month's Report (mb/d)																
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.33	-0.04	-0.04	-0.04	-0.11
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Asia Oceania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.06	0.05	0.05
Total OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.32	0.03	0.02	0.02	-0.06
Asia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.01	0.07	-0.01	-0.01	-0.01	0.01
Middle East	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	-0.06	0.03	0.02
Americas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.03	0.04	0.04
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.01
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	-0.01	0.00	-0.02	-0.02	-0.03	-0.02
Europe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
Total Non-OECD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.06	-0.02	0.25	0.01	-0.06	0.04	0.06
World	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**-0.06**	**-0.02**	**-0.07**	**0.03**	**-0.04**	**0.05**	**-0.01**
Revisions to Oil Demand Growth from Last Month's Report (mb/d)																
World	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.06	-0.02	-0.07	0.03	-0.04	0.11	0.01

* France, Germany, Italy, Spain and UK

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

	2017	2018	1Q18	2Q18	3Q18	4Q18	Nov 18	Dec 18	Jan 19 [2]	Latest month vs. Dec 18	Latest month vs. Jan 18
Americas											
LPG and ethane	3.33	3.63	3.99	3.29	3.48	3.77	3.87	3.91	4.26	0.35	0.00
Naphtha	0.34	0.29	0.28	0.27	0.31	0.32	0.30	0.31	0.28	-0.03	0.02
Motor gasoline	11.11	11.08	10.73	11.28	11.29	11.03	11.06	10.90	10.42	-0.49	-0.01
Jet and kerosene	1.98	2.03	1.95	2.04	2.12	2.01	2.08	1.98	1.93	-0.05	0.02
Gasoil/diesel oil	5.14	5.38	5.39	5.38	5.30	5.47	5.46	5.16	5.46	0.29	-0.12
Residual fuel oil	0.68	0.67	0.63	0.68	0.71	0.67	0.64	0.71	0.64	-0.07	-0.03
Other products	2.47	2.44	2.31	2.42	2.62	2.40	2.29	2.22	2.31	0.08	-0.01
Total	**25.06**	**25.53**	**25.26**	**25.37**	**25.83**	**25.66**	**25.70**	**25.19**	**25.28**	**0.08**	**-0.13**
Europe											
LPG and ethane	1.12	1.15	1.24	1.11	1.14	1.10	1.10	1.15	1.15	-0.01	-0.05
Naphtha	1.10	1.01	1.13	0.99	1.00	0.92	0.90	0.99	1.17	0.18	-0.06
Motor gasoline	1.97	1.98	1.87	2.05	2.06	1.95	1.97	1.92	1.77	-0.15	-0.01
Jet and kerosene	1.46	1.52	1.36	1.55	1.70	1.46	1.40	1.39	1.39	0.00	0.08
Gasoil/diesel oil	6.48	6.45	6.45	6.33	6.45	6.58	6.74	6.21	6.42	0.21	0.56
Residual fuel oil	0.89	0.88	0.89	0.89	0.90	0.84	0.83	0.84	0.89	0.05	0.03
Other products	1.28	1.28	1.14	1.30	1.42	1.27	1.24	1.14	1.02	-0.12	-0.06
Total	**14.30**	**14.27**	**14.08**	**14.21**	**14.67**	**14.13**	**14.18**	**13.64**	**13.81**	**0.16**	**0.48**
Asia Oceania											
LPG and ethane	0.75	0.72	0.82	0.72	0.65	0.70	0.69	0.77	0.84	0.07	0.03
Naphtha	2.04	1.99	2.04	1.92	1.97	2.02	2.02	2.07	2.10	0.03	0.00
Motor gasoline	1.54	1.53	1.51	1.51	1.59	1.52	1.53	1.58	1.45	-0.14	-0.01
Jet and kerosene	0.91	0.91	1.18	0.74	0.72	1.00	0.98	1.19	1.23	0.04	-0.03
Gasoil/diesel oil	1.89	1.92	1.95	1.90	1.88	1.96	2.02	1.99	1.95	-0.03	0.10
Residual fuel oil	0.58	0.55	0.66	0.49	0.52	0.53	0.51	0.53	0.53	-0.01	-0.14
Other products	0.35	0.30	0.35	0.32	0.30	0.23	0.23	0.25	0.23	-0.02	-0.14
Total	**8.06**	**7.92**	**8.51**	**7.60**	**7.62**	**7.96**	**7.98**	**8.38**	**8.32**	**-0.06**	**-0.19**
OECD											
LPG and ethane	5.20	5.50	6.05	5.12	5.27	5.57	5.65	5.83	6.25	0.41	-0.02
Naphtha	3.49	3.29	3.45	3.18	3.28	3.26	3.22	3.37	3.55	0.18	-0.04
Motor gasoline	14.62	14.60	14.11	14.84	14.93	14.50	14.57	14.41	13.63	-0.77	-0.04
Jet and kerosene	4.35	4.46	4.49	4.33	4.54	4.48	4.46	4.56	4.54	-0.02	0.07
Gasoil/diesel oil	13.51	13.76	13.78	13.61	13.63	14.01	14.23	13.36	13.83	0.47	0.54
Residual fuel oil	2.15	2.11	2.18	2.06	2.14	2.04	1.98	2.09	2.06	-0.03	-0.14
Other products	4.10	4.02	3.80	4.04	4.33	3.90	3.76	3.60	3.55	-0.05	-0.21
Total	**47.42**	**47.73**	**47.85**	**47.18**	**48.12**	**47.76**	**47.86**	**47.22**	**47.41**	**0.19**	**0.15**

1 Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils. North America comprises US 50 states, US territories, Mexico and Canada.
2 Latest official OECD submissions (MOS).

Table 2b
OIL DEMAND IN SELECTED OECD COUNTRIES[1]
(million barrels per day)

	2017	2018	1Q18	2Q18	3Q18	4Q18	Nov 18	Dec 18	Jan 19 [2]	Latest month vs. Dec 18	Latest month vs. Jan 18
United States[3]											
LPG and ethane	2.54	2.85	3.12	2.58	2.68	3.04	3.13	3.23	3.45	0.22	0.09
Naphtha	0.23	0.23	0.21	0.20	0.24	0.24	0.22	0.24	0.20	-0.03	-0.01
Motor gasoline	9.33	9.32	9.01	9.51	9.51	9.25	9.25	9.22	8.74	-0.48	0.00
Jet and kerosene	1.69	1.72	1.65	1.73	1.78	1.70	1.77	1.67	1.66	-0.01	0.03
Gasoil/diesel oil	3.93	4.13	4.18	4.13	4.05	4.18	4.13	4.03	4.36	0.33	-0.04
Residual fuel oil	0.34	0.32	0.28	0.32	0.34	0.34	0.32	0.40	0.30	-0.10	-0.04
Other products	1.90	1.88	1.78	1.86	2.04	1.85	1.73	1.70	1.74	0.05	-0.05
Total	**19.96**	**20.45**	**20.24**	**20.33**	**20.63**	**20.60**	**20.55**	**20.48**	**20.45**	**-0.03**	**-0.01**
Japan											
LPG and ethane	0.39	0.37	0.46	0.35	0.31	0.36	0.36	0.40	0.45	0.04	-0.01
Naphtha	0.77	0.73	0.75	0.66	0.70	0.80	0.82	0.79	0.79	0.00	0.03
Motor gasoline	0.88	0.87	0.84	0.85	0.92	0.86	0.84	0.91	0.78	-0.13	-0.02
Jet and kerosene	0.51	0.50	0.73	0.37	0.33	0.57	0.55	0.73	0.73	0.01	-0.04
Diesel	0.43	0.45	0.43	0.44	0.45	0.48	0.48	0.48	0.42	-0.06	0.03
Other gasoil	0.35	0.33	0.40	0.29	0.28	0.33	0.32	0.36	0.36	0.00	-0.03
Residual fuel oil	0.28	0.28	0.34	0.23	0.27	0.27	0.26	0.27	0.25	-0.02	-0.08
Other products	0.28	0.26	0.31	0.24	0.27	0.24	0.24	0.26	0.27	0.01	-0.07
Total	**3.89**	**3.78**	**4.27**	**3.43**	**3.53**	**3.89**	**3.86**	**4.20**	**4.06**	**-0.14**	**-0.20**
Germany											
LPG and ethane	0.13	0.11	0.11	0.13	0.11	0.09	0.09	0.10	0.11	0.00	0.00
Naphtha	0.30	0.26	0.30	0.27	0.25	0.24	0.22	0.27	0.35	0.08	0.03
Motor gasoline	0.50	0.49	0.50	0.50	0.50	0.48	0.49	0.47	0.46	-0.02	-0.02
Jet and kerosene	0.22	0.22	0.19	0.23	0.24	0.21	0.21	0.21	0.20	-0.01	0.03
Diesel	0.76	0.73	0.70	0.74	0.76	0.73	0.78	0.63	0.68	0.05	0.04
Other gasoil	0.37	0.33	0.41	0.27	0.29	0.37	0.34	0.37	0.50	0.13	0.17
Residual fuel oil	0.08	0.07	0.09	0.08	0.07	0.06	0.06	0.07	0.07	0.01	-0.02
Other products	0.09	0.10	0.07	0.09	0.12	0.11	0.13	0.07	0.06	-0.01	0.01
Total	**2.46**	**2.33**	**2.37**	**2.30**	**2.34**	**2.29**	**2.32**	**2.19**	**2.44**	**0.24**	**0.23**
Italy											
LPG and ethane	0.10	0.10	0.12	0.09	0.09	0.11	0.10	0.12	0.11	-0.01	-0.01
Naphtha	0.09	0.07	0.09	0.06	0.07	0.05	0.06	0.04	0.02	-0.02	-0.07
Motor gasoline	0.16	0.16	0.15	0.17	0.17	0.15	0.15	0.16	0.11	-0.05	-0.03
Jet and kerosene	0.11	0.11	0.09	0.11	0.13	0.10	0.09	0.09	0.09	0.00	0.00
Diesel	0.47	0.50	0.50	0.50	0.49	0.50	0.50	0.49	0.49	0.00	0.04
Other gasoil	0.08	0.08	0.07	0.08	0.09	0.09	0.09	0.08	0.07	-0.02	0.01
Residual fuel oil	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.06	0.07	0.01	-0.01
Other products	0.15	0.17	0.15	0.17	0.18	0.18	0.18	0.16	0.15	-0.01	0.00
Total	**1.24**	**1.27**	**1.25**	**1.27**	**1.29**	**1.26**	**1.25**	**1.20**	**1.10**	**-0.11**	**-0.07**
France											
LPG and ethane	0.11	0.11	0.14	0.10	0.09	0.10	0.09	0.11	0.14	0.03	0.00
Naphtha	0.11	0.12	0.12	0.14	0.13	0.09	0.08	0.10	0.13	0.04	0.01
Motor gasoline	0.18	0.19	0.17	0.20	0.20	0.19	0.19	0.17	0.17	0.00	0.01
Jet and kerosene	0.16	0.17	0.15	0.17	0.19	0.16	0.15	0.16	0.16	0.00	0.01
Diesel	0.72	0.70	0.70	0.71	0.70	0.70	0.71	0.65	0.65	0.00	-0.01
Other gasoil	0.25	0.24	0.27	0.19	0.23	0.25	0.24	0.22	0.29	0.06	0.06
Residual fuel oil	0.05	0.05	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.00
Other products	0.12	0.13	0.10	0.13	0.14	0.13	0.13	0.11	0.11	-0.01	0.03
Total	**1.71**	**1.70**	**1.71**	**1.69**	**1.74**	**1.68**	**1.64**	**1.58**	**1.70**	**0.12**	**0.11**
United Kingdom											
LPG and ethane	0.14	0.13	0.14	0.14	0.12	0.13	0.14	0.15	0.13	-0.02	0.00
Naphtha	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.00	0.01
Motor gasoline	0.29	0.28	0.27	0.29	0.28	0.29	0.31	0.28	0.26	-0.02	0.00
Jet and kerosene	0.32	0.33	0.34	0.33	0.34	0.33	0.32	0.33	0.35	0.02	0.02
Diesel	0.52	0.53	0.52	0.53	0.53	0.54	0.58	0.54	0.49	-0.05	0.02
Other gasoil	0.14	0.15	0.13	0.15	0.16	0.15	0.16	0.14	0.12	-0.02	0.01
Residual fuel oil	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00
Other products	0.12	0.12	0.11	0.12	0.13	0.12	0.11	0.12	0.13	0.01	0.02
Total	**1.58**	**1.60**	**1.57**	**1.62**	**1.61**	**1.61**	**1.67**	**1.62**	**1.53**	**-0.09**	**0.09**
Canada											
LPG and ethane	0.39	0.35	0.42	0.30	0.38	0.32	0.33	0.28	0.35	0.06	-0.10
Naphtha	0.10	0.05	0.06	0.05	0.05	0.05	0.05	0.06	0.05	0.00	0.00
Motor gasoline	0.85	0.84	0.78	0.83	0.88	0.87	0.89	0.80	0.74	-0.06	-0.03
Jet and kerosene	0.15	0.17	0.14	0.16	0.19	0.16	0.16	0.17	0.13	-0.04	0.01
Diesel	0.29	0.26	0.26	0.27	0.26	0.26	0.26	0.26	0.26	0.00	0.01
Other gasoil	0.27	0.32	0.28	0.29	0.34	0.37	0.37	0.29	0.25	-0.04	-0.04
Residual fuel oil	0.06	0.08	0.06	0.09	0.07	0.09	0.08	0.10	0.07	-0.03	-0.01
Other products	0.35	0.36	0.32	0.36	0.38	0.36	0.37	0.35	0.38	0.03	0.04
Total	**2.45**	**2.43**	**2.32**	**2.34**	**2.56**	**2.49**	**2.51**	**2.31**	**2.22**	**-0.09**	**-0.14**

1 Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply. Jet/kerosene comprises jet kerosene and non-aviation kerosene. Gasoil comprises diesel, light heating oil and other gasoils.
2 Latest official OECD submissions (MOS).
3 US figures exclude US territories.

Table 3
WORLD OIL PRODUCTION
(million barrels per day)

	2017	2018	2019	4Q18	1Q19	2Q19	3Q19	4Q19	Jan 19	Feb 19	Mar 19
OPEC											
Crude Oil											
Saudi Arabia	9.96	10.33		10.78	10.06				10.24	10.14	9.82
Iran	3.81	3.58		3.03	2.73				2.72	2.74	2.74
Iraq	4.47	4.56		4.67	4.65				4.75	4.66	4.54
UAE	2.93	3.00		3.26	3.06				3.07	3.05	3.05
Kuwait	2.71	2.75		2.78	2.71				2.72	2.71	2.70
Neutral Zone	0.00	0.00		0.00	0.00				0.00	0.00	0.00
Angola	1.64	1.49		1.45	1.45				1.47	1.43	1.45
Nigeria	1.53	1.60		1.63	1.66				1.65	1.68	1.64
Libya	0.83	0.97		1.08	0.97				0.89	0.90	1.10
Algeria	1.05	1.04		1.07	1.03				1.03	1.03	1.02
Congo	0.26	0.32		0.33	0.34				0.33	0.35	0.35
Gabon	0.20	0.19		0.18	0.21				0.21	0.21	0.20
Equatorial Guinea	0.13	0.12		0.11	0.11				0.11	0.11	0.12
Ecuador	0.53	0.52		0.52	0.53				0.52	0.53	0.53
Venezuela	1.97	1.40		1.30	1.08				1.24	1.14	0.87
Total Crude Oil	32.01	31.88		32.18	30.58				30.95	30.68	30.13
Total NGLs[1]	5.51	5.55	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57
Total OPEC[2]	**37.52**	**37.42**		**37.75**	**36.15**				**36.52**	**36.25**	**35.70**
NON-OPEC[3]											
OECD											
Americas	20.32	22.79	24.16	23.93	23.65	23.84	24.40	24.77	23.63	23.55	23.76
United States	13.27	15.49	17.08	16.53	16.56	16.95	17.30	17.51	16.54	16.44	16.69
Mexico	2.23	2.08	1.92	1.95	1.92	1.93	1.91	1.91	1.86	1.95	1.95
Canada	4.82	5.21	5.16	5.43	5.16	4.95	5.18	5.34	5.21	5.14	5.11
Chile	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Europe	3.48	3.47	3.41	3.54	3.42	3.31	3.38	3.53	3.47	3.39	3.40
UK	1.01	1.11	1.15	1.16	1.14	1.14	1.09	1.21	1.16	1.14	1.12
Norway	1.97	1.85	1.76	1.86	1.78	1.67	1.78	1.82	1.82	1.75	1.78
Others	0.50	0.51	0.50	0.52	0.50	0.50	0.50	0.50	0.49	0.51	0.50
Asia Oceania	0.39	0.41	0.47	0.44	0.44	0.47	0.48	0.50	0.42	0.45	0.46
Australia	0.31	0.34	0.41	0.37	0.38	0.40	0.42	0.44	0.36	0.39	0.39
Others	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Total OECD	**24.19**	**26.67**	**28.05**	**27.91**	**27.51**	**27.62**	**28.26**	**28.80**	**27.53**	**27.39**	**27.62**
NON-OECD											
Former USSR	14.30	14.56	14.62	14.83	14.81	14.43	14.52	14.74	14.85	14.84	14.73
Russia	11.32	11.49	11.61	11.75	11.67	11.53	11.57	11.67	11.71	11.67	11.63
Others	2.98	3.07	3.02	3.08	3.14	2.90	2.96	3.07	3.15	3.17	3.10
Asia	7.34	7.19	7.05	7.21	7.15	7.08	6.99	7.00	7.18	7.17	7.10
China	3.87	3.85	3.82	3.89	3.87	3.84	3.78	3.80	3.89	3.89	3.83
Malaysia	0.72	0.72	0.70	0.71	0.71	0.70	0.68	0.70	0.72	0.71	0.71
India	0.86	0.84	0.81	0.82	0.82	0.81	0.82	0.81	0.82	0.82	0.83
Indonesia	0.84	0.80	0.77	0.79	0.77	0.77	0.76	0.76	0.78	0.78	0.77
Others	1.05	0.98	0.95	0.99	0.97	0.96	0.95	0.93	0.97	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
Americas	4.54	4.50	4.84	4.56	4.52	4.80	4.95	5.07	4.56	4.43	4.56
Brazil	2.74	2.70	3.02	2.73	2.69	2.98	3.14	3.27	2.73	2.59	2.74
Argentina	0.57	0.58	0.59	0.59	0.59	0.59	0.59	0.60	0.59	0.59	0.59
Colombia	0.86	0.87	0.88	0.89	0.90	0.89	0.88	0.87	0.91	0.90	0.89
Others	0.37	0.35	0.34	0.35	0.34	0.34	0.34	0.33	0.34	0.35	0.34
Middle East	3.22	3.27	3.27	3.29	3.26	3.26	3.26	3.27	3.25	3.26	3.26
Oman	0.98	0.99	0.98	1.00	0.98	0.98	0.98	0.99	0.98	0.98	0.98
Qatar	1.97	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	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	0.21	0.21	0.21	0.21	0.21	0.20	0.21	0.21
Africa	1.41	1.45	1.46	1.43	1.47	1.46	1.46	1.45	1.45	1.48	1.46
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	0.78	0.81	0.81	0.81	0.80	0.80	0.83	0.81
Total Non-OECD	**30.93**	**31.09**	**31.36**	**31.43**	**31.32**	**31.15**	**31.30**	**31.66**	**31.43**	**31.30**	**31.24**
Processing gains[4]	2.29	2.32	2.35	2.32	2.35	2.35	2.35	2.35	2.35	2.35	2.35
Global Biofuels	2.46	2.62	2.69	2.51	2.26	2.79	3.03	2.68	2.28	2.22	2.26
TOTAL NON-OPEC	**59.88**	**62.70**	**64.45**	**64.18**	**63.44**	**63.90**	**64.94**	**65.48**	**63.59**	**63.26**	**63.47**
TOTAL SUPPLY	**97.40**	**100.12**		**101.93**	**99.59**				**100.10**	**99.50**	**99.16**

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 OPEC data based on today's membership throughout the time series.
3 Comprises crude oil, condensates, NGLs and oil from non-conventional sources
4 Net volumetric gains and losses in refining and marine transportation losses.

Table 4
OECD INDUSTRY STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Oct2018	Nov2018	Dec2018	Jan2019	Feb2019*	Feb2016	Feb2017	Feb2018	1Q2018	2Q2018	3Q2018	4Q2018
OECD Americas												
Crude	595.8	610.5	604.3	613.7	609.5	647.9	684.9	581.9	0.04	-0.14	0.00	0.35
Motor Gasoline	261.2	257.6	278.3	292.2	283.3	285.9	286.4	284.5	0.06	-0.07	0.04	0.09
Middle Distillate	196.2	193.8	217.3	216.8	211.4	240.6	240.4	214.1	-0.15	-0.16	0.27	0.01
Residual Fuel Oil	34.9	35.1	34.2	35.8	33.7	52.2	43.3	38.6	0.06	-0.06	0.00	-0.01
Total Products[3]	733.7	717.9	749.1	750.4	722.3	765.5	760.7	718.0	-0.35	0.06	0.61	-0.17
Total[4]	1532.8	1526.7	1541.9	1549.2	1518.7	1584.1	1619.1	1473.3	-0.34	0.03	0.76	0.01
OECD Europe												
Crude	327.3	325.9	320.0	326.2	333.7	357.6	359.5	339.5	0.16	0.12	-0.32	-0.05
Motor Gasoline	87.1	89.8	95.3	108.1	107.3	108.3	105.0	103.2	-0.02	-0.14	0.01	0.11
Middle Distillate	253.0	246.6	261.6	263.7	264.7	321.8	315.1	280.6	-0.03	-0.12	0.17	-0.13
Residual Fuel Oil	57.1	58.6	56.6	60.6	59.4	81.8	70.9	63.2	0.03	-0.01	-0.03	-0.01
Total Products[3]	514.5	511.3	529.6	550.6	549.9	610.2	597.3	563.6	0.03	-0.28	0.15	-0.05
Total[4]	920.7	916.7	929.1	958.7	965.8	1042.1	1029.2	981.2	0.25	-0.13	-0.24	-0.07
OECD Asia Oceania												
Crude	157.2	160.7	154.4	152.8	159.9	195.6	184.9	184.0	-0.31	0.01	-0.24	0.16
Motor Gasoline	26.3	25.2	24.1	26.3	26.5	24.6	24.8	23.9	0.01	0.00	0.00	0.00
Middle Distillate	74.0	78.1	73.7	64.5	63.1	59.4	65.6	59.7	-0.01	0.04	0.13	-0.04
Residual Fuel Oil	18.5	19.8	20.5	20.6	20.9	18.7	19.5	19.1	-0.01	0.03	-0.01	0.01
Total Products[3]	182.3	187.9	180.7	169.7	168.3	163.1	166.5	160.0	-0.04	0.04	0.22	-0.04
Total[4]	404.6	416.0	399.4	385.1	386.9	421.7	412.7	401.6	-0.38	0.11	0.02	0.11
Total OECD												
Crude	1080.3	1097.1	1078.8	1092.7	1103.2	1201.1	1229.2	1105.4	-0.11	-0.01	-0.56	0.45
Motor Gasoline	374.5	372.6	397.7	426.6	417.2	418.9	416.2	411.6	0.05	-0.20	0.05	0.20
Middle Distillate	523.1	518.6	552.7	545.0	539.2	621.8	621.1	554.4	-0.18	-0.24	0.58	-0.16
Residual Fuel Oil	110.5	113.5	111.2	117.0	114.0	152.8	133.7	120.9	0.08	-0.04	-0.04	-0.01
Total Products[3]	1430.5	1417.1	1459.4	1470.7	1440.5	1538.7	1524.5	1441.6	-0.36	-0.18	0.98	-0.26
Total[4]	2858.1	2859.4	2870.4	2893.0	2871.3	3047.9	3060.9	2856.1	-0.47	0.00	0.54	0.04

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

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Oct2018	Nov2018	Dec2018	Jan2019	Feb2019*	Feb2016	Feb2017	Feb2018	1Q2018	2Q2018	3Q2018	4Q2018
OECD Americas												
Crude	654.8	649.6	649.1	649.1	649.1	695.1	694.8	665.5	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	210.2	209.2	208.2	205.4	206.6	206.3	205.7	204.1	0.02	0.01	0.01	-0.01
Products	265.6	264.6	266.3	269.9	270.9	266.6	275.0	275.1	0.04	-0.01	-0.04	-0.03
OECD Asia Oceania												
Crude	382.7	380.8	381.1	380.6	380.6	384.2	384.1	383.4	-0.01	0.00	0.00	-0.02
Products	38.7	38.7	38.8	38.8	38.8	34.4	38.0	38.7	0.00	0.00	0.00	0.00
Total OECD												
Crude	1247.7	1239.6	1238.4	1235.1	1236.4	1285.6	1284.6	1252.9	0.04	-0.05	0.01	-0.15
Products	306.3	305.3	307.0	310.6	311.6	303.0	314.9	315.7	0.04	-0.01	-0.04	-0.03
Total[4]	1556.9	1547.7	1547.4	1548.9	1550.9	1592.3	1602.8	1571.6	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 COUNTRIES[1]
('millions of barrels' and 'days')

	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	192.3	-
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	-
Total[4]	2163.2	86	2135.9	84	2133.1	83	2203.3	86	2193.0	86
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	7.9	-
Total	835.3	98	800.0	105	809.8	106	811.6	102	819.2	98
OECD Europe[5]										
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	271.1	-
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	1405.6	101
Total OECD	**4421.0**	**92**	**4390.9**	**93**	**4386.0**	**91**	**4431.7**	**93**	**4417.8**	**93**
DAYS OF IEA Net Imports[6]	**-**	**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	Industry
		Millions of Barrels			*Days of Fwd. Demand[2]*	
4Q2015	4577	1588	2989	98	34	64
1Q2016	4633	1595	3039	100	35	66
2Q2016	4668	1592	3076	99	34	65
3Q2016	4679	1596	3084	99	34	65
4Q2016	4602	1600	3002	98	34	64
1Q2017	4630	1600	3031	98	34	64
2Q2017	4608	1588	3019	97	33	63
3Q2017	4547	1578	2969	95	33	62
4Q2017	4421	1568	2853	92	33	60
1Q2018	4391	1575	2816	93	33	60
2Q2018	4386	1570	2816	91	33	59
3Q2018	4432	1565	2866	93	33	60
4Q2018	4418	1547	2870	93	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 STREAMS[1]
(million barrels per day)

	2016	2017	2018	1Q18	2Q18	3Q18	4Q18	Nov 18	Dec 18	Jan 19	Year Earlier Jan 18	Year Earlier change
Saudi Light & Extra Light												
Americas	0.69	0.59	0.66	0.54	0.79	0.64	0.66	0.59	0.64	0.37	0.44	-0.07
Europe	0.79	0.69	0.69	0.58	0.70	0.76	0.72	0.66	0.79	0.77	0.48	0.28
Asia Oceania	1.40	1.56	1.45	1.50	1.42	1.36	1.50	1.42	1.51	1.65	1.53	0.12
Saudi Medium												
Americas	0.44	0.33	0.30	0.20	0.28	0.37	0.33	0.31	0.34	-	0.24	-
Europe	0.01	0.01	0.01	0.02	0.01	0.01	0.01	-	0.04	-	0.04	-
Asia Oceania	0.41	0.37	0.41	0.40	0.42	0.41	0.39	0.39	0.34	0.28	0.36	-0.08
Canada Heavy												
Americas	2.04	2.23	2.41	2.33	2.48	2.39	2.43	2.46	2.43	2.31	2.34	-0.03
Europe	0.01	0.02	0.04	0.03	0.04	0.05	0.02	-	0.04	0.03	0.03	0.00
Asia Oceania	-	-	0.00	0.00	0.00	-	0.01	0.01	0.01	-	-	-
Iraqi Basrah Light[2]												
Americas	0.42	0.63	0.50	0.66	0.63	0.41	0.32	0.32	0.19	0.52	0.64	-0.12
Europe	0.81	0.76	0.76	0.65	0.61	0.87	0.92	0.94	0.83	0.87	0.79	0.07
Asia Oceania	0.46	0.40	0.43	0.42	0.48	0.42	0.42	0.43	0.42	0.50	0.62	-0.12
Kuwait Blend												
Americas	0.14	0.11	0.02	0.03	0.04	-	-	-	-	-	0.07	-
Europe	0.19	0.20	0.13	0.13	0.08	0.17	0.13	0.16	0.14	0.09	0.13	-0.04
Asia Oceania	0.66	0.68	0.66	0.68	0.66	0.67	0.62	0.63	0.60	0.66	0.79	-0.14
Iranian Light												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.21	0.27	0.16	0.24	0.26	0.13	0.03	-	0.02	0.03	0.18	-0.15
Asia Oceania	0.01	0.01	0.01	0.02	0.01	0.01	-	-	-	-	0.03	-
Iranian Heavy[3]												
Americas	-	-	-	-	-	-	-	-	-	-	-	-
Europe	0.21	0.52	0.35	0.42	0.44	0.41	0.11	0.01	0.00	0.06	0.49	-0.43
Asia Oceania	0.52	0.57	0.28	0.49	0.36	0.24	0.02	-	-	0.06	0.43	-0.36
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	0.26	0.35	0.57	0.38	0.19
Asia Oceania	0.05	0.10	0.09	0.09	0.09	0.07	0.10	0.07	0.10	-	0.07	-
Kazakhstan												
Americas	0.01	-	-	-	-	-	-	-	-	-	-	-
Europe	0.70	0.75	0.75	0.84	0.73	0.70	0.71	0.76	0.78	0.77	1.06	-0.28
Asia Oceania	0.03	0.10	0.19	0.13	0.19	0.21	0.22	0.21	0.25	0.16	0.21	-0.04
Venezuelan 22 API and heavier												
Americas	0.63	0.48	0.44	0.40	0.47	0.45	0.45	0.44	0.44	0.44	0.36	0.08
Europe	0.05	0.04	0.03	0.02	0.02	0.03	0.06	0.09	0.06	0.13	0.02	0.11
Asia Oceania	-	-	-	-	-	-	-	-	-	-	-	-
Mexican Maya												
Americas	0.53	0.58	0.63	0.64	0.63	0.75	0.51	0.64	0.37	0.47	0.79	-0.32
Europe	0.17	0.20	0.21	0.27	0.22	0.17	0.17	0.20	0.18	0.18	0.23	-0.05
Asia Oceania	0.05	0.07	0.08	0.06	0.10	0.08	0.09	0.09	0.06	0.13	0.02	0.10
Russian Urals												
Americas	-	0.01	0.01	-	-	-	0.02	-	0.05	0.09	-	-
Europe	1.72	1.64	1.39	1.38	1.46	1.37	1.37	1.46	1.39	1.32	1.37	-0.04
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	-	-	-	-	-
Europe	0.27	0.11	0.14	0.14	0.11	0.22	0.08	0.10	0.09	0.12	0.09	0.03
Pacific	0.01	0.01	0.01	-	0.00	-	0.03	0.05	-	-	-	-
Nigerian Light[4]												
Americas	0.07	0.04	0.01	0.03	0.01	-	-	-	-	-	0.09	-
Europe	0.39	0.39	0.53	0.48	0.49	0.54	0.62	0.68	0.60	0.44	0.44	0.00
Asia Oceania	0.01	0.02	0.02	0.02	0.03	0.01	0.02	-	0.05	0.01	0.01	0.00
Libya Light and Medium												
Americas	-	0.02	-	-	-	-	-	-	-	-	-	-
Europe	0.20	0.54	0.62	0.65	0.64	0.55	0.65	0.56	0.60	0.62	0.66	-0.05
Asia Oceania	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.01	0.03	0.05	0.02	0.03

1 Data based on monthly submissions from IEA countries to the crude oil import register (in '000 bbl), subject to availability. May differ from Table 8 of the Report. IEA Americas includes United States and Canada. IEA Europe includes all countries in OECD Europe except Estonia, Hungary, 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	Nov 18	Dec 18	Jan 19	Year Earlier Jan 18	Year Earlier % change
Crude Oil												
Americas	4542	4361	3759	3827	4085	3905	3223	3350	3081	3316	4068	-18%
Europe	9253	9711	9529	9502	9433	9728	9452	9101	9659	9869	9655	2%
Asia Oceania	6659	6843	6698	6849	6571	6513	6861	7137	6631	6718	7195	-7%
Total OECD	20455	20916	19986	20178	20089	20146	19535	19588	19371	19903	20918	-5%
LPG												
Americas	20	20	22	33	14	17	24	15	35	52	38	38%
Europe	445	437	473	492	469	430	500	471	541	449	480	-6%
Asia Oceania	567	549	555	595	567	503	555	568	554	678	533	27%
Total OECD	1032	1006	1050	1120	1050	951	1080	1055	1130	1180	1051	12%
Naphtha												
Americas	10	19	8	10	5	6	11	1	7	4	4	-6%
Europe	348	369	371	411	371	346	358	394	225	481	444	8%
Asia Oceania	908	981	1021	1031	958	1007	1088	1109	1110	959	999	-4%
Total OECD	1266	1369	1401	1453	1333	1360	1458	1504	1341	1444	1447	0%
Gasoline[3]												
Americas	735	727	773	559	1060	968	504	352	533	536	451	19%
Europe	100	162	103	155	67	85	104	106	99	136	75	80%
Asia Oceania	87	102	108	123	123	92	95	90	75	123	106	15%
Total OECD	922	990	984	837	1250	1144	703	549	708	795	633	26%
Jet & Kerosene												
Americas	169	171	140	131	136	178	115	132	107	116	151	-23%
Europe	504	506	510	426	538	601	475	613	320	458	496	-8%
Asia Oceania	73	77	85	112	60	53	118	127	137	53	80	-34%
Total OECD	745	754	736	669	733	832	707	871	564	626	727	-14%
Gasoil/Diesel												
Americas	67	77	124	179	63	130	125	125	127	270	237	14%
Europe	1340	1381	1379	1409	1381	1455	1271	1228	1345	1470	1406	5%
Asia Oceania	196	194	254	214	256	232	313	343	283	238	196	22%
Total OECD	1602	1653	1757	1802	1700	1817	1710	1696	1755	1979	1839	8%
Heavy Fuel Oil												
Americas	149	131	161	158	161	195	130	103	118	157	192	-18%
Europe	477	240	232	239	227	249	211	237	224	158	186	-15%
Asia Oceania	153	146	162	192	156	151	149	170	168	127	183	-30%
Total OECD	779	517	555	589	544	595	491	509	509	443	562	-21%
Other Products												
Americas	652	717	679	722	658	699	637	636	564	632	759	-17%
Europe	774	1009	1036	1059	979	1126	980	1043	1022	1080	966	12%
Asia Oceania	348	255	265	277	250	255	279	282	280	266	303	-12%
Total OECD	1774	1981	1980	2057	1886	2080	1895	1961	1866	1978	2028	-2%
Total Products												
Americas	1802	1862	1908	1793	2095	2194	1547	1364	1491	1768	1833	-4%
Europe	3988	4104	4103	4190	4031	4293	3899	4092	3776	4233	4054	4%
Asia Oceania	2331	2304	2450	2543	2371	2292	2597	2689	2606	2444	2400	2%
Total OECD	8121	8270	8461	8526	8497	8779	8044	8145	7873	8445	8286	2%
Total Oil												
Americas	6344	6223	5666	5620	6180	6100	4770	4714	4572	5084	5900	-14%
Europe	13241	13815	13632	13693	13464	14021	13351	13194	13434	14102	13709	3%
Asia Oceania	8991	9147	9148	9392	8942	8805	9458	9826	9237	9162	9595	-5%
Total OECD	28575	29186	28447	28704	28586	28925	27579	27733	27244	28348	29204	-3%

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

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

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