

# OPEC

## Monthly Oil Market Report

12 April 2018

***Feature article:***  
***Summer product market outlook***

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# Oil Market Highlights

## Crude Oil Price Movements

In March, the OPEC Reference Basket (ORB) increased by less than 0.5% to \$63.76/b. Oil futures ended about 1% higher in a relatively volatile month, following US equity market movements and supported by robust oil demand growth forecasts, tightening US crude stocks and geopolitical tensions. ICE Brent was 99¢, or 1.5%, higher at \$66.72/b from the previous month, while NYMEX WTI gained 59¢, or 0.9%, to average \$62.77/b. Year-to-date, ICE Brent was \$12.66 higher at \$67.23/b. The NYMEX WTI/ICE Brent spread widened slightly month-on-month, as the steep inventory declines in Cushing, Oklahoma, subsided. Hedge funds increased net long positions in ICE Brent and NYMEX WTI in March to 1.08 million contracts. For the month, the Dubai structure flipped back into contango, while Brent and WTI structure remained in backwardation, albeit at a reduced level.

## World Economy

The global GDP growth forecast remains at 3.8% for both 2017 and 2018. Expected US growth in 2018 is unchanged from the previous month at 2.7%, after growth of 2.3% in 2017. Growth in the Euro-zone was revised up to 2.3% in 2018, following growth of 2.5% in 2017. Japan's 2018 growth forecast remains at 1.5%, after actual growth of 1.7% in 2017. India's and China's 2018 GDP growth forecasts remain unchanged at 7.2% and 6.5%, respectively, following 2017 GDP growth of 6.3% and 6.9%.

## World Oil Demand

World oil demand growth for 2017 was adjusted higher by around 30 tb/d to 1.65 mb/d, mainly to account for up-to-date data in both OECD and non-OECD regions. Total world oil demand is now pegged at 97.07 mb/d for the year. Similarly, world oil demand growth in 2018 was revised higher by 30 tb/d, compared to last month's report, to now stand at 1.63 mb/d. This mainly reflects the positive momentum in the OECD in the 1Q18 on the back of better-than-expected data, and supported by development in industrial activities, colder-than-anticipated weather and strong mining activities in the OECD Americas and the OECD Asia Pacific. In the non-OECD region, Other Asia saw an upward revision of 30 tb/d in the 1Q18 as a result of better-than-expected demand in the industrial and transportation sectors in the first two months of the year. In contrast, oil demand growth was adjusted lower by 30 tb/d in the 1Q18 in the Middle East region. This mainly reflects slower-than-expected regional oil demand developments. Total world oil demand for the year is forecast to average 98.70 mb/d.

## World Oil Supply

Non-OPEC supply for 2017 was revised up by 0.03 mb/d, mainly due to updated Canadian production data, to now show growth of 0.9 mb/d for the year. For 2018, non-OPEC supply was also revised up by 0.08 mb/d from the previous month's assessment, to now show growth of 1.71 mb/d year-on-year. This is on the back of higher-than-expected output in the 1Q18, mainly in the FSU and the US, as well as some upward adjustments elsewhere. Non-OPEC supply is now estimated to average 59.61 mb/d for 2018. OPEC NGLs and non-conventional liquids' production is estimated to grow by 0.18 mb/d year-on-year to average 6.49 mb/d in 2018. In March, OPEC crude production decreased by 201 tb/d to average 31.96 mb/d, according to secondary sources.

## Product Markets and Refining Operations

Product markets in the Atlantic Basin exhibited strong gains during March, strengthening sharply amid the onset of the spring refinery maintenance season. In the US, support came from higher gasoline demand, gasoline price adjustments from the winter-to-summer Reid Vapour Pressure (RVP) grade switch, and higher gasoline drawdowns. In Europe, product markets strengthened, supported by higher middle distillate demand and tighter middle distillate inventories. Meanwhile, product markets in Asia weakened slightly, with losses seen across the barrel due to lower arbitrage opportunities, and lower heating requirements.

## Tanker Market

Average dirty tanker spot freight rates were flat in March. Generally, dirty tanker rates were depressed for all classes despite some relative gains for Suezmax from a month earlier. Weak freight rates were registered on all major trading routes as the market continues to suffer from tonnage oversupply, while the level of activities remains insufficient to relieve the imbalance. Moreover, reduced delays and fleet expansions pressured freight rates in March. In the clean tanker market, average freight rates declined slightly affected by weaker rates in the direction West of Suez.

### Stock Movements

Preliminary data for February shows that total OECD commercial oil stocks fell by 17.4 mb to stand at 2,854 mb, which is 43 mb above the latest five-year average. Crude stocks indicated a surplus of 55 mb, while product stocks saw a deficit of 12 mb below the five-year average. In terms of days of forward cover, OECD commercial stocks rose in February to stand at 60.6 days, which is 0.6 days lower than the latest five-year average.

### Balance of Supply and Demand

In 2017, demand for OPEC crude is estimated to stand at 32.9 mb/d, 0.6 mb/d higher than the 2016 level. In 2018, demand for OPEC crude is forecast at 32.6 mb/d, 0.3 mb/d lower than in 2017.

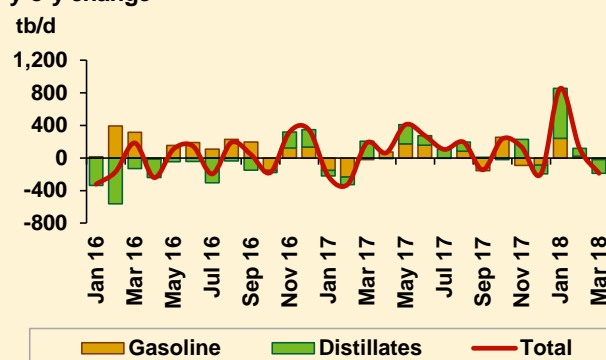
## Feature Article

### Summer product market outlook

Product markets in 2017 saw record-high refinery margins across the globe, and this encouraging momentum for global product markets has continued in the 1Q18. In the lead up to the summer season in the northern hemisphere, indicators are pointing to this positive and optimistic outlook remaining in place.

The US is typically the key driver for product markets in the run-up to the summer driving season. Demand in the US had an excellent start to the year, with monthly data for January 2018 showing combined gasoline and diesel growth of around 845 tb/d y-o-y, and total combined oil products growth of around 1 mb/d, the highest in 22 years (**Graph 1**). The weekly data for February and March has further supported this positive trend. In addition, most of the products showed an encouraging trend, with diesel oil seeing strong growth. Demand for diesel oil was encouraged by the positive macroeconomic indicators, higher demand for residential heating fuel, higher domestic freight shipment, up by 12% y-o-y, and a stronger y-o-y housing market.

**Graph 1: US diesel and gasoline consumption, y-o-y change**

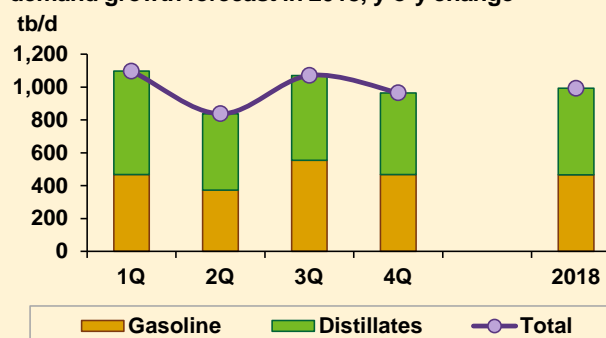


Note: February and March 2018 data based on weekly average.  
Sources: US EIA and OPEC Secretariat.

Furthermore, this optimism is supported by continuous draws in major oil product stock categories, with US gasoline stocks dropping for five consecutive weeks and distillates stocks dropping for eight out of nine weeks to now stand below the five-year average. At the same time, US commercial crude oil stocks are far below the levels witnessed in the last few years, standing below the latest five-year average for the last three weeks. These developments could lead to tightening market prospects during the summer, lending additional support to refining margins.

Additional backing could be derived from vehicle sales, which have shown strong increases in the EU in the first two months of 2018, up by 6.5% compared to the previous year. In Asia, new car sales started strong in 2018 as the six ASEAN nations' car sales increased by 9% in January y-o-y. In India, new car sales from the three largest car manufacturers also posted strong growth figures compared to the same time last year, and in China new car sales have grown strongly since the beginning of 2018. In addition, the recent lifting of a five-month restriction on heavy-duty trucking and industrial production in northern China is expected to support the regional diesel market. If this trend continues, it could further support product markets in the coming months.

**Graph 2: Global gasoline and distillates quarterly demand growth forecast in 2018, y-o-y change**



Note: 2018 = Forecast, 1Q18 is partly based on initial January and February data for main oil consuming countries.  
Source: OPEC Secretariat.

Similarly, reports of impending refinery closures along with crude intake reductions in Latin America will potentially unlock additional product demand in the region and open up export opportunities from other main markets. This will provide further support to the global product market. This positive global momentum is also reflected in global average gasoline retail prices that were up by \$10/b y-o-y in the 1Q18, as well as diesel, which increased on average by \$14/b compared to the 1Q17 in all major trading hubs.

Looking forward, a healthy global economic forecast for 2018, positive car sales data in recent months, stronger 2018 y-o-y US product consumption in January and potentially tighter global product markets are expected to boost gasoline and distillates demand, which is forecast to grow by around a combined 992 tb/d in 2018 (**Graph 2**). High conformity levels observed by OPEC and non-OPEC producing countries in the Declaration of Cooperation, which has led to the downward trend in oil inventories, particularly in the OECD, should further enhance market stability and support crude and product markets in the months ahead.



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## Crude Oil Price Movements

In March, the OPEC Reference Basket (ORB) averaged \$63.76/b, broadly unchanged from the previous month. This, increase of less than 0.5% is typical of the lower-demand period for physical oil, particularly on the back of higher seasonal refinery turnarounds. Nevertheless, outright oil prices were lifted by geopolitical tension in the Middle East, strong conformity with the Declaration of Cooperation (DoC) production adjustments, a weaker US dollar, large US crude stock draws and expectations of higher oil demand. Year-to-date, the ORB value was 24.6%, or \$12.80, higher at \$64.75/b, compared with the same period in 2017.

Crude oil futures ended about 1% higher in a relatively volatile month. Futures followed the US equity markets higher and were supported by forecasts for robust oil demand growth. Tightening US crude stocks have also been supportive, but short-term dynamics were dominated by moves in equities and currencies, as well as political developments. ICE Brent averaged 99¢, or 1.5%, higher at \$66.72/b, while NYMEX WTI gained 59¢, or 0.9%, to average \$62.77/b. Y-t-d, ICE Brent is \$12.66, or 23.2%, higher at \$67.23/b, while NYMEX WTI rose by \$11.11, or 21.5%, to \$62.89/b. The spread between the benchmarks NYMEX WTI and ICE Brent widened slightly as the steep declines in inventories in Cushing, Oklahoma, subsided. The first-month ICE Brent/NYMEX WTI spread widened 40¢ to \$3.95/b.

Speculators slightly raised their combined futures and options net long positions in NYMEX WTI to 468,015 lots, while increasing sharply in ICE Brent to the highest-ever record of 615,660 contracts. The long-to-short ratio in ICE Brent increased slightly to 15.5:1, while that of NYMEX WTI decreased slightly to 16.8:1. The total futures and options open interest volume in the two exchanges was 310,065 lots, or 5%, higher at 6.47 million contracts.

Amid slower seasonal demand in Asia, the Dubai market structure flipped back to contango, leading oil producers in the Middle East to reduce their Official Selling Prices (OSPs). At the same time, Brent and WTI reduced their backwardation. Sweet/sour differentials widened globally, except in the USGC, where the spread narrowed.

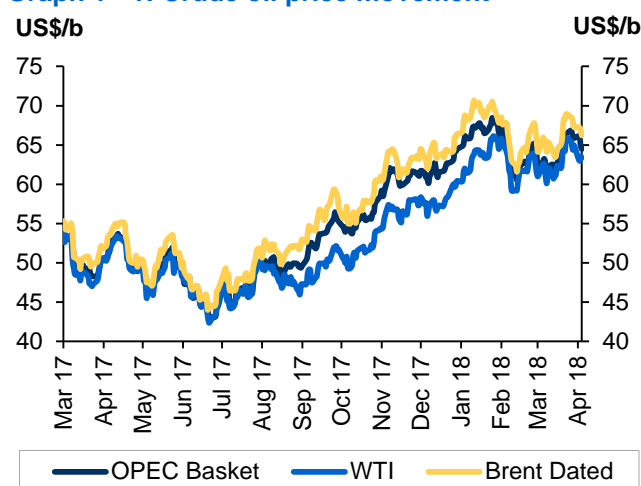
## OPEC Reference Basket

The **ORB** ended almost unchanged, increasing by just 0.4% in a month of typically lower demand for physical oil due to higher refinery seasonal turnarounds. Despite physical demand pressure, outright oil prices were supported by geopolitical tension in the Middle East, strong conformity with DoC production adjustments, a weaker dollar, large US crude stock draws and expectations of higher oil demand for this year. This was countered by pressure on prices as the oil market followed equities lower; concerns over rising US oil output and inventories; and investor concerns about a potential trade conflict.

M-o-m, the ORB value increased by 28¢, or 0.4%, to settle at \$63.76/b on a monthly average. Compared to the previous year, the y-t-d ORB value was 24.6%, or \$12.80, higher at \$64.75/b than the same period in 2017.

Apart from Basrah Light, Iran Heavy and Merey, the **ORB component values** improved marginally along with relevant crude oil benchmarks. Crude oil physical benchmarks Dated Brent, WTI and Dubai spot prices edged up by 73¢, 61¢ and 7¢, respectively.

**Graph 1 - 1: Crude oil price movement**



Sources: Argus Media, OPEC Secretariat and Platts.

**Table 1 - 1: OPEC Reference Basket and selected crudes, US\$/b**

	<u>Feb 18</u>	<u>Mar 18</u>	<u>Change</u> <u>Mar/Feb</u>	<u>%</u>	<u>Year-to-date</u> <u>2017</u>	<u>2018</u>
<b>Basket</b>	<b>63.48</b>	<b>63.76</b>	<b>0.28</b>	<b>0.4</b>	<b>51.95</b>	<b>64.75</b>
Arab Light	64.03	64.40	0.37	0.6	52.13	65.34
Basrah Light	62.31	62.27	-0.04	-0.1	51.31	63.62
Bonny Light	66.02	67.05	1.03	1.6	53.96	67.72
Es Sider	64.36	64.89	0.53	0.8	52.10	65.89
Girassol	66.09	66.89	0.80	1.2	53.75	67.64
Iran Heavy	62.27	62.15	-0.12	-0.2	51.71	63.48
Kuwait Export	62.14	62.23	0.09	0.1	51.33	63.43
Qatar Marine	63.14	63.39	0.25	0.4	52.74	64.35
Merey	57.68	56.92	-0.76	-1.3	45.92	57.94
Murban	65.88	66.31	0.43	0.7	55.00	67.04
Oriente	60.28	61.16	0.88	1.5	48.44	61.71
Rabi Light	64.19	64.92	0.73	1.1	52.52	65.82
Sahara Blend	66.01	66.69	0.68	1.0	53.67	67.60
Zafiro	65.19	65.91	0.72	1.1	53.35	66.84
<b>Other Crudes</b>						
Dated Brent	65.16	65.89	0.73	1.1	53.66	66.79
Dubai	62.69	62.76	0.07	0.1	53.03	63.92
Isthmus	64.83	65.40	0.57	0.9	54.35	65.98
LLS	64.43	65.14	0.71	1.1	53.43	65.84
Mars	60.93	62.11	1.18	1.9	49.58	62.43
Minas	58.15	58.90	0.75	1.3	49.98	59.36
Urals	63.01	63.63	0.62	1.0	52.25	65.20
WTI	62.15	62.76	0.61	1.0	51.73	62.90
<b>Differentials</b>						
Brent/WTI	3.01	3.13	0.12	-	1.93	3.89
Brent/LLS	0.73	0.75	0.02	-	0.23	0.94
Brent/Dubai	2.47	3.13	0.66	-	0.63	2.87

Sources: Argus Media, Direct Communication, OPEC Secretariat and Platts.

The light sweet crude **ORB components from West and North African**, Saharan Blend, Es Sider, Girassol, Bonny Light, Equatorial Guinea's Zafiro and Gabon's Rabi values increased on average by 75¢, or 1.1%, to \$66.06/b.

**Latin American ORB components**, Venezuelan Merey and Ecuador's Oriente, performance were mixed over the month. Merey was down 76¢, or 1.3%, at \$56.92/b, while Oriente was up 88¢, or 1.5%, at \$61.16/b.

The value of **multiple-region destination grades** Arab Light, Basrah Light, Iran Heavy and Kuwait Export expanded slightly by 8¢, or 0.1%, to \$62.76/b.

Equally, **Middle Eastern spot components**, Murban and Qatar Marine, saw their values rise by 43¢, or 0.7%, to \$66.31/b and 25¢, or 0.4%, to \$63.39/b, respectively.

On 11 April, the ORB stood at \$68.29/b, \$4.53 above the March average.

## The oil futures market

Crude oil futures ended March about 1% higher m-o-m in a relatively volatile month. Futures began the month generally higher, as US stock markets forecast robust oil demand growth and concerns continued about output from OPEC producers growing at a much slower pace in coming years. Tightening US crude stocks have also been supportive, but short-term dynamics continue to be dominated by moves in equities and currencies, with traders eyeing economic and political developments. Oil prices climbed further to their highest level in several weeks as tension in the Middle East and the possibility of further drops in Venezuelan output helped offset the impact of growing US crude production. After briefly turning lower on profit-taking, weaker equities and renewed concerns over retaliatory trade measures and rising US production; prices rebounded to near three-year highs on a surprise decline in US inventories, strong conformity with DoC production adjustments, and persistent geo-political concerns.

In March, **ICE Brent** averaged 99¢, or 1.5%, higher at \$66.72/b, while **NYMEX WTI** gained 59¢, or 0.9%, to average \$62.77/b. Y-t-d, ICE Brent is \$12.66, or 23.2%, higher at \$67.23/b, while NYMEX WTI rose by \$11.11, or 21.5%, to \$62.89/b, compared with the same period a year earlier. In line with the improvement in the crude oil futures, **DME Oman** also rose 59¢ in March, or 0.9% over the previous month, to settle at \$63.54/b. For the year, DME Oman was up \$11.06, or 20.8%, at \$64.34/b.

**Table 1 - 2: Crude oil futures, US\$/b**

	<b>Feb 18</b>	<b>Mar 18</b>	<b>Change</b>		<b>Year-to-date</b>	
			<b>Mar/Feb</b>	<b>%</b>	<b>2017</b>	<b>2018</b>
<b>NYMEX WTI</b>	62.18	62.77	0.59	0.9	51.78	62.89
<b>ICE Brent</b>	65.73	66.72	0.99	1.5	54.57	67.23
<b>DME Oman</b>	62.95	63.54	0.59	0.9	53.28	64.34
<b>Transatlantic spread (ICE Brent-NYMEX WTI)</b>	<b>3.55</b>	<b>3.95</b>	<b>0.40</b>	<b>11.3</b>	<b>2.79</b>	<b>4.34</b>

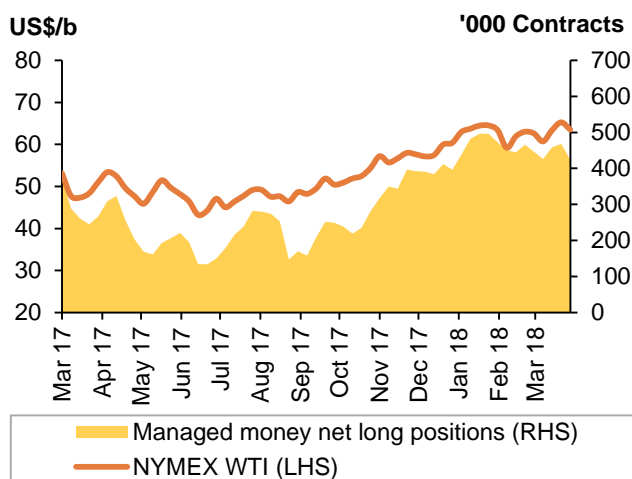
*Note: Totals may not add up due to independent rounding.*

*Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.*

Crude oil futures prices improved in the second week of April. On 11 April, ICE Brent stood at \$72.06/b and NYMEX WTI at \$66.82/b.

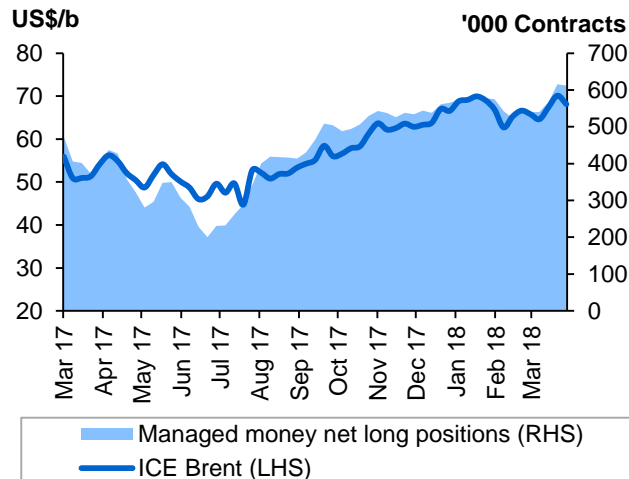
Despite an earlier selloff, the **speculative net length position** ended the month higher than the preceding month, with ICE Brent net length reaching an all-time high. The speculator group slightly raised its combined futures and options net length positions in NYMEX WTI by 9,190 contracts, or 0.5%, from the end February level, to 468,015 contracts, *the US Commodity Futures Trading Commission (CFTC)* said.

**Graph 1 - 2: NYMEX WTI vs. Managed money net long positions**



*Sources: CFTC, CME Group and OPEC Secretariat.*

**Graph 1 - 3: ICE Brent vs. Managed money net long positions**



*Sources: Intercontinental Exchange and OPEC Secretariat.*

In ICE Brent, however, hedge funds and money managers increased their combined futures and options **net length position** sharply to the highest ever record at 615,660 contracts, an increase of 71,288 lots, or 13.1% from the end of last level, according to *ICE Exchange*.

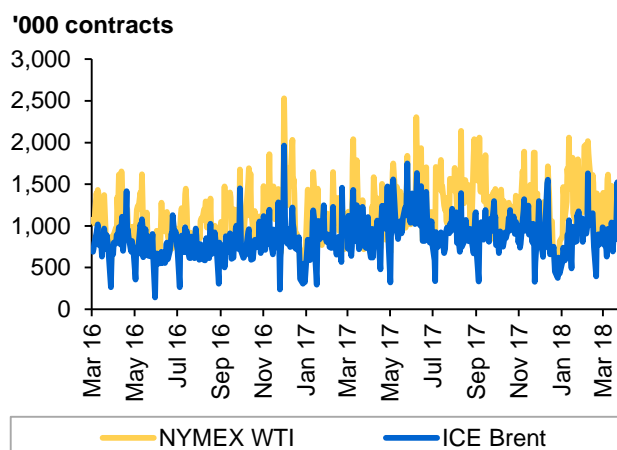
The **long- to- short ratio** in ICE Brent speculative positions increased a little from 14.3:1 to 15.5:1, while that of NYMEX WTI decreased slightly to 16.3:1 from 16.8:1. The total futures and options open interest volume in the two exchanges was 310,065 lots, or 5%, higher at 6.47 million contracts.

The **daily average traded volume** for NYMEX WTI contracts decreased by 219,087 lots, or 15.5%, to 1,190,545 contracts, while that of ICE Brent was only 3,637 contracts lower, down by 0.4% at 946,094 lots.

**Daily aggregate traded volume** for both crude oil futures markets decreased by 222,724 contracts to 2.1 million futures contracts, or about 2.1 billion b/d of crude oil.

The **total traded volume** in NYMEX WTI was 6.7% lower at 25 million contracts, while in ICE Brent it was 4.6% higher at 19.9 million contracts.

**Graph 1 - 4: NYMEX WTI and ICE Brent daily trading volumes**



Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

### ***China's new crude oil futures: a new regional crude benchmark?***

On 26 March 2018, China launched its first crude futures contract as the country seeks to extend its influence over the pricing of oil sold into Asia. Over the past decade, China has emerged as a major force in the oil market, surpassing the US as the world's biggest crude importer in 2017, taking in 8.5 mb/d.

The contract is made up of seven medium-sour crudes prevalent in the local market - six freely traded Middle East grades (Basrah light, Dubai, Masila, Oman, Qatar Marine and Upper Zakum) and China's Shengli crude. Given that the seven grades of crude accepted for delivery in the INE are heavier and more sour than Brent and WTI, it could be a far more useful marker for China and other major regional importers.

**Table 1 - 3: Crude qualifications**

Crude futures	Crude oil class	API gravity (degree)	Sulphur content (as % of mass)
Brent	Light sweet	38.3°	0.37%
WTI	Light sweet	39.6°	0.24%
Oman	Medium sour	34.0°	2.00%
INE	Medium sour	32.0°	1.50%

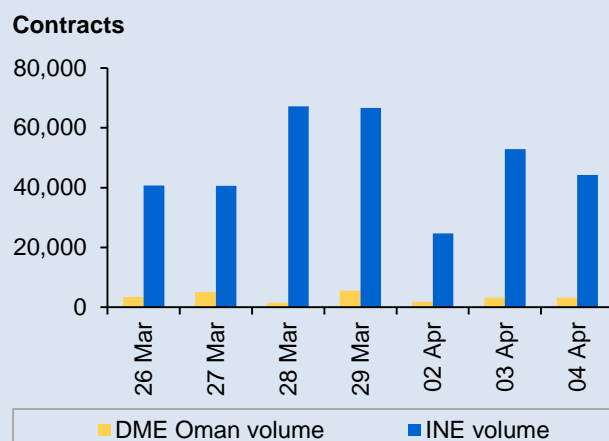
Sources: Dubai Mercantile Exchange, Intercontinental Exchange, Shanghai International Energy Exchange and OPEC Secretariat.

Marking a successful start, more than 40 million paper barrels of oil were traded on the first day of China's new crude oil futures contract (**Graph 1 - 5**). The new contract launched by the Shanghai International Energy Exchange (INE) attracted interest from retail and institutional investors, Chinese independent refiners, also known as teapots, and international traders.

At one stage the volume of trades being done on the INE exceeded those of global rivals Brent and WTI. However, the daily volumes have thus far averaged around 25,000 contracts. The official goal behind the INE is to have a crude futures contract to help the price discovery process and assist enterprises in avoiding risks, while establishing a regional benchmark as an alternative to European Brent and Dubai Oman.

On the other hand, the extent to which the INE contract is independent from government interference is currently the main risk factor facing western investors, which is in addition to a currency risk, given that the INE is settled in yuan. Another issue is liquidity, given the limited number of potential buyers for physical delivery at the bonded storages in China. Nevertheless, the new contract is expected to be useful as a hedge for physical purchases, as well as for arbitrage plays, which could significantly boost DME Oman contract volumes.

**Graph 1 - 5: Front month futures traded volumes**

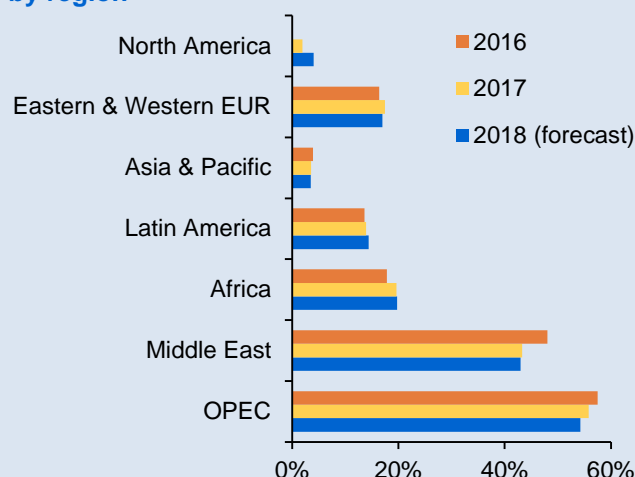


Sources: Dubai Mercantile Exchange, Shanghai International Energy Exchange, Thomson Reuters and OPEC Secretariat.

Once established, China's reference crude price could act as a regional benchmark for negotiations of spot or term crude oil prices, of which about 60% are supplied by OPEC Member Countries (**Graph 1 - 6**). At this level of imports from OPEC, Middle Eastern producing nations will be watching closely as they could, in time, face pressure from their Chinese buyers to adopt this benchmark for pricing their physical crude contracts.

Despite the upbeat start, the INE contract still has a long way to go to build up a history and reputation. Volumes and open interest will be the key measures of success and should be closely monitored going forward.

**Graph 1 - 6: Percentage share of Chinese imports by region**



Source: OPEC Secretariat.

## The futures market structure

Dubai **market structure** flipped back to contango amid lower seasonal demand for crude oil due to refinery annual maintenance in Asia. This has led Middle East producers to reduce their OSP for crude oil delivery in May. Although Brent and WTI remain in backwardation on average, the level was reduced sharply as demand weakened, while supply increased and crude oil inventories continued to grow in the US.

The North Sea Brent **M1/M3** 60¢/b backwardation decreased to 41¢/b, down 19¢. The Dubai M1/M3 28¢/b premium flipped to a 14¢/b discount, losing 42¢. In the US, the WTI backwardation of 47¢ worsened, where M1/M3 narrowed 20¢ to 26¢/b.

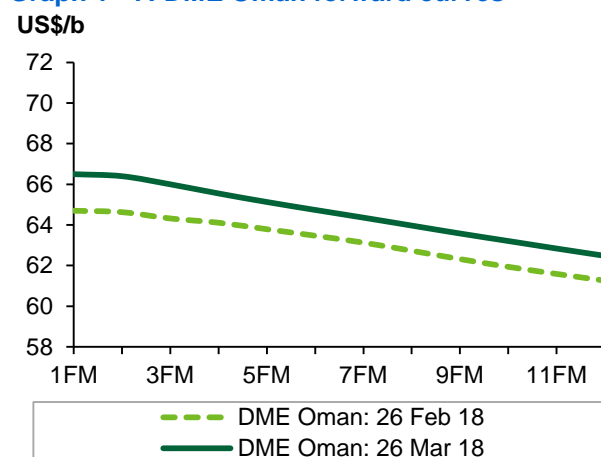


## Crude Oil Price Movements

After narrowing significantly in February, the spread between the benchmarks NYMEX WTI and ICE Brent widened slightly as the ongoing steep declines in inventories in Cushing, Oklahoma, subsided. In fact, during the last three weeks of the month, crude stocks at the Cushing, Oklahoma, delivery hub rose by more than 3 mb, according to the US Energy Information Administration (EIA).

The first-month ICE Brent/NYMEX WTI spread widened 40¢ to \$3.95/b in March.

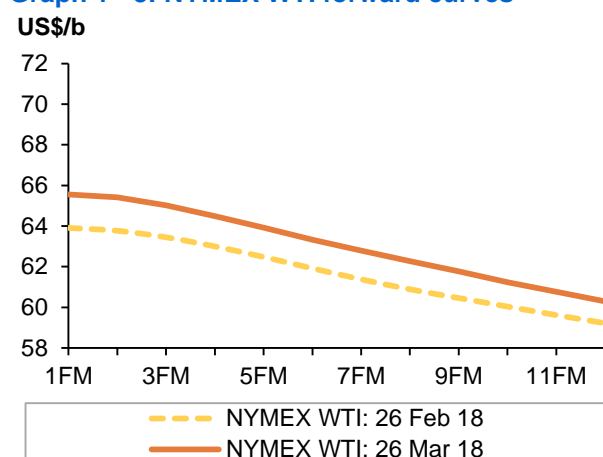
**Graph 1 - 7: DME Oman forward curves**



Note: FM = future month.

Sources: Intercontinental Exchange and OPEC Secretariat.

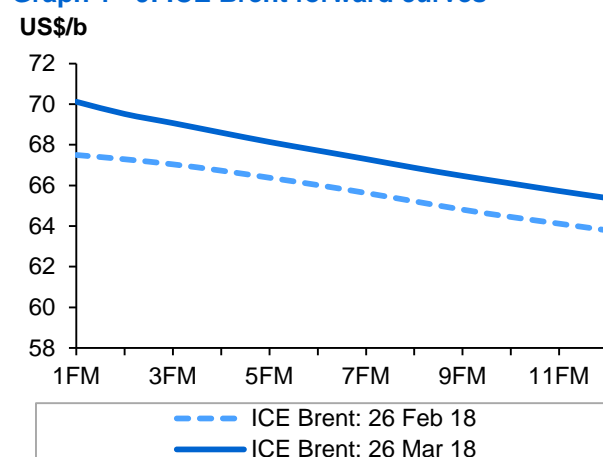
**Graph 1 - 8: NYMEX WTI forward curves**



Note: FM = future month.

Sources: CME Group and OPEC Secretariat.

**Graph 1 - 9: ICE Brent forward curves**



Note: FM = future month.

Sources: Intercontinental Exchange and OPEC Secretariat.

**Table 1 - 4: NYMEX WTI and ICE Brent forward curves, US\$/b**

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	26 Feb 18	63.91	63.77	63.45	61.92	59.22	-4.69
	26 Mar 18	65.55	65.41	65.03	63.33	60.30	-5.25
	<b>Change</b>	<b>1.64</b>	<b>1.64</b>	<b>1.58</b>	<b>1.41</b>	<b>1.08</b>	<b>-0.56</b>
ICE Brent	26 Feb 18	67.50	67.29	67.04	66.02	63.79	-3.71
	26 Mar 18	70.12	69.52	69.07	67.72	65.38	-4.74
	<b>Change</b>	<b>2.62</b>	<b>2.23</b>	<b>2.03</b>	<b>1.70</b>	<b>1.59</b>	<b>-1.03</b>
DME Oman	26 Feb 18	64.70	64.63	64.32	63.47	61.26	-3.44
	26 Mar 18	66.50	66.40	66.00	64.74	62.48	-4.02
	<b>Change</b>	<b>1.80</b>	<b>1.77</b>	<b>1.68</b>	<b>1.27</b>	<b>1.22</b>	<b>-0.58</b>

Note: FM = future month.

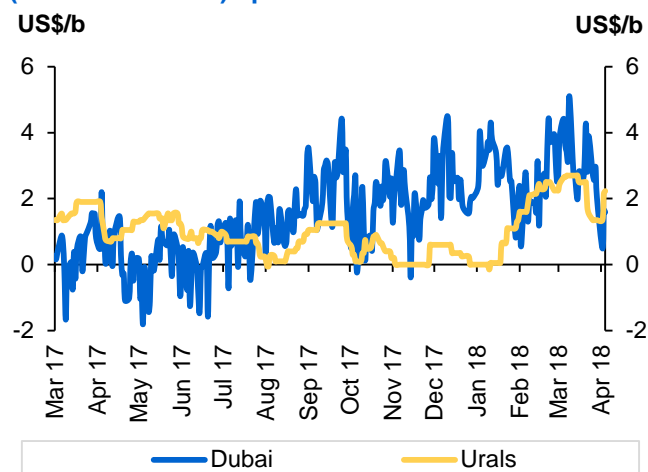
Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

## The light sweet/medium sour crude spread

Apart from the USGC, all sour crudes were faced with lower demand due to seasonal maintenance, ample supplies and worsening fuel oil margins. The sweet/sour differentials widened globally, except in the USGC where the spread narrowed.

In **Europe**, the light sweet North Sea Brent premium to Urals medium sour crude soared to a high not seen since early 2014. The spread increased, to the advantage of Brent, by another 11¢ to \$2.26/b. Refinery maintenance and competition from other sour and weaker fuel oil margins crudes continued to pressure Russian medium sour Urals.

**Graph 1 - 10: Brent Dated vs. sour grades (Urals and Dubai) spread**



Sources: Argus Media, OPEC Secretariat and Platts.

In **Asia**, the Tapis premium over Dubai widened this month, as domestic light sweet crudes became more competitive due to Brent-Dubai's widest spread in two years. The Brent/Dubai spread widened to \$3.13/b, discouraging the flow of west-east arbitrage for Atlantic-Basin crudes. The Tapis/Dubai spread widened by 62¢ to reach \$4.93/b. The Dated Brent/Dubai spread increased by 66¢ to reach \$3.13/b, up from \$2.47/b in the previous month.

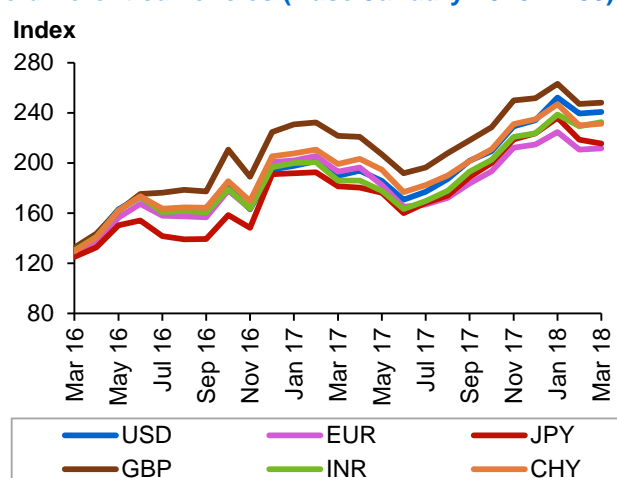
In the **USGC**, the LLS premium over medium sour Mars decreased again by 47¢ to \$3.03/b, partially on limited sour crude imports and, in part, due to some refineries beginning to restart operations after planned work.

## Impact of US dollar and inflation on oil prices

On average, the **US dollar (USD)** had a mixed month, with increasing and then receding trade related concerns weakening and then strengthening the currency against major counterparts. Some additional support was given by further monetary tightening by the Federal Reserve System (FED), which increased the federal funds rate by 0.25%. The FED also included in its median projections a steeper expected path of interest rate increases in 2019 and 2020 and a more upbeat assessment of the US economic growth.

Against the Euro, the dollar increased marginally. The dollar was supported by some softening in Euro-zone economic activity in January and February. If this softening persists, it could delay the shift by the European Central Bank towards a less accommodative stance. Against the Swiss franc, the USD advanced by 1.3%.

**Graph 1 - 11: ORB crude oil price index comparing to different currencies (Base January 2016 = 100)**



Sources: IMF and OPEC Secretariat.

Against the Japanese Yen, the dollar dropped on average by 1.8%. The Yen also acted as a safe haven when concerns about trade disputes rose. However, the strengthening of the Yen also reflected concerns about the sustainability of the current government coalition in Japan - which is supportive of very accommodative monetary policy measures - in view of recent political developments. Against the UK pound sterling, the dollar was stable on average, though it increased towards the end of the month as the Bank of England kept the option open for more rate hikes in view of high inflation.

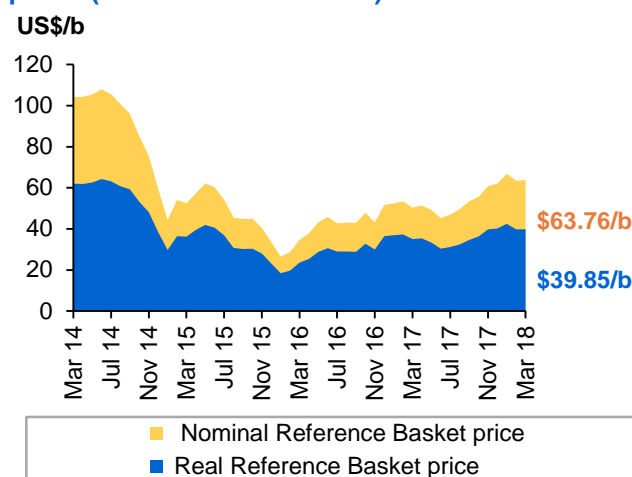
On average, the US dollar advanced against the Chinese yuan in March by 0.1%. The dollar advanced by 1.0% m-o-m against the Indian rupee. Against commodity exporters' currencies, the dollar advanced by 1.2% m-o-m against the Brazilian real, while against the Russian ruble it increased by 0.4%. However, at the beginning of April, the imposition of sanctions against Russian companies by the US has resulted in the US dollar appreciating against the ruble by 10%.

With regard to NAFTA member countries' currencies, the US dollar advanced by 2.7% against the Canadian dollar as a result of momentum slowing in the Canadian economy, while it gained 0.3% against the Mexican peso.

In **nominal terms**, the price of the OPEC Reference Basket (ORB) increased by 28¢, or 0.4%, from \$63.48/b in February to \$63.76/b in March.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB increased to \$39.85/b in March from \$39.78/b (base June 2001=100) in the previous month. Over the same period, the US dollar decreased by 0.2% against the import-weighted modified Geneva I + US dollar basket<sup>1</sup>, while inflation increased by 0.1% m-o-m.

**Graph 1 - 12: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price<sup>1</sup> (Base June 2001 = 100)**



Source: OPEC Secretariat.

<sup>1</sup> The "Modified Geneva I + US\$ Basket" includes the euro, the Japanese yen, the US dollar, the pound sterling and the Swiss franc, weighted according to merchandise imports by OPEC Member Countries from the countries in the basket.

# Commodity Markets

*In March, energy prices were mixed, with advances in crude oil and natural gas, while coal prices declined across regions. In the group of non-energy commodities, base metals showed a broad-based decline on concerns about some deceleration in the pace of expansion of global manufacturing, signs of cooling in the real estate market of China, as well as the imposition of trade tariffs by the US. Agricultural commodities increased, supported by large gains in grain prices. Precious metals were volatile, but recovered some ground toward the end of the month on uncertainties created by the ongoing trade disputes.*

## Trends in selected commodity markets

Average **energy prices** in March increased by around 0.6% with mixed movement across group components. The index was up by 21% during 1Q17, compared to the same quarter last year.

**Table 2 - 1: Commodity price data**

Commodity	Unit	Monthly averages			% Change Mar 18/Feb 18	Year-to-date	
		Jan 18	Feb 18	Mar 18		2017	2018
<b>Energy*</b>	<b>Index</b>	<b>85.5</b>	<b>80.5</b>	<b>81.0</b>	<b>0.6</b>	<b>67.9</b>	<b>82.3</b>
Coal, Australia	US\$/mt	106.9	104.7	95.9	-8.5	81.6	102.5
Crude oil, average	US\$/b	66.2	63.5	64.2	1.1	52.9	64.6
Natural gas, US	US\$/mbtu	3.9	2.7	2.7	0.7	3.0	3.1
Natural gas, Europe	US\$/mbtu	7.6	6.9	7.0	2.3	5.7	7.2
<b>Non-energy*</b>	<b>Index</b>	<b>87.3</b>	<b>88.4</b>	<b>87.8</b>	<b>-0.7</b>	<b>85.0</b>	<b>87.9</b>
<b>Base metal*</b>	<b>Index</b>	<b>97.0</b>	<b>96.9</b>	<b>92.9</b>	<b>-4.1</b>	<b>80.7</b>	<b>95.6</b>
<b>Precious metals*</b>	<b>Index</b>	<b>102.7</b>	<b>102.1</b>	<b>101.6</b>	<b>-0.5</b>	<b>95.9</b>	<b>102.1</b>

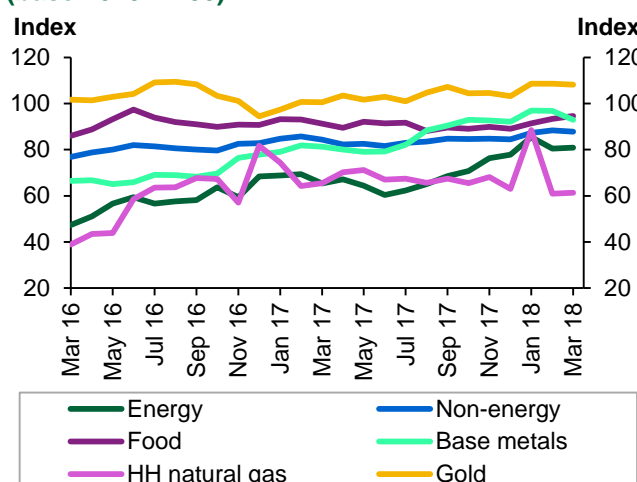
Note: \* World Bank commodity price indices (base 2010 = 100).

Source: World Bank, Commodity price data.

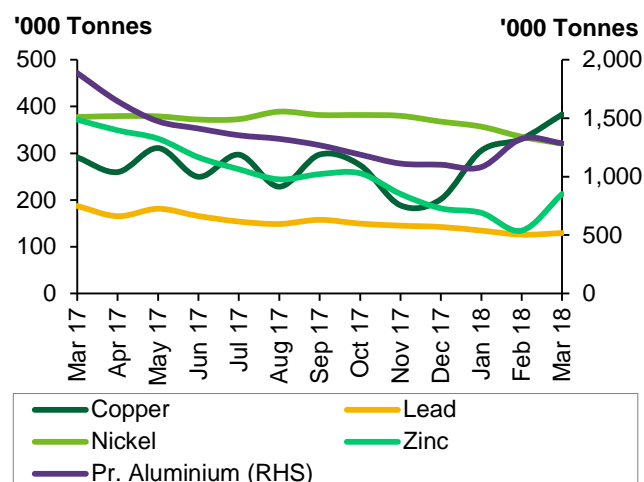
In March, the **Henry Hub natural gas index** was up 2¢, or 0.7%, at \$2.69/mmbtu, after trading at an average of \$2.67/mmbtu in the previous month. The market continued to focus on the 11% y-o-y increase in production, shifting the focus away from a large drop in underground inventories during the withdrawal season, which was nearing an end. In its last storage report, the *US EIA* said utilities withdrew 20 bcf of working gas from underground storage during the week ending 30 March 2018. The median analysis expectation was for a 26 bcf withdrawal. Total working gas in underground storage stood at 1,354 bcf, 20.4% lower than the previous five-year average.

**Natural gas import prices in Europe** increased, with average prices up by 2.3% to \$7.03/mmbtu. Spot prices enjoyed a short-lived spike in the midst of a cold snap in mid-March, further reducing natural gas inventories, which were already low as a result of a series of Arctic blasts this winter. Natural gas inventories for EU member states dropped to 18.6% at the end of March – lower than last year's 26% – from close to 29% in the previous month, according to *Gas Infrastructure Europe*.

**Thermal coal prices** decreased to an average of \$95.9/Mt, or 8.5%, in March m-o-m. During the month, re-stocking demand has been tepid amid warmer weather, some negative market sentiment across commodities as a result of tariffs imposed in energy-intensive commodities such as steel and aluminium by the *US Administration*, and the expectation of further substitution of coal by natural gas in China following government mandates. Expectations for recovery in hydropower output this year in China have also limited price gains for thermal coal.

**Graph 2 - 1: Major commodity price indices (base 2010 = 100)**

Source: World Bank, Commodity price data.

**Graph 2 - 2: Inventories at the LME**

Sources: London Metal Exchange and Thomson Reuters.

**Average base metal prices** decreased by 4.1% in March – their largest decline in more than two years, with global manufacturing expansion slowing – especially in developed economies – and the uncertainties surrounding the trade disputes triggered by the US administration, especially after the imposition of tariffs on imported steel and aluminium products by 25% and by 15%, respectively. The JP Morgan global manufacturing Purchasing Managers' Index (PMI) stood at 53.4 – a five-month low, down from 54.1 in February, mainly due to deceleration in developed economies. In the largest metal consumer China, PMI surveys showed opposite trends, with Caixin Manufacturing decreasing to 51.0 from 51.7 the previous month, while the official PMI rose to 51.7 in March from 50.3. During the month, large increases in copper and zinc stocks in the LME warehouse system were reported, weighing on prices, which were down by 3% and 7.5%, respectively. Furthermore, in the largest copper ore exporter Chile, mining operators and labour unions have thus far avoided strikes in the largest mines of the country. Meanwhile, Iron ore prices declined by 9.2%, amid signs of cooling in home prices in China, rising inventories, and the impact of the aforementioned trade disputes.

**Precious metals** were volatile following changes in risk sentiment as a result of ongoing trade disputes, with gold prices down on a monthly average basis by 0.5% from the previous month.

## Investment flows into commodities

**Open interest (OI)** increased in March for selected US commodity futures markets such as natural gas, precious metals and copper, while it declined for crude oil. Meanwhile, in monthly average terms, speculative net length positions increased for natural gas, but decreased for copper, precious metals and crude oil.

**Table 2 - 2: CFTC data on non-commercial positions, '000 contracts**

	Open interest		Net length			
	Feb 18	Mar 18	Feb 18	% OI	Mar 18	% OI
Crude oil	2,503	2,440	454	18	446	18
Natural gas	1,369	1,400	120	9	130	9
Precious metals	726	736	161	22	116	16
Copper	266	278	45	17	19	7
<b>Total</b>	<b>4,864</b>	<b>4,853</b>	<b>895</b>	<b>86</b>	<b>1,146</b>	<b>69</b>

Note: Data on this table is based on monthly average.

Source: US Commodity Futures Trading Commission.

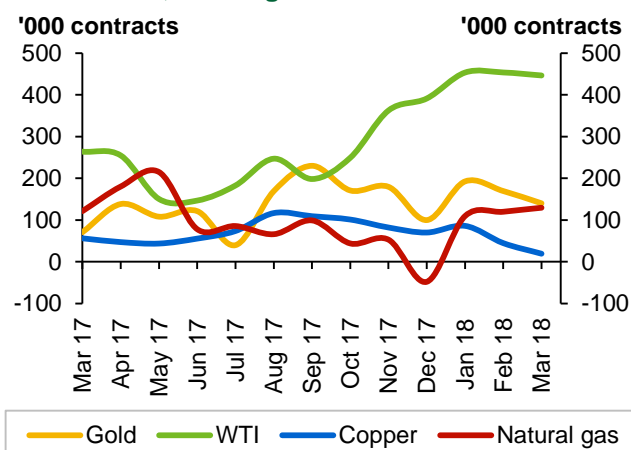


**Henry Hub's natural gas OI** increased by 2.2% m-o-m in March. Money managers' average net long positions increased by 8% to 129,537 contracts.

**Copper's OI** increased by 4.5% m-o-m in March. Money managers decreased their net long positions by 57% to an average of 19,411 contracts as inventories increased for the fourth consecutive month, while trade disputes and the slowing pace of manufacturing expansion also weighed on market sentiment.

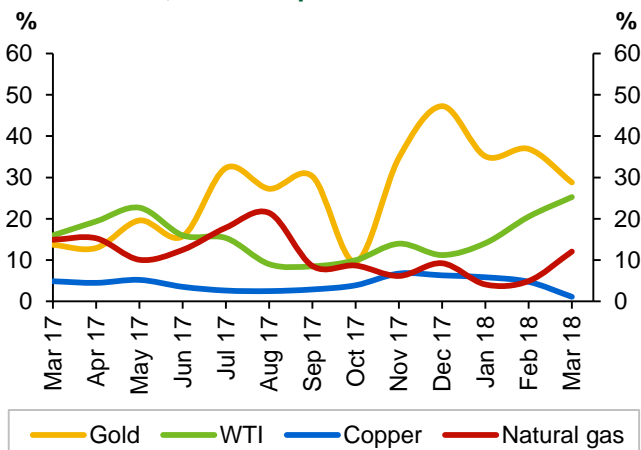
**Precious metals' OI** increased by 1.3% in March. Money managers decreased their bullish bets by 28.3% during the month to 115,737 contracts on average, although there were some material increases towards the end of the month as a result of further trade disputes, which resulted in renewed sell-offs in equity markets.

**Graph 2 - 3: Money managers' activity in key commodities, net length**



Note: Data on this graph is based on monthly average.  
Source: US Commodity Futures Trading Commission.

**Graph 2 - 4: Money managers' activity in key commodities, as % of open interest**



Note: Data on this graph is based on monthly average.  
Source: US Commodity Futures Trading Commission.

# World Economy

The synchronised global growth trend continues, but lead and sentiment indicators point to some moderation of the high growth dynamic. In addition, the potential re-emergence of global trade barriers, rising volatility in asset markets and continued monetary tightening are some of the challenges that may impact the near-term growth dynamic. However, it is assumed that the current somewhat softening trend is transitory and a high growth level of 3.8% will be maintained in 2018, the same as in 2017.

OECD GDP growth is forecast at 2.4% in 2018, after growth of 2.5% in 2017. Strong underlying growth in the US continues, with the additional support of the US tax cut and improving business and consumer sentiment. However, this may be slightly dampened by the potential negative consequences of a rising budget deficit to finance the economic stimulus, as well as the possibility of rising inflation. Additionally, the most recent trade-related initiatives may have a negative impact on the US economy, but this remains to be seen. Given the current situation, the US is expected to maintain a strong growth level of 2.7% in 2018, compared to 2.3% in 2017. Euro-zone growth continues at a strong level and growth in 2018 was revised up to 2.3% from 2.2% the previous month, albeit a slight deceleration from 2.5% in 2017. Japan's forecast remains unchanged at 1.5% in 2018, amid some softening in exports and a somewhat lower domestic economic activity compared to 2017, when GDP was at 1.7%.

In the emerging economies, China is forecast to slow slightly, given its maturing economy. China's growth is forecast at 6.5% in 2018, compared to 6.9% in 2017. India is expected to overcome the negative effects of economic reforms and is forecast to grow by 7.2% in 2018, compared to 6.3% in 2017. Brazil is expected to continue its recovery in 2018, growing by an upwardly revised 2.1%, after growth of 1.0% in 2017. Russia is forecast to also show higher GDP growth in 2018 at 1.8%, compared to 1.5% in 2017.

**Table 3 - 1: Economic growth rate and revision, 2017-2018\*, %**

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
<b>2017</b>	<b>3.8</b>	<b>2.5</b>	<b>2.3</b>	<b>1.7</b>	<b>2.5</b>	<b>1.8</b>	<b>6.9</b>	<b>6.3</b>	<b>1.0</b>	<b>1.5</b>
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.1	0.0	0.0
<b>2018</b>	<b>3.8</b>	<b>2.4</b>	<b>2.7</b>	<b>1.5</b>	<b>2.3</b>	<b>1.6</b>	<b>6.5</b>	<b>7.2</b>	<b>2.1</b>	<b>1.8</b>
Change from previous month	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.0

Note: \* 2017 = Estimate and 2018 = Forecast.

Source: OPEC Secretariat.

## OECD

### OECD Americas

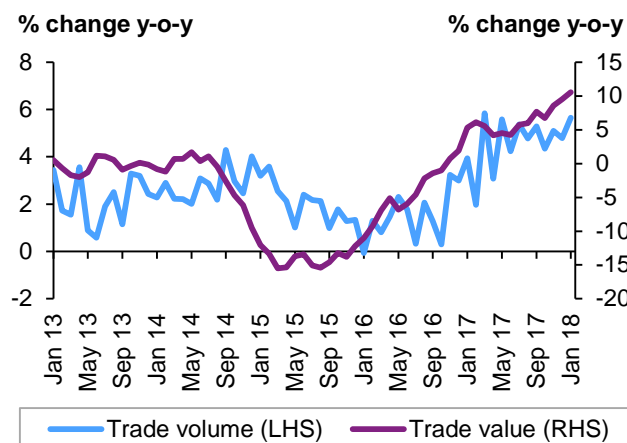
#### US

The latest release of US 4Q17 GDP growth data shows that the underlying economic growth momentum continued to the end of the year. The final quarter of 2017 saw reported growth of 2.9% quarter-on-quarter (q-o-q) at a seasonally adjusted annualised rate (SAAR), above the previous (second) estimate of 2.5% q-o-q SAAR. This development was supported by ongoing strong private household consumption, which expanded by 4.0% q-o-q SAAR. It contributed the largest single share to 4Q17 GDP growth at 2.8 percentage points (pp). The changes in private inventories negatively impacted 4Q17 GDP by 0.5 pp, but given the ongoing strong US economic momentum, this situation is expected to rebound and support GDP growth in the 1Q18. With the labour market seeing continued improvements, as well as support from the fiscal stimulus, growth should be well supported for the remainder of 2018.

However, the latest trade-related initiatives by the US Administration to impose certain tariffs on steel and aluminium products, as well as a variety of other products imported from China, has led to rising uncertainty as the outcome of these initiatives is unclear. The increasing uncertainty about these developments has also been reflected in a recent surge in asset market volatility. The likely increase in federal debt, together with the announcements of trade tariffs and the potential for faster-than-anticipated monetary normalisation may counterbalance the positive effects from the considerable fiscal support provided via the Tax Cuts and Jobs Act, as well as the Bipartisan Budget Act. The latest lead indicators also underscore some softening in the strong growth momentum of past quarters, but so far this is expected to be temporary and growth is anticipated to be well supported in 2018.

The most recently announced tariffs on selective products imported from China has already been met with retaliatory tariffs from China on various imported US products, particularly soybeans, aircrafts and cars, among others. As these tariffs have not yet been implemented and furthermore only account for trade worth of US\$50 billion, it is currently assessed that the impact on growth is negligible. The more recent announcement by the US Administration came in addition to the previously announced tariffs on steel and aluminium. However, the exemptions on aluminium and steel tariffs already announced for NAFTA partners Mexico and Canada, and the temporary exemptions for the EU, Australia, Argentina, Brazil and South Korea, which combined account for around two thirds of US steel imports, the impact of these tariffs will be limited. Nonetheless, China still faces tariffs on these product categories, but here the impact is also expected to be negligible as China accounts for only about 1.5% of US steel imports.

**Graph 3 - 1: World trade, volume and value**



Sources: Netherlands Bureau for Economic Policy Analysis and Haver Analytics.

However, the area of trade tariffs must be closely monitored as the potential for tit-for-tat retaliations and the continued uncertainty may impact growth negatively and could have more serious economic consequences. This may then lead to rising global inflation, declining business sentiment, as well as other effects that could dampen the ongoing global growth. In this respect, it is important to highlight that world trade had a significant positive impact on economic developments in recent years.

In addition to the trade-related announcements, fiscal and monetary policies remain a focus of interest. Considering the latest US economic developments, a gradual normalisation of **monetary policies** seems likely in 2018. The latest development of the overnight indexed swap (OIS) – LIBOR spread will also need to be closely monitored. It remains to be seen if the widening spread is only a temporary phenomenon. The widening gap may have been caused by US companies moving some of their overseas cash piles back to the country due to the repatriation incentives of the recent tax reform. Another reason may be the big increase in Treasury bill sales to finance the widening deficit. More significantly, however, it may also indicate already tightening conditions in the inter-banking market. While the situation may be temporary and should again ease in the near-term, it will be an element that will be taken into consideration in the Fed's future monetary policy decisions.

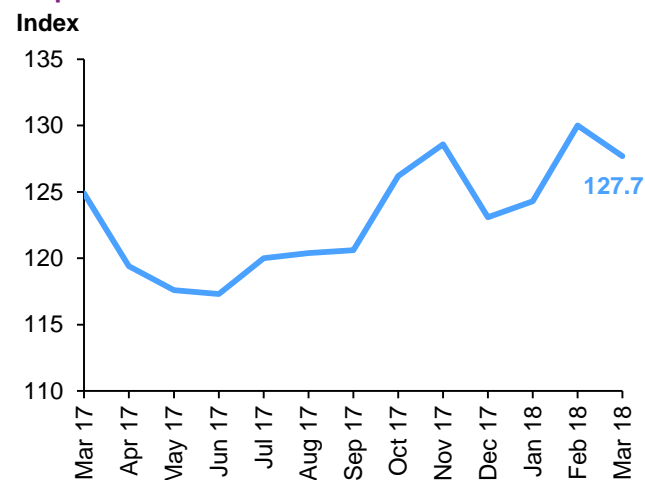
**Inflation** numbers have improved again slightly. Inflation rose to 2.3% in February, compared to 2.1% in January. Core inflation – excluding volatile items such as food and energy – rose as well, and stood at 1.9% in February, compared to 1.8% in January.

Improvements in the **labour market** continued in March, albeit at a slowing pace. Non-farm payrolls increased by 103,000 after an upwardly-revised figure of 326,000 in February. The unemployment rate remained at 4.1%, while the hourly earnings growth for the private sector rose slightly by 2.7% y-o-y, compared to 2.6% y-o-y in February. Positively, long-term unemployment numbers fell further to stand at 20.3% in March, compared to 20.7% in February and 21.5% in January, indicating a continued structural shift in the labour market. This March number is the lowest level since the Lehman Brothers bankruptcy in September 2008. However, another important element in the labour market mix, the participation rate, fell by 0.1 pp to stand at 62.9%.

**Industrial production** saw a further strong rise in February, moving to 4.5% y-o-y growth from an already strong January level of 3.3% y-o-y. Moreover, **domestic demand** held up well in February, with retail sales growing by 4.0% y-o-y, compared to December growth of 3.9% y-o-y.

Some decline in consumer sentiment was recorded by the Conference Board, whose **consumer confidence index** declined slightly to stand at a level of 127.7. Nevertheless, this comes after it had risen to a 10-year high of 130.0 in February.

**Graph 3 - 2: US consumer confidence index**

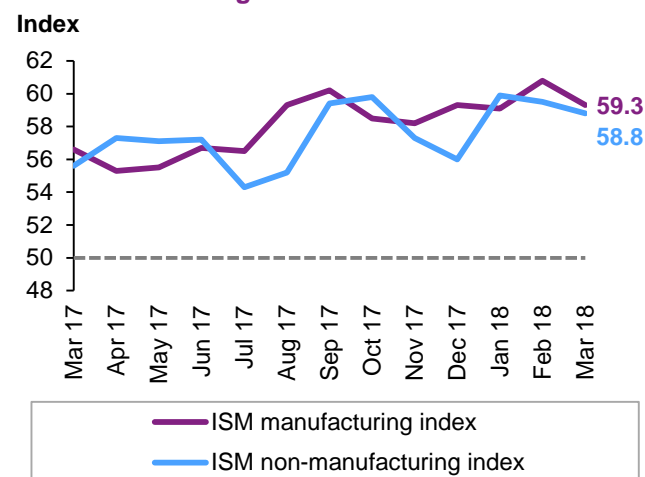


Sources: The Conference Board and Haver Analytics.

March's Purchasing Managers' Index (**PMI**) indices, as provided by the Institute of Supply Management (ISM), also indicated ongoing support for the underlying economy, albeit at a slightly lower level compared to February. The manufacturing PMI was at 59.3 in March, compared to 60.8 in February. Additionally, the important index for the services sector, which constitutes more than 70% of the US economy, declined slightly, but was still at a high level. It stood at 58.8 in March, compared to 59.5 in February.

While the underlying economic growth momentum continues, fiscal and monetary challenges remain. Moreover, the softening of some lead and business indicators will need to be closely monitored in the near-future. However, it is assumed that the current somewhat softening momentum will be temporary. Taking this into consideration and as the forecast already shows a considerable growth trend in the current year, **GDP growth** expectations for 2018 remain at 2.7%, after growth of 2.3% in 2017.

**Graph 3 - 3: US ISM manufacturing and non-manufacturing indices**



Sources: Institute for Supply Management and Haver Analytics.

## Canada

While Canada's economy has been very much focused on its trade relationship with the US, no significant tariffs have been implemented yet and NAFTA negotiations remain ongoing. However, it has been reported that the NAFTA talks may be finalised in the coming weeks. To some extent, sentiment may have been affected by these trade-related uncertainties, as the underlying economic development has slowed down somewhat recently. **Industrial production** rose by 2.2% y-o-y in January, after a considerable level of 4.4% y-o-y in December last year and 4.3% y-o-y in November, as per the latest available monthly data.

It was the mining and oil-sector that turned negative in January as its output declined by 0.3% y-o-y. **Retail trade** continued to expand at a considerable level of 3.6%, albeit at a lower level compared to 5.9% y-o-y in December and 6.6% y-o-y in November, all at a nominal seasonally-adjusted level. While output numbers at the beginning of the year appear to have decelerated, the PMI index for manufacturing sees strong momentum. It points to an improvement in this sector in the near future as the index increased slightly to 55.7 in March, from 55.6 in February.

With the somewhat softening momentum in the current year already having been taken into account in **Canada's 2018 GDP growth**, the economic growth forecast remains at 2.2%, compared to growth of 3.0% in 2017.

## OECD Asia Pacific

### Japan

Economic **growth in Japan seems to be well supported**, albeit slowing from last year's high level of growth. Wage growth remains low, while inflation is increasing and thus real income growth remains limited. Additionally, exports decelerated considerably in February and while this may be due in some part to the holiday season in China, it is a development that will need monitoring in the near term.

In this regard, the relative strength of the Japanese yen versus the US dollar since the 4Q17 will also need to be watched, as it may impact the competitiveness of Japanese products. This currency market development may have been the result of market expectations that the Bank of Japan (BoJ) could alter its currently very accommodative monetary policy. However, the **BoJ has confirmed that it will continue its monetary stimulus** with quantitative and qualitative monetary easing (QQE) measures with Yield Curve Control for as long as necessary. It will continue expanding the monetary base until the y-o-y rate of increase in the observed CPI – all items less fresh food – exceeds 2% and then remains above this target in a stable manner. The short-term interest rate remains at minus 0.1% and the cap on 10-year bond yields remains at “around zero” as the BoJ will continue to buy assets at a pace of ¥80 trillion a year. This confirmation of an accommodative monetary policy by the BoJ, led to some stabilisation in the yen very recently.

The important BoJ **Tankan survey** has remained solid as the forecast condition's index stood at a level of 20 in the 2Q18, only slightly below the 21 level in 1Q18, which was the highest level since 2007. The same trend applied to the Tankan's actual condition's level, which stood at 24, only somewhat below the level of 26 in 1Q18. Given the tightness in the labour market, as well as the government incentivising investment and the ongoing favourable financial conditions, capex is also expected to grow in the current year and support growth, although it may be at a slightly lower level than in 2017. Moreover, construction for the 2020 Tokyo Olympics will be growth supportive and, in general, the fiscal and monetary policies should continue to support overall growth. However, the prospect of trade protectionism could pose some headwinds to the growth forecast in the near-term.

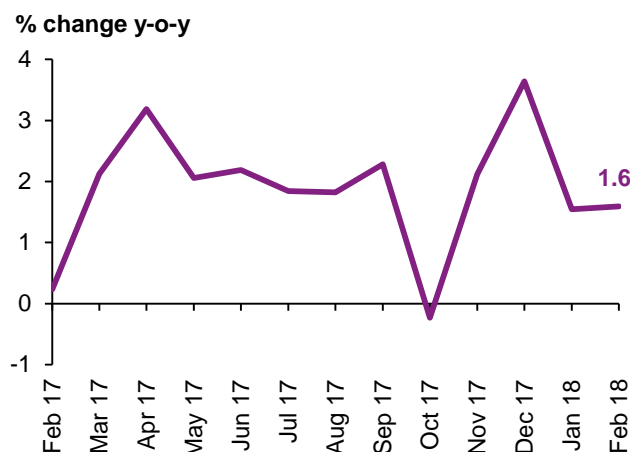
Healthy growth in the 2H17, in combination with rising energy prices, has had a positive effect on **inflation**, which remains an important concern in Japan, given its very long sluggish development. Inflation increased considerably in recent months and stood at 1.5% in February. This compares with 1.3% y-o-y in January and 1.0% y-o-y in December. The main support came from rising energy prices, a generally healthy development for the Japanese economy. Labour market shortages should also support inflation, although this may be limited given muted wage growth expectations. In February, monthly earnings rose by 0.8% y-o-y, following growth of 0.3% y-o-y in January. In addition, labour market tightness is an important factor keeping the economy from expanding at a significantly higher rate than in previous years. The labour force shortage – in combination with a slow pick-up in earnings – will likely lead to only a gradual growth in domestic consumption. **Core inflation** – which excludes food and energy – and is more wage-dependent, remained almost stagnant, rising by 0.5% y-o-y in February, compared to 0.4% y-o-y in January. Given the tightness in the labour market, the **unemployment rate remained at an ultra-low level** of only 2.5% y-o-y in February.

**Japanese exports** slowed considerably in February. After strong growth in January of 12.3% y-o-y, February's export rose by only 1.8% y-o-y. **Industrial production recovered somewhat in February** expanding by 2.0% y-o-y, after a very low rise of only 0.9% y-o-y in January. Manufacturing orders have also recovered after falling by a considerable 5.6% y-o-y in December. They grew by 10.7% y-o-y in January and 9.4% y-o-y in February, indicating that the dip in December was a temporary blip.

**Domestic retail demand remained sluggish** in February growing by only 1.6% y-o-y, following similar low growth of 1.5% y-o-y in January. This ties into the low income growth and the limited improvements in the labour market, while inflation has picked up considerably, limiting real-wage growth.

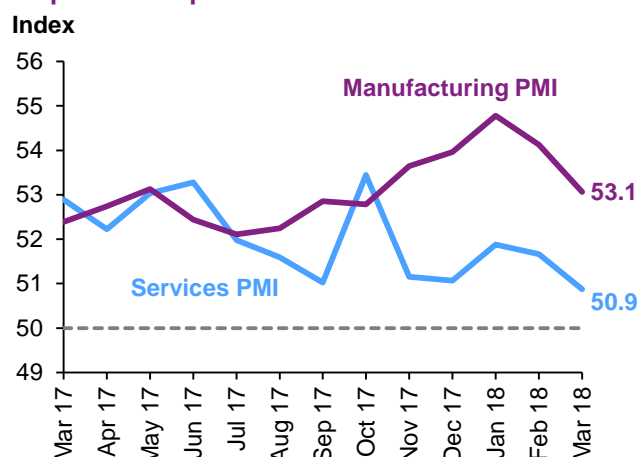


**Graph 3 - 4: Japanese retail trade**



Sources: Ministry of Economy, Trade and Industry and Haver Analytics.

**Graph 3 - 5: Japanese Markit/Nikkei PMIs**



Sources: IHS Markit, Nikkei and Haver Analytics.

Moreover, the latest **PMI numbers** confirm a somewhat slower expansion. The manufacturing PMI declined to 53.1 in March, compared to 54.1 in February and 54.8 in January. The services sector PMI dipped to 50.9 in March, falling from 51.7 in February and 51.9 in January.

While some slowdown has become apparent, the most recent developments still confirm a solid underlying growth dynamic in the Japanese economy, a trend that has already been taken into consideration in the 2018 **GDP growth** forecast of 1.5%. This compares to a very strong growth of 1.7% in 2017. Some challenges in the economy remain, and given the tight labour market situation and high capacity utilisation rates, further growth potential seems limited for now. This has also been highlighted recently by the BoJ.

## South Korea

Political developments on the Korean Peninsula have recently seen an easing in tensions, particularly following the Winter Olympics in South Korea. While this is positive for growth, some recent indicators point to some softening in the growth dynamic. However, this softening is considered temporary.

Overall, industrial production improved slightly in February expanding by 2.1% y-o-y, after an increase of 1.4% y-o-y in January and 1.1% y-o-y in December, marking the second consecutive month of rising output. This is at the seasonally adjusted level. However, the important external trade dynamic remained sluggish as exports rose by only 0.1% y-o-y in March, after a hefty decline of 1.7% y-o-y in February. The unemployment rate remained at a low level of 3.6% for a second consecutive month. Consequently, the consumer sentiment index held up well at 108.1 in March, compared to only a marginally higher February number of 108.2. The latest **PMI** number for the manufacturing sector shows a slight slowing trend, standing at 49.1 in March, after 50.3 in February.

Some slight improvement in the economy has been taken into consideration as domestic developments show more optimism and external trade is also forecast to pick up over the year. However, the prospect of increased trade protectionism could potentially pose some headwinds to the growth forecast. South Korea's 2018 **GDP growth** has been revised up slightly this month to now stand at 2.7%, after growth of 3.1% y-o-y for 2017.

## OECD Europe

### Euro-zone

After strong growth in the Euro-zone in 2017, the **solid growth momentum is expected to continue in 2018**. While the monetary stimulus is expected to be reduced in 2018, it will continue to be an important element in the Euro-zone's economic upswing as a sharp tapering is not anticipated as long as inflation remains low and clearly below the ECB's target. This very accommodative monetary policy has led to improvements in the underlying economy via rising domestic consumption and exports.

However, major challenges remain and are mainly linked to political developments, amid the success of EU-sceptic political parties in recent elections in some key member states, for example, in Italy. This is particularly important as sovereign debt levels remain high in Italy and Italian banks are still challenged by weak balance sheets, a combination that will need continued monitoring as growth remains low in the economy. Germany and France, as the two major economies in the Euro-zone are doing considerably better, but upside from the current healthy growth levels of up to 3% on a quarterly annualised basis in 2017 may be a challenge to repeat.

Overall, growth is expected to remain solid in most of the Euro-zone economies. The main challenges will not only be policy and banking sector related issues, but also potentially the growing uncertainty amid the possible rise in trade protectionism, low income growth and the ongoing high sovereign debt levels across the region. Uncertainty about the Euro-zone's economic development was also reflected recently in asset markets, and was accompanied by some softening in lead and sentiment indicators.

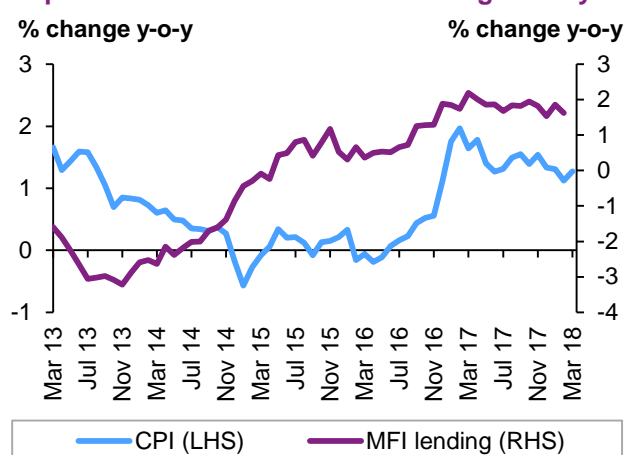
The European Commission's **Business sentiment index** retracted somewhat, albeit from a previous very high level. The index stood at 112.6 in March compared to 114.2 in February. More importantly it should be noted that this is the third consecutive month with a lower number. In December, the index stood at 115.3 January, which was the highest level for more than 10 years. While the level still implies confidence, the future trend will need to be monitored. **Labour market** developments continued to improve. The unemployment rate improved and stood at 8.5% in February, compared to 8.6% in January, another low after the onset of the financial crisis in 2008/2009. In Germany, the unemployment rate remained at a low of 3.5% in February, while Italy also saw its level fall to 10.9% in February following a recent rise. In France it fell to 8.9%. Additionally, **retail sales** continued to perform relatively well, but there has been a deceleration over the past three months with the growth level standing at 2.2% y-o-y in February. **Industrial production** grew by a healthy 3.4% y-o-y in January, albeit lower than the 5.1% in December and 3.5% in November.

Inflation remains low and will continue to impact the **ECB's monetary policy**. So far, it is still well below the ECB's target of inflation rate of around 2%. As economic growth has maintained a positive momentum, the ECB may consider some further monetary tightening. So far it continues QE purchases of €30 billion, which will run until September 2018, while it is still possible that QE could be continued beyond that time, if necessary. The main policy rate stands at 0% and the rate for deposit facilities at -0.4%. Some areas of the Euro-zone's banking sector remain weak and the growth dynamic of the liquidity line has remained sluggish in the past months, based on the latest available data. The lending of financial intermediaries to the private sector rose only by 1.6% in February, below the 1.9% level witnessed in January. This is the tenth month of expansion below 2%. This may also be impacted by the ongoing balance-sheet weakness of the banking sector and the ECB's intention to strengthen capital rules.

**Inflation** increased by 1.4% y-o-y in March, a strong rise from the 1.1% level seen in February. Wage pressure may filter through in the coming months, given the improving labour market, although it could still be too early for this development.

**Core inflation** – that is, the consumer price index (CPI), excluding energy, and food – remained low, standing at 1.0% in March, the same level as in February and January. So, all inflation indicators remain well below the ECB's approximate 2% inflation target.

**Graph 3 - 6: Euro-zone CPI and lending activity**

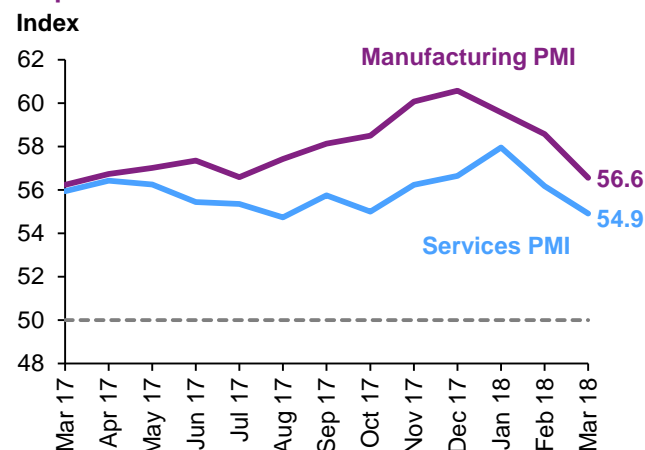


Sources: Statistical Office of the European Communities, European Central Bank and Haver Analytics.

In addition, the Euro-zone's latest **PMI** indicators generally pointed downwards. The manufacturing PMI fell in March, standing at 56.6, compared to February's 58.6 and January's 59.6. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, fell to 54.9 in March, compared to 56.2 in February and 58.0 in January.

Given some further strengthening in the economic growth momentum at the beginning of 2018, the Euro-zone's **GDP growth** forecast has been raised to 2.3%, compared to 2.2% in last month's report. This compares to 2017 growth of 2.5%. Political uncertainties, Brexit procedures, the weakness in the banking sector, as well as monetary policies remain important factors to monitor

**Graph 3 - 7: Euro-zone IHS Markit PMIs**



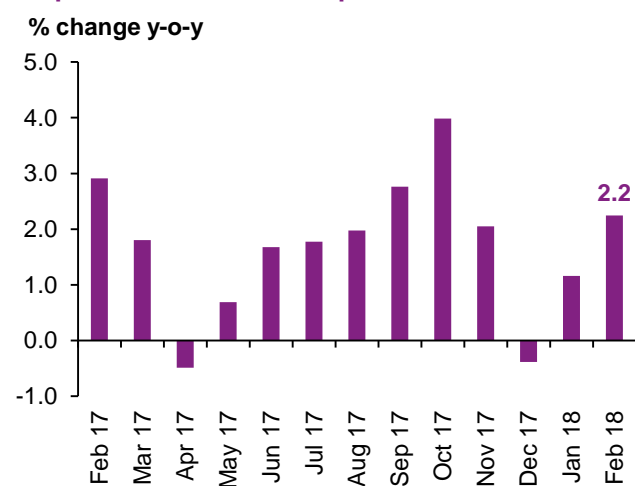
Sources: IHS Markit and Haver Analytics.

## UK

Despite the UK's economy remains to be negatively impacted by Brexit, some areas in the economy perform better than expected. The **unemployment rate** remained surprisingly low at 4.2% in December, even below the already low 4.3% witnessed in November, as per the latest available data. After some slowing in wage growth towards the end of the last year, income rose again to a higher level, by 3.2% y-o-y in December and 2.6% y-o-y in January. It means that labour market developments are keeping inflation well supported. At the same time, this is also a challenge as real income growth remains negative, due to the fact that inflation is rising at an even higher level of 2.7% in February and 3.0% in January. These inflation rates may continue to negatively impact potential future consumption and as a consequence real wage growth.

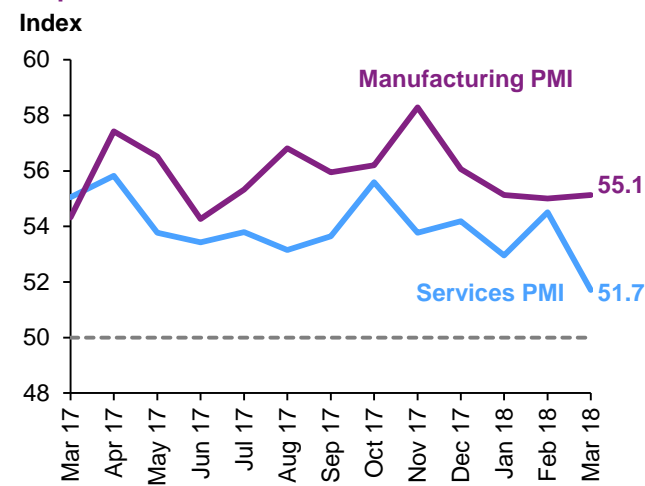
**Industrial production** remains low in the UK, but it did recover somewhat, growing by 1.2% y-o-y in January and 2.2% y-o-y in February. It was supported by exports and the weakening pound sterling. Exports grew by 3.8% y-o-y in January and 5.4% y-o-y in February. Moreover, retail trade also held up well, rising by 3.8% y-o-y in February and 3.6% y-o-y in January.

**Graph 3 - 8: UK industrial production**



Sources: Office for National Statistics and Haver Analytics.

**Graph 3 - 9: UK IHS Markit PMIs**



Sources: CIPS, IHS Markit and Haver Analytics.

In connection with the most recent economic developments, the **PMI** for manufacturing remained at a considerable level of 55.1 in March, almost unchanged from last month. Although, the very important services sector, which constitutes the majority of the UK's economy, declined to 51.7 in March, compared to 54.5 in February and 52.9 in January.

While the current economic growth trend remains negatively impacted by Brexit, some output indicators have performed better than expected. The latest revision to 2017 **GDP growth** showed a slightly better full year number of 1.8%. UK GDP growth in the 4Q17 was reported at 0.4% q-o-q seasonally adjusted (sa) growth rate, by the statistical office. This somewhat better momentum has also led to an upward revision for 2018 GDP growth, which now stands at 1.6%, compared to 1.5% in the previous report.

## Non-OECD

### BRICs

Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2017-2018\*

	GDP growth rate, %		Consumer price index, % change y-o-y		Current account balance, US\$ bn		Government fiscal balance, % of GDP		Net public debt, % of GDP	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
<b>Brazil</b>	1.0	2.1	3.4	3.6	-9.8	-30.6	-8.0	-7.0	73.7	77.4
<b>Russia</b>	1.5	1.8	3.7	3.9	32.7	51.4	-1.5	-1.1	11.5	12.0
<b>India</b>	6.3	7.2	3.3	5.1	-43.3	-58.7	-3.5	-3.5	50.5	49.6
<b>China</b>	6.9	6.5	1.5	2.2	171.0	232.0	-3.7	-4.0	18.2	20.7

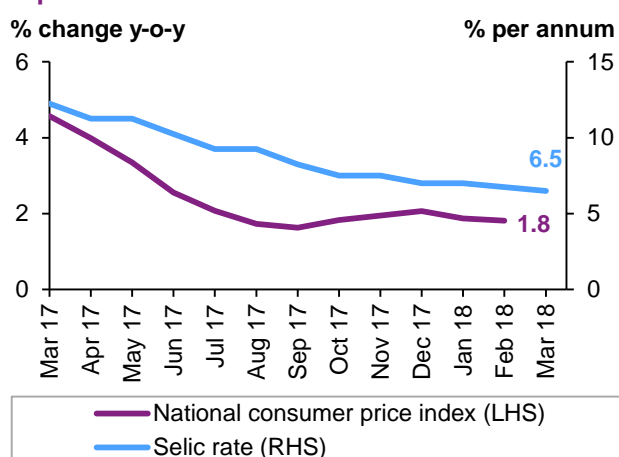
Note: \* 2017 = Estimate and 2018 = Forecast.

Sources: Consensus Economics, Economic Intelligence Unit, Financial Times, OPEC Secretariat and Oxford.

### Brazil

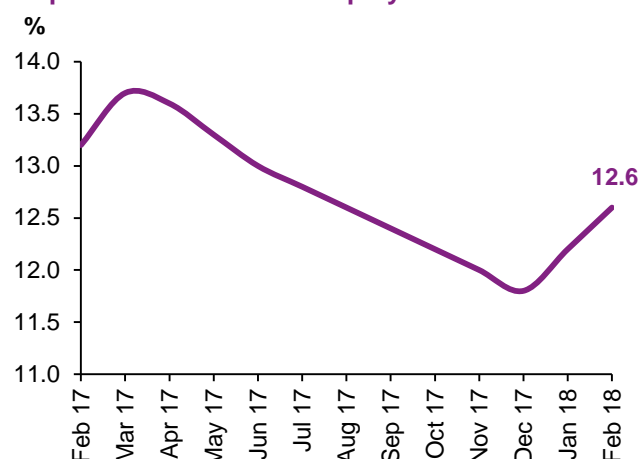
In the 1Q18, **exports** from Brazil rose by about 11% y-o-y, reaching \$54.4 billion; whereas **imports** climbed by around 16% y-o-y, surpassing \$36 billion. The **trade surplus** in March 2018 stood at \$6.3 billion versus \$7.1 billion in March 2017. Exports rose by nearly 10% y-o-y, whereas imports increased by about 17% y-o-y. The major imports were capital goods, intermediate goods, consumption goods, as well as fuels and lubricants. Major exports during March were soy beans, crude oil, fuel oils, aircraft, cargo vehicles and auto parts. GDP grew for the third quarter in a row in the 4Q17, increasing by 2.1% y-o-y. This brings 2017's growth to 1.0% y-o-y, signalling the first annual increase in GDP since 2014, when the economy grew by 0.5% y-o-y.

Graph 3 - 10: Brazil's inflation vs. interest rate



Sources: Banco Central do Brasil, Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

Graph 3 - 11: Brazil's unemployment rate



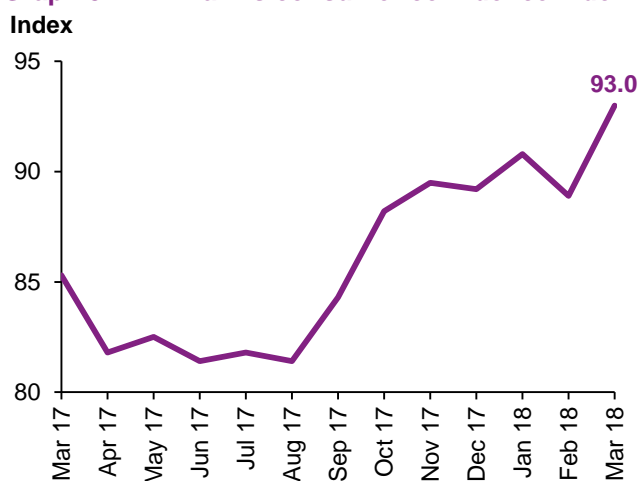
Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

**Inflation** eased for the second consecutive month in February, posting 1.8% y-o-y, falling from 1.9% y-o-y in January 2018. The central bank also lowered its benchmark interest rate by 25 basis points (bp) in March to 6.50%, the second month in a row. The monthly streak of a falling unemployment rate that began in March 2017 was interrupted at the beginning of 2018, with the unemployment rate increasing to 12.2% in January, up from 11.8% a month earlier. In February, the unemployment rate increased further to 12.6% y-o-y.

**After dropping in February to 88.9, the consumer confidence index** improved to 93.0 in March, its highest reading since October 2014.

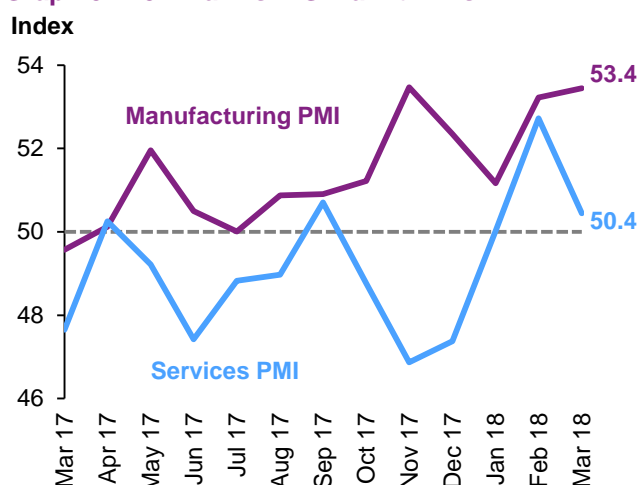
In March 2017, a strong rise in production and factory orders led the **manufacturing** sector to witness a further improvement. The expansions in production and new orders were the second-highest recorded in over five years. The index posted a level of 53.4 in March, from 53.2 in February. The survey also revealed the sixth back-to-back increase in employment. The IHS Markit Brazil **Services** PMI Business Activity Index posted a level of 51.5 in March, increasing from 53.1 in February.

**Graph 3 - 12: Brazil's consumer confidence index**



Sources: Fundação Getúlio Vargas and Haver Analytics.

**Graph 3 - 13: Brazil's IHS Markit PMIs**



Sources: IHS Markit and Haver Analytics.

The Brazilian economy started 2018 on a positive note. The rebound in services activity, coupled with a sustained expansion in manufacturing production, led to an upturn in private sector output. These developments, alongside positive indicators in terms of more stabilised inflation and reduced interest rates, lend support to notably higher GDP growth in 2018 vis-à-vis 2017. Brazil's GDP grew by 1.0% in 2017, but is expected to increase by 2.1% in 2018.

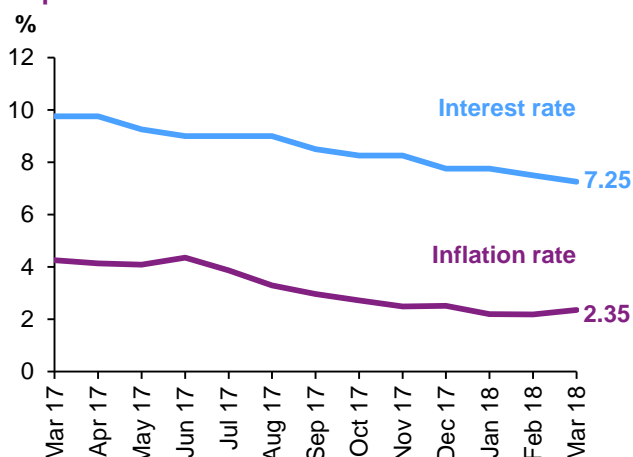
## Russia

**Russia's GDP** grew by 0.9% y-o-y in the 4Q17, after expanding by more than 2% in the previous two quarters. GDP growth in 2017 stood at 1.5% y-o-y. In the 4Q17, **household consumption** grew at its fastest pace since the 4Q13, a level of 4.3% y-o-y, while **government consumption** was steady at 0.4% y-o-y. The increase in **gross capital formation** was notably slower in the 4Q17, at 0.4% y-o-y, down from 8.5% in the previous quarter. **Net exports** continued to subtract from growth in the 4Q17, as was the case in the previous three quarters due to soaring imports. **Imports** increased by 15% y-o-y in the 4Q17, whereas **exports** increased by 5.2% y-o-y. Net exports were at a level of 674 billion rubles in real terms in the 4Q17 versus 1,116 billion rubles in 4th Q16, signalling a 40% y-o-y decline.

The **ruble** depreciated by 0.4% m-o-m in March versus the dollar after generally being stable in February. On a y-o-y comparison, the ruble was 1.8% higher in March 2018 compared to a year earlier. **Inflation** was stable in February at 2.2% y-o-y, although it was below the 2.5% y-o-y level seen in December 2017. The rise in crop productivity and a shortage of long-term storage facilities put downwards pressure on inflation in the 4Q17. In March, the central bank lowered its benchmark one-week **repo rate** to 7.25% from February's 7.50%.

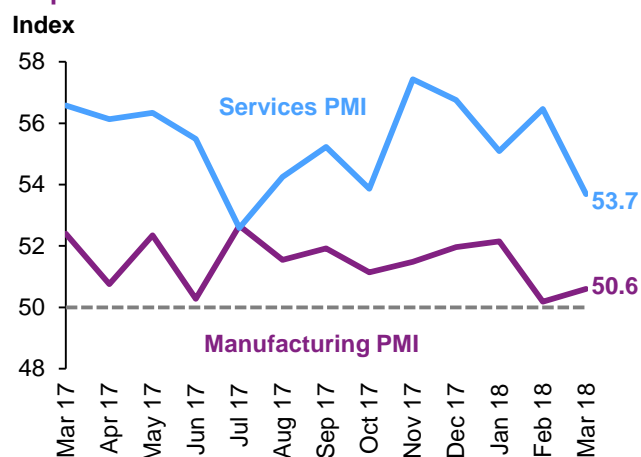


Graph 3 - 14: Russia's inflation vs. interest rate



Sources: Federal State Statistics Service, Central Bank of Russia and Haver Analytics.

Graph 3 - 15: Russia's IHS Markit PMIs

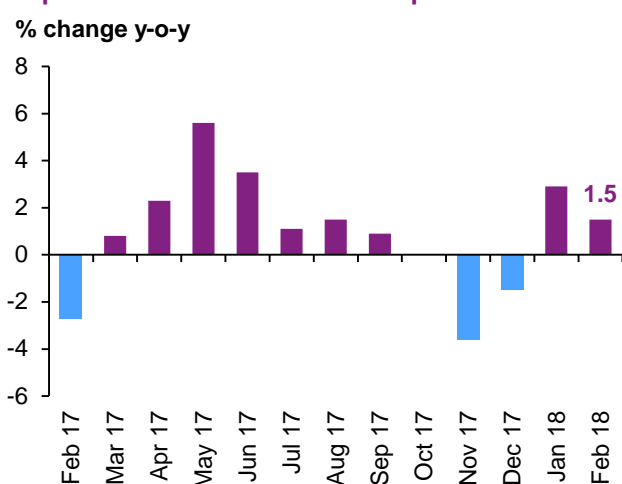


Sources: IHS Markit and Haver Analytics.

The IHS Markit Russia **manufacturing** PMI increased in March to 50.6, from 50.2 in February on the back of improvements in production and new orders. However, the production growth rate was at a five-month low in March, while the rise in new orders was the weakest in the current 20-month sequence of expansion. The survey showed that input prices rose at the highest rate since October 2017, due to higher prices of raw materials. In addition, the survey revealed a dip in expectations to a three-month low in terms of the year-ahead production outlook.

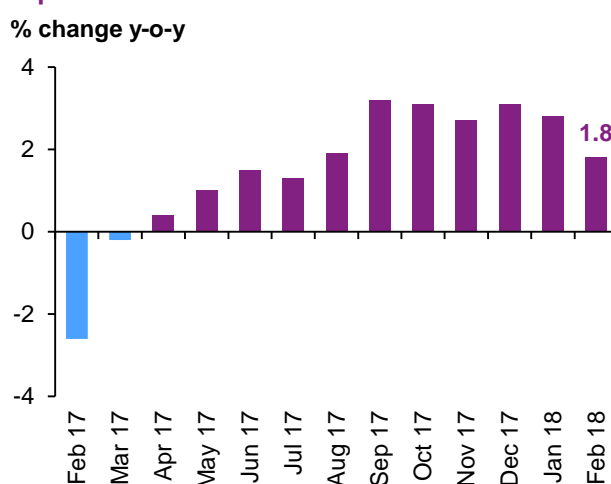
**Industrial production** rose by 1.5% y-o-y in February following its return to growth in January 2018. This followed two previous months of contraction due to lower natural gas production on higher than average temperatures. Industrial production increased by 2.9% y-o-y in January. The **services** activity PMI suggests a solid, albeit softening, overall improvement in March. The index posted its lowest reading in eight months in March at 53.7, down from 56.5 in February. While continuing to rise, new orders received by service providers grew at a weaker pace in March, reflecting the somewhat fragile demand conditions. The level of outstanding business at service sector companies fell for the fourth consecutive month in March, with the rate of decline accelerating to its highest level since April 2016. For the tenth month in a row, **retail sales** increased in February. The rate of increase was 1.8% y-o-y, albeit a drop from 2.8% and 3.1% in January and December, respectively.

Graph 3 - 16: Russia's industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 17: Russia's retail sales



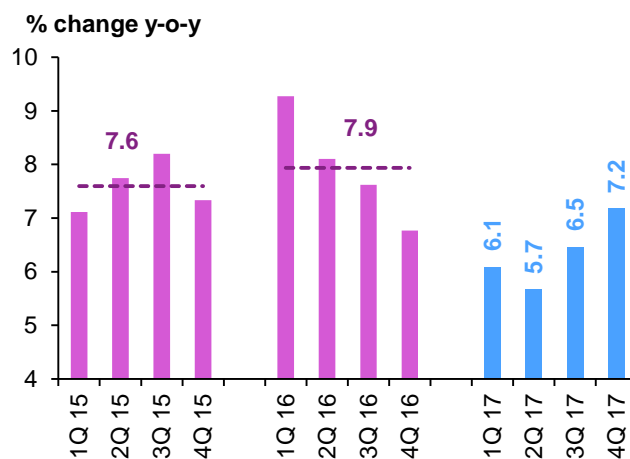
Sources: Federal State Statistics Service and Haver Analytics.

Slower than previously expected GDP growth in the 4Q17, due to slower investment and higher imports, is expected to exert a somewhat negative impact on 2018 too. In addition, the slight softening in the manufacturing and services sectors in March, with a dip in the year-ahead expectations, has started to increase the downside growth risks in 2018. On the other hand, household consumption is expected to grow further supported by slower inflation and lower interest rates. Russia's GDP is forecast to grow by 1.8% y-o-y in 2018.

## India

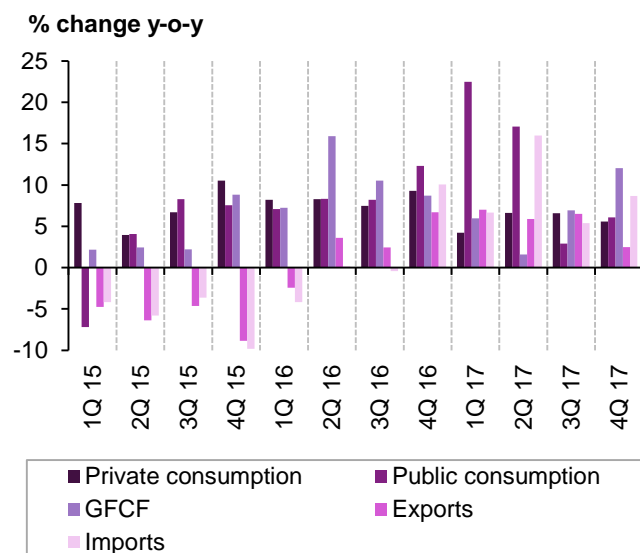
India's economy saw an improvement in the 1Q18, supported by a recovery in investment and consumer spending. In addition, a slightly more aggressive monetary policy is expected to be offset by greater fiscal accommodation with a view of supporting the economy ahead of the general elections scheduled for early 2019. Furthermore, consumer spending recovery in recent months has been significant, a further indication of the longer-term positive impact of the Goods and Services Tax implemented in the previous year.

**Graph 3 - 18: India's GDP growth**



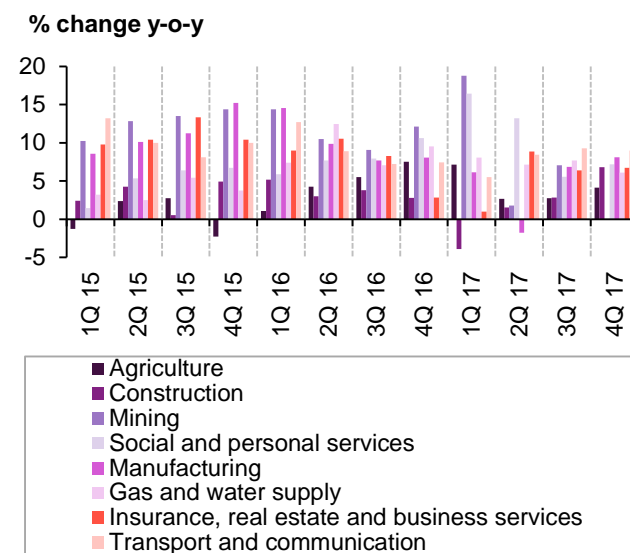
Sources: National Informatics Centre (NIC) and Haver Analytics.

**Graph 3 - 19: India's GDP growth by demand side**



Sources: Central Statistics Office and Haver Analytics.

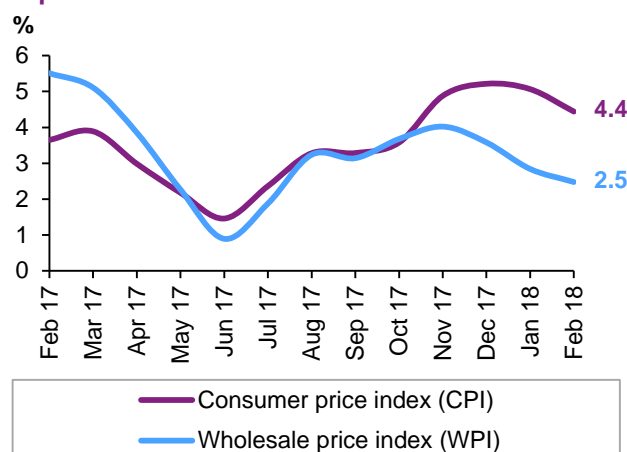
**Graph 3 - 20: India's GDP growth by supply side**



Sources: Central Statistics Office and Haver Analytics.

**India's CPI inflation** increased by 4.4 % y-o-y in February and below the 5.07 % level in January. It is the lowest inflation rate in the past four months, but it remains above the 4 % medium-term target of the Reserve Bank of India (RBI). **India's WPI** rose by 2.48 % y-o-y in February, after a 2.84 % increase in the previous month. It was the lowest WPI since July 2017, as the cost of food and fuel rose at a softer pace. On a monthly basis, wholesale prices were unchanged, after a 0.1 % rise in January.

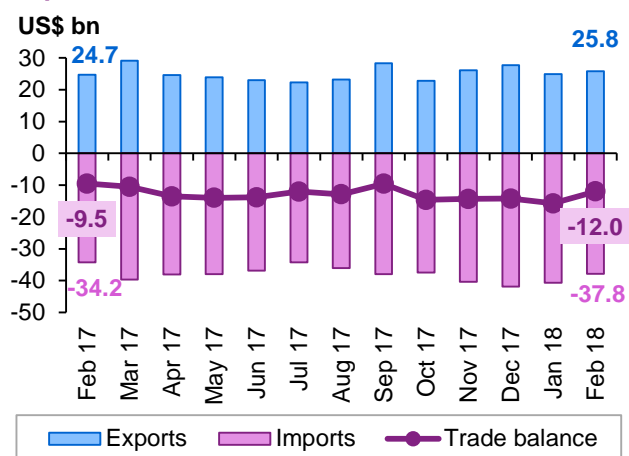
Graph 3 - 21: India's inflation



Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.

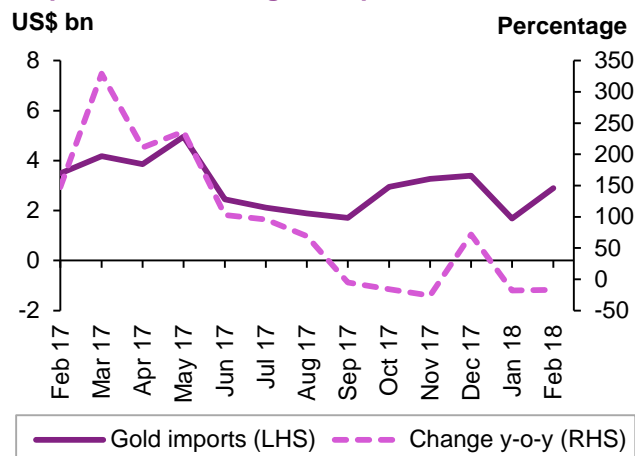
**India's trade** deficit widened to US\$11.98 billion y-o-y in February 2018 from US\$ 9.5 billion in the same month a year earlier. **Merchandise imports** rose 10.4% y-o-y to US\$37.81 billion with increases in petroleum, crude and products (32%); electronic goods (19%); machinery, electrical and non-electrical (23%); pearls, precious and semi-precious stones (15.9%); and coal, coke and briquettes (17.7%). On the flip side, gold imports slumped 16.9%. **Merchandise exports** increased 4.5% to US\$25.8 billion, boosted by sales of petroleum products (27.4%); organic and inorganic chemicals (30.4%); drugs and pharmaceuticals (13.9%); rice (21.3%); and electronic goods (29.7%). Considering the April 2017-February 2018 period, the country's trade gap widened to US\$ 143.1 billion from US\$ 97.8 billion a year earlier.

Graph 3 - 22: India's trade balance



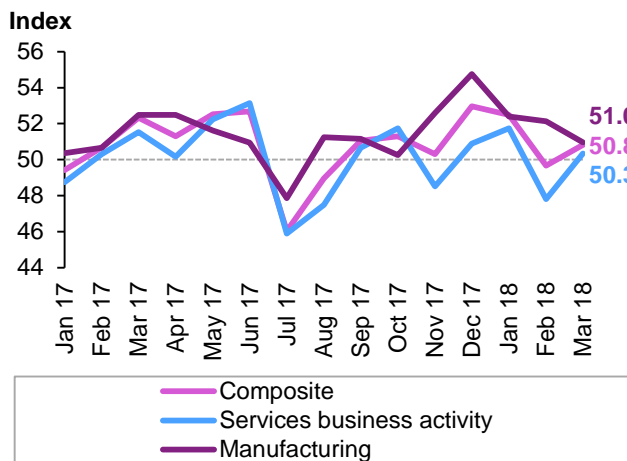
Sources: Ministry of Commerce and Industry and Haver Analytics.

Graph 3 - 23: India's gold imports

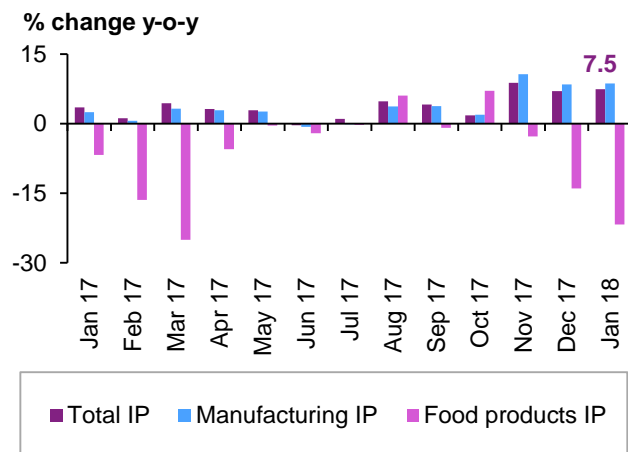


Sources: Ministry of Commerce and Industry and Haver Analytics.

The Nikkei Manufacturing PMI in India unexpectedly fell to 51.0 in March from 52.1 in February. It also missed the market consensus of 52.8. The level pointed to the weakest expansion in the manufacturing sector since October 2017, as output expanded the least in five months. New export orders grew at the softest pace since November 2017 and sentiment remained below average. However, new orders increased for the fifth month in a row and manufacturers raised their purchasing activity. Moreover, employment fell for the first time in eight months. In terms of prices, the recent build-up of inflationary pressures eased, with softer increases in both input costs and output prices.

**Graph 3 - 24: India's PMIs**


Sources: Nikkei, IHS Markit and Haver Analytics.

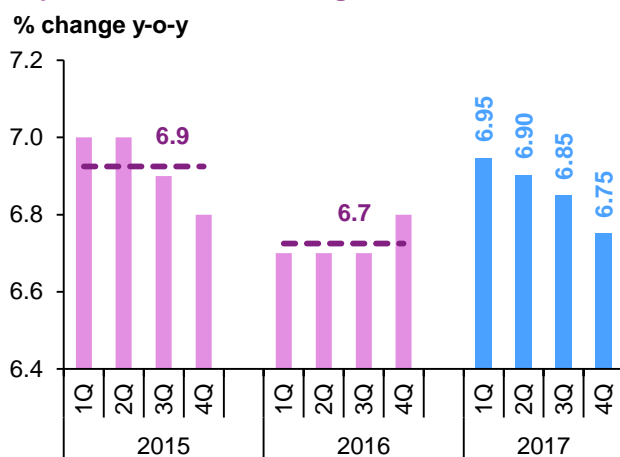
**Graph 3 - 25: India's industrial production breakdown**


Sources: Central Statistical Organisation of India and Haver Analytics.

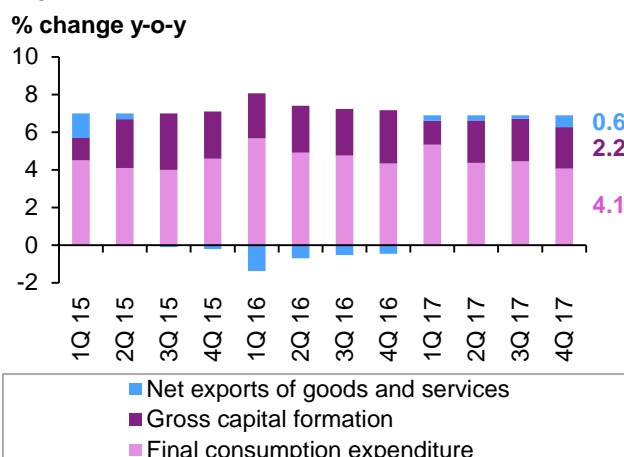
Indian **GDP growth** for 2017 was at 6.3%. As for 2018, the Indian GDP growth expectation remained unchanged at 7.2%.

## China

China's economic growth picked up significantly in the first two months of 2018 after a strong performance in 2017, reflecting stronger exports and resilient real estate activity. However, manufacturing and infrastructure investment remain weak. Improving domestic and overseas demand are expected to support China's economic growth in 2018. However, downside risks remain in the first half of 2018 owing to the continuous drag from a tightening monetary policy and the slowing fiscal stimulus.

**Graph 3 - 26: China's GDP growth**


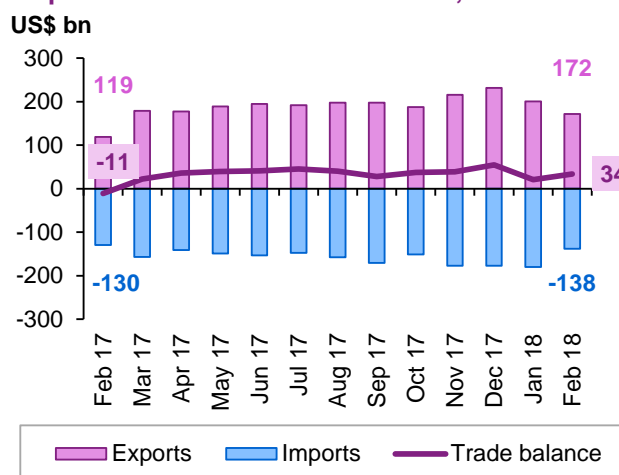
Sources: China's National Bureau of Statistics and Haver Analytics.

**Graph 3 - 27: China's GDP breakdown**


Sources: China National Bureau of Statistics and Haver Analytics.

On the **demand side**, fixed-asset investment (FAI) growth was at 7.9% in January and February, up from 7.2% in December, the fastest in seven months. More rapid real estate development growth was the main contributor to the headline acceleration, while manufacturing and infrastructure investment slowed. Real estate investment, which is reflected by consumer demand expanded by 9.7% y-o-y in January and February, 0.3% higher than in December. In February China's retail sales expanded by 9.7% y-o-y, 0.5 pp lower than the same time last year.

**Graph 3 - 28: Chinese trade balance, NSA**



Sources: China Customs and Haver Analytics.

On the **supply side**, construction and housing sales both slowed markedly in January and February. The growth in housing starts fell from 10.5% y-o-y in December to 5.0% y-o-y in January and February. Housing sales growth dropped from 5.3% y-o-y in December to 2.3% y-o-y in the first two months of 2018. With regard to supply side structural reform, further cuts of capacity in heavy industry and industrial policy-type measures are foreseen. The government has made progress with cutting excess capacity in coal mining and steel, but more capacity reduction is needed, including extending the reform efforts to other industries such as cement, glass, electrolytic aluminium and shipping. The upcoming property tax is a key to the long overdue reform of the inter-governmental fiscal system that finally seems to be gathering momentum. Meanwhile, the government's efforts to open the world to China's companies, as well as opening China's markets to foreign firms, are ongoing.

China's policymakers remain focused on reining in financial risks and deleveraging parts of the financial system, while aiming for a gradual slowdown in credit growth. The regulatory tightening and higher US rates should maintain the upward pressure on Chinese interbank interest rates.

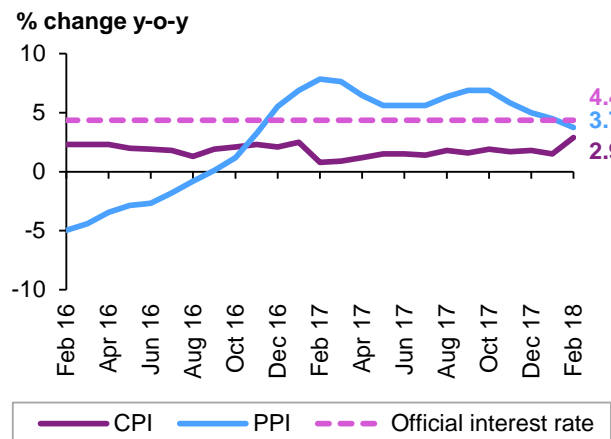
**Export** growth reaccelerated from 10.8% y-o-y in December to 24.4% y-o-y in the first two months of 2018. Since robust demand from the US, which accounted for 20% of China's exports, has been an important driver of the country's exports growth over the past year, the issue of the US raising trade barriers may affect China's exports growth in the near future. The US tariffs on steel may have a limited impact on China given its opening of new markets and its low exports to the US, which accounted for only about 2% of total US steel imports by volume in 2017. However, the US has announced plans to expand tariffs to more products in the future, such as machinery, electrical products, and textiles, which China has greater exposure to. Separately, China may increase imports – such as aircraft and agricultural products – from the US, as per the agreement between the two countries during President Donald Trump's visit to China last November. However, it seems have a limited effect on narrowing the bilateral trade surplus in the long term.



**China's CPI inflation** rose by 2.9 % y-o-y in February, after a 1.5 % rise in the previous month. It was the highest inflation rate since November 2013, as the cost of food rebounded sharply and the cost of non-food products rose faster. On a monthly basis, consumer prices increased by 1.2%, much faster than the 0.6% gain in the preceding month and above estimates for a 0.8 % rise. It was the highest monthly figure since February 2016.

**China's producer price index (PPI)** increased by 3.7 % y-o-y in February, the least since November 2016. This compares to a 4.3 % rise in the previous and markets estimates for a 3.8 % gain. It was the 18th straight month rise in producer inflation.

**Graph 3 - 29: China's CPI and PPI**

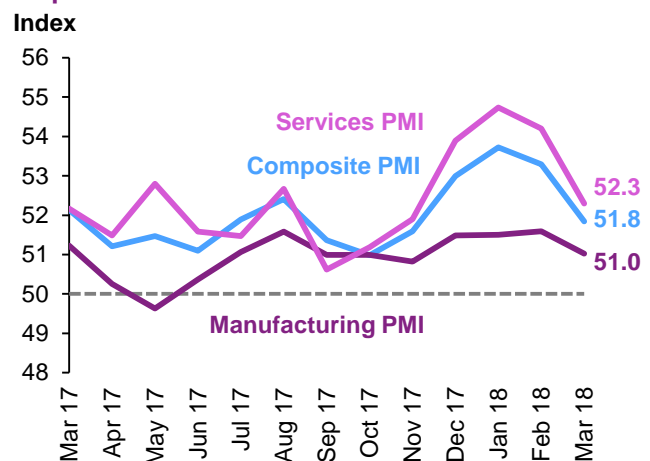


Sources: China Index Academy, China National Bureau of Statistics, Soufan and Haver Analytics.

The Caixin Manufacturing **PMI** in China edged up to 51.6 in February from 51.5 in January. This was above the market consensus of 51.3. It was the highest reading since August 2017, as new orders grew slightly faster, sentiment hit its highest in 11 months and output continued to rise. The official National Bureau of Statistics (NBS) Manufacturing PMI in China fell to 50.3 in February, down 1 point from January. This was the largest fall in more than six years. The official Non-Manufacturing PMI in China dropped to 50.3 in February from 51.3 in the preceding month. This was below the market consensus of 51.2. It was the weakest pace of expansion in services activity since October 2017.

China's **GDP growth** for 2017 is at 6.9%. For 2018, China's GDP growth expectation kept unchanged at 6.5%.

**Graph 3 - 30: China's Caixin PMIs**

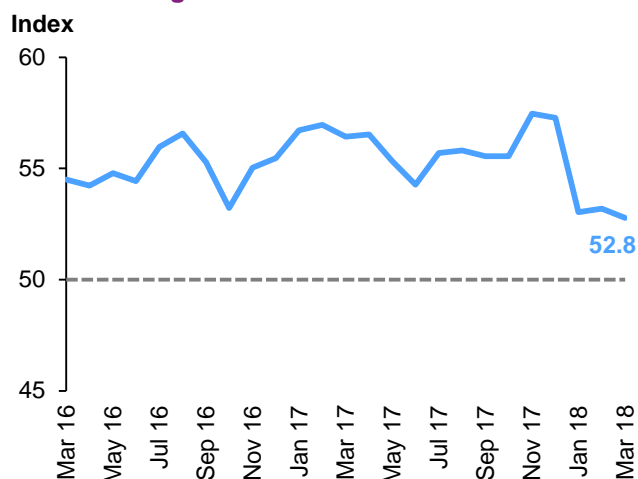


Sources: Caixin, IHS Markit and Haver Analytics.

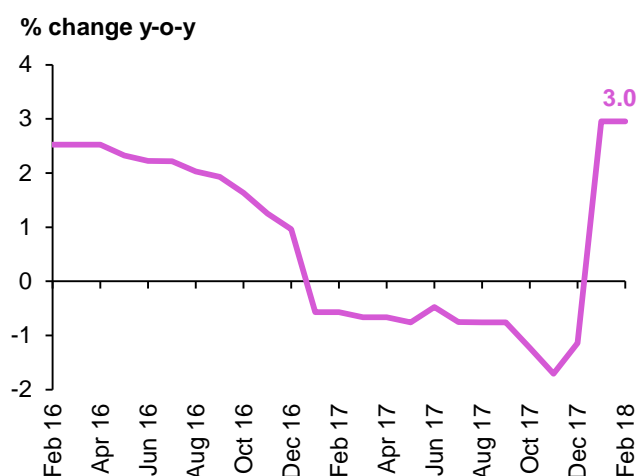
## OPEC Member Countries

In **Saudi Arabia**, the Emirates NBD Saudi Arabia PMI posted 52.8 in March, a drop from 53.2 seen in February. This signals a continued, yet slightly softer, expansion in the non-oil private sector's overall business conditions. Surveyed firms reported the slowest growth in incoming new orders in March due to competitive pressures and the recent introduction of VAT, according to anecdotal evidence. New export orders were largely flat in March compared to the previous month. The survey also revealed that job creation was sustained in March, as has been the case over the previous four years, with March's improvement more than the past 12-month average.

In the survey, input-price inflation continued to ease in March for the tenth month running, with the rate of increase below the long-run average, as a result of easing costs of raw materials and labour. This enabled firms to reduce output prices to stimulate demand. The survey highlighted strong and positive business confidence on the back of expectations of an economic upturn and new projects. The non-oil and gas sector in Saudi Arabia grew by 1.0% y-o-y in 2017, faster than the 0.2% seen in 2016. Consumer price inflation increased in February by nearly 3.0% y-o-y, unchanged from January and following 12 months of decline, which is largely connected to fuel subsidy cuts and VAT implementation in January. Prices of tobacco, beverages, and electricity notably increased in February.

**Graph 3 - 31: Saudi Arabia's Emirates NBD manufacturing PMI**

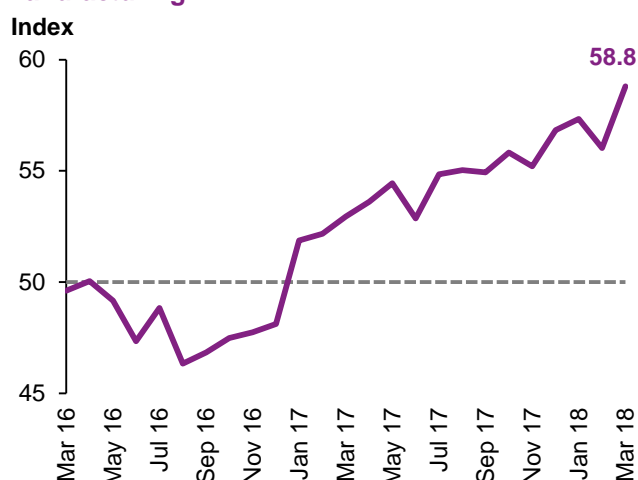
Sources: Emirates NBD, IHS Markit and Haver Analytics.

**Graph 3 - 32: Saudi Arabia's inflation**

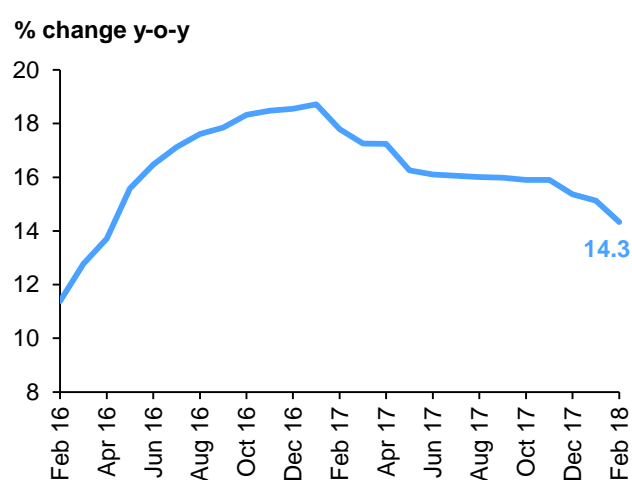
Sources: General Authority for Statistics and Haver Analytics.

In **Nigeria**, the Stanbic IBTC Bank Nigeria PMI hit a record high in March. There was a sizable expansion in new orders, alongside an output rise, which pushed the index up to 58.8 in March, from 56.0 in February. The inflow of new orders grew at a record pace in March, accompanied with an unprecedented rise in employment to enable firms to increase output capacity. Additionally, foreign demand returned to expansion in the latest survey.

Furthermore, the availability of FX coupled with declining inflation expectations should continue to support Nigeria's economy. As for price increases, the survey showed an increase in average cost burdens by the highest rate in 49 months, on the back of higher raw material costs and increased wages. Reflecting the sharp increase in incoming new orders, buying activity also increased at a record rate in March. Hence, the stocks of purchases increased at an unparalleled rate. GDP grew by 1.9% y-o-y in the 4Q17, signalling the highest rate of growth since 4Q15. This brings the full year 2017 growth to 0.8% y-o-y. The increase in consumer price inflation continued to ease in February, falling to below 15% for the first time since April 2016. Inflation posted a level of 14.3% y-o-y in February, down from 15.1% y-o-y in January.

**Graph 3 - 33: Nigeria's Stanbic IBTC Bank manufacturing PMI**

Sources: IHS Markit, Stanbic IBTC Bank and Haver Analytics.

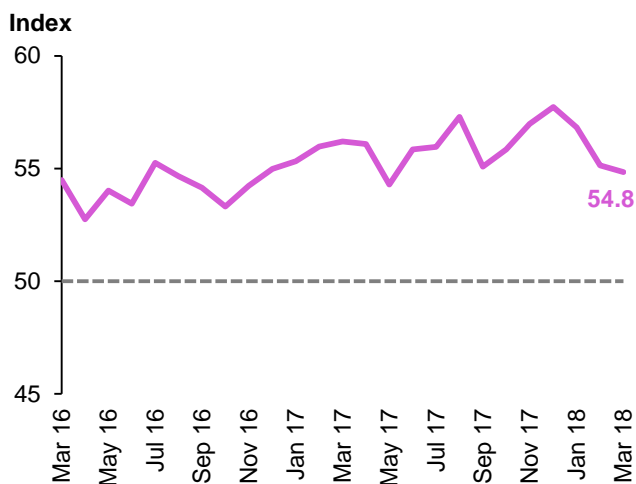
**Graph 3 - 34: Nigeria's inflation**

Sources: National Bureau of Statistics and Haver Analytics.

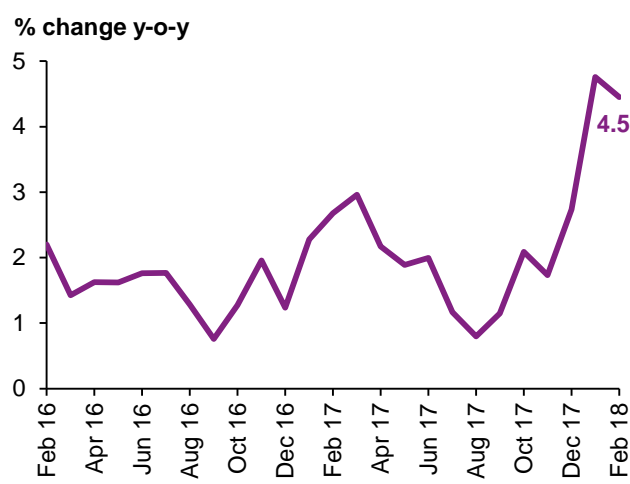
Inflation in the **United Arab Emirates** increased in February by 4.4% y-o-y, down from the January level of 4.7%, which was the fastest pace since August 2015. In 2017, average consumer price inflation stood at 2.0% over the year 2016. Prices increases for transportation, food and soft drinks, textiles and clothing slightly eased in February, though they remained higher than other goods and services. The sectors of recreation and culture, together with restaurants and hotels, witnessed a faster pace of inflation in February compared to the month earlier.

Expansion in the country's non-oil private sector continued in March 2018, albeit at its softest pace in ten months, according to the Emirates NBD UAE PMI. The index stood at 54.8 in March, down from 55.1 in February. The survey showed continued, yet a slower pace of growth, in output, new orders and job creation. As for March output, its growth was at the lowest level in 23 months. The growth in incoming new orders in March was above the long-run average. However, the survey showed that despite strong domestic new orders growth, export orders declined in March.

**Graph 3 - 35: UAE's Emirates NBD manufacturing PMIs** **Graph 3 - 36: UAE's inflation**



Sources: Emirates NBD, IHS Markit and Haver Analytics.



Sources: General Authority for Statistics and Haver Analytics.

## Other Asia

In **Indonesia**, January's trade balance deficit continued in February at around \$0.1 billion, which compares to a surplus of 1.3 billion in February 2017. This represents the country's third consecutive trade deficit month. In February, imports soared by approximately 25.2% y-o-y, whereas exports went up by nearly 11.8% y-o-y. Exports of oil and gas products went up by 16.1% y-o-y, while non-oil and gas products increased by 11.3% y-o-y. On the imports side, the purchase of non-oil and gas products accelerated by 34.6% y-o-y, while the import of oil and gas products rose by only 8.6% y-o-y.

The country's index on the manufacturing sector business conditions remained in expansion territory in March, although it signalled a slightly softer pace of growth. The Nikkei Indonesia Manufacturing PMI registered 50.7 in March, down from its highest reading in 20 months of 51.4 in February. Surveyed firms reported a slower pace of growth in production and new orders, with business confidence hitting its lowest level since December 2012. GDP grew by 5.1% y-o-y in 2017, which is the highest annual growth since 2013. In the 4Q17, GDP grew by 5.2% y-o-y, up from 5.1% in the 3Q17. The main drivers of the faster GDP growth in the final quarter of last year were GFCF, lower imports and the increase in government consumption. In the 4Q17, GFCF posted the highest growth since the 1Q13, at 7.3% y-o-y, up from 7.1% y-o-y in the 3Q17.

## Africa

In **South Africa**, the trade balance was in surplus territory in February. Despite being a low surplus of only 0.4 billion rand, it represents an important switch from January's sizable trade deficit of more than 27 billion rand. The country's private sector index in March signalled a continued improvement in domestic business conditions. The Standard Bank South Africa PMI posted 51.1 in March, from 51.4 in February.

The survey showed improvements in output, new orders and employment. All PMI sub-indices remained in expansionary territory, with employment at 51.2 followed by, output recording 51.0 and new orders at 50.9. The 1Q18 PMI average stood at 50.5 versus 50.8 in the 1Q17. GDP grew by 2.0% y-o-y in the 4Q17, signalling its fastest growth since the 1Q15. Higher expansion in private consumption expenditure was the main driver of better GDP growth in the 4Q17. Private consumption accelerated by 2.9% y-o-y in the 4Q17,

up from 2.7% in the 3Q17, whereas public consumption increased by 0.4% y-o-y in the 4Q17, from 0.5% in the previous quarter. For the full year 2017, GDP grew by 1.2% over 2016.

In **Egypt**, the pound appreciated by 0.2% m-o-m versus the US dollar in March, after showing a similar movement in February 2018. The pound lost nearly 95% of its value to the dollar during November 2016 through to April 2017. Inflation eased to below 15% in February for the first time since October 2017. Inflation registered a level of 14.3% y-o-y in February, down from 17.1% y-o-y in January. Inflation hit a record high of 33% y-o-y in July 2017 on the back of cuts in fuel and energy subsidies. After falling back into recession in December, Egypt's non-oil private sector remained just below the 50-point line for the third consecutive month in March, according to the Emirates NBD Egypt PMI. The index fell fractionally to 49.2 in March, from 49.7 in February and 49.9 in January, despite increased foreign demand for the third consecutive month. The survey showed that input-price inflation slowed in March to a 30-month low.

## Latin America

In **Argentina**, GDP grew by nearly 4.0% y-o-y in the 4Q17, its highest rate since the 2Q15, and up from 3.8% y-o-y in the 3Q17. Hence, GDP growth in 2017 is at 2.8% y-o-y, the fastest rate since 2011. Markedly strong growth in GFCF was a main factor behind the highest rate of expansion recorded in the 4Q17, in addition to a healthy rise in private consumption. GFCF posted growth of nearly 21% y-o-y in the 4Q17, its highest since the 1Q11, and up from 13% in the 3Q17. Private consumption rose by its fastest pace since the 2Q15 at 4.8% y-o-y. This is up from 4.2% in the previous quarter. Trade numbers were not in favour of higher GDP growth as exports rose by only 0.4% y-o-y and imports went up by 21.7% y-o-y in the 4Q17. Government consumption growth also slowed from 1.8% y-o-y in the 3Q17 to 1.4% y-o-y in the 4Q17.

## Transition region

In the **Czech Republic**, the manufacturing sector in March signalled marked growth, according to the IHS Markit Czech Republic Manufacturing PMI. The index increased to 59.8 in March, up from 58.8 a month earlier. This represents the joint-strongest PMI reading since January 2011. Surveyed firms reported production growth at the highest rate since February 2011 and business confidence was its most upbeat since January 2016. In line with robust output growth, the latest upturn in new orders was steep and the second-strongest since May 2014. GDP growth in Czech Republic increased to 5.1% y-o-y in the 4Q17, its fastest since the 3Q15. For 2017, the economy grew by 4.3% y-o-y. Household consumption growth accelerated to 4.5% y-o-y in the 4Q17, up from 4.1% in the 3Q17. GFCF also expanded at a higher rate of 7.3% y-o-y in the 4Q17 vis-à-vis 6.3% in the previous quarter.

## World Oil Demand

World oil demand growth for 2017 was adjusted higher by around 30 tb/d to 1.65 mb/d, mainly to account for up-to-date data in both OECD and non-OECD regions. Total world oil demand is now pegged at 97.07 mb/d for the year. Similarly, world oil demand growth for 2018 was adjusted higher by around 30 tb/d from the previous month's assessment with oil demand growth pegged at 1.63 mb/d and total oil consumption at 98.70 mb/d with total world oil demand breaking a historical threshold of 100 mb/d in 4Q18.

Oil demand growth in the OECD region was revised higher by 0.13 mb/d in 1Q18 due to better-than-expected data in the OECD Americas and OECD Asia Pacific regions. In January 2018, solid middle distillate demand supported by the development of industrial activities, colder-than-anticipated weather and strong mining activities provided most of the gains in the US and OECD Asia Pacific (Japan, South Korea and Australia).

In non-OECD regions, oil demand growth was relatively unchanged in 2018 despite some offsetting adjustments in Other Asia and the Middle East regions. In Other Asia, an upward revision of 30 tb/d in 1Q18 resulted from better-than-expected demand in the industrial and transportation sectors in the first two months of the year. In contrast, oil demand growth was adjusted lower by 30 tb/d in 1Q18 in the Middle East region, mainly reflecting slower-than-expected oil demand developments in the region.

## World oil demand in 2017

For 2017, **world oil demand** grew by 1.65 mb/d, up by around 0.03 mb/d from the previous month's assessment.

**Table 4 - 1: World oil demand in 2017\*, mb/d**

	<u>2016</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>2017</u>	<u>Change 2017/16</u>	
							<u>Growth</u>	<u>%</u>
Americas	24.74	24.62	25.03	25.11	25.12	24.97	0.23	0.93
of which US	20.00	19.94	20.32	20.29	20.38	20.23	0.23	1.16
Europe	14.04	13.83	14.18	14.66	14.39	14.27	0.23	1.61
Asia Pacific	8.12	8.60	7.72	7.92	8.41	8.16	0.04	0.51
<b>Total OECD</b>	<b>46.90</b>	<b>47.04</b>	<b>46.92</b>	<b>47.69</b>	<b>47.93</b>	<b>47.40</b>	<b>0.50</b>	<b>1.06</b>
Other Asia	12.85	12.87	13.30	12.95	13.52	13.16	0.31	2.37
of which India	4.39	4.43	4.42	4.20	4.81	4.47	0.08	1.80
Latin America	6.47	6.27	6.51	6.82	6.47	6.52	0.05	0.76
Middle East	7.97	8.11	7.91	8.42	7.76	8.05	0.08	0.98
Africa	4.10	4.25	4.19	4.14	4.24	4.20	0.11	2.63
<b>Total DCs</b>	<b>31.39</b>	<b>31.49</b>	<b>31.90</b>	<b>32.33</b>	<b>31.99</b>	<b>31.93</b>	<b>0.54</b>	<b>1.72</b>
FSU	4.63	4.56	4.39	4.77	5.10	4.70	0.07	1.58
Other Europe	0.70	0.71	0.67	0.70	0.79	0.72	0.02	3.15
China	11.80	11.88	12.40	12.30	12.70	12.32	0.52	4.40
<b>Total "Other regions"</b>	<b>17.13</b>	<b>17.14</b>	<b>17.46</b>	<b>17.77</b>	<b>18.59</b>	<b>17.74</b>	<b>0.61</b>	<b>3.58</b>
<b>Total world</b>	<b>95.42</b>	<b>95.68</b>	<b>96.28</b>	<b>97.79</b>	<b>98.50</b>	<b>97.07</b>	<b>1.65</b>	<b>1.73</b>
Previous estimate	95.42	95.67	96.28	97.79	98.38	97.04	1.62	1.70
Revision	0.00	0.00	0.00	0.00	0.13	0.03	0.03	0.03

Note: \* 2017 = Estimate.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.



In the **OECD** region, OECD Europe oil demand data were adjusted higher by 0.12 mb/d in 4Q17 to account for the encouraging data from Turkey, Poland and France driven by higher middle distillates requirements.

In the **non-OECD**, China and Other Asia were also adjusted higher by 20 tb/d each in 4Q17 in line with the positive oil demand growth momentum in those regions.

## World oil demand in 2018

**Table 4 - 2: World oil demand in 2018\*, mb/d**

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17 Growth	%
Americas	24.97	24.93	25.24	25.36	25.38	25.23	0.26	1.02
of which US	20.23	20.21	20.54	20.53	20.58	20.46	0.23	1.16
Europe	14.27	13.95	14.26	14.76	14.48	14.36	0.10	0.68
Asia Pacific	8.16	8.63	7.73	7.89	8.42	8.17	0.01	0.07
<b>Total OECD</b>	<b>47.40</b>	<b>47.51</b>	<b>47.22</b>	<b>48.01</b>	<b>48.27</b>	<b>47.76</b>	<b>0.36</b>	<b>0.76</b>
Other Asia	13.16	13.29	13.69	13.33	13.89	13.55	0.39	2.97
of which India	4.47	4.70	4.66	4.32	4.97	4.66	0.20	4.39
Latin America	6.52	6.37	6.60	6.92	6.57	6.61	0.10	1.46
Middle East	8.05	8.17	7.99	8.53	7.86	8.14	0.09	1.09
Africa	4.20	4.39	4.33	4.27	4.38	4.34	0.14	3.28
<b>Total DCs</b>	<b>31.93</b>	<b>32.21</b>	<b>32.61</b>	<b>33.04</b>	<b>32.71</b>	<b>32.64</b>	<b>0.71</b>	<b>2.23</b>
FSU	4.70	4.66	4.50	4.89	5.21	4.82	0.12	2.45
Other Europe	0.72	0.73	0.69	0.73	0.82	0.74	0.03	3.48
China	12.32	12.28	12.82	12.71	13.12	12.73	0.42	3.37
<b>Total "Other regions"</b>	<b>17.74</b>	<b>17.68</b>	<b>18.01</b>	<b>18.33</b>	<b>19.15</b>	<b>18.30</b>	<b>0.56</b>	<b>3.13</b>
<b>Total world</b>	<b>97.07</b>	<b>97.40</b>	<b>97.84</b>	<b>99.38</b>	<b>100.13</b>	<b>98.70</b>	<b>1.63</b>	<b>1.67</b>
Previous estimate	97.04	97.27	97.85	99.38	100.01	98.63	1.60	1.64
Revision	0.03	0.13	0.00	0.00	0.13	0.06	0.03	0.03

Note: \* 2018 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## OECD

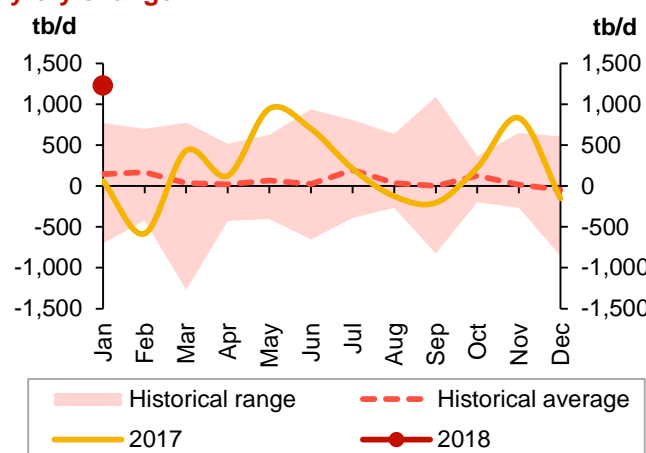
### OECD Americas

#### US

**The latest monthly oil demand data for the US** in January 2018 indicate robust monthly growth of more than 20 mb/d, providing solid ground for the US oil demand outlook for the rest of 2018. Oil demand increased by approximately 1.2 mb/d, or 6.2%, with total consumption at 20.8 mb/d.

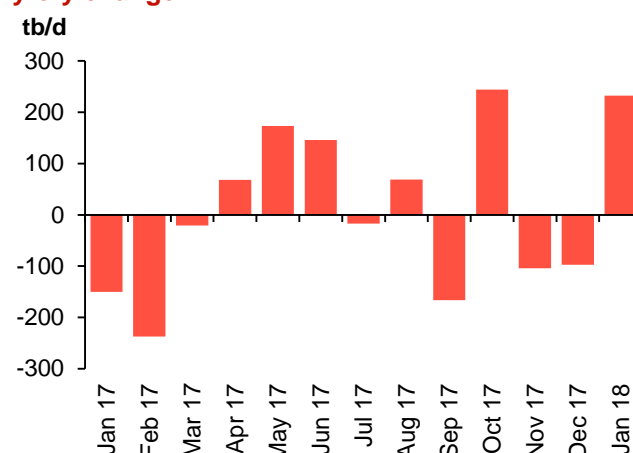
January 2018 gasoline demand returned to solid growth, by 0.2 mb/d y-o-y, after two months of consecutive declines, with the increase mostly attributed to a rise in mileage of around 0.4% y-o-y and, more importantly, the low baseline of comparison in January 2017 when consumption declined. Diesel rose significantly in January, by 0.6 mb/d, or 16.2%, y-o-y with additionally required volumes being approximately equally distributed between the transportation and industrial sectors, including also some effects of the low baseline in the same month of 2017 and cold weather in large parts of the country. The latter provided the main support for sluggish fuel oil requirements, which were down by more than 26% y-o-y as a result of fuel substitution.

**Graph 4 - 1: OECD Americas oil demand, y-o-y change**



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

**Graph 4 - 2: US gasoline demand, y-o-y change**



Source: US Energy Information Administration.

In line with the holiday season during the first half of January 2018 and the healthy, growing economy, jet/kerosene demand rose by 19 tb/d, or 1.2%, y-o-y, accounting for the smallest share volume-wise in overall growth.

Finally, positive developments in petrochemical industrial activities implied an increase of 0.4 mb/d, or 14%, y-o-y in petroleum gas plant liquids.

**Table 4 - 3: US oil demand, tb/d**

	<u>Jan 18</u>	<u>Jan 17</u>	<u>Change 2018/17</u> <u>tb/d</u>	<u>%</u>
LPG	3,356	2,943	413	14.0
Naphtha	212	220	-8	-3.6
Gasoline	8,742	8,510	232	2.7
Jet/kerosene	1,626	1,607	19	1.2
Diesel oil	4,394	3,781	613	16.2
Fuel oil	340	460	-120	-26.1
Other products	2,082	2,014	68	3.4
<b>Total</b>	<b>20,752</b>	<b>19,535</b>	<b>1,217</b>	<b>6.2</b>

Sources: US Energy Information Administration and OPEC Secretariat.

The overall oil demand developments in January 2018 were very much in line with the overall economic developments in the country. Preliminary February and March 2018 data, which were based on averaged weekly figures, show a continuation of the current upward trend, however smaller in magnitude, with road transportation and industrial fuels, notably gasoline and petroleum gas plant liquids, accounting for the bulk of these increases.

## Mexico

In **Mexico**, February 2018 was another disappointing month for oil demand and was characterized by dropping oil requirements for most of the main petroleum product categories. The declines in demand for LPG, gas, diesel oil and residual fuel oil were significant and were hardly offset by marginal gains in the demand for naphtha, gasoline and jet kerosene.

## Canada

The latest January 2018 **Canadian** data showed overall declines in oil demand, particularly for LPG, gasoline and naphtha y-o-y. Gains in the requirements for diesel oil and jet/kerosene moderated overall declines.

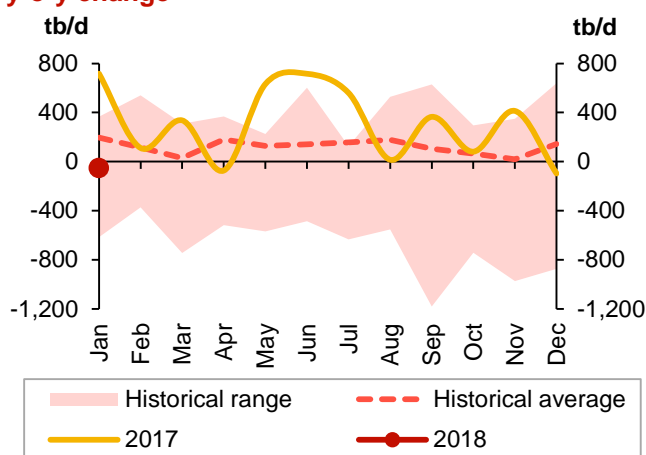
Looking forward, while 2018 US oil demand remains dependent on the development of the US economy, the risks are rather skewed to the upside as compared to last month's publication with positive developments in the economic arena playing a significant role going forward. Ongoing risks for Mexican oil demand remain skewed to the downside, depending on the overall development of the economy and the degree of substitution with other primary energy commodities, while 2018 risks projected for Canadian oil demand remain unchanged from those reported last month and are balanced towards the upside and downside.

In 2018, **OECD Americas oil demand** is projected to grow by 0.26 mb/d as compared to 2017.

## OECD Europe

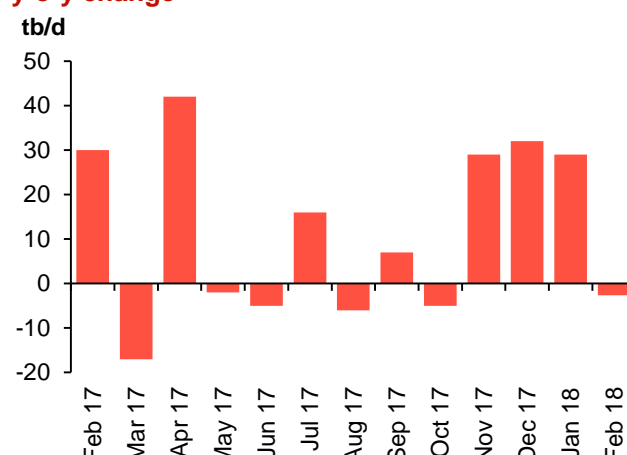
Average oil demand data for January and February 2018 suggest a continuation of positive momentum in **OECD Europe** in tandem with previous year's trends. Despite declining oil demand growth data during January, by around 50 tb/d y-o-y, initial data for February counterbalance those declines and add firm growth levels, mainly due to positive economic developments in large parts OECD Europe and robust growth in vehicle sales, in spite of high taxation on oil usage.

**Graph 4 - 3: OECD Europe oil demand, y-o-y change**



Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.

**Graph 4 - 4: UK diesel oil demand, y-o-y change**



Sources: Joint Organisations Data Initiative, UK Department of Energy Climate and Change and OPEC Secretariat.

Preliminary February 2018 Big 4 total oil demand data point to a surge of around 0.13 mb/d y-o-y with demand for all main petroleum product categories rising. Gains were buoyant in jet kerosene and diesel oil, while gasoline, LPG and naphtha demand were flat y-o-y. Within the Big 4, 2018 February oil demand grew in Germany France and Italy y-o-y, while it fell in the UK. Diesel oil led those gains, particularly in France, where it increased by 0.10 mb/d, or 10.6%, y-o-y, marking the highest monthly growth seen since January 2017. This increase was due mainly to colder-than-anticipated weather, which thereby boosted heating fuel requirements. Germany's oil demand was also supported by heating fuel demand, which surged by 86 tb/d, or 21.9 %, y-o-y in response to the colder weather.

Going forward, European oil demand in 2018 could be further enhanced by a number of elements such as improving industrial production and a growing auto market, which has remained in the positive for almost four years. However, some downside risks are also evident and relate to the development of the economy during 2018, particularly public debts for a number of countries in the region, in addition to fuel substitution in the industrial and transportation sectors. The latter relates to strongly rising vehicles that are alternatively fuelled in combination with governmental incentives, which favour their use in a number of countries in the region.

In 2018, **OECD Europe's oil demand** is projected to increase, but to a much lesser extent than in 2017, with levels anticipated at around 0.10 mb/d.

Table 4 - 4: Europe Big 4\* oil demand, tb/d

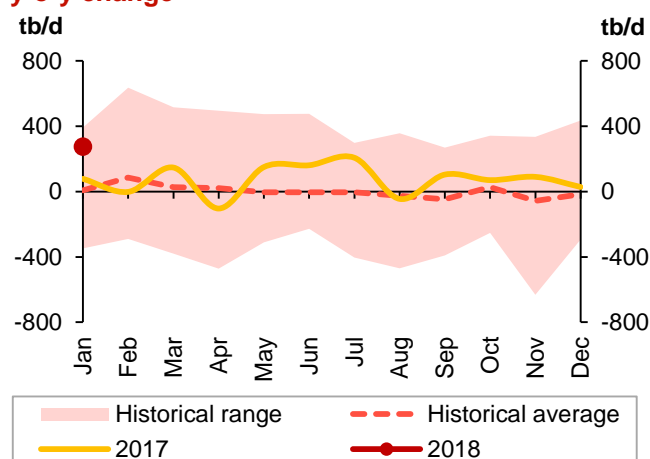
	Feb 18	Feb 17	Change 2018/17 tb/d	%
LPG	548	552	-4	-0.7
Naphtha	798	803	-5	-0.6
Gasoline	1,068	1,061	7	0.7
Jet/kerosene	817	761	56	7.4
Diesel oil	3,508	3,338	170	5.1
Fuel oil	271	246	25	10.2
Other products	490	606	-116	-19.2
<b>Total</b>	<b>7,501</b>	<b>7,367</b>	<b>134</b>	<b>1.8</b>

Note: \* Germany, France, Italy and the UK.

Sources: JODI, UK Department of Energy and Climate Change, Unione Petrolifera and OPEC Secretariat.

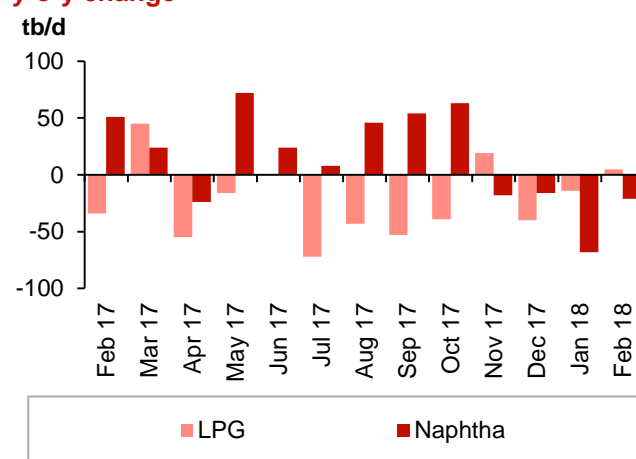
## OECD Asia Pacific

Graph 4 - 5: OECD Asia Pacific oil demand, y-o-y change



Sources: Joint Organisations Data Initiative, national and OPEC Secretariat.

Graph 4 - 6: Japanese LPG and naphtha demand, y-o-y change



Sources: Ministry of Economy Trade and Industry of Japan, Joint Organisations Data Initiative and OPEC Secretariat.

## Japan

In contrast with the overall oil demand picture during the last years, preliminary February 2018 **Japanese oil demand** data infer a firm rise by 79 tb/d, or 1.7%, y-o-y in Japan, rising for the second consecutive month and with mixed performances among the main petroleum product categories.

February 2018 demand for jet/kerosene and residual fuel oil for electricity generation increased in line with the growing economy and colder weather conditions, while naphtha, diesel oil requirements fell y-o-y and partially offset gains.

Table 4 - 5: Japanese domestic sales, tb/d

	Feb 18	Feb 17	Change 2018/17 tb/d	%
LPG	479	474	5	1.0
Naphtha	827	848	-21	-2.5
Gasoline	869	868	1	0.1
Jet/kerosene	875	837	38	4.6
Diesel oil	889	897	-8	-0.9
Fuel oil	354	312	42	13.4
Other products	457	434	23	5.3
<b>Total</b>	<b>4,749</b>	<b>4,670</b>	<b>79</b>	<b>1.7</b>

Sources: JODI, Ministry of Energy and Trade and Industry of Japan and OPEC Secretariat.

## South Korea

In **South Korea**, January 2018 oil demand growth came up considerably higher as compared to the same month in 2017, rising by 0.14 mb/d, or 5%, y-o-y. The thriving petrochemical sector, which called for intensely growing naphtha requirements, and higher demand for gasoline, jet/kerosene and diesel oil, were offset slightly by lower demand for residual fuel oil and LPG, the latter also resulting from a high historical baseline in 2017.

## Australia

In **Australia**, oil demand in January 2018 was for another month bullish y-o-y, implying increases of almost 0.08 mb/d and with industrial diesel accounting for the largest share of these gains.

The risks for oil demand growth in Japan going forward continue to be skewed to the downside as a result of less optimistic economic forecasts. The risks for the 2018 South Korean oil demand outlook is skewed to the upside due to positive growth projected for the economy, implying additional oil use in the transportation and industrial sectors.

**OECD Asia Pacific oil demand** is forecast to be flat to slightly increasing in 2018 at a level of around 10 tb/d.

## Non-OECD

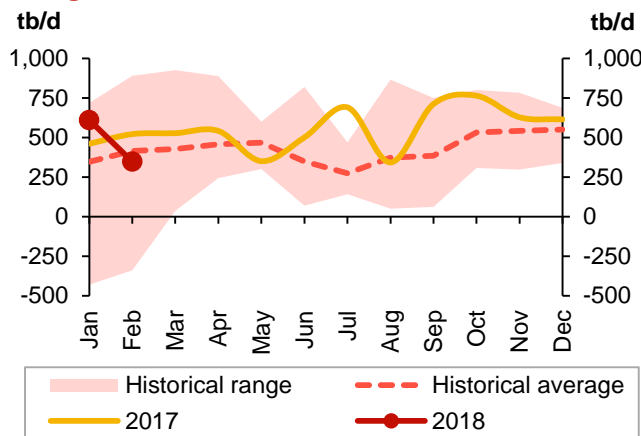
### China

Forecasts for February 2018 oil demand growth in China were in positive territory, continuing the country's solid performance with an increase of 0.35 mb/d.

The strength of **China's oil demand** remains centered on gasoline and jet fuel usage in the road transportation sector and LPG demand in the petrochemical sector. LPG demand picked up in February, increasing by 83 tb/d, or 5.0%, y-o-y. The rise in LPG demand came despite a slowdown in propane dehydrogenation (PDH) requirements as planned/unplanned maintenance activities reduced the utilization rate as compared to 4Q17, in addition to the lower number of operating days in February due to the week-long holidays. LPG was supported by colder-than-anticipated weather and snow storms in various parts of the country, spurring LPG requirements and keeping LPG consumption intact over month. Gasoline consumption followed a similar trend, adding some 0.12 tb/d, which equates to 4.3% y-o-y.

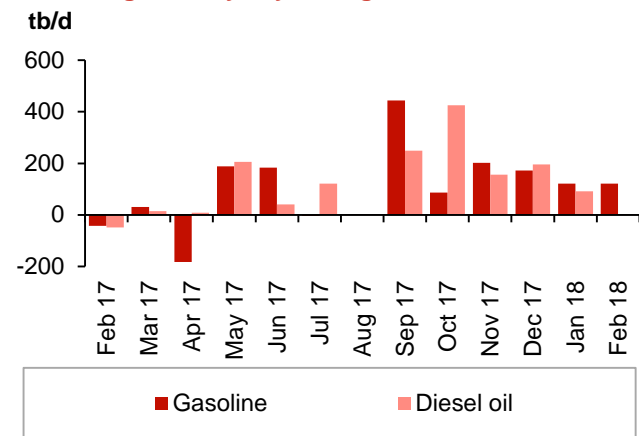


**Graph 4 - 7: Chinese apparent oil demand, y-o-y change**



Sources: Argus Global Markets, China OGP (Xinhua News Agency), Facts Global Energy, JODI, National Bureau of Statistics of China and OPEC Secretariat.

**Graph 4 - 8: Chinese diesel oil and gasoline demand growth, y-o-y change**



Sources: Facts Global Energy, China OGP (Xinhua News Agency), Argus Global Markets, JODI, National Bureau of Statistics, China and OPEC Secretariat.

Retail sales rose amid additional driving for the Chinese New Year. According to the *China Association for Automobile Manufacturers (CAAM)* and *Haver Analytics*, for the first two months of 2018, motor vehicle sales reached around 4.7 million units, marginally lower as compared to the same period in 2017. Most of the positive development appeared in the passenger car sales data for the month of February, which saw an increase of 2.2% y-o-y. Diesel oil demand was broadly flat as compared to February 2017 due to slower overall industrial activities, particularly in mining plants and the construction sector amid the lunar New Year holidays. Consumption of fuel oil also inched higher albeit at a slower level than in January, as initial data suggested an increase of around 27 tb/d.

The 2018 outlook for China is firm and strong, largely driven by solid growth in economic activities and further development of the petrochemical and transportation sectors, which will form an upside potential for China's oil demand growth. However, possible downside risks remain, including policies that support reductions in transportation fuel consumption.

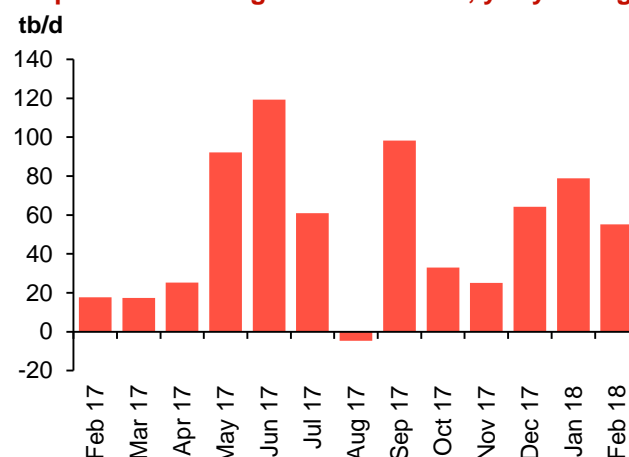
In 2018, oil demand in China is projected to rise by around 0.42 mb/d y-o-y.

## India

**Indian oil demand** continued its impressive performance in 2018, recording remarkable growth in February, rising by more than 0.34 mb/d, or around 7.7%, y-o-y supported by increased government infrastructure spending, improved macroeconomic indicators and the lower baseline of comparison in 1Q17. Total consumption registered the second highest volume ever at 4.8 mb/d.

Demand was not only supported by solid growth in gasoline and LPG but also by diesel oil and the other product categories, which include bitumen. Indian gasoline demand grew by around 55 tb/d, or around 9.4%, y-o-y, with total consumption levels reaching above 0.64 mb/d, the fourth highest level on record. Support continued to come from healthy car sales, rising income per capita and consumers' preference for gasoline in lieu of diesel oil amid a price advantage, particularly in the two-wheeler segment. Two-wheeler sales grew by 26% y-o-y during the month of February. Moreover, passenger vehicle growth points towards growth of 10.4% y-o-y. LPG continued to grow at a solid pace, increasing by 53 tb/d, or around 7.9%, compared with the same period in 2017.

**Graph 4 - 9: Indian gasoline demand, y-o-y change**



Sources: OPEC Secretariat, and Petroleum Planning and Analysis Cell of India.

Total consumption reached 0.73 mb/d. Support was mainly provided by planned increases in the residential sector as the country seems to be on firm footing to reach a revised and ambitious 80 million household connections by 2020. Additionally, Indian diesel oil demand rose impressively in February amid better overall economic momentum, promoting increased construction activities related to infrastructure projects, as well as declining diesel oil requirements during February 2017. Diesel oil grew by 0.11 mb/d, or close to 6.2%, y-o-y. Fuel oil demand growth was flat y-o-y, while bitumen consumption, supported by road construction, rose by more than 10% y-o-y.

**Table 4 - 6: India's oil demand\*, tb/d**

	<b>Feb 18</b>	<b>Feb 17</b>	<b>Change 2018/17</b>	
			<b>tb/d</b>	<b>%</b>
LPG	731	678	53	7.9
Naphtha	289	324	-35	-10.7
Gasoline	643	588	55	9.4
Jet/kerosene	283	288	-5	-1.7
Diesel oil	1,861	1,753	108	6.2
Fuel oil	304	303	0	0.1
Other products	693	528	164	31.1
<b>Total</b>	<b>4,803</b>	<b>4,461</b>	<b>342</b>	<b>7.7</b>

Sources: JODI, Petroleum Planning and Analysis Cell of India and OPEC Secretariat.

## Other Asia

### Indonesia

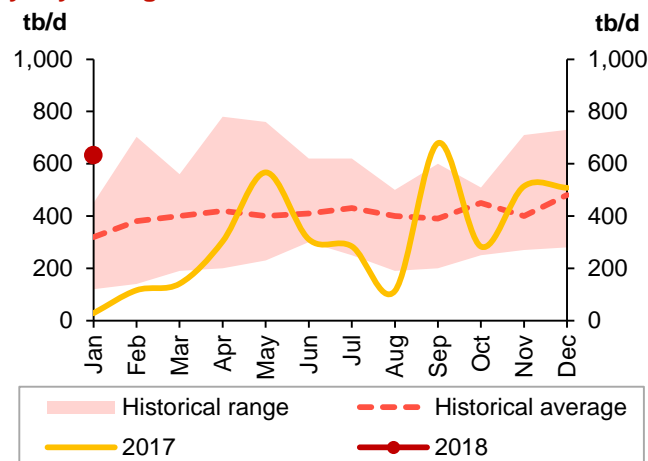
In **Indonesia**, the latest available January 2018 data showed rising demand for LPG and diesel oil, as petrochemical, industrial and residential sector requirements supported growth. Other transportation fuels also grew marginally in January 2018, including gasoline and jet oil. Total consumption reached 1.53 mb/d with a growth magnitude of around 46 tb/d y-o-y.

## Thailand

In **Thailand**, oil demand was broadly flat y-o-y in January 2018, with some gains originating in fuel oil, diesel oil and gasoline. Oil demand in the country is anticipated to be in the positive territory in 2018 led mainly by transportation fuels. Going forward, the uncertainties for oil demand in Other Asia are currently leaning towards the upside, mainly as overall economic improvements in the region's biggest oil consumer, India, are projected to remain positive supported by a lower baseline of comparison, especially in 1Q18. The rather stable general economic conditions of most countries in the region are anticipated to provide extra support to oil demand.

For 2018, oil demand is forecast to rise firmly at 0.39 mb/d.

**Graph 4 - 10: Other Asia's oil demand, y-o-y change**



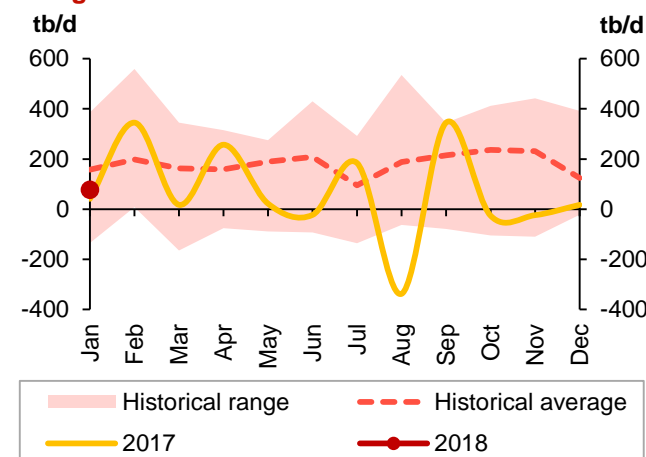
Sources: Joint Organisations Data Initiative, national and OPEC Secretariat.

## Middle East

### Saudi Arabia

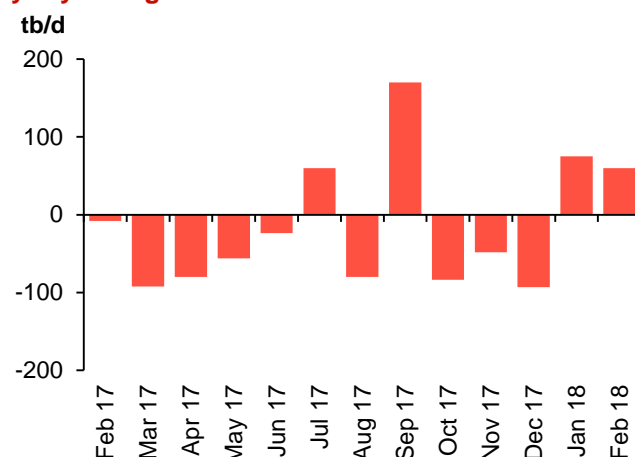
As **Saudi Arabia** enters into a lower oil demand season, oil demand data for the month of February came with no surprises, declining by around 0.20 mb/d, or about 9.2%, y-o-y. Additionally, cold weather and the reaction to subsidy reductions affected consumption levels of most products. Traditionally, oil demand peaks during the summer season in Saudi Arabia as demand for air conditioning rises, boosting total oil requirements, however, with increased tariffs on electricity bills, oil demand performance over 2Q18/3Q18 will need to be closely monitored.

**Graph 4 - 11: Middle East oil demand, y-o-y change**



Sources: Joint Organisations Data Initiative, national, direct communication and OPEC Secretariat.

**Graph 4 - 12: Saudi Arabia's direct crude burning, y-o-y change**



Sources: Joint Organisations Data Initiative, direct communication and OPEC Secretariat.

In February, performances of all transportation and industrial fuels were weaker than a year ago, with the largest impact being in fuel oil consumption, which fell by more than 27% y-o-y. Gasoline and jet/kerosene also dipped to a lesser degree at around 7.5% and 1.7% y-o-y, respectively. Crude oil for direct burning as well as the other product category were the only two products that gained momentum.

## Iraq

Similarly, oil demand in Iraq declined in February 2018 with unclear trends within the product categories. Total demand shrunk by 43 tb/d, or around 6.0%, y-o-y. Mixed performances were observed among the product categories. Fuel oil, diesel oil, gasoline and LPG recorded positive growth, while crude oil for direct burning, the other product category, naphtha and jet/kerosene declined in February.

## IR Iran

Consumption in IR Iran has been steadily increasing since September 2017 with gains being observed across the barrel with exception of fuel oil which has been declining due to substitution with natural gas. The overall product performance increased in January 2018 by 24 tb/d, or 1.6% y-o-y.

## Other countries in the Middle East

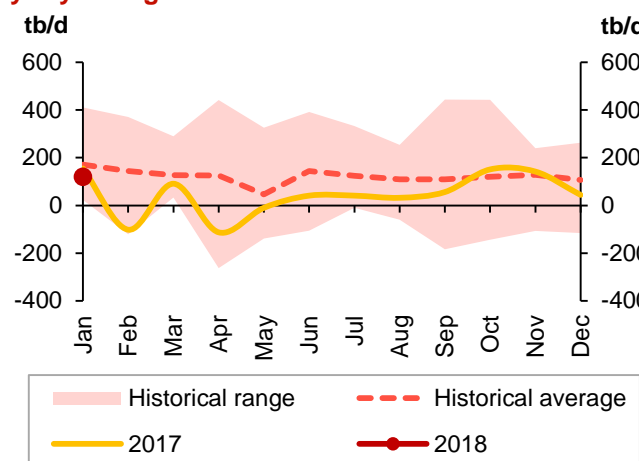
Other countries in the region showed positive performances in February 2018. Oil demand in Kuwait increased by around 1.8 % y-o-y in January 2018, as did consumption in UAE, which rose by 2.7% y-o-y.

The outlook for 2018 oil demand in the Middle East depends very much on the level of the overall economic developments and government spending plans with risks currently balanced. Projections for oil demand in 2018 remain, as highlighted in the previous MOMR, highly dependent on the economic performances and overall reform plans of major oil producing countries in the region, as well as on the impact of substitution programmes in a number of countries.

**Middle East oil demand** is anticipated to grow by around 88 tb/d in 2018.

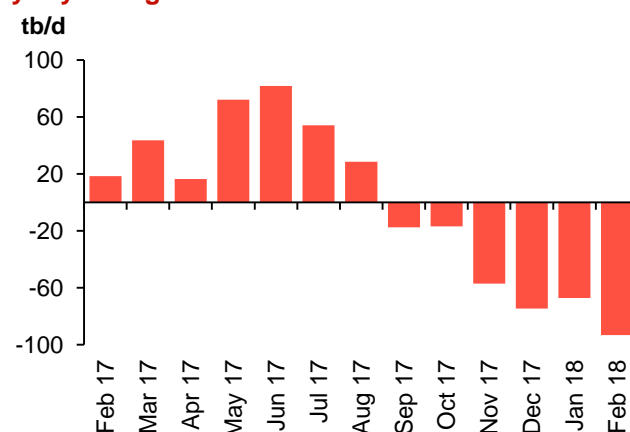
## Latin America

**Graph 4 - 13: Latin American oil demand, y-o-y change**



Sources: Joint Organisations Data Initiative, national and OPEC Secretariat.

**Graph 4 - 14: Brazilian gasoline demand, y-o-y change**



Sources: Agencia Nacional do Petroleo, Gas e Biocombustiveis of Brazil, Joint Organisations Data Initiative and OPEC Secretariat.

## Brazil

In February 2018, oil demand in **Brazil** increased by a modest 23 tb/d, or around 0.8%, y-o-y. Total consumption was at 2.71 mb/d.

The increase was led mostly by transportation fuels with ethanol and jet fuel advancing higher y-o-y, while diesel oil also increased at a steady pace. The rise in ethanol consumption was a result of lower prices for ethanol, increasing its competitiveness with gasoline, which continued to lose pace. Ethanol became more economically viable for consumers than gasoline as economics for gasoline demand depreciated. Ethanol prices were at 2.98 reais per liter on average for January, while gasoline prices were at 4.19 reais per liter. Ethanol demand gained as much as 84 tb/d y-o-y in contrast to that of gasoline, which declined by as much as 93 tb/d y-o-y.

**Table 4 - 7: Brazilian oil demand\*, tb/d**

	<b>Feb 18</b>	<b>Feb 17</b>	<b>Change 2018/17</b>	
			<b>tb/d</b>	<b>%</b>
LPG	223	217	6	2.6
Naphtha	145	144	1	0.7
Gasoline	704	798	-93	-11.7
Jet/kerosene	120	112	8	6.7
Diesel oil	926	906	19	2.1
Fuel oil	98	100	-2	-1.6
Other products	493	409	84	20.6
<b>Total</b>	<b>2,710</b>	<b>2,687</b>	<b>23</b>	<b>0.8</b>

Note: \* = Inland deliveries.

Sources: JODI, Agencia Nacional do Petroleo, Gas Natural e Biocombustiveis and OPEC Secretariat.

Additionally, demand for diesel increased in February, adding some 19 tb/d above 2017 total diesel oil demand to reach a total consumption level of 0.93 mb/d. This increase occurred in line with higher industrial output in various sectors, however the lower baseline also played a part in this gain. The other middle distillate fuel, jet/fuel, represented a good reflection of the increasing momentum in the Brazilian economy as it increased by around 6.7% y-o-y. The reduction in fuel oil demand was attributed to improvements in hydropower generation, as well as the higher base of comparison.

## Argentina

**Oil consumption in Argentina** increased marginally in January despite declines in heavy distillates. LPG and jet/kerosene registered the most notable gains, increasing by around 15.2% and 5.9% y-o-y, respectively. Diesel oil and gasoline both grew, recording gains of more than 4% and 3% y-o-y, respectively. Total consumption remained at around 0.68 mb/d and was anticipated to play a positive role in Latin America's total oil consumption in 2018.

Looking ahead, uncertainties for 2018 oil demand growth in Latin America are leaning towards the upside, much like the previous month, mainly due to the potential for upside economic growth in Brazil. On the other hand, downside risk could include slower-than-expected developments in the overall economies of the region as well as unexpected weather conditions, which could limit oil demand growth potential.

In 2018, **Latin America's oil demand growth** is forecast to be higher than the growth levels recorded in 2017, reaching 95 tb/d.



# World Oil Supply

World oil supply in March 2018 increased by 0.18 mb/d m-o-m, to average 98.15 mb/d, representing an increase of 2.15 mb/d y-o-y. Preliminary non-OPEC oil supply, including OPEC NGLs, was up by 0.38 mb/d m-o-m and rose by 2.12 mb/d y-o-y to average 66.20 mb/d.

Non-OPEC supply for 2017 was revised up by 0.03 mb/d, mainly due to updated Canadian production data, to now show growth of 0.9 mb/d for the year. Following higher-than-expected output in 1Q18, mainly in the Russian Federation and the US, as well as upward adjustments to other quarters, non-OPEC supply for 2018 was also revised up by 0.08 mb/d, to average 59.61 mb/d, representing y-o-y growth of 1.71 mb/d.

OPEC NGLs and non-conventional liquids production averaged 6.46 mb/d in March, up by 0.23 mb/d y-o-y. On the yearly basis, OPEC NGLs are estimated to grow by 0.18 mb/d to average 6.49 mb/d in 2018.

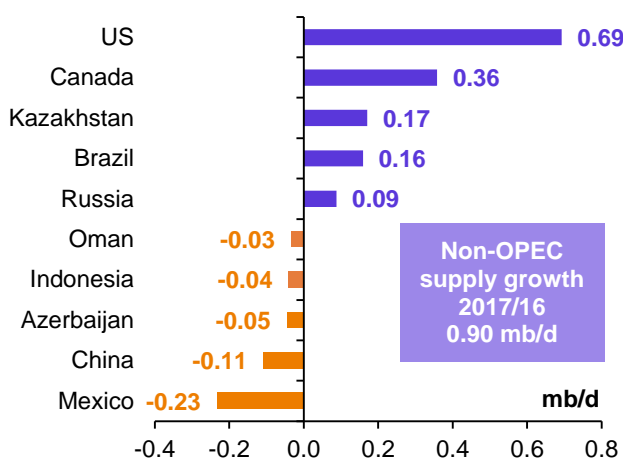
According to secondary sources, OPEC crude oil production in March 2018 decreased by 201 tb/d, to average 31.96 mb/d.

## Monthly revisions on non-OPEC supply growth in 2017 and 2018

The **non-OPEC oil supply** estimate for **2017** was revised up by 0.03 mb/d to a level of 57.9 mb/d, to now show growth of 0.9 mb/d y-o-y. This was a result of updated production data, mainly from Canada owing to increased production in 4Q17 of 5.09 mb/d.

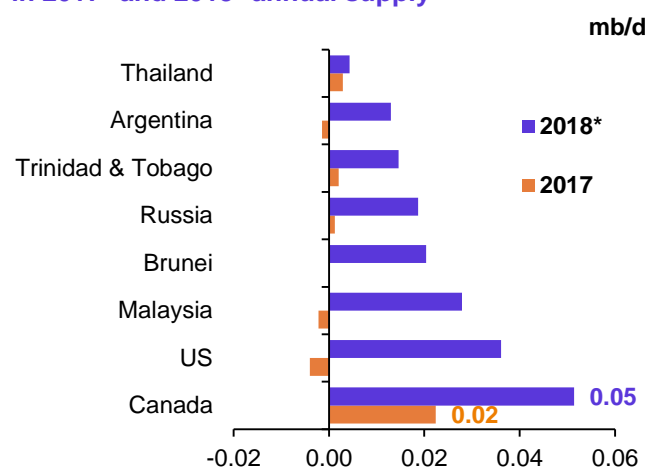
**Preliminary non-OPEC oil supply** in March 2018 saw growth of 0.38 mb/d m-o-m to average 59.74 mb/d and was higher by 1.89 mb/d y-o-y. Oil production increased in all regions m-o-m except in Other Asia and the FSU. Oil production in OECD Americas increased by 1.78 mb/d, y-o-y.

**Graph 5 - 1: Annual supply changes for selected countries in 2017\***



Note: \* 2017 = Estimate.  
Source: OPEC Secretariat.

**Graph 5 - 2: MOMR Apr 18/Mar 18 revisions in 2017\* and 2018\* annual supply**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

**Non-OPEC oil supply** forecast for **2018** was also revised up in absolute terms by 0.08 mb/d to average 59.61 mb/d, with oil supply growth for the year also revised up by 0.05 mb/d to stand at 1.71 mb/d. The biggest revisions for 2018 were for Canada (+51 tb/d), the US (+36 tb/d), Malaysia (+28 tb/d), Brunei (+20 tb/d), Russia (+19 tb/d), and China (-35 tb/d).

Table 5 - 1: Non-OPEC oil supply in 2017\*, mb/d

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16 Growth	%
Americas	20.61	21.08	20.91	21.34	22.37	21.43	0.82	3.98
of which US	13.63	13.79	14.08	14.28	15.14	14.33	0.69	5.08
Europe	3.81	3.93	3.79	3.68	3.73	3.78	-0.02	-0.62
Asia Pacific	0.42	0.38	0.40	0.41	0.38	0.39	-0.03	-7.57
<b>Total OECD</b>	<b>24.84</b>	<b>25.40</b>	<b>25.10</b>	<b>25.43</b>	<b>26.48</b>	<b>25.60</b>	<b>0.76</b>	<b>3.07</b>
Other Asia	3.71	3.67	3.62	3.59	3.62	3.62	-0.09	-2.38
Latin America	5.10	5.19	5.20	5.19	5.20	5.20	0.10	1.91
Middle East	1.28	1.24	1.24	1.25	1.22	1.24	-0.04	-3.21
Africa	1.79	1.84	1.85	1.86	1.89	1.86	0.07	3.73
<b>Total DCs</b>	<b>11.88</b>	<b>11.94</b>	<b>11.91</b>	<b>11.89</b>	<b>11.94</b>	<b>11.92</b>	<b>0.04</b>	<b>0.30</b>
FSU	13.86	14.13	14.14	13.90	14.07	14.06	0.20	1.44
of which Russia	11.08	11.25	11.24	11.06	11.14	11.17	0.09	0.79
Other Europe	0.13	0.13	0.13	0.13	0.12	0.13	-0.01	-3.87
China	4.10	4.02	4.03	3.95	3.96	3.99	-0.11	-2.62
<b>Total "Other regions"</b>	<b>18.09</b>	<b>18.28</b>	<b>18.30</b>	<b>17.97</b>	<b>18.15</b>	<b>18.17</b>	<b>0.09</b>	<b>0.48</b>
<b>Total non-OPEC production</b>	<b>54.81</b>	<b>55.61</b>	<b>55.30</b>	<b>55.29</b>	<b>56.56</b>	<b>55.69</b>	<b>0.89</b>	<b>1.62</b>
Processing gains	2.19	2.21	2.21	2.21	2.21	2.21	0.02	0.77
<b>Total non-OPEC supply</b>	<b>57.00</b>	<b>57.83</b>	<b>57.51</b>	<b>57.50</b>	<b>58.77</b>	<b>57.90</b>	<b>0.90</b>	<b>1.58</b>
Previous estimate	57.00	57.82	57.47	57.49	58.69	57.87	0.87	1.53
Revision	0.00	0.01	0.04	0.01	0.08	0.03	0.03	0.06

Note: \* 2017 = Estimate.

Source: OPEC Secretariat.

## Non-OPEC oil supply highlights in 2018

**Non-OPEC supply in 2018** is forecast to increase by 1.71 mb/d compared with growth of 0.90 mb/d in 2017. Non-OPEC supply for 2018 was revised up by 0.08 mb/d in absolute terms, compared with last month's assessment, to average 59.61 mb/d, and is now expected to grow at a faster pace.

The key drivers for growth in 2018 are the US (1.50 mb/d), Canada (0.29 mb/d), Brazil (0.21 mb/d), the UK (0.10 mb/d), Kazakhstan (0.08 mb/d) Ghana (0.05 mb/d) and Congo (0.04 mb/d). Production is forecast to decline in Russia (0.15 mb/d), Mexico (0.11 mb/d), China (0.11 mb/d), Norway (0.05 mb/d) and Colombia (0.05 mb/d).

Upward revisions were seen in Canada, the US, Malaysia, Brunei, Other OECD Europe, Russia, Argentina and Trinidad and Tobago. These were partially offset by downward revisions in China, FSU others, Bahrain, Brazil, Denmark and Mexico. In the US, q-o-q growth for 1Q18 is estimated to be 0.26 mb/d, averaging at 15.40 mb/d, a continuation of lower drilling activities seen in December in some areas. In Canada, oil output increased due to the starting and ramping up of several new projects. While this trend is expected to continue in coming months, 2Q18 is expected to be affected by heavy maintenance. Oil production in Brazil is also forecast to show higher growth of 0.21 mb/d, compared to the last year's growth of 0.16 mb/d, with additional volumes coming on-stream following the instalment of eight new FPSOs in the current year.

Table 5 - 2: Non-OPEC oil supply in 2018\*, mb/d

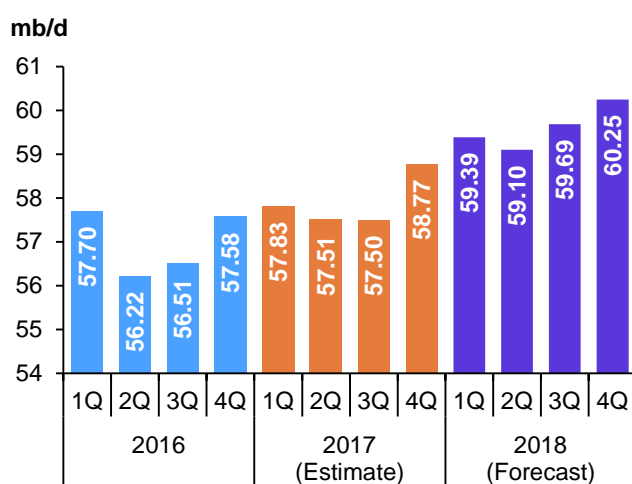
	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17 Growth	%
Americas	21.43	22.72	22.81	23.36	23.57	23.12	1.69	7.88
of which US	14.33	15.40	15.79	16.00	16.12	15.83	1.50	10.50
Europe	3.78	3.88	3.75	3.75	3.96	3.84	0.05	1.41
Asia Pacific	0.39	0.40	0.40	0.40	0.39	0.40	0.00	0.73
<b>Total OECD</b>	<b>25.60</b>	<b>27.00</b>	<b>26.96</b>	<b>27.50</b>	<b>27.91</b>	<b>27.35</b>	<b>1.74</b>	<b>6.81</b>
Other Asia	3.62	3.59	3.61	3.61	3.60	3.60	-0.02	-0.48
Latin America	5.20	5.21	5.29	5.38	5.49	5.34	0.15	2.81
Middle East	1.24	1.21	1.23	1.23	1.21	1.22	-0.02	-1.36
Africa	1.86	1.90	1.91	1.91	1.92	1.91	0.05	2.65
<b>Total DCs</b>	<b>11.92</b>	<b>11.92</b>	<b>12.04</b>	<b>12.13</b>	<b>12.22</b>	<b>12.08</b>	<b>0.16</b>	<b>1.35</b>
FSU	14.06	14.14	13.86	13.85	13.90	13.93	-0.13	-0.90
of which Russia	11.17	11.15	10.98	10.98	10.98	11.02	-0.15	-1.32
Other Europe	0.13	0.12	0.13	0.12	0.12	0.12	0.00	-1.77
China	3.99	3.96	3.87	3.84	3.85	3.88	-0.11	-2.69
<b>Total "Other regions"</b>	<b>18.17</b>	<b>18.22</b>	<b>17.85</b>	<b>17.81</b>	<b>17.87</b>	<b>17.94</b>	<b>-0.24</b>	<b>-1.30</b>
<b>Total non-OPEC production</b>	<b>55.69</b>	<b>57.14</b>	<b>56.85</b>	<b>57.44</b>	<b>58.00</b>	<b>57.36</b>	<b>1.67</b>	<b>3.00</b>
Processing gains	2.21	2.25	2.25	2.25	2.25	2.25	0.04	1.67
<b>Total non-OPEC supply</b>	<b>57.90</b>	<b>59.39</b>	<b>59.10</b>	<b>59.69</b>	<b>60.25</b>	<b>59.61</b>	<b>1.71</b>	<b>2.95</b>
Previous estimate	57.87	59.28	59.37	59.38	60.10	59.53	1.66	2.87
Revision	0.03	0.11	-0.27	0.31	0.15	0.08	0.04	0.08

Note: \* 2017 = Estimate and 2018 = Forecast.

Source: OPEC Secretariat.

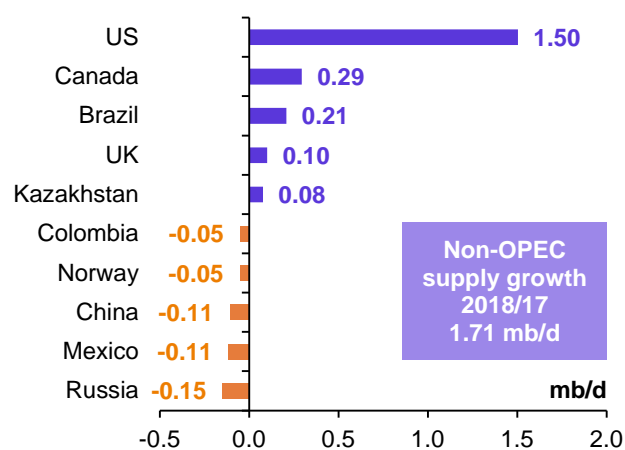
According to a new study done by *Wood Mackenzie*, the world's biggest energy companies are ready to undertake big projects once again. Energy companies will approve spending for about 30 major projects this year. This is in line with the trend seen in 2017, when 32 projects were sanctioned last year which is more than the total that were approved in 2015 and 2016 combined.

Graph 5 - 3: Non-OPEC quarterly oil supply



Source: OPEC Secretariat.

Graph 5 - 4: Annual supply changes for selected countries in 2018\*



Note: \* 2018 = Forecast.

Source: OPEC Secretariat.

## Non-OPEC oil supply in 2017 and 2018

### OECD

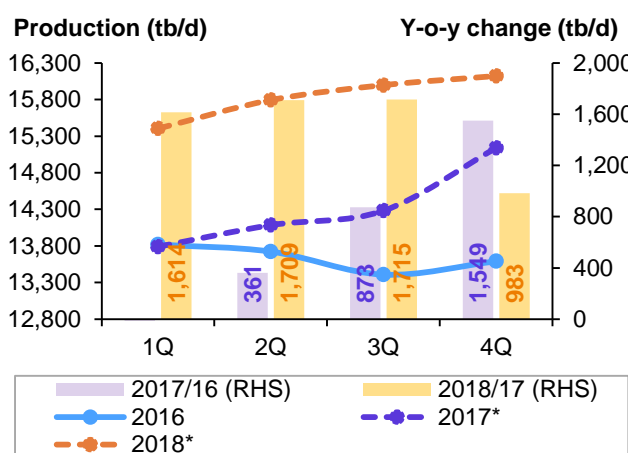
### OECD Americas

### US

According to the *Energy Information Administration's (EIA) Petroleum Supply Monthly*, **crude oil production in the US** averaged 9.96 mb/d in January 2018. This is more or less same level as December 2017 due to the unexpected increase in production in the GoM which offset the declines in most of the PADD's. There were minor increases in crude oil output in Colorado, North Dakota and Utah. Other states experienced declines, particularly in Texas (-56 tb/d), Louisiana (-10 tb/d) and New Mexico (-17 tb/d)). Weekly crude oil production increased by more than 0.3 mb/d in February m-o-m and by more than 0.1 mb/d in March. The number of active oil rigs for the week ending 30 March 2018 dropped by 7 units w-o-w to 797 units. The corresponding y-o-y increase was by 135 units or 20%. Total rigs (oil and gas) decreased for the first time since week ending February 2 by 2 units w-o-w to 993 units, amounting to a 21% increase y-o-y. The horizontal rig count remained at 870 units.

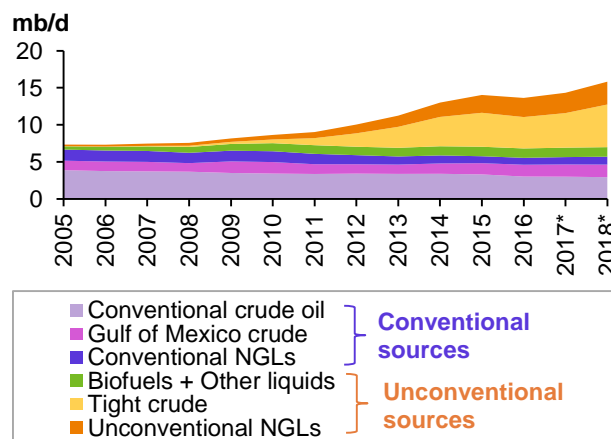
Oil production in the US GoM in January increased by 0.08 mb/d m-o-m, to average 1.62 mb/d. The issue regarding unplanned outages as a result of a fire at the Enchilada platform have been rectified. Oil production from the GoM is estimated to grow by 0.05 mb/d in 2018, supported by new projects such as the 80 tb/d Stampede and the 75 tb/d Big Foot, alongside the continued development of subsea tieback opportunities, connecting new oil and gas discoveries to an existing production facility.

**Graph 5 - 5: US liquids supply quarterly, 2016-2018**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 6: US liquids production breakdown**

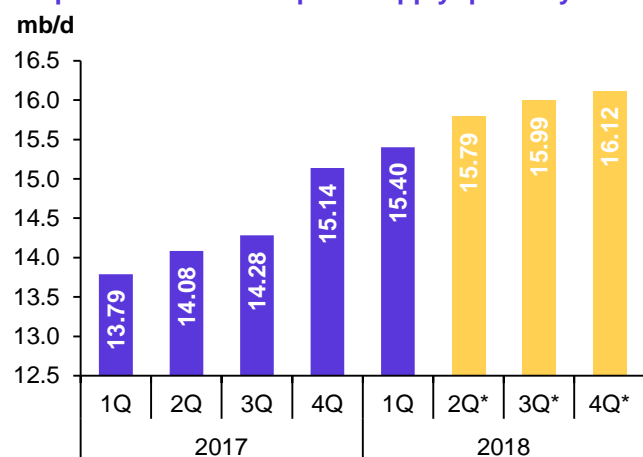


Note: \* 2017 = Estimate and 2018 = Forecast.

Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

Total US liquids supply, excluding processing gains, dropped m-o-m by 0.10 mb/d to average 15.05mb/d in January, but was higher by 1.65 mb/d y-o-y. US NGLs, following the drop in December by 0.12 mb/d, were again down by 0.11 mb/d m-o-m to average 3.83 mb/d in January. US NGLs production in January rose y-o-y by 0.46 mb/d. US unconventional liquids – mainly ethanol – are estimated to have increased in January by 0.05 mb/d y-o-y to average 1.26 mb/d.

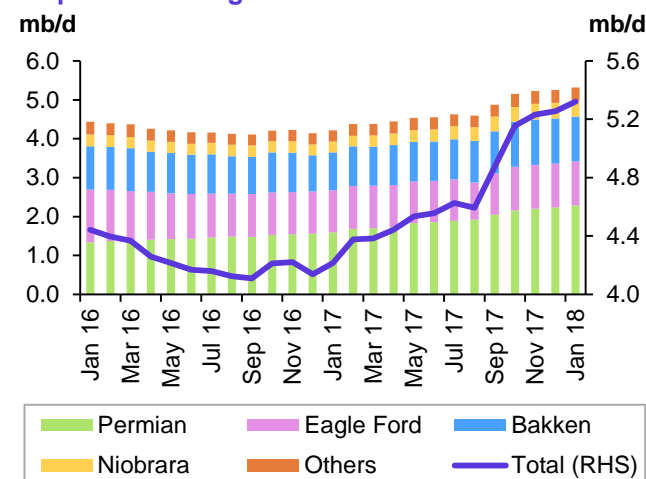
Graph 5 - 7: US total liquids supply quarterly



Note: \* Forecast.

Sources: EIA and OPEC Secretariat.

Graph 5 - 8: US tight crude breakdown



Sources: EIA and OPEC Secretariat.

In 2017, 90% of US liquids supply growth is estimated to have come from tight and shale formations, (tight crude and unconventional NGLs) while for 2018 this proportion is expected to be 94% owing to high grade completion metrics. In 2014, amid higher prices, 89% of total growth came from tight oil. Technology, drilling efficiencies and a reduction in costs are the main factors for this robust progress. Production of tight crude in 2018 is expected to grow by 1.07 mb/d y-o-y to average 5.76 mb/d which will partially be offset by conventional crude declines in onshore lower-48's mature fields. By comparison, the growth of tight oil in the next year will be at slower pace, only 0.92 mb/d y-o-y, averaging 6.68 mb/d (**Table 5 - 3**).

Table 5 - 3: US liquids production breakdown, mb/d

	2016	2017*	Change 2017/16	2018*	Change 2018/17	2018*	Change 2018/17
<b>Tight crude</b>	4.23	4.69	0.45	5.76	1.07		
<b>Gulf of Mexico crude</b>	1.60	1.65	0.05	1.70	0.05	<b>Crude</b>	<b>Crude</b>
<b>Conventional crude oil</b>	3.02	2.98	-0.04	2.94	-0.05	<b>10.40</b>	<b>1.07</b>
<b>Unconventional NGLs</b>	2.58	2.74	0.16	3.08	0.34	<b>NGLs</b>	<b>NGLs</b>
<b>Conventional NGLs</b>	0.93	0.99	0.07	1.07	0.07	<b>4.15</b>	<b>0.41</b>
<b>Biofuels + Other liquids</b>	1.27	1.27	0.00	1.29	0.02	<b>Biofuels</b>	<b>Biofuels</b>
<b>US total supply</b>	<b>13.63</b>	<b>14.33</b>	<b>0.69</b>	<b>15.83</b>	<b>1.50</b>	<b>1.29</b>	<b>0.02</b>

Note: \* 2017 = Estimate and 2018 = Forecast.

Sources: Energy Information Administration, Rystad Energy and OPEC Secretariat.

In **Table 5 - 4**, the tight crude breakdown is shown for 2018. An increase in tight crude production from the Permian basin in Texas and New Mexico is the main driver for the 68% growth in 2018.

Table 5 - 4: US tight oil production growth

Shale play tb/d	2017*	Y-o-y change	2018*	Y-o-y change
	Production		Production	
<b>Permian tight</b>	1.91	0.45	2.64	0.73
<b>Bakken shale</b>	1.06	0.03	1.18	0.12
<b>Eagle Ford shale</b>	1.08	-0.09	1.17	0.09
<b>Niobrara shale</b>	0.33	0.04	0.39	0.06
<b>Other tight plays</b>	0.31	0.02	0.39	0.08
<b>Total</b>	<b>4.69</b>	<b>0.45</b>	<b>5.76</b>	<b>1.07</b>

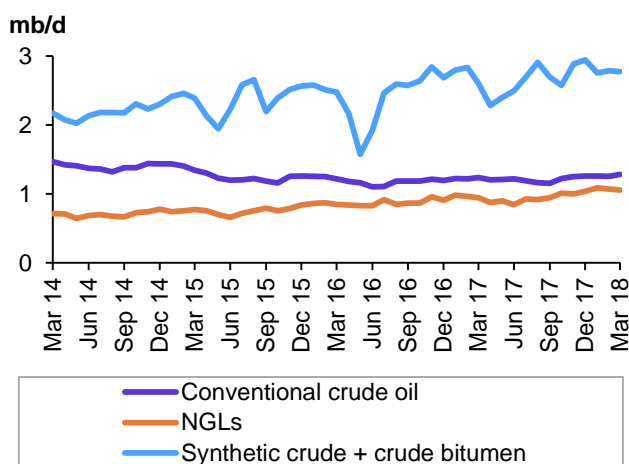
Note: \* 2017 = Estimate and 2018 = Forecast.

Source: OPEC Secretariat.

## Canada

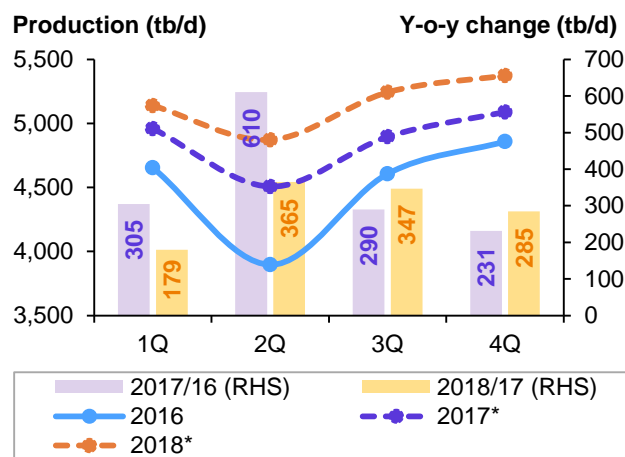
Based on actual production data in January, **Canadian oil supply** declined by 0.14 mb/d m-o-m to average 5.13 mb/d, up by 0.1 mb/d y-o-y. The main decline was due to the unplanned outages at Mildred Lake and Suncor upgraders, while production of raw bitumen grew m-o-m. The oil output in offshore fields was also down in January by a minor 4 tb/d, to average 0.23 mb/d, despite a production ramp up in the new field of Hebron. In 2017, some 55%, or 2.71 mb/d, of total oil production in Canada came from oil sands, 25% from conventional sources and around 20% from NGLs.

**Graph 5 - 9: Canada's production by product type**



Source: OPEC Secretariat.

**Graph 5 - 10: Canada's liquids supply quarterly, 2016-2018**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

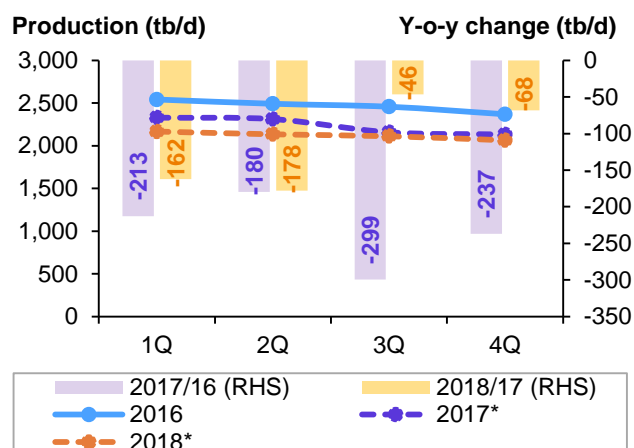
Canada's 2018 production forecast was revised up by 51 tb/d to average 5.16 mb/d, showing growth of 0.29 mb/d, y-o-y. Gains were mainly from the offshore Hebron oil field, by approximately 40 tb/d y-o-y; Horizon oil sands phase 3 by 40 tb/d y-o-y; Hangingstone, by around 15 tb/d; Kearl Phase 2 Bitumen project, by 24 tb/d; Surmont phase 2, by 31 tb/d; as well as the Fort Hills Mine bitumen project by 82 tb/d, with additional upside potential of around 80 tb/d in 2018.

## Mexico

Offshore fields in **Mexico** in the first quarter saw an improved performance compared to 4Q17, with preliminary output data indicating growth of 0.04 mb/d q-o-q to average 2.17 mb/d. However, oil production in February over January was lower by 0.04 mb/d at 2.15 mb/d, and lower by 0.08 mb/d y-o-y, showing a decline of 39 tb/d in crude oil output at 1.89 mb/d while NGLs production was steady at 0.25 mb/d. Due to planned maintenance by Pemex in March, oil production is expected to show a further drop by 0.08 mb/d m-o-m.

Mexican oil supply for 2018 is expected to decline by 0.11 mb/d to average 2.12 mb/d, which is a slower pace compared to 2017,. Following the heavy declines in light crude in 2017, Pemex plans to halt light crude exports in 2018. In 2017, 54% of crude oil was heavy while production of light and super light crude declined by more than 100 tb/d y-o-y in 2017 to average 0.94 mb/d.

**Graph 5 - 11: Mexico's liquids supply quarterly, 2016-2018**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.



## OECD Europe

### Norway

According to the *Norwegian Petroleum Directorate's (NPD) monthly production report*, preliminary production figures for February 2018 show an average production of 1.94 mb/d of oil, NGLs and condensates, indicating a decrease of 0.09 mb/d compared to the previous month. Production of crude oil at 1.56 mb/d was down by 0.06 mb/d m-o-m and it was lower by more than 100 tb/d, y-o-y. At the same time, NGLs output also decreased by 18 tb/d to average 0.39 mb/d. Crude oil production in February 2018 was 4.1% below the NPD's forecast and also down by 6.2% from the same month a year earlier.

The oil production forecast for 2018 was revised up by 0.01 mb/d, due to minor upward revision in 3Q18. Hence, production is expected to drop by 0.05 mb/d y-o-y to average 1.94 mb/d. Owing to the lack of new big projects in 2018 and annual natural decline rates of 4.3%, Norway's oil supply will decline until 2020 when the John Sverdrup comes on stream.

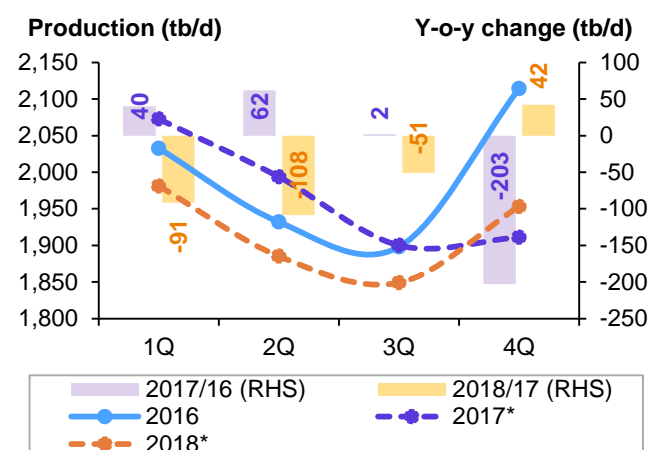
### UK

**Oil production in the UK** in 2018 will benefit from ramp-ups in the fields of six new projects which started up in 2017 with total peak capacity of 0.34 mb/d. These projects include the redevelopment of the Monarb field, the Kraken field, Quad 204 WoS, Western Isles, Greater Catcher and Greater Stella Area. Moreover, two other new projects are planned to start-up in 2018, namely Clair Ridge with a peak capacity of 100 tb/d and Mariner with a peak capacity of 55 tb/d. UK oil supply in 2018 is expected to grow by 0.10 mb/d y-o-y to average 1.12 mb/d.

Oil production in January increased by a robust 0.31 mb/d m-o-m due to the return of the FPS (Forties Pipeline System) after three weeks of pipeline shut-down in December. Oil production in the month of February declined by 0.09 mb/d m-o-m to average 1.05 mb/d amid a renewed shutdown of the FPS early in the month, while output in March may be further affected due to some fields shutting down owing to bad weather.

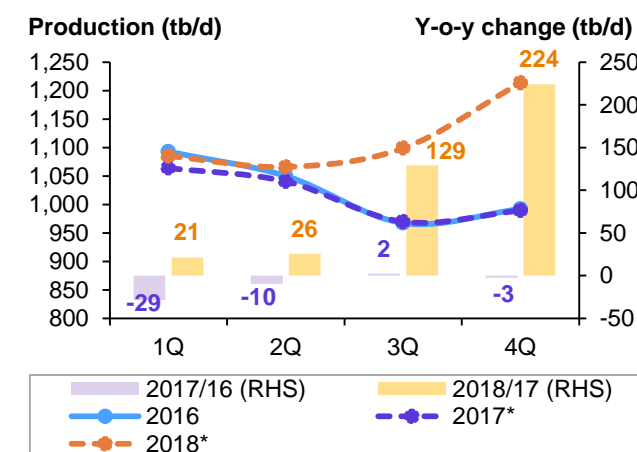
Moreover, maintenance at Kraken also impacted on March's production. It is expected that oil production in 3Q18 will be at the lowest level for the current year, as most maintenance is planned for this quarter.

**Graph 5 - 12: Norway's liquids supply quarterly, 2016-2018**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 13: UK's liquids supply quarterly, 2016-2018**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

## Developing Countries

The **total oil supply of developing countries (DCs)** in 2018 is estimated to grow by only 0.16 mb/d y-o-y, showing an upward revision in growth by 0.01 mb/d, to reach an average of 12.08 mb/d, due to an upward revision in Other Asia and Latin America. The preliminary production data of DCs in March 2018 shows an increase of 0.1 mb/d m-o-m to average 11.96 mb/d.

**Table 5 - 5: Developing countries' liquids supply, mb/d**

	1Q	2Q	3Q	4Q	Yearly	Change Y-o-y
<b>2016</b>	11.79	11.77	11.95	12.01	11.88	-0.16
<b>2017*</b>	11.94	11.91	11.89	11.94	11.92	0.04
<b>2018*</b>	11.92	12.04	12.13	12.22	12.08	0.16

Note: \* 2017 = Estimate and 2018 = Forecast.

Source: OPEC Secretariat.

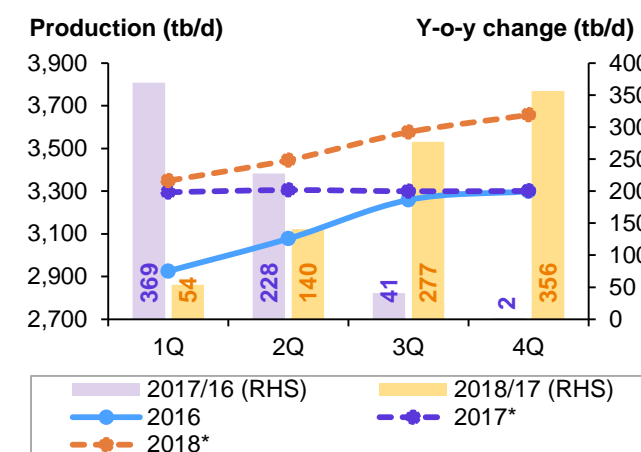
## Latin America

### Brazil

Preliminary **Brazilian crude oil output** in February saw a minor drop of 20 tb/d m-o-m to average 2.6 mb/d. This will match with the Petrobras production data which indicated a 1% decrease compared to January, at 2.08 mb/d. According to Petrobras, this was mainly due to operational issues with the P-18 and P-20 platforms on the Marlim field in the Campos Basin, and the FPSO Cidade de Angra dos Reis at the Lula field in the Pre-salt Santos Basin. Production from pre-salt layers in the Santos Basin was 30% higher y-o-y in 2017 at 1.09 mb/d, mainly coming from the Lula, Lapa and Sapinhoa fields, while fields located in the post-salt layers in the Campos Basin declined by around 13% compared to the average output in 2016.

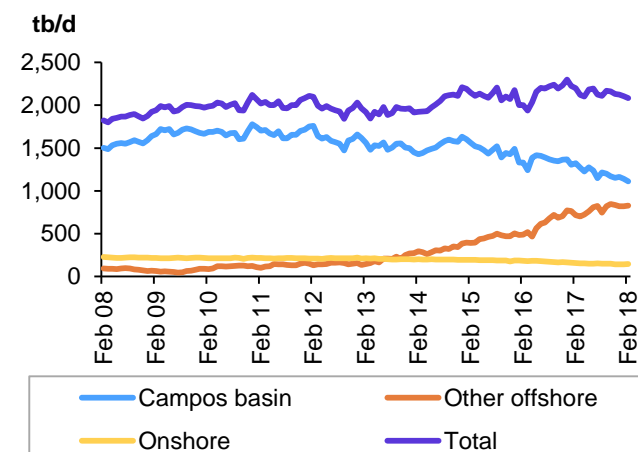
Brazil's supply forecast for 2018 was revised down by 0.02 mb/d, to now show growth of 0.21 mb/d, on expectations for lower output in 2H18.

**Graph 5 - 14: Brazil's liquids supply quarterly, 2016-2018**



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 15: Brazil's crude oil production by source**



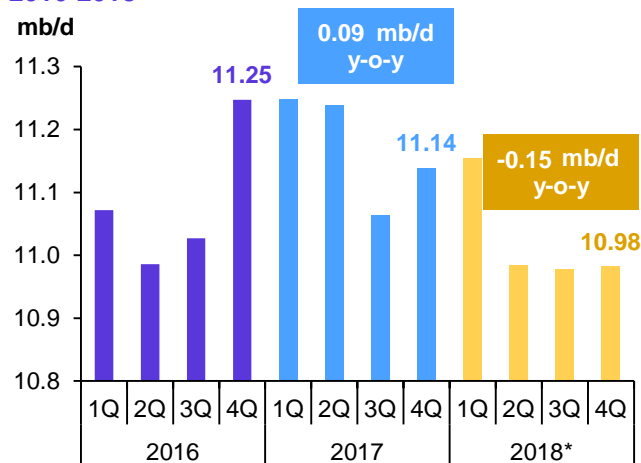
Sources: Petrobras and OPEC Secretariat.

## FSU

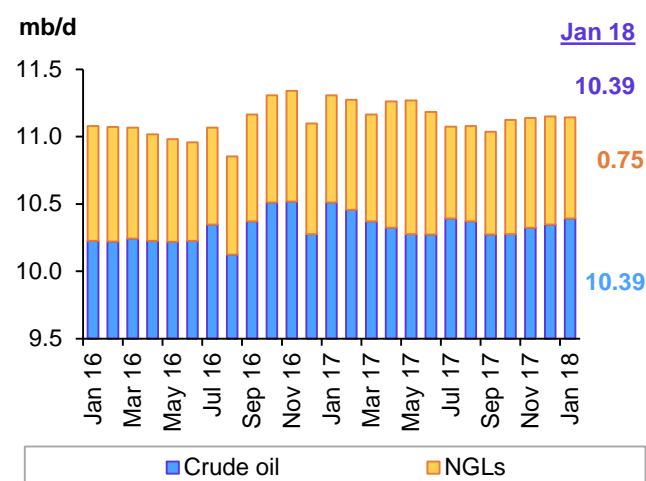
## Russia

Preliminary **Russian liquids output** in March averaged 11.17 mb/d, an increase of 0.02 mb/d m-o-m, unchanged y-o-y, according to the Ministry of Energy. Russian liquids output in February was higher by 0.01 mb/d at 11.14 mb/d compared to January, based on secondary sources.

**Graph 5 - 16: Russia liquids supply quarterly, 2016-2018**



**Graph 5 - 17: Russia's liquids supply monthly**



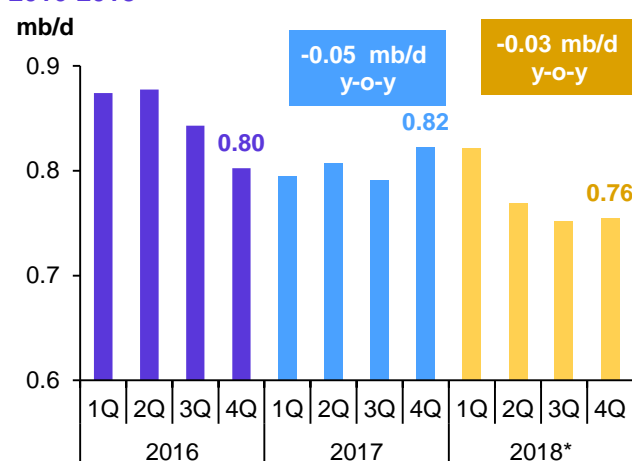
For 2018, assuming a production level of 10.98 mb/d, in line with the Declaration of Cooperation, Russian liquids production is forecast to decline by 0.15 mb/d to average 11.02 mb/d, following an upward revision on the back of higher-than-expected output by 190 tb/d in 1Q18. Nevertheless, Russian oil supply has a good potential to compensate declines from other mature fields due to the start-up of the initial phase of medium projects such as Kuyumbinskoye, which has a peak capacity of 60 tb/d; Chayandinskoye which has a peak capacity of 50 tb/d; and the Tagul project, which has a peak capacity of 90 tb/d.

## Azerbaijan

In January, **Azerbaijan's crude oil production** increased by 0.01 mb/d m-o-m, mostly from the Azeri-Chirag-Guneshli (ACG) complex, to average 0.75 mb/d, which is broadly unchanged from January 2017. Preliminary liquids output in 1Q18 was stronger than expected and growth was revised up by 37 tb/d, amounting to an upward revision of 0.01 mb/d in absolute annual supply, to average 0.77 mb/d, which represents a contraction of 0.03 mb/d, y-o-y. Preliminary data on liquids supply in February shows more or less the same level of output.

For 2018, Azeri oil production is expected to decline by 30 tb/d, more than seen in 2017.

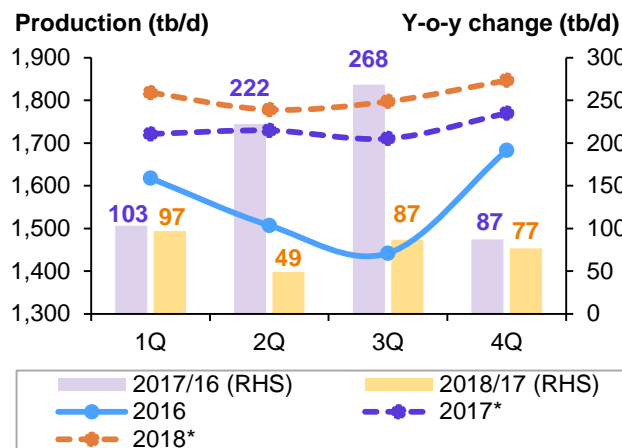
**Graph 5 - 18: Azerbaijan liquids supply quarterly 2016-2018**



## Kazakhstan

**Kazakhstan's liquids production** was down by 0.01 mb/d in January compared to December, leading to average production of 1.80 mb/d. Preliminary 1Q18 liquids supply indicates an increase of 0.02 mb/d q-o-q, averaging 1.79 mb/d. For 2018, following gas re-injection operations in the Kashagan field, production is expected to reach 0.27 mb/d. As a result, Kazakhstan's liquids supply is forecast to grow by 0.08 mb/d in current year, to average 1.81 mb/d.

**Graph 5 - 19: Kazakhstan liquids supply quarterly, 2016-2018**

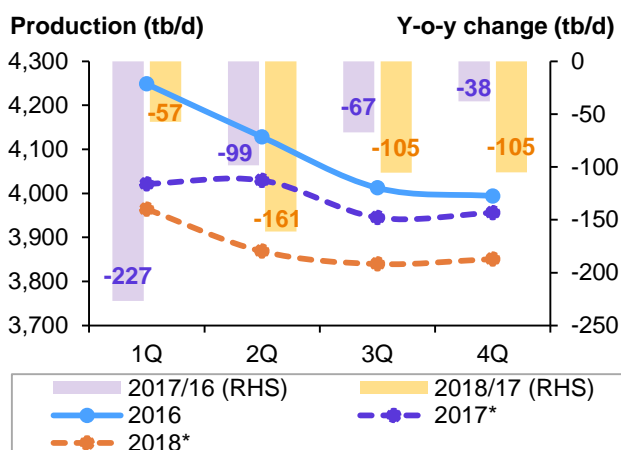


## China

**China's oil supply** in February was up by 0.06 mb/d to average 3.97 mb/d. Crude oil output increased in February by 60 tb/d m-o-m to average 3.79 mb/d, according to data released by the Chinese National Bureau of Statistics, down by 0.14 mb/d y-o-y. Output in 1Q18 is expected to remain unchanged at 3.96 mb/d q-o-q.

For 2018, the same decline rate of 0.11 mb/d is forecast for 2018, as output is unlikely to exceed that of the current year.

**Graph 5 - 20: China liquids supply quarterly, 2016-2018**



## OPEC NGLs and non-conventional oils

**OPEC NGLs and non-conventional liquids output** in March 2018 was steady at 6.46 mb/d, unchanged m-o-m, and up by 0.23 mb/d y-o-y. Production in 2018 is estimated to grow by 0.18 mb/d, to average 6.49 mb/d.

**Table 5 - 6: OPEC NGLs + non-conventional oils, mb/d**

	2015	2016	Change 16/15	1Q17	2Q17	3Q17	4Q17	2017	Change 17/16	2018	Change 18/17
<b>Total OPEC</b>	<b>6.04</b>	<b>6.14</b>	0.10	6.21	6.26	6.35	6.42	<b>6.31</b>	0.17	<b>6.49</b>	0.18

Note: 2017 = Estimate and 2018 = Forecast.

Source: OPEC Secretariat.

## OPEC crude oil production

According to secondary sources, **total OPEC-14 crude oil production** averaged 31.96 mb/d in March, a decrease of 201 tb/d over the previous month. While production mainly decreased in Angola, Venezuela, Algeria and Saudi Arabia, this was partially offset by higher production in the UAE.

**Table 5 - 7: OPEC crude oil production based on secondary sources, tb/d**

	<u>2016</u>	<u>2017</u>	<u>3Q17</u>	<u>4Q17</u>	<u>1Q18</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Mar 18</u>	<u>Mar/Feb</u>
<b>Algeria</b>	1,090	1,043	1,055	1,014	1,014	1,026	1,033	984	-49.5
<b>Angola</b>	1,725	1,638	1,641	1,633	1,574	1,596	1,606	1,524	-81.7
<b>Ecuador</b>	545	530	536	525	516	515	516	518	2.6
<b>Equatorial</b>									
<b>Guinea</b>	160	135	130	131	135	137	131	135	4.2
<b>Gabon</b>	221	200	199	199	192	200	192	183	-9.1
<b>Iran, I.R.</b>	3,515	3,811	3,833	3,822	3,813	3,816	3,810	3,814	3.3
<b>Iraq</b>	4,392	4,447	4,482	4,401	4,438	4,449	4,440	4,426	-13.1
<b>Kuwait</b>	2,853	2,708	2,707	2,704	2,704	2,706	2,702	2,704	2.3
<b>Libya</b>	390	817	932	967	986	988	1,005	968	-37.2
<b>Nigeria</b>	1,556	1,658	1,763	1,762	1,796	1,785	1,792	1,810	18.2
<b>Qatar</b>	656	607	603	604	601	607	590	606	16.1
<b>Saudi Arabia</b>	10,406	9,953	9,994	9,971	9,967	9,988	9,981	9,934	-46.9
<b>UAE</b>	2,979	2,915	2,922	2,892	2,849	2,862	2,820	2,864	44.9
<b>Venezuela</b>	2,154	1,916	1,929	1,770	1,544	1,601	1,543	1,488	-55.3
<b>Total OPEC</b>	<b>32,643</b>	<b>32,379</b>	<b>32,725</b>	<b>32,395</b>	<b>32,129</b>	<b>32,274</b>	<b>32,159</b>	<b>31,958</b>	<b>-201.4</b>

*Note: Totals may not add up due to independent rounding.*

*Source: OPEC Secretariat.*

**Table 5 - 8: OPEC crude oil production based on direct communication, tb/d**

	<u>2016</u>	<u>2017</u>	<u>3Q17</u>	<u>4Q17</u>	<u>1Q18</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Mar 18</u>	<u>Mar/Feb</u>
<b>Algeria</b>	1,146	1,059	1,065	1,012	1,004	1,013	1,036	966	-70.0
<b>Angola</b>	1,722	1,632	1,668	1,585	1,519	1,562	1,498	1,496	-2.0
<b>Ecuador</b>	549	531	535	522	512	513	513	511	-1.4
<b>Equatorial</b>									
<b>Guinea</b>	..	129	124	126	127	129	127	125	-1.8
<b>Gabon</b>	..	..	..	..	..	..	..	..	..
<b>Iran, I.R.</b>	3,651	3,867	3,865	3,833	..	3,817	3,810	..	..
<b>Iraq</b>	4,648	4,469	4,380	4,361	4,360	4,360	4,360	4,360	0.0
<b>Kuwait</b>	2,954	2,704	2,700	2,702	2,702	2,705	2,700	2,700	0.0
<b>Libya</b>	..	..	..	..	..	..	..	..	..
<b>Nigeria</b>	1,427	1,510	1,592	1,572	1,655	1,641	1,635	1,686	50.3
<b>Qatar</b>	652	600	589	608	..	621	539	..	..
<b>Saudi Arabia</b>	10,460	9,951	9,978	9,977	9,942	9,983	9,935	9,907	-28.0
<b>UAE</b>	3,088	2,967	2,969	2,904	2,841	2,850	2,797	2,872	75.0
<b>Venezuela</b>	2,373	2,072	2,102	1,804	1,623	1,769	1,586	1,509	-77.0
<b>Total OPEC</b>	..	..	..	..	..	..	..	..	..

*Note: Totals may not add up due to independent rounding.*

*.. Not available.*

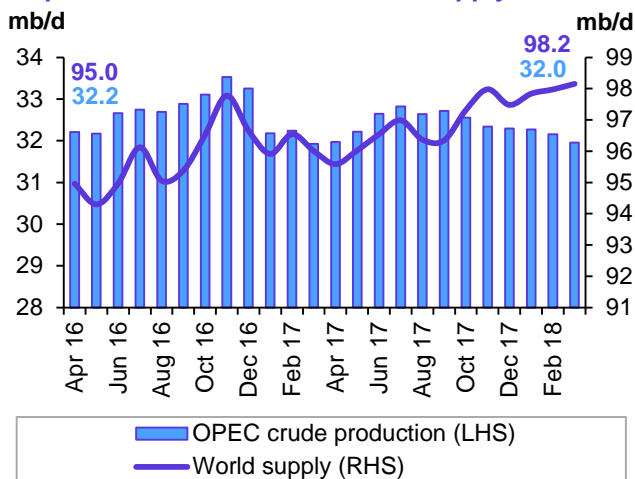
*Source: OPEC Secretariat.*

## World oil supply

Preliminary data indicates that **global oil supply** increased by 0.18 mb/d m-o-m to average 98.15 mb/d in March 2018. Preliminary March supply data shows an increase in non-OPEC supply (including OPEC NGLs) of 0.38 mb/d m-o-m to average 66.20 mb/d, higher by 2.12 mb/d y-o-y. This was mainly driven by the US, Norway, UK, Bahrain, Brazil, Latin America others, Russia and China which partially offset m-o-m declines in Colombia, Oman and Kazakhstan. OPEC crude oil production decreased by 201 tb/d in March.

The **share of OPEC crude oil in total global production** was down by 0.3 pp at 32.6% in March, compared with the previous month. Estimates are based on preliminary data from direct communications for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

**Graph 5 - 21: OPEC and world oil supply**



Source: OPEC Secretariat.



# Product Markets and Refinery Operations

Product markets in the Atlantic Basin exhibited strong gains during March and strengthened sharply amid the onset of spring refinery maintenance season. In the US, support came from higher gasoline demand, gasoline price adjustments from the winter to summer RVP switch, and falling stock levels.

In Europe, product markets strengthened, supported by higher middle distillate demand and tighter middle distillate inventories.

Meanwhile, product markets in Asia weakened slightly with losses seen all across the barrel due to lower arbitrage opportunities and lower heating requirements amid a long global gasoline balance.

## Refinery margins

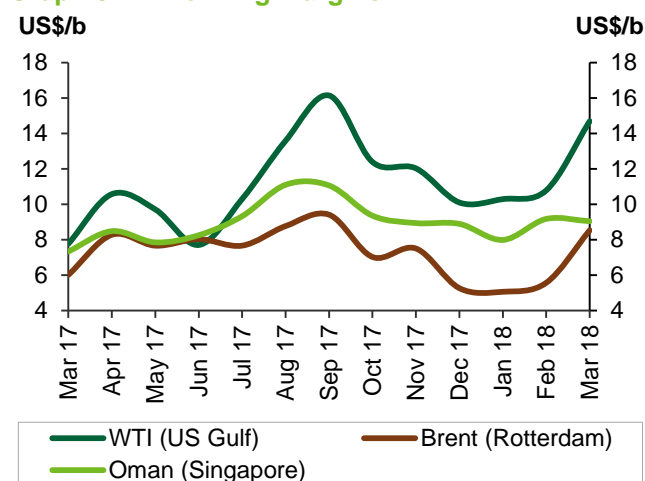
In March, refinery margins in the **USGC** rose in line with seasonal trends supported by the top of the barrel. Despite the seasonal high inventory levels usually seen this time of the year, a reduction in product supplies caused by refinery maintenance more likely provided support. Moreover, the transition to summer grade gasoline, which has a lower vapour pressure (RVP), and the resulting hike in prices may have provided additional support. In sum, these factors contributed to inventory level drawdowns, although stocks remained above the five-year average.

A high level of scheduled maintenance expected in the coming month, the end of winter season and the arrival of spring break will likely encourage a pick up on transportation fuel demand and further strengthen the product market. Refinery margins for WTI in the US averaged \$14.7/b in March, up by \$3.9/b m-o-m and by \$5.0/b y-o-y.

In **Europe**, refinery margins jumped during the month supported by higher regional diesel demand amid weakening on the top and bottom of the barrel. Combined diesel and jet fuel inventories in Europe were reported to be 60 million barrels lower y-o-y, corresponding to 105 days of demand cover and 16 days of cover below the five-year average for March, according to *ESAI Energy*. As a result, the current European tight diesel market coupled with the onset of heavy refinery maintenance induced supply reductions likely contributed to the uptick seen in the European product market during the month. Refinery margins for Brent in Europe averaged \$8.5/b in March, up by \$3.0/b m-o-m and 87¢ y-o-y.

In **Asia**, product markets saw a slight loss on the back of weakening all across the barrel. Significant pressure came from weaker naphtha cracks towards the end of the month when product prices were adjusted upwards as the Oman benchmark crude price gradually increased throughout the month from \$63.0/b to \$65.8/b. An uptick in the Singaporean product market is expected as the onset of heavy refinery maintenance could fuel tightening sentiment in the market. Refinery margins for Oman in Asia averaged \$9.1/b in March, marginally down by 13¢ m-o-m, but up by \$1.2 y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus Media and OPEC Secretariat.

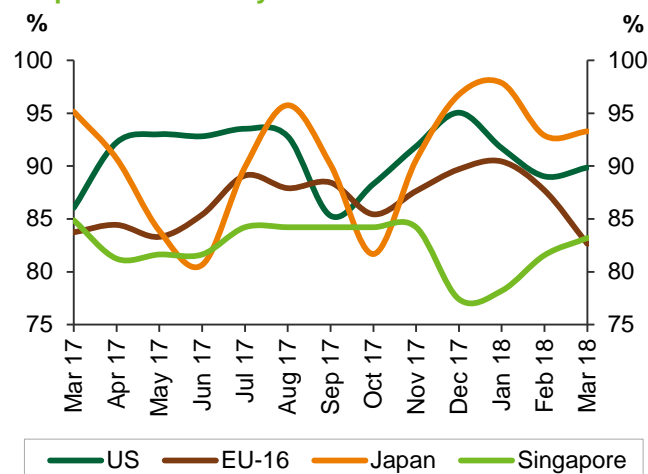
## Refinery operations

In the **US**, refinery utilization rates increased slightly during the month to average 89.9% corresponding to a throughput of 16.6 mb/d. This represented a rise of 0.8 pp and 156 tb/d, respectively, from the previous month. Compared to a year earlier, the March refinery utilization rate was up by 1.9 pp and throughputs increased by 259 tb/d.

In March, **European** refinery utilization averaged 82.6%, corresponding to a throughput of 10.1 mb/d, a drop of 5.0 pp and 615 tb/d, respectively, m-o-m, and up by 1.1 pp and 261 tb/d, y-o-y.

Refinery throughputs are expected to remain relatively lower, and heavy maintenance is expected in April.

**Graph 6 - 2: Refinery utilization rates**



Sources: EIA, Euroilstock, PAJ and Argus Media.

In **Asia**, refinery utilization in Japan averaged 93.3% in March, corresponding to a throughput of 3.3 mb/d. Compared to the previous month, runs were up by 13 tb/d, and compared to a year earlier, runs were down by 66 tb/d. In China, refinery utilization rates averaged 87.9%, corresponding to a throughput of 11.5 mb/d, up by 0.5 pp and 60 tb/d, respectively, m-o-m and up by 1.1 pp y-o-y, while throughputs were up by 349 tb/d from the same month a year earlier. Meanwhile, in Singapore, refinery runs averaged 83.2% with a throughput of 1.2 mb/d, up by 1.6 pp and 24 tb/d, respectively, m-o-m and down by 1.7 pp and 25.4 tb/d, respectively, y-o-y.

## Product markets

### US market

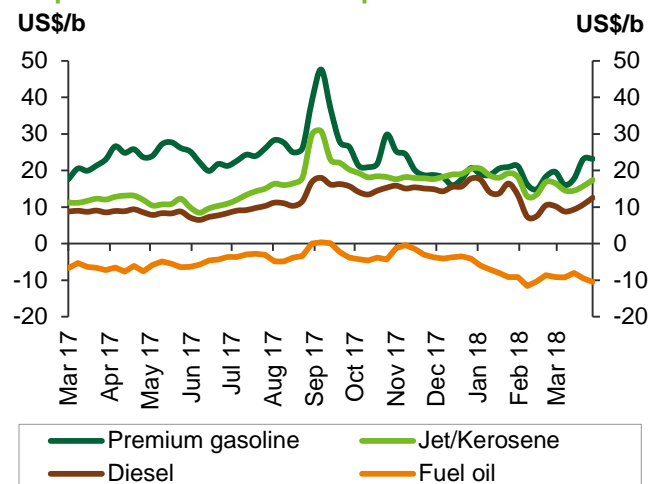
**US gasoline crack spreads** rose, supported by strong stock drawdowns and reduced supplies, resulting from refinery maintenance shutdowns. A temporary suspension of gasoline production at Shell's Louisiana plant lent additional support to cracks. Moreover, US gasoline stocks declined nationwide for four consecutive weeks, dropping by 12.5 mb to stand at 238.5 mb at the end of the month.

The onset of refinery maintenance along with a seasonal pick-up in demand is expected to support cracks in the near term.

In March, the US gasoline crack spread against WTI averaged \$19.7/b, up by \$1.0 m-o-m, but down by \$1.0 y-o-y.

The USGC **jet/kerosene market** in March weakened, pressured by supply side pressure as the market balance transitioned from a deficit to a moderate surplus environment on the back of higher arrivals from Asia. The US jet/kerosene crack spread against WTI averaged \$15.5/b, down by 83¢ m-o-m and up by \$3.8 y-o-y.

**Graph 6 - 3: US Gulf crack spread vs. WTI**



Sources: Argus Media and OPEC Secretariat.

US **gasoil crack spreads** remained mostly unchanged compared to the previous months' figures. Pressure due to lower distillate exports overshadowed support from higher heating oil requirements as the East Coast was hit by its fourth major storm within three weeks.

Pressure on refinery run rates in Brazil due to a lack of investments will most likely support higher import requirements and gasoil cracks in the near term. The US gasoil crack spread against WTI averaged \$10.2/b, remaining unchanged m-o-m, but up by \$1.4 y-o-y.

The **fuel oil** crack spreads in the US weakened, affected by the rise in crude prices, completely offsetting support derived from lower inventories seen during the month, which were driven by lower demand. In March, the US fuel oil crack spread against WTI averaged minus \$9.2/b, down by 50¢ m-o-m and by \$2.9 y-o-y.

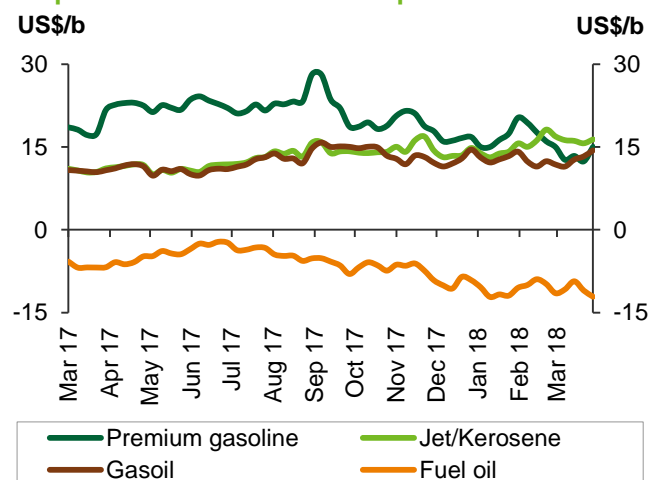
## European market

In March, the **gasoline market** in Europe lost ground from lower export opportunities to West Africa, the Middle East, and the US. Additional pressure likely came from the selloff of remaining winter grade gasoline to free up storage for summer grade gasoline. Winter grade gasoline is priced cheaper compared to summer grade gasoline. The gasoline crack spread against Brent averaged \$13.5/b, down by \$4.1 m-o-m and by \$5.0 y-o-y.

European **jet/kerosene crack spreads** weakened in March due to a decline in demand, as demand figures came down from the high marks reached in the previous month. The jet/kerosene crack spread against Brent averaged \$16.1/b, down by 40¢ m-o-m and up by \$5.4 y-o-y.

At the middle of the barrel, **gasoil cracks** strengthened on the back of solid regional demand. The resulting drawdowns amid market tightness provided sufficient support to surpass pressure derived from ample supplies originated from Russia. The gasoil crack spread against Brent averaged \$12.8/b, which was 50¢ higher compared to a month earlier, however \$2.2 higher than in the same month a year earlier.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus Media and OPEC Secretariat.

The **fuel oil 3.5% crack spread** against Brent weakened on the back of supply side pressure as limited demand from Asia failed to provide the necessary uplift for a better outcome. European fuel oil cracks averaged minus \$13.9/b, losing 77¢ m-o-m and \$2.2 y-o-y.

## Asian market

The Asian **gasoline market** weakened on supply side pressure due to ample deliveries that arrived in Singapore. Lower gasoline imports from Pakistan may also have played a part, and the recent changes related to the mixed aromatics import taxation procedures in China may also have weighed down on Asian gasoline cracks. The Singapore gasoline 92 crack spread against Oman averaged \$10.9/b, down by 20¢ m-o-m and 70¢ y-o-y.

Singapore **light distillate naphtha** saw gains on the back of solid demand and lower imports from Europe. As higher taxation policies for US imports are expected to be implemented in China, higher demand for naphtha as petrochemical feedstock is likely to support naphtha cracks in the mid-term. The Singapore naphtha crack spread against Oman averaged minus 23¢/b, up by \$1.4/b m-o-m and 10¢/b y-o-y.

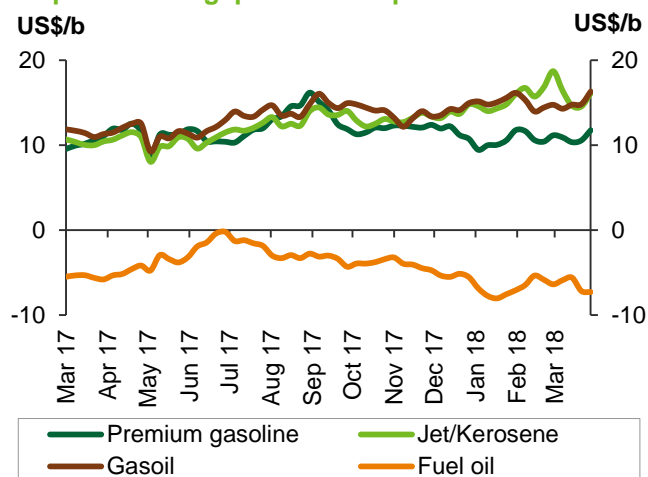
The **jet/kerosene crack spread** in Asia fell as jet/kerosene demand came down from the high levels reached in the previous month. Furthermore, lower heating oil demand due to the end of winter season likely contributed to the pressure on cracks. The Singapore jet/kerosene crack spread against Oman averaged \$15.7/b, down by \$1.3 m-o-m, but up by \$5.5 y-o-y.

Asian **gasoil crack spreads** weakened due to stock builds in Singapore despite significant drawdowns in the first three weeks of the month. The Singapore gasoil crack spread against Oman averaged \$14.9/b, down by 10¢ m-o-m and \$3.5 y-o-y.

The Asian **fuel oil market** lost ground as ample arbitrage shipments arrived in Asia, lifting stocks to their highest levels seen in 2018.

Support from the firm bunkering demand sector and export requirements from South Korea for alternative power generation was not sufficient to lift fuel oil cracks and was completely offset by the bearish sentiment of the well-supplied market. The Singapore fuel oil crack spread against Oman averaged minus \$6.4/b, down by 40¢ m-o-m and \$1.2 y-o-y.

**Graph 6 - 5: Singapore crack spreads vs. Oman**



Sources: Argus Media and OPEC Secretariat.

Table 6 - 1: Short-term prospects in product markets and refinery operations

<u>Event</u>	<u>Time frame</u>	<u>US</u>	<u>Europe</u>	<u>Asia</u>	<u>Observation</u>
<b>Maintenance season</b> (Europe, Asia, Middle East, US and FSU)	2Q18	↑ High impact on refining margins	↑ High impact on refining margins	↑ High impact on refining margins	Strengthen product markets due to tightening supplies, lower crude consumption
<b>Refinery upgrades</b>	1H18	-	About 2 mb/d of total throughput expected to go offline temporarily.	-	Lower product supplies (short term).  Lower fuel oil supplies, and higher gasoline/diesel supplies (long term)
<b>Higher US oil production</b>	2018	↓ High impact on refining margins  (risk of pressure on WTI crude prices vs slower CDU capacity additions)	-	↓ Some impact on naphtha crack spread	About 60% of total LPG production is derived from natural gas.  Higher LPG supplies (lower LPG prices could further pressure naphtha cracks)
<b>New import tax regulation in China</b>	Unknown	↓ High impact on US based LPG market	-	↑ High impact on naphtha market	The new import tax regulation can potentially increase demand for naphtha as petrochemical feedstock in China
<b>Refinery closures and crude intake cuts in South America</b>	Unknown	↑ High impact on product market	-	-	An estimated 780 tb/d of additional refined products demand can potentially provide more support to product market
<b>Higher transport fuel demand</b>	April 2018	↑ High impact on refining margins	↑ High impact on refining margins	↑ High impact on refining margins	Based on 2016 and 2017 trends
<b>IMO 2020</b>	2020	↑ High impact on LSFO cracks	↑ High impact on refining margins of upgraded refineries and forced closures of simple refineries	↑ High impact on LSFO market	Lower HSFO demand, higher refinery complexity, higher GO cracks (MGO), pressure simple refineries and forced closures

Table 6 - 2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Jan 18	Feb 18	Mar 18	Change Mar/Feb	Jan 18	Feb 18	Mar 18	Change Mar/Feb
<b>US</b>	<b>16.97</b>	<b>16.48</b>	<b>16.64</b>	<b>0.16</b>	<b>91.33</b>	<b>89.02</b>	<b>89.86</b>	<b>0.8 pp</b>
<b>Euro-16</b>	<b>11.02</b>	<b>10.69</b>	<b>10.07</b>	<b>-0.62</b>	<b>90.43</b>	<b>87.69</b>	<b>82.65</b>	<b>-5 pp</b>
France	1.14	1.16	1.01	-0.15	91.22	92.66	80.92	-11.7 pp
Germany	1.92	1.88	1.77	-0.11	87.71	85.79	80.71	-5.1 pp
Italy	1.50	1.53	1.41	-0.11	73.07	74.54	69.06	-5.5 pp
UK	1.01	0.82	0.88	0.06	77.80	63.06	67.82	4.8 pp
<b>Japan</b>	<b>3.44</b>	<b>3.27</b>	<b>3.28</b>	<b>0.01</b>	<b>97.86</b>	<b>92.88</b>	<b>93.28</b>	<b>0.4 pp</b>

Sources: EIA, Euroilstock, Petroleum Association of Japan and OPEC Secretariat.

Table 6 - 3: Refinery crude throughput, mb/d

	2015	2016	2017	1Q17	2Q17	3Q17	4Q17	1Q18*
<b>Total OECD</b>	<b>37.61</b>	<b>37.41</b>	<b>37.94</b>	<b>37.53</b>	<b>38.04</b>	<b>38.25</b>	<b>38.18</b>	<b>37.52</b>
<b>OECD Americas</b>	<b>19.01</b>	<b>18.78</b>	<b>19.04</b>	<b>18.56</b>	<b>19.80</b>	<b>19.03</b>	<b>19.02</b>	<b>18.79</b>
of which US	16.43	16.51	16.89	16.22	17.42	16.89	17.02	16.70
<b>OECD Europe</b>	<b>12.00</b>	<b>11.85</b>	<b>12.08</b>	<b>11.88</b>	<b>11.82</b>	<b>12.42</b>	<b>12.22</b>	<b>11.72</b>
of which:								
France	1.15	1.12	1.14	1.05	1.11	1.18	1.20	1.11
Germany	1.87	1.88	1.85	1.82	1.74	1.93	1.92	1.87
Italy	1.34	1.30	1.36	1.34	1.28	1.40	1.44	1.48
UK	1.10	1.08	1.06	1.04	1.06	1.06	1.08	0.91
<b>OECD Asia Pacific</b>	<b>6.60</b>	<b>6.78</b>	<b>6.82</b>	<b>7.10</b>	<b>6.43</b>	<b>6.80</b>	<b>6.94</b>	<b>7.01</b>
of which Japan	3.26	3.28	3.23	3.49	2.99	3.24	3.19	3.33
<b>Total Non-OECD</b>	<b>40.55</b>	<b>41.34</b>	<b>42.07</b>	<b>41.73</b>	<b>41.40</b>	<b>41.98</b>	<b>43.17</b>	<b>42.96</b>
of which:								
China	10.44	10.77	11.35	11.22	11.00	11.27	11.92	11.55
Middle East	6.66	6.98	7.14	6.84	7.15	7.19	7.36	7.23
Russia	5.64	5.58	5.59	5.64	5.46	5.62	5.64	5.78
Latin America	6.13	5.69	5.43	5.66	5.51	5.34	5.22	4.99
India	4.56	4.93	4.98	5.01	4.89	4.82	5.21	5.13
Africa	2.11	2.08	2.07	2.15	2.03	2.08	2.02	2.05
<b>Total world</b>	<b>78.16</b>	<b>78.74</b>	<b>80.07</b>	<b>79.27</b>	<b>79.44</b>	<b>80.23</b>	<b>81.35</b>	<b>80.48</b>

Note: \* Includes OPEC Secretariat's estimates.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat, Jodi, AFREC, APEC, EIA, IEA, Euroilstock, Petroleum Association of Japan, Ministry data, including Ministry of Energy of the Russian Federation, Ministry of Petroleum and Natural Gas of India.



Table 6 - 4: Refined product prices, US\$/b

	Feb 18	Mar 18	Change Mar/Feb	2017	2018 (Y-t-d)
<b>US Gulf (Cargoes FOB):</b>					
Naphtha*	62.99	62.89	-0.10	55.09	64.68
Premium gasoline (unleaded 93)	80.83	82.47	1.64	74.42	82.38
Regular gasoline (unleaded 87)	75.18	76.82	1.64	68.57	76.82
Jet/Kerosene	78.48	78.26	-0.22	66.07	79.81
Gasoil (0.2% S)	72.45	72.97	0.52	62.31	74.79
Fuel oil (3.0% S)	54.15	52.75	-1.40	47.05	54.61
<b>Rotterdam (Barges FoB):</b>					
Naphtha	61.52	63.29	1.77	53.66	63.43
Premium gasoline (unleaded 98)	82.80	79.34	-3.46	75.13	82.58
Jet/Kerosene	81.65	82.03	0.38	66.84	82.26
Gasoil/Diesel (10 ppm)	77.45	78.64	1.19	66.35	79.41
Fuel oil (1.0% S)	55.15	55.15	0.00	48.71	55.98
Fuel oil (3.5% S)	52.04	52.00	-0.04	44.31	52.82
<b>Mediterranean (Cargoes FOB):</b>					
Naphtha	60.54	62.41	1.87	52.81	62.41
Premium gasoline**	73.27	73.81	0.54	66.56	74.73
Jet/Kerosene	79.37	79.61	0.24	65.12	80.00
Diesel	77.55	78.66	1.11	66.92	79.24
Fuel oil (1.0% S)	56.29	56.38	0.09	49.55	57.30
Fuel oil (3.5% S)	53.44	53.47	0.03	46.18	54.28
<b>Singapore (Cargoes FOB):</b>					
Naphtha	61.41	63.08	1.67	54.04	63.58
Premium gasoline (unleaded 95)	77.02	77.12	0.10	68.01	77.58
Regular gasoline (unleaded 92)	74.15	74.25	0.10	65.43	75.02
Jet/Kerosene	80.01	79.00	-1.01	65.32	80.00
Gasoil/Diesel (50 ppm)	77.95	78.25	0.30	66.33	79.30
Fuel oil (180 cst)	56.96	56.94	-0.02	49.67	57.60
Fuel oil (380 cst 3.5% S)	56.56	56.56	0.00	49.24	57.15

Note: \* Barges.

\*\* Cost, insurance and freight (CIF).

\*\*\* Based on the first three weeks of September.

Sources: Argus Media and OPEC Secretariat.

## Tanker Market

*In March, tanker market sentiment remained weak in both the dirty and clean sectors. Average spot freight rates dropped on most reported routes in the dirty tanker sector and remained at low levels as seen the month before.*

*Despite a relatively stronger market seen in the Suezmax sector, VLCC and Aframax rates declined on most reported routes in March. VLCC average spot freight rates were flat in March and Aframax rates dropped by 6%. As in previous months, tonnage demand for both classes was limited, while tonnage oversupply was a dominant factor supported by new deliveries entering the fleet.*

*Clean tanker spot freight rates were mostly weak despite some enhancement in the East as tonnage availability was balanced on the back of a shortage in prompt availability. In the West, a lack of activity was mostly dominant resulting in a drop in rates across several routes.*

## Spot fixtures

According to preliminary data, **global fixtures** declined by 2.1% in March compared to the previous month. OPEC spot fixtures rose by 0.12 mb/d to average 13.87 mb/d. Fixtures on the Middle-East-to-East route averaged 7.56 mb/d in March, which is higher by 0.42 mb/d compared to the previous month, while those on the Middle East-to-West route averaged 2.02 mb/d. Outside the Middle East, fixtures averaged 4.29 mb/d in March, showing an increase of 0.19 mb/d m-o-m. Compared with the same period a year earlier, global fixtures showed an increase of 12% in March.

**Table 7 - 1: Spot fixtures, mb/d**

	<b>Jan 18</b>	<b>Feb 18</b>	<b>Mar 18</b>	<b>Change Mar 18/Feb 18</b>
<b>All areas</b>	<b>17.85</b>	<b>19.30</b>	<b>18.89</b>	<b>-0.41</b>
OPEC	13.23	13.76	13.87	0.12
Middle East/East	6.71	7.14	7.56	0.42
Middle East/West	2.07	2.52	2.02	-0.50
Outside Middle East	4.45	4.10	4.29	0.19

Sources: Oil Movements and OPEC Secretariat.

## Sailings and arrivals

According to preliminary data, **OPEC sailings** rose by 0.2% in March to average 24.51 mb/d. This is an increase of 2.2% from the same month a year earlier. **Middle East sailings** also rose, up by 0.35 mb/d from a month before.

**Arrivals** were mixed, registering increases in North America, the Far East and West Asia by 4.5%, 1.7% and 0.1%, respectively, compared to February, while arrivals to Europe showed a drop of 2.7% from the previous month to average 12.05 mb/d.

Table 7 - 2: Tanker sailings and arrivals, mb/d

	<u>Jan 18</u>	<u>Feb 18</u>	<u>Mar 18</u>	<u>Change Mar 18/Feb 18</u>
<b>Sailings</b>				
OPEC	24.31	24.47	24.51	0.04
Middle East	17.73	17.51	17.85	0.35
<b>Arrivals</b>				
North America	10.36	9.86	10.30	0.45
Europe	11.96	12.38	12.05	-0.33
Far East	8.74	8.43	8.57	0.14
West Asia	4.61	4.66	4.66	0.00

Sources: Oil Movements and OPEC Secretariat.

## Dirty tanker freight rates

### VLCC

Despite stable demand for **VLCC** at the beginning of March as charterers tried to benefit from the prevailing low freight rates, tonnage demand remained far from sufficient to balance the market. VLCC freight rates in March remained weak, as has been the case since the beginning of 2018, with daily earnings declining on most major trading routes. The VLCC market reported the delivery of a new vessel to the fleet further adding to the imbalance. Moreover, reduced delays and improved weather conditions gave no support to freight rates and contributed to the general depressed situation.

In the North Sea, the VLCC market did achieve balance in March, but freight rates did not see any gains due to the overall weak chartering market. Some port delays in China at the end of March created uncertainty in the cargo discharge programme, which helped to reduce the tonnage supply at this juncture and thus supported a minor increase in freight rates. VLCC spot freight rates for tankers operating on the Middle East-to-East route showed a slight increase, up by WS1 point from the previous month to stand at WS40 points.

Freight rates registered for tankers on the Middle East-to-West routes were flat m-o-m averaging WS19 points, while VLCC spot freight rates for tankers trading on West Africa-to-East routes fell by 3% m-o-m to stand at WS41 points in March.

Table 7 - 3: Dirty VLCC spot tanker freight rates, Worldscale

	<u>Size 1,000 DWT</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Mar 18</u>	<u>Change Mar 18/Feb 18</u>
Middle East/East	230-280	44	39	40	1
Middle East/West	270-285	21	19	19	0
West Africa/East	260	46	42	41	-1

Sources: Argus Media and OPEC Secretariat.

## Suezmax

**Suezmax** was the only class in the dirty sector that showed positive earnings in March, although the gains were relatively minor. Suezmax average freight rates went up by WS7 points, or 16%, to stand at WS54 points in March.

Average rates saw some gains with improvements seen in West Africa and the Caribbean as both markets were active, allowing freight rates to increase.

In the Mediterranean, the relative enhanced activity in the Suezmax market also supported rates in the Mediterranean and the Black Sea.

In West Africa, healthy tonnage demand supported freight rates in March. On average, spot freight rates for tankers operating on the West Africa-to-USGC route increased by WS6 points to average WS57 points in March. On the Northwest Europe (NWE)-to-USGC route, Suezmax spot freight rates increased by 19% from February, to average WS51 points. Nevertheless, Suezmax demand for April-loading requirements was shared with VLCCs on a combined loading basis and, thus average Suezmax freight rates did not achieve large gains.

**Table 7 - 4: Dirty Suezmax spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Jan 18	Feb 18	Mar 18	Change Mar 18/Feb 18
West Africa/US Gulf Coast	130-135	53	51	57	6
Northwest Europe/US Gulf Coast	130-135	50	43	51	8

Sources: Argus Media and OPEC Secretariat.

## Aframax

**Aframax freight rates** exhibited declines on all reported routes in March, both in terms of a month and a year previous. Aframax freight rates in the Mediterranean and Black Sea were low and all chartering requirements were secured easily considering the amount of vessels available in that region. The limited activity, along with vessel overhang, led to a drop in freight rates from the previous month. Spot freight rates for tankers operating on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes, averaged WS87 points and WS82 points, respectively. This was a drop of WS9 points and WS11 points from one month earlier, while the drop from the previous year was even larger. Nonetheless, the drop in monthly freight rates was offset by a flurry of requirements ahead of holidays in March.

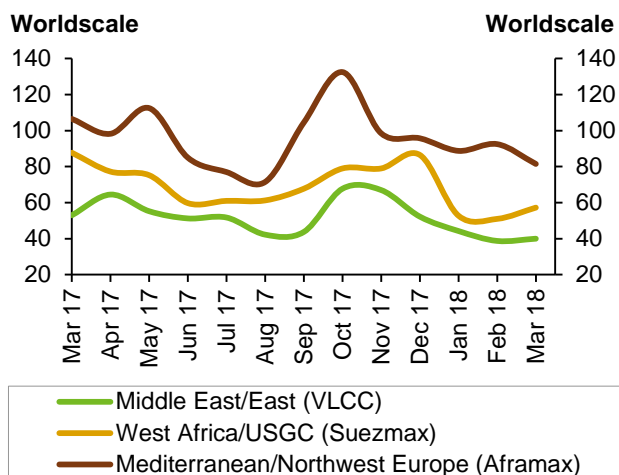
In the North Sea and the Baltic, freight rates saw no great effect as the delays caused by icy weather conditions were kept to a minimum.

In the Caribbean, rates saw further drops, mainly due to slow movement in the market and the lengthy tonnage position list being over populated. Thus, freight rates for Aframax tankers operating on the Caribbean-to-US East Coast (USEC) route declined by 3% from the previous month to average WS95 points. Aframax freight rates in the East also showed a decline from the previous month as spot freight rates registered on Indonesia-to-East routes dropped by 2% m-o-m, to average WS81 points.

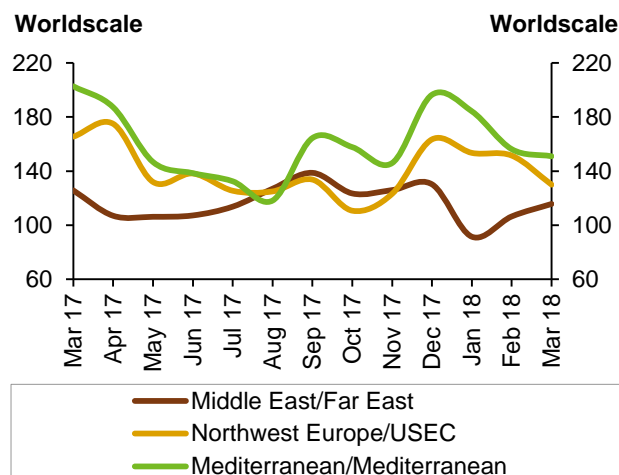
**Table 7 - 5: Dirty Aframax spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Jan 18	Feb 18	Mar 18	Change Mar 18/Feb 18
Indonesia/East	80-85	88	82	81	-1
Caribbean/US East Coast	80-85	111	98	95	-3
Mediterranean/Mediterranean	80-85	98	96	87	-9
Mediterranean/Northwest Europe	80-85	89	93	82	-11

Sources: Argus Media and OPEC Secretariat.

**Graph 7 - 1: Crude oil spot tanker freight rates, monthly average**

Sources: Argus Media and Platts.

**Graph 7 - 2: Products spot tanker freight rates, monthly average**

Sources: Argus Media and OPEC Secretariat.

## Clean tanker freight rates

In March, the clean tanker market was also mainly influenced by tonnage surplus, although clean tanker spot freight rates were enhanced in the eastern direction of Suez for the second month in a row. The medium-range (MR) tanker market in the West strengthened in March as freight rates increased on several routes. The improved earnings for the MR market came as a result of a general hike in activity and a temporary shortage in prompt availability. Freight rates for tankers operating on the Middle East-to-East route rose by 9% to average WS116 points. Rates for the Singapore-to-East route fell by 10% in March compared to the previous month to stand at WS146 points. Clean tanker spot freight in the West reacted differently with spot rates dropping on all reported routes, compared to February. NWE-to-US East Coast routes rates fell by 14% from a month earlier to stand at WS130 points.

Rates for the Mediterranean chartering market weakened in March as vessel availability was ample. Thus, both the Mediterranean-to-Mediterranean and Mediterranean-to-NWE clean spot freight rates edged down by 3% each to stand at WS151 points and WS161 points, respectively.

**Table 7 - 6: Clean spot tanker freight rates, Worldscale**

	Size 1,000 DWT	Jan 18	Feb 18	Mar 18	Change Mar 18/Feb 18
<b>East of Suez</b>					
Middle East/East	30-35	92	107	116	9
Singapore/East	30-35	134	133	146	13
<b>West of Suez</b>					
Northwest Europe/US East Coast	33-37	154	152	130	-22
Mediterranean/Mediterranean	30-35	184	156	151	-5
Mediterranean/Northwest Europe	30-35	194	166	161	-6

Sources: Argus Media and OPEC Secretariat.

## Oil Trade

In March, preliminary data show that US crude oil imports increased by 158 tb/d from the previous month to stand at 7.7 mb/d. On an annual basis, US crude imports decreased by 349 tb/d from a year earlier. US product imports increased by 163 tb/d, or 8%, to average 2.2 mb/d m-o-m and went up by 197 tb/d y-o-y.

Japan's crude oil imports dropped in February by 428 tb/d, or 13%, to average 3 mb/d. On an annual basis, crude imports had a similar drop in February, down by 545 tb/d. Japan's product imports dropped slightly in February by 12 tb/d to average 710 tb/d. This decline occurred despite retail sales going up by 1.7% from last year.

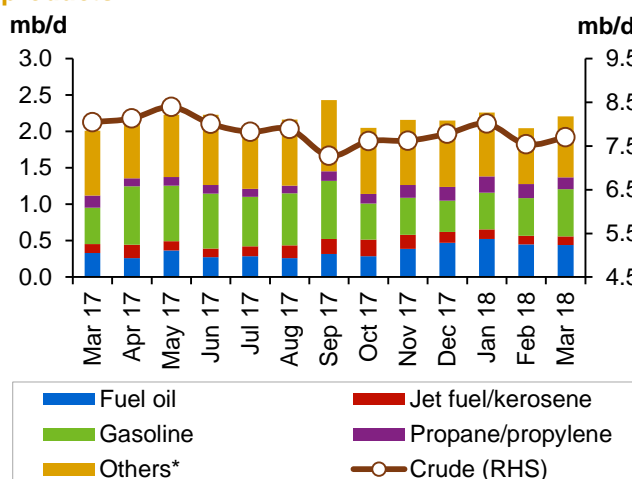
China's crude oil imports dropped in February to stand at 8.4 mb/d, down by 1.2 mb/d, or 12%, from the previous month, while product imports declined in February by 114 tb/d from the previous month, yet remained above the previous year by 84 tb/d to average 1.5 mb/d.

In February, India's crude imports averaged 4.6 mb/d, down from the previous month by 167 tb/d, yet 281 tb/d higher than the level seen in the same month a year earlier. February's product imports remained largely stable from the previous month to average 825 tb/d y-o-y, yet were down by 71 tb/d or 8% from the previous year.

## US

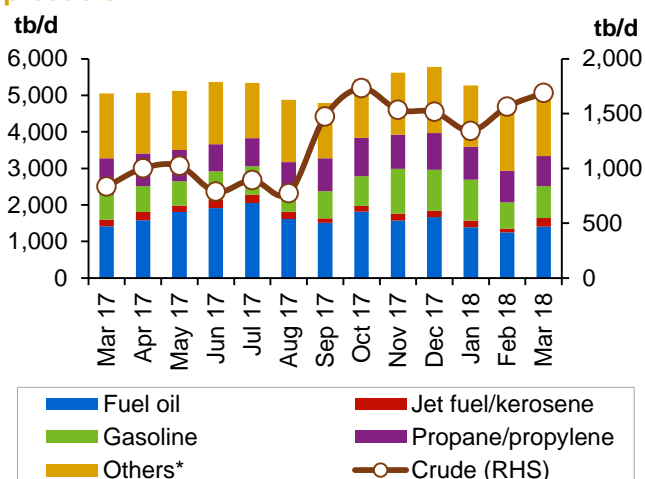
In March, preliminary data showed that **US crude oil imports** increased by 158 tb/d from the previous month to stand at 7.7 mb/d, while they were 349 tb/d below the level seen a year earlier.

**Graph 8 - 1: US imports of crude and petroleum products**



Note: \* Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.  
Sources: US EIA and OPEC Secretariat.

**Graph 8 - 2: US exports of crude and petroleum products**



Note: \* Others: Contains natural gas liquids, liquefied refinery gases (LRG's), other liquids and all finished petroleum products except gasoline, jet fuel/kerosene, fuel oil and propane/propylene.  
Sources: US EIA and OPEC Secretariat.

**US product imports** increased by 163 tb/d, or 8%, to average 2.2 mb/d m-o-m, and rose by 197 tb/d y-o-y.

**US crude and product exports** went up in March from the previous month by 127 tb/d and 286 tb/d to average 1.7 mb/d and 5 mb/d, respectively. On an annual basis, crude exports were higher by 633 tb/d, while product exports went down by 102 tb/d from the previous year.



As a result, **US total net imports in March dropped by 0.09 mb/d, or 3%, m-o-m to average 3.3 mb/d, and down by 22% from the previous year.**

In January, Canada, the **top crude supplier** to the US, held a share of 47% of total US crude imports, as its exports to the US rose from a month before by 127 tb/d. Saudi Arabia came in as the second crude supplier to the US, holding a share of 9% of total crude imports, while Iraq followed closely in third place with a share of also around 9%. Imports from Canada, Saudi Arabia and Iraq rose from a month before by 4%, 3% and 15%, respectively.

**Crude imports from OPEC Member Countries** were higher in January from the previous month by 54 tb/d, or 2%, accounting for 34% of total US crude imports.

**US product imports from OPEC Member Countries** rose as well by 16 tb/d from a month earlier to stand at 315 tb/d with a share of 14% of total products imported by the US. In terms of the product supplier share, Canada and Russia were the first and second suppliers to the US with shares of 29% and 17%, respectively. Imports from Canada were down from a month before by 73 tb/d, while imports from Russia rose by 45 tb/d. Algeria came in as third product supplier to the US, holding a share of 5% of total products imported by the US.

**Table 8 - 1: US crude and product net imports, tb/d**

	Jan 18	Feb 18	Mar 18	Change Mar 18/Feb 18
Crude oil	6,670	5,978	6,009	31
Total products	-3,011	-2,619	-2,741	-123
<b>Total crude and products</b>	<b>3,659</b>	<b>3,360</b>	<b>3,268</b>	<b>-92</b>

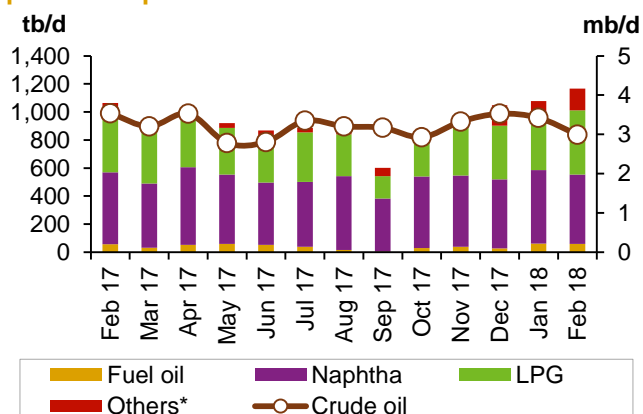
Sources: US Energy Information Administration and OPEC Secretariat.

## Japan

**Japan's crude oil imports** dropped in February by 428 tb/d, or 13%, to average 3 mb/d, while y-o-y, they recorded a similar drop decreasing by 545 tb/d.

As for the **suppliers' share**, Saudi Arabia remained the top supplier to Japan, holding a share of 42% of total crude exports, which remained mostly stable from the previous month to average 1.2 mb/d. UAE came in as the second largest supplier to Japan with a share of 23% of total crude imports. Kuwait came in third place, holding a share of 8%, despite its crude exports to Japan being lower than in the previous month by 87 tb/d.

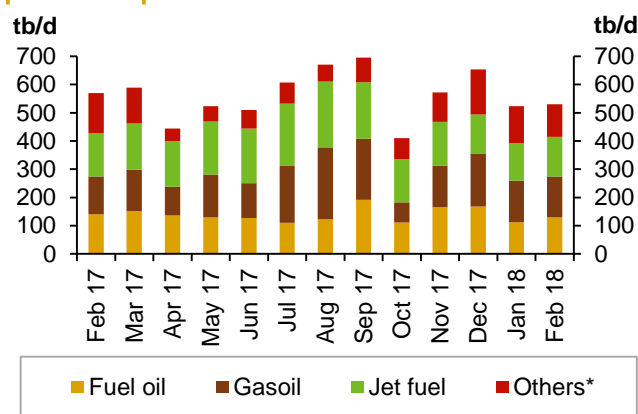
**Graph 8 - 3: Japan's imports of crude and petroleum products**



Note: \* Others: Contains gasoline, jet fuel, kerosene, gasoil, asphalt and paraffin wax.

Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

**Graph 8 - 4: Japan's exports of crude and petroleum products**



Note: \* Others: Contains LPG, gasoline, naphtha, kerosene, lubricating oil, asphalt and paraffin wax.

Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

## Oil Trade

**Japan's product imports** dropped slightly in February by 12 tb/d to average 710 tb/d, despite an increase in retail sales, which were up by 1.7% from last year.

Japan's **product exports** in February were down by 7 tb/d from the previous month to average 530 tb/d.

Accordingly, **Japan's net imports declined in February by 447 tb/d m-o-m to average 3.2 tb/d**, and were down by 437 tb/d y-o-y.

**Table 8 - 2: Japan's crude and product net imports, tb/d**

	Dec 17	Jan 18	Feb 18	Change Feb 18/Jan 18
Crude oil	3,525	3,421	2,994	-428
Total products	12	199	180	-19
<b>Total crude and products</b>	<b>3,537</b>	<b>3,620</b>	<b>3,173</b>	<b>-447</b>

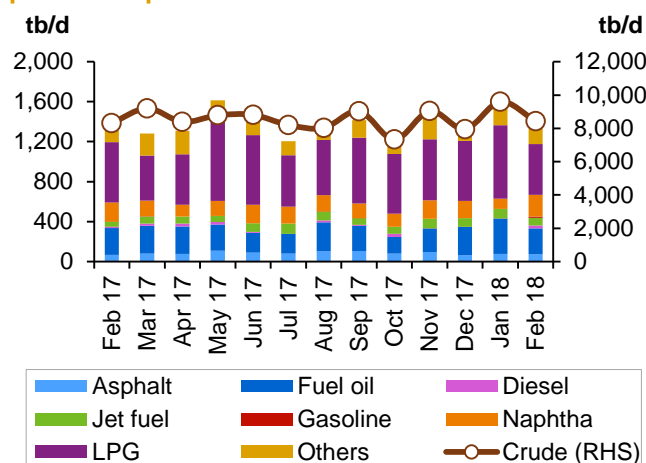
Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.

## China

Following the gains it achieved in the previous month, **China's crude oil imports** dropped in February by 1.2 mb/d, or 12%, from the previous month, to stand at 8.4 mb/d, while stocks in the country showed an increase from the previous month. On an annual basis, China's crude imports were down by 126 tb/d. Y-t-d, the figures reflect an increase of 843 b/d, or 10%. In February, China reported a drop in its refinery runs by around 160 tb/d m-o-m.

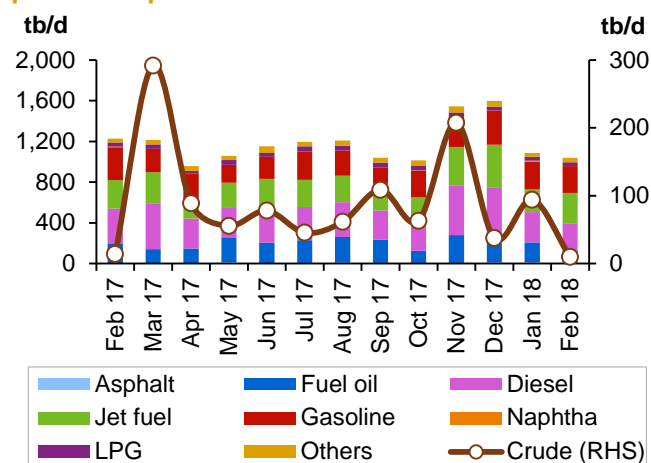
In terms of the **suppliers' share**, Russia, Saudi Arabia and Angola were the top crude suppliers to China in February, holding shares of 16%, 14% and 12%, respectively. In February, supplies from both Russia and Angola were lower than during the previous month by 18 tb/d and 128 tb/d, respectively, while imports from Saudi Arabia rose by 198 tb/d.

**Graph 8 - 5: China's imports of crude and petroleum products**



Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

**Graph 8 - 6: China's exports of crude and petroleum products**



Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

On the other hand, **China's product imports** dropped in February by 114 tb/d from the previous month, to average 1.5 mb/d, but remained above the previous year by 84 tb/d.

**China's crude exports** dropped in February to average only 10 tb/d, while its **product exports** also decreased from last month by 48 tb/d to average 1 mb/d, mainly as exports of fuel oil and diesel went down by 77 tb/d and 31 tb/d, respectively.

As a result, **China's net oil imports in February dropped by 1.1 mb/d, or 12%, from the previous month to average 8.8 mb/d**, while they remained above levels seen in the previous year by 403 tb/d.

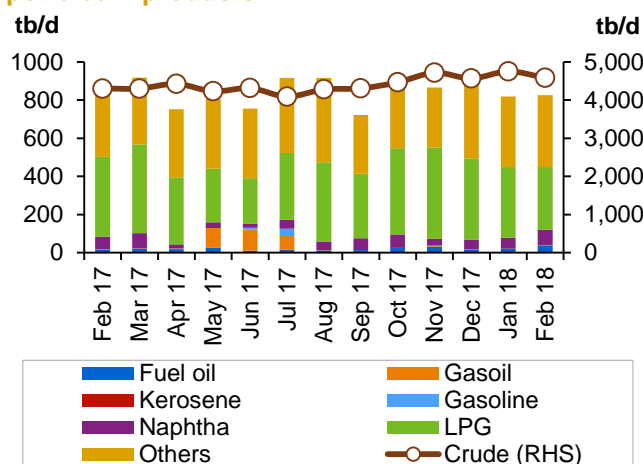
**Table 8 - 3: China's crude and product net imports, tb/d**

	<b>Dec 17</b>	<b>Jan 18</b>	<b>Feb 18</b>	<b>Change Feb 18/Jan 18</b>
Crude oil	7,919	9,502	8,425	-1,077
Total products	-208	476	410	-66
<b>Total crude and products</b>	<b>7,711</b>	<b>9,978</b>	<b>8,835</b>	<b>-1,144</b>

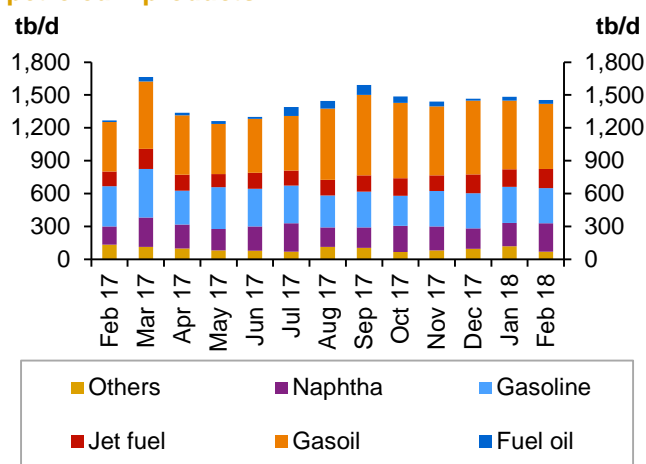
Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.

## India

In February, **India's crude imports** averaged 4.6 mb/d, down from one month before by 167 tb/d, yet above the same month a year earlier by 281 tb/d. Similarly, refinery runs showed a drop of around 125 tb/d in February from a month ago.

**Graph 8 - 7: India's imports of crude and petroleum products**

Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

**Graph 8 - 8: India's exports of crude and petroleum products**

Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

**Product imports** in February were mostly stable from the previous month, averaging 825 tb/d y-o-y, which represents a decrease of 71 tb/d, or 8%. The drop in annual product imports came mainly as a result of a decline in imports of LPG.

**India's product exports** dropped in February by 28 tb/d, or 2%, from the previous month to average 1.5 mb/d, while they were higher by 187 tb/d from a year before. The monthly drop came mainly on the back of lower exports of diesel.

Consequently, **India's net imports in February declined by 131 tb/d to average 4.0 mb/d**, down by 3% from the previous month, yet up by 1% from a year before.

**Table 8 - 4: India's crude and product net imports, tb/d**

	<b>Dec 17</b>	<b>Jan 18</b>	<b>Feb 18</b>	<b>Change Feb 18/Jan 18</b>
Crude oil	4,567	4,750	4,583	-167
Total products	-550	-666	-630	36
<b>Total crude and products</b>	<b>4,016</b>	<b>4,084</b>	<b>3,953</b>	<b>-131</b>

Note: India data table does not include information for crude import and product export by Reliance Industries.

Sources: Petroleum Planning & Analysis Cell of India and OPEC Secretariat.

## FSU

In February, **total crude oil exports** from the former Soviet Union rose by 65 tb/d, or 1%, to average 6.8 mb/d. **Crude exports through Russian pipelines** decreased in February by 14 tb/d to average 4.1 mb/d.

Total shipments from the **Black Sea** increased by 44 tb/d, or 9%, to average 532 tb/d, while **Baltic Sea** exports went down by 14 tb/d in February as shipments from the Primorsk port terminal declined by 172 tb/d. This decline was offset by higher shipments from the Ust Luga port, which increased by 158 tb/d. The Druzhba pipeline's total shipments were higher by 67 tb/d to average 1 mb/d.

In Asia, Kozmino shipments declined in February by 90 tb/d, or 14%, to average 557 tb/d.

Exports through the **Lukoil system** were lower from the previous month in the Barents Sea as the Varandey platform shipments declined by 30 tb/d, while in the Baltic Sea, Kaliningrad port terminal exports dropped by just 5 tb/d from the previous month.

Russia's **Far East total exports** dropped from the previous month by an average of 13 tb/d to stand at 356 tb/d. **Central Asia's total exports** stood at 255 tb/d, up by 8 tb/d.

**Black Sea** total exports went up by 78 tb/d as a result of increased shipments from the Novorossiysk (CPC), Supsa and Batumi port terminals. In the **Mediterranean Sea**, BTC supplies rose from the previous month by 38 tb/d, or 6%, to average 682 tb/d.

**FSU total product exports** went up by 84 tb/d, or 3%, from last month to average 3.7 mb/d. Most of the product exports showed increases from the previous month with the exception of fuel oil, which dropped by 57 tb/d m-o-m.

Table 8 - 5: Recent FSU exports of crude and petroleum products by sources, *tb/d*

		2017	3Q17	4Q17	Jan 18	Feb 18
<b>Transneft system</b>						
<b>Europe</b>	<b>Black sea total</b>	<b>605</b>	<b>573</b>	<b>617</b>	<b>488</b>	<b>532</b>
	Novorossiysk port terminal - total	605	573	617	488	532
	of which: Russian oil	424	403	409	329	357
	Others	181	170	208	159	175
	<b>Baltic sea total</b>	<b>1,516</b>	<b>1,403</b>	<b>1,434</b>	<b>1,302</b>	<b>1,288</b>
	Primorsk port terminal - total	871	801	777	791	619
	of which: Russian oil	871	801	777	791	619
	Others	0	0	0	0	0
	Ust-Luga port terminal - total	645	603	657	510	668
	of which: Russian oil	470	423	478	325	488
	Others	175	180	180	186	180
	<b>Druzhba pipeline total</b>	<b>1,009</b>	<b>1,044</b>	<b>1,018</b>	<b>943</b>	<b>1,010</b>
	of which: Russian oil	977	1,012	986	911	977
	Others	32	32	32	32	33
<b>Asia</b>	<b>Pacific ocean total</b>	<b>645</b>	<b>638</b>	<b>662</b>	<b>647</b>	<b>557</b>
	Kozmino port terminal - total	645	638	662	647	557
	<b>China (via ESPO pipeline) total</b>	<b>336</b>	<b>339</b>	<b>345</b>	<b>578</b>	<b>557</b>
	China Amur	336	339	345	578	557
<b>Total Russian crude exports</b>		<b>4,111</b>	<b>3,997</b>	<b>4,076</b>	<b>3,957</b>	<b>3,943</b>
<b>Lukoil system</b>						
<b>Europe &amp; North America</b>	<b>Barents sea total</b>	<b>170</b>	<b>159</b>	<b>146</b>	<b>163</b>	<b>133</b>
	Varandey offshore platform	170	159	146	163	133
<b>Europe</b>	<b>Baltic sea total</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>13</b>	<b>8</b>
	Kalinigrad port terminal	13	14	13	13	8
<b>Other routes</b>						
<b>Asia</b>	<b>Russian Far East total</b>	<b>343</b>	<b>305</b>	<b>317</b>	<b>369</b>	<b>356</b>
	Aniva bay port terminal	127	122	135	119	129
	De Kastri port terminal	216	184	182	250	227
	<b>Central Asia total</b>	<b>262</b>	<b>250</b>	<b>285</b>	<b>247</b>	<b>255</b>
	Kenkiyak-Alashankou	262	250	285	247	255
<b>Europe</b>	<b>Black sea total</b>	<b>1,277</b>	<b>1,163</b>	<b>1,374</b>	<b>1,314</b>	<b>1,393</b>
	Novorossiysk port terminal (CPC)	1,194	1,115	1,276	1,237	1,297
	Supsa port terminal	72	42	90	77	86
	Batumi port terminal	11	6	8	0	10
	Kulevi port terminal	0	0	0	0	0
	<b>Mediterranean sea total</b>	<b>707</b>	<b>731</b>	<b>719</b>	<b>644</b>	<b>682</b>
	BTC	707	731	719	644	682
<b>Russian rail</b>						
	<b>Russian rail</b>	<b>40</b>	<b>36</b>	<b>45</b>	<b>33</b>	<b>35</b>
	of which: Russian oil	40	36	45	33	35
	Others	0	0	0	0	0
<b>Total FSU crude exports</b>		<b>6,923</b>	<b>6,655</b>	<b>6,976</b>	<b>6,740</b>	<b>6,805</b>
<b>Products</b>						
	Gasoline	193	184	171	228	271
	Naphtha	549	509	559	524	568
	Jet	35	34	32	35	36
	Gasoil	980	833	881	1,125	1,134
	Fuel oil	1,025	870	1,012	1,051	994
	VGO	308	286	313	321	365
<b>Total FSU product exports</b>		<b>3,089</b>	<b>2,715</b>	<b>2,967</b>	<b>3,284</b>	<b>3,368</b>
<b>Total FSU oil exports</b>		<b>10,012</b>	<b>9,370</b>	<b>9,943</b>	<b>10,024</b>	<b>10,173</b>

Sources: Argus Nefte Transport and Argus Global Markets.

## Stock Movements

Preliminary data for February shows that total OECD commercial oil stocks fell by 17.4 mb to stand at 2,854 mb, which is 207 mb lower than the same time one year ago, but 43 mb above the latest five-year average. Crude stocks indicated a surplus of 55 mb, while product stocks witnessed a deficit of 12 mb less than the seasonal norm. In terms of days of forward cover, OECD commercial stocks rose in February to stand at 60.6 days, which is 0.6 days lower than the latest five-year average.

Preliminary data for March shows that US total commercial oil stocks fell by 17.0 mb m-o-m to stand at 1,186 mb, which is 152 mb lower than the same period a year ago, and 4.7 mb lower than the latest five-year average. Within the components, crude and product stocks fell by 0.6 mb and 16.4 mb, m-o-m, respectively.

The latest information for China showed that total commercial oil inventories rose sharply by 22.1 mb m-o-m in February to stand at 390.3 mb, which is 5.9 mb lower than the previous year. Within the components, crude and products stocks rose by 3.3 mb and 18.8 mb, m-o-m, respectively.

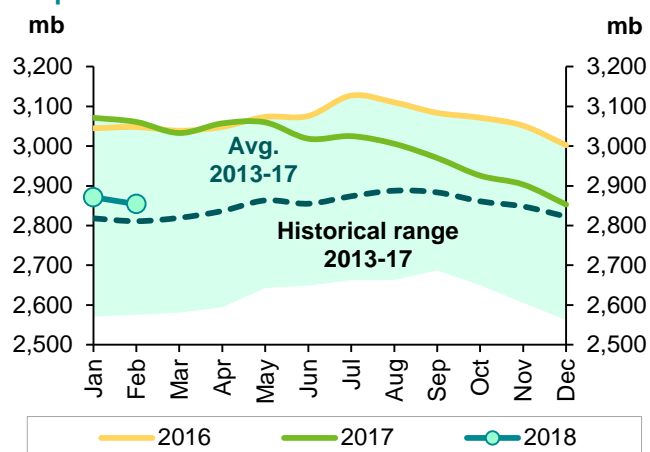
## OECD

Preliminary data for February shows that **OECD total commercial oil stocks** fell by 17.4 mb, reversing the build of the previous month. At 2,854 mb, they stood at 207 mb lower than the same time one year ago, but 43 mb above the latest five-year average. It should be noted that the overhang has been reduced by 294 mb from January 2017. Within the components, crude and product stocks fell by 0.5 mb and 16.9 mb, m-o-m, respectively. Within the regions, OECD Americas and OECD Europe fell by 3.9 mb and 1.1 mb, respectively, while OECD Asia Pacific inventories fell by 12.4 mb, m-o-m.

OECD commercial **crude stocks** fell slightly by 0.5 mb m-o-m in February, reversing the fall of last month to stand at 1,434 mb, which is 99 mb lower than the same time a year ago, but 55 mb higher than the latest five-year average. OECD Americas and OECD Europe experienced stock builds, while OECD Asia Pacific witnessed a stock draw m-o-m.

OECD **product inventories** also fell, dropping by 16.9 mb m-o-m in February to stand at 1,420 mb, which is 108 mb below the same time a year ago, and 12 mb below the seasonal norm. All three OECD regions witnessed stock draws m-o-m.

**Graph 9 - 1: OECD commercial oil stocks**



Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.

In terms of **days of forward cover**, OECD commercial stocks rose in February to stand at 60.6 days, which is 4.6 days below the same period in 2017, and 0.6 days lower than the latest five-year average. Within the regions, OECD Americas had 0.3 less days of forward cover than the historical average to stand at 59.4 days in February. OECD Europe indicated a deficit of 1.2 days below the seasonal norm, to stand at 69.0 days in February, while OECD Asia Pacific stood 0.8 days lower than the seasonal average to finish the month at 49.6 days.



## OECD Americas

**OECD Americas total commercial stocks** fell by 3.9 mb in February for the tenth consecutive month to stand at 1,484 mb, which is 135 mb below a year ago, but 39 mb higher than the seasonal norm. Within the components, crude stocks rose by 6.0 mb, while product stocks fell by 9.9 mb, m-o-m.

Commercial **crude oil stocks** in OECD Americas rose by 6.0 mb m-o-m in February to stand at 779 mb, which is 77 mb lower than the same period a year ago, but 42.3 mb higher than the latest five-year average. This build was mainly driven by lower crude oil throughputs in the US, which decreased by nearly 600 tb/d to average 15.9 mb/d.

In contrast, **product stocks** in OECD Americas fell by 9.9 mb in February to stand at 705 mb, which is 58 mb less than the same time one year ago and 3.6 mb below the seasonal norm. Ongoing higher demand in the US was behind the crude oil stock draw. Lower refinery output also supported the drop in product inventories.

## OECD Europe

**OECD Europe's total commercial stocks** fell by 1.1 mb m-o-m in February, ending the month at 974 mb, which is 55 mb lower than the same time a year ago, but 12.5 mb above the latest five-year average. Crude rose by 2.3 mb, while product stocks fell by 3.4 mb, m-o-m.

OECD Europe's commercial **crude stocks** rose by 2.3 mb in February, ending the month at 417 mb, which is 15 mb lower than a year earlier, but 13.3 mb higher than the latest five-year average. The build in crude oil stocks could be attributed to the drop in refinery throughput combined with higher crude production in the region.

In contrast, OECD Europe's commercial **product stocks** fell by 3.4 mb to end February at 557 mb, which is 40 mb below the same time a year ago, and 0.8 mb lower than the seasonal norm. The decrease could be attributed to lower demand in the OECD region.

## OECD Asia Pacific

**OECD Asia Pacific's total commercial oil stocks** fell sharply by 12.4 mb m-o-m in February to stand at 395 mb, which is 17 mb lower than a year ago and 8.3 mb below the five-year average. Within the components, crude and product stocks fell by 8.8 mb and 3.6 mb, m-o-m, respectively.

**Crude inventories** ended the month of February at 238 mb, which is 8.0 mb below a year ago and 0.8 mb below the seasonal norm.

OECD Asia Pacific's **total product inventories** ended February at 157 mb, standing 9.0 mb lower than the same time a year ago and 7.5 mb less than the seasonal norm.

**Table 9 - 1: OECD's commercial stocks, mb**

	<u>Dec 17</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Change Feb 18/Jan 18</u>	<u>Feb 17</u>
<b>Crude oil</b>	1,409	1,435	1,434	-0.5	1,534
<b>Products</b>	1,444	1,436	1,420	-16.9	1,527
<b>Total</b>	<b>2,853</b>	<b>2,871</b>	<b>2,854</b>	<b>-17.4</b>	<b>3,061</b>
<b>Days of forward cover</b>	<b>60.2</b>	<b>60.2</b>	<b>60.6</b>	<b>0.5</b>	<b>65.2</b>

*Note: Totals may not add up due to independent rounding.*

*Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.*

## EU plus Norway

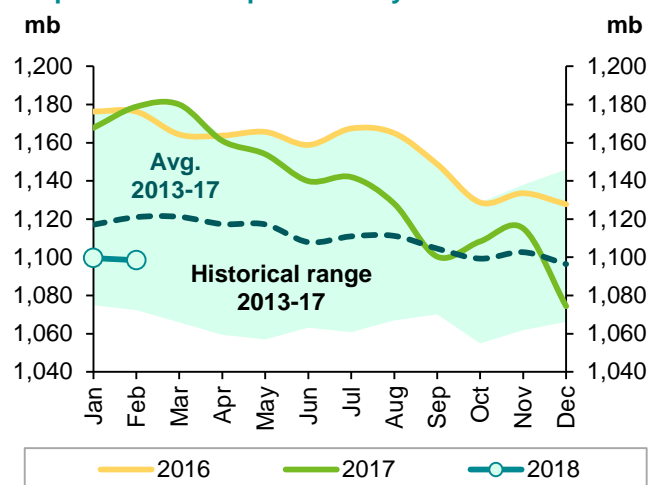
Preliminary data for February shows that **total European stocks** fell slightly by 1.1 mb m-o-m, reversing the sharp stock build of last month to stand at 1,098 mb, which is 80.4 mb, or 6.8%, lower than the same time a year ago, and 22.6 mb, or 2.0%, lower than the latest five-year average. Within components, crude rose by 2.3 mb, while product stocks fell by 3.4 mb, m-o-m.

European **crude inventories** rose in February to stand at 476.7 mb, which is 19.2 mb, or 3.9%, lower than the same period a year ago, but in line with the latest five-year average.

The build in crude oil stocks could be attributed to the drop of refinery throughput, which declined by around 10 tb/d in February. This corresponds to a utilization rate of 90.3%, around 0.1 pp lower than the previous month. Higher crude production from the North Sea also contributed to the build.

In contrast, European **product stocks** fell by 3.4 mb m-o-m, ending February at 621.8 mb, which was 61.2 mb, or 9.0%, lower than the same time a year ago, and 22.6 mb, or 3.5%, below the seasonal norm. All products witnessed stock draws.

**Graph 9 - 2: EU-15 plus Norway's total oil stocks**



Source: Euroilstock.

**Gasoline stocks** fell by 0.5 mb m-o-m in February, reversing the build of the fourth consecutive month to stand at 118 mb, which is 8.3 mb, or 6.6%, lower than the same time one year ago, and 5.5 mb, or 4.5%, lower than the seasonal norm.

**Distillate stocks** also fell by 0.8 mb m-o-m to end the month at 412 mb in February, indicating a deficit of 42.8 mb, or 9.4%, with the same time a year ago, and 3.2 mb, or 0.8%, above the latest five-year average. This fall in both products was driven mainly by higher consumption in the region, but also by lower refinery output.

**Residual fuel oil stocks** fell by 1.2 mb m-o-m in February to stand at 64.0 mb, which is 10.9 mb, or 14.5%, less than the same month a year ago, and 14.6 mb, or 18.6%, lower than the latest five-year average.

**Table 9 - 2: EU-15 plus Norway's total oil stocks, mb**

	<u>Dec 17</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Change</u> <u>Feb 18/Jan 18</u>	<u>Feb 17</u>
<b>Crude oil</b>	<b>465.6</b>	<b>474.4</b>	<b>476.7</b>	<b>2.3</b>	<b>495.9</b>
Gasoline	114.2	118.6	118.1	-0.5	126.4
Naphtha	27.3	28.2	27.3	-0.9	26.4
Middle distillates	402.6	413.3	412.4	-0.8	455.3
Fuel oils	64.6	65.2	64.0	-1.2	74.9
<b>Total products</b>	<b>608.8</b>	<b>625.2</b>	<b>621.8</b>	<b>-3.4</b>	<b>683.0</b>
<b>Total</b>	<b>1,074.4</b>	<b>1,099.6</b>	<b>1,098.5</b>	<b>-1.1</b>	<b>1,178.9</b>

Sources: Argus and Euroilstock.

## US

Preliminary data for March show that **US total commercial oil stocks** fell by 17.0 mb for the tenth consecutive month to stand at 1,185.6 mb, which is 152 mb, or 11.4%, lower than the same period a year ago, and 4.7 mb, or 0.4%, lower than the latest five-year average. Within the components, crude and product stocks fell by 0.6 mb and 16.4 mb, m-o-m, respectively.

US **commercial crude** fell slightly in March to stand at 425.3 mb, which is 113 mb, or 21%, below last year at the same time and 15.8 mb, or 3.6%, below the latest five-year average. This slight drop was driven by higher crude oil throughputs, which increased by more than 700 tb/d to average 16.7 mb/d. At this level, US refineries were running at 91.8%, or 3.4 pp, higher than the previous month. Higher crude imports in March limited further drops in crude oil stocks. Indeed, crude oil imports rose in March by around 160 tb/d to average 7.7 mb/d. In March, crude inventories in Cushing, Oklahoma rose by 6.7 mb versus February, ending the month at 34.9 mb.

**Total product stocks** also fell, dropping by 16.4 mb m-o-m in March to stand at 760.2 mb, which is 39.5 mb, or 4.9%, down from the level seen at the same time in 2017, but 11.0 mb, or 1.5%, above the seasonal average. Within products, the picture was mixed with gasoline, distillates and jet fuel recording stock draws, while residual fuel and other unfinished product stocks experienced stock builds.

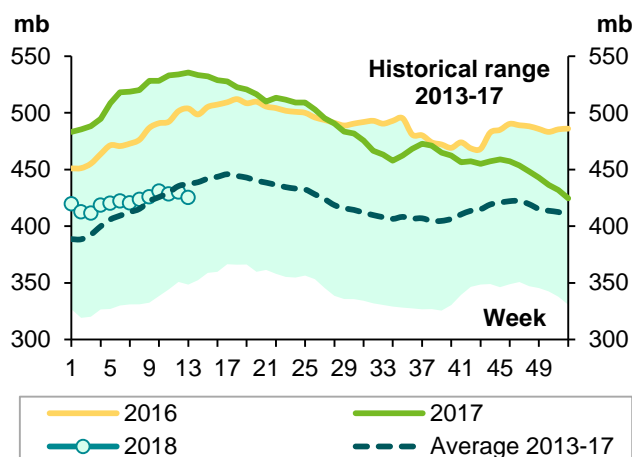
**Gasoline stocks** fell sharply by 12.6 mb m-o-m in March, reversing the build of the fourth consecutive month to stand at 238.5 mb, which is 0.5 mb, or 0.2%, below a year ago at the same time, but 6.1 mb, or 2.6%, above the seasonal norm. This drop came mainly from higher gasoline demand, which increased by around 300 tb/d to stand at 9.3 mb/d. Higher gasoline output limited further drops in gasoline stocks.

**Distillate stocks** also fell, decreasing by 7.9 mb in March for the third consecutive month to stand at 129.5 mb, which represents a deficit of 21.6 mb, or 14.3%, below the same period a year ago, and 5.3 mb, or 3.9%, below the latest five-year average. The drop came on the back of higher demand as increased production limited further declines in distillate stocks.

**Jet fuel stocks** fell by 2.6 mb m-o-m in March, ending the month at 40.1 mb, which is 2.2 mb, or 5.1%, below last year at the same time, and 0.1 mb, or 0.4%, below the latest five-year average.

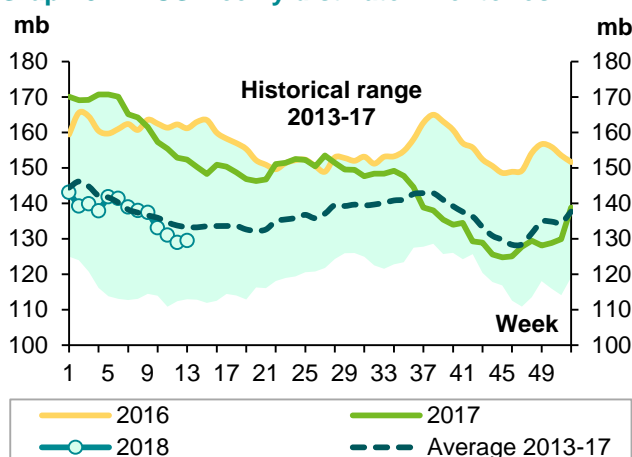
In contrast, **residual fuel stocks** rose by 2.7 mb m-o-m in March, ending the month at 35.4 mb, which is 5.3 mb, or 13.1%, below last year at the same time and 3.9 mb, or 10%, less than the latest five-year average.

**Graph 9 - 3: US weekly commercial crude oil inventories**



Sources: US Energy Information Administration and OPEC Secretariat.

**Graph 9 - 4: US weekly distillate inventories**



Sources: US Energy Information Administration and OPEC Secretariat.

**Table 9 - 3: US onland commercial petroleum stocks, mb**

	Jan 18	Feb 18	Mar 18	Change Mar 18/Feb 18	Mar 17
<b>Crude oil</b>	<b>419.9</b>	<b>425.9</b>	<b>425.3</b>	<b>-0.6</b>	<b>537.9</b>
Gasoline	247.9	251.0	238.5	-12.6	239.0
Distillate fuel	141.1	137.4	129.5	-7.9	151.1
Residual fuel oil	32.4	32.7	35.4	2.7	40.8
Jet fuel	42.7	42.7	40.1	-2.6	42.3
<b>Total products</b>	<b>795.3</b>	<b>776.7</b>	<b>760.2</b>	<b>-16.4</b>	<b>799.7</b>
<b>Total</b>	<b>1,215.2</b>	<b>1,202.6</b>	<b>1,185.6</b>	<b>-17.0</b>	<b>1,337.6</b>
<b>SPR</b>	<b>664.2</b>	<b>665.5</b>	<b>665.5</b>	<b>0.0</b>	<b>691.5</b>

Sources: US Energy Information Administration and OPEC Secretariat.

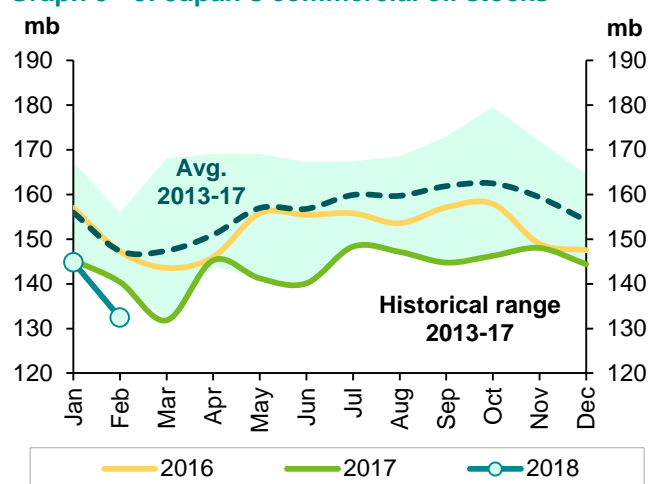
## Japan

In **Japan**, **total commercial oil stocks** fell sharply by 12.4 mb in February to stand at 132.4 mb, which is 8.0 mb, or 5.7%, less than the same time a year ago and 15 mb, or 10.2%, below the five-year average. Within the components, crude and products stocks fell by 8.8 mb and 3.6 mb, m-o-m, respectively.

Japanese **commercial crude oil stocks** fell in February to stand at 78.7 mb, which is 8.8 mb, or 0.1%, below the same period a year ago, but 7.2 mb, or 8.3%, below the seasonal norm. The fall was driven by lower crude imports, which decreased by around 430 tb/d, or 12.5%, to average 3.0 mb/d. However, lower crude throughput limited further drops in crude oil stocks. Indeed, crude throughput fell by more than 50 tb/d, or 1.6%, to stand at 3.3 mb/d.

Japan's **total product inventories** fell by 3.6 mb m-o-m, ending February at 53.7 mb, which is 3.6 mb, or 6.3%, below the same month of the previous year, and 7.8 mb, or 12.7%, lower than the seasonal norm. All products witnessed stocks draws m-o-m.

**Graph 9 - 5: Japan's commercial oil stocks**



Source: Ministry of Economic, Trade and Industry of Japan.

**Gasoline stocks** fell by 0.3 mb m-o-m in February to stand at 10.3 mb, which is 0.9 mb, or 7.7%, lower than the same time a year ago, and 1.6 mb, or 13.5%, below the latest five-year average. The fall was driven by lower production, which fell by 9.2% from the previous month, and lower gasoline imports.

**Distillate stocks** fell by 2.4 mb m-o-m in February to stand at 22.3 mb, which is 1.7 mb, or 7.3%, below last year at the same time, and 3.4 mb, or 13.1%, below the seasonal average. Within the components, gasoil, kerosene and jet fuel stocks fell by 17.9%, 19.9% and 8.3%, respectively. Higher domestic sales combined with lower production were behind the declines in gasoil stocks, while the fall in kerosene and jet fuel oil stocks was mainly driven by lower output.

**Total residual fuel oil stocks** fell by 0.6 mb m-o-m in February to stand at 12.1 mb, which is 0.9 mb, or 7.1%, below the same period a year ago, and 1.7 mb, or 12.4%, less than the latest five-year average. Within the fuel oil components, fuel oil A and fuel B.C fell by 4.3% and 10.7%, respectively. The drop was driven by lower production combined with decreased imports.

Table 9 - 4: Japan's commercial oil stocks\*, mb

	<u>Dec 17</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Change</u> <u>Feb 18/Jan 18</u>	<u>Feb 17</u>
<b>Crude oil</b>	<b>87.5</b>	<b>87.6</b>	<b>78.7</b>	<b>-8.8</b>	<b>83.1</b>
Gasoline	9.4	10.7	10.3	-0.3	11.2
Naphtha	7.9	9.2	8.9	-0.2	9.0
Middle distillates	27.1	24.7	22.3	-2.4	24.0
Residual fuel oil	12.5	12.8	12.1	-0.6	13.1
<b>Total products</b>	<b>56.9</b>	<b>57.3</b>	<b>53.7</b>	<b>-3.6</b>	<b>57.3</b>
<b>Total**</b>	<b>144.4</b>	<b>144.8</b>	<b>132.4</b>	<b>-12.4</b>	<b>140.4</b>

Note: \* At the end of the month.

\*\* Includes crude oil and main products only.

Source: Ministry of Economy, Trade and Industry of Japan.

## China

The latest information for China showed that **total commercial oil inventories** rose sharply by 22.1 mb m-o-m in February for the third consecutive month to stand at 390.3 mb, which is 5.9 mb lower than the previous year. Within the components, crude and product stocks rose by 3.3 mb and 18.8 mb, m-o-m, respectively.

In February, **commercial crude stocks** rose to stand at 210.5 mb, which is 12.2 mb below last year at the same time. The build was mainly attributed to lower crude runs as domestic production and crude imports saw declines.

**Total product stocks** in China rose by 18.8 mb m-o-m in February to end the month at 179.8 mb, which is 6.3 mb above the same time a year ago. Within products, the picture was mixed as diesel and kerosene inventories rose m-o-m, while gasoline witnessed stock draws.

**Diesel inventories** rose sharply by 25.6 mb, ending February at 89.8 mb, which is 1.2 mb higher than the same time last year. The build was mainly attributed to the closure of factories and low temperatures, which resulted in the suspension of outdoor projects.

In contrast, **gasoline stocks** fell by 7.0 mb m-o-m in February to end the month at 69.5 mb, which is 4.8 mb higher than last year at the same time. The decline was driven by higher demand following the traditional Lunar New Year.

**Kerosene stocks** rose by 0.1 mb m-o-m in February to stand at 20.5 mb, which is 0.4 mb higher than last year at the same time.

Table 9 - 5: China's commercial oil stocks, mb

	<u>Dec 17</u>	<u>Jan 18</u>	<u>Feb 18</u>	<u>Change</u> <u>Feb 18/Jan 18</u>	<u>Feb 17</u>
<b>Crude oil</b>	<b>204.5</b>	<b>207.2</b>	<b>210.5</b>	<b>3.3</b>	<b>222.7</b>
Gasoline	74.1	76.5	69.5	-7.0	64.8
Diesel	60.5	64.2	89.8	25.6	88.6
Jet/Kerosene	18.5	20.3	20.5	0.1	20.1
<b>Total products</b>	<b>153.2</b>	<b>161.0</b>	<b>179.8</b>	<b>18.8</b>	<b>173.5</b>
<b>Total</b>	<b>357.7</b>	<b>368.3</b>	<b>390.3</b>	<b>22.1</b>	<b>396.2</b>

Sources: China Oil and Gas Petrochemicals and OPEC Secretariat.

## Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

### Singapore

At the end of February, **product stocks in Singapore** fell by 0.1 mb to stand at 44.5 mb, which is 7.9 mb, or 15.6%, below the same period a year ago. Light distillates experienced stock builds, while middle distillates witnessed stock draws. Fuel oil stocks remained unchanged when compared to the January level.

**Light distillate stocks** rose by 0.2 mb in February to end the month at 13.0 mb, which is -0.2 mb, or 1.5%, below the same period a year ago.

In contrast, **middle distillates** fell by 0.4 mb in February m-o-m to stand at 8.9 mb, which is 3.7 mb, or 29%, below a year ago at the same time.

**Fuel oil inventories** remained unchanged in February, ending the month at 22.5 mb, which is 4.2 mb, or 15.6 %, lower than the same period last year.

### Amsterdam-Rotterdam-Antwerp (ARA)

**Product stocks in ARA** rose by 0.5 mb in February for the third consecutive month to stand at 45.6 mb, which is 0.6 mb, or 1.3%, higher than the same time a year ago. Within products, the picture was mixed, as gasoline rose, while gasoil, fuel oil and jet fuel oil stocks witnessed draws.

**Gasoline stocks** rose by 2.4 mb in February to stand at 11.3 mb, which is 1.6 mb, or 17.0%, above last year at the same time.

**Jet oil, fuel oil, and gasoil stocks** fell by 0.5 mb, 0.8 mb and 0.5 mb in February to stand at 4.5 mb, 5.2 mb and 21.8 mb, respectively. Gasoil remained above last year at the same time, while fuel oil and jet oil stood below the same period a year earlier.



## Balance of Supply and Demand

Demand for OPEC crude in 2017 is estimated at 32.9 mb/d, which is 0.6 mb/d higher than the 2016 level. In comparison, according to secondary sources, OPEC crude production averaged 32.4 mb/d in 2017, lower than the demand for OPEC crude by 0.5 mb/d.

In 2018, demand for OPEC crude is projected to be 32.6 mb/d, 0.3 mb/d less than the level seen in 2017.

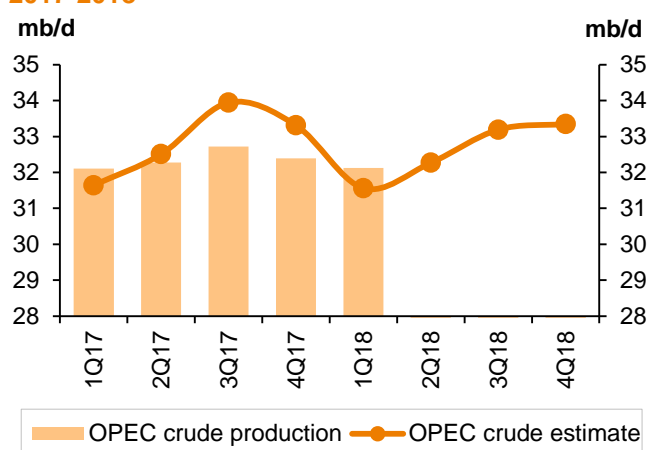
### Balance of supply and demand in 2017

**Demand for OPEC crude in 2017** remained unchanged from the previous month at 32.9 mb/d. This represents an increase of 0.6 mb/d from the 2016 level.

Within the quarters, all four remained unchanged from the previous month.

The first and the second quarters increased by 1.0 mb/d and 0.5 mb/d, respectively, while both the third and fourth quarters grew by 0.4 mb/d each, when compared to the same quarter last year.

**Graph 10 - 1: Balance of supply and demand, 2017-2018\***



Note: \* 2017 = Estimate and 2018 = Forecast.  
Source: OPEC Secretariat.

**Table 10 - 1: Supply/demand balance for 2017\*, mb/d**

	2016	1Q17	2Q17	3Q17	4Q17	2017	Change 2017/16
<b>(a) World oil demand</b>	<b>95.42</b>	<b>95.68</b>	<b>96.28</b>	<b>97.79</b>	<b>98.50</b>	<b>97.07</b>	<b>1.65</b>
Non-OPEC supply	57.00	57.83	57.51	57.50	58.77	57.90	0.90
OPEC NGLs and non-conventionals	6.14	6.21	6.26	6.35	6.42	6.31	0.17
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>63.14</b>	<b>64.03</b>	<b>63.77</b>	<b>63.84</b>	<b>65.19</b>	<b>64.21</b>	<b>1.07</b>
<b>Difference (a-b)</b>	<b>32.28</b>	<b>31.64</b>	<b>32.51</b>	<b>33.95</b>	<b>33.31</b>	<b>32.86</b>	<b>0.58</b>
<b>OPEC crude oil production</b>	<b>32.64</b>	<b>32.11</b>	<b>32.28</b>	<b>32.73</b>	<b>32.40</b>	<b>32.38</b>	<b>-0.26</b>
<b>Balance</b>	<b>0.37</b>	<b>0.47</b>	<b>-0.23</b>	<b>-1.22</b>	<b>-0.92</b>	<b>-0.48</b>	<b>-0.85</b>

Note: \* 2017 = Estimate.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## Balance of supply and demand in 2018

**Demand for OPEC crude in 2018** remained unchanged from the previous report at 32.6 mb/d. This is 0.3 mb/d lower than the 2017 level.

Within the quarters, the second quarter was revised up by 0.3 mb/d, while the third was revised down by 0.3 mb/d when compared to the previous report. The first and the fourth quarters remained unchanged when compared to the previous month.

The first quarter is expected to fall by 0.1 mb/d versus the same quarter last year, while the second and the third quarters are expected to fall by 0.2 mb/d and 0.8 mb/d, respectively. The fourth quarter is remained unchanged, when compared to the same quarter in 2017.

**Table 10 - 2: Supply/demand balance for 2018\*, mb/d**

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17
<b>(a) World oil demand</b>	<b>97.07</b>	<b>97.40</b>	<b>97.84</b>	<b>99.38</b>	<b>100.13</b>	<b>98.70</b>	<b>1.63</b>
Non-OPEC supply	57.90	59.39	59.10	59.69	60.25	59.61	1.71
OPEC NGLs and non-conventionals	6.31	6.45	6.48	6.50	6.53	6.49	0.18
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>64.21</b>	<b>65.84</b>	<b>65.58</b>	<b>66.19</b>	<b>66.78</b>	<b>66.10</b>	<b>1.89</b>
<b>Difference (a-b)</b>	<b>32.86</b>	<b>31.56</b>	<b>32.27</b>	<b>33.19</b>	<b>33.35</b>	<b>32.60</b>	<b>-0.26</b>
<b>OPEC crude oil production</b>	<b>32.38</b>	<b>32.13</b>					
<b>Balance</b>	<b>-0.48</b>	<b>0.57</b>					

Note: \* 2018 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## Appendix

Table 11 - 1: World oil demand and supply balance, mb/d

	2014	2015	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
<b>World demand</b>													
<b>OECD</b>	45.8	46.4	46.9	47.0	46.9	47.7	47.9	47.4	47.5	47.2	48.0	48.3	47.8
Americas	24.2	24.6	24.7	24.6	25.0	25.1	25.1	25.0	24.9	25.2	25.4	25.4	25.2
Europe	13.5	13.8	14.0	13.8	14.2	14.7	14.4	14.3	14.0	14.3	14.8	14.5	14.4
Asia Pacific	8.1	8.1	8.1	8.6	7.7	7.9	8.4	8.2	8.6	7.7	7.9	8.4	8.2
<b>DCs</b>	30.1	30.8	31.4	31.5	31.9	32.3	32.0	31.9	32.2	32.6	33.0	32.7	32.6
<b>FSU</b>	4.7	4.6	4.6	4.6	4.4	4.8	5.1	4.7	4.7	4.5	4.9	5.2	4.8
<b>Other Europe</b>	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7
<b>China</b>	10.8	11.5	11.8	11.9	12.4	12.3	12.7	12.3	12.3	12.8	12.7	13.1	12.7
<b>(a) Total world demand</b>	<b>92.0</b>	<b>94.0</b>	<b>95.4</b>	<b>95.7</b>	<b>96.3</b>	<b>97.8</b>	<b>98.5</b>	<b>97.1</b>	<b>97.4</b>	<b>97.8</b>	<b>99.4</b>	<b>100.1</b>	<b>98.7</b>
<b>Non-OPEC supply</b>													
<b>OECD</b>	24.3	25.3	24.8	25.4	25.1	25.4	26.5	25.6	27.0	27.0	27.5	27.9	27.3
Americas	20.1	21.1	20.6	21.1	20.9	21.3	22.4	21.4	22.7	22.8	23.4	23.6	23.1
Europe	3.6	3.8	3.8	3.9	3.8	3.7	3.7	3.8	3.9	3.8	3.7	4.0	3.8
Asia Pacific	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
<b>DCs</b>	11.8	12.0	11.9	11.9	11.9	11.9	11.9	11.9	11.9	12.0	12.1	12.2	12.1
<b>FSU</b>	13.5	13.7	13.9	14.1	14.1	13.9	14.1	14.1	14.1	13.9	13.8	13.9	13.9
<b>Other Europe</b>	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
<b>China</b>	4.3	4.4	4.1	4.0	4.0	3.9	4.0	4.0	4.0	3.9	3.8	3.9	3.9
<b>Processing gains</b>	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
<b>Total non-OPEC supply</b>	<b>56.2</b>	<b>57.7</b>	<b>57.0</b>	<b>57.8</b>	<b>57.5</b>	<b>57.5</b>	<b>58.8</b>	<b>57.9</b>	<b>59.4</b>	<b>59.1</b>	<b>59.7</b>	<b>60.3</b>	<b>59.6</b>
<b>OPEC NGLs + non-conventional oils</b>	5.9	6.0	6.1	6.2	6.3	6.3	6.4	6.3	6.4	6.5	6.5	6.5	6.5
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>62.1</b>	<b>63.8</b>	<b>63.1</b>	<b>64.0</b>	<b>63.8</b>	<b>63.8</b>	<b>65.2</b>	<b>64.2</b>	<b>65.8</b>	<b>65.6</b>	<b>66.2</b>	<b>66.8</b>	<b>66.1</b>
<b>OPEC crude oil production (secondary sources)</b>	30.5	31.7	32.6	32.1	32.3	32.7	32.4	32.4	32.1				
<b>Total supply</b>	<b>92.6</b>	<b>95.5</b>	<b>95.8</b>	<b>96.1</b>	<b>96.1</b>	<b>96.6</b>	<b>97.6</b>	<b>96.6</b>	<b>98.0</b>				
<b>Balance (stock change and miscellaneous)</b>	0.6	1.5	0.4	0.5	-0.2	-1.2	-0.9	-0.5	0.6				
<b>OECD closing stock levels, mb</b>													
Commercial	2,706	2,989	3,002	3,033	3,019	2,970	2,853	2,853					
SPR	1,582	1,588	1,600	1,600	1,588	1,578	1,568	1,568					
<b>Total</b>	<b>4,288</b>	<b>4,577</b>	<b>4,602</b>	<b>4,632</b>	<b>4,607</b>	<b>4,548</b>	<b>4,420</b>	<b>4,420</b>					
<b>Oil-on-water</b>	924	1,017	1,102	1,043	1,052	998	998	998					
<b>Days of forward consumption in OECD, days</b>													
Commercial onland stocks	58.3	63.7	63.3	64.6	63.3	62.0	60.0	59.7					
SPR	34.1	33.9	33.8	34.1	33.3	32.9	33.0	32.8					
<b>Total</b>	<b>92.3</b>	<b>97.6</b>	<b>97.1</b>	<b>98.7</b>	<b>96.6</b>	<b>94.9</b>	<b>93.0</b>	<b>92.6</b>					
<b>Memo items</b>													
<b>(a) - (b)</b>	<b>29.9</b>	<b>30.2</b>	<b>32.3</b>	<b>31.6</b>	<b>32.5</b>	<b>33.9</b>	<b>33.3</b>	<b>32.9</b>	<b>31.6</b>	<b>32.3</b>	<b>33.2</b>	<b>33.3</b>	<b>32.6</b>

Note: Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 11 - 2: World oil demand and supply balance, changes from last month's table\*, mb/d

	2014	2015	2016	1Q17	2Q17	3Q17	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018
<b>World demand</b>													
<b>OECD</b>	-	-	-	-	-	-	0.1	-	0.1	-	-	0.1	0.1
Americas	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Europe	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>DCs</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>FSU</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Other Europe</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>China</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>(a) Total world demand</b>	-	-	-	-	-	-	0.1	-	0.1	-	-	0.1	0.1
<b>Non-OPEC supply</b>													
<b>OECD</b>	-	-	-	-	-	-	0.1	-	-	-0.2	0.3	0.2	0.1
Americas	-	-	-	-	-	-	0.1	-	-	-0.1	0.3	0.2	0.1
Europe	-	-	-	-	-	-	-	-	-	-0.1	0.1	-	-
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>DCs</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>FSU</b>	-	-	-	-	-	-	-	-	0.1	-0.1	-	-	-
<b>Other Europe</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>China</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Processing gains</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total non-OPEC supply</b>	-	-	-	-	-	-	0.1	-	0.1	-0.3	0.3	0.2	0.1
<b>OPEC NGLs + non-conventionals</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	-	-	-	-	-	-	0.1	-	0.1	-0.3	0.3	0.2	0.1
<b>OPEC crude oil production (secondary sources)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total supply</b>	-	-	-	-	-	-	0.1	-	-	-	-	-	-
<b>Balance (stock change and miscellaneous)</b>	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
<b>OECD closing stock levels (mb)</b>													
Commercial	-	-	17	1	1	-1	2	2	-	-	-	-	-
SPR	-	-	-	-	-	-	1	1	-	-	-	-	-
<b>Total</b>	-	-	17	1	1	-1	3	3	-	-	-	-	-
<b>Oil-on-water</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Days of forward consumption in OECD</b>													
Commercial onland stocks	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Memo items</b>													
<b>(a) - (b)</b>	-	-	-	-	-	-	-	-	-	0.3	-0.3	-	-

Note: \* This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the March 2018 issue.

This table shows only where changes have occurred.

Source: OPEC Secretariat.

Table 11 - 3: OECD oil stocks and oil on water at the end of period

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>4Q15</u>	<u>1Q16</u>	<u>2Q16</u>	<u>3Q16</u>	<u>4Q16</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>
<b>Closing stock levels, mb</b>												
<b>OECD onland commercial</b>	<b>2,989</b>	<b>3,002</b>	<b>2,853</b>	<b>2,989</b>	<b>3,039</b>	<b>3,076</b>	<b>3,084</b>	<b>3,002</b>	<b>3,033</b>	<b>3,019</b>	<b>2,970</b>	<b>2,853</b>
Americas	1,561	1,598	1,498	1,561	1,592	1,611	1,621	1,598	1,608	1,595	1,572	1,498
Europe	993	989	943	993	1,026	1,026	1,013	989	1,022	999	965	943
Asia Pacific	435	414	412	435	421	438	450	414	404	424	433	412
<b>OECD SPR</b>	<b>1,588</b>	<b>1,600</b>	<b>1,568</b>	<b>1,588</b>	<b>1,595</b>	<b>1,592</b>	<b>1,596</b>	<b>1,600</b>	<b>1,600</b>	<b>1,588</b>	<b>1,578</b>	<b>1,568</b>
Americas	697	697	665	697	697	697	697	697	694	681	676	665
Europe	475	481	480	475	478	474	477	481	484	484	479	480
Asia Pacific	416	421	423	416	419	421	421	421	422	423	423	423
<b>OECD total</b>	<b>4,577</b>	<b>4,602</b>	<b>4,420</b>	<b>4,577</b>	<b>4,633</b>	<b>4,668</b>	<b>4,679</b>	<b>4,602</b>	<b>4,632</b>	<b>4,607</b>	<b>4,548</b>	<b>4,420</b>
<b>Oil-on-water</b>	<b>1,017</b>	<b>1,102</b>	<b>998</b>	<b>1,017</b>	<b>1,055</b>	<b>1,094</b>	<b>1,068</b>	<b>1,102</b>	<b>1,043</b>	<b>1,052</b>	<b>998</b>	<b>998</b>
<b>Days of forward consumption in OECD, days</b>												
<b>OECD onland commercial</b>	<b>64</b>	<b>64</b>	<b>60</b>	<b>64</b>	<b>66</b>	<b>65</b>	<b>65</b>	<b>64</b>	<b>65</b>	<b>63</b>	<b>62</b>	<b>60</b>
Americas	63	65	60	63	65	64	65	65	64	64	62	60
Europe	73	72	68	73	74	71	71	72	72	68	68	68
Asia Pacific	51	48	48	51	55	56	54	48	52	54	52	48
<b>OECD SPR</b>	<b>34</b>	<b>34</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>33</b>	<b>33</b>	<b>33</b>
Americas	28	28	27	28	28	28	28	28	28	27	27	27
Europe	35	35	34	35	34	33	34	35	34	33	34	34
Asia Pacific	49	49	49	49	54	54	50	49	55	53	50	49
<b>OECD total</b>	<b>98</b>	<b>98</b>	<b>93</b>	<b>98</b>	<b>101</b>	<b>99</b>	<b>99</b>	<b>98</b>	<b>99</b>	<b>97</b>	<b>95</b>	<b>93</b>

Sources: Argus Media, Euroilstock, IEA, JODI, METI, OPEC Secretariat and US Energy Information Administration.



Table 11 - 4: Non-OPEC supply and OPEC natural gas liquids, mb/d

	2014	2015	2016	3Q17	4Q17	2017	Change 17/16	1Q18	2Q18	3Q18	4Q18	2018	Change 18/17
US	13.0	14.0	13.6	14.3	15.1	14.3	0.7	15.4	15.8	16.0	16.1	15.8	1.5
Canada	4.3	4.4	4.5	4.9	5.1	4.9	0.4	5.1	4.9	5.2	5.4	5.2	0.3
Mexico	2.8	2.6	2.5	2.2	2.1	2.2	-0.2	2.2	2.1	2.1	2.1	2.1	-0.1
<b>OECD Americas*</b>	<b>20.1</b>	<b>21.1</b>	<b>20.6</b>	<b>21.3</b>	<b>22.4</b>	<b>21.4</b>	<b>0.8</b>	<b>22.7</b>	<b>22.8</b>	<b>23.4</b>	<b>23.6</b>	<b>23.1</b>	<b>1.7</b>
Norway	1.9	1.9	2.0	1.9	1.9	2.0	0.0	2.0	1.9	1.8	2.0	1.9	-0.1
UK	0.9	1.0	1.0	1.0	1.0	1.0	0.0	1.1	1.1	1.1	1.2	1.1	0.1
Denmark	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Other OECD Europe	0.7	0.7	0.6	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
<b>OECD Europe</b>	<b>3.6</b>	<b>3.8</b>	<b>3.8</b>	<b>3.7</b>	<b>3.7</b>	<b>3.8</b>	<b>0.0</b>	<b>3.9</b>	<b>3.8</b>	<b>3.7</b>	<b>4.0</b>	<b>3.8</b>	<b>0.1</b>
Australia	0.4	0.4	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Other Asia Pacific	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
<b>OECD Asia Pacific</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.0</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.0</b>
<b>Total OECD</b>	<b>24.3</b>	<b>25.3</b>	<b>24.8</b>	<b>25.4</b>	<b>26.5</b>	<b>25.6</b>	<b>0.8</b>	<b>27.0</b>	<b>27.0</b>	<b>27.5</b>	<b>27.9</b>	<b>27.3</b>	<b>1.7</b>
Brunei	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
India	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.8	0.9	0.9	0.9	0.9	0.0
Indonesia	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.0
Malaysia	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.8	0.8	0.8	0.0
Thailand	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.0
Vietnam	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.2	0.2	0.2	0.2	0.0
Asia others	0.2	0.3	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
<b>Other Asia</b>	<b>3.6</b>	<b>3.7</b>	<b>3.7</b>	<b>3.6</b>	<b>3.6</b>	<b>3.6</b>	<b>-0.1</b>	<b>3.6</b>	<b>3.6</b>	<b>3.6</b>	<b>3.6</b>	<b>3.6</b>	<b>0.0</b>
Argentina	0.7	0.7	0.7	0.6	0.6	0.6	0.0	0.6	0.6	0.6	0.6	0.6	0.0
Brazil	2.9	3.1	3.1	3.3	3.3	3.3	0.2	3.3	3.4	3.6	3.7	3.5	0.2
Colombia	1.0	1.0	0.9	0.9	0.9	0.9	0.0	0.9	0.8	0.8	0.8	0.8	0.0
Trinidad & Tobago	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
L. America others	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
<b>Latin America</b>	<b>5.0</b>	<b>5.2</b>	<b>5.1</b>	<b>5.2</b>	<b>5.2</b>	<b>5.2</b>	<b>0.1</b>	<b>5.2</b>	<b>5.3</b>	<b>5.4</b>	<b>5.5</b>	<b>5.3</b>	<b>0.1</b>
Bahrain	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Oman	0.9	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Syria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle East</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>0.0</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>0.0</b>
Chad	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Congo	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.4	0.4	0.4	0.4	0.4	0.0
Egypt	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.6	0.7	0.0
Ghana	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.0
South Africa	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Sudans	0.3	0.3	0.3	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Africa other	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.1	0.1	0.2	0.0
<b>Africa</b>	<b>1.8</b>	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>0.1</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>0.0</b>
<b>Total DCs</b>	<b>11.8</b>	<b>12.0</b>	<b>11.9</b>	<b>11.9</b>	<b>11.9</b>	<b>11.9</b>	<b>0.0</b>	<b>11.9</b>	<b>12.0</b>	<b>12.1</b>	<b>12.2</b>	<b>12.1</b>	<b>0.2</b>
<b>FSU</b>	<b>13.5</b>	<b>13.7</b>	<b>13.9</b>	<b>13.9</b>	<b>14.1</b>	<b>14.1</b>	<b>0.2</b>	<b>14.1</b>	<b>13.9</b>	<b>13.8</b>	<b>13.9</b>	<b>13.9</b>	<b>-0.1</b>
Russia	10.7	10.8	11.1	11.1	11.1	11.2	0.1	11.2	11.0	11.0	11.0	11.0	-0.1
Kazakhstan	1.6	1.6	1.6	1.7	1.8	1.7	0.2	1.8	1.8	1.8	1.8	1.8	0.1
Azerbaijan	0.9	0.9	0.8	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.8	0.0
FSU others	0.4	0.4	0.4	0.3	0.3	0.4	0.0	0.3	0.3	0.3	0.3	0.3	0.0
<b>Other Europe</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>
<b>China</b>	<b>4.3</b>	<b>4.4</b>	<b>4.1</b>	<b>3.9</b>	<b>4.0</b>	<b>4.0</b>	<b>-0.1</b>	<b>4.0</b>	<b>3.9</b>	<b>3.8</b>	<b>3.9</b>	<b>3.9</b>	<b>-0.1</b>
<b>Non-OPEC production</b>	<b>54.0</b>	<b>55.6</b>	<b>54.8</b>	<b>55.3</b>	<b>56.6</b>	<b>55.7</b>	<b>0.9</b>	<b>57.1</b>	<b>56.9</b>	<b>57.4</b>	<b>58.0</b>	<b>57.4</b>	<b>1.7</b>
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	0.0	2.2	2.2	2.2	2.2	2.2	0.0
<b>Non-OPEC supply</b>	<b>56.2</b>	<b>57.7</b>	<b>57.0</b>	<b>57.5</b>	<b>58.8</b>	<b>57.9</b>	<b>0.9</b>	<b>59.4</b>	<b>59.1</b>	<b>59.7</b>	<b>60.3</b>	<b>59.6</b>	<b>1.7</b>
OPEC NGL	5.7	5.8	5.9	6.1	6.1	6.1	0.2	6.2	6.2	6.2	6.3	6.2	0.2
OPEC Non-conventional	0.3	0.3	0.2	0.3	0.3	0.2	0.0	0.3	0.3	0.3	0.3	0.3	0.0
<b>OPEC (NGL+NCF)</b>	<b>5.9</b>	<b>6.0</b>	<b>6.1</b>	<b>6.3</b>	<b>6.4</b>	<b>6.3</b>	<b>0.2</b>	<b>6.4</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>0.2</b>
<b>Non-OPEC &amp; OPEC (NGL+NCF)</b>	<b>62.1</b>	<b>63.8</b>	<b>63.1</b>	<b>63.8</b>	<b>65.2</b>	<b>64.2</b>	<b>1.1</b>	<b>65.8</b>	<b>65.6</b>	<b>66.2</b>	<b>66.8</b>	<b>66.1</b>	<b>1.9</b>

Note: \* OECD Americas includes Chile.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 11 - 5: World rig count, units

	2015	2016	2017	Change 2017/16	2Q17	3Q17	4Q17	1Q18	Feb 18	Mar 18	Change Mar/Feb
US	977	509	875	366	892	947	921	964	968	988	20
Canada	192	131	207	76	115	208	204	273	323	218	-105
Mexico	52	26	17	-8	23	18	12	19	19	21	2
OECD Americas	1,221	665	1,099	434	1,030	1,174	1,137	1,257	1,310	1,227	-83
Norway	17	17	15	-2	17	13	15	15	13	18	5
UK	14	9	9	0	9	11	6	6	7	6	-1
OECD Europe	117	96	92	-4	92	88	88	86	84	89	5
OECD Asia Pacific	17	7	15	9	17	15	16	16	16	17	1
<b>Total OECD</b>	<b>1,355</b>	<b>768</b>	<b>1,206</b>	<b>438</b>	<b>1,139</b>	<b>1,277</b>	<b>1,240</b>	<b>1,359</b>	<b>1,410</b>	<b>1,333</b>	<b>-77</b>
Other Asia*	202	180	186	6	182	178	199	196	194	187	-7
Latin America	145	68	70	2	62	75	82	80	84	77	-7
Middle East	102	88	74	-14	76	75	70	73	73	77	4
Africa	29	17	16	-1	17	17	15	16	15	17	2
<b>Total DCs</b>	<b>478</b>	<b>353</b>	<b>346</b>	<b>-7</b>	<b>337</b>	<b>346</b>	<b>365</b>	<b>365</b>	<b>366</b>	<b>358</b>	<b>-8</b>
<b>Non-OPEC rig count</b>	<b>1,833</b>	<b>1,121</b>	<b>1,552</b>	<b>431</b>	<b>1,477</b>	<b>1,622</b>	<b>1,606</b>	<b>1,724</b>	<b>1,776</b>	<b>1,691</b>	<b>-85</b>
Algeria	51	54	54	0	56	54	53	53	53	55	2
Angola	11	6	3	-4	3	2	2	3	4	3	-1
Ecuador	12	4	6	2	8	5	6	6	6	8	2
Equatorial Guinea**	1	1	1	0	1	1	1	1	1	1	0
Gabon	4	1	1	0	1	1	2	3	3	3	0
Iran**	54	59	61	2	61	61	61	61	61	61	0
Iraq**	52	43	49	6	49	54	52	58	58	60	2
Kuwait**	47	44	54	9	55	53	52	54	54	54	0
Libya**	3	1	1	0	1	1	1	1	1	1	0
Nigeria	30	25	28	3	28	27	28	32	35	31	-4
Qatar	8	8	10	2	11	10	7	8	9	9	0
Saudi Arabia	155	156	149	-7	150	148	147	145	148	144	-4
UAE	42	51	52	1	51	53	53	53	53	53	0
Venezuela	110	100	91	-9	95	89	85	88	89	86	-3
<b>OPEC rig count</b>	<b>579</b>	<b>552</b>	<b>558</b>	<b>6</b>	<b>568</b>	<b>561</b>	<b>550</b>	<b>566</b>	<b>575</b>	<b>569</b>	<b>-6</b>
<b>World rig count***</b>	<b>2,412</b>	<b>1,673</b>	<b>2,110</b>	<b>437</b>	<b>2,045</b>	<b>2,183</b>	<b>2,156</b>	<b>2,289</b>	<b>2,351</b>	<b>2,260</b>	<b>-91</b>
of which:											
Oil	1,750	1,189	1,541	352	1,503	1,608	1,591	1,727	1,780	1,716	-64
Gas	563	370	466	96	441	478	466	468	478	449	-29
Others	100	113	103	-10	101	98	98	94	93	95	2

Note: \* Other Asia includes Indonesia.

\*\* Estimated data when Baker Hughes Incorporated did not reported the data.

\*\*\* Data excludes China and FSU.

Totals may not add up due to independent rounding.

Sources: Baker Hughes Incorporated and OPEC Secretariat's estimates.

# Glossary of Terms

## Abbreviations

b	barrels
b/d	barrels per day
bp	basis points
bb	billion barrels
bcf	billion cubic feet
cu m	cubic metres
mb	million barrels
mb/d	million barrels per day
mmbtu	million British thermal units
mn	million
m-o-m	month-on-month
mt	metric tonnes
q-o-q	quarter-on-quarter
pp	percentage points
tb/d	thousand barrels per day
tcf	trillion cubic feet
y-o-y	year-on-year
y-t-d	year-to-date

## Acronyms

ARA	Amsterdam-Rotterdam-Antwerp
BoE	Bank of England
BoJ	Bank of Japan
BOP	Balance of payments
BRIC	Brazil, Russia, India and China
CAPEX	capital expenditures
CCI	Consumer Confidence Index
CFTC	Commodity Futures Trading Commission
CIF	cost, insurance and freight
CPI	consumer price index
DCs	developing countries
DoC	Declaration of Cooperation
DUC	drilled, but uncompleted (oil well)
ECB	European Central Bank
EIA	US Energy Information Administration
Emirates NBD	Emirates National Bank of Dubai
EMs	emerging markets
EV	electric vehicle
FAI	fixed asset investment
FCC	fluid catalytic cracking
FDI	foreign direct investment
Fed	US Federal Reserve
FID	final investment decision
FOB	free on board
FPSO	floating production storage and offloading
FSU	Former Soviet Union
FX	Foreign Exchange
FY	fiscal year
GDP	gross domestic product
GFCF	gross fixed capital formation
GoM	Gulf of Mexico
GTLs	gas-to-liquids
HH	Henry Hub
HSFO	high-sulphur fuel oil
ICE	Intercontinental Exchange
IEA	International Energy Agency
IMF	International Monetary Fund
INE	Shanghai International Energy Exchange
IOCs	international oil companies
IP	industrial production
ISM	Institute of Supply Management
LIBOR	London inter-bank offered rate
LLS	Light Louisiana Sweet
LNG	liquefied natural gas
LPG	liquefied petroleum gas
LR	long-range (vessel)
LSFO	low-sulphur fuel oil

MCs	(OPEC) Member Countries
MED	Mediterranean
MENA	Middle East/North Africa
MOMR	(OPEC) Monthly Oil Market Report
MPV	multi-purpose vehicle
MR	medium-range or mid-range (vessel)
NBS	National Bureau of Statistics
NGLs	natural gas liquids
NPC	National People's Congress (China)
NWE	Northwest Europe
NYMEX	New York Mercantile Exchange
OECD	Organisation for Economic Co-operation and Development
OPEX	operational expenditures
OIV	total open interest volume
ORB	OPEC Reference Basket
OSP	Official Selling Price
PADD	Petroleum Administration for Defense Districts
PBoC	People's Bank of China
PMI	purchasing managers' index
PPI	producer price index
RBI	Reserve Bank of India
REER	real effective exchange rate
ROI	return on investment
SAAR	seasonally-adjusted annualized rate
SIAM	Society of Indian Automobile Manufacturers
SRFO	straight-run fuel oil
SUV	sports utility vehicle
ULCC	ultra-large crude carrier
ULSD	ultra-low sulphur diesel
USEC	US East Coast
USGC	US Gulf Coast
USWC	US West Coast
VGO	vacuum gasoil
VLCC	very large crude carriers
WPI	wholesale price index
WS	Worldscale
WTI	West Texas Intermediate
WTS	West Texas Sour

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## OPEC Basket average price

US\$/b



up 0.28 in March

March 2018	63.76
February 2018	63.48
<b>Year-to-date</b>	<b>64.75</b>

## March OPEC crude production

mb/d, according to secondary sources



down 0.20 in March

March 2018	31.96
February 2018	32.16

## Economic growth rate

per cent

	World	OECD	US	Japan	Euro-zone	China	India
<b>2017</b>	3.8	2.5	2.3	1.7	2.5	6.9	6.3
<b>2018</b>	3.8	2.4	2.7	1.5	2.3	6.5	7.2

## Supply and demand

mb/d

<b>2017</b>		<b>17/16</b>	<b>2018</b>		<b>18/17</b>
World demand	97.1	1.7	World demand	98.7	1.6
Non-OPEC supply	57.9	0.9	Non-OPEC supply	59.6	1.7
OPEC NGLs	6.3	0.2	OPEC NGLs	6.5	0.2
<b>Difference</b>	<b>32.9</b>	<b>0.6</b>	<b>Difference</b>	<b>32.6</b>	<b>-0.3</b>

## OECD commercial stocks

mb

	<b>Dec 17</b>	<b>Jan 18</b>	<b>Feb 18</b>	<b>Feb 18/ Jan 18</b>	<b>Feb 17</b>
Crude oil	1,409	1,435	1,434	-0.5	1,534
Products	1,444	1,436	1,420	-16.9	1,527
<b>Total</b>	<b>2,853</b>	<b>2,871</b>	<b>2,854</b>	<b>-17.4</b>	<b>3,061</b>
Days of forward cover	60.2	60.2	60.6	0.5	65.2

Next report to be issued on 14 May 2018.