

# Contributors to the OPEC Monthly Oil Market Report

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# Oil Market Highlights

## Crude Oil Price Movements

In August, the OPEC Reference Basket declined by \$1.01 m-o-m, settling at \$72.26/b. Crude oil futures were also down for the month. Price declines were mainly due to worries that the ongoing global trade disputes would lower oil demand, strengthening US dollar, US stock builds and reported supply increases. ICE Brent was \$1.11 lower at \$73.84/b compared to the previous month, while NYMEX WTI was down \$2.74 at \$67.85/b and DME Oman dropped 24¢ to \$72.67/b. However, year-to-date (y-t-d) ICE Brent was still \$19.86 higher at \$72.00/b, while NYMEX WTI increased by \$17.12 to \$66.42/b and DME Oman was up \$18.70 at \$69.55/b. The Brent-WTI spread widened to average \$6.00/b. Speculative net long positions ended mixed, with those of NYMEX WTI lower. As for market structure, the backwardation in Dubai remained unchanged, while that of WTI eased. The contango structure for Brent for the rest of the year deepened amid increasing supplies. The discount of sour to sweet crudes decreased due to an anticipated tightening of sour crude, while sweet crude availability was ample.

## World Economy

The global GDP growth forecast remains at 3.8% for 2018 and 3.6% for 2019. In the OECD, growth in the US is assessed unchanged at 2.9% in 2018 and 2.5% in 2019. Euro-zone growth remains at 2.0% for 2018 and 1.9% for 2019. GDP growth in Japan is revised down by 0.1 pp to 1.1% in both 2018 and 2019. Meanwhile, in the non-OECD, India's forecast is revised up to 7.6% for 2018, while remaining unchanged at 7.4% for 2019. China's GDP growth remains at 6.6% for 2018 and 6.2% for 2019. Growth in Brazil is revised down by 0.4% to reach 1.2% in 2018, but a rebound to 2.0% is anticipated in 2019. Russia's GDP growth forecast is also revised lower to 1.6% in 2018 and down to 1.7% in 2019.

## World Oil Demand

In 2018, world oil demand is expected to grow by 1.62 mb/d, a minor downward revision from last month's projection. In the OECD region, oil demand saw healthy growth in all three main OECD regions, particularly in the Americas over 1H18. In contrast, the non-OECD region, mainly Latin America and the Middle East, saw weaker oil requirements in 1H18 as well as slower economic projections, which has led to a net downward revision of 20 tb/d from last month's report. Total oil demand for 2018 is now estimated at 98.82 mb/d. In 2019, world oil demand growth is forecast to rise by 1.41 mb/d, a minor downward adjustment of 20 tb/d from the previous month's assessment, mainly reflecting the less optimistic economic projections in the non-OECD regions of Latin America and the Middle East compared to last month. Total world oil demand in 2019 is now projected to surpass 100 mb/d for the first time and reach 100.23 mb/d.

## World Oil Supply

Non-OPEC oil supply in 2018 is expected to grow by 2.02 mb/d, a downward revision of 64 tb/d. The US, Canada, Kazakhstan the UK, and Brazil remain to be the main drivers for growth, while Mexico and Norway are projected to show the largest declines. Total non-OPEC supply for 2018 is now estimated at 59.56 mb/d. Non-OPEC oil supply in 2019 is forecast to grow by 2.15 mb/d, a minor upward revision of 17 tb/d. The US, Brazil, Canada, and the UK are expected to be the main growth drivers, while Mexico and Norway remain to be the largest declines. Non-OPEC supply is now forecast to average 61.71 mb/d for the year. OPEC NGLs in 2018 and 2019 are expected to grow by 0.12 mb/d and 0.11 mb/d to average 6.36 mb/d and 6.47 mb/d, respectively. In August, OPEC crude oil production increased by 278 tb/d to average 32.56 mb/d, according to secondary sources.

## Product Markets and Refining Operations

Refinery margins at all main trading hubs recorded gains in August as several refinery outages prompted product supply disruptions, which led to strengthening at the top and middle of the barrel. In the US, product markets strengthened, supported mainly by higher product exports, particularly to Latin America. In Europe, declining Amsterdam-Rotterdam-Antwerp product inventories resulted in tighter product balances, which provided substantial support to refining margins. Meanwhile in Asia, refining margins strengthened on the back of lower refinery intakes caused by unplanned shutdowns and bullish market sentiment.

### Tanker Market

In August, dirty vessel spot freight rates increased by 5% on average compared to a month earlier. This was mainly driven by higher freight rates for VLCC and Aframax, while average Suezmax freight rates showed a decline. Enhanced activity and delays on the US Gulf Coast (USGC) and Asia supported freight rates in August. In the clean tanker market, spot freight rates remained under pressure as high vessel availability continued, while tonnage demand remained limited, therefore resulting in rate declines in both the eastern and western directions of Suez.

### Stock Movements

Data for July showed that total OECD commercial oil stocks rose by 8.1 mb m-o-m, standing at 2,830 mb, which is 194 mb lower than a year ago and 43 mb below the latest five-year average, but remain 260 mb above the January 2014 level. Compared to the latest five-year average, crude stocks indicated a deficit of 0.2 mb, while product stocks witnessed a deficit of 43 mb. In terms of days of forward demand cover, OECD commercial stocks rose by 0.1 days m-o-m in July to stand at 59.1 days, which is 2.3 days below the latest five-year average.

### Balance of Supply and Demand

In 2018, demand for OPEC crude is expected at 32.9 mb/d, which is 0.5 mb/d lower than in the previous year. In 2019, demand for OPEC crude is forecast at 32.1 mb/d, around 0.9 mb/d lower than a year earlier.

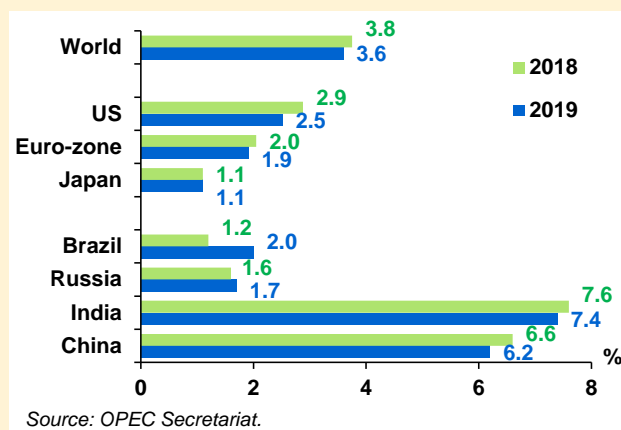
## Feature Article

### Review of global economic development

Global economic growth forecasts remain robust for 2018 and 2019, at 3.8% and 3.6%, respectively. However, despite the overall positive dynamic, growth trends between and within major regions are increasingly diverging. Underlying fragility has recently emerged in several areas and therefore the risk to 2018 and 2019 global economic forecasts is now more skewed to the downside. A combination of monetary tightening from G4 central banks, the weakening financial situations in some emerging and developing economies, rising trade tensions and ongoing geopolitical concerns in some parts of the world constitute challenges to the current global economic growth trend.

Within the OECD group of countries, the US economy continues to benefit from considerable fiscal stimulus implemented since the beginning of the year and the support of an ongoing relatively accommodative monetary policy. Growth is forecast at 2.9% for this year and 2.5% in 2019. Lower growth is seen in the Euro-zone, with 2.0% for 2018 and 1.9% next year. High sovereign debt levels in some economies, along with weakness in some areas of the banking sector remain a major concern, posing some risk to economic expansion in the Euro-zone. Japan is forecast to grow at a much lower level, at 1.1% for both 2018 and 2019. With the country's economy continuing to be constrained by very low unemployment and high utilisation rates in the industrial sector, the upside remains limited.

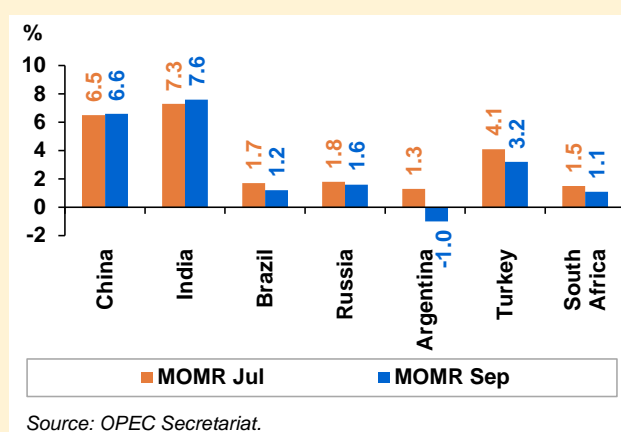
**Graph 1: GDP growth forecast for 2018 and 2019**



Monetary tightening by major OECD central banks is forecast to continue and could slow the growth trend not only in the OECD, but also in emerging and developing economies, particularly those with weak fiscal situations. A number of countries have already begun to face severe financial constraints, with a considerable impact from significant declines in currency exchange rates. This, in combination with weakening domestic activities in these economies, may also have a ripple effect on the global economy.

Brazil is forecast to show only moderate growth of 1.2% in 2018, followed by 2.0% in 2019, with the country facing weak domestic demand and the effects of currency depreciation. Russia's currency has also weakened, through a combination of sanctions and low domestic demand. GDP is forecast to see growth of 1.6% in 2018, followed by 1.7% in 2019, with oil sector-related income remaining of great importance to the economy. India's and China's economic growth are forecast at significantly higher levels, with respective 2018 growth forecasts of 7.6% and 6.6%, and then 7.4% and 6.2% in 2019.

**Graph 2: Revision 2018 GDP growth in Emerging and Developing Countries (EMDCs)**



It will be essential to monitor the uncertainty in currency and financial markets that may further pressure emerging economies, particularly in light of developments in Argentina, Turkey and South Africa. In fact, currency depreciation has extended to some degree elsewhere, for example, the Indian Rupee and this may create some challenges for oil imports. In addition, rising protectionism initiatives have added to the risks, in particular for emerging and developing economies.

At the same time, global oil demand is also following a similar divergent trend, with some regions – primarily the Middle East and Latin America – showing signs of weakening oil demand, while other countries are posting stronger demand numbers, namely the US, India and China.

Going forward, economic uncertainty, and hence questions surrounding global oil demand, coupled with geopolitical tensions, will need to be factored into maintaining a balanced market in the months to come. OPEC and the non-OPEC participating countries in the Declaration of Cooperation will continue to contribute to achieving market stability for the benefit of producers and consumers alike.



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## Crude Oil Price Movements

The OPEC Reference Basket (ORB) ended August lower, though remaining above \$70/b for the fourth month in a row. Apart from Ecuador's Oriente, ORB component values were down along with their respective crude oil benchmarks. Month-on-month (m-o-m), the ORB decreased by \$1.01 to \$72.26/b. Year-to-date (y-t-d) compared with 2017, the ORB has been \$19.82/b higher at \$69.55/b.

Oil futures prices slipped in August on worries that the escalating US-world trade dispute will lower oil demand, on the strengthening US dollar (USD), as well as on a US stock build and perceived supply glut. However, prices increased in the second half of the month on uncertainty over geo-political tension. ICE Brent averaged \$1.11 lower at \$73.84/b, while NYMEX WTI plunged \$2.74 to \$67.85/b and DME Oman dropped by 24¢ to \$72.67/b. Y-t-d, ICE Brent was \$19.86 higher at \$72.00/b, NYMEX WTI was \$17.12 higher at \$66.42/b and DME Oman was up \$18.70 at \$69.55/b. The ICE Brent and NYMEX WTI spread widened to \$6.00/b in August as crude stocks at Cushing continued to build gradually.

Net long positions in the NYMEX WTI dropped to 351,481 lots on 28 August, down by 35,283 contracts from the end of the previous month, and the long-to-short ratio decreased, but remained alarming at 17:1. Meanwhile, ICE Brent net length was up by 16,720 contracts to 389,066 lots and the long-to-short ratio increased from 9:1 to 11:1. The total futures and options open interest in the two exchanges was 197,965 contracts lower at 5.9 million contracts.

The backwarddated Dubai market structure remained unchanged on better Asian demand. The Brent contango deepened amid increasing supplies. In the US, WTI was still in backwardation, but the level eased significantly. Meanwhile, the sweet/sour spread narrowed amid anticipated sour crude tightening, healthy demand and strong fuel oil margins. A supply glut of light sweet oil also supported the narrowing of the spread.

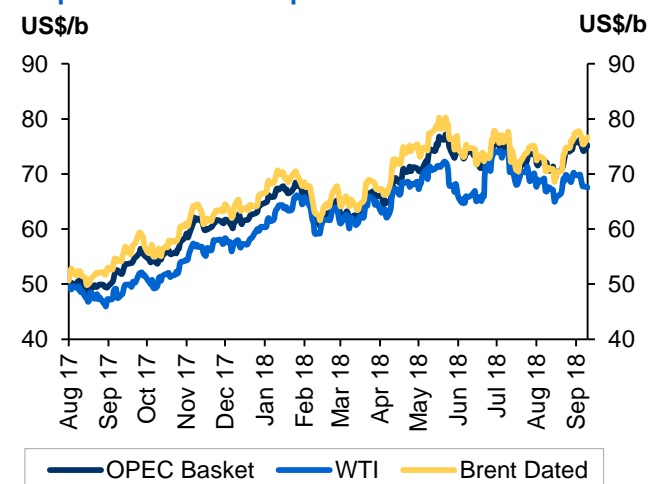
## OPEC Reference Basket

The **ORB** ended August lower, but remained above the \$70/b level for the fourth month in a row. Apart from Ecuador's Oriente, ORB component values were down along with their perspective crude oil benchmarks and lowered monthly OSP's for some grades.

On a monthly average basis, **crude oil physical benchmarks** Dubai, Dated Brent and WTI spot prices slipped by 62¢, \$1.69 and \$3.04, respectively.

Values of light, sweet crude **Basket components from West and North Africa**, including Saharan Blend, Es Sider, Girassol, Bonny Light, Equatorial Guinea's Zafiro, Gabon's Rabi and Congo's Djeno decreased on average by \$1.39, or 1.9%, m-o-m to \$72.02/b in August. In addition to a drop in the value of the Brent benchmark, these crudes fell as they competed with Mediterranean, North Sea and US crudes, particularly during the first half of the month. Their values improved in the second half of the month thanks to a pick-up in buying interest from some of the larger Asian refiners.

Graph 1 - 1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

## Crude Oil Price Movements

The performance of **Latin American ORB components** Venezuela's Meroy and Ecuador's Oriente was mixed, despite a sharp deterioration in the US benchmark. Meroy followed the WTI, ending the month sharply lower at \$67.38/b in August, down \$2.99, or 4.2%, m-o-m. Oriente was up by 28¢, or 0.4%, m-o-m at \$69.39/b in August.

The average value of **multiple-region destination grades** Arab Light, Basrah Light, Iran Heavy and Kuwait Export, which saw their OSPs reduced again on weaker backwardation in Dubai, slipped by 80¢, or 1.1%, m-o-m to \$71.69/b in August.

**Middle Eastern spot components** Murban and Qatar Marine also saw their values slipping in August by \$1.09, or 1.4%, m-o-m to \$74.91/b and by 61¢, or 0.8%, m-o-m to \$72.45/b, respectively.

M-o-m, the ORB value decreased by \$1.01, or 1.4%, to settle at \$72.26/b on a monthly average in August. Y-t-d, the ORB value was \$19.82, or 39.9%, higher at \$69.55/b compared with the same period in 2017.

On 11 September, the ORB stood at \$76.02/b, \$3.76 above the August average.

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

Basket	Jul 18	Aug 18	Change		Year-to-date	
			Aug/Jul	%	2017	2018
<b>Basket</b>	<b>73.27</b>	<b>72.26</b>	<b>-1.01</b>	<b>-1.4</b>	<b>49.73</b>	<b>69.55</b>
Arab Light	74.16	73.38	-0.78	-1.1	49.86	70.29
Basrah Light	72.02	71.10	-0.92	-1.3	49.15	68.33
Bonny Light	75.06	73.29	-1.77	-2.4	51.58	72.20
Djeno*	70.91	69.66	-1.25	-1.8	49.56	68.71
Es Sider	72.43	70.74	-1.69	-2.3	49.76	69.94
Girassol	74.40	73.20	-1.20	-1.6	51.45	71.67
Iran Heavy	71.44	70.46	-0.98	-1.4	49.27	67.94
Kuwait Export	72.33	71.82	-0.51	-0.7	49.04	68.41
Qatar Marine	73.06	72.45	-0.61	-0.8	50.49	69.17
Meroy	70.37	67.38	-2.99	-4.2	45.03	63.81
Murban	76.00	74.91	-1.09	-1.4	52.41	72.10
Oriente	69.11	69.39	0.28	0.4	47.05	66.28
Rabi Light	73.07	71.86	-1.21	-1.7	50.27	70.35
Sahara Blend	73.93	72.64	-1.29	-1.7	50.97	71.61
Zafiro	74.05	72.74	-1.31	-1.8	50.94	71.26
<b>Other Crudes</b>						
Dated Brent	74.33	72.64	-1.69	-2.3	51.29	71.34
Dubai	73.09	72.47	-0.62	-0.8	50.72	69.30
Isthmus	69.63	67.05	-2.58	-3.7	52.54	68.38
LLS	72.91	72.62	-0.29	-0.4	51.38	70.36
Mars	69.14	69.34	0.20	0.3	47.91	66.85
Minas	73.51	66.90	-6.61	-9.0	47.00	65.96
Urals	73.20	71.62	-1.58	-2.2	50.21	69.90
WTI	71.03	67.99	-3.04	-4.3	49.28	66.54
<b>Differentials</b>						
Brent/WTI	3.30	4.65	1.35	-	2.01	4.80
Brent/LLS	1.42	0.02	-1.40	-	-0.09	0.99
Brent/Dubai	1.24	0.17	-1.07	-	0.57	2.05

Note: \* As of June 2018, the ORB includes the Congolese crude "Djeno".

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

## The oil futures market

Despite an increase in oil prices during the second half of the month amid geo-political uncertainty, **crude oil futures** were down in August, on average. Global crude prices retreated as a softening economic outlook, amid the escalating US-world trade dispute, fuelled expectations of lower fuel demand. The OECD's composite leading indicator, which covers the advanced Western economies plus China, India, Russia, Brazil, Indonesia and South Africa, peaked in January, but has since fallen, slipping below the trend in May and June. World trade volume growth also peaked in January at almost 5.7% y-o-y, but nearly halved to less than 3% by May, according to the *Netherlands Bureau for Economic Policy Analysis*. In addition, oil prices edged lower on a strengthening US dollar. An unexpected 6.8 mb increase in US crude stocks during the second week of August and a recovery in Libyan crude production to just over 1 mb/d, up from 700 tb/d in July, also weighed on oil futures. The rise in crude inventories was driven by a combination of higher imports and a 100 tb/d increase in US crude production to 10.9 mb/d, supported by further shale drilling.

**ICE Brent** averaged \$1.11, or 1.5%, m-o-m lower in August at \$73.84/b, while **NYMEX WTI** plunged by \$2.74, or 3.9%, m-o-m to average \$67.85/b. Y-t-d, ICE Brent is \$19.86, or 38.1%, higher at \$72.00/b, while NYMEX WTI ascended by \$17.12, or 34.7%, to \$66.42/b.

**DME Oman** dropped only slightly over the month, as it was somewhat supported by the health of the Asian crude market. DME Oman dropped by 24¢, or 0.3%, in August to settle at \$72.67/b on a monthly average basis in August. Y-t-d, DME Oman was up by \$18.70, or 36.8%, at \$69.55/b, compared with last year.

Crude oil futures prices increased in the second week of August. On 11 September, ICE Brent stood at \$79.06/b and NYMEX WTI at \$69.25/b.

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

	Jul 18	Aug 18	Change		Year-to-date	
			Aug/Jul	%	2017	2018
<b>NYMEX WTI</b>	70.58	67.85	-2.74	-3.9	49.30	66.42
<b>ICE Brent</b>	74.95	73.84	-1.11	-1.5	52.14	72.00
<b>DME Oman</b>	72.92	72.67	-0.24	-0.3	50.84	69.55
<b>Transatlantic spread (ICE Brent-NYMEX WTI)</b>	<b>4.37</b>	<b>6.00</b>	<b>1.63</b>	<b>37.2</b>	<b>2.84</b>	<b>5.58</b>

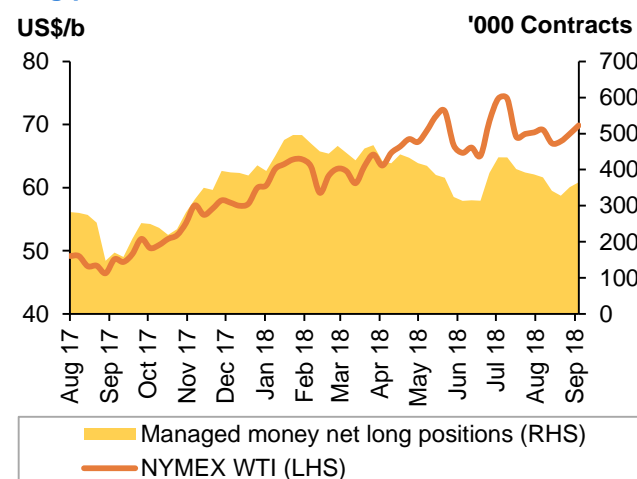
*Note: Totals may not add up due to independent rounding.*

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

A month-end snapshot of **speculative activities** showed that the NYMEX WTI net long positions were lower on 28 August than at the end of July, while those of ICE Brent were higher.

Money managers decreased its combined futures and options net long positions in the **NYMEX WTI** by 35,283 contracts, or 9.1%, to 351,481 contracts on 28 August, *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.*

## Crude Oil Price Movements

Regarding **ICE Brent**, after a hefty cut of near 18% last month, hedge funds and money managers raised their combined futures and options net long positions from 372,346 contracts to 389,066 lots, according to the *ICE Exchange*. The increase amounted to 16,720 contracts, or 9.1%.

The **long-to-short ratio** in ICE Brent speculative positions increased from 9:1 to 11:1. For NYMEX WTI, the ratio decreased further from an alarming 19:1 to 17:1. Total futures and options open interest volume in the two exchanges was again less by 197,965 lots, or 3.2%, at 5.9 million contracts.

Due to lower trading days and slower holiday activities, the **daily average traded volume** for NYMEX WTI contracts decreased once again by a hefty 243,087 lots, or 22.1%, to 854,829 contracts, while that of ICE Brent was once again lower by 147,232 contracts, down 17%, at 717,632 lots.

**Daily aggregate traded volume** for both crude oil futures markets decreased by 390,319 contracts, or 19.9%, to 1.57 million futures contracts, or about 1.6 billion b/d of crude oil. The total traded volume in NYMEX WTI was 14.7% lower at 19.7 million contracts, while that of ICE Brent was 13.3% lower at 16.5 million contracts.

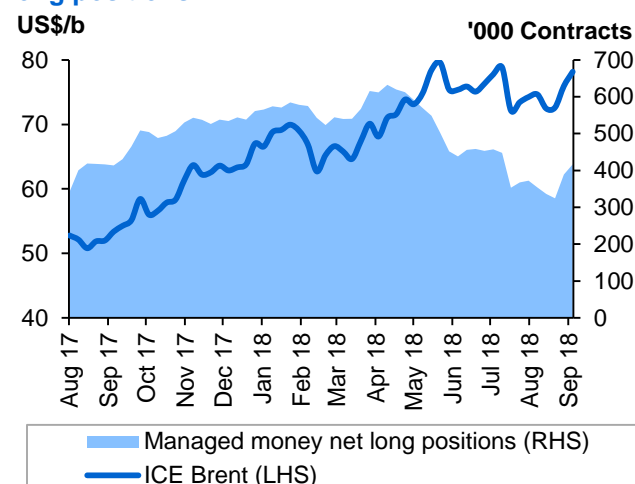
## The futures market structure

**Dubai's** backwardated market structure remained almost unchanged in August as Asian demand for winter stocking and to secure alternative supplies swelled over the month.

Arbitrage supplies also eased as **Brent's** premium started widening back to normal levels. The Brent contango deepened amid increasing light sweet crude supplies with the return of Libyan crudes and US arbitrage volumes to Europe.

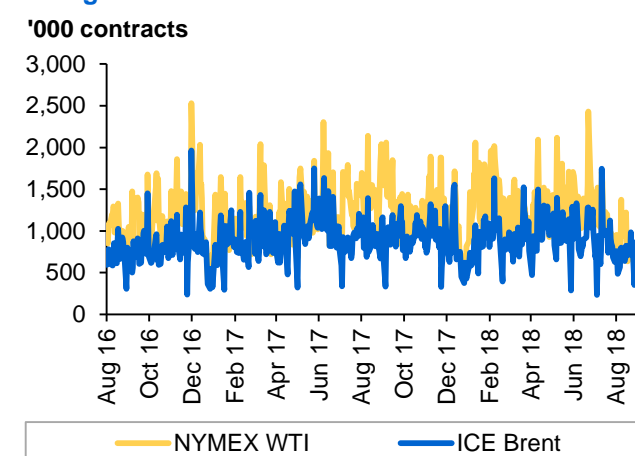
In the US, **WTI** was still in backwardation, but the level eased significantly from last month, as supplies at Cushing gradually increased with the restart of a major pipeline from Canada.

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



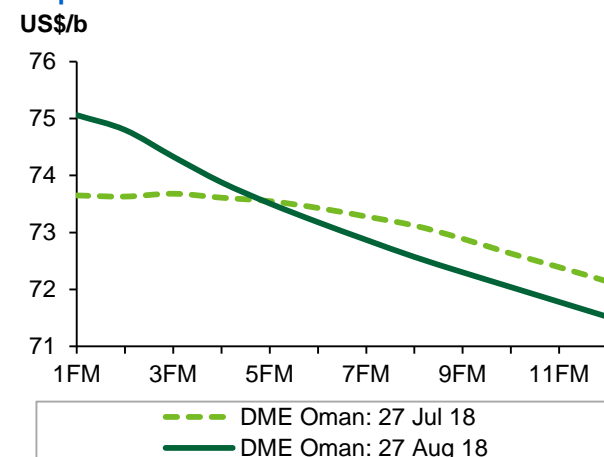
Sources: Intercontinental Exchange and OPEC Secretariat.

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



Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

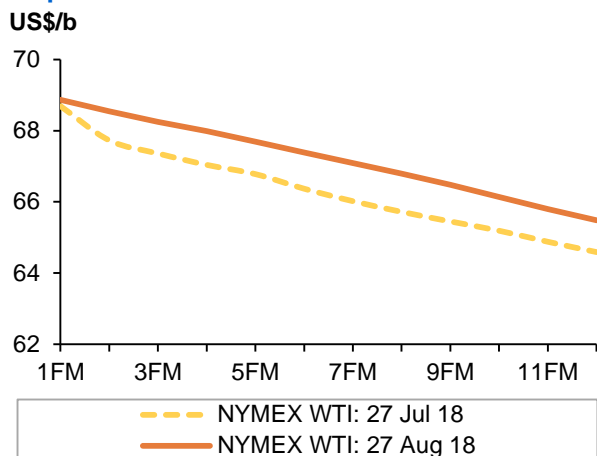
**Graph 1 - 5: DME Oman forward curves**



Note: FM = future month.

Sources: Dubai Mercantile Exchange and OPEC Secretariat.

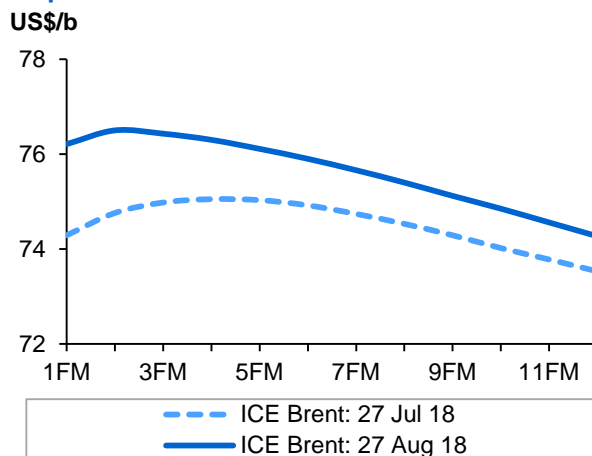
Graph 1 - 6: NYMEX WTI forward curves



Note: FM = future month.

Sources: CME Group and OPEC Secretariat.

Graph 1 - 7: ICE Brent forward curves



Note: FM = future month.

Sources: Intercontinental Exchange and OPEC Secretariat.

Regarding the **M1/M3 structure**, the North Sea Brent M1/M3 contango increased to 67¢/b, deteriorating 58¢ from 9¢ in the previous month. The Dubai M1/M3 48¢/b premium decreased to a 46¢/b premium, a 3¢ drop. In the US, the WTI M1/M3 backwardation of \$3.17 retreated to \$1.15, narrowing by \$2.03.

The **spread between the ICE Brent and NYMEX WTI benchmarks** widened as crude stocks at Cushing continued to build. This supported the arbitrage economics of US crudes to Asia and Europe, resulting in increased US crude exports over the month.

The first-month ICE Brent/NYMEX WTI spread widened by \$1.63/b in August to \$6.00/b from \$4.37/b a month earlier.

Table 1 - 3: NYMEX WTI and ICE Brent forward curves, US\$/b

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	27 Jul 18	68.69	67.73	67.36	66.37	64.59	-4.10
	27 Aug 18	68.87	68.54	68.25	67.39	65.48	-3.39
	<b>Change</b>	<b>0.18</b>	<b>0.81</b>	<b>0.89</b>	<b>1.02</b>	<b>0.89</b>	<b>0.71</b>
ICE Brent	27 Jul 18	74.29	74.76	74.98	74.92	73.53	-0.76
	27 Aug 18	76.21	76.50	76.43	75.90	74.27	-1.94
	<b>Change</b>	<b>1.92</b>	<b>1.74</b>	<b>1.45</b>	<b>0.98</b>	<b>0.74</b>	<b>-1.18</b>
DME Oman	27 Jul 18	73.65	73.63	73.68	73.43	72.14	-1.51
	27 Aug 18	75.06	74.80	74.33	73.18	71.52	-3.54
	<b>Change</b>	<b>1.41</b>	<b>1.17</b>	<b>0.65</b>	<b>-0.25</b>	<b>-0.62</b>	<b>-2.03</b>

Note: FM = future month.

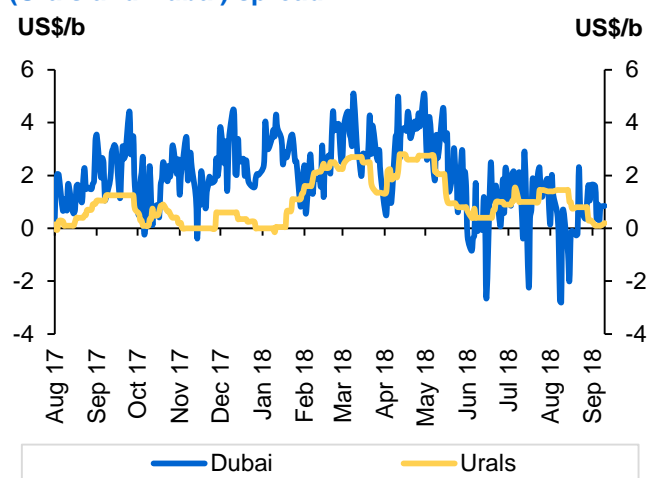
Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

## The light sweet/medium sour crude spread

All global sour crude discounts to sweet crudes decreased amid an anticipated sour crude tightening alongside healthy demand and strong fuel oil margins. Supply gluts of light sweet oil also supported the narrowing of the spread.

In **Europe**, the light sweet North Sea Brent premium to Urals medium sour crude fell on improving Urals fundamentals and deteriorating North Sea grades. The spread decreased by 11¢, to the advantage of Urals, to \$1.02/b. Urals differentials improved on tight supply of medium-sour grades and higher demand for grades in the region. Low Urals availability in September, along with high demand from Asian buyers, lifted the Russian grade to record price levels since the start of the year. Strong refinery margins and possible arbitrage for the grade to Asia were also supportive. Meanwhile, Brent crude weakened as a surplus of light sweet crude continued to build in the North Sea and the selling of cargoes from floating storage dominated.

**Graph 1 - 8: Brent Dated vs. sour grades (Urals and Dubai) spread**



Sources: Argus Media, OPEC Secretariat and Platts.

In **Asia**, the Tapis premium over Dubai narrowed. Despite firm middle distillate margins, the Asia Pacific crude market weakened against Dubai on profitable arbitrage from the West. Towards the end of the month, Middle East crude benchmark Dubai firmed as a widening spread with Brent made Dubai-linked grades more attractive for Asian refiners. Brent's premium to Dubai reached \$2.15/b. During the first half of the month, Brent was at a discount of 25¢/b to Dubai, while in the second half the spread flipped, and Brent was at a premium of 50¢/b to Dubai. For the monthly average, the Dated Brent/Dubai spread shrank by \$1.07 to 17¢/b from \$1.24/b the previous month. The Tapis/Dubai spread narrowed by 76¢ to \$2.23/b.

On the **US Gulf Coast**, the Light Louisiana Sweet (LLS) premium over medium sour Mars slipped again by 49¢ to \$3.28/b amid demand for the grade from exporters. Meanwhile, both Mars Sour and LLS differentials relative to WTI futures improved by around \$3/b as the US crude futures discount to global benchmark Brent widened. Furthermore, WTI at Midland traded as low as \$18/b below WTI futures, the lowest level since August 2014, as pipeline capacity remains limited and Permian's output is expected to rise to 3.43 mb/d in September.

## The impact of the US dollar and inflation on oil prices

On average, the **US dollar** further strengthened in August, particularly against emerging market currencies. The US economy's strong performance continues to support a relatively faster pace of monetary tightening by the US Federal Reserve, compared with other major central banks, which generally supports the dollar.

Against the euro, the dollar advanced on average by 1.2% in August and is up by 2.5% so far this year. The dollar gained 2.3%, up 4.3% y-t-d, against the pound sterling, despite a rate hike by the Bank of England at the beginning of the month, with uncertainties related to the outcome of the Brexit negotiations continuing to drive currency movements. In contrast, the dollar declined against the Swiss franc, down on average by 0.7% m-o-m, and against the Japanese yen the US dollar lost 0.3% over the month.



The aforementioned monetary tightening by the US Fed has put pressure on **emerging economies**, especially those facing relatively large external short-term financing needs. This has translated into some significant currency depreciation in August, specifically in the case of Turkey and Argentina. The dollar rose m-o-m by 24.2% against the Turkish Lira – up by 54.6% y-t-d – with the threat of potential sanctions from the US adding to Turkey’s ongoing external balance problems. Against the Argentinian peso, the US dollar rose m-o-m by 9.1%, although in the final week of the month the dollar jumped around 20%, which triggered an increase in Argentina’s Central Bank policy rate from 45% to 60%.

On average in August, the US dollar advanced against the Chinese yuan by 2.1% m-o-m and is currently up by 3.8% y-t-d. The appreciation against the yuan eased somewhat in the middle of the month, on the prospect of renewed trade talks between the US and China. The dollar advanced by 1.2% m-o-m against the Indian rupee and is up by 8.3% y-t-d. At the beginning of the month the dollar advanced an additional 3%, in line with the other emerging market currencies correction.

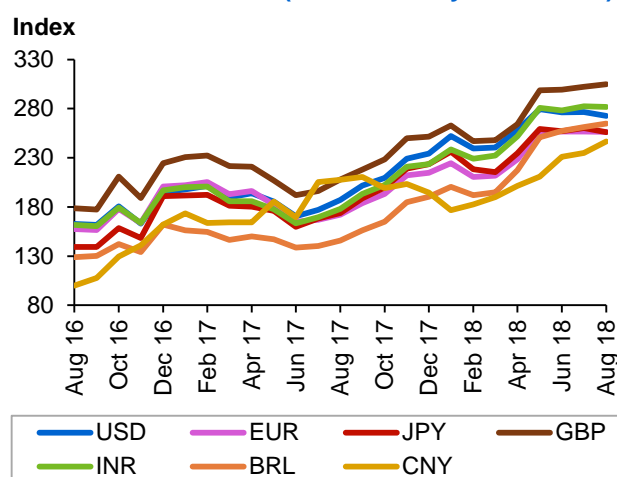
Against **commodity exporters’ currencies**, the dollar advanced by 2.6% m-o-m against the Brazilian real and is up 19.4% this year. This is mainly on the uncertainty surrounding the upcoming elections, as well as the weakness of the Argentinean economy, which is one of its main trading partners. Against the Russian ruble, the dollar increased by 5.1% in August and is up by 12.8% this year on the potential of additional sanctions.

Against the **North American Free Trade Agreement (NAFTA)** member currencies, the US dollar decreased on average by 1.6% m-o-m against the Mexican peso and is down by 1.3% y-t-d on the prospect of a revised trade deal between the US and Mexico. The US dollar also declined on average against the Canadian dollar by 0.7%, but toward the end of the month it strengthened as no major breakthroughs have emerged from trade renegotiations with Canada.

In **nominal terms**, the price of the ORB decreased by \$1.01, or 1.4% over the month, from \$73.27/b in July to \$72.26/b in August.

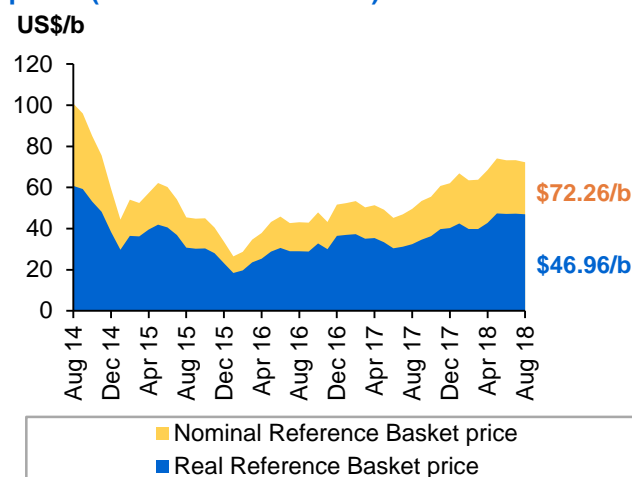
In **real terms**, after accounting for inflation and currency fluctuations, the ORB decreased to \$46.96/b in August, from a revised \$47.26/b (base June 2001=100) the previous month. Over the same period, the USD increased by 0.8% against the import-weighted modified Geneva I + USD basket<sup>1</sup>, while inflation increased by 0.1% m-o-m.

**Graph 1 - 9: ORB crude oil price index comparing to different currencies (Base January 2016 = 100)**



Sources: IMF and OPEC Secretariat.

**Graph 1 - 10: 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 + USD 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 August, the price of energy commodities was mixed, with declines in crude oil and coal, while natural gas prices increased. In the group of non-energy commodities, metal prices declined – albeit at a lower rate than the previous month – on ongoing concerns about slowing global manufacturing expansion. Precious metals also further declined due to the impact of higher interest rates in the US.*

### Trends in selected commodity markets

**Average energy prices** decreased by around 1.7% m-o-m in August. Year-to-date in August, energy prices were on average around 34% higher than for the same period last year.

**Table 2 - 1: Commodity prices**

Commodity	Unit	Monthly averages			% Change	Year-to-date	
		Jun 18	Jul 18	Aug 18	Aug 18/Jul 18	2017	2018
<b>Energy*</b>		<b>90.9</b>	<b>91.8</b>	<b>90.3</b>	<b>-1.7</b>	<b>65.4</b>	<b>87.3</b>
Coal, Australia	US\$/mt	114.8	119.6	117.3	-1.9	83.7	107.4
Crude oil, average	US\$/b	72.0	72.7	71.1	-2.2	50.6	69.0
Natural gas, US	US\$/mmbtu	2.9	2.8	3.0	5.8	3.0	2.9
Natural gas, Europe	US\$/mmbtu	7.5	7.8	7.9	1.5	5.4	7.5
<b>Non-energy*</b>		<b>87.9</b>	<b>84.1</b>	<b>82.7</b>	<b>-1.7</b>	<b>83.1</b>	<b>87.1</b>
<b>Base metal*</b>		<b>96.8</b>	<b>88.0</b>	<b>85.6</b>	<b>-2.8</b>	<b>81.4</b>	<b>93.7</b>
<b>Precious metals*</b>		<b>98.7</b>	<b>95.1</b>	<b>92.0</b>	<b>-3.2</b>	<b>97.1</b>	<b>99.3</b>

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

Source: OPEC Secretariat, World Bank, Commodity price data.

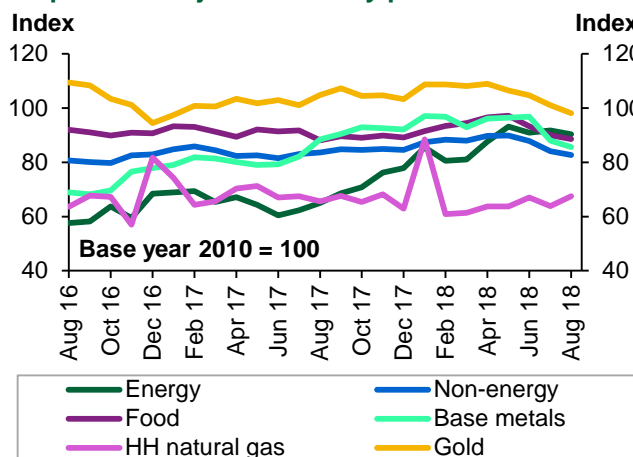
In August, the **Henry Hub natural gas index** increased by 16¢, or 5.8%, compared with the previous month to average \$2.96/mmbtu. Prices were supported by persistent above-average temperatures for the first weeks of the month, which translated into a string of below-average increases in storage. According to the US Energy Information Administration (EIA), injections to underground storage are 17% lower than average this year. However, prices receded towards the end of the month on the arrival of cooler temperatures, which reduced demand and resulted in greater addition to storage in the last week of the month. The EIA reported that utilities added 63 bcf to working gas underground storage during the week ending 31 August. The median analysis expectation was for a 62 bcf build. The build left total working gas in underground storage at 2,568 bcf, which was 18.7% lower than the previous five-year average. One month ago it was 19.7% lower than the five-year average. Despite low inventory levels, the market continued to focus on production of around 10% higher than in the previous year and low inventory levels were mostly not considered.

On the other hand, **natural gas prices in Europe** increased in August, with border prices up by 1.5% to \$7.9/mmbtu. Spot prices also surged, supported by sustained demand due to higher temperatures, which has resulted in less underground storage and a jump in the carbon emissions price, in turn supporting a switch from coal to gas. Natural gas inventories for EU Member States were at around 74.1% of capacity at the end of August – last year's July level was around 77.1% according to Gas Infrastructure Europe. Inventory levels have increased significantly from lows seen at the end of March, when they were at just 18.4%, after being decimated by a series of winter blasts.



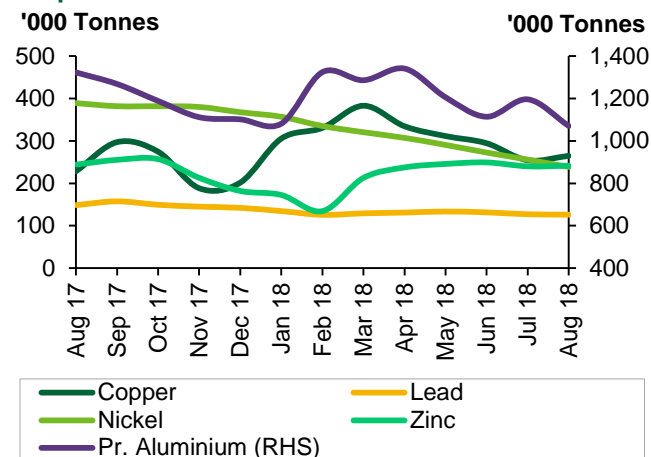
**Thermal coal prices** decreased to an average of \$117.3/mt in August, or 1.9% m-o-m, but still remain close to the five-year highs achieved last month. Prices have been supported by rising demand for power generation in East Asia due to heat waves. In China, thermal power output increased by 7.3% from January to July compared with the previous year according to the National Bureau of Statistics, but the rate of growth was lower in July, down to 4.3% from 8% y-o-y in June. At the same time, restrictions in coal mining activities continued to limit output in China, which increased by 3.4% in the January to July period, but declined by 2.0% y-o-y in July. This situation continued to generate large imports from Australia and Indonesia. Though import volumes from China were only up by 1.1% in August from July, they were higher by 13.5% y-o-y and 14.7% in the January to August period y-o-y.

**Graph 2 - 1: Major commodity price indices**



Sources: World Bank: Commodity price data, S&P Goldman Sachs, Haver Analytic and OPEC Secretariat.

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



Sources: London Metal Exchange, Thomson Reuters and OPEC Secretariat.

**Base metal prices** fell for the second consecutive month, adding a 2% drop to July's fall of around 10%. The broad-based decline saw all components fall in price. Prices remained weakened by the prospect of slower expansion in global manufacturing, the potential for amplification in trade disputes and receding threats of supply disruption. However, prices recovered some ground from lows seen at the beginning of the month on news of talks between US and Chinese officials to avoid a further escalation in their trade disputes. Manufacturing prospects continued to slow, as shown by the JP Morgan Global Manufacturing Purchasers Managers' Index, reaching a 21-month low of 52.5 in August, with the new export sub-component remaining at 50.3, close to the 50 expansion/contraction mark. Copper prices declined by 3.2% due to the aforementioned factors, but also on receding fears of a strike at the Escondida mine in Chile. In August, China's imports of unwrought copper declined by 6.7% m-o-m, but were up by 7.7% compared with the same month a year earlier; in July they were up by 15.9% y-o-y, and by 16.2% y-t-d. Aluminium prices declined by around 1.5% over the month due to trade-related and global manufacturing concerns. They were also weakened by a surge in exports from China, which were up by 1.4% in August, and by 15.2% in the January to August time frame. Aluminium prices returned the gains associated with sanctions against Russian aluminium producers three months ago; uncertainty remains about their final implementation.

In the group of **precious metals**, gold prices declined on average by 2.9%, with the prospect of rising US interest rates weakening prices. Speculators further increased their net short position in gold. Meanwhile, platinum prices declined by 3.3% and silver prices dropped by 4.7%.

## Investment flows into commodities

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

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

	Open interest		Net length			
	Jul 18	Aug 18	Jul 18	% OI	Aug 18	% OI
Crude oil	2,423	2,287	404	17	350	15
Natural gas	1,511	1,584	64	4	150	9
Precious metals	708	712	-24	-3	-104	-15
Copper	292	269	-16	-6	-28	-10
<b>Total</b>	<b>4,935</b>	<b>4,852</b>	<b>190</b>	<b>14</b>	<b>189</b>	<b>5</b>

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

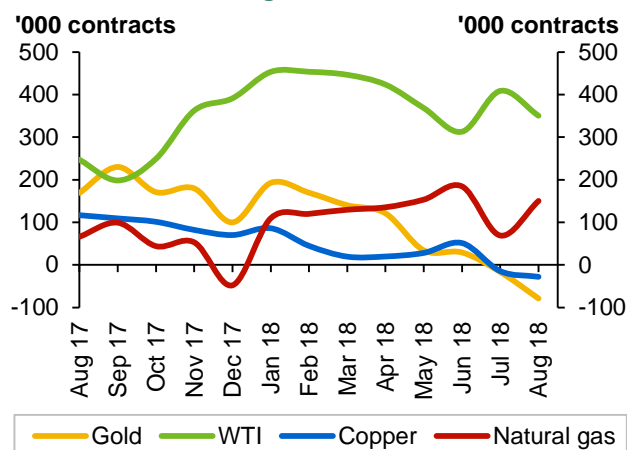
Sources: US Commodity Futures Trading Commission and OPEC Secretariat.

**Henry Hub's natural gas OI** increased in August by 4.1%, while money managers' average net long positions increased significantly by around 1.3 times m-o-m to 150,280 contracts.

Copper's OI declined in August by 7.9%. In terms of the monthly average, money managers increased their net short position by 70% to an average of 27,956 contracts.

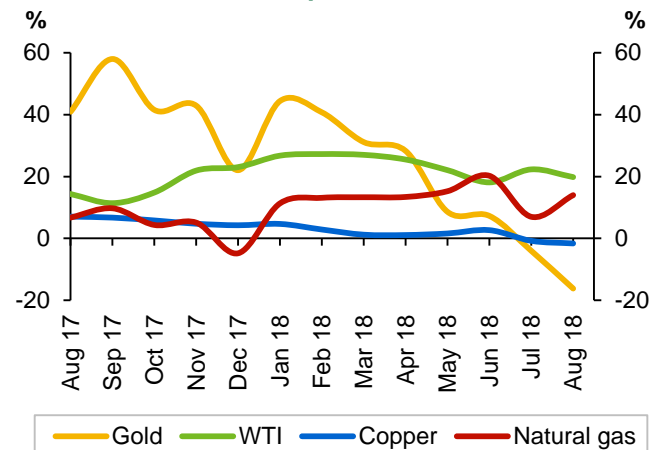
Precious metals' OI was relatively flat. Money managers sharply increased – by 3.3 times – their net short position of 103,733 lots, with increased net short positions in both gold and silver.

**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

Global economic growth forecasts remain robust for 2018 and 2019, at 3.8% and 3.6%, respectively. While the growth levels are unchanged from last month, a number of offsetting developments, particularly rising challenges in some emerging and developing economies, are skewing the current global economic growth risk forecast to the downside. Rising trade tensions, and the consequences of further potential monetary tightening by G4 central banks, in combination with rising global debt levels, are additional concerns.

While the 2018 and 2019 OECD growth forecasts are at a still solid 2.4% and 2.1%, respectively, growth levels and trends within the OECD group of countries differ significantly. The US shows very high growth in both years of the forecast period at 2.9% in 2018 and 2.5% in 2019, mainly supported by solid underlying growth momentum in combination with considerable fiscal stimulus. The Euro-zone has a less dynamic growth expansion at 2.0% in 2018 and 1.9% in 2019. The region remains challenged by high sovereign debt levels in several economies and an ongoing weakness in some areas of the banking system. Japan exhibits low growth of 1.1% in both forecast years, with a downward revision of 0.1 percentage points (pp) in both years compared to last month, as the economy continues to face soft domestic demand and some external trade related weakness.

In emerging and developing economies, an increasing divergence has become visible too. After a stronger-than-expected 1H18, India's 2018 growth was revised up to 7.6%, with 7.4% forecast in 2019. China's economic growth forecast also remains well supported at 6.6% in 2018 and 6.2% in 2019. Brazil and Russia, however, have seen their numbers revised down from the previous month. Brazil is forecast to show only moderate growth of 1.2% in 2018, followed by 2.0% in 2019, with the country facing weak domestic demand and a softening currency. Russia's currency has also weakened, through a combination of external challenges and low domestic demand, with the GDP forecast now at 1.6% in 2018, followed by 1.7% in 2019. Challenges in Argentina, South Africa and others are adding to the concerns in this group of countries.

**Table 3 - 1: Economic growth rate and revision, 2018-2019\*, %**

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
<b>2018</b>	<b>3.8</b>	<b>2.4</b>	<b>2.9</b>	<b>1.1</b>	<b>2.0</b>	<b>1.3</b>	<b>6.6</b>	<b>7.6</b>	<b>1.2</b>	<b>1.6</b>
Change from previous month	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.3	-0.4	-0.2
<b>2019</b>	<b>3.6</b>	<b>2.1</b>	<b>2.5</b>	<b>1.1</b>	<b>1.9</b>	<b>1.4</b>	<b>6.2</b>	<b>7.4</b>	<b>2.0</b>	<b>1.7</b>
Change from previous month	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1

Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

## OECD

### OECD Americas

#### US

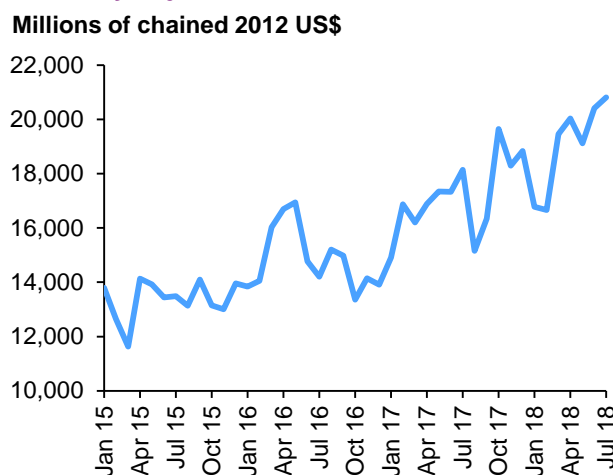
US growth remains very robust, with **2Q18 GDP growth** at 4.2% quarter-on-quarter (q-o-q) at a seasonally adjusted annualized rate (SAAR) in the second of three estimates. This is slightly above the first estimate of 4.1% q-o-q SAAR. Moreover, lead indicators and ongoing improvements in the labour market situation point to a continuation of this positive trend. Consumption and exports were confirmed to have supported 2Q18 growth significantly. Private household consumption expanded by 3.8% q-o-q SAAR, contributing 2.6 pp to total 2Q18 GDP growth. Net exports provided a 1.1 pp growth contribution as exports expanded by 9.1% y-o-y, while imports fell by 0.4%. Moreover, the ongoing strength in the labour market is forecast to continue, which will support private household consumption for the remainder of the year. Rising trade barriers may also lead to ongoing contributions from net exports.

The general positive dynamic is expected to be maintained by a variety of support factors. Underlying growth has been solid, with considerable improvements already seen in 2017. Moreover, the additional stimulus factor of a tax cut and fiscal spending have accentuated this trend, and despite a tightening monetary policy by the Fed, it can still be viewed as relatively accommodative given a healthy inflation level of around 2%. This momentum is forecast to be carried over to some extent into 2019, although it is forecast to taper off slightly as monetary tightening is anticipated to continue with the effect of dampening growth towards a US growth potential of around 2%. However, strong growth in the remainder of 2018, in combination with well supported inflation, may lead the Fed to push a more substantial tightening path, which will probably dampen growth going forward. In addition, rising uncertainties about trade barriers could knock the future growth momentum.

Trade in oil products has continued to support US economic development. July's petroleum product exports rose to \$20.81 billion, a significant increase of 14.7% y-o-y. This marks the highest export value on record in this category. As the oil market is forecast to remain healthy, energy sector-related investments are likely to continue, supporting US GDP growth.

Further improvements in the labour market were seen in August. The **unemployment rate** remained at a low 3.9%. The average hourly earnings growth for the private sector stood at the highest rate since 2009, at 2.9% y-o-y. Long-term unemployment moved back to 21.5%, while the participation rate retracted slightly to 62.7%. **Non-farm payrolls** increased by 201,000 in August, after a downwardly revised 147,000 in July.

**Graph 3 - 1: US petroleum exports, seasonally adjusted**



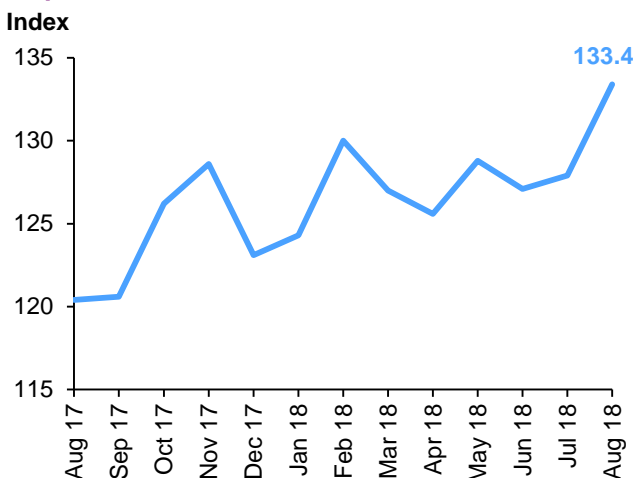
Sources: Census Bureau and Haver Analytics.

It is forecast that the Fed will continue its monetary tightening as **inflation** numbers rose again in July. Overall inflation stood at 2.9% in July, compared to 2.8% in June. The important core inflation – excluding volatile items, such as food and energy – increased to 2.3%, still a healthy level. Additionally, the Fed's favoured inflation index, the personal consumption expenditure price index (PCE index) rose to 2.3% in July, compared to 2.2% in June, above the Fed's inflation target of around 2%.

The overall economy's strength was also reflected in **consumer sentiment**, according to the index published by the Conference Board. The index stood at 133.4 in August. This is a strong rise of 5.5 index points from July, lifting it to its highest level since 2000. With this strong support in consumer confidence over all the past months, domestic demand held up very well in July, with retail sales growing by 6.4% y-o-y, compared to 6.1% y-o-y in June, on a nominal and seasonally adjusted basis.

**Industrial production** also increased considerably in July, rising by 4.2% y-o-y, compared to an already high level of 4.0% in June, on a seasonally adjusted basis.

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



Sources: The Conference Board and Haver Analytics.

June's **Purchasing Managers' Index (PMI)**, as provided by the Institute of Supply Management (ISM), also indicated strong support for the underlying economy for both the services and the manufacturing sector. The manufacturing PMI stood at 61.3 in August, compared to 58.1 in July. The important index for the services sector rose to 58.5 in August, compared to 55.7 in July.

Depending on the currently strong 3Q18 growth momentum, there may still be some room to the upside for US economic growth. For the time being, however, the US GDP growth forecast remains unchanged for both 2018 and 2019. The GDP growth forecast for 2018 is at 2.9% and for 2019 it is 2.5%.

The moderation in US growth levels for 2019 is driven in part by fiscal and monetary challenges. Importantly, the fiscal deficit, in combination with the considerable momentum in the economy, is forecast to lead to further monetary tightening, which will likely counterbalance some of the economic growth dynamic.

## Canada

GDP expanded at a healthy level of 2.9% q-o-q SAAR in 2Q18, which compares to only 1.4% q-o-q SAAR growth in 1Q18. The reasonable economic output numbers continue to support a healthy growth trend in Canada. Exports were particularly strong in 2Q18, rising by 12.3% q-o-q SAAR, compared to 2.4% q-o-q SAAR in 1Q18. Another support factor was strong personal – i.e. private household – consumption, which edged up by 2.6% q-o-q SAAR. However, further potential trade disputes with the US could impact the economic development of the country negatively. While the actual impact is minor for now, the effect that the ongoing unresolved trade disputes may have on business sentiment and investment may dampen economic growth going forward. **NAFTA** negotiations need to be continually monitored as the US found an agreement with Mexico and continued to negotiate with Canada, so far without an agreement on several fronts.

Industrial production decelerated in June, although it continued to expand at a relatively healthy level, rising by 2.8% y-o-y, compared to 3.3% y-o-y in May and 5.1% y-o-y in April. The June PMI index for manufacturing sees strong momentum. It points to an ongoing and improving dynamic in the near future as the index stood at a high level of 56.8 in August, unchanged from July.

Considering the better-than-expected growth dynamic, the **GDP growth** forecast for 2018 was revised up to 2.1%, compared to 1.9% in the previous month. Growth for 2019 remains unchanged at 1.8%.

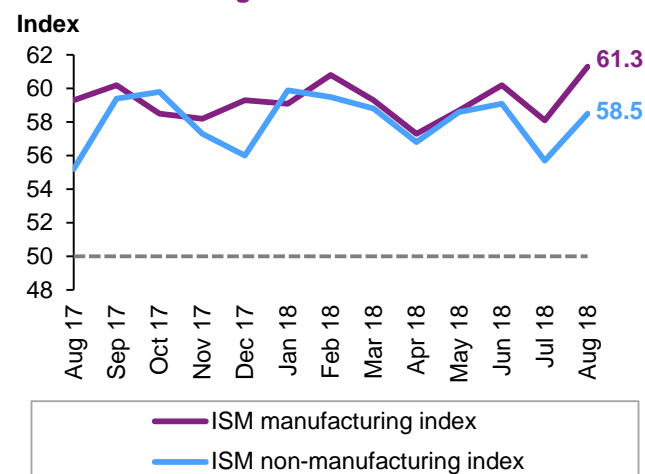
## OECD Asia Pacific

### Japan

**Japan continues to grow at a slow pace** at slightly above 1% on average. This is about its growth potential, given that it is already enjoying very low unemployment and high industrial utilisation rates. Domestic demand remains low and external trade, despite seeing a recent recovery, has also slowed to some extent. Positively, wage pressure, stemming from the tight labour market, appears to be filtering through in terms of higher inflation. Inflation has also been supported by developments in the oil market. This may support the Bank of Japan's (BoJ) target to achieve inflation of around 2%.

Some political uncertainty remains as Japan's Prime Minister Shinzo Abe is facing a vote as leader of the Liberal Democratic Party with one contender. While it is assumed that he will be re-elected, a different outcome could impact the current economic policies.

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



Sources: Institute for Supply Management and Haver Analytics.



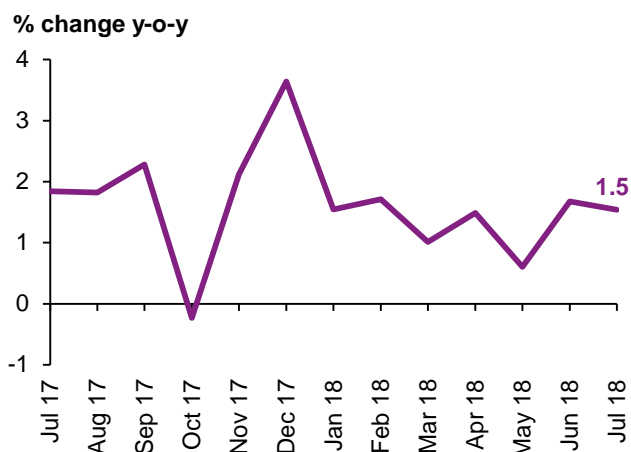
Moreover, the latest release of GDP numbers shows that the economy had a weak 1H18, although there was a strong pick-up in the 2Q18 compared to the 1Q18. Growth is expected to expand further during the remainder of the year and the BoJ has confirmed that it will continue its accommodative monetary policies in the near future. Numerous uncertainties with regard to the Japanese growth dynamic remain, such as potentially rising US tariffs and ongoing sluggish domestic demand that may dampen the 2Q18 growth momentum. The tariff situation may become clearer after a summit slated for September 25 between the Japanese Prime Minister and US President Donald Trump. It is expected that the US will request a reduction in Japan’s auto trade surplus with the US, which would likely have a strong negative impact on Japan’s economy. Additionally, weather-related events will likely cause some negative impact on 3Q18 growth as recent heavy rain, a typhoon and earthquake-induced landslides are expected to affect economic activity.

**Inflation** has recently picked up slightly and it may still take the BoJ some time to achieve its goal of raising inflation to healthier levels, although it has recently strengthened after a solid pick-up at the beginning of the year. Nonetheless, inflation remains clearly below the BoJ’s target of 2%. Support came again from rising energy prices, as well as some wage growth momentum. In July, monthly earnings rose by a respectable level of 1.4% y-o-y, although it was much higher in June, when it reached a level of 3.4%. Quarterly earnings growth in 2Q18 stood at 2.1%, the highest since 2014. It also marked the third consecutive quarterly increase, fuelling hopes that the trend lasts and it will be able to lift core inflation. Core inflation, which excludes food and energy and is more wage-dependent rose at least somewhat in July by 0.3% y-o-y. It stood at 0.2% y-o-y in June. Given the tightness in the labour market, the unemployment rate remained at a very low level of 2.5% y-o-y in July.

**Exports** continued their recovery, but the momentum slowed somewhat. July’s exports growth stood at 3.9% y-o-y, after reaching 6.7% y-o-y non-seasonally adjusted in June. This comes after a rise of 8.1% y-o-y in May. **Industrial production** decelerated as well. After strong growth in May, when industrial production increased by 3.5%, the June and the July growth levels were considerably lower at only 0.9% and 1.0% y-o-y, respectively. Signs of continued challenges are exhibited in manufacturing orders, which fell by 3.4% y-o-y in June. This compared with May and April, which saw growth of 15.4% and 9.7% y-o-y, respectively. According to the Ministry of Economy, Trade and Industry, the weaker industrial production number also partly reflected the impact of torrential rains in western Japan at the beginning in July although this delay in production may be offset in August.

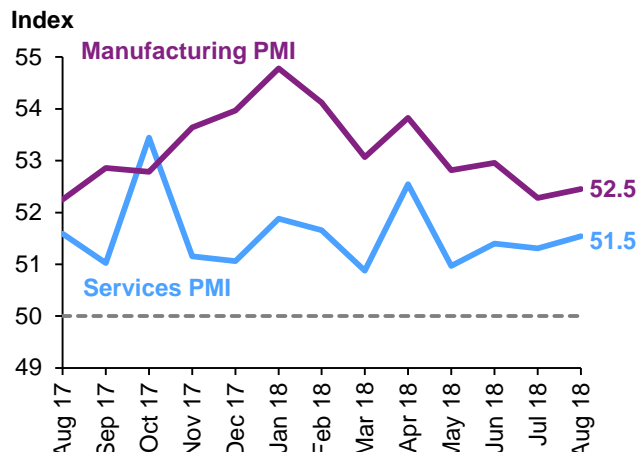
**Domestic retail demand** remained sluggish in July, decelerating further to stand at 1.5% y-o-y, after hitting 1.7% y-o-y in June, a level that marked the highest growth in 2018 so far. The general trend underscores the ongoing apathy in terms of local demand. However, with further real income growth and appreciation likely, this could rebound in the coming months.

Graph 3 - 4: Japanese retail trade



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

Graph 3 - 5: Japanese PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

The latest August **PMI numbers** rose a little for both the manufacturing sector and the services sector. The manufacturing PMI rose to 52.5, up from 52.3 in July. The services sector PMI stood at 51.5, compared to 51.3 a month earlier.

The somewhat faster than expected slowing of the Japanese economy has been taken into account, and while some recovery is forecast in the 2H18, the **GDP growth forecast** was revised down by 0.1% for 2018 and 2019 to a level of 1.1% in both years. Moreover, for 2019, it remains to be seen how, and when, the sales tax increase will be implemented. For the time being, it is envisaged to be introduced in October. Hence, the 2019 forecast assumes that the sales tax level will be increased from 8% to 10% in 4Q19. Challenges in the economy remain, and given the tight labour market situation and high capacity utilization rates, downside risks to the current growth forecast remain.

## South Korea

The **South Korean economy** continues to expand at generally strong levels and with its healthy positioning it will likely be able to weather a potential deceleration in Asian emerging economies. It saw a low, but healthy inflation level of 1.4% in August; it also has current account and fiscal surpluses, as well as enough financial reserves.

Exports are a key element in the solid growth trend of the South Korean economy. Exports rose by 7.7% y-o-y in August, a very healthy growth rate, compared to 5.2% y-o-y in July. Industrial production held up well, but retreated slightly, rising by 1.1% y-o-y in July, compared to 1.3% y-o-y in June and 1.7% y-o-y in May. This is still a positive trend, as 1Q18 average growth of industrial production stood at only 0.8% y-o-y. Interestingly, the latest PMI number for the manufacturing sector still points to a contraction in the sector, standing at 49.9, but the trend is positive compared to a level of 48.3 in July. It also seems to reflect only one part of the country's economic development. Improvements in the economy are forecast to continue, as domestic developments and external trade are forecast to pick up further over 2018. However, the prospect of increased trade protectionism could potentially pose some headwinds for the economy.

As this positive momentum is already reflected in the **GDP growth** forecast, numbers are unchanged this month. GDP growth in 2018 stands at 2.8% and growth in 2019 is unchanged too and forecast to slow down slightly, in line with the developments in the OECD economies and China - its most important trading partners - and to stand at 2.4%.

## OECD Europe

### Euro-zone

After some weakness in 1H18 GDP growth, the Eurozone's **economic growth trend seems to have recovered** somewhat thus far in 2H18 and, and while growth is forecast to pick up again, it is expected to slow down somewhat in 2019 due to monetary tightening by the ECB and some cyclical deceleration in key economies. Among the most important challenges in the Euro-zone are elevated sovereign debt levels in some economies, particularly in Italy, and also some weak areas in the banking system, both of which will need close monitoring. Italy's budget situation is also an element to watch as the government will need to provide its budget proposal to the European Commission by 15 October. In anticipation of a weakening of its fiscal discipline, sovereign debt bond yield spreads have already widened, and spreads to German Bunds have reached their highest levels since 2013. This coincides with the end of the ECB's extraordinary accommodation of sovereign bonds in its balance sheet due to monetary policy normalization. As Italy's sovereign debt level is very high and constitutes the third-highest level in the global economy, a future downside shock to its economy would shift the focus back to debt sustainability. Another policy-related issue to monitor is Brexit. While it is being assumed that it will be sorted out by the end of the year, Brexit remains another layer of uncertainty for the EU with potentially negative consequences for the Euro-zone if it is not addressed soon. The ECB is forecast to pursue its announced path of monetary tightening, while core inflation remains relatively low. With ongoing improvements in the labour market, core inflation levels should continue to pick up gradually and lead to continued monetary policy normalization by the ECB. Moreover, ongoing uncertainty amid the possible rise in trade protectionism may also weigh on future growth levels.

In the **labour market**, the unemployment rate remained at 8.2% in July, the lowest level since 2009, still providing ample room to the upside. This also may support the Euro-zone economy in the future and should lift wages, an element in the labour market that has shown only muted improvement. The latest available yearly growth number on hourly earnings from Eurostat shows that 1Q18 earnings rose by 2.0% y-o-y, albeit slightly better than the 4Q17 performance of 1.9% y-o-y growth. The slowing improvement in the labour market has been reflected in consumer confidence with the European Commission's consumer confidence survey data declining to an index level of minus 1.9, the fourth consecutive monthly decline and the lowest

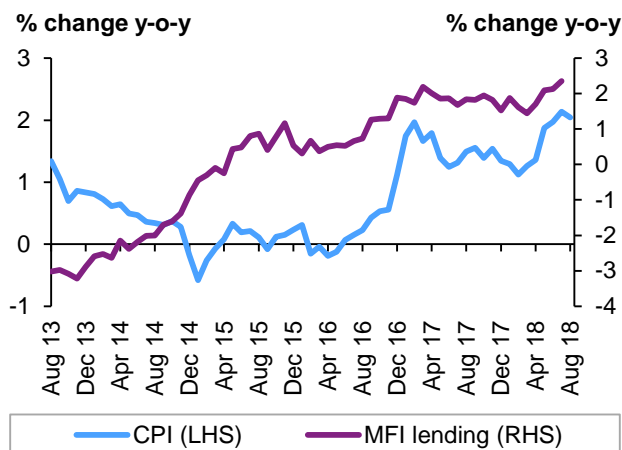
level seen since mid-2017. However, retail trade has continued to perform well so far and picked up again in July, growing by 3.1% y-o-y, only a bit below the June number of 3.4% y-o-y.

**Industrial production** rose as well in June, growing by 2.3% y-o-y after standing at 2.4% y-o-y in May. Positively, manufacturing rose by 3.1% in May and June, a solid pick-up pointing at an improvement in the sector as monthly growth in the preceding three months stood at 2.3% y-o-y on average. The increase in new orders in the manufacturing sector, a good lead indicator for future manufacturing activity, indicates a continuation of the growth trend but at a decelerating pace. The rate rose by 3.6% y-o-y in June, after 4.4% y-o-y in May, while during the preceding four months since the beginning of the year, it averaged growth of 5.9% y-o-y.

Total **inflation** remained at around the ECB’s target level, reaching 2.0% y-o-y in August and 2.1% y-o-y in July. This confirms the improving trend as 1Q18 inflation stood at 1.3% y-o-y, moving up to 1.7% y-o-y in 2Q18. This dynamic was largely due to rising energy prices. Hence, **core inflation** – that is, the CPI, excluding energy and food – has remained flat since about the beginning of the year and also stood at a much lower level to reach 1.0% in August, almost unchanged since January. The positive momentum in general inflation, in combination with the expected increase in core inflation, as well as the predicted 2H18 pick-up in the Euro-zone’s economy, are forecast to support the current **ECB’s monetary policy**. The ECB plans to stop expanding the monetary stimulus programme in December 2018 and, from September to December, will buy €15 bn in bonds each month, half of the €30 bn it is buying currently. The deposit rate, which is now at minus 0.4%, and also the other core rates are expected to remain on hold until September 2019. While the ECB will stop buying new bonds by January 2019, it is expected to reinvest the proceeds of the securities it has already bought under the quantitative easing programme.

In this respect, the development of lending activity remains an important element to monitor. Although some areas of the Euro-zone’s banking sector remained weak, the growth dynamic of the liquidity line picked up again, rising by 2.4% y-o-y in July compared to 2.1% in June, marking the highest growth rate since 2011. With **lending activity and inflation** picking up, the positive economic dynamic has gained pace and is expected to carry on in the coming months.

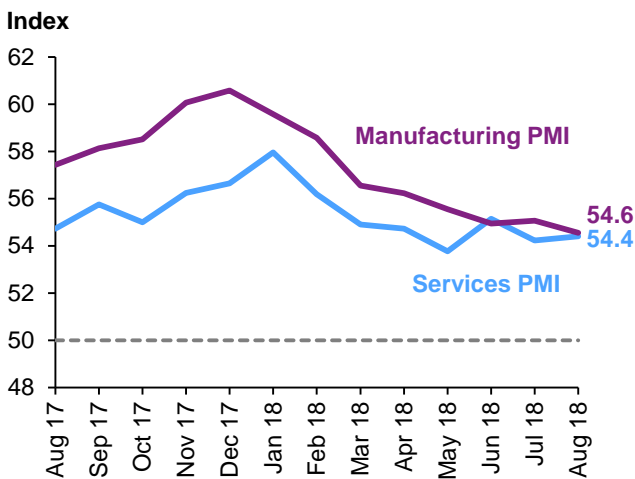
**Graph 3 - 6: Euro-zone CPI and lending activity**



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

The Euro-zone’s latest **PMI** indicators in July generally point to a continuation of solid growth in the economy. The manufacturing PMI was relatively unchanged at 54.6 in August, only slightly below both the July level of 55.1 and 54.9 in June. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, rose to 54.4 in August, compared to 54.2 in July.

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



Sources: IHS Markit and Haver Analytics.

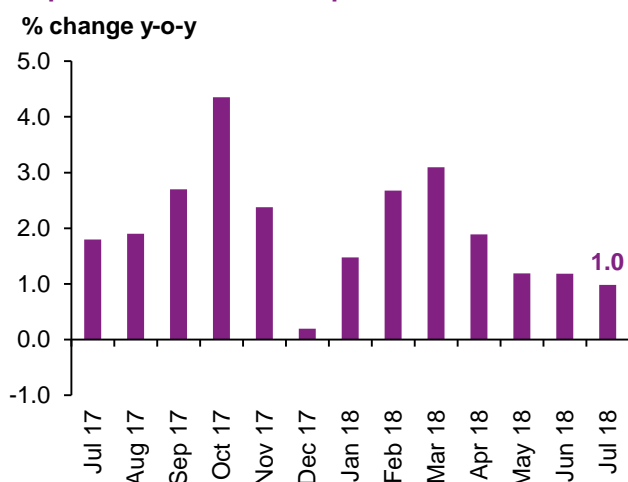
The **GDP growth** forecast remained unchanged this month, with **2018** GDP growth expected at 2.0%. A slightly lower growth rate, at 1.9%, is predicted for **2019**. Political uncertainties, Brexit procedures, weakness in the banking sector, as well as monetary policies remain important factors to monitor.



## UK

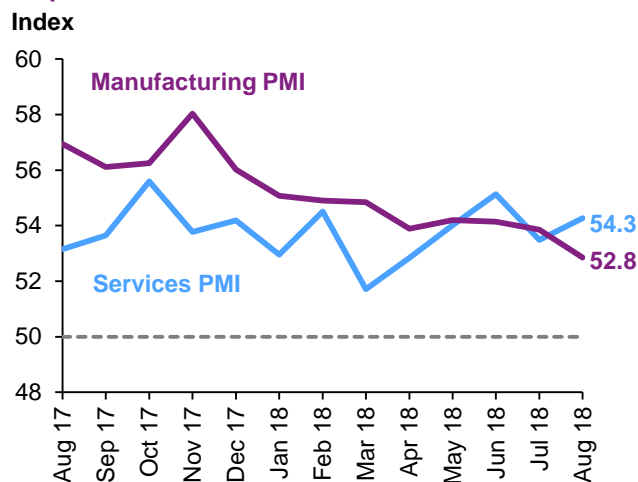
The uncertainty about the Brexit process continues, but the EU has signalled lately that there is some possibility of an agreement towards the end of the year. However, the likelihood of a hard Brexit remains. With about slightly more than half a year remaining before the formal exit from the EU in March 2019, numerous sensitive issues remain unresolved. In the meantime, the latest indicators point to some improvements in the UK's economy. A weak pound sterling seems to have supported growth in **exports**, which rose by 8.9% y-o-y in July and 8.7% y-o-y in June. The latest available data shows that **industrial production** remains low at 1.0% y-o-y in July, compared to 1.2% y-o-y in June on a seasonally adjusted base. While the BoE has tried to counterbalance the negative impacts after the Brexit decision and is looking into normalizing interest rates, it is likely to continue to closely follow the inflation trend, which stood at a high level of 2.5% y-o-y in July, rising slightly from 2.4% y-o-y in June. Some positive momentum is seen in **retail trade**, which was still growing considerably, rising by 6.0% y-o-y in July, compared to 5.2% y-o-y in June and 6.5% y-o-y in May.

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



Sources: Office for National Statistics and Haver Analytics.

**Graph 3 - 9: UK PMIs**



Sources: CIPS, IHS Markit and Haver Analytics.

The most recent **PMI** lead indicators point to a continuation of the current low-level expansion of both the manufacturing and services sectors. While the PMI for manufacturing fell somewhat to an index level of 52.8, it points to an expansion in the sector. However, the index level in August was the lowest reading since 2016, the year of the Brexit referendum. The very important services sector, which constitutes the majority of the UK's economy, increased to 54.3 in August, moving up from 53.5 in July.

While a recovery is forecast to take place in 2H18, slowing activity in 1H18 has resulted in a **2018 GDP growth** forecast of only 1.3%, unchanged from the previous month. Some improvements are forecast to take place in the coming months, which will be carried over into 2019. The GDP growth forecast for **2019** remained unchanged as well, to stand at 1.4%.

## Non-OECD

### BRICs

Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2018-2019\*

	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	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
<b>Brazil</b>	1.2	2.0	3.7	4.1	-31.9	-35.1	-7.0	-5.6	78.7	83.5
<b>Russia</b>	1.6	1.7	3.0	4.3	67.2	65.3	0.3	0.4	10.2	9.4
<b>India</b>	7.6	7.4	4.8	4.9	-72.5	-69.7	-3.6	-3.2	49.2	47.7
<b>China</b>	6.6	6.2	2.2	2.8	82.7	57.7	-3.7	-4.0	19.0	21.5

Note: \* 2018 and 2019 = Forecast.

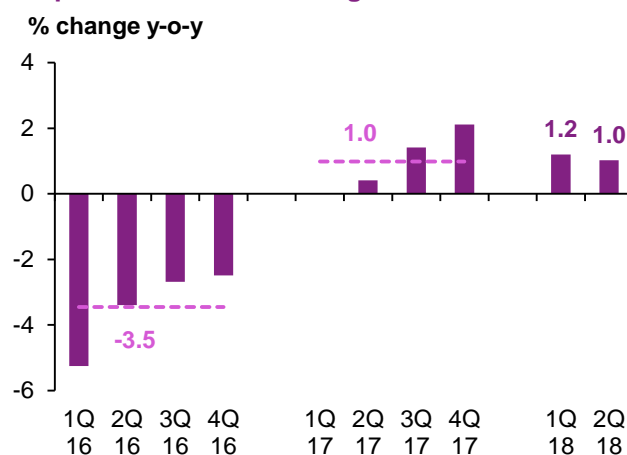
Sources: Consensus Economics, Economic Intelligence Unit, Financial Times, OPEC Secretariat and Oxford.

### Brazil

**Brazil's GDP** posted growth of 1.0% y-o-y in 2Q18, which is the second-weakest growth rate since the economy emerged from recession in 2Q17. This was mainly due to slower growth in private consumption, in addition to a decline in exports amid firm imports.

In terms of GDP components, **private consumption** grew by 1.7% y-o-y in 2Q18, down from 2.8% in the previous quarter. **Exports** declined by 2.9% y-o-y in 2Q18, after registering a 6.0% increase in 1Q18. **Government consumption** increased slightly in 2Q18, by 0.1% y-o-y, for the first time since 4Q16. GFCF grew by 3.7% y-o-y in 2Q18, slightly higher than 3.5% in 1Q18. **Imports** grew for the fourth consecutive quarter in 2Q18, rising by 6.8% y-o-y.

Graph 3 - 10: Brazil's GDP growth

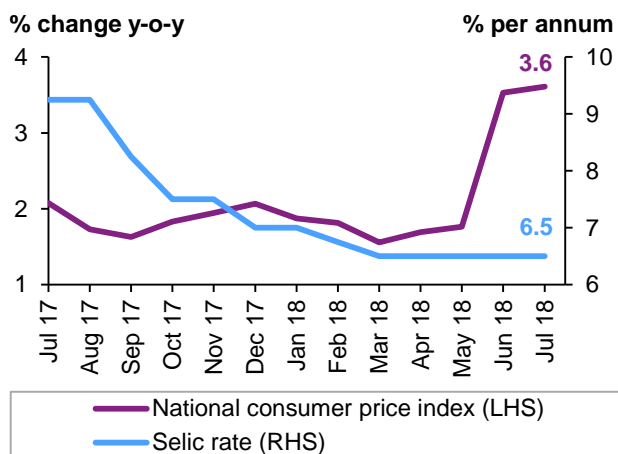


Sources: Instituto Brasileiro de Geografia e Estatística and Haver Analytics.

After doubling in June to 3.5% y-o-y, up from 1.8% y-o-y in May, **inflation** increased further in July to reach 3.6% y-o-y, which is the highest rate seen since April 2017. This increase was mainly due to higher food and transport prices.

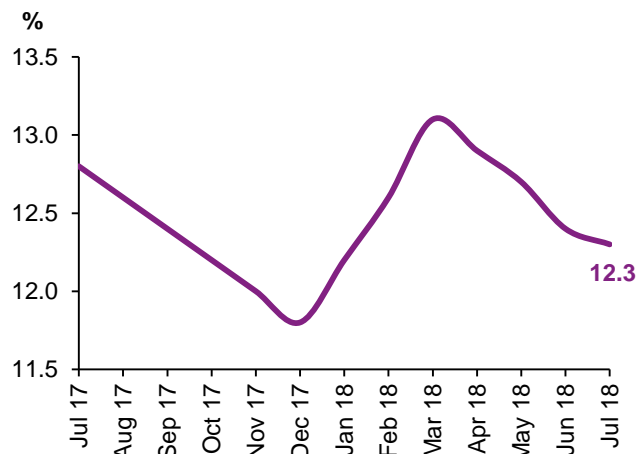
The central bank also left its benchmark **interest rate** unchanged at 6.5% in August for the sixth month in a row. The **unemployment rate** fell to 12.3% in July, from 12.4% in June and 12.7% in May. The **consumer confidence index** was unchanged in August at 83.4.

**Graph 3 - 11: Brazil's inflation vs. interest rate**



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

**Graph 3 - 12: Brazil's unemployment rate**

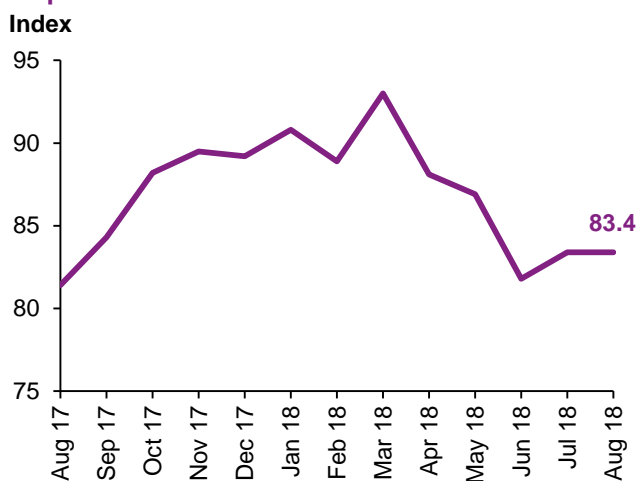


Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

The **IHS Markit Brazil manufacturing PMI** reading in August showed notable improvements across the sector's business conditions, reaching a four-month high of 51.1, up from 50.5 in July. The survey also showed quicker increases in factories' new orders and production, while showing that currency weakness pushed cost inflation to a ten-year peak in August. The performance of consumer goods was better than intermediate goods in terms of production and sales. Yet, the capital goods sub-sector remained in contraction during the month. Optimism on the 12-month outlook was at a four-month high on expectations for better economic conditions and investment intentions.

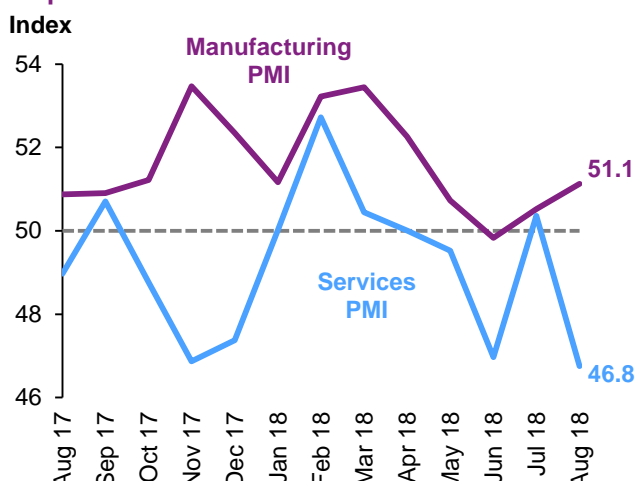
The **Brazil services business activity index** fell into contraction territory in August at 46.8, down from July's 50.4. This represents the lowest recorded reading of the index since February 2017 and was a result of renewed declines in output. Surveyed firms reported weak demand, fierce competition and political issues to be the causes of the decline. However, the survey's panellists were more optimistic regarding future growth prospects after the presidential elections.

**Graph 3 - 13: Brazil's consumer confidence index**



Sources: Fundação Getúlio Vargas and Haver Analytics.

**Graph 3 - 14: Brazil's PMIs**



Sources: IHS Markit and Haver Analytics.

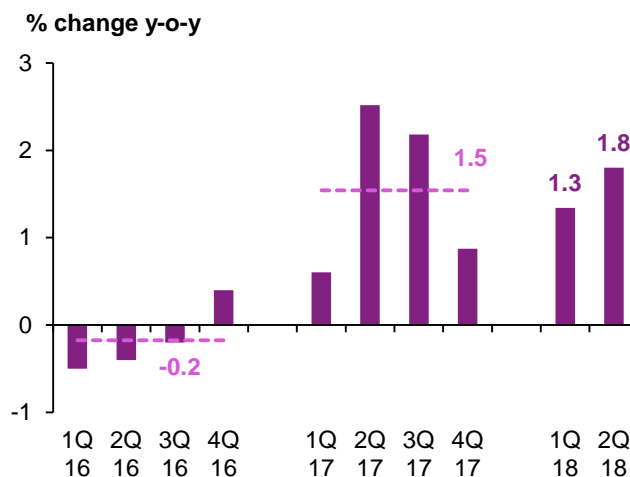
**Brazil's GDP** in 2Q18 was downbeat due to private consumption and exports. While the decline in exports in 2Q18 – which took its toll on GDP growth – could be attributed largely to the nationwide strike that erupted in May, economic challenges facing Argentina started to exert a clearly negative influence on Brazilian exports. Exports to Argentina fell by nearly 24% y-o-y in July. Moreover, the mixed indications from Brazil's private sector, together with challenges to the currency and mounting political uncertainty, do not provide hope for a markedly faster pace of economic recovery throughout the rest of the year. GDP is forecast to grow by 1.2% y-o-y in 2018 and 2.0% in 2019.

## Russia

Russia's GDP registered growth of 1.8% y-o-y in 2Q18, according to the Federal State Statistics Service. After growing by 1.3% y-o-y in 1Q18, GDP growth for 1H18 stood at 1.6% y-o-y. The **trade surplus** increased by nearly 78% y-o-y in June (in nominal terms) to \$15.6 billion, up from \$8.8 billion in June 2017. **Imports** increased by 1.1% y-o-y, while **exports** went up by about 24% y-o-y.

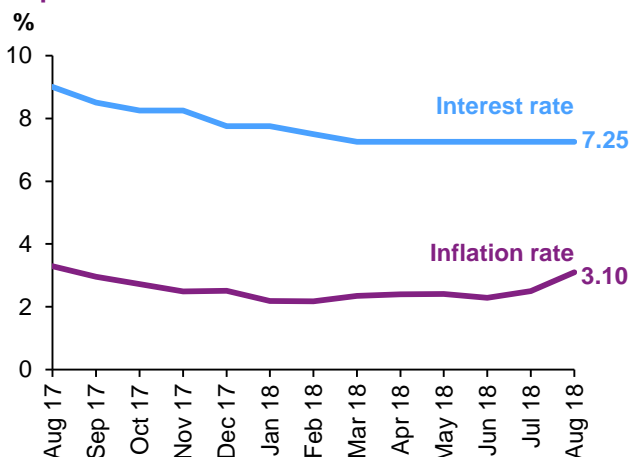
Depreciation in the **ruble** accelerated in August, dropping by 5.1% m-o-m versus the dollar. This followed two months of sluggish ruble depreciation. The ruble was 10.8% lower in August 2018 from its level a year earlier. Yet, changes in consumer price **inflation** during July were less acute when compared to the ruble's depreciation. Inflation posted 2.5% and 3.1% y-o-y in July and August, respectively. In August, the central bank kept its benchmark one-week **repo rate** unchanged at 7.25%.

Graph 3 - 15: Russia's GDP growth



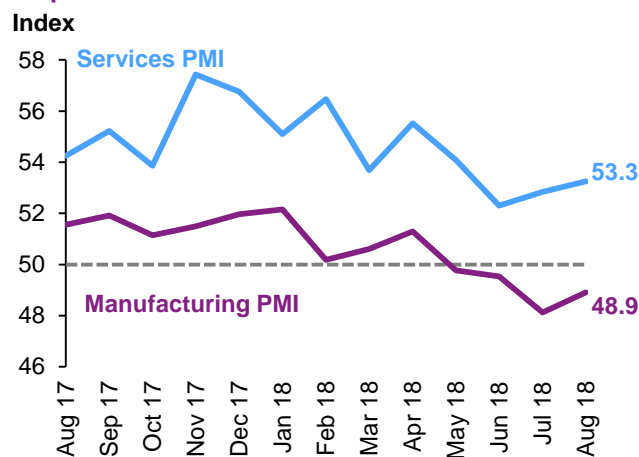
Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 16: Russia's inflation vs. interest rate



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

Graph 3 - 17: Russia's PMIs

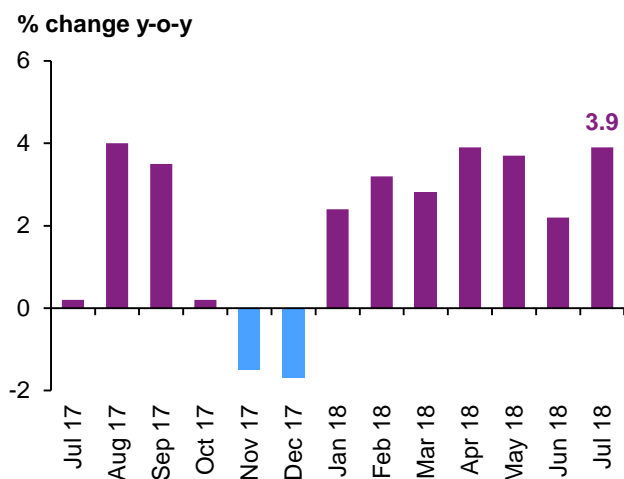


Sources: IHS Markit and Haver Analytics.

Deterioration in the **manufacturing** sector continued in August, according to the IHS Markit Russia Manufacturing PMI. The index registered 48.9 in August, up from 48.1 in July as a result of continued contraction in new orders and production together with intensified inflationary pressure on factory input. The survey showed that levels of production dropped for the second month in a row in August, yet at a softer pace. In addition, the new orders received continued to contract, in line with weaker domestic demand. It also showed that the rate of input-cost inflation went up in August, reaching the second-highest rate in about three years. **Industrial production** grew by 3.9% y-o-y in July, recovering from the lowest rate recorded this year of 2.2% y-o-y in June.

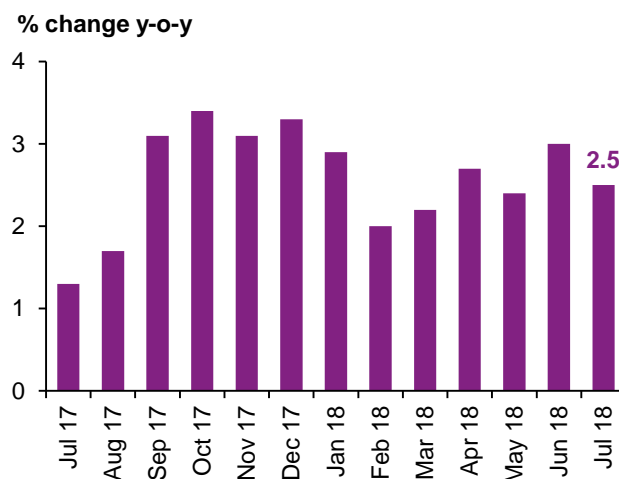
Momentum in the **services** sector picked up in August as the IHS Markit Russia Services Business Activity PMI increased to 53.3, up from July's 52.8. The latest improvement was due to the rise in output at the fastest pace since May and greater volumes of new orders. On the price front, input costs incurred by service providers rose steeply in August due to exchange rate movements as well as higher fuel and utility costs. Service firms partly passed higher costs on to clients through higher selling prices. For the fifteenth month in a row, **retail sales** continued to increase, rising by 2.5% y-o-y in July, from 3.0% in June.

**Graph 3 - 18: Russia's industrial production**



Sources: Federal State Statistics Service and Haver Analytics.

**Graph 3 - 19: Russia's retail sales**



Sources: Federal State Statistics Service and Haver Analytics.

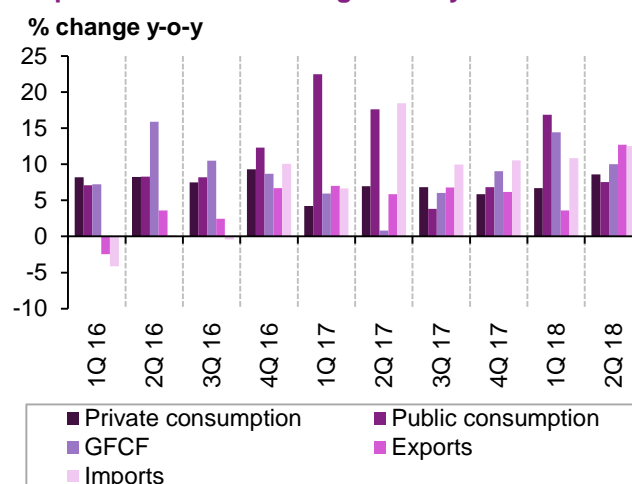
The steeper trend of depreciation in the ruble noticed in August and inflation rise amid pressures from the externalities of sanctions and geopolitics, together with mixed indications from the private sector reflect larger uncertainty regarding economic growth through the end of 2018. The **GDP** growth forecasts now stand at 1.6% y-o-y in 2018 and 1.7% in 2019.

## India

**India's GDP growth** rate was at 8.2% y-o-y in 2Q18, which is higher than the 7.7% rate seen in 1Q18. This is the strongest growth rate since 1Q16.

With regard to GDP components on the **demand side**, real private consumption spending growth hit a six-quarter high of 8.2% y-o-y in 2Q18 as household spending improved with the effect of demonetization fading and still-modest inflation in early 2018. The consumer confidence survey of the Reserve Bank of India (RBI) for the same quarter indicated that consumers were more positive about both the current situation and future expectations, compared with the previous quarter. However, a more granular look at industrial production data suggests that the recovery in consumption remains rough. Although production of consumer durable goods, a proxy for urban demand, improved by an average of 8% y-o-y in 2Q18, non-durable goods output stagnated, pointing to still-soft rural consumption.

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



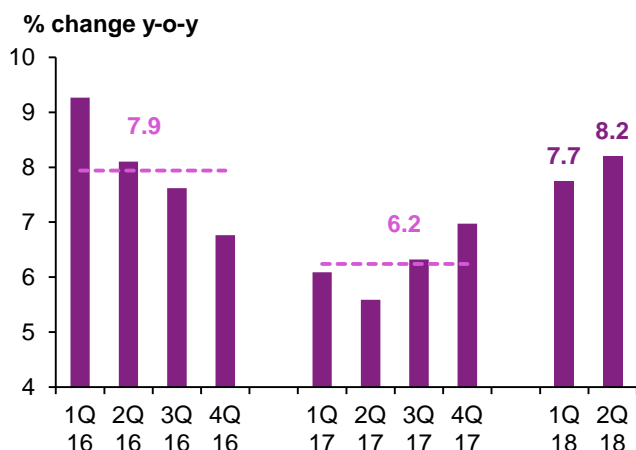
Sources: Central Statistics Office and Haver Analytics.

On the **supply-side**, real GDP grew by 8.0% y-o-y in 2Q18, up from 7.6% y-o-y in the 1Q18, and from 5.6% y-o-y. The manufacturing sector has once again been the main driver of growth. Helped by a positive base effect amid last year's pre-GST destocking, it grew 13.5% y-o-y, up from 9.1% y-o-y in 1Q18.

The **Indian rupee (INR)** remained largely flat after weakening to a record low of INR70.84/\$ on 31 August.

India's **CPI inflation's** easing in July is a pause, but not an end, to India's rising price pressures. Food remains the main factor keeping overall inflation contained. However, the latest estimates could put pressure on prices of some produce and grains. The government's recent decision to raise procurement prices of grains paid to farmers will also potentially mean higher inflation. Meanwhile, non-food prices will continue rising on higher fuel prices and the impact of the rupee's depreciation.

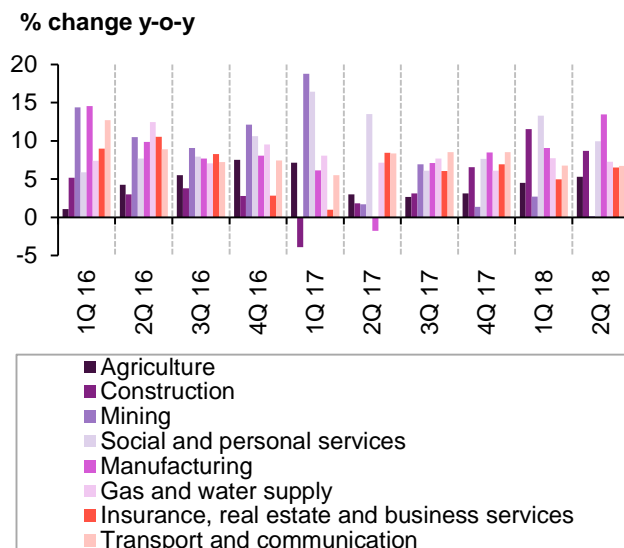
**Graph 3 - 22: India's GDP growth**



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

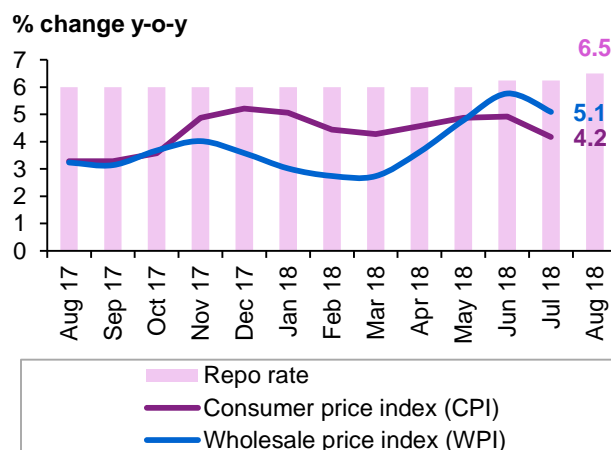
Widening trade and current-account deficits have reinforced the pressure on the Indian rupee, with investors withdrawing from emerging markets that are particularly vulnerable to current-account pressures. The Indian rupee is among the currencies most severely affected by the latest episode of depreciation, sparked by the Turkish lira crisis.

**Graph 3 - 21: India's GDP growth by supply side**



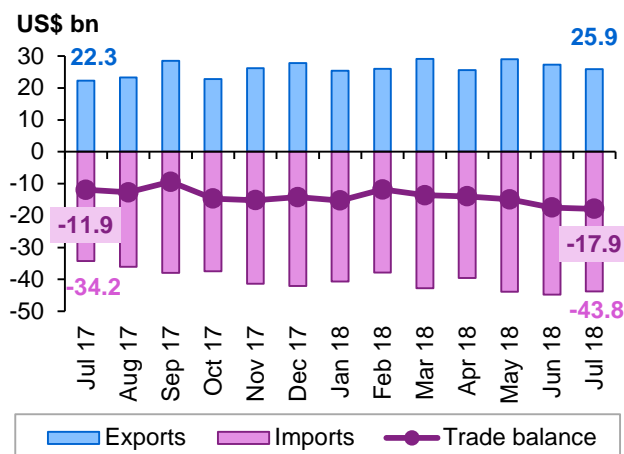
Sources: Central Statistics Office and Haver Analytics.

**Graph 3 - 23: Repo rate and inflation in India**



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

**Graph 3 - 24: India's trade balance**

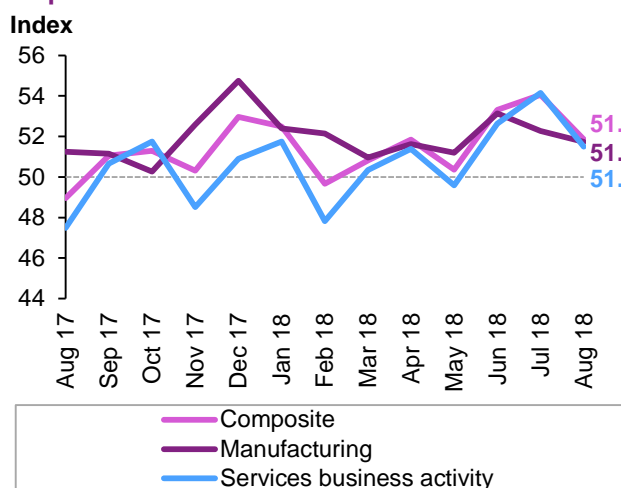


Sources: Ministry of Commerce and Industry and Haver Analytics.

The **Nikkei India manufacturing PMI** unexpectedly dropped to a three-month low of 51.7 in August 2018, down from 52.3 a month earlier and missing market estimates of 52.8. Both output and new orders grew at softer rates, and sentiment softened from July's three-month high. At the same time, job creation remained marginal and broadly similar to the prior survey period.

The **Nikkei India services PMI** declined to a three-month low of 51.5 in August 2018, down from 54.2 in the previous month. New orders increased the least since May, and employment grew at the softest rate since November 2017.

**Graph 3 - 25: India's PMIs**



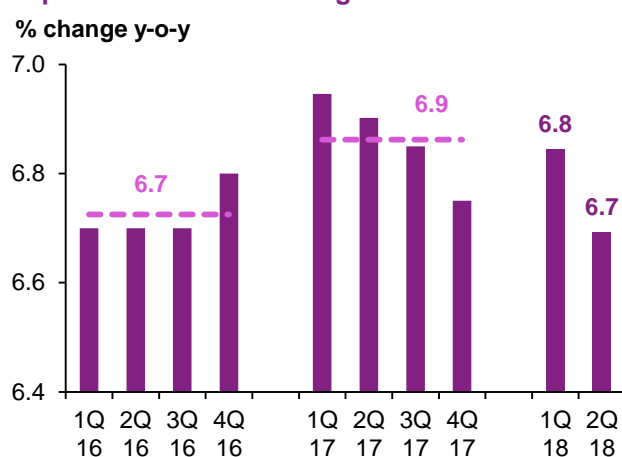
Sources: Nikkei, IHS Markit and Haver Analytics.

India's 2018 GDP was revised up to 7.6%, from 7.3% in the previous report due to high 2Q18 GDP growth. Despite the positive 2Q18 GDP outcome and more evidence of improvement in investment, however it seems that the 2H18 outlook will be impacted by several downside risks such as rupee depreciation and inflation growth. India's 2019 GDP growth therefore remained unchanged at 7.4%.

## China

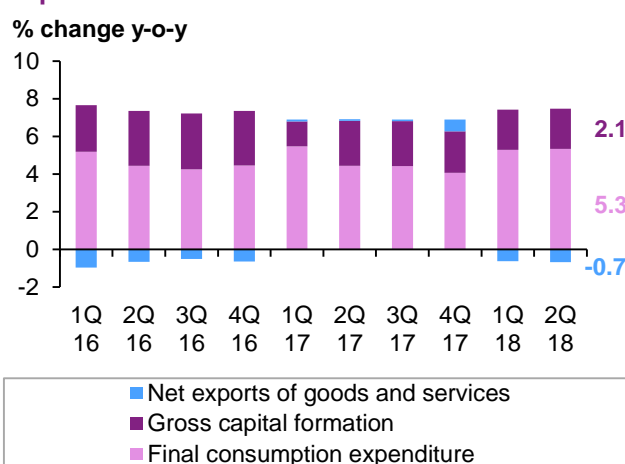
**China's GDP growth** held up in July, underpinned by better exports and resilient housing activity, but overall investment momentum slowed amid soft credit growth. Household consumption also eased somewhat. The Chinese yuan (CNY) depreciation since June should also help Chinese exporters. It seems that China's policymakers do not want to see the yuan weakening too much. If pressures increase, it seems they will need to take more forceful steps to support the currency. Amid rising trade headwinds, China's policymakers have started to ease the macro stance and have indicated a readiness to ease further, if growth slows sharply.

**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.

China's **domestic demand** continued to moderate in July, as fiscal and monetary policy easing is expected to help stabilize China's domestic demand and supply in the coming months; however, massive stimulus remains unlikely and GDP growth moderation is still expected in the second half, given China's fundamental issues and rising US-China trade tensions. Also, China's tourism revenue rose by 12.5% in 1H18, helping boost consumption amid trade tensions. The Chinese economy is facing significant downward pressure owing to rising trade hostilities with the US. As a result, the Chinese government has loosened monetary and fiscal policies in an effort to stimulate domestic demand and bolster economic growth. The rapid growth of the domestic tourism industry will help increase consumption and reduce China's reliance on external



demand. In addition, the recent depreciation of the Chinese yuan will also help attract more foreign tourists to China in the coming years, further boosting domestic consumption. Consumption has already become the most important driver of economic growth in China. In 1H18, consumption accounted for 78.5% of China's GDP growth.

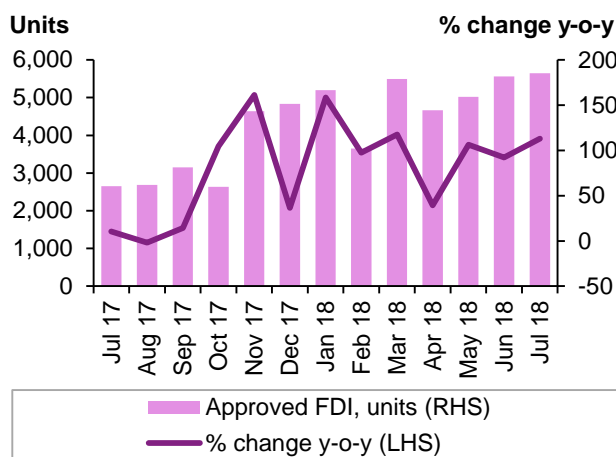
**Fixed-asset investment (FAI)** moderated to 5.5%, following the softening trajectory over the past 16 months. A continuous slowdown in government-led infrastructure investment (excluding utilities) was the main drag on the headline deceleration, which led to a fall in services investment with infrastructure as an important component.

**Real estate investment** posted double-digit growth in July, rising to 10.2%, compared with 9.7% y-o-y through June, owing to strong land-purchasing activity.

**Investment and industrial growth** is likely to stabilize in the coming months given expected policy easing, however, growth moderation will continue due to the deleveraging campaign and rising US-China trade tensions. The focus of China's macroeconomic policy is expected to shift away from deleveraging to stabilization in 2H18. Easing monetary and credit policy may drive down interest rates, thus reducing enterprises' financing costs and default risk. However, a massive stimulus remains unlikely given China's fundamental problems, such as debt overhang, shadow banking and excess capacity in heavy industry.

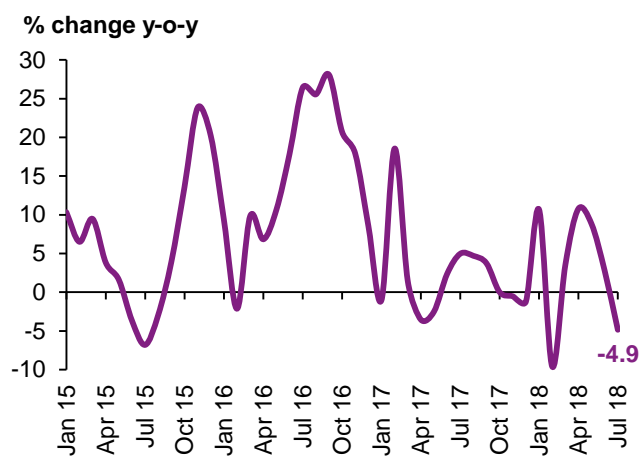
China's **foreign direct investment (FDI)** rose by 2.3% in July, and is likely to maintain stable growth. China's utilized FDI reached CN¥496.7 billion (\$76.1 billion) in the first seven months of 2018, a moderate increase of 2.3% y-o-y, despite intensifying trade tensions with the US. FDI is likely to maintain stable growth in the coming months due to the government's efforts to boost foreign investment. The western region and the 11 free-trade zones (FTZs) lead China's FDI growth. During the first seven months of 2018, western China and the FTZs achieved y-o-y growth rates of 14.5% and 13.3%, respectively, considerably higher than the national average. FDI from Singapore, Japan, South Korea, the US, the UK, Macau, the Association of Southeast Asian Nations (ASEAN) countries, and 'Belt and Road Initiative' countries continued to experience fast increases in the first seven months of 2018.

**Graph 3 - 28: China's approved FDI**



Sources: China National Bureau of Statistics and Haver Analytics.

**Graph 3 - 29: China's motor vehicles sales, ten thousand units**



Sources: China Passenger Car Association and Haver Analytics.

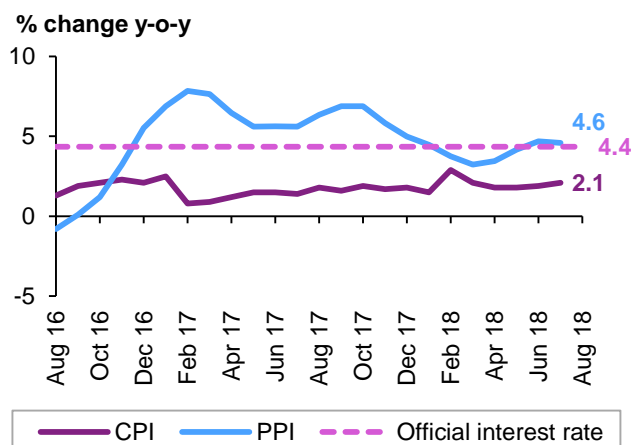
Policymakers in China have shifted decisively into easing mode in recent months, facing the twin pressures of tightening credit conditions and a more difficult export environment. Interest rates have continued to decline, regulatory pressures on shadow banking have lessened somewhat, the trade-weighted CN¥ has depreciated by about 6% and fiscal and administrative policies have begun to emphasize infrastructure spending.



China's **CPI** rose to a four-month high of 2.1% y-o-y in July. The headline increase was primarily driven by higher non-food prices, which contributed 1.96 pp to CPI inflation. In particular, fuel prices rose 22.2% y-o-y on higher oil prices, and tourism prices rose by 4.4% y-o-y, fuelled by the summer holiday season. Food prices contributed 0.1 pp to CPI in July.

China's **producer price index (PPI)** broke a four-month rising trend in July, edging down 0.1 pp in y-o-y terms from June, mainly because of weaker upstream price inflation.

**Graph 3 - 30: China's CPI and PPI**



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

The **official NBS manufacturing PMI** strengthened to 51.3 in August 2018, up by 0.1 pp from July, according to a release from the National Bureau of Statistics on 31 August. The modest headline improvement was mainly driven by stronger supply growth as reflected in the rise of output during August compared with July. On the other hand, demand showed increasing signs of weakening as new orders fell for the third consecutive month. Amid the escalating US-China trade frictions, new export orders and imports both dipped in August compared with July and remained below the neutral 50.0 mark.

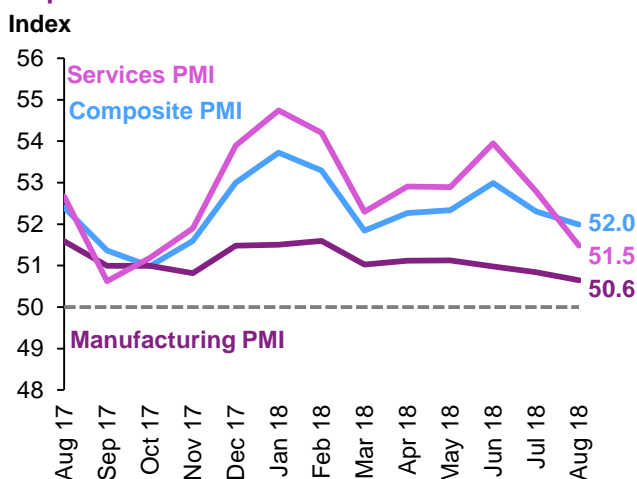
The **non-manufacturing PMI** unexpectedly rose to 54.2 in August 2018 from an 11-month low of 54 in July. Employment grew for the second month in a row and at a faster pace (50.4 vs 50.2 in July), while new orders continued to increase (50.6 vs 51.0) and consumer confidence hit its highest rate since April (61.4 vs 60.2). In addition, new export orders contracted slightly less (49.0 vs 48.9).

The **composite PMI output index** was up 0.2 pp from the previous month to 53.8 in August, driven by faster growth in both manufacturing and non-manufacturing activity.

The **Caixin China general services PMI** fell to a 10-month low of 51.5 in August 2018 from 52.8 in the previous month. Amid a steeper rise in input costs, employment rose moderately while new order growth picked up only slightly from July's over two-year low.

The **Caixin China manufacturing PMI** fell to a 14-month low of 50.6 in August from 50.8 in the previous month and matched market consensus. New orders grew the least since May 2017; new export orders shrank for the fifth month in a row; and employment remained on a downward trend, which, in turn, contributed to an increase in outstanding workloads. Also, confidence remained stuck near June's six-month low, affected by the ongoing China-US trade dispute and relatively subdued market conditions. At the same time, buying activity continued to rise, but was below the series average, while output growth accelerated.

**Graph 3 - 31: China's PMIs**



Sources: Caixin, IHS Markit and Haver Analytics.

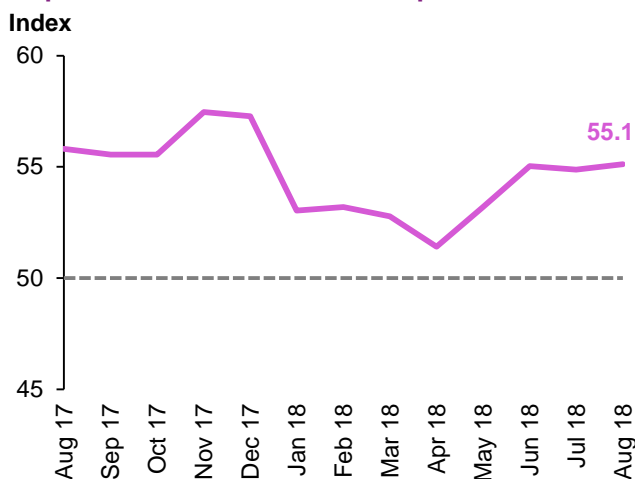
China's **GDP** growth expectation remained unchanged at 6.6% and 6.2% for 2018 and 2019, respectively. Continued pressure on the yuan and equity markets amid further worsening of sentiment constitutes a key risk for markets in China. Given that much of the current downward pressure on the economy is coming from tightening financial regulations and credit, especially on local government financing and infrastructure, it is likely that the government will adjust the pace of domestic tightening as a first reaction to the now escalating trade barrier.

## OPEC Member Countries

### Saudi Arabia

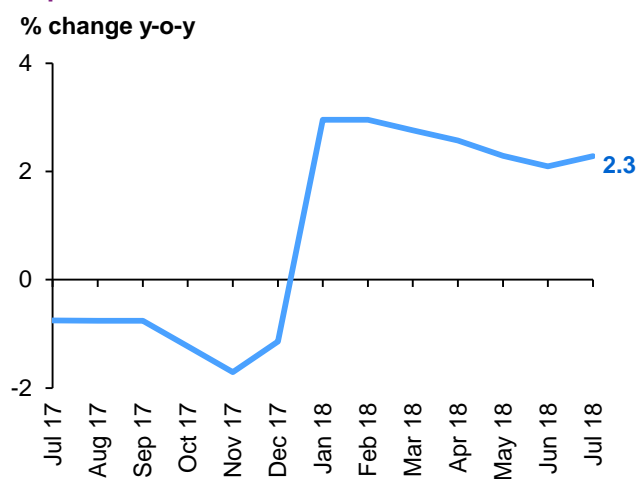
In **Saudi Arabia**, foreign reserves were largely stable in July from the previous month, however, they were notably higher, by 1.4%, from the same month a year earlier. Foreign reserves (excluding gold) stood at \$500.86 billion in July 2018, compared to \$494.10 billion in July 2017. The country's non-oil private sector continued the upward trend in August, according to the Emirates NBD Saudi Arabia PMI. The index rose to 55.1 in August, from 54.9 in July, because of stronger output and new order growth. The output and new order indices rose to their highest readings so far in 2018 – to 59.7 and 59.0, respectively. Reflecting stronger inflows of new orders, firms reported a marked build-up in work outstanding in August. The survey showed that employment was relatively modest in the month and that firms were optimistic about their future output.

**Graph 3 - 32: Saudi Arabia's composite PMI**



Sources: Emirates NBD, IHS Markit and Haver Analytics.

**Graph 3 - 33: Saudi Arabia's inflation**



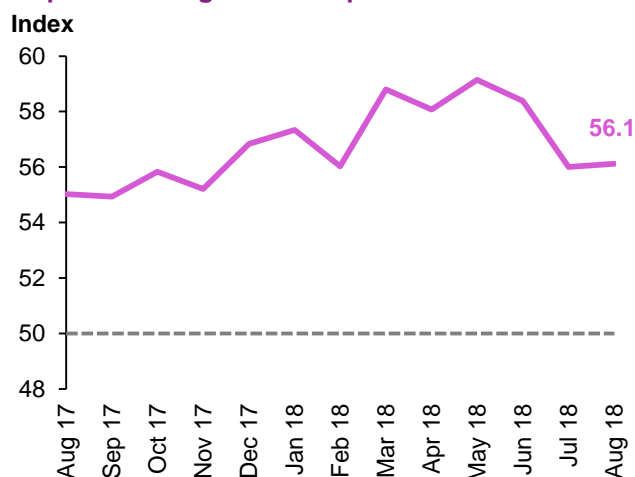
Sources: General Authority for Statistics and Haver Analytics.

The economy of Saudi Arabia emerged from recession in 1Q18, with GDP returning to growth territory at 1.2% y-o-y. Gross value added in crude oil and natural gas increased by 0.7% y-o-y in 1Q18, after a 5.3% y-o-y decline in the previous quarter.

### Nigeria

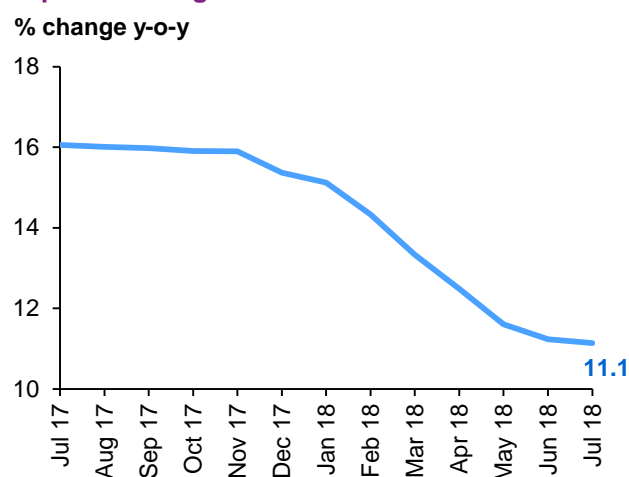
In **Nigeria**, GDP growth stood at 1.5% y-o-y in 2Q18, down from 2.0% y-o-y in 1Q18, according to the National Bureau of Statistics. Gross value added in the agricultural sector slowed from 3.0% y-o-y in 1Q18 to 1.2% in 2Q18. The industrial sector also witnessed slowing momentum, with value added growing by only 0.4% y-o-y in 2Q18, from 6.9% y-o-y growth in the previous quarter. This was largely driven by the contraction in value added in mining and quarrying, which went from 14.9% y-o-y growth in 1Q18 to a 3.8% contraction in 2Q18. The services sector, however, showed a rebound from a 0.5% y-o-y contraction in 1Q18 to 2.1% growth in 2Q18.

Graph 3 - 34: Nigeria's composite PMI



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

Graph 3 - 35: Nigeria's inflation



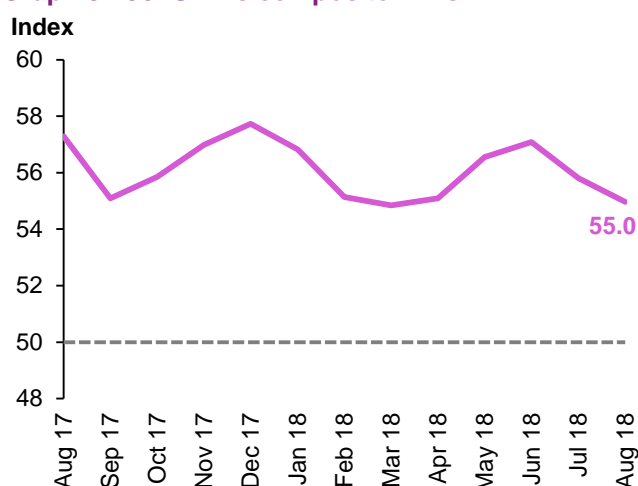
Sources: National Bureau of Statistics and Haver Analytics.

Inflation eased further in July to 11.1% y-o-y, from June's rate of 11.2%, representing the lowest reading since January 2016. Inflation nearly reached a 19% y-o-y increase in January 2017. The country's private sector continued posting improvements in its operating conditions in August as suggested by the Stanbic IBTC Bank Nigeria PMI. The index stood at 56.0 in August, unchanged from the previous month. The survey revealed that new order and output growth remained strong in August alongside acceleration in employment.

## The United Arab Emirates (UAE)

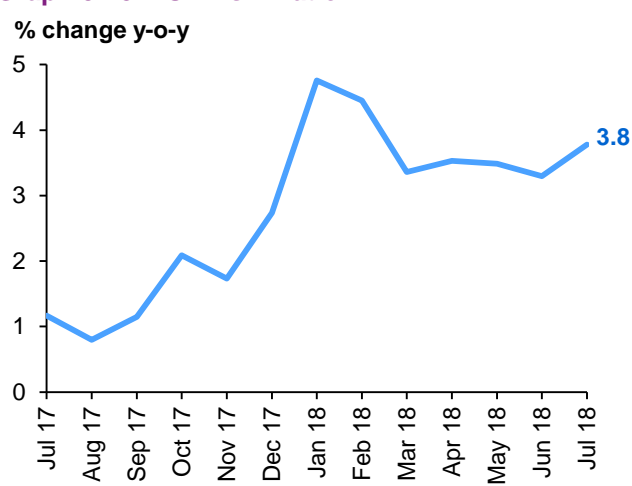
In the **UAE**, operating conditions in the non-oil private sector remained in expansion territory during August, albeit at a slightly lower level, according to the Emirates NBD UAE PMI. The index posted 55.0 in August, down from 55.8 in July, largely due to a decline in average employment for the first time in the survey's history. In addition, lower inventories also contributed to the slightly lower reading of the index. On a positive note, however, the survey showed a rise in the output index to 63.1 in August, alongside continued expansions in overall new orders and new export orders.

Graph 3 - 36: UAE's composite PMIs



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 37: UAE's inflation



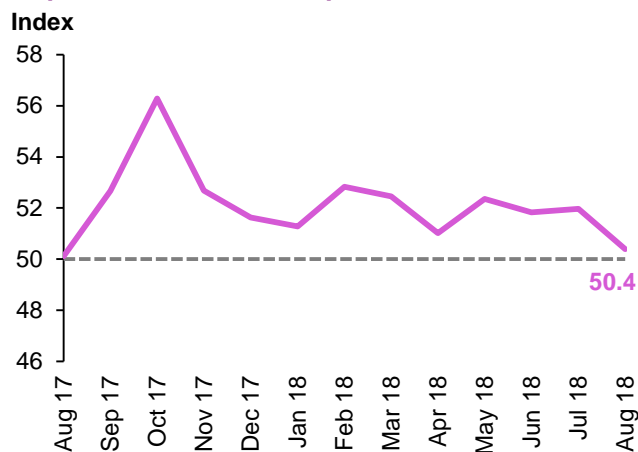
Sources: National Bureau of Statistics and Haver Analytics.

Inflation increased in July to 3.8% y-o-y from 3.3% in June. The two main increases in prices were in the transportation and textiles and clothing categories. Transportation prices jumped by 17.4% y-o-y in July, up from 10.7% in June, whereas inflation in textiles and clothing increased by 18.6% y-o-y in July, up from 16.4% in June. Prices of housing, water, electricity and gas dropped by 3.6% y-o-y in July, following a 3.0% contraction a month earlier.

## Qatar

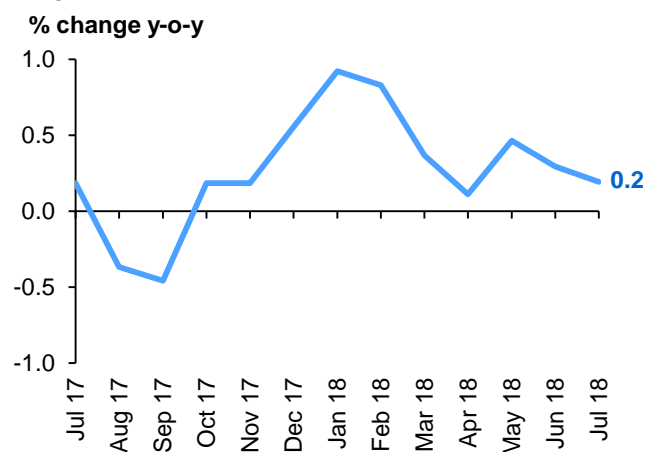
In **Qatar**, growth in the country's non-oil and gas private sector continued in August for the thirteenth consecutive month, according to the Qatar Financial Centre PMI. The index registered 50.4 in August, down from 52.0 in July, partly reflecting a slight fall in output. The survey signalled further improvements in new order inflows, yet at a slower pace in August. The rate of job creation was sizeable in August, as a result of increasing new orders and solid business confidence. In August, input prices fell at the fastest pace in survey history, leading to a decline in selling prices at a survey record.

**Graph 3 - 38: Qatar's composite PMI**



Sources: Qatar Financial Centre, IHS Markit and Haver Analytics.

**Graph 3 - 39: Qatar's inflation**



Sources: Ministry of Development Planning and Statistics and Haver Analytics.

Consumer price inflation eased in July to only 0.2% y-o-y, down from 0.3% in June. GDP grew by 1.4% y-o-y in 1Q18. Gross value added in the construction sector accelerated by 17.2% y-o-y in 1Q18, up from 16.5% in the previous quarter.

## Other Asia

### Malaysia

In **Malaysia**, GDP registered growth of 4.5% y-o-y in 2Q18, down from 5.4% in 1Q18. Increases in private and public consumption, together with GFCF, were outweighed by the decline in growth of net exports of goods and services during 2Q18. Net export growth dropped from 62.4% y-o-y in 1Q18 to 1.7% in 2Q18 as a result of the increase in imports and slower growth of exports during 2Q18. GFCF posted growth of 2.2% y-o-y in 2Q18, up from only 0.1% in the previous quarter. In 2Q18, growth in private consumption reached its highest level since 1Q15, at 8.0% y-o-y, up from 6.9% in 1Q18. The ringgit depreciated by 1.1% m-o-m in August, accumulating a 5.2% depreciation since May 2018. Yet, y-o-y, the ringgit was higher by 4.5% in August 2018. Inflation increased slightly in July by 0.9% y-o-y from 0.8% in the previous month.

Business conditions in Malaysia's manufacturing sector improved in August for the first time since the beginning of the year, according to the Nikkei Malaysia Manufacturing PMI. The improvement reflected growth in new orders for the first time in seven months alongside faster growth in production. Ending a six-month period of contraction, the index rose to 51.2 in August, up from 49.7 in July. Production also rose for the second consecutive month in August at the highest rate since November 2017. Firms' purchasing activities also followed suit and ended an eight-month sequence of contraction. As for business sentiment, the survey showed that it was at a four-month high during August on the back of positive forecasts for sales and an expected improvement in demand conditions.

## Africa

### South Africa

In **South Africa**, GDP growth in 2Q18 slowed to its lowest rate since 1Q17 at 0.5% y-o-y. This was a result of a slower increase in private consumption and a decline in GFCF. Private consumption lost more than half of the growth pace seen in 2Q18, at 1.5% y-o-y, down from 3.2% in 1Q18. GFCF shrank by 0.1% y-o-y in 2Q18, down from growth of 0.3% in the previous quarter. Public consumption grew at a slightly lower rate of 1.0% y-o-y in 2Q18 vs 1.2% in 1Q18. The trade component of the GDP calculation was supportive to the increase, as exports returned to growth and imports rose at a slower pace in 2Q18. Imports expanded by 1.5% y-o-y in 2Q18, down from 2.3% in the previous quarter. Exports returned to growth territory at 1.6% y-o-y in 2Q18, up from a contraction of 0.3% y-o-y in 1Q18.

The rand depreciated by 5.1% m-o-m in August. Inflation rose from 4.4% y-o-y in June to 5.1% in July, which was due to increases in the categories of food, clothing, housing, transport and communication. Operating conditions in the private sector experienced a sharp deterioration in August according to the Standard Bank South Africa PMI. The survey showed a decline in new orders at the second-quickest rate in survey history on the back of inflationary pressures and deteriorating consumer purchasing power. Furthermore, export orders fell for the eleventh month in a row in August, contributing to the overall fall in new orders received by private sector firms. Private sector activity in the month had its steepest contraction since March 2016 as a result of currency depreciation and nationwide protests. Private sector employment fell for the second month in a row in August because of financial difficulties, shortages of new orders and downsizing policies.

## Latin America

### Argentina

In **Argentina**, a combination of poor economic data, persistent concern over the balance sheet of the central bank and deficit financing has triggered another episode of currency depreciation and an inflation spike. The peso depreciated by 9.1% on average in August and by 41.2% at the end of August compared to the beginning of the month. Inflation registered 31.2% y-o-y in July vs 25.0% at the beginning of 2018. A series of austerity measures was announced at the beginning of September. The plan focuses on deep fiscal adjustments in response to the ongoing currency and external sector challenges as well as rising inflation. The recent measures have a number of notable features, including: a quicker fiscal adjustment, bringing the primary fiscal accounts into balance in 2019 rather than 2020, in addition to halving the number of ministers, from 22 to 11. It also included provisions to support social spending in the austerity package. Social spending was in fact the only component of expenditure to increase in the government's new fiscal plan. Extremely tight fiscal and monetary policy helps to limit exchange rate pass-through on inflation, and currency weakening should help to narrow the large current account deficit, which could ultimately restore confidence in the policymaking framework. However, GDP growth is going to be severely impacted in 2018 and possibly even into 2019.

## Transition region

### Czech Republic

In the **Czech Republic**, GDP growth stood at 2.7% y-o-y in 2Q18, down from 3.4% y-o-y in 1Q18. This represents the slowest pace of growth since the end of 2014. Household consumption, government consumption and GFCF all showed lower rates of growth in 2Q18. Household consumption went from a 4.1% y-o-y increase in 1Q18 to 3.8% in 2Q18. Government consumption also eased slightly to 2.7% y-o-y growth in 2Q18, from 3.0% in the previous quarter. GFCF also showed some deceleration in growth, declining to 8.8% y-o-y in 2Q18 from 8.9% in 1Q18. However, exports went up by 4.3% y-o-y in 2Q18 from 3.8% in the previous quarter, while imports eased from a 5.3% rise in 1Q18 to 5.1% in 2Q18. GDP growth decelerated in 1Q18 to 3.4% y-o-y, from 5.5% in the previous quarter, which was a result of slower increases in household consumption and exports.

The performance of the country's manufacturing sector showed notable deceleration in August, reaching a 12-month low, according to the IHS Markit Czech Republic Manufacturing PMI. The index, while remaining in expansion territory, fell to 54.9 in August, down from 55.4 in July. Production growth remained strong in August, albeit falling to its lowest level since August 2017. On the price front, input costs continued to rise at a significant rate in August.

## World Oil Demand

*World oil demand growth in 2018 was revised downward by around 20 tb/d, primarily as a result of the slower-than-expected performance by non-OECD Latin America and the Middle East during 2Q18. Hence, world oil demand growth is now pegged at 1.62 mb/d, with total global consumption at 98.82 mb/d.*

*OECD oil demand has been quite robust in 1H18 in all three main OECD regions, particularly in the Americas. OECD oil demand growth remained unchanged from last month's report, despite some offsetting revisions within the region. OECD America oil demand data indicated further positive developments during the month of June, with gains in industrial and transportation fuels. There was a 20 tb/d upward revision for 2018, due to revisions in the first two quarters. Despite this upward trend in 1H18, expectations for 2H18 and 2019 remain unchanged and imply a continuation of the solid growth seen in 1H18. Oil demand growth in OECD Europe is still in positive territory for 1H18, however, oil demand during 2Q18 showed y-o-y declines, for the first time since 2014, leading to a downward revision of 25 tb/d for the year. Nevertheless, the steady economic outlook across the region, along with continuing positive vehicle sales, provide ground for further optimism during 2H18 and 2019. Expectations for the OECD Asia Pacific region were adjusted higher by around 10 tb/d as a result of better-than expected oil demand numbers, supported by the flourishing petrochemical industry in South Korea and strong mining activities in Australia.*

*In the non-OECD, based on the latest available data, oil demand growth was adjusted lower by 20 tb/d in 2018, despite some upward revisions in Other Asia by 25 tb/d. In Other Asia, oil demand growth was adjusted upward, mainly reflecting better-than-expected developments in India, Indonesia, Malaysia, Thailand and Singapore. Latin America and the Middle East were revised lower by 30 tb/d and 13 tb/d, respectively, in 2018, due to slower economic momentum denting oil demand growth in Latin America and economic restructuring plans, which include subsidy reductions in the Middle East.*

*In 2019, world oil demand growth was revised slightly lower by 20 tb/d from the previous month's report, primarily as a result of economic revisions to Latin America and the Middle East. World oil demand growth is now anticipated at 1.41 mb/d and total global consumption at around 100.23 mb/d.*



## World oil demand in 2018 and 2019

Table 4 - 1: World oil demand in 2018\*, mb/d

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17	
							Growth	%
Americas	24.97	25.15	25.34	25.31	25.44	25.31	0.34	1.37
of which US	20.19	20.53	20.58	20.47	20.58	20.54	0.35	1.73
Europe	14.30	13.95	14.24	14.80	14.49	14.37	0.07	0.51
Asia Pacific	8.06	8.54	7.65	7.77	8.33	8.07	0.01	0.14
<b>Total OECD</b>	<b>47.33</b>	<b>47.65</b>	<b>47.23</b>	<b>47.89</b>	<b>48.26</b>	<b>47.76</b>	<b>0.43</b>	<b>0.90</b>
Other Asia	13.24	13.55	13.84	13.43	13.96	13.70	0.45	3.40
of which India	4.53	4.83	4.74	4.40	5.02	4.75	0.22	4.76
Latin America	6.51	6.35	6.51	6.85	6.51	6.55	0.05	0.74
Middle East	8.17	8.19	7.98	8.61	7.94	8.18	0.01	0.10
Africa	4.20	4.35	4.32	4.27	4.38	4.33	0.13	3.01
<b>Total DCs</b>	<b>32.13</b>	<b>32.44</b>	<b>32.65</b>	<b>33.16</b>	<b>32.79</b>	<b>32.76</b>	<b>0.63</b>	<b>1.97</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	12.84	12.71	13.12	12.74	0.42	3.40
<b>Total "Other regions"</b>	<b>17.74</b>	<b>17.68</b>	<b>18.03</b>	<b>18.33</b>	<b>19.15</b>	<b>18.30</b>	<b>0.56</b>	<b>3.15</b>
<b>Total world</b>	<b>97.20</b>	<b>97.76</b>	<b>97.91</b>	<b>99.38</b>	<b>100.20</b>	<b>98.82</b>	<b>1.62</b>	<b>1.67</b>
Previous estimate	97.20	97.67	97.91	99.44	100.27	98.83	1.64	1.68
Revision	0.00	0.08	-0.01	-0.06	-0.07	-0.01	-0.02	-0.02

Note: \* 2018 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

Table 4 - 2: World oil demand in 2019\*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18	
							Growth	%
Americas	25.31	25.41	25.57	25.59	25.69	25.57	0.26	1.01
of which US	20.54	20.77	20.78	20.72	20.81	20.77	0.23	1.13
Europe	14.37	14.01	14.27	14.85	14.53	14.42	0.05	0.32
Asia Pacific	8.07	8.53	7.61	7.75	8.30	8.05	-0.03	-0.34
<b>Total OECD</b>	<b>47.76</b>	<b>47.95</b>	<b>47.45</b>	<b>48.19</b>	<b>48.53</b>	<b>48.03</b>	<b>0.27</b>	<b>0.57</b>
Other Asia	13.70	13.93	14.23	13.81	14.35	14.08	0.39	2.81
of which India	4.75	5.04	4.95	4.60	5.23	4.95	0.21	4.36
Latin America	6.55	6.45	6.61	6.96	6.61	6.66	0.11	1.63
Middle East	8.18	8.26	8.05	8.69	8.01	8.25	0.07	0.90
Africa	4.33	4.46	4.43	4.37	4.48	4.44	0.11	2.45
<b>Total DCs</b>	<b>32.76</b>	<b>33.10</b>	<b>33.32</b>	<b>33.84</b>	<b>33.47</b>	<b>33.43</b>	<b>0.67</b>	<b>2.05</b>
FSU	4.82	4.75	4.59	4.98	5.31	4.91	0.09	1.87
Other Europe	0.74	0.75	0.71	0.75	0.84	0.76	0.02	2.69
China	12.74	12.62	13.20	13.07	13.48	13.09	0.36	2.79
<b>Total "Other regions"</b>	<b>18.30</b>	<b>18.12</b>	<b>18.49</b>	<b>18.79</b>	<b>19.64</b>	<b>18.77</b>	<b>0.47</b>	<b>2.54</b>
<b>Total world</b>	<b>98.82</b>	<b>99.17</b>	<b>99.27</b>	<b>100.82</b>	<b>101.63</b>	<b>100.23</b>	<b>1.41</b>	<b>1.43</b>
Previous estimate	98.83	99.11	99.29	100.90	101.72	100.26	1.43	1.45
Revision	-0.01	0.06	-0.03	-0.08	-0.09	-0.03	-0.02	-0.02

Note: \* 2018 and 2019 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.



## OECD

### OECD Americas

#### US

The latest available monthly data for June 2018 indicates an increase in oil demand by around 0.14 mb/d, or 0.7%, y-o-y. Oil demand in the US increased for the ninth month in a row, amid strong support from the country's robust economic growth and industrial activity, particularly the petrochemical sector. Total consumption is pegged around 21 mb/d in June 2018. Gains in oil demand originated primarily from the industrial and transportation sectors. Demand for NGLs/LPG was seen growing by 82 tb/d or 3.3% y-o-y, notably, for the petrochemical sector.

Growth in jet/kerosene demand was stronger than in previous months, which is to be expected at the onset of the traditional holiday season. Jet/kerosene demand growth stood at 91 tb/d, or 5.2% y-o-y.

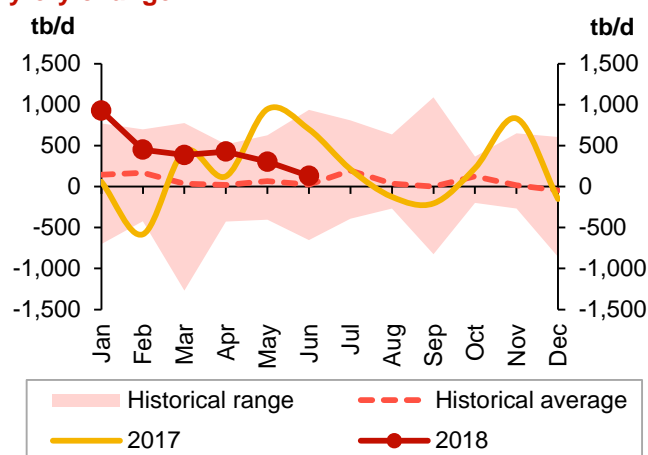
Motor gasoline requirements for June 2018 increased for the first time in three months, adding 26 tb/d compared to the same period last year. This is in line with y-o-y rising vehicles sales and occurred despite the high baseline during the same month in 2017 and the ongoing gains in vehicle efficiencies. Light vehicle sales edged higher y-o-y by 3.2%, marking the fourth consecutive month of increases.

In contrast, June 2018 residual fuel oil requirements were sluggish, declining by 0.1 mb/d, or 28.7% y-o-y, while diesel oil requirements declined slightly during the same month.

According to data for the first eight months of 2018 – including monthly data until June and preliminary weekly data for July and August – US oil demand grew strongly by around 0.6 mb/d. The bulk of growth originated in the lighter and middle part of the barrel - NGLs/LPG, diesel oil and jet/kerosene, whereas gasoline demand declined slightly.

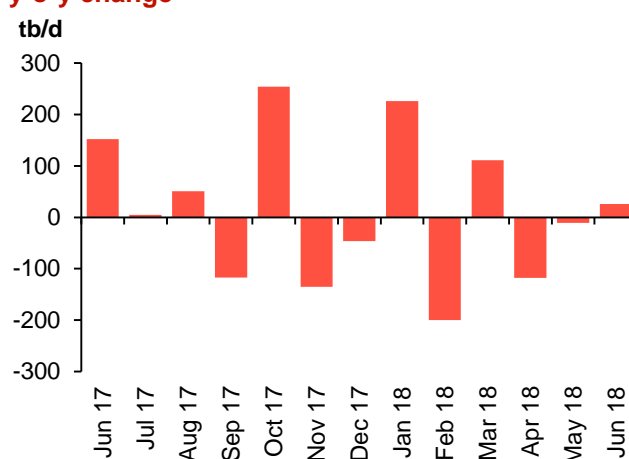
For the remainder of 2018 and 2019, US oil demand is expected to be determined by the developments in the industrial and the transportation sector and the economy in general. As a result, the overall risks for future US oil demand are skewed to the upside. Upside potential lies in the projected growth of the economy and demand from the transportation and industrial sectors, while fuel substitution, and to some extent vehicle efficiencies, pose the major downside risks.

**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.

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

	<b>Jun 18</b>	<b>Jun 17</b>	<b>Change 2018/17</b>	
			<b>tb/d</b>	<b>%</b>
LPG	2,540	2,458	82	3.3
Naphtha	206	244	-38	-15.6
Gasoline	9,798	9,772	26	0.3
Jet/kerosene	1,855	1,764	91	5.2
Diesel oil	3,954	3,964	-10	-0.3
Fuel oil	249	349	-100	-28.7
Other products	2,394	2,301	92	4.0
<b>Total</b>	<b>20,996</b>	<b>20,852</b>	<b>143</b>	<b>0.7</b>

Sources: US Energy Information Administration and OPEC Secretariat.

## Canada

In **Canada**, oil demand in June increased by 11 tb/d compared to the same month in 2017, posting a third consecutive monthly increase. Demand for the majority of main petroleum product categories registered losses, particularly naphtha and LPG. However, these decreases have been more than offset by a strong rise in residual fuel oil demand.

Oil demand in 2019 is projected to remain roughly at the levels of 2018, with marginal increases and balanced risks going forward. Total oil demand for the month of June 2018 was estimated at 2.39 mb/d.

## Mexico

**Mexico's oil demand** was negative for another month in July 2018, declining by 53 tb/d, or 2.7 % y-o-y. Shrinking demand for the majority of petroleum product categories has been only partly offset by rising residual fuel oil requirements. Total product demand during the month is pegged at 1.92 mb/d.

The risks for 2018 and 2019 are skewed to the downside and relate to the performance of the country's overall economy.

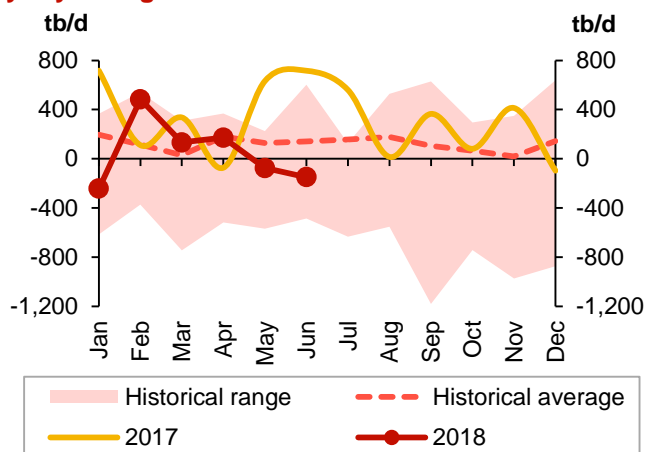
In 2018, **OECD Americas oil demand** is expected to grow 0.34 mb/d, compared to the previous year to average 25.31 mb/d. 2019 OECD Americas oil demand is projected to increase by 0.26 mb/d, compared with 2018.

## OECD Europe

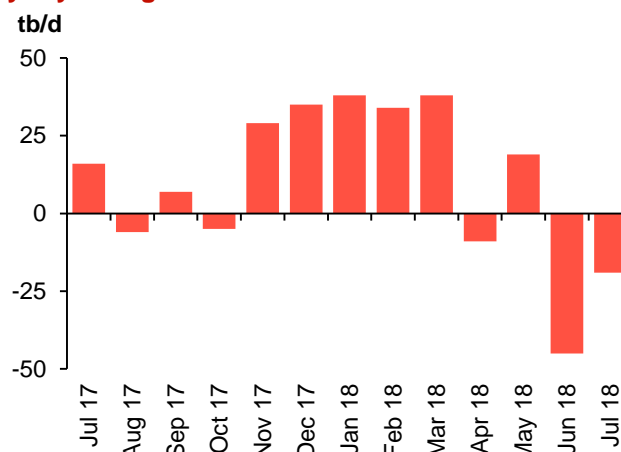
Following strong growth in 2016, 2017 and 1Q18, **European oil demand** growth was negative in 2Q18, y-o-y.

Nevertheless, oil demand is still positive for 1H18. Some preliminary indications for July 2018 imply weaker growth y-o-y. The major developments during 1H18 are the strong growth in gasoline demand; the decline in diesel oil requirements in the road transportation sector; sizeable air travelling activity and, consequently, robust jet/kerosene requirements. The shift towards gasoline is not surprising in the road transportation sector and it is mainly a result of the recent developments in relation to diesel emissions, while healthy jet/kerosene demand correlates with a growing economy in the region. The large majority of countries in the region show increasing oil demand y-t-d, compared with the same period in 2017.

Gains in road transportation fuels also reflect the positive momentum in auto sales, which continue to increase. The general expectations for the region's oil demand growth during the remainder of 2018 and 2019 are positive, however, slightly more conservative than those experienced during the first half of the year, mainly due to the high historical baseline and some additional risks, such as fuel substitution.

**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.

**OECD Europe's oil demand** is projected to grow by 73 tb/d in 2018, while in 2019 oil demand will grow by 45 tb/d, compared with 2018.

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

	<b>Jul 18</b>	<b>Jul 17</b>	<b>Change 2018/17</b>	
			<b>tb/d</b>	<b>%</b>
LPG	490	441	49	11.2
Naphtha	698	693	5	0.7
Gasoline	1,134	1,115	19	1.7
Jet/kerosene	889	900	-11	-1.2
Diesel oil	3,234	3,301	-67	-2.0
Fuel oil	238	251	-13	-5.3
Other products	632	703	-71	-10.1
<b>Total</b>	<b>7,315</b>	<b>7,404</b>	<b>-89</b>	<b>-1.2</b>

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

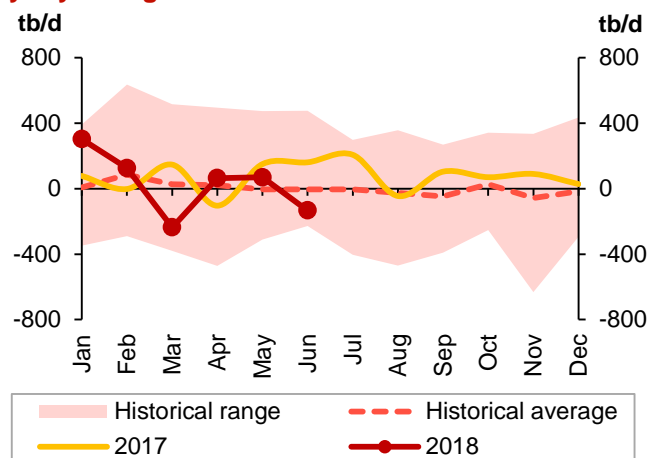
Sources: JODI, UK Department for Business, Energy & Industrial Strategy, Unione Petrolifera and OPEC Secretariat.

## OECD Asia Pacific

### Japan

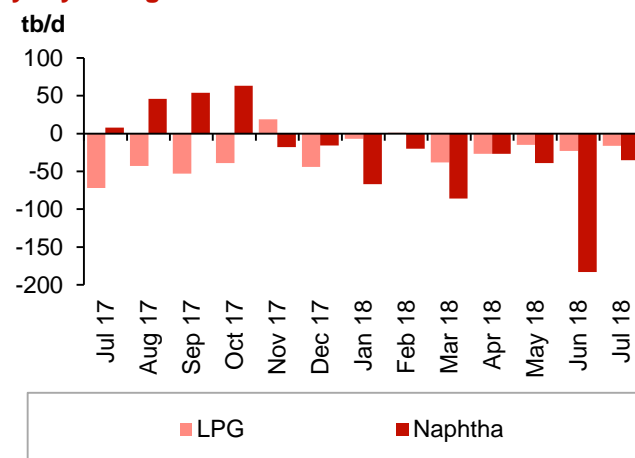
Preliminary data indicates that **Japanese oil demand** shrank slightly by 82 tb/d or 2.2%, y-o-y, in July 2018, for another month of decline. This follows persistent monthly y-o-y decreases since early 2013, with minor exceptions. The performance of the majority of petroleum products remained negative, notably LPG, naphtha and jet/kerosene. Direct use of crude oil and residual fuel oil for electricity generation showed gains y-o-y, as a result of warm weather and occurred despite wide-scale energy commodity substitution.

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



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

**Graph 4 - 6: Japan's LPG and naphtha demand, y-o-y change**



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

Regarding the outlook for the remainder of 2018 and 2019, Japanese oil demand remained unchanged from last month's forecasts with the risks skewed towards the downside, mainly due to dim economic forecasts, increasing efficiencies in the road transportation sector, as well as fuel substitution. Preliminary total product demand during the month of July 2018 is pegged at 3.62 mb/d.

**Table 4 - 5: Japan's domestic sales, tb/d**

	Jul 18	Jul 17	Change 2018/17 tb/d	%
LPG	338	354	-16	-4.6
Naphtha	671	706	-35	-5.0
Gasoline	942	950	-8	-0.8
Jet/kerosene	309	322	-13	-4.1
Diesel oil	732	750	-18	-2.4
Fuel oil	270	267	3	1.3
Other products	361	356	5	1.5
<b>Total</b>	<b>3,623</b>	<b>3,705</b>	<b>-82</b>	<b>-2.2</b>

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

## South Korea

Positive indications for oil demand originate in **South Korea**, apart from additional volumes from Australia and, to a smaller extent, from New Zealand. Latest available South Korean data for June 2018 indicates an increase of 40 tb/d, or 1.5%, compared with the same month last year, with demand for the majority of the main petroleum product categories rising, particularly LPG, naphtha, gas/diesel oil and gasoline. Total oil demand for the month of June 2018 was 2.76 mb/d.

The outlook for South Korean oil demand during the remainder of 2018 and 2019 remained positive, with risks being skewed to the upside, compared with last month's projections.

## Australia

In Australia, June 2018 oil demand data indicated solid gains, product demand increased by 38 tb/d, or 3.5% y-o-y, with the bulk being industrial gas/diesel oil as used in the country's mining industry. Total oil demand for the month of June 2018 was 1.12 mb/d.

**OECD Asia Pacific oil demand** is projected to remain stagnant in 2018, while it is projected to drop by 0.03 mb/d y-o-y in 2019.

## Non-OECD

### China

In July 2018, **Chinese oil demand** continued to grow, adding 0.48 mb/d, or more than 4.1% y-o-y, despite declines seen in diesel oil. Total oil demand reached 12.15 mb/d during the month of July.

Y-t-d oil demand growth for China stands at 0.45 mb/d, signifying firm growth amid decent gains in light distillate requirements by the petrochemical sector, in addition to gasoline supported by healthy car sales, even despite the declining trend lately.

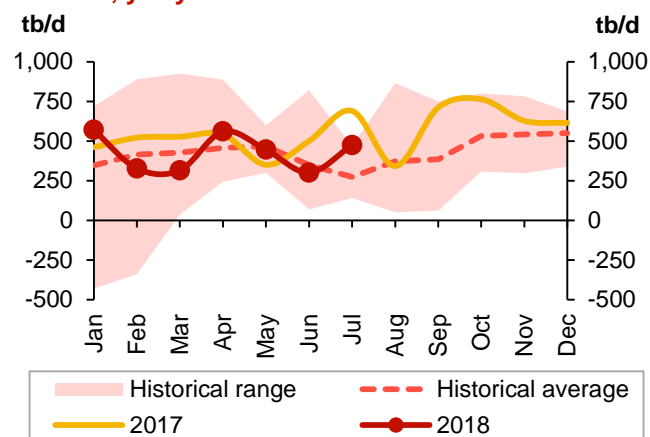
In July 2018, oil demand growth was supported by increases in jet/kerosene, LPG, fuel oil and gasoline by around 18%, 15%, 14% and 2% y-o-y, respectively.

On the other hand, diesel oil consumption in the country declined by around 3% y-o-y in July. Jet/kerosene demand increased by a solid 0.13 mb/d, with total demand at around 0.85 mb/d. This increase is in line with the recent uptick in travel activities during the summer holidays. July 2018 passenger traffic added 11%, y-o-y. Total LPG consumption is now around 1.74 mb/d as propane dehydrogenation capacity (PDH) continues to expand in addition to new alkylation units in Shijiazhuang and Tianjin petrochemicals, with around 0.50 million tonnes per year (mtpy) capacities, starting operations. Gasoline demand was higher by around 57 tb/d y-o-y, despite declines in vehicle sales. According to statistics and analysis by the China Association of Automobile Manufacturers (CAAM) and Haver Analytics, in July 2018 the sales of passenger cars witnessed a decline of around 5.6% y-o-y. Sales were at 2.0 million units in July.

Fuel oil demand rebounded somewhat after months of declines. July 2018 recorded gains of 60 tb/d on the back of healthy bunker sales, as well as higher feedstock demand. Diesel oil decreased by around 85 tb/d, showing signs of slower momentum compared with previous months, as well as sharp declines in coal production – the lowest production levels since September 2016. The manufacturing PMI registered 51.2 points in July. Despite being in expansion territory, it remains the second-lowest monthly reading in 2018. Total consumption for diesel oil is currently around 3.23 mb/d.

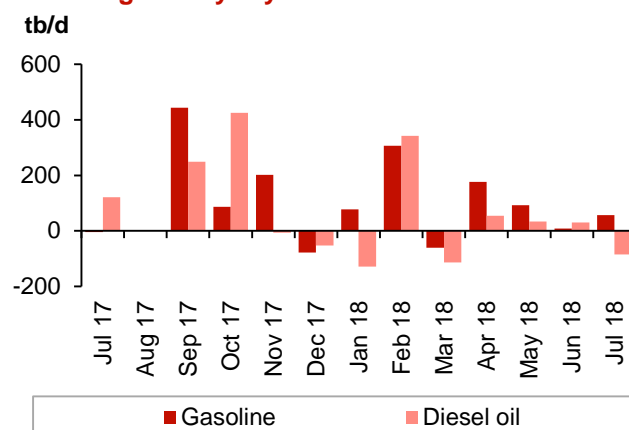
For the remainder of 2018, projections for oil demand development in China remain unchanged from the previous assessment, supported by the prospect of steady economic activities and firm petrochemical and transportation demand. For 2019, oil demand projections in China are also in line with last month's report. Focus will be given to transportation and industrial fuels, while various programmes limiting oil demand increases, such as fuel substitution with natural gas and fuel quality programs, are also accounted for.

**Graph 4 - 7: Changes in China's apparent oil demand, y-o-y**



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: China's diesel oil and gasoline demand growth y-o-y**



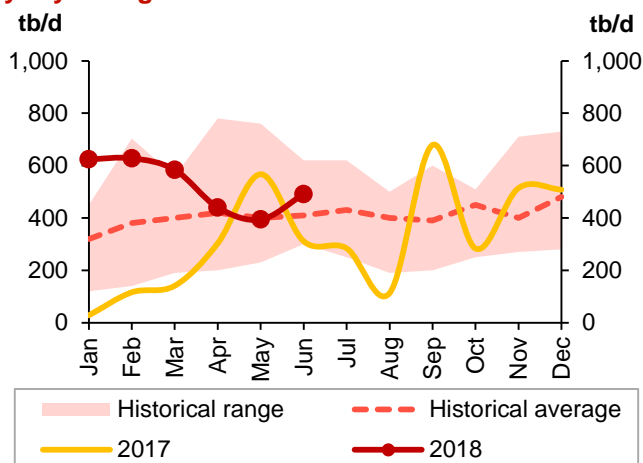
Sources: Facts Global Energy, China OGP (Xinhua News Agency), Argus Global Markets, JODI, National Bureau of Statistics, China and OPEC Secretariat.

## World Oil Demand

For 2018, China oil demand is anticipated to grow by around 0.42 mb/d, while expectations for 2019 oil demand growth in China are in the range of 0.36 mb/d.

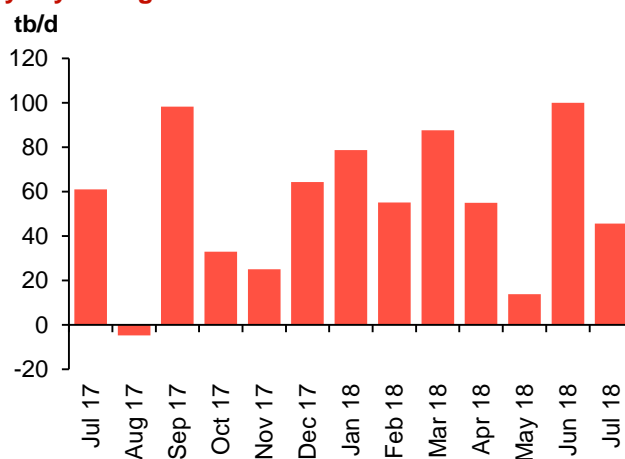
## Other Asia

**Graph 4 - 9: Other Asia's oil demand, y-o-y change**



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

**Graph 4 - 10: India's gasoline demand, y-o-y change**



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

## India

**India's oil demand** continued to increase during the month of July 2018 by around 0.3 mb/d or 7.4% y-o-y. This takes the y-t-d growth (data from January to July) to more than 0.3 mb/d of growth in demand. Total consumption in July is pegged at 4.3 mb/d.

In terms of products, the y-o-y declines in consumption for fuel oil and the "other products" category were more than offset by strong increases in naphtha, gasoline, LPG and middle distillates. Naphtha increased the most, rising by 0.15 mb/d or a massive 61% y-o-y, mainly on a weak base line as naphtha demand struggled during the same period in 2017 when uncertainties regarding the Goods and Services Tax (GST) pressured demand in the petrochemicals sector.

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

	<b>Jul 18</b>	<b>Jul 17</b>	<b>Change 2018/17</b>	
			<b>tb/d</b>	<b>%</b>
LPG	712	672	40	6.0
Naphtha	400	249	151	60.7
Gasoline	628	582	46	7.8
Jet/kerosene	245	232	13	5.5
Diesel oil	1,717	1,636	80	4.9
Fuel oil	272	279	-7	-2.5
Other products	331	358	-28	-7.7
<b>Total</b>	<b>4,304</b>	<b>4,009</b>	<b>295</b>	<b>7.4</b>

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

Gasoline added 46 tb/d, or 7.8%, y-o-y in July. The increase in gasoline demand growth is mainly due to the continuing increase in sales of two-wheelers in India, which rose by 8.2% y-o-y in July. Passenger vehicles sales, on the other hand, recorded a decline of 2.7% y-o-y, mainly attributed to the higher base line of July 2017.

Diesel oil demand showed a rise of 80 tb/d, or 4.9% y-o-y, despite heavy rainfall and trucker strikes capping gains. Total diesel oil consumption is estimated at 1.72 mb/d. Improved overall economic and manufacturing

activities, ongoing infrastructure projects, especially in road construction, along with the economic viability of diesel-driven vehicles as a result of lower fuel costs have supported diesel oil consumption.

LPG demand increased during the month of July, continuing its y-o-y growth rising by 40 tb/d, or 6%, y-o-y, with total consumption at around 0.71 mb/d. Consumption of LPG continues to be driven by the residential sector in response to government policies in expanding LPG connections to households. Fuel oil demand shrank by a small 7 tb/d or 2.5% y-o-y, on the back of declining requirements from steel and agriculture sectors.

## Indonesia

In **Indonesia**, the latest June 2018 data recorded gains of around 1% y-o-y, the lowest level of monthly gains in 2018 so far. However, data for 1H18 indicates a strong gain of 72 tb/d or 4.8%, y-o-y. In June, products showed mixed performances, while strong gains were recorded in the middle distillate-part of the barrel, some declines in LPG and gasoline offset the overall growth.

## Thailand

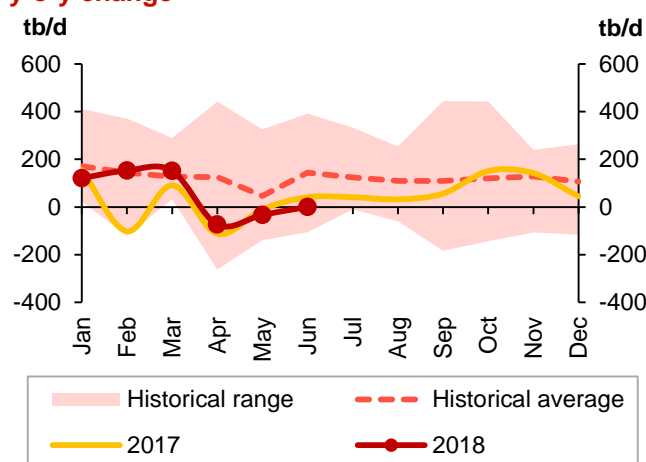
In June 2018, **oil demand in Thailand** was also positive, increasing by more than 4% y-o-y. This was led by LPG, which increased by 8.1% y-o-y, due to demand in the petrochemical sector. Jet/kerosene as well as gasoline – the transportation fuels – also supported oil requirements during the month.

The outlook for oil demand in the **Other Asia** region during the remainder of 2018 is now skewed slightly to the upside. Support is mainly based on firm economic conditions in India and elsewhere in the region, in addition to healthy projections for the petrochemical sector. For 2019, oil demand growth in the region remained unchanged from the previous month, very much supported by the steady economic forecast. India is anticipated to be the major contributor to growth in the Other Asia category. Middle distillates, followed by gasoline, are the leading products for oil demand growth in 2019.

**Other Asia's oil demand** is anticipated to grow by 0.45 mb/d y-o-y in 2018, while in 2019, it is projected to rise by 0.39 mb/d.

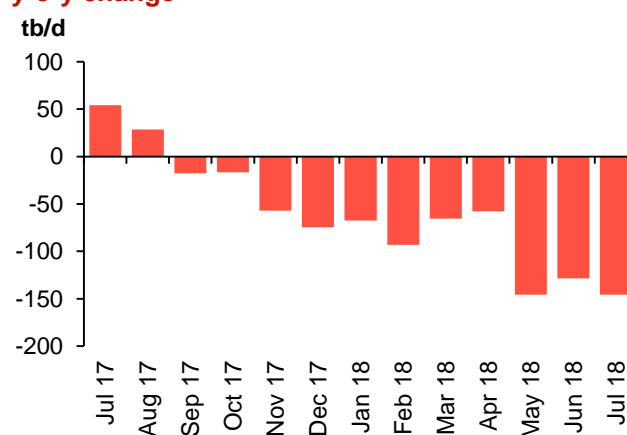
## Latin America

**Graph 4 - 11: Latin America oil demand, y-o-y change**



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

**Graph 4 - 12: Brazil's 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 **Brazil**, oil demand weakened in July 2018, edging lower by 18 tb/d, or around 1%, compared with July 2017. Declines were led by gasoline, which dropped by 0.15 mb/d, or 19.3%, y-o-y and fuel oil down by 18 tb/d, or 19.9%, y-o-y. This was partially counterbalanced by strong growth in ethanol requirements in addition to firm middle distillate growth. Demand for transportation fuels was supported by cheaper ethanol prices compared with gasoline boosting end-users to increase ethanol usage in their flex-fuel engine vehicles.

On the other hand, gasoline demand has been declining since September 2017 and continued to post a sharp decline in July 2018. Gasoline average retail prices during the month of July 2018 hit 4.49 Reais/Liter, as reported by ANP and Haver analytics, while ethanol prices recorded 2.79 Reais/Liter, 1.7 Reais/Liter, cheaper than gasoline.

Diesel demand increased by 32 tb/d, or 3.3%, y-o-y as industrial production increased for the second consecutive month by 3.1% compared with the same period in 2017.

Fuel oil consumption declined the most in percentage terms, dropping by 18 tb/d y-o-y as a result of the improvements in the hydropower generation system.

**Table 4 - 7: Brazil's oil demand\*, tb/d**

	<b>Jul 18</b>	<b>Jul 17</b>	<b>Change 2018/17</b>	
			<b>tb/d</b>	<b>%</b>
LPG	231	242	-11	-4.4
Naphtha	146	144	2	1.4
Gasoline	608	753	-146	-19.3
Jet/kerosene	131	120	11	9.2
Diesel oil	1,011	978	32	3.3
Fuel oil	74	92	-18	-19.9
Other products	446	335	111	33.3
<b>Total</b>	<b>2,646</b>	<b>2,664</b>	<b>-18</b>	<b>-0.7</b>

Note: \* = Inland deliveries.

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

## Argentina

In **Argentina**, the latest available data for the month of June 2018 showed an increase in oil demand requirements, edging up by 21 tb/d, or 3%, y-o-y. While transportation fuels have recorded gains led by jet/kerosene and gasoline, those gains were somewhat offset by declines in petrochemical feedstocks and power generation fuels, namely LPG, diesel oil and fuel oil. Total consumption in the country was pegged at 0.76 mb/d in the month.

## Ecuador

Latest **Ecuadorian data** for July 2018 showed an increase in oil requirements, compared with the same month last year by 27 tb/d, or 27%. All products categories recorded positive oil demand growth with fuel oil, LPG and jet/kerosene registering the largest gains.

Total consumption in the country reached 0.27 mb/d in July 2018.

Table 4 - 8: Ecuador's oil demand, tb/d

	Jul 18	Jul 17	Change 2018/17	
			tb/d	%
LPG	39	33	6	18.2
Naphtha	14	13	1	7.7
Gasoline	69	66	3	4.5
Jet/kerosene	8	7	1	14.3
Diesel oil	92	85	7	8.2
Fuel oil	28	19	9	47.4
Other products	20	20	0	0.0
<b>Total</b>	<b>270</b>	<b>243</b>	<b>27</b>	<b>11.1</b>

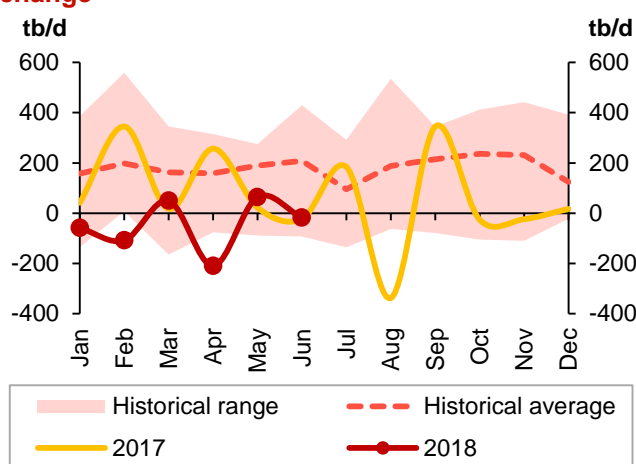
Sources: JODI and OPEC Secretariat.

Looking ahead, uncertainties for 2018 oil demand growth in **Latin America** are currently skewed downward as a result of economic turmoil in a number of countries in the region. As such, oil demand projections for 2018 have been adjusted lower for the remainder of the year. In 2019, improvement in GDP compared with the current year provides grounds for cautious optimism for oil demand growth. Brazil is projected to be the main contributor, with transportation fuels leading growth.

Latin American oil demand is expected to rise by 48 tb/d in 2018 and gain further momentum in 2019 to increase by around 0.11 mb/d.

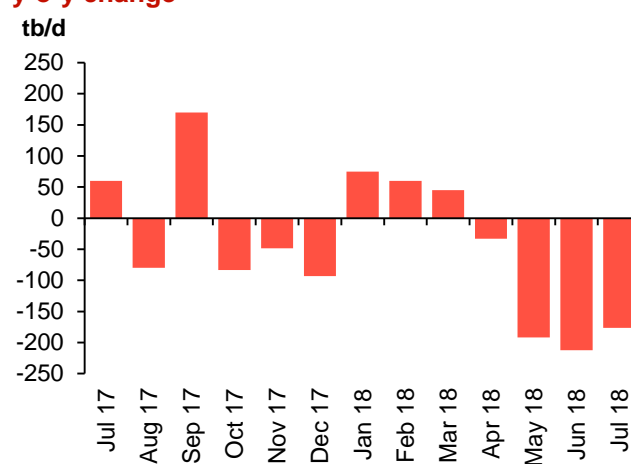
## Middle East

Graph 4 - 13: Middle East oil demand, y-o-y change



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

Graph 4 - 14: Saudi Arabia's direct crude burning, y-o-y change



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

## Saudi Arabia

In **Saudi Arabia**, oil demand declined in July for the fourth consecutive month, declining by 0.38 mb/d, or 13.6%, y-o-y. This is the second highest monthly decline in 2018 after the 0.42 mb/d y-o-y plunge in April 2018. Declines were evident across the barrel with jet/kerosene, fuel oil and crude oil for the purpose of burning posting the largest drops in percentage terms. After a sharp rise in jet/kerosene y-o-y requirements in the previous month, assumed to be a result of stocking prior to the Hajj season, demand for jet/kerosene in July weakened by 57 tb/d equating to nearly 60% y-o-y. Fuel oil demand had the largest decline in absolute terms, the product lost by as much as 0.18 mb/d, despite the peak summer demand season when air conditioning usage intensifies. Additionally, crude oil utilized for direct burning for power generators also declined by around 0.18 mb/d or 23% y-o-y. The decrease in usage of these products was mostly a result of subsidy reductions in electricity tariffs, encouraging households to optimize electricity consumption.

## World Oil Demand

Diesel oil demand dipped by as much as 36 tb/d, continuing the downward trend which started in early 2016. However, the level of decline has eased in July. Year-to-date in July, diesel oil demand indicated a decline of 81 tb/d y-o-y. The overall slowdown in construction activities in addition to the substitution of diesel oil in the power generation sector also contributed to this decline. Diesel oil demand peaked in September 2015, when total consumption reached around 1.0 mb/d, while total consumption reached only 0.59 mb/d in July 2018.

### Iraq

In **Iraq**, July 2018 oil demand growth increased by 70 tb/d, with total products consumption now pegged at 0.74 mb/d. This level of growth marks the second-highest monthly oil demand growth recorded in 2018. Demand for transportation fuels – jet fuel, gasoline and diesel oil – along with fuel oil, increased over the course of the month, while declines in direct crude demand for power generation and naphtha partially offset some of the gains.

Looking forward, uncertainties for the remainder of 2018 in **Middle East oil demand** projections are currently skewed to the down side, mainly as a result of economic restructuring programmes and on geopolitical concerns. For 2019, oil demand growth is forecast to gain momentum over the current year's estimation, mainly as a result of assumed steady momentum in the economy. In terms of countries and due to the baseline effect, Saudi Arabia is projected to be the largest contributor to growth. On the other hand, geopolitical concerns, as well as subsidy reduction policies are assumed to negatively impact oil demand growth in the region in 2019.

For 2018, Middle East oil demand is projected to slightly increase, while oil demand in 2019 is anticipated to rise by 74 tb/d.

## World Oil Supply

Non-OPEC oil supply in 2018 was revised down by 0.06 mb/d from the previous MOMR to average 59.56 mb/d, mainly due to a downward adjustment in the supply forecast for Brazil, the UK, India, Malaysia and China on lower-than-expected output in 2H18, which was partially offset by an upward revision in US supply. Y-o-y growth was also revised down by 0.06 mb/d to now stand at 2.02 mb/d. The US, Brazil, Canada, Kazakhstan and the UK are expected to be the main drivers for y-o-y growth, while Mexico and Norway will show the largest declines.

Non-OPEC oil supply in 2019 was also revised down by 41 tb/d and is now projected to reach an average of 61.71 mb/d, mainly due to a downward revision to the UK's supply forecast for next year. However, y-o-y supply growth was revised up by 0.02 mb/d to now stand at 2.15 mb/d. The US, Brazil, Canada, the UK, Kazakhstan, Australia, China and Malaysia are the main growth drivers, while Mexico and Norway are expected to see the largest declines. The 2019 forecast is subject to many uncertainties.

OPEC NGLs production in 2018 and 2019 is expected to grow by 0.12 mb/d and 0.11 mb/d to average 6.36 mb/d and 6.47 mb/d, respectively. In August, OPEC crude oil production increased by 278 tb/d to average 32.56 mb/d, according to secondary sources.

Non-OPEC supply in August, including OPEC NGLs, rose by 0.21 mb/d to average 66.31 mb/d, higher by 2.89 mb/d y-o-y. As a result, preliminary data indicates that global oil supply increased in August by 0.49 mb/d m-o-m to average 98.88 mb/d.

**Table 5 - 1: Non-OPEC supply forecast comparison in 2018-2019\*, mb/d**

Region	2018	Change 2018/17	2019	Change 2019/18
OECD Americas	23.39	1.89	24.91	1.53
OECD Europe	3.86	0.03	3.86	0.00
OECD Asia Pacific	0.40	0.01	0.45	0.05
<b>Total OECD</b>	<b>27.64</b>	<b>1.93</b>	<b>29.22</b>	<b>1.58</b>
Other Asia	3.53	-0.06	3.53	0.00
Latin America	5.19	0.05	5.55	0.36
Middle East	1.23	-0.01	1.24	0.01
Africa	1.53	0.02	1.62	0.09
<b>Total DCs</b>	<b>11.47</b>	<b>0.01</b>	<b>11.94</b>	<b>0.47</b>
FSU	14.10	0.05	14.13	0.04
Other Europe	0.12	-0.01	0.12	0.00
China	3.98	0.00	4.02	0.05
<b>Non-OPEC production</b>	<b>57.31</b>	<b>1.98</b>	<b>59.43</b>	<b>2.12</b>
Processing gains	2.25	0.04	2.28	0.03
<b>Non-OPEC supply</b>	<b>59.56</b>	<b>2.02</b>	<b>61.71</b>	<b>2.15</b>

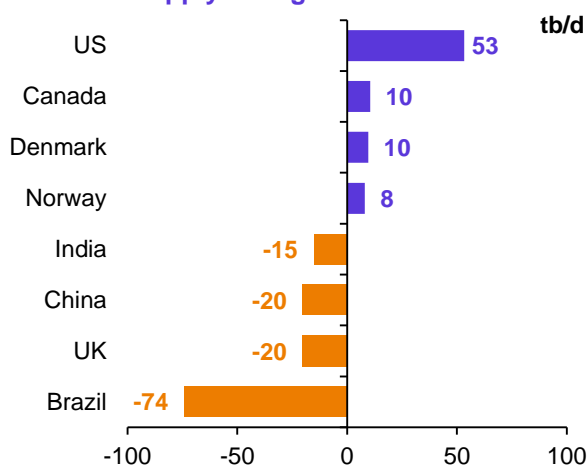
Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

## Monthly revisions to non-OPEC supply growth forecast

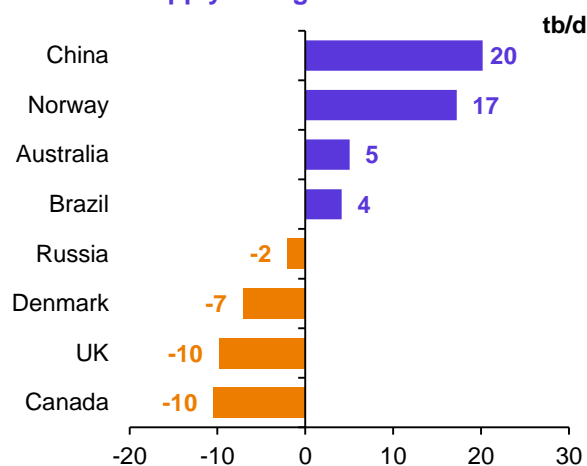
The **non-OPEC oil supply growth** forecast for **2018** was revised down by 0.06 mb/d to average 2.02 mb/d. On a country basis, the cumulative expected growth in the US, Canada, Denmark and Norway was revised up by 0.09 mb/d in 2018, while the oil supply forecast for Brazil, China, India, Malaysia and the UK was revised down by 0.15 mb/d (**Graph 5 – 1**).

**Graph 5 - 1: MOMR Sep 18/Aug 18 revisions in 2018\* annual supply changes**



Note: \* 2018 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 2: MOMR Sep 18/Aug 18 revisions in 2019\* annual supply changes**

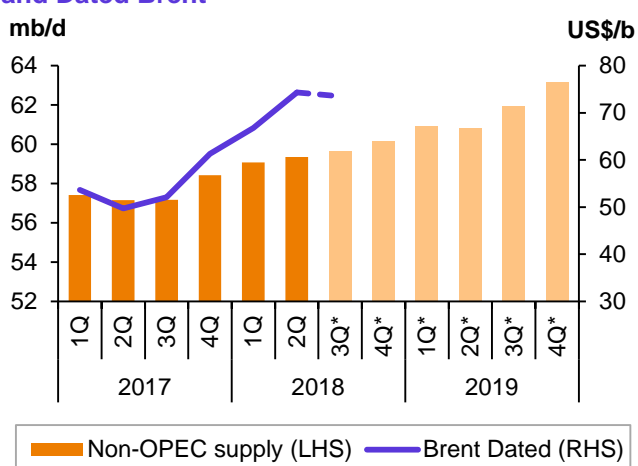


Note: \* 2019 = Forecast.  
Source: OPEC Secretariat.

Monthly revisions to non-OPEC oil supply growth for **2019**, as seen in **Graph 5 - 2**, indicate an upward revision mainly in Norway by 17 tb/d and China by 20 tb/d, while oil supply forecasts for Canada, the UK and Denmark and Russia were revised down a total of 29 tb/d.

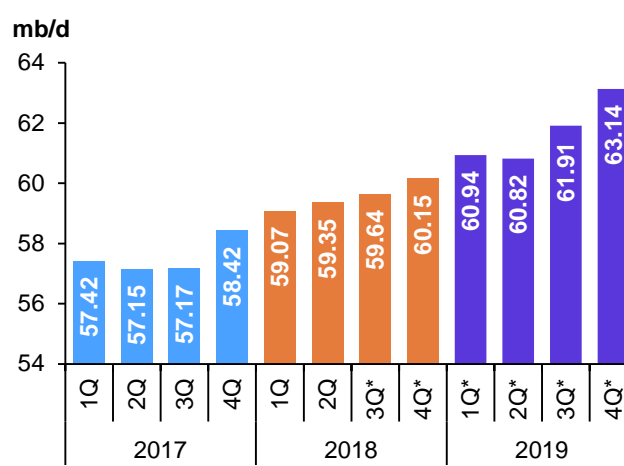
As a result, y-o-y growth for non-OPEC supply in 2019 was revised up by 0.02 mb/d to average 2.15 mb/d.

**Graph 5 - 3: Non-OPEC quarterly liquids supply and Dated Brent**



Note: \* 3Q18-4Q19 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 4: Non-OPEC quarterly oil supply**



Note: \* 3Q18-4Q19 = Forecast.  
Source: OPEC Secretariat.

## Non-OPEC oil supply in 2018 and 2019

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

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17	
							Growth	%
Americas	21.49	22.93	23.29	23.47	23.84	23.39	1.89	8.81
of which US	14.40	15.53	16.19	16.45	16.39	16.14	1.74	12.08
Europe	3.83	3.91	3.74	3.81	3.97	3.86	0.03	0.73
Asia Pacific	0.39	0.40	0.37	0.40	0.43	0.40	0.01	2.11
<b>Total OECD</b>	<b>25.71</b>	<b>27.24</b>	<b>27.40</b>	<b>27.68</b>	<b>28.23</b>	<b>27.64</b>	<b>1.93</b>	<b>7.51</b>
Other Asia	3.59	3.58	3.51	3.52	3.51	3.53	-0.06	-1.65
Latin America	5.14	5.11	5.16	5.17	5.31	5.19	0.05	0.96
Middle East	1.24	1.21	1.25	1.23	1.22	1.23	-0.01	-0.70
Africa	1.50	1.52	1.53	1.52	1.53	1.53	0.02	1.64
<b>Total DCs</b>	<b>11.47</b>	<b>11.41</b>	<b>11.46</b>	<b>11.44</b>	<b>11.58</b>	<b>11.47</b>	<b>0.01</b>	<b>0.05</b>
FSU	14.05	14.10	14.14	14.21	13.94	14.10	0.05	0.33
of which Russia	11.17	11.14	11.18	11.30	10.98	11.15	-0.02	-0.18
Other Europe	0.13	0.12	0.12	0.12	0.12	0.12	-0.01	-4.58
China	3.97	3.94	3.99	3.94	4.03	3.98	0.00	0.04
<b>Total "Other regions"</b>	<b>18.15</b>	<b>18.17</b>	<b>18.25</b>	<b>18.28</b>	<b>18.09</b>	<b>18.20</b>	<b>0.04</b>	<b>0.24</b>
<b>Total non-OPEC production</b>	<b>55.33</b>	<b>56.82</b>	<b>57.11</b>	<b>57.39</b>	<b>57.90</b>	<b>57.31</b>	<b>1.98</b>	<b>3.58</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>57.54</b>	<b>59.07</b>	<b>59.35</b>	<b>59.64</b>	<b>60.15</b>	<b>59.56</b>	<b>2.02</b>	<b>3.50</b>
Previous estimate	57.54	59.10	59.23	59.67	60.45	59.62	2.08	3.61
Revision	0.01	-0.03	0.13	-0.03	-0.30	-0.06	-0.06	-0.11

Note: \* 2018 = Forecast.

Source: OPEC Secretariat.

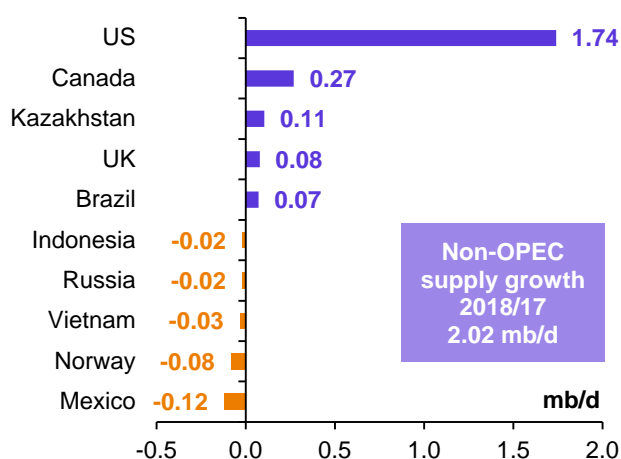
Table 5 - 3: Non-OPEC oil supply in 2019\*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18 Growth	%
Americas	23.39	24.20	24.40	25.21	25.82	24.91	1.53	6.53
of which US	16.14	16.71	17.34	17.73	18.28	17.52	1.38	8.53
Europe	3.86	3.96	3.65	3.81	4.02	3.86	0.00	0.04
Asia Pacific	0.40	0.42	0.44	0.46	0.47	0.45	0.05	11.67
<b>Total OECD</b>	<b>27.64</b>	<b>28.58</b>	<b>28.49</b>	<b>29.47</b>	<b>30.31</b>	<b>29.22</b>	<b>1.58</b>	<b>5.70</b>
Other Asia	3.53	3.54	3.54	3.53	3.52	3.53	0.00	0.14
Latin America	5.19	5.39	5.45	5.53	5.81	5.55	0.36	6.94
Middle East	1.23	1.25	1.25	1.24	1.24	1.24	0.01	1.22
Africa	1.53	1.57	1.60	1.63	1.66	1.62	0.09	5.69
<b>Total DCs</b>	<b>11.47</b>	<b>11.76</b>	<b>11.83</b>	<b>11.93</b>	<b>12.23</b>	<b>11.94</b>	<b>0.47</b>	<b>4.07</b>
FSU	14.10	14.14	14.10	14.11	14.17	14.13	0.04	0.25
of which Russia	11.15	11.17	11.17	11.17	11.17	11.17	0.02	0.18
Other Europe	0.12	0.12	0.12	0.12	0.12	0.12	0.00	-1.08
China	3.98	4.06	4.01	4.00	4.03	4.02	0.05	1.19
<b>Total "Other regions"</b>	<b>18.20</b>	<b>18.32</b>	<b>18.23</b>	<b>18.23</b>	<b>18.32</b>	<b>18.28</b>	<b>0.08</b>	<b>0.45</b>
<b>Total non-OPEC production</b>	<b>57.31</b>	<b>58.66</b>	<b>58.55</b>	<b>59.64</b>	<b>60.86</b>	<b>59.43</b>	<b>2.12</b>	<b>3.71</b>
Processing gains	2.25	2.28	2.28	2.28	2.28	2.28	0.03	1.25
<b>Total non-OPEC supply</b>	<b>59.56</b>	<b>60.94</b>	<b>60.82</b>	<b>61.91</b>	<b>63.14</b>	<b>61.71</b>	<b>2.15</b>	<b>3.61</b>
Previous estimate	59.62	61.00	60.89	61.93	63.16	61.75	2.13	3.58
Revision	-0.06	-0.06	-0.06	-0.02	-0.02	-0.04	0.02	0.03

Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

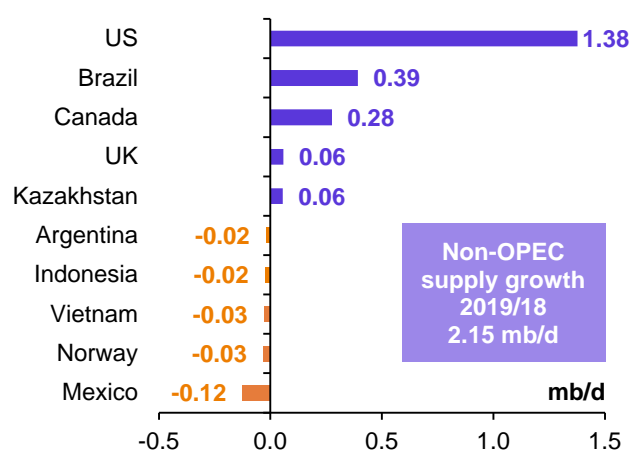
Graph 5 - 5: Annual supply changes for selected countries in 2018\*



Note: \* 2018 = Forecast.

Source: OPEC Secretariat.

Graph 5 - 6: Annual supply changes for selected countries in 2019\*



Note: \* 2019 = Forecast.

Source: OPEC Secretariat.



## OECD

**Total OECD oil supply in 2018** is expected to grow by 1.93 mb/d to average 27.64 mb/d. This has been revised up by 87 tb/d since the last *MOMR*, representing an upward revision in supply growth of 56 tb/d owing to a higher base by 31 tb/d in 2017. OECD Americas is forecast to see an increase of 1.89 mb/d y-o-y to average 23.39 mb/d, while oil supply in OECD Europe will show minor growth of 0.03 mb/d to average 3.86 mb/d (of which 3.1 mb/d is from the North Sea). The supply from OECD Asia Pacific is expected to grow by 0.01 mb/d y-o-y to average 0.40 mb/d.

Yearly growth of 1.58 mb/d is anticipated for OECD oil supply in **2019**, to average 29.22 mb/d. OECD Americas and Asia Pacific are both expected to grow next year by 1.53 mb/d and 0.05 mb/d to average 24.91 mb/d and 0.45 mb/d, respectively. Oil supply in OECD Europe is expected to be stagnant at 3.86 mb/d.

## OECD Americas

### US

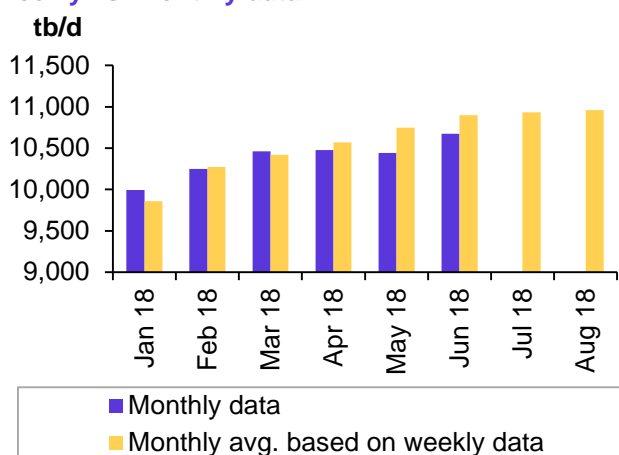
**US crude oil output in June** was up by 0.23 mb/d m-o-m, based on monthly data, to average 10.67 mb/d following a decline of 32 tb/d in May. US crude oil output in June showed growth of 1.60 mb/d, y-o-y. Previously, the estimated average monthly output based on preliminary weekly data in June showed an increase of 156 tb/d m-o-m to 10.90 mb/d. The main reason for m-o-m growth was increasing output in the Gulf of Mexico (GoM) after three consecutive months of decline due to prolonged maintenance.

GoM supply reached 1.66 mb/d, higher by 0.16 mb/d m-o-m, but still lower than the average output for 1Q18 at 1.67 mb/d. Output recovery in the GoM in June was due to increased field production in Jack/St.Malo, where total output rose to a record high 0.2 mb/d. Moreover, a production startup in Kaikias also supported GoM oil output in June.

According to US Energy Information Administration (EIA) data, m-o-m growth of crude oil output in Texas was up by 165 tb/d in June to average 4.41 mb/d. Despite pipeline-related bottlenecks in the Permian Basin, production has continued to grow. Meanwhile, oil production in North Dakota, Oklahoma, Colorado and Alaska dropped m-o-m by a total of 88 tb/d in June.

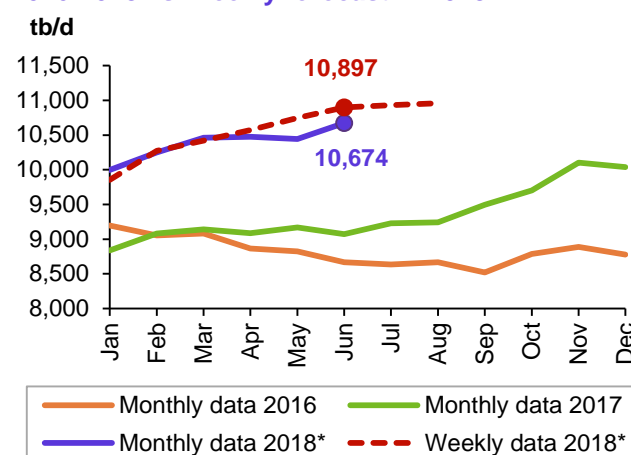
As a result, US crude oil production increased by 296 tb/d in 2Q18 q-o-q to average 10.53 mb/d, higher by 1.42 mb/d compared with the same quarter a year ago. The share of Texas in crude oil production in 2Q18 was around 41% of total US crude, amounting to 4.29 mb/d, up 0.92 mb/d y-o-y.

**Graph 5 - 7: US crude production, average weekly vs. monthly data**



Sources: EIA and OPEC Secretariat.

**Graph 5 - 8: US monthly crude oil production in 2016-2018 vs. weekly forecast in 2018**

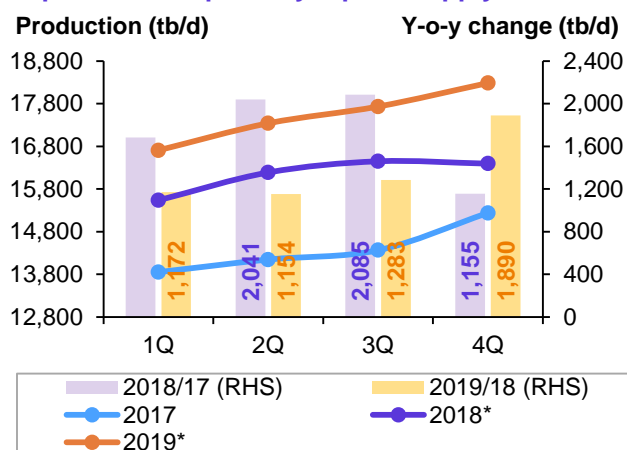


Note: \* 2018 = Forecast.

Sources: EIA and OPEC Secretariat.

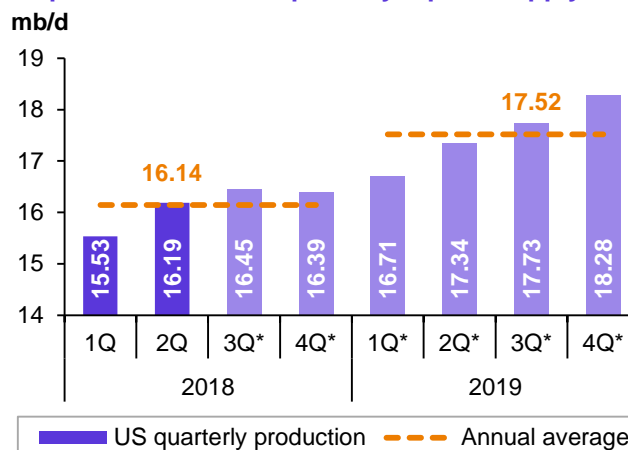
**US liquids output** in June (excluding processing gains) witnessed an increase of 0.16 mb/d m-o-m to average 16.34 mb/d, up by 2.16 mb/d y-o-y. According to the EIA, m-o-m US liquids supply growth in June was supported by crude oil production, while NGLs output showed more-or-less steady production at 4.32 mb/d in both May and June. The output of other non-conventional liquids, mainly biofuels, is estimated to have decreased m-o-m by 78 tb/d to 1.34 mb/d.

**Graph 5 - 9: US quarterly liquids supply**



Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 10: US total quarterly liquids supply**



Note: \* 3Q18-4Q19 = Forecast.  
Sources: EIA and OPEC Secretariat.

**US liquids supply** is expected to average 16.14 mb/d in **2018**, revised up by 0.08 mb/d from the previous *MOMR*, partly due to historical revisions by 0.03 mb/d as well as an upward revision to the supply forecast for 2H18. However, y-o-y growth was revised up by 0.05 mb/d to average 1.74 mb/d, due to a base change and rounding issues.

**US liquids supply** is forecast to reach an average of 17.52 mb/d in **2019**, representing y-o-y growth of 1.38 mb/d, indicating a downward revision by 0.09 mb/d, due to a higher base. However, in terms of y-o-y growth, it remained unchanged.

**US tight crude output in June 2018** is estimated to have grown by 0.09 mb/d m-o-m to average 5.96 mb/d, an increase of 1.42 mb/d y-o-y, according to the EIA, which examines tight oil production estimates by play. Crude output from shale and tight formations in the Permian Basin was up by 45 tb/d in June m-o-m to average 2.71 mb/d, followed by an increase of 16 tb/d m-o-m at Eagle Ford, to average 1.22 mb/d. The Niobrara play added 6 tb/d to average 0.44 mb/d, and m-o-m growth of 9 tb/d was also seen in the Bakken play to average 1.23 mb/d. Tight crude output in other shale plays increased by a total of 7 tb/d m-o-m in June to average 0.35 mb/d. The preliminary estimate for July 2018 shows US tight crude already passing the 6 mb/d mark, representing an increase of 88 tb/d, m-o-m.

**Table 5 - 4: US liquids production breakdown, mb/d**

	2016	2017	Change 2017/16	2018*	Change 2018/17	2019*	Change 2019/18
<b>Tight crude</b>	4.24	4.70	0.46	5.98	1.28	7.00	1.02
<b>Gulf of Mexico crude</b>	1.60	1.68	0.08	1.64	-0.04	1.60	-0.04
<b>Conventional crude oil</b>	2.99	2.97	-0.02	2.94	-0.03	2.91	-0.03
<b>Unconventional NGLs</b>	2.58	2.77	0.19	3.21	0.44	3.58	0.37
<b>Conventional NGLs</b>	0.93	1.01	0.08	1.08	0.07	1.13	0.05
<b>Biofuels + Other liquids</b>	1.27	1.27	0.00	1.29	0.02	1.30	0.01
<b>US total supply</b>	<b>13.61</b>	<b>14.40</b>	<b>0.80</b>	<b>16.14</b>	<b>1.74</b>	<b>17.52</b>	<b>1.38</b>

Note: \* 2018 and 2019 = Forecast.  
Sources: EIA, Rystad Energy and OPEC Secretariat.

On a yearly basis, **US tight crude for 2018** is forecast to grow by 1.28 mb/d to average 5.98 mb/d, revised up by 0.06 mb/d from last month's assessment. Unconventional NGLs and tight crude combined constitute a share of more than 98% of total supply growth. It is worth pointing out that tight crude production from the Bakken shale play in North Dakota increased by 0.17 mb/d in 1H18 over 1H17, to average 1.18 mb/d. In the same period, tight oil output in the Permian, Eagle Ford and Niobrara-Codell plays increased by 0.83 mb/d to average 2.56 mb/d, 0.10 mb/d to average 1.18 mb/d and 0.12 mb/d to average 0.42 mb/d, respectively. More details on tight crude historical output as well as the forecast for 2018 and 2019 are shown in **Table 5 - 5** below.

**Table 5 - 5: US tight oil production growth**

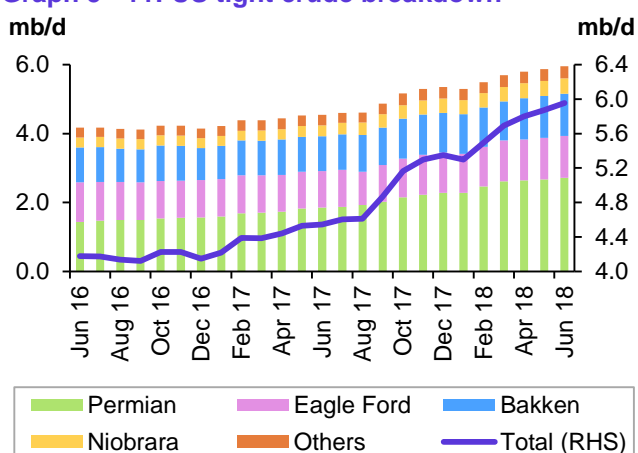
Shale play tb/d	2017		2018*		2019*	
	Production	Y-o-y change	Production	Y-o-y change	Production	Y-o-y change
Permian tight	1.90	0.44	2.70	0.80	3.30	0.60
Bakken shale	1.06	0.03	1.22	0.16	1.38	0.16
Eagle Ford shale	1.09	-0.08	1.22	0.13	1.32	0.10
Niobrara shale	0.34	0.05	0.43	0.10	0.50	0.07
Other tight plays	0.31	0.02	0.40	0.09	0.50	0.10
<b>Total</b>	<b>4.70</b>	<b>0.46</b>	<b>5.98</b>	<b>1.28</b>	<b>7.00</b>	<b>1.02</b>

Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

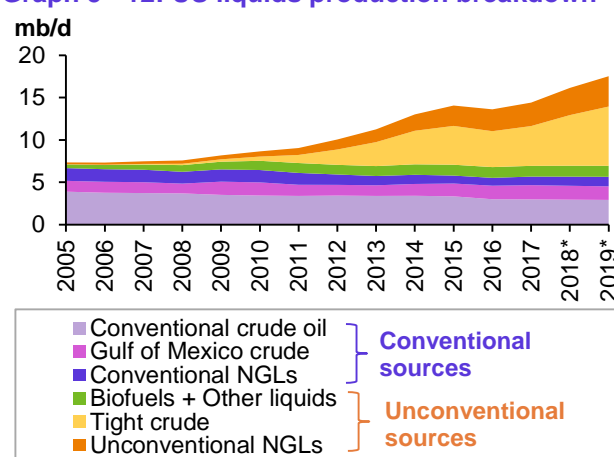
For **2019**, y-o-y growth in US tight crude will occur at a slower pace of 1.02 mb/d, due to several fundamental constraints, mainly limited pipeline capacity to transfer Permian oil to the US Gulf Coast. Tight crude production from the Permian Basin is likely to grow by 0.60 mb/d to average 3.30 mb/d, 200 tb/d less growth than expected for the current year. In North Dakota, production growth from Bakken shale is expected to remain stable in 2019, with y-o-y growth of 0.16 mb/d, while lower growth of 0.10 mb/d from Eagle Ford shale is anticipated, compared with 0.13 mb/d in 2018. For Niobrara and other shale regions, total y-o-y growth of 0.07 mb/d and 0.10 mb/d is forecast, respectively, as shown in **Table 5 - 5**.

**Graph 5 - 11: US tight crude breakdown**



Sources: EIA and OPEC Secretariat.

**Graph 5 - 12: US liquids production breakdown**



Note: \* 2018 and 2019 = Forecast.

Sources: EIA, Rystad Energy and OPEC Secretariat.

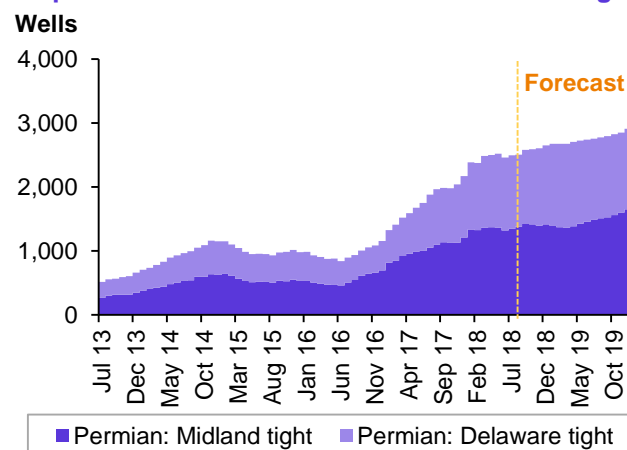
## Horizontal DUCs in the Permian

The total amount of **US drilled but uncompleted (DUC)** horizontal oil and oil and gas wells was pegged at 5,550 wells by the end of July 2018, according to Rystad Energy.

The number of horizontal DUCs in Eagle Ford bottomed out at 516 wells in January 2017 and rose to 758 wells at the end of July 2018. In Niobrara, they declined to 486 wells in July 2016 and have now increased to 883 wells. DUC numbers in the Bakken shale play fell to 717 wells in December 2017 and have since grown to reach 791 wells. Horizontal DUCs in Permian Midland and Delaware bottomed in May 2016 at 461 wells and 404 wells, respectively.

DUCs have seen a total rise of 2,498 wells in July 2018 and this is expected to reach 2,910 wells by the end of 2019. This indicates that producers in Permian are going to keep more DUCs in inventory while awaiting a cure for pipeline constraints.

**Graph 5 - 13: US horizontal DUCs in Permian tight**



Note: August 2018 - December 2019 = Forecast.  
Sources: Rystad Energy and OPEC Secretariat.

## US oil rig count

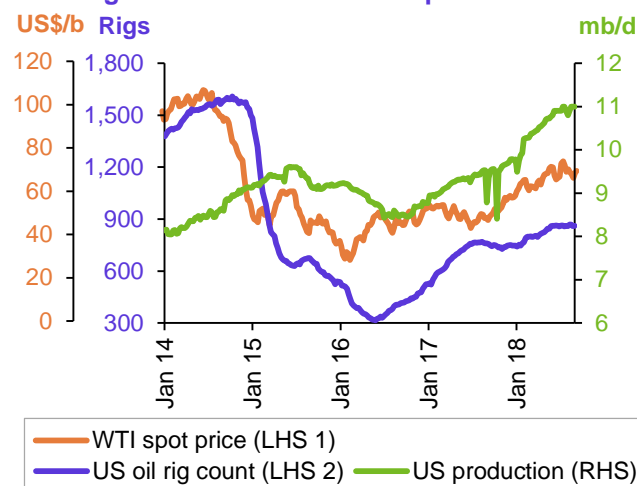
The **total US oil and gas rig count** was up by 4 units w-o-w to 1,048 rigs in the week ending 31 August.

Concerning the **oil and gas split**, both oil and gas rigs increased by 2 units w-o-w to reach 862 rigs and 184 rigs, respectively. The corresponding y-o-y increase for oil rigs was 103 units, or 13.5%.

Regarding **drilling trajectory**, the number of horizontal rigs (active in oil and gas fields) fell by 2 units w-o-w to reach 917 rigs.

By **basin**, the oil rig count in the Permian Basin rose by one unit m-o-m to average 486 rigs in August, while Eagle Ford dropped by 2 units to average 69 rigs and DJ-Niobrara dropped by 1 unit to average 24 rigs. The greatest number of added oil rigs was seen in the Permian Basin, up y-o-y by 106 rigs.

**Graph 5 - 14: The comparison between WTI price, US oil rig count and US crude oil production**

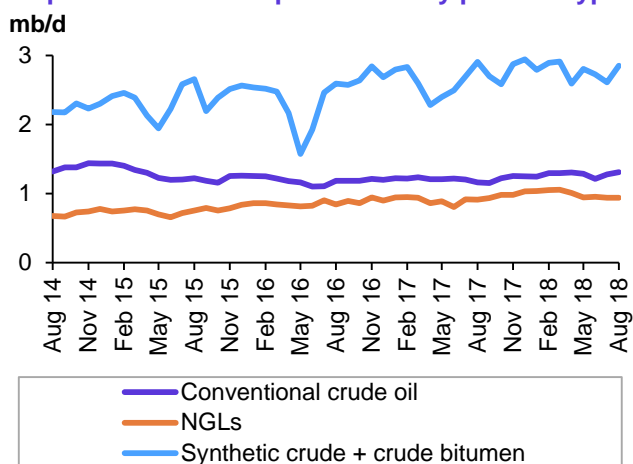


Sources: Baker Hughes, EIA and OPEC Secretariat.

## Canada

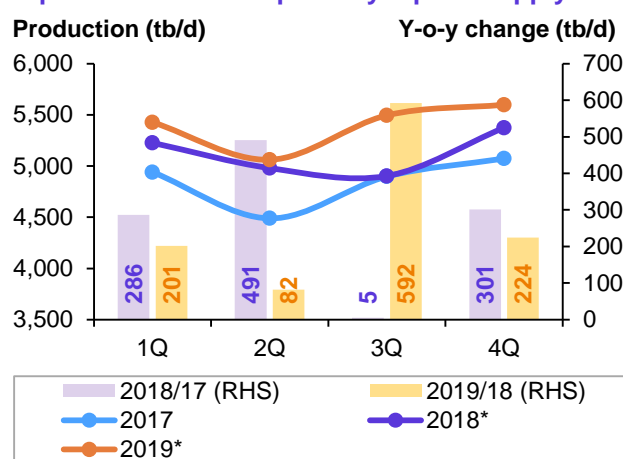
**Canada's liquids supply** increased by 0.13 mb/d m-o-m in May, based on official data, to average 5.07 mb/d, mainly due to an increase in synthetic crude production by 213 tb/d. This mainly stemmed from Syncrude, after upgraders partly returned from maintenance, averaging 2.84 mb/d, while conventional crude oil (including tight crude) and NGLs output was down by 15 tb/d to average 1.29 mb/d and by 66 tb/d to average 0.94 mb/d, respectively. Despite increased production in May, crude exports to the US dropped by 23 tb/d to 3.55 mb/d. The Canadian oil production forecast, according to preliminary information, shows that liquids production in Canada decreased by 0.14 mb/d m-o-m to average 4.93 mb/d in June. Nevertheless, this still represents y-o-y growth of 0.37 mb/d, mainly due to low production levels in 2Q17 following last year's wildfires in Alberta. Decreasing output in June was mainly due to lower synthetic crude and bitumen output at the Mildred lake project, followed by decline in offshore production.

**Graph 5 - 15: Canada production by product type**



Source: OPEC Secretariat.

**Graph 5 - 16: Canada quarterly liquids supply**



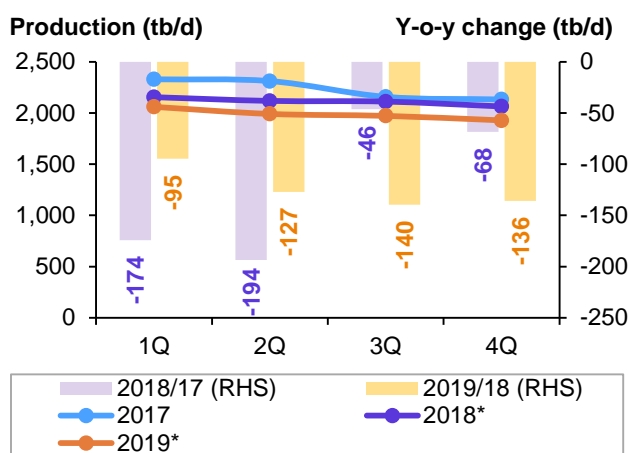
Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

Canada's liquids supply is expected to increase by 0.27 mb/d y-o-y to average 5.12 mb/d in 2018, indicating an upward revision of 0.01 mb/d following higher-than-expected output in 2Q18, while slightly higher growth of 0.28 mb/d is anticipated next year to reach 5.40 mb/d. Canada is the fourth-largest oil producer in the world since 2015.

## Mexico

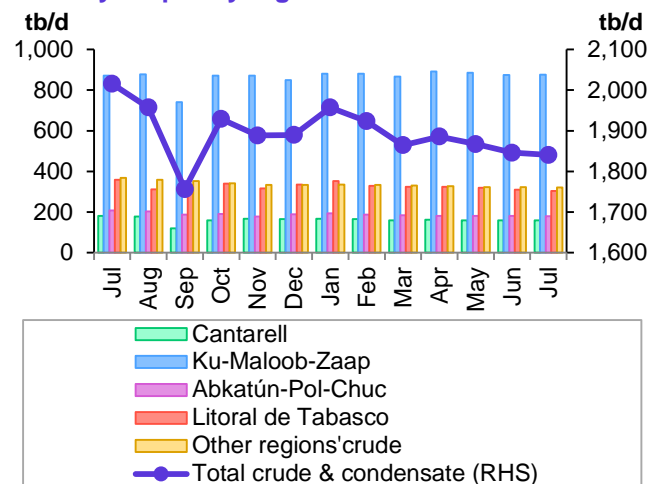
**Mexico's liquids supply in 2018** is expected to decline by 0.12 mb/d to average 2.11 mb/d, unchanged compared with last month's assessment.

**Graph 5 - 17: Mexico's quarterly liquids supply**



Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

**Graph 5 - 18: Mexico crude and condensate monthly output by region**



Sources: Pemex and OPEC Secretariat.

Average crude output for the current year-to-date up to July fell by 0.14 mb/d, with the losses mainly seen in light crude, to average 1.88 mb/d (total liquids dropped by 0.18 mb/d). Mexico's total liquids output in July remained more-or-less steady m-o-m at 2.09 mb/d, down by 0.18 mb/d y-o-y. In July, Mexico's crude exports increased by 46 tb/d to 1.16 mb/d, but showed a y-o-y drop of 0.1 mb/d, owing to a cut in Isthmus exports due to hefty declines as well as lower Maya crude production. Mexico's crude oil production in July averaged 1.84 mb/d, lower by 6 tb/d m-o-m and also down by 146 tb/d compared with the same month in 2017. NGLs output increased by a minor 3 tb/d m-o-m to average 247 tb/d. Preliminary production fields data for August indicates stagnant output for the third subsequent month. In Mexico, all producing oil fields are in decline except Ku-Maloob-Zaap, which has the highest production at about 0.85 mb/d.

The outlook for Mexico's liquids supply in 2019 indicates a further decline of 0.12 mb/d, with annual average output of 1.99 mb/d.

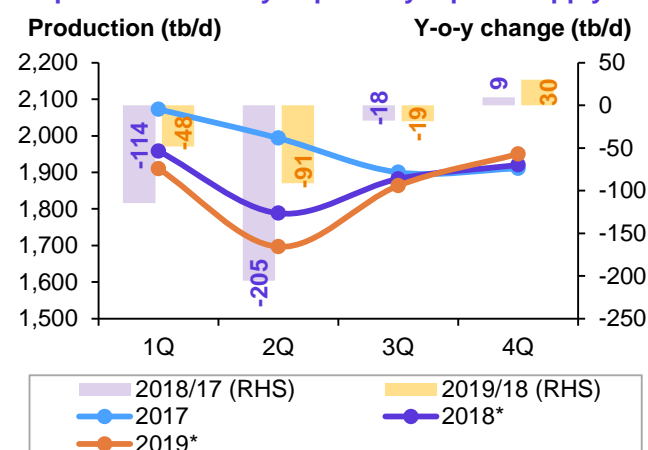


## OECD Europe

### Norway

**Norway's oil supply** for **2018** is expected to decline by 0.08 mb/d y-o-y to average 1.89 mb/d, revised up by 0.01 mb/d from the previous *MOMR*. Preliminary production figures for July 2018 show average daily production of 1.91 mb/d of crude, NGLs and condensate, indicating an increase of 0.06 mb/d m-o-m, mainly from fields returning from seasonal maintenance. Nevertheless, liquids production in July was at 32 tb/d, or 1.6%, lower than the forecast by the Norwegian Petroleum Directorate (NPD). In July, crude oil output was down by 42 tb/d m-o-m to average 1.53 mb/d and also lower by 97 tb/d, y-o-y. According to the NPD, production in July fell below forecast levels due to technical problems at some fields. However, the decline rate of mature fields should not be ignored.

**Graph 5 - 19: Norway's quarterly liquids supply**



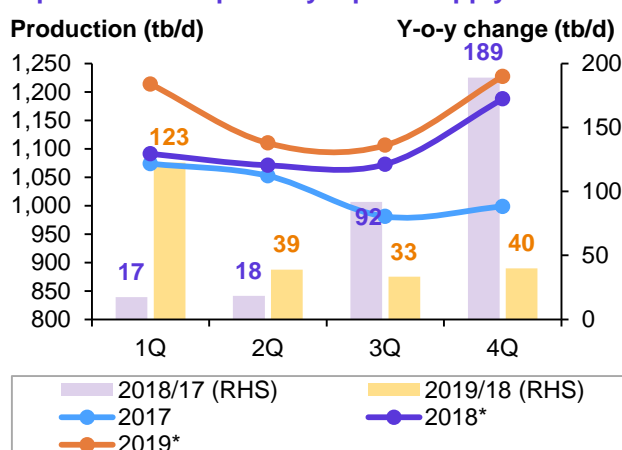
Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

In 1H18, oil output from the Troll, Ekofisk, Oseberg, Alvheim, Gudrun, Heidrun, Eldfisk, Skarv, Asgard and other small fields declined. This was in part offset by production growth in Snorre, Grane, Goliat and Gullfaks. For **2019**, Norway's oil supply is forecast to see another y-o-y decline, but at slower pace of 0.03 mb/d due to new project ramp-ups. Total production is expected to be around 1.86 mb/d. The natural decline in mature fields will be partially offset by expansions in the Martin Linge and Oseberg fields.

### UK

**UK oil supply** is projected to rise by 0.08 mb/d y-o-y to average 1.11 mb/d in **2018**. UK liquids production in July 2018 increased by 0.09 mb/d m-o-m to average 1.07 mb/d, 33 tb/d higher than in July 2017, due to less maintenance. Crude oil output in July accounted for 0.91 mb/d, up by 54 tb/d compared with a month earlier, and up by 25 tb/d, y-o-y. NGLs output in July also grew m-o-m by 28 tb/d to average 123 tb/d, slightly more than a year ago. Production of non-conventional liquids in the UK, mainly biofuels, continued to hold at 30 tb/d in July. The forecast for oil production performance during the last seven months of 2018 is lower than originally thought due to heavy maintenance, stalled production at Total's UK platforms owing to strikes and rising decline rates. Nevertheless, production from newly materialised projects in the North Sea not only compensates for outages, but shows higher y-o-y output by 21 tb/d. However, the oil supply forecast for 2018 has been revised down by 0.02 mb/d to average 1.11 mb/d, representing y-o-y growth of 0.08 mb/d.

**Graph 5 - 20: UK quarterly liquids supply**



Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

Following good performance by the Catcher field after its start-up in late 2017, Mariner is a new heavy oil project that is due to start production in 2H18, with a target plateau output of 55 tb/d.

Production ramp ups in **2019** are expected to come from the Catcher field, Western Isles, Clair Ridge, Beryl, Mariner and Quad 204 WoS. The absolute liquids supply in 2019 was revised down by 30 tb/d and now is forecast to reach an average of 1.16 mb/d, adding 0.06 mb/d y-o-y.

## Denmark

According to the Danish Energy Agency (DEA), **Denmark's oil production** for this year is expected to be 8% lower than in 2017 at 128 tb/d, due to a reassessment of output from the country's larger fields, delays and greater uncertainty over the development of some fields and discoveries. Production forecasts assume more or less the same decline rate for 2018 and 2019. As a result, oil production is expected to decline from 143 tb/d in 2017 to average 125 tb/d and 118 tb/d in 2018 and 2019, respectively.

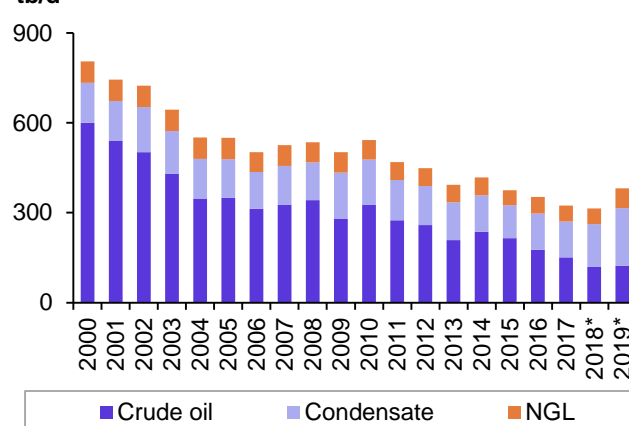
## OECD Asia Pacific

### Australia

**Australian liquids supply** has shown a trend of continuous annual decline from 2000 until 2017, when it dipped to 9.1%, representing a y-o-y contraction of 0.03 mb/d. For **2018**, liquids supply is expected to grow by 0.02 mb/d y-o-y, to average 0.34 mb/d, following the start-up of the Ichthys LNG project – a gas-condensate field – which is likely to add condensate of around 0.03 mb/d to average 0.15 mb/d in 2H18. Part of this growth will be offset by a natural decline in crude oil production.

Australia's oil supply in **2019** is expected to be boosted by new project production ramp-ups, such as Ichthys, Kipper Tuna Turrum, Prelude and Wheatstone, all producing condensate with a small amount of NGLs to average 0.39 mb/d, representing y-o-y growth of 0.06 mb/d. **Graph 5 – 21**, representing the historical oil production, shows the decline since 2000, after production peaked at 0.81 mb/d.

**Graph 5 - 21: Australia liquids supply development**  
tb/d



Note: \* 2018 and 2019 = Forecast.  
Sources: Rystad Energy and OPEC Secretariat.

## Developing Countries

**Total oil supply of developing countries (DCs)** for **2018** is expected to reach an average of 11.47 mb/d, representing growth of 0.01 mb/d, revised down by 0.12 mb/d compared with last month's assessment. While production is expected to increase in Latin America by 0.05 mb/d to average 5.19 mb/d, and in Africa by 0.02 mb/d to average 1.53 mb/d, a y-o-y decline for Other Asia and the Middle East of 0.06 mb/d and 0.01 mb/d to average 3.53 mb/d and 1.23 mb/d, respectively, is anticipated.

For 2019, growth of 0.47 mb/d is anticipated for DCs' oil supply due to ongoing field development in Latin America, particularly Brazil, to average 11.94 mb/d. The oil supply forecast next year for DCs sees an increase in all regions, except in Other Asia where oil supply remains unchanged. Oil supply in Latin America is forecast to grow by 0.36 mb/d to average 5.55 mb/d, in the Middle East by 0.01 mb/d to average 1.24 mb/d and in Africa by 0.09 mb/d to average 1.62 mb/d, mainly supported by Ghana and the Sudans.



Table 5 - 6: Developing countries' liquids supply, mb/d

	1Q	2Q	3Q	4Q	Yearly	Change Y-o-y
2017	11.51	11.45	11.43	11.48	11.47	-0.04
2018*	11.41	11.46	11.44	11.58	11.47	0.01
2019*	11.76	11.83	11.93	12.23	11.94	0.47

Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

## Latin America

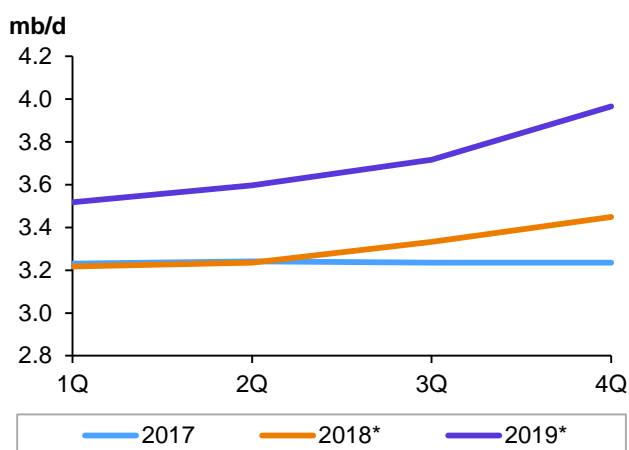
**Latin America's oil supply for 2018** is estimated to increase by 0.05 mb/d to average 5.19 mb/d. This was revised down by 0.07 mb/d from the previous *MOMR*, following a downward revision in Brazil's supply forecast. Latin America has been the largest growth driver thus far in 2018 among DCs. Brazil is the main country in the region set to witness growth this year, at 0.07 mb/d, while Argentina will see minor growth of 0.01 mb/d, to average 0.66 mb/d. Oil production in Colombia is expected to decline by 0.02 mb/d to average 0.86 mb/d. Declines of 0.01 mb/d are also forecast for Latin America others, showing yearly supply of 0.26 mb/d, while oil supply in Trinidad and Tobago remained unchanged y-o-y, averaging 0.10 mb/d.

For **2019**, oil supply in the region is forecast to grow by 0.36 mb/d, mainly in Brazil, with average output at 5.55 mb/d. Y-o-y declines are expected in Colombia, Argentina and Latin America others, where mature oil fields are in heavy decline and where no new fields are expected to bring additional volumes on stream. Oil production is likely to be raised in Trinidad and Tobago by 0.02 mb/d to average 0.11 mb/d.

## Brazil

According to official data, **Brazil's crude oil output** fell by 17 tb/d to average 2.59 mb/d in June, lower by 85 tb/d, y-o-y. The preliminary forecast estimates a further reduction in July, but for August, crude oil output is likely to reach 2.69 mb/d, leading to the highest record for liquids at 3.33 mb/d. Brazil's liquids production in 2Q18 was pegged at 3.24 mb/d, higher by 0.02 mb/d than in 1Q18, but similar to all quarters of 2017.

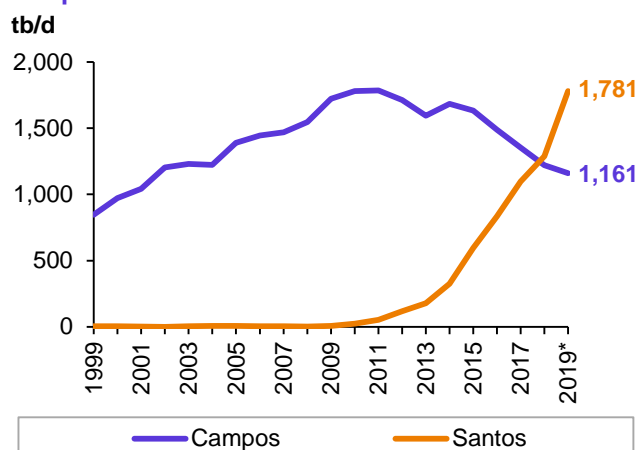
Graph 5 - 22: Brazil's quarterly liquids supply, 2016-2018



Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

Graph 5 - 23: Brazil's crude oil production in Campos and Santos Basins



Note: \* 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

According to the ANP (Agência Nacional do Petróleo, Gás Natural e Biocombustíveis), crude output in the Campos Basin was pegged at 1.13 mb/d in July, representing a y-o-y decline of 0.15 mb/d, while y-o-y growth in the Santos Basin was at 0.13 mb/d to average 1.3 mb/d in the same month. Petrobras is increasingly turning to international partnerships to boost recovery rates at maturing oil fields in the Campos Basin. Petrobras plans to install two new floating production, storage and offloading vessels (FPSOs) in Marlim and replace seven older production systems in the field. Outside the pre-salt province, Roncador remains Brazil's largest-producing field, with output of about 210 tb/d of oil. Petrobras is aiming to have four new FPSOs enter production during 2H18 in the Búzios and Lula fields in the deepwater of Santos Basin, three of which will come online by the end of 3Q18.

## FSU

**FSU oil production for 2018** is expected to grow by 0.05 mb/d to average 14.10 mb/d, unchanged from the previous forecast. Oil production in Russia, Azerbaijan and FSU others is estimated to decline by 0.02 mb/d, 0.01 mb/d and 0.03 mb/d to average 11.15 mb/d, 0.79 mb/d and 0.32 mb/d, respectively, while Kazakhstan will grow by 0.11 mb/d to average 1.84 mb/d.

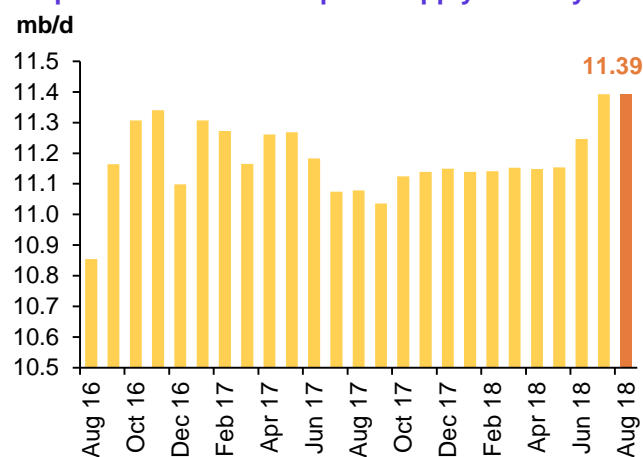
For **2019**, FSU's oil supply is estimated to grow by 0.04 mb/d to average 14.13 mb/d, mainly coming from Kazakhstan (0.06 mb/d). Azerbaijan and FSU Others are expected to see contractions of 0.02 mb/d each.

## Russia

Russia's liquids supply stood at 11.39 mb/d in July according to estimates by secondary sources, representing higher output by 0.14 mb/d versus June. The preliminary estimate of Russia's liquids supply for 3Q18 indicates growth of 0.12 mb/d q-o-q to average 11.30 mb/d. The largest increase came from Rosneft, with y-o-y growth of 0.16 mb/d in August, as production reached 3.93 mb/d, followed by Lukoil, Surgutneftegaz, Gazprom Neft and Tatneft.

Crude oil production in June was pegged at 10.487 mb/d, while preliminary estimates for July output show m-o-m growth of 147 tb/d representing output of 10.63 mb/d.

**Graph 5 - 24: Russia's liquids supply monthly**



Sources: Ministry of Energy of the Russian Federation and OPEC Secretariat.

**Russia's oil supply for 3Q18** has been revised up by 165 tb/d to average 11.30 mb/d, and is thus expected to average 11.15 mb/d for 2018, representing a y-o-y decline of 0.02 mb/d.

Regarding upstream plans, Tatneft, the main assets of which are located in the Republic of Tatarstan, might increase crude oil production this year by 1% y-o-y to average 0.59 mb/d, according to secondary sources. Three new projects are expected to startup in 4Q18, all belonging to Rosneft. The **Tagulskoye** field, with peak production of 83 tb/d, is set to start in November 2018. The **Russkoye** field, with 110 tb/d, and Phase 2 of the **Srednebotuobinskoye** project, with 66 tb/d, are both expected to begin producing in December 2018.

**For 2019**, yearly growth of 0.02 mb/d is expected for Russia's oil supply, to average 11.17 mb/d. In 2019, Russian oil supply companies have the potential to increase production through green field development. However, new incremental production will be partially offset by declines occurring in mature fields. Incremental production of oil, NGLs and condensate could come from several projects, such as Uvat, East-Siberian, Vankorneft, Messoyakha and Yamal LNG.

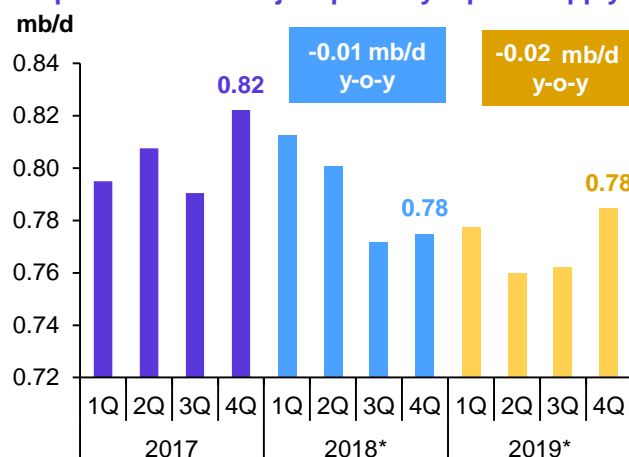
## Caspian

### Azerbaijan

**Azerbaijan's liquids output** in July decreased by 0.02 mb/d m-o-m to average 0.79 mb/d, but production in August is estimated to rise to 0.82 mb/d, according to preliminary production data. Crude oil figures based on direct communication show a decline in July of 19 tb/d to average 709 tb/d, lower by 30 tb/d, y-o-y.

Crude oil output from the ACG complex (Azeri-Chirag-Guneshli fields) increased in 1H18 compared with the same period in 2017 by around 11 tb/d, or 2%, to average 0.6 mb/d. Annual declines in the Chirag and deepwater Guneshli fields are compensated for by growth in the Azeri field. Crude production from the Azeri field accounts for nearly 64% of the ACG complex. Azerbaijan's liquids production averaged 0.81 tb/d in the first seven months of 2018, up by 0.01 mb/d y-o-y.

**Graph 5 - 25: Azerbaijan quarterly liquids supply**



Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

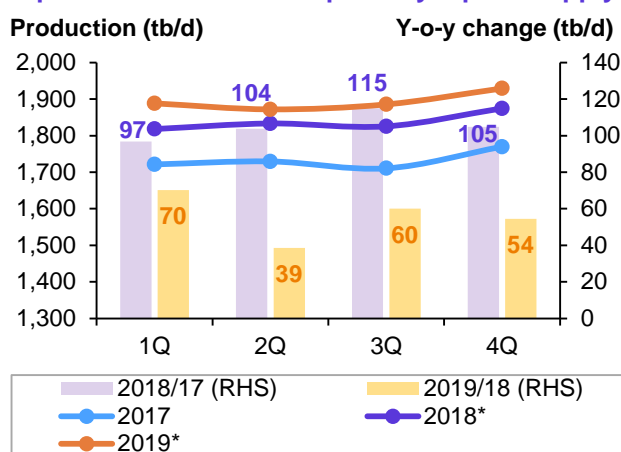
The country's oil supply in **2018** is expected to decline by a minor 0.01 mb/d to average 0.79 mb/d. For **2019**, oil production in Azerbaijan is forecast to decrease further by 0.02 mb/d to average 0.77 mb/d.

### Kazakhstan

In **Kazakhstan**, liquids output in July increased slightly by 16 tb/d to average 1.84 mb/d, with crude oil output rising by 15 tb/d to average 1.57 mb/d, mainly due to fully returned production in Tengiz after a short unplanned outage. NGLs output was flat at 0.27 mb/d. Preliminary production data shows oil output in August to be down by 0.15 mb/d to average 1.69 mb/d.

According to actual production data in the first seven months of the year (January to July), liquids production rose by 100 tb/d, or 5.8%, to average 1.83 mb/d, compared with the same period in 2017. Growth was driven mainly by the Kashagan field. Hence, crude oil exports also rose by 6% y-o-y from January to July 2018.

**Graph 5 - 26: Kazakhstan quarterly liquids supply**



Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

For **2018**, the Kazakhstan's average annual output is expected to grow by 0.11 mb/d to reach 1.84 mb/d, unchanged from the previous month. In **2019**, the oil supply is forecast to grow by 0.06 mb/d to reach 1.89 mb/d, due to the ongoing Kashagan field ramp up.

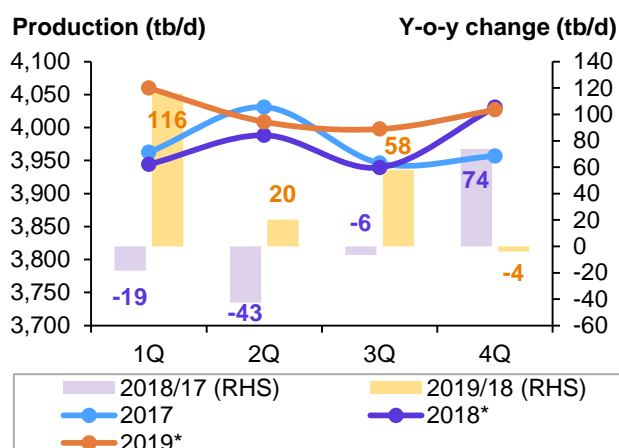
## China

**China's oil supply in July** was down by 0.12 mb/d m-o-m to average 3.93 mb/d, and lower by 0.05 mb/d y-o-y. Preliminary production data shows that the decline continued in August, with a drop of 30 tb/d.

Oil output in 1H18 remained unchanged at 3.97 mb/d, compared with average supply in 2017, and oil production is expected to rise by 0.02 mb/d in 2H18 to average 3.99 mb/d. It seems that the annual production decline – which registered at 2.9% in 2017 – is likely to be compensated for by higher investment and drilling activity, leading to stagnant production in the current year versus the previous year, and remaining at 3.98 mb/d.

For 2019, following the Chinese President's recent call to ramp up domestic production and raise investment by the major Chinese companies, despite low performance of mature fields, oil production is likely to increase next year by 0.05 mb/d to average 4.02 mb/d, revised up by 0.02 mb/d compared with last month's estimation.

**Graph 5 - 27: China quarterly liquids supply**



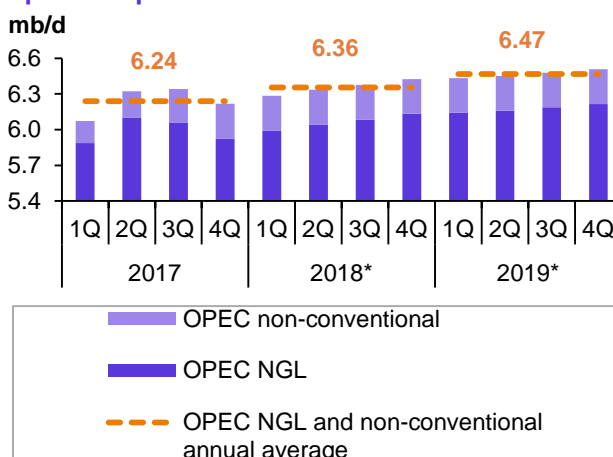
Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

## OPEC NGL and non-conventional oils

**OPEC NGLs and non-conventional liquids production** is expected to grow by 0.12 mb/d to average 6.36 mb/d in 2018, and 0.11 mb/d to average 6.47 mb/d in 2019, unchanged from last month's assessment.

Preliminary production data in July and August shows stagnant output at 6.39 mb/d, 0.07 mb/d higher than June's level and up by 0.04 mb/d, y-o-y.

**Graph 5 - 28: OPEC NGL and non-conventional liquids output**



Note: \* 2018 and 2019 = Forecast.  
Sources: OPEC Secretariat.

**Table 5 - 7: OPEC NGL + non-conventional oils, mb/d**

	2016	2017	Change 17/16	1Q18	2Q18	3Q18	4Q18	2018*	Change 18/17	2019*	Change 19/18
<b>Total OPEC</b>	<b>6.15</b>	<b>6.24</b>	0.09	6.29	6.34	6.38	6.43	<b>6.36</b>	0.12	<b>6.47</b>	0.11

Note: \* 2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

## OPEC crude oil production

According to *secondary sources*, **total OPEC-15 crude oil production** averaged 32.56 mb/d in August, an increase of 278 tb/d over the previous month. Crude oil output increased mostly in Libya, Iraq and Nigeria, while production declined in I.R. Iran, Venezuela and Algeria.

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

	<u>2016</u>	<u>2017</u>	<u>4Q17</u>	<u>1Q18</u>	<u>2Q18</u>	<u>May 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Aug/Jul</u>
<b>Algeria</b>	1,090	1,043	1,014	1,014	1,024	1,035	1,059	1,045	-14
<b>Angola</b>	1,725	1,637	1,628	1,562	1,490	1,516	1,456	1,448	-8
<b>Congo</b>	216	252	296	306	324	318	320	320	1
<b>Ecuador</b>	545	530	525	515	519	520	525	529	4
<b>Equatorial</b>									
<b>Guinea</b>	160	133	129	134	127	129	124	127	3
<b>Gabon</b>	221	200	199	195	188	187	187	188	0
<b>Iran, I.R.</b>	3,515	3,811	3,822	3,813	3,813	3,822	3,734	3,584	-150
<b>Iraq</b>	4,392	4,446	4,401	4,441	4,479	4,461	4,559	4,649	90
<b>Kuwait</b>	2,853	2,708	2,704	2,704	2,708	2,703	2,793	2,802	8
<b>Libya</b>	390	817	967	991	889	962	670	926	256
<b>Nigeria</b>	1,556	1,658	1,760	1,780	1,656	1,608	1,651	1,725	74
<b>Qatar</b>	656	607	604	593	602	602	615	615	0
<b>Saudi Arabia</b>	10,406	9,954	9,975	9,949	10,114	10,017	10,363	10,401	38
<b>UAE</b>	2,979	2,915	2,892	2,850	2,873	2,862	2,960	2,972	12
<b>Venezuela</b>	2,154	1,911	1,762	1,538	1,382	1,388	1,272	1,235	-36
<b>Total OPEC</b>	<b>32,859</b>	<b>32,625</b>	<b>32,679</b>	<b>32,384</b>	<b>32,188</b>	<b>32,128</b>	<b>32,287</b>	<b>32,565</b>	<b>278</b>

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

Source: OPEC Secretariat.

**Table 5 - 9: OPEC crude oil production based on *direct communication*, tb/d**

	<u>2016</u>	<u>2017</u>	<u>4Q17</u>	<u>1Q18</u>	<u>2Q18</u>	<u>May 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Aug/Jul</u>
<b>Algeria</b>	1,146	1,059	1,012	1,004	1,025	1,040	1,064	1,062	-2
<b>Angola</b>	1,722	1,632	1,588	1,519	1,477	1,486	1,455	1,481	26
<b>Congo</b>	225	263	301	320	334	332	..	..	..
<b>Ecuador</b>	549	531	522	512	516	516	523	530	7
<b>Equatorial</b>									
<b>Guinea</b>	..	129	126	127	124	126	119	113	-6
<b>Gabon</b>	229	210	202	192	182	187	..	..	..
<b>Iran, I.R.</b>	3,651	3,867	3,833	3,811	3,804	3,806	3,806	3,806	0
<b>Iraq</b>	4,648	4,469	4,361	4,360	4,360	4,360	4,460	4,460	0
<b>Kuwait</b>	2,954	2,704	2,702	2,702	2,704	2,700	2,800	2,800	0
<b>Libya</b>	..	..	..	..	..	..	..	..	..
<b>Nigeria</b>	1,427	1,536	1,613	1,611	1,526	1,500	1,530	1,713	184
<b>Qatar</b>	652	600	608	594	600	601	619	612	-7
<b>Saudi Arabia</b>	10,460	9,959	9,977	9,942	10,128	10,030	10,288	10,412	124
<b>UAE</b>	3,088	2,967	2,904	2,841	2,876	2,870	2,975	2,972	-3
<b>Venezuela</b>	2,373	2,035	1,741	1,623	1,523	1,533	1,469	1,448	-21
<b>Total OPEC</b>	..	..	..	..	..	..	..	..	..

Notes: .. Not available.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

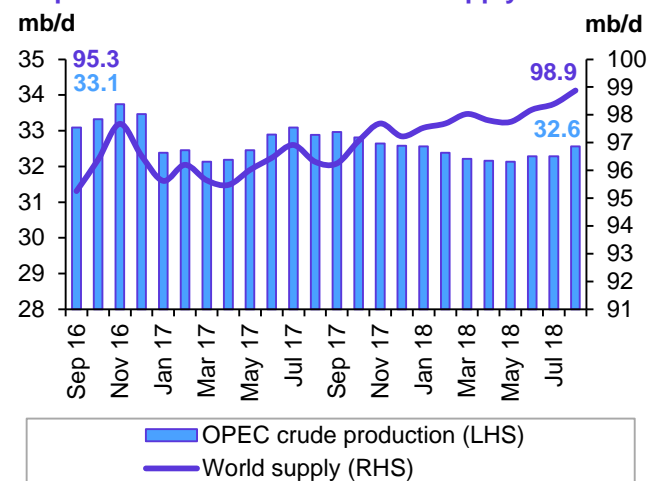
## World oil supply

Preliminary data indicates that **global oil supply** increased by 0.49 mb/d to average 98.88 mb/d in August 2018, compared with the previous month.

An increase in non-OPEC supply (including OPEC NGLs) of 0.21 mb/d compared to the previous month in August was mainly driven by the OECD. Along with a rise in OPEC crude oil production of 0.28 mb/d in August, this equates a total increase in global oil output.

The **share of OPEC crude oil in total global production** increased by 0.1 pp to 32.9% in August compared with the previous month. Estimates are based on preliminary data from direct communication for non-OPEC supply, OPEC NGLs and non-conventional oil, while estimates for OPEC crude production are based on secondary sources.

**Graph 5 - 29: OPEC and world oil supply**



Source: OPEC Secretariat.

## Product Markets and Refinery Operations

Refinery margins in all the main trading hubs recorded gains in August due to supply side pressure. Several refinery outages prompted product supply disruptions which led to strengthening on the top and middle of the barrel.

In the US, the product market strengthened, mainly supported by higher product exports, particularly to Latin America.

In Europe, declining ARA product inventories resulted in tighter product balances which provided substantial support to refining margins in that region.

In Asia, refining margins strengthened on the back of lower refinery intakes caused by unplanned shutdowns and bullish market sentiment.

### Refinery margins

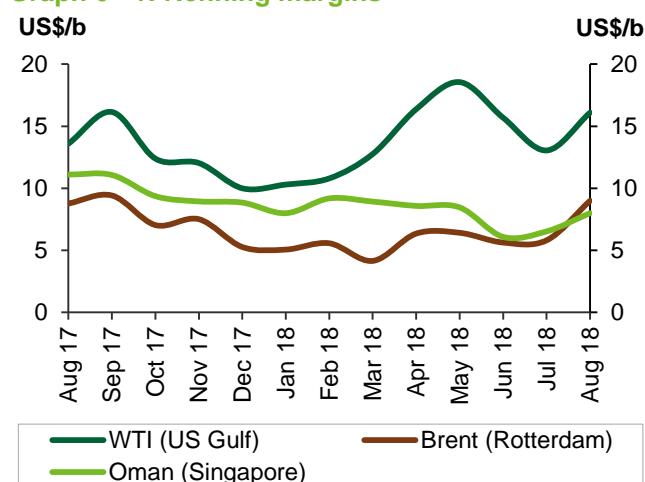
In August, **US** refinery margins rose as refinery outages in Latin America prompted the tightening of the product market in that region. Venezuela's 335 tb/d Isla refinery was reported running at minimum processing rates during the month due to mechanical problems and insufficient crude availability. Meanwhile, an explosion at Brazil's largest refinery, the 430 tb/d Replan plant, put its CDU and FCC unit offline. Consequently, the decline in refinery outputs in Latin America provided support to product markets in the USGC. In addition, the Madero and Minatitlan refineries in Mexico also were reported to have operational problems.

The indefinite closure of Trinidad's Petrotin Point-a-Pierre 170 tb/d refinery from October 1 is expected to potentially provide further support to the USGC product market in the midterm. US refinery margins for WTI averaged \$16.10/b in August, up by \$3.5 m-o-m, and by \$2.50/b y-o-y.

In **Europe**, refinery margins jumped to the highest level seen since September 2017 on the back of refinery problems, some of which can be attributed to the heat wave that hit Europe during the month, resulting in product supply disruptions. Moreover, declining ARA product stock levels fuelled bullish sentiment in the European product market, contributing to the positive outcome. Refinery margins for Brent in Europe averaged \$9.00/b in August, up by \$3.20 compared to a month earlier, and higher by 22¢ y-o-y.

**Asian** refinery margins received support from higher export opportunities to the Middle East as several refinery outages including a reported 2-week FCC shutdown of the world's largest refining complex, the Reliance refinery in India exerted pressure on gasoline stocks. Refinery margins for Oman in Asia gained \$1.50 m-o-m to average \$8.00/b in August, which was lower by \$3.10 y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus Media and OPEC Secretariat.



## Refinery operations

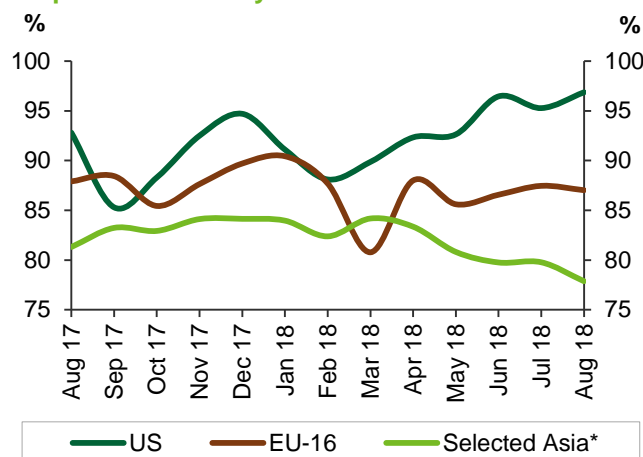
In the **US**, refinery utilization rates increased in August to average 96.9%, which corresponds to a throughput of 17.7 mb/d. This represented a rise of 1.6 pp and 270 tb/d, respectively, compared with the previous month. Y-o-y, the August refinery utilization rate was up by 4.1 pp, with throughputs showing a rise of 104 tb/d.

**European** refinery utilization averaged 87.0%, corresponding to a throughput of 10.6 mb/d. This is a m-o-m decline of 0.4 pp and 50 tb/d, respectively, and y-o-y, it is down by 0.89 pp and 98 tb/d.

In selected **Asia**, comprising of Japan, China, India and Singapore, refinery utilization rates dropped, averaging 77.9% in August, corresponding to a throughput of 20 mb/d. Compared to the previous month, throughputs were down by 1.9 pp and 490 tb/d, and y-o-y, they were down by 3.44 pp and 505 tb/d.

Looking forward, refinery throughputs are expected to be under pressure as the onset peak autumn refinery maintenance season will be approached in the coming month. Scheduled refinery maintenance offline volumes in the US are expected to amount to 1.2 mb/d which is 51% lower compared to a year earlier. Meanwhile, global refinery offline volumes are expected to reach 5.5 mb, down by 32% y-o-y.

Graph 6 - 2: Refinery utilization rates



Note: \* Includes Japan, China, India and Singapore  
Sources: EIA, Euroilstock, PAJ and Argus Media.

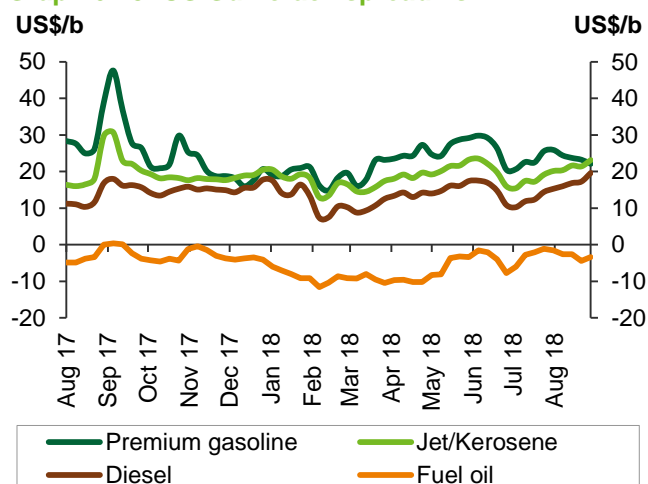
## Product markets

### US market

**US gasoline crack spreads** rose slightly despite exhibiting a strong y-o-y loss of \$5.00 for the second consecutive month. During the month, the USGC gasoline market was supported by firm stock drawdowns attributed to supply side pressure as product output suffered declines caused by refinery outages. This positive performance was recorded even as domestic demand continues to remain low, and gasoline market become increasingly dependent on exports. In August, the US gasoline crack spread against WTI averaged \$23.60/b, slightly up by 40¢ m-o-m, but down by \$4.80/b y-o-y.

The **US Gulf Coast (USGC) jet/kerosene market** strengthened slightly supported by lower inventory, level during the month following a recent all time high jet fuel production. The US jet/kerosene crack spread against WTI averaged \$21.40/b, up by \$3.80 m-o-m and higher by \$2.50 y-o-y.

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



Sources: Argus Media and OPEC Secretariat.

## Product Markets and Refinery Operations

**US gasoil crack spreads** rose on the back of a sizeable stock level drop during the month which amounted to 800 tb/d w-o-w, in the last week of the month. In the near term, higher diesel exports from the US are expected as gasoil stock builds are anticipated and Brazilian refinery throughputs are expected to remain at current levels. The US gasoil crack spread against WTI averaged \$17.10/b, up by \$4.60 m-o-m and higher by \$5.10 y-o-y.

At the bottom of the barrel, **fuel oil crack spreads** strengthened on the back of a tighter regional fuel oil market balance driven by lower outputs amid lower demand. In addition, healthy bunker sector fuel demand amid a lengthening balance are expected to further weaken fuel oil cracks in the coming months. In August, the US fuel oil crack spread against WTI averaged minus \$3.10/b, up by 46¢ m-o-m and slightly higher by 36¢ y-o-y.

## European market

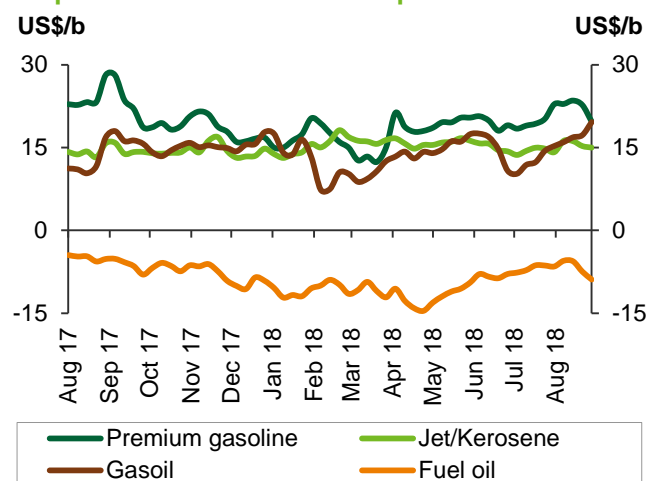
The **gasoline market** in Europe exhibited significant gains as it reached an 11 month high on the back of lower inventory levels in ARA and the US, as refinery outages led to a reduction gasoline supply. Consequently, the tightening gasoline market balance fuelled bullish sentiment and drove gasoline crack spreads on a substantial rise. The gasoline crack spread against Brent averaged \$22.40/b in August, up by \$2.90 m-o-m but down by \$1.10 y-o-y.

The **jet/kerosene market** strengthened, supported by declining ARA drawdowns witnessed during the month. In addition, a fire at Brazil's Petrobras refinery on August 20 caused a shutdown of the catalytic cracking and an atmospheric distillation unit. The Rotterdam jet/kerosene crack spread against Brent averaged \$15.36/b, up by 90¢ m-o-m, and by \$1.30 y-o-y.

The **gasoil crack spreads** rose as low regional refinery throughput declined due to hot weather and water shortage amid solid domestic demand. As fundamentals remained strong, diesel crack spreads are expected to hold ground in the near term. Brent averaged \$15.90/b, which was \$2.20 higher m-o-m and \$2.80 higher y-o-y.

At the bottom of the barrel, the **fuel oil 3.5% crack spread** reversed trends ending a 4-month long rise. The poor performance was attributed to declining demand as stock builds fuelled bearish sentiment. As demand is expected to remain weak, fuel oil cracks most likely will remain under pressure. In Europe, fuel oil cracks averaged minus \$10.00/b in August, losing 13 ¢ m-o-m, and \$2.40 y-o-y.

**Graph 6 - 4: Rotterdam crack spreads vs. Brent**

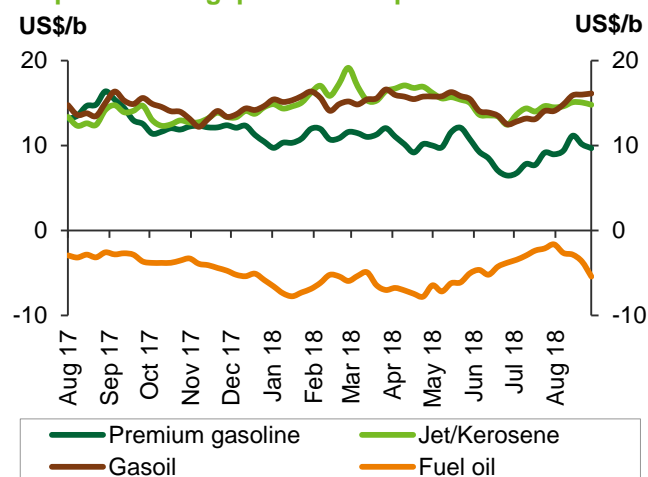


Sources: Argus Media and OPEC Secretariat.

## Asian market

The **Asian gasoline 92 market** continued to perform positively, as strong gasoline demand from India and a gasoline shortage in the Middle East provided support. The outage of Reliance FCC unit, as well as gasoline reformer problems at Yasref's Yanbu and KNPC's Mina Al-Ahmadi refineries encouraged gasoline flows from Singapore to the Middle East. Furthermore, Singapore gasoline discounts over the European counterpart further encouraged export volumes from Asia. The Singapore gasoline 92 crack spread against Oman averaged \$10.0/b, up by \$2.0 m-o-m but down by \$4.5 y-o-y.

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



Sources: Argus Media and OPEC Secretariat.

The **Singapore light distillate naphtha crack spreads** recovered last month's losses, underpinned by low regional refinery intakes due to high summer temperatures and water shortages. The Singapore naphtha crack spread against Oman averaged minus 71¢/b, marginally up by 13¢ m-o-m but down by \$1.0 y-o-y.

The **jet/kerosene market** gained some ground, supported by strong import requirements from Europe despite robust supply and higher regional imports from the US. Another supporting factor stemmed from the fact that the Asian jet fuel market was reported to have been tighter during the month compared to levels seen a year ago, despite a rise in kerosene stock levels. Therefore, the ample volume deliveries from China, India, and South Korea contributed to higher kerosene availability capping additional gains.

The Singapore jet/kerosene crack spread against Oman averaged \$14.8/b, up by 62¢ m-o-m, and by \$2.0 y-o-y.

**Asian gasoil crack spreads** increased in response to strong regional demand and were further supported by lower refinery outputs due to outages. Moreover, the tightening European gasoil balance during the month due to limited refinery product output further incentivized gasoil demand from Europe. The Singapore gasoil crack spread against Oman averaged \$15.5/b, up by \$2.2 m-o-m and by \$1.5 y-o-y.

The **Singapore fuel oil crack spread** against Oman weakened as lower Middle East demand and firm volume deliveries from the west exerted pressure on fuel oil cracks. As outlined in previous reports, this outcome was not surprising as the fuel oil market is expected to continue weakening and cooling demand from Middle East fade as summer season comes to an end.

## Product Markets and Refinery Operations

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

<u>Event</u>	<u>Time frame</u>	<u>Asia</u>	<u>Europe</u>	<u>US</u>	<u>Observations</u>
<b>Autumn maintenance season</b>	Sep 18 – Oct 18	↑ High impact on product markets	↑ High impact on product markets	↑ High impact on product markets	Lower refinery output will likely put pressure on stock levels, strengthening product markets.
<b>Indefinite closure of Trinidad and Tobago's refinery</b>	Will begin on 1 Oct 18	↑ Some impact on refining margins	↑ Some impact on refining margins	↑ High impact on refining margins	The closure of Trinidad and Tobago's Petrotrin* Pointe-à-Pierre 170 tb/d is expected to support product exports from the US.

Note: \* Trinidad's Petroleum Co. of Trinidad & Tobago Ltd. (Petrotrin).  
Source: OPEC Secretariat.

**Table 6 - 2: Refinery operations in selected OECD countries**

	<i>Refinery throughput, mb/d</i>				<i>Refinery utilization, %</i>			
	<i>Jun 18</i>	<i>Jul 18</i>	<i>Aug 18</i>	<i>Change Aug/Jul</i>	<i>Jun 18</i>	<i>Jul 18</i>	<i>Aug 18</i>	<i>Change Aug/Jul</i>
<b>US</b>	<b>18.04</b>	<b>17.43</b>	<b>17.70</b>	<b>0.27</b>	<b>96.45</b>	<b>95.27</b>	<b>96.86</b>	<b>1.6 pp</b>
<b>Euro-16*</b>	<b>10.56</b>	<b>10.67</b>	<b>10.62</b>	<b>-0.05</b>	<b>86.57</b>	<b>87.46</b>	<b>87.02</b>	<b>-0.4 pp</b>
<b>France*</b>	1.04	1.24	1.22	-0.01	83.23	98.73	97.66	-1.1 pp
<b>Germany*</b>	1.93	1.87	1.96	0.09	88.39	85.56	89.67	4.1 pp
<b>Italy*</b>	1.28	1.34	1.47	0.13	62.76	65.59	71.88	6.3 pp
<b>UK*</b>	1.07	1.02	1.06	0.04	81.49	77.99	80.76	2.8 pp
<b>Selected Asia**</b>	<b>20.54</b>	<b>20.54</b>	<b>20.05</b>	<b>-0.49</b>	<b>79.76</b>	<b>79.78</b>	<b>77.87</b>	<b>-1.9 pp</b>

Note: \* OPEC Secretariat's estimate.

\*\* Includes Japan, China, India, and Singapore.

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

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

	2015	2016	2017	3Q17	4Q17	1Q18	2Q18	3Q18*
<b>Total OECD</b>	<b>37.71</b>	<b>37.49</b>	<b>38.18</b>	<b>38.49</b>	<b>38.34</b>	<b>37.68</b>	<b>37.77</b>	<b>39.13</b>
<b>OECD Americas</b>	<b>19.00</b>	<b>18.78</b>	<b>19.09</b>	<b>19.02</b>	<b>18.99</b>	<b>18.79</b>	<b>19.52</b>	<b>19.96</b>
of which US	16.43	16.51	16.88	16.89	17.01	16.75	17.50	17.49
<b>OECD Europe</b>	<b>12.11</b>	<b>11.94</b>	<b>12.27</b>	<b>12.66</b>	<b>12.40</b>	<b>11.93</b>	<b>11.83</b>	<b>12.46</b>
of which:								
France	1.17	1.14	1.17	1.22	1.23	1.12	0.94	1.21
Germany	1.91	1.93	1.91	1.97	1.97	1.89	1.86	1.92
Italy	1.35	1.30	1.40	1.48	1.45	1.35	1.33	1.43
UK	1.14	1.09	1.10	1.13	1.09	0.93	1.04	1.05
<b>OECD Asia Pacific</b>	<b>6.60</b>	<b>6.78</b>	<b>6.82</b>	<b>6.80</b>	<b>6.95</b>	<b>6.97</b>	<b>6.42</b>	<b>6.71</b>
of which Japan	3.26	3.28	3.23	3.24	3.19	3.33	2.85	3.11
<b>Total Non-OECD</b>	<b>40.64</b>	<b>41.32</b>	<b>42.04</b>	<b>42.08</b>	<b>43.05</b>	<b>42.68</b>	<b>43.16</b>	<b>43.52</b>
of which:								
China	10.44	10.77	11.35	11.27	11.92	11.75	11.86	11.75
Middle East	6.69	6.91	7.05	7.14	7.21	7.00	7.13	7.35
Russia	5.64	5.58	5.59	5.62	5.64	5.78	5.78	5.76
Latin America	4.91	4.59	4.48	4.50	4.46	4.37	4.41	4.41
India	4.56	4.93	4.98	4.82	5.21	5.19	5.05	5.05
Africa	2.12	2.10	2.09	2.10	2.02	2.10	2.07	2.14
<b>Total world</b>	<b>78.35</b>	<b>78.81</b>	<b>80.23</b>	<b>80.57</b>	<b>81.40</b>	<b>80.37</b>	<b>80.93</b>	<b>82.66</b>

Note: \* Includes OPEC Secretariat's estimates.

Totals may not add up due to independent rounding.

Sources: 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.

## Product Markets and Refinery Operations

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

	Jul 18	Aug 18	Change Aug/Jul	2017	Year-to-date 2018
<b>US Gulf (Cargoes FOB):</b>					
Naphtha*	76.78	74.20	-2.58	55.09	70.63
Premium gasoline (unleaded 93)	94.24	91.60	-2.64	74.42	89.41
Regular gasoline (unleaded 87)	88.51	87.67	-0.84	68.57	83.72
Jet/Kerosene	88.62	89.40	0.78	66.07	85.23
Gasoil (0.2% S)	83.53	85.13	1.60	62.31	80.19
Fuel oil (3.0% S)	66.15	62.63	-3.52	47.05	59.58
<b>Rotterdam (Barges FoB):</b>					
Naphtha	71.04	70.82	-0.22	53.66	67.86
Premium gasoline (unleaded 98)	93.79	95.01	1.22	75.13	89.69
Jet/Kerosene	88.79	87.96	-0.83	66.84	86.66
Gasoil/Diesel (10 ppm)	88.00	88.49	0.49	66.35	85.03
Fuel oil (1.0% S)	67.51	65.73	-1.78	48.71	61.44
Fuel oil (3.5% S)	64.45	62.59	-1.86	44.31	58.31
<b>Mediterranean (Cargoes FOB):</b>					
Naphtha	70.74	70.61	-0.13	52.81	67.25
Premium gasoline**	85.97	87.78	1.81	66.56	81.63
Jet/Kerosene	87.49	86.79	-0.70	65.12	84.84
Diesel	88.16	88.72	0.56	66.92	84.98
Fuel oil (1.0% S)	68.37	66.43	-1.94	49.55	62.54
Fuel oil (3.5% S)	65.88	63.97	-1.91	46.18	59.71
<b>Singapore (Cargoes FOB):</b>					
Naphtha	72.25	71.76	-0.49	54.04	68.43
Premium gasoline (unleaded 95)	83.11	84.83	1.72	68.01	81.67
Regular gasoline (unleaded 92)	81.08	82.44	1.36	65.43	79.23
Jet/Kerosene	87.31	87.31	0.00	65.32	84.58
Gasoil/Diesel (50 ppm)	86.46	88.01	1.55	66.33	84.23
Fuel oil (180 cst)	70.45	69.12	-1.33	49.67	63.83
Fuel oil (380 cst 3.5% S)	69.98	68.57	-1.41	49.24	63.11

Note: \* Barges.

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

Sources: Argus Media and OPEC Secretariat.

# Tanker Market

Average dirty spot freight rates in the tanker market increased in August from the previous month by 7%. The average increase was driven mainly by gains registered for the VLCC and Aframax classes, while Suezmax freight rates showed negative developments. VLCC rates registered gains compared with the previous month. Several markets showed higher freight rates in August despite frequent fluctuations. Rates in the Caribbean, West Africa and the Middle East increased as a result of enhanced tonnage demand, while rates in Asia were also supported by port delays. Enhanced Aframax sentiment was seen in several markets, including the Mediterranean and the North Sea. Moreover, ongoing ullage delays on the US Gulf Coast (USGC) were the main driver behind the freight rate increase. On the other hand, Suezmax average rates mostly dropped in August due to low activity in general.

Product tanker spot freight rates continued to remain weak, following the trend seen in recent months, with no clear signs of recovery, declining by 9% and 2%, respectively, both East and West of Suez.

## Spot fixtures

**Global spot fixtures** dropped by 3.6% in August compared with the previous month. **OPEC spot fixtures** declined by 0.59 mb/d, or 4%, to average 14.19 mb/d, according to preliminary data. The drop in fixtures was registered in all regions.

Fixtures in the Middle East to both east- and west-bound destinations declined m-o-m by 0.17 mb/d and 0.18 mb/d, as did fixtures outside the Middle East, which averaged 4.31 mb/d in August, less by 0.24 mb/d from one month earlier.

Compared with the same period a year earlier, all fixtures were higher in August with one exception – Middle East-to-West fixtures – which dropped by 17.1% from the year before.

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

	Jun 18	Jul 18	Aug 18	Change Aug 18/Jul 18
<b>All areas</b>	<b>21.20</b>	<b>21.85</b>	<b>21.06</b>	<b>-0.78</b>
OPEC	14.50	14.78	14.19	-0.59
Middle East/East	7.71	8.06	7.88	-0.17
Middle East/West	2.14	2.18	2.00	-0.18
Outside Middle East	4.65	4.54	4.31	-0.24

Sources: Oil Movements and OPEC Secretariat.

## Sailings and arrivals

Preliminary data showed that **OPEC sailings** declined by 0.8% m-o-m in August, averaging 24.77 mb/d, which is 0.77 mb/d or 3.2% higher than in the same month a year earlier.

August **arrivals** in North America and the Far East increased over the previous month, while Europe and West Asia arrivals fell by 0.06 mb/d and 0.27 mb/d, respectively, to average 11.69 mb/d and 4.29 mb/d in August.



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

	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change Aug 18/Jul 18</u>
<b>Sailings</b>				
OPEC	24.51	24.97	24.77	-0.20
Middle East	17.81	18.27	18.07	-0.20
<b>Arrivals</b>				
North America	9.79	10.43	10.59	0.16
Europe	11.98	11.75	11.69	-0.06
Far East	8.84	8.63	8.98	0.35
West Asia	4.43	4.56	4.29	-0.27

Sources: Oil Movements and OPEC Secretariat.

## Dirty tanker freight rates

### Very large crude carrier (VLCC)

Following improved sentiment at the end of July, **VLCC August spot freight rates** in August increased in general. Several markets showed sustained growth in rates at the beginning of the month.

The Caribbean saw a significant increase in rates followed by a similar rise in West Africa, though at a lower level, combined with a slightly tighter tonnage list, mainly in the East. Together, routes saw rising trends, which did not continue through to the end of the month, as tonnage demand lessened when August requirements were covered and tonnage availability started to increase. Nevertheless, weather delays at Far Eastern ports prevented freight rates from declining significantly, as the availability of modern vessels was thinning.

Moreover, high fixtures for the month of September provided support to higher freight rates, mainly in the Middle East, causing VLCC spot rates to rise on all major trading routes in August, despite an average increase of 13% from one month before.

Middle East-to-East and Middle East-to-West spot freight rates rose by 11% and 26%, respectively, from the previous month, and spot freight rates on the West Africa-to-East route increased by 11%.

**Table 7 - 3: Dirty VLCC spot tanker freight rates, Worldscale (WS)**

	<u>Size 1,000 DWT</u>	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change Aug 18/Jul 18</u>
Middle East/East	230-280	51	49	54	5
Middle East/West	270-285	22	19	24	5
West Africa/East	260	52	50	55	6

Sources: Argus Media and OPEC Secretariat.

## Suezmax

Contrary to the VLCC market, **Suezmax freight rates** came under pressure in August. Suezmax activity level was generally thin, especially in the West as tonnage demand was affected by the refinery maintenance season in Europe. A tonnage build-up in several areas undermined Suezmax freight rates in the month. Rates dropped in West Africa as a result of limited loading requirements.

Similarly, Suezmax markets in the Middle East and the Black Sea showed a drop on the back of a generally persistent downward trend. Thus, freight rates for tankers operating on the West Africa-to-USGC route dropped by 8% from the previous month to average WS61 points, while in the West, freight rates on the Northwest Europe (NWE)-to-USGC route declined by 5% m-o-m to average WS53 points.

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

	Size 1,000 DWT	Jun 18	Jul 18	Aug 18	Change Aug 18/Jul 18
West Africa/US Gulf Coast	130-135	65	66	61	-5
Northwest Europe/US Gulf Coast	130-135	57	56	53	-3

Sources: Argus Media and OPEC Secretariat.

## Aframax

**Aframax spot freight rates** experienced their biggest increase in August from one month before compared with dirty tankers in other classes, rising on all reported routes.

On average, Aframax freight rates were 10% higher in August compared to a month earlier. The Aframax market in the Caribbean turned positive, showing higher gains than on other reported routes. Continuous ullage delays on the USGC were the main driver behind the freight rate increase, thus average monthly freight rates for tankers operating on the Caribbean-to-US East Coast (USEC) route rose by 21% over the previous month to average WS119 points.

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

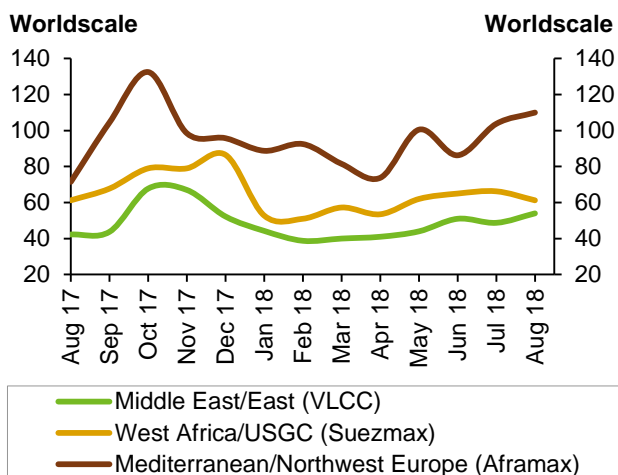
	Size 1,000 DWT	Jun 18	Jul 18	Aug 18	Change Aug 18/Jul 18
Indonesia/East	80-85	95	97	105	7
Caribbean/US East Coast	80-85	137	98	119	21
Mediterranean/Mediterranean	80-85	93	111	115	4
Mediterranean/Northwest Europe	80-85	86	104	110	6

Sources: Argus Media and OPEC Secretariat.

In the Mediterranean, the Aframax market strengthened in August following a stronger chartering market in the Baltics and the North Sea. Nevertheless, the firming trend was slow despite occasional tightness in the tonnage list, which helped owners to push for higher rates. As a result, freight rates for tankers trading on both the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes increased by WS4 points and WS6 points in August compared with the previous month, to stand at WS115 points and WS110 points, respectively. Similarly, average freight rates for tankers trading on the Indonesia-to-East route increased by 7% to average WS105 points.

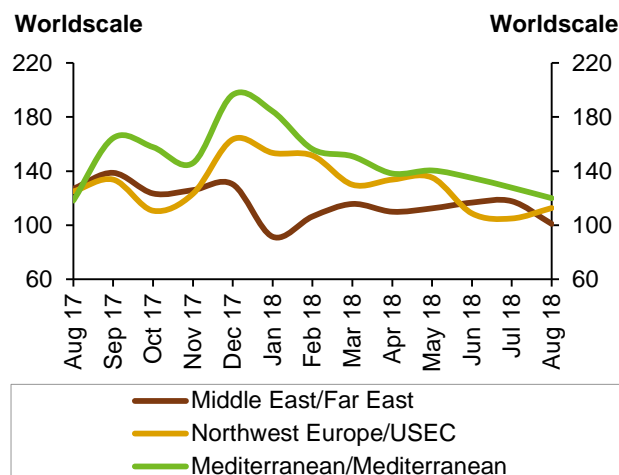
## Tanker Market

**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 the **clean sector**, tankers trading on most reported routes registered a drop in August and average rates showed a decline of 5% m-o-m on the back of high vessel availability.

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

	Size 1,000 DWT	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change</u> <u>Aug 18/Jul 18</u>
<b>East of Suez</b>					
Middle East/East	30-35	117	118	101	-17
Singapore/East	30-35	124	135	129	-6
<b>West of Suez</b>					
Northwest Europe/US East Coast	33-37	109	105	113	8
Mediterranean/Mediterranean	30-35	135	128	120	-8
Mediterranean/Northwest Europe	30-35	145	138	130	-8

Sources: Argus Media and OPEC Secretariat.

In the **East of Suez**, spot freight rates for the clean tanker market mostly declined. Tankers operating on the Middle East-to-East route showed the largest drop, down by 14% compared with the previous month, while rates for the Singapore-to-East route fell by 4% from a month earlier to average WS129 points in August.

In the **West of Suez**, a lesser drop was seen. Clean West of Suez spot freight rates dropped on average by 1% m-o-m in August, offset by higher rates on the NWE-to-USEC route, which increased by 7% m-o-m to average WS113 points. The Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes saw a drop of around 6% each, as the market showed mostly flat developments before rates started to decline.

## Oil Trade

In August, preliminary data shows that US crude oil imports dropped by 80 tb/d, or 1%, from the previous month to average 7.9 mb/d. On an annual basis, this reflects a slight gain of only 10 tb/d from a year earlier. US product imports increased by 205 tb/d, or 9%, m-o-m to average 2.4 mb/d – the largest increase since September 2017 – while rising by 222 tb/d, or 10%, over the same time last year.

Japan's crude oil imports increased in July by 526 tb/d to average 2.9 mb/d. On an annual basis, crude imports dropped for the month by 428 tb/d, or 13%, y-o-y. At the same time, Japan's product imports increased in July by 112 tb/d m-o-m to average 561 tb/d. Annually, product imports were up by 29 tb/d, or 6%.

China's crude oil imports dropped in July by 70 tb/d, or 1%, from the previous month to average 8.62 mb/d. Based on an annual comparison, China's crude imports were higher by 420 tb/d, or 5%, y-o-y.

In July, India's crude imports averaged 4.6 mb/d, which is 156 tb/d, or 3%, lower than levels seen last month. On an annual basis, they increased by 507 tb/d, or 12%. India's product imports went down in July by 43 tb/d, or 5%, from a month earlier to average 828 tb/d, and fell 87 tb/d, or 10% y-o-y.

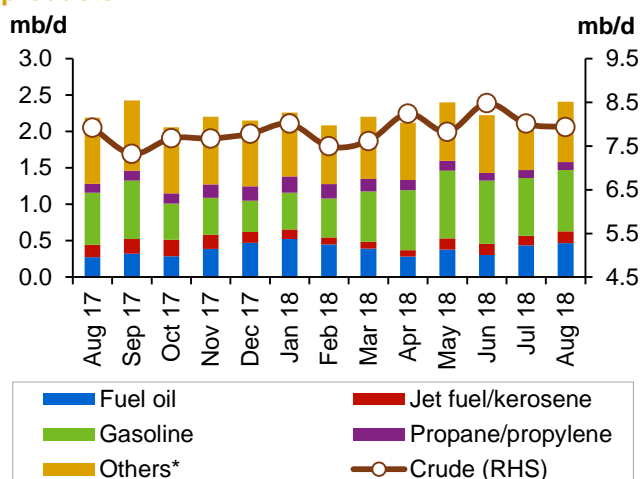
## US

In August, preliminary data shows that **US crude oil imports** dropped by 80 tb/d, or 1%, from the previous month to average 7.9 mb/d. On an annual basis, this reflects a slight gain of only 10 tb/d from a year earlier. Crude imports were lower in August, despite higher refinery runs in the same month.

**US product imports** increased by 205 tb/d, or 9%, m-o-m to average 2.4 mb/d – the largest rise since September 2017. Y-o-y, they rose by 222 tb/d, or 10%. In a y-t-d comparison, product imports were up by 4%, supported by high demand in the country.

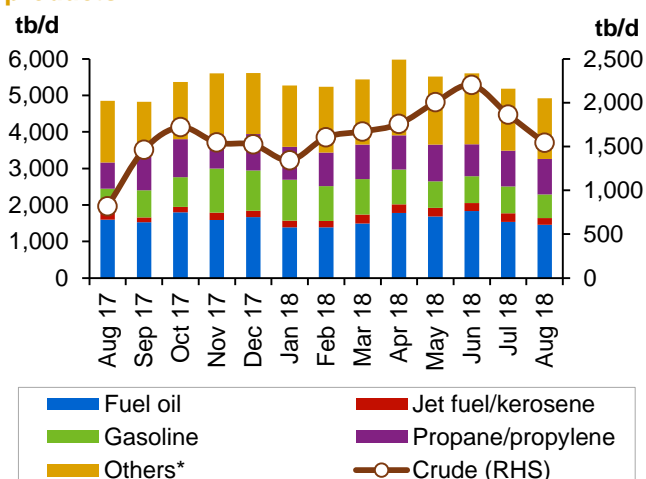
**US crude and product exports** showed a m-o-m drop of 321 tb/d and 259 tb/d, respectively, or 17% and 5%, to average 1.5 mb/d and 4.9 mb/d in August. In an annual comparison, product exports reflected a gain of 72 tb/d, or 2%, while crude exports soared by 724 tb/d, or 88%, y-o-y.

**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.

## Oil Trade

As a result, **US total net imports rose in August to average 3.9 mb/d, 22% higher than in the previous month**, while remaining 13% below last year's level.

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

	<b>Jun 18</b>	<b>Jul 18</b>	<b>Aug 18</b>	<b>Change Aug 18/Jul 18</b>
Crude oil	6,280	6,150	6,391	241
Total products	-3,375	-2,973	-2,509	464
<b>Total crude and products</b>	<b>2,905</b>	<b>3,178</b>	<b>3,882</b>	<b>704</b>

Sources: US Energy Information Administration and OPEC Secretariat.

Regarding **crude supplies to the US**, Canada remained the top supplier in June, accounting for 47% of total US crude imports, increasing its volume of exports to the country by 118 tb/d from one month earlier. Canada has held the top supplier position to US since March 2006. Saudi Arabia came in as the second-largest supplier to the US, holding a share of 10% of total crude imports, though the country's crude exports to the US dropped from a month earlier by a slight 37 tb/d. Iraq was the third-top supplier to the US in June, although with lower volumes than the previous month by 167 tb/d.

**Crude imports from OPEC Member Countries (MCs)** rose in June from the previous month by 277 tb/d, or 11%, to average 2.7 mb/d, accounting for 32% of total US crude imports.

On the other hand, **US product imports from OPEC MCs** were also higher from a month earlier to stand at 310 tb/d, representing 14% of total products imported by the US. They remained above the volumes supplied in the same month last year by 42% on an annual basis.

As to **product supplier share**, Canada and Russia maintained their positions as first- and second-largest suppliers to the US, with shares of 25% and 14%, respectively. Both Canada and Russia decreased their exports from one month ago by 4% and 11%, respectively. South Korea was the third-biggest product supplier to the US in June.

Looking into **US crude imports by region** in June 2018, the largest crude import volumes were sourced from North America, as seen earlier, averaging 4 mb/d, followed by Latin America, which averaged 2 mb/d in June. The Middle East was the third-largest supplier, with an average of 1.4 mb/d. Imports from Africa increased from a month earlier by 337 tb/d. Imports from both Asia and FSU were higher than the previous month.

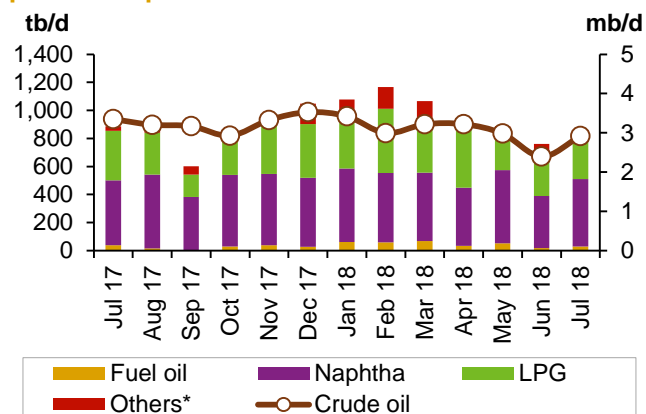
## Japan

**Japan's crude oil imports** increased in July by 526 tb/d m-o-m to average 2.9 mb/d. The import gain was in line with higher refinery crude intake seen in the same month. On an annual basis, crude imports dropped in July by 428 tb/d, or 13%, while at the same time refinery intake showed an increase over the previous month of 480 tb/d.

Regarding **crude supplier share**, Saudi Arabia retained its position as the top supplier to Japan, with 34% of total crude exports to the country, up by 70 tb/d, or 8%, from last month. The UAE came in as second-largest supplier to Japan, with a share of 27% of total crude imports. Qatar came in third with a share of 8%. Crude exports from both the UAE and Qatar were higher than last month by 247 tb/d and 88 tb/d, respectively.

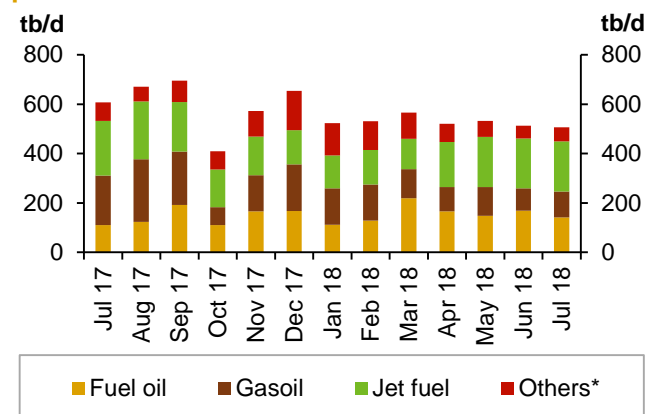
Japan's **product imports**, excluding LPG, increased in July by 112 tb/d to average 561 tb/d. Annually, product imports were higher by 29 tb/d, or 6%, y-o-y. Japan's monthly increase came mainly as a result of greater naphtha import, which increased by almost 30% in July from a month before.

Japan's **total product exports** in July remained almost stable from the previous month, showing a slight drop by 6 tb/d to average 507 tb/d. Annually, they dropped by 101 tb/d, or 17%, y-o-y.

**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 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.

Accordingly, Japan's net imports increased in July by 644 tb/d m-o-m to average 3.0 mb/d, reflecting a monthly gain of 28%, though they fell by 6% annually.

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

	May 18	Jun 18	Jul 18	Change Jul 18/Jul 17
Crude oil	2,981	2,395	2,921	526
Total products	91	-63	55	118
<b>Total crude and products</b>	<b>3,072</b>	<b>2,332</b>	<b>2,976</b>	<b>644</b>

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

## China

China's crude oil imports rose in July by 70 tb/d, or 1%, from the previous month to average 8.62 mb/d. In an annual comparison, they were higher by 420 tb/d, or 5%. This monthly increase came as a result of higher demand by teapot refineries returning from refinery maintenance.

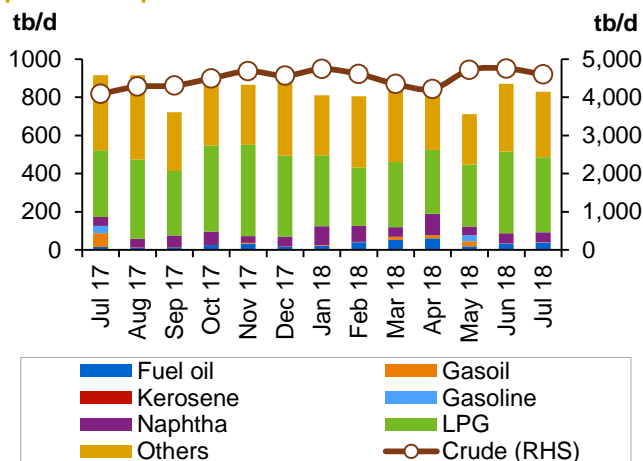
Looking at crude oil supplier share, Russia was the main supplier to China in July, with exports averaging 1.3 mb/d, similar to the levels of one month before. Saudi Arabia came in as the second-largest crude supplier to China for the month, holding a share of 11% to average 970 tb/d, up by 50 tb/d from one month before. In third place came Iraq, with total exports to China of 890 tb/d.

## India

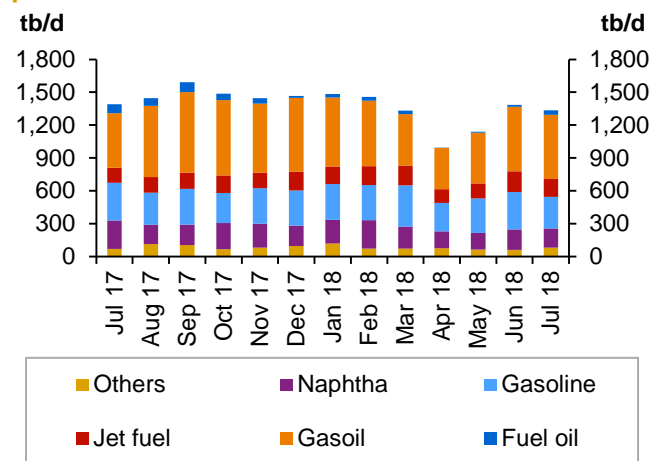
In July, India's crude imports averaged 4.6 mb/d, which is 156 tb/d, or 3%, lower than the amount seen last month; crude intake by refineries dropped by almost 300 tb/d in July. On an annual basis, crude imports increased by 507 tb/d, or 12%, m-o-m.

India's product imports in July were down by 43 tb/d, or 5%, from a month ago to average 828 tb/d. Y-o-y this reflects a drop of 87 tb/d, or 10%. The monthly decline in product imports resulted mainly from lower imports of LPG, while fuel oil imports rose from the previous month.

India's total product exports dropped in July by 48 tb/d from the previous month to average 1.3 mb/d, while falling from a year earlier by 55 tb/d, or 4%. Monthly exports of all products dropped, with fuel oil being the only exception.

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

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

**Graph 8 - 6: India's exports of petroleum products**

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

Consequentially, **India's net imports declined by 151 tb/d, or 4%, m-o-m to average 4.1 mb/d**, while remaining higher by 13% from a year ago.

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

	May 18	Jun 18	Jul 18	Change Jul 18/Jun 18
Crude oil	4,714	4,752	4,597	-156
Total products	-427	-512	-507	5
<b>Total crude and products</b>	<b>4,286</b>	<b>4,240</b>	<b>4,089</b>	<b>-151</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

**Total crude oil exports from the Former Soviet Union (FSU)** fell slightly by 7 tb/d in July compared with the previous month to average 6.8 mb/d. **Total crude exports through Russian pipelines** saw an increase of 31 tb/d, or 1%, m-o-m to average 4 mb/d.

In the **Transneft system**, shipments from the Druzhba pipeline dropped by 75 tb/d, or 7%, m-o-m to average 958 tb/d. Exports through Kozmino increased by 29 tb/d m-o-m to average 624 tb/d in July.

Exports through the **Lukoil system** from the Barents Sea decreased by a total of 13 tb/d, or 10.8%, m-o-m to average 106 tb/d in July.

As for **other routes**, Black Sea total exports rose by 21 tb/d m-o-m, mainly because the Supsa port terminal increased its exports by 18 tb/d m-o-m, while the Novorossiysk port terminal (CPC) decreased its exports slightly to average 1.3 tb/d in July. In the Mediterranean Sea, BTC supplies declined by 29 tb/d, or 4%, m-o-m to average 718 tb/d.

**Total FSU product exports** fell by 192 tb/d, or 6%, compared with the previous month to average 2.8 mb/d in July. This drop came as the result of a decline seen in all exported products, with the exception of gasoline and jet fuel, which increased from last month by 27 tb/d and 28 tb/d, respectively.



Table 8 - 4: Recent FSU exports of crude and petroleum products by sources, tb/d

		2017	1Q18	2Q18	Jun 18	Jul 18
<b>Transneft system</b>						
<b>Europe</b>	<b>Black Sea total</b>	<b>605</b>	<b>521</b>	<b>536</b>	<b>546</b>	<b>522</b>
	Novorossiysk port terminal - total	605	528	536	546	522
	of which: Russian oil	424	362	375	344	365
	Others	181	171	162	202	157
	<b>Baltic Sea total</b>	<b>1,516</b>	<b>1,289</b>	<b>1,297</b>	<b>1,199</b>	<b>1,229</b>
	Primorsk port terminal - total	871	755	783	696	742
	of which: Russian oil	871	755	783	696	742
	Others	0	0	0	0	0
	Ust-Luga port terminal - total	645	538	514	503	487
	of which: Russian oil	470	351	316	312	325
	Others	175	176	198	192	162
	<b>Druzhba pipeline total</b>	<b>1,009</b>	<b>987</b>	<b>987</b>	<b>1,032</b>	<b>958</b>
	of which: Russian oil	977	953	955	999	926
	Others	32	32	32	33	32
<b>Asia</b>	<b>Pacific ocean total</b>	<b>645</b>	<b>593</b>	<b>623</b>	<b>596</b>	<b>624</b>
	Kozmino port terminal - total	645	608	623	596	624
	<b>China (via ESPO pipeline) total</b>	<b>336</b>	<b>552</b>	<b>554</b>	<b>531</b>	<b>601</b>
	China Amur	336	553	554	531	601
<b>Total Russian crude exports</b>		<b>4,111</b>	<b>3,940</b>	<b>3,997</b>	<b>3,904</b>	<b>3,934</b>
<b>Lukoil system</b>						
<b>Europe &amp; North America</b>	<b>Barents Sea total</b>	<b>170</b>	<b>144</b>	<b>125</b>	<b>119</b>	<b>106</b>
	Varandey offshore platform	170	134	125	119	106
<b>Europe</b>	<b>Baltic Sea total</b>	<b>13</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
	Kalinigrad port terminal	13	7	7	7	7
<b>Other routes</b>						
<b>Asia</b>	<b>Russian Far East total</b>	<b>343</b>	<b>364</b>	<b>372</b>	<b>388</b>	<b>350</b>
	Aniva bay port terminal	127	134	137	126	97
	De Kastri port terminal	216	235	235	261	253
	<b>Central Asia total</b>	<b>262</b>	<b>237</b>	<b>225</b>	<b>202</b>	<b>226</b>
	Kenkiyak-Alashankou	262	231	225	202	226
<b>Europe</b>	<b>Black Sea total</b>	<b>1,277</b>	<b>1,397</b>	<b>1,393</b>	<b>1,363</b>	<b>1,384</b>
	Novorossiysk port terminal (CPC)	1,194	1,325	1,337	1,323	1,317
	Supsa port terminal	72	66	53	40	58
	Batumi port terminal	11	3	3	0	9
	Kulevi port terminal	0	0	0	0	0
	<b>Mediterranean Sea total</b>	<b>707</b>	<b>677</b>	<b>693</b>	<b>747</b>	<b>718</b>
	BTC	707	685	693	747	718
<b>Russian rail</b>						
	<b>Russian rail</b>	<b>40</b>	<b>33</b>	<b>32</b>	<b>33</b>	<b>30</b>
	of which: Russian oil	40	32	32	33	30
	Others	0	0	0	0	0
<b>Total FSU crude exports</b>		<b>6,923</b>	<b>6,798</b>	<b>6,844</b>	<b>6,763</b>	<b>6,756</b>
<b>Products</b>						
	Gasoline	193	234	169	204	231
	Naphtha	549	532	544	560	432
	Jet	35	36	36	26	54
	Gasoil	980	1,102	1,010	1,043	988
	Fuel oil	1,025	996	932	958	905
	VGO	308	327	275	242	231
<b>Total FSU product exports</b>		<b>3,089</b>	<b>3,271</b>	<b>2,967</b>	<b>3,033</b>	<b>2,841</b>
<b>Total FSU oil exports</b>		<b>10,012</b>	<b>10,069</b>	<b>9,811</b>	<b>9,796</b>	<b>9,597</b>

Sources: Argus Nefte Transport and Argus Global Markets.

## Stock Movements

Preliminary data for July showed that total **OECD commercial oil stocks** rose by 8.1 mb m-o-m to stand at 2,830 mb. This was 194 mb lower than the same time one year ago and 43 mb below the latest five-year average. Compared to the seasonal norm, crude stocks indicated a deficit of 0.2 mb, while for product stocks, there was a deficit of 43 mb. In terms of number of days of forward cover, OECD commercial stocks rose by 0.1 days m-o-m in July to stand at 59.1 days. This was 4.7 days below the same period in 2017 and 2.3 days lower than the latest five-year average.

Preliminary data for August showed that **US total commercial oil stocks** rose by 16.7 mb m-o-m, a second consecutive monthly rise. At 1,226.6 mb, total US commercial stocks stood at 82 mb lower than the same period a year ago, and 2 mb lower than the latest five-year average. Within the components, crude stocks fell by 5.9 mb, while products inventories rose by 22.6 mb, m-o-m.

## OECD

Preliminary data for July showed that **total OECD commercial oil stocks** rose by 8.1 mb m-o-m reversing the drop of last month. At 2,830 mb, total OECD commercial oil stocks were 194 mb lower than the same time one year ago and 43 mb below the latest five-year average.

Within the components, commercial crude stocks indicated a deficit of 0.2 mb, while products stocks are 43 mb below the latest five-year average. It should be noted that the overhang has been reduced by more than 381 mb since January 2017. In July, crude stocks fell by 8.3 mb, while product stocks rose by more than 16.4 mb, m-o-m.

Within the regions, in July OECD Americas and OECD Europe rose by 6.4 mb and 3.9 mb, respectively, while OECD Asia Pacific inventories fell by 2.2 mb, m-o-m, reversing the build of last three months.

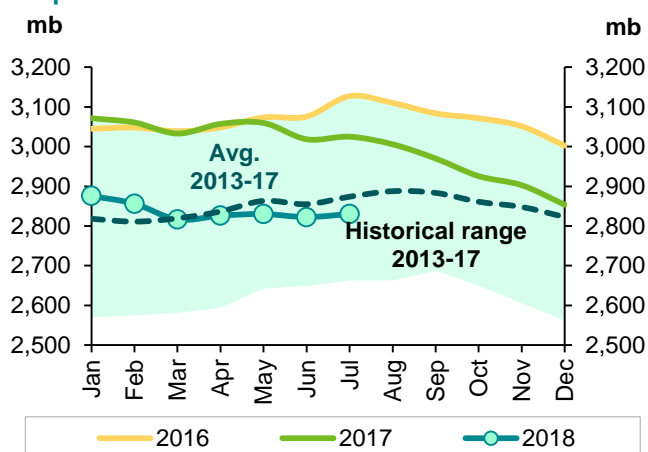
**OECD commercial crude stocks** fell by 8.3 mb m-o-m in July, ending the month at 1,418 mb. This was 111 mb lower than the same time a year ago, and 0.2 mb lower than the latest five-year average. Compared to the previous month, the three OECD regions experienced crude stock draws.

In contrast, **OECD product inventories** rose by 16.4 mb m-o-m in July to stand at 1,413 mb. This was 83 mb below the same time a year ago and 43 mb below the seasonal norm. Within the OECD regions, the three OECD regions experienced products stocks builds m-o-m.

In terms of **days of forward cover**, OECD commercial stocks rose by 0.1 days m-o-m in July to stand at 59.1 days. This was 4.7 days below the same period in 2017 and 2.3 days lower than the latest five-year average.

Within the regions, OECD Americas had 1.7 days of forward cover lower than the historical average to stand at 58.5 days. OECD Europe stocks stood at 2.0 days below the latest five-year average, to finish the month of July at 64.9 days. OECD Asia Pacific indicated a deficit of 5.3 days below the seasonal norm to stand at 49.9 days.

Graph 9 - 1: OECD commercial oil stocks



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

## OECD Americas

**OECD Americas total commercial stocks** rose by 6.4 mb m-o-m in July, reversing the drop of last month. At 1,479 mb, they stood at 108 mb below a year ago, and 13 mb below latest five-year average. Within the components, crude stocks fell 3.7 mb, while product stocks rose 10.1 mb, m-o-m.

**Commercial crude oil stocks** in OECD Americas fell by 3.7 mb m-o-m in July to stand at 759 mb. This was 74 mb lower than the same period a year ago, but 6.6 mb higher than the latest five-year average. This drop came from lower US crude imports, which decreased by around 400 tb/d to average around 8 mb/d. Lower US crude throughput, which declined by around 300 tb/d to stand at 17.8 mb/d, limited a further drop in crude oil stocks.

In contrast, **commercial product stocks** in OECD Americas rose by 10.1 mb m-o-m in July, to stand at 720 mb. This was 34 mb below the same time one year ago, and 19 mb below the seasonal norm. Lower product consumption in the US was behind the product stock build.

## OECD Europe

**OECD Europe's total commercial stocks** rose by 3.9 mb m-o-m in July, ending the month at 962 mb. This was 38.5 mb lower than the same time a year ago, but 10.1 mb above the latest five-year average. Crude stocks fell by 1.1 mb, while product inventories rose by 5.0 mb, m-o-m.

OECD Europe's **commercial crude stocks** fell by 1.1 mb m-o-m in July, ending the month at 438 mb. This was 3.1 mb higher than a year earlier and 27.9 mb higher than the latest five-year average. The drop in crude oil stocks could be attributed to higher refinery throughput in EU countries, which increased by 300 tb/d to stand at 10.9 mb/d.

In contrast, OECD Europe's **commercial product stocks** rose by 5.0 mb m-o-m to end July at 524 mb. This was 42 mb below the same time a year ago and 18 mb lower than the seasonal norm. The build in product stocks could be attributed to lower demand in OECD Europe.

## OECD Asia Pacific

**OECD Asia Pacific's total commercial oil stocks** fell by 2.2 mb m-o-m in July, reversing the slight build of the last month to stand at 389 mb. At this level, they were 48 mb lower than a year ago and 41 mb below the five-year average. Within the components, crude stocks fell 3.5 mb, while product inventories rose by 1.3 mb, m-o-m.

OECD Asia Pacific's **crude inventories** fell by 3.5 mb m-o-m to end the month of July at 221 mb, which was 40 mb below a year ago, and 35 mb under the seasonal norm.

In contrast, OECD Asia Pacific's **total product inventories** rose by 1.3 mb m-o-m, to end July at 168 mb, standing 7.3 mb below the same time a year ago, and 5.8 mb less than the seasonal norm.

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

	May 18	Jun 18	Jul 18	Change Jul 18/Jun 18	Jul 17
<b>Crude oil</b>	1,449	1,426	1,418	-8.3	1,529
<b>Products</b>	1,382	1,396	1,413	16.4	1,496
<b>Total</b>	<b>2,830</b>	<b>2,822</b>	<b>2,830</b>	<b>8.1</b>	<b>3,025</b>
<b>Days of forward cover</b>	<b>59.1</b>	<b>58.9</b>	<b>59.1</b>	<b>0.1</b>	<b>63.7</b>

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

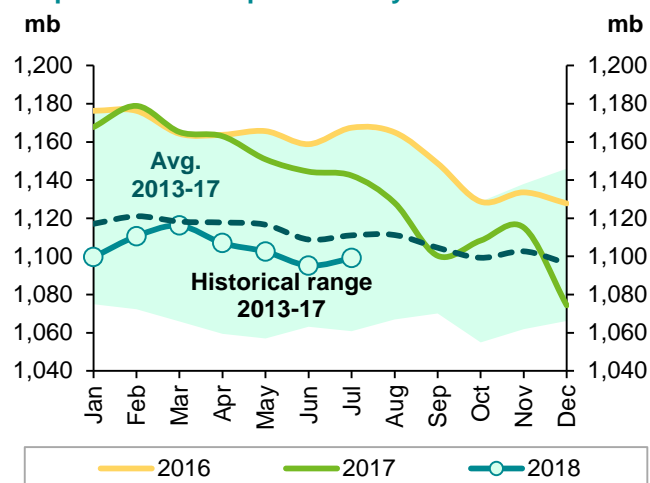
*Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US Energy Information Administration.*

## EU plus Norway

Preliminary data for July showed that **total European commercial oil stocks** rose by 3.9 mb m-o-m to stand at 1,099 mb. This was 43.3 mb, or 3.8%, lower than the same time a year ago, and 12.0 mb, or 1.1%, lower than the latest five-year average. Within the components, crude stocks fell by 1.1 mb, while products stocks rose by 5.0 mb, m-o-m.

European **crude inventories** fell in July to stand at 487 mb. This was 12.3 mb, or 2.5%, lower than the same period a year ago and they are 2.9 mb, or 0.6%, higher the latest five-year average. The drop in crude oil stocks could be attributed to higher refinery throughput in EU countries, which increased by more than 100 tb/d to stand at 10.67 mb/d.

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



Source: Euroilstock.

In contrast, European **total product stocks** rose by 5.0 mb m-o-m, ending July at 612 mb. This was 31.0 mb, or 4.8%, lower than the same time a year ago, and 14.8 mb, or 2.4%, lower than the seasonal norm. Within products, distillates stocks witnessed builds, while gasoline and residual fuel experienced a stock draw.

**Distillate stocks** in July rose by 5.7 mb m-o-m to stand at 402 mb. This was 37.7 mb, or 8.6%, lower than the same time one year ago, and 16.1 mb, or 3.9%, lower the seasonal norm. Weak distillate consumption was behind the build in inventories.

In contrast, **gasoline and residual fuels stocks** fell by 0.2 mb and 0.5 mb, m-o-m, to end July at 115 mb and 67 mb, respectively.

**Gasoline stocks** indicate a surplus of 2.7 mb, or 2.4%, above the same time a year ago, and 4.6 mb, or 4.2%, above the latest five-year average.

**Residual fuel stocks** in July are in line with the same time a year ago, but 8.8 mb, or 11.7%, below the latest five-year average.

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

	May 18	Jun 18	Jul 18	Change Jul 18/Jun 18	Jul 17
<b>Crude oil</b>	<b>485.9</b>	<b>488.1</b>	<b>487.0</b>	<b>-1.1</b>	<b>499.3</b>
<b>Gasoline</b>	118.8	114.7	114.5	-0.2	111.8
<b>Naphtha</b>	28.6	29.5	29.5	0.0	25.4
<b>Middle distillates</b>	400.0	395.9	401.6	5.7	439.2
<b>Fuel oils</b>	69.2	67.1	66.6	-0.5	66.6
<b>Total products</b>	<b>616.6</b>	<b>607.1</b>	<b>612.1</b>	<b>5.0</b>	<b>643.1</b>
<b>Total</b>	<b>1,102.5</b>	<b>1,095.2</b>	<b>1,099.1</b>	<b>3.9</b>	<b>1,142.4</b>

Sources: Argus and Euroilstock.

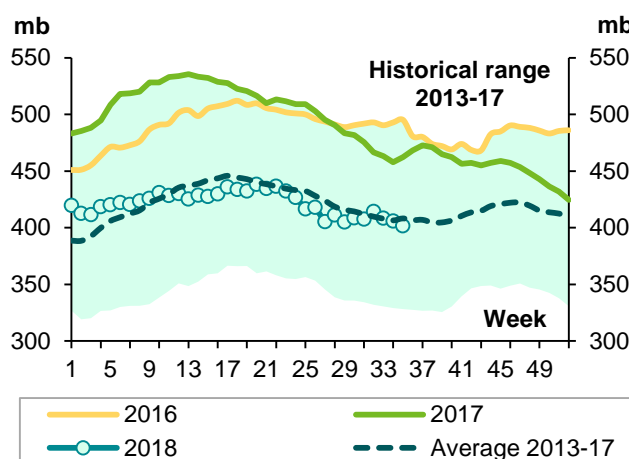
# US

Preliminary data for August showed that **US total commercial oil stocks** rose by 16.7 mb m-o-m, for the second consecutive month. At 1,226.6 mb, total US commercial stocks stood at 81 mb, or 6.3%, lower than the same period a year ago, and 2.0 mb, or 0.2%, lower than the latest five-year average. Within the components, crude stocks fell by 5.9 mb, while products inventories rose by 22.6 mb, m-o-m.

US **commercial crude stocks** fell in August to stand at 401.5 mb, which was 58.5 mb, or 12.7%, below last year at the same time, and 6.7 mb, or 1.6%, under the latest five-year average. This drop came from higher crude throughput, which increased by around 300 tb/d to average 17.7 mb/d. Lower crude imports limited further stock draws in August. In August, crude inventories in Cushing, Oklahoma, fell by around 3.0 mb to end the month at 24.8 mb, which is the lowest since October 2014.

In contrast, **total product stocks** rose by 22.6 mb m-o-m in August to stand at 825.1 mb, which is 23.3 mb, or 2.7%, down from the level seen at the same time in 2017, but 4.7 mb, or 0.6%, below the seasonal average. Within products, gasoline, distillates and jet fuel oil experienced stock builds, while residual fuel inventories saw drawn when compared to the previous month.

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



Sources: US Energy Information Administration and OPEC Secretariat.

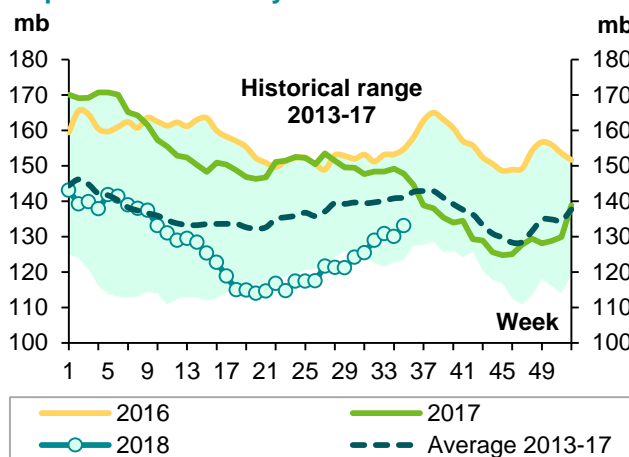
**Gasoline stocks** rose by 0.8 mb m-o-m in August, reversing the stock draw of last two months. At 234.6 mb, they were 7.8 mb, or 3.5%, above the level at the same time last year, and 13.6 mb, or 6.1%, higher than the seasonal norm. This monthly build came mainly from higher gasoline output. Relatively lower gasoline consumption in August also contributed to the build in gasoline stocks.

**Distillate stocks** also rose by 7.7 mb m-o-m in August for the third consecutive month. At 133.1 mb, distillates stocks stood at 14.7 mb, or 9.9%, below the same period a year ago, and 10.5 mb, or 7.3%, below the latest five-year average. The build came mainly on the back of higher output.

**Jet fuel stocks** rose also by 2.3 mb m-o-m in August, to stand at 42.0 mb, which is 1.6 mb, or 3.9%, above the level of a year ago at the same time and 1.7 mb, or 4.2%, above the latest five year average.

In contrast, **residual fuel stocks** fell by 0.6 mb in August compared to the previous month, ending the month at 27.8 mb. At this level, they stand at 4.9 mb, or 15.0%, below the same time a year ago and 9.0 mb, or 24.6%, below the latest five year average.

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



Sources: US Energy Information Administration and OPEC Secretariat.

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

	Jun 18	Jul 18	Aug 18	Change Aug 18/Jul 18	Aug 17
<b>Crude oil</b>	<b>414.8</b>	<b>407.4</b>	<b>401.5</b>	<b>-5.9</b>	<b>460.0</b>
<b>Gasoline</b>	240.3	233.9	234.6	0.8	226.8
<b>Distillate fuel</b>	120.4	125.4	133.1	7.7	147.8
<b>Residual fuel oil</b>	30.0	28.3	27.8	-0.6	32.7
<b>Jet fuel</b>	40.8	39.7	42.0	2.3	40.4
<b>Total products</b>	<b>792.4</b>	<b>802.5</b>	<b>825.1</b>	<b>22.6</b>	<b>848.4</b>
<b>Total</b>	<b>1,207.2</b>	<b>1,209.9</b>	<b>1,226.6</b>	<b>16.7</b>	<b>1,308.4</b>
<b>SPR</b>	<b>660.0</b>	<b>660.0</b>	<b>660.0</b>	<b>0.0</b>	<b>678.8</b>

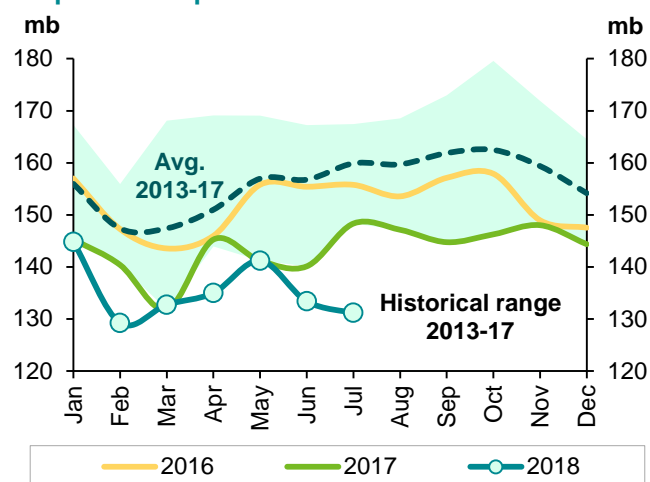
Sources: US Energy Information Administration and OPEC Secretariat.

## Japan

In Japan, **total commercial oil stocks** fell by 2.2 mb m-o-m in July for the second consecutive month, to stand at 131.2 mb. At this level, they were 17.1 mb, or 11.5%, below the level of a year ago, and 28.7 mb, or 17.9%, below the latest five-year average. Within the components, crude stocks fell by 3.5 mb, while product rose by 1.3 mb m-o-m.

Japan's **commercial crude oil stocks** fell in July to stand at 74.7 mb. This was 11.9 mb, or 13.7%, below the same period a year ago, and 21.2 mb, or 22.1%, below the seasonal norm. The drop was driven by higher refinery throughput, which increased by 435 tb/d, or 17.1%, to average at 2.98 mb/d. Higher crude imports, which rose by more than 500 tb/d, or 22%, to average 2.9 mb/d, limited a further drop in crude oil stocks.

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



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

In contrast, Japan's **total product inventories** rose m-o-m by 1.3 mb to end July at 56.5 mb. This was 5.3 mb, or 8.5%, lower than the same month last year, and 7.5 mb, or 11.7%, lower than the seasonal norm. Within products, the picture was mixed; gasoline and fuel oil stocks experienced stock draws, distillates inventories witnessed builds.

**Gasoline stocks** declined by 0.6 mb m-o-m to stand at 9.4 mb in July. This was 1.0 mb, or 9.9%, lower than the same time a year ago, and 1.5 mb, or 13.7%, below the latest five-year average. The drop was mainly driven by higher domestic gasoline sales, which rose by 12.3% from the previous month. Higher gasoline output limited any further drop in gasoline stocks.

**Total residual fuel oil stocks** also fell by 0.8 mb m-o-m to stand at 12.2 mb in July. This was 1.6 mb, or 11.8%, below the same period a year ago, and 2.1 mb, or 14.5%, less than the latest five-year average. Within the fuel oil components, fuel oil A and fuel B.C fell by 1.8% and 8.1%, respectively. The drop was driven by higher domestic sales, while the increase in output limited further drop.

In contrast, **distillate stocks** rose by 1.7 mb m-o-m to stand at 25.5 mb in July. This was 1.7 mb, or 6.3%, lower than the same time a year ago, and 3.1 mb, or 10.9%, below the seasonal average. Within the distillate components, jet fuel, kerosene and gasoil stocks rose m-o-m by 2.9%, 9.8% and 7.0%, respectively, in July. Higher output was behind the build in distillate component inventories.



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

	May 18	Jun 18	Jul 18	Change Jul 18/Jun 18	Jul 17
<b>Crude oil</b>	<b>82.3</b>	<b>78.1</b>	<b>74.7</b>	<b>-3.5</b>	<b>86.5</b>
Gasoline	11.6	10.0	9.4	-0.6	10.4
Naphtha	9.1	8.5	9.4	0.9	10.3
Middle distillates	24.8	23.8	25.5	1.7	27.2
Residual fuel oil	13.4	13.0	12.2	-0.8	13.9
<b>Total products</b>	<b>58.9</b>	<b>55.3</b>	<b>56.5</b>	<b>1.3</b>	<b>61.8</b>
<b>Total**</b>	<b>141.2</b>	<b>133.4</b>	<b>131.2</b>	<b>-2.2</b>	<b>148.3</b>

Note: \* At the end of the month.

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

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

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

### Singapore

At the end of July, **total product stocks in Singapore** rose by 0.7 mb m-o-m to stand at 40.3 mb. This was 9.6 mb, or 19.2%, below the same period a year ago. Refined product stocks show a mixed picture, with light and middle distillates showing m-o-m build, while fuel oil indicated stock draws.

**Light and middle distillates** rose by 3.1 mb and 0.8 mb, m-o-m, ending the month of July at 15.2 mb and 10.1 mb, respectively. Light distillate stocks were 2.0 mb above the same period a year ago, while residual fuel stock remained a deficit of 3.1 mb when compared to the same period last year.

In contrast, **residual fuel oil stocks** fell by 3.2 mb m-o-m for the second consecutive month to stand at 15.0 mb in July, the lowest level since December 2008. This was 8.5 mb, or 36 %, below the same time year ago. The drop in fuel oil stocks is mainly driven by lower imports combined with higher demand for bunker fuel in Asia.

### ARA

**Total product stocks in ARA** rose by 0.5 mb in July m-o-m. At 43.0 mb, product stocks in ARA were 1.3 mb, or 3.1%, above the same time a year ago. Within products, gasoline and fuel oil witnessed stocks drawn while gasoil stocks saw a build.

**Gasoline and fuel oil stocks** fell by 0.5 mb and 2.3 mb m-o-m in July to stand at 8.2 mb and 7.9 mb, respectively. At this level, they remained below the level of the same time last year. This drop is mainly driven by strong exports from ARA.

In contrast, **gasoil stocks** rose by 3.2 mb from the previous month, ending July at 18.4 mb. This was 2.2 mb, or 10.7%, below the same period a year earlier.



## Balance of Supply and Demand

Demand for OPEC-15 crude in 2018 stood at 32.9 mb/d, unchanged from last MOMR report and 0.5 mb/d lower than the 2017 level. In comparison, according to secondary sources, OPEC crude production averaged 32.4 mb/d in 1Q18, which is in line with demand for OPEC crude. In 2Q18, OPEC crude production stood at 32.2 mb/d, which is also in line with demand for OPEC crude.

Demand for OPEC-15 crude in 2019 is forecast to decline by 0.9 mb/d to average 32.1 mb/d, almost unchanged from the last assessment.

### Balance of supply and demand in 2018

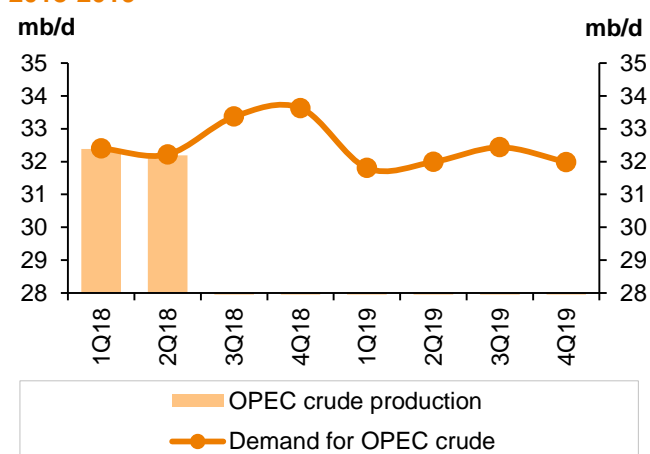
**Demand for OPEC-15 crude for 2018** remained unchanged from the previous report to stand at 32.9 mb/d, 0.5 mb/d lower than 2017 level.

Compared with the last *MOMR*, 1Q18 and 4Q18 were revised up by 0.1 mb/d and 0.2 mb/d respectively, while 2Q18 was revised down by 0.1 mb/d. The 3Q18 remained unchanged when compared to the previous assessment.

When compared to the same quarter in 2017, 1Q18 was 0.2 mb/d higher, while the second and third quarters were 0.8 mb/d and 1.0 mb/d lower respectively. The fourth quarter is expected to fall by 0.4 mb/d.

According to secondary sources, OPEC crude production averaged 32.4 mb/d in 1Q18, which is in line with the demand for OPEC. In the second quarter, OPEC crude production stood at 32.2 mb/d, which is also in line with the demand for OPEC crude.

**Graph 10 - 1: Balance of supply and demand, 2018-2019\***



Note: \*2018 and 2019 = Forecast.  
Source: OPEC Secretariat.

**Table 10 - 1: Supply/demand balance for 2018\*, mb/d**

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17
<b>(a) World oil demand</b>	<b>97.20</b>	<b>97.76</b>	<b>97.91</b>	<b>99.38</b>	<b>100.20</b>	<b>98.82</b>	<b>1.62</b>
Non-OPEC supply	57.54	59.07	59.35	59.64	60.15	59.56	2.02
OPEC NGLs and non-conventionals	6.24	6.29	6.34	6.38	6.43	6.36	0.12
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>63.78</b>	<b>65.36</b>	<b>65.69</b>	<b>66.02</b>	<b>66.57</b>	<b>65.91</b>	<b>2.13</b>
<b>Difference (a-b)</b>	<b>33.42</b>	<b>32.40</b>	<b>32.22</b>	<b>33.37</b>	<b>33.63</b>	<b>32.91</b>	<b>-0.51</b>
<b>OPEC crude oil production</b>	<b>32.62</b>	<b>32.38</b>	<b>32.19</b>				
<b>Balance</b>	<b>-0.80</b>	<b>-0.02</b>	<b>-0.03</b>				

Notes: \*2018 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

## Balance of supply and demand in 2019

**Demand for OPEC-15 crude for 2019** remained almost unchanged from the previous report to stand at 32.1 mb/d, 0.9 mb/d lower than the 2018 level.

Compared with the last *MOMR*, 1Q19 was revised up by 0.1 mb/d from the previous month. The second quarter remained unchanged. The third and fourth quarters were revised down by 0.1 mb/d each.

When compared to the same quarter in 2018, the first and second quarters are forecast to fall by 0.6 mb/d and 0.2 mb/d, respectively, while the third and fourth quarters are expected to fall by 0.9 mb/d and 1.6 mb/d, respectively.

**Table 10 - 2: Supply/demand balance for 2019\*, mb/d**

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18
<b>(a) World oil demand</b>	<b>98.82</b>	<b>99.17</b>	<b>99.27</b>	<b>100.82</b>	<b>101.63</b>	<b>100.23</b>	<b>1.41</b>
Non-OPEC supply	59.56	60.94	60.82	61.91	63.14	61.71	2.15
OPEC NGLs and non-conventionals	6.36	6.43	6.45	6.48	6.51	6.47	0.11
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>65.91</b>	<b>67.37</b>	<b>67.28</b>	<b>68.39</b>	<b>69.65</b>	<b>68.18</b>	<b>2.26</b>
<b>Difference (a-b)</b>	<b>32.91</b>	<b>31.81</b>	<b>31.99</b>	<b>32.43</b>	<b>31.98</b>	<b>32.05</b>	<b>-0.85</b>

Notes: \* 2018 and 2019 = 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

	2015	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
<b>World demand</b>													
<b>OECD</b>	46.52	46.97	47.33	47.65	47.23	47.89	48.26	47.76	47.95	47.45	48.19	48.53	48.03
Americas	24.59	24.87	24.97	25.15	25.34	25.31	25.44	25.31	25.41	25.57	25.59	25.69	25.57
Europe	13.83	13.99	14.30	13.95	14.24	14.80	14.49	14.37	14.01	14.27	14.85	14.53	14.42
Asia Pacific	8.10	8.10	8.06	8.54	7.65	7.77	8.33	8.07	8.53	7.61	7.75	8.30	8.05
<b>DCs</b>	30.89	31.51	32.13	32.44	32.65	33.16	32.79	32.76	33.10	33.32	33.84	33.47	33.43
<b>FSU</b>	4.58	4.63	4.70	4.66	4.50	4.89	5.21	4.82	4.75	4.59	4.98	5.31	4.91
<b>Other Europe</b>	0.67	0.70	0.72	0.73	0.69	0.73	0.82	0.74	0.75	0.71	0.75	0.84	0.76
<b>China</b>	11.49	11.80	12.32	12.28	12.84	12.71	13.12	12.74	12.62	13.20	13.07	13.48	13.09
<b>(a) Total world demand</b>	<b>94.16</b>	<b>95.61</b>	<b>97.20</b>	<b>97.76</b>	<b>97.91</b>	<b>99.38</b>	<b>100.20</b>	<b>98.82</b>	<b>99.17</b>	<b>99.27</b>	<b>100.82</b>	<b>101.63</b>	<b>100.23</b>
<b>Non-OPEC supply</b>													
<b>OECD</b>	25.36	24.86	25.71	27.24	27.40	27.68	28.23	27.64	28.58	28.49	29.47	30.31	29.22
Americas	21.08	20.57	21.49	22.93	23.29	23.47	23.84	23.39	24.20	24.40	25.21	25.82	24.91
Europe	3.82	3.86	3.83	3.91	3.74	3.81	3.97	3.86	3.96	3.65	3.81	4.02	3.86
Asia Pacific	0.46	0.43	0.39	0.40	0.37	0.40	0.43	0.40	0.42	0.44	0.46	0.47	0.45
<b>DCs</b>	11.74	11.51	11.47	11.41	11.46	11.44	11.58	11.47	11.76	11.83	11.93	12.23	11.94
<b>FSU</b>	13.69	13.85	14.05	14.10	14.14	14.21	13.94	14.10	14.14	14.10	14.11	14.17	14.13
<b>Other Europe</b>	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
<b>China</b>	4.40	4.09	3.97	3.94	3.99	3.94	4.03	3.98	4.06	4.01	4.00	4.03	4.02
<b>Processing gains</b>	2.17	2.19	2.21	2.25	2.25	2.25	2.25	2.25	2.28	2.28	2.28	2.28	2.28
<b>Total non-OPEC supply</b>	<b>57.51</b>	<b>56.64</b>	<b>57.54</b>	<b>59.07</b>	<b>59.35</b>	<b>59.64</b>	<b>60.15</b>	<b>59.56</b>	<b>60.94</b>	<b>60.82</b>	<b>61.91</b>	<b>63.14</b>	<b>61.71</b>
<b>OPEC NGLs + non-conventional oils</b>	6.05	6.15	6.24	6.29	6.34	6.38	6.43	6.36	6.43	6.45	6.48	6.51	6.47
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>63.56</b>	<b>62.78</b>	<b>63.78</b>	<b>65.36</b>	<b>65.69</b>	<b>66.02</b>	<b>66.57</b>	<b>65.91</b>	<b>67.37</b>	<b>67.28</b>	<b>68.39</b>	<b>69.65</b>	<b>68.18</b>
<b>OPEC crude oil production (secondary sources)</b>	31.91	32.86	32.62	32.38	32.19								
<b>Total supply</b>	95.46	95.64	96.41	97.74	97.88								
<b>Balance (stock change and miscellaneous)</b>	1.30	0.04	-0.80	-0.02	-0.03								
<b>OECD closing stock levels, mb</b>													
Commercial	2,989	3,002	2,854	2,816	2,822								
SPR	1,588	1,600	1,568	1,575	1,568								
<b>Total</b>	<b>4,577</b>	<b>4,602</b>	<b>4,421</b>	<b>4,391</b>	<b>4,390</b>								
<b>Oil-on-water</b>	1,017	1,102	1,025	1,036	1,012								
<b>Days of forward consumption in OECD, days</b>													
Commercial onland stocks	63.63	63.43	59.75	59.62	58.92								
SPR	33.81	33.80	32.82	33.34	32.74								
<b>Total</b>	<b>97.45</b>	<b>97.23</b>	<b>92.57</b>	<b>92.96</b>	<b>91.66</b>								
<b>Memo items</b>													
<b>(a) - (b)</b>	<b>30.60</b>	<b>32.82</b>	<b>33.42</b>	<b>32.40</b>	<b>32.22</b>	<b>33.37</b>	<b>33.63</b>	<b>32.91</b>	<b>31.81</b>	<b>31.99</b>	<b>32.43</b>	<b>31.98</b>	<b>32.05</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

	2015	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
<b>World demand</b>													
<b>OECD</b>	-	-	-	0.05	-0.04	0.01	-	0.01	0.05	-0.04	0.01	0.01	0.01
Americas	-	-	-	0.05	0.03	-	-	0.02	0.05	0.03	-	-	0.02
Europe	-	-	-	-	-0.10	-	-	-0.02	-	-0.10	-	-	-0.02
Asia Pacific	-	-	0.01	-	0.03	-	0.01	0.01	-	0.03	-	0.01	0.01
<b>DCs</b>	-	-	-	0.03	0.03	-0.06	-0.07	-0.02	0.01	0.01	-0.08	-0.09	-0.04
<b>FSU</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Other Europe</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>China</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>(a) Total world demand</b>	-	-	-	<b>0.08</b>	<b>-0.01</b>	<b>-0.06</b>	<b>-0.07</b>	<b>-0.01</b>	<b>0.06</b>	<b>-0.03</b>	<b>-0.08</b>	<b>-0.09</b>	<b>-0.03</b>
<b>Non-OPEC supply</b>													
<b>OECD</b>	0.02	-	0.03	-	0.14	0.12	0.09	0.09	0.06	0.06	0.10	0.10	0.08
Americas	0.02	-0.01	0.03	-	0.11	0.13	0.13	0.09	0.09	0.09	0.09	0.09	0.09
Europe	-	-	-	-	0.03	0.00	-0.05	-	-0.02	-0.02	0.02	0.02	-
Asia Pacific	-	-	-	-	-	-0.02	-	-0.01	-	-	-	-	-
<b>DCs</b>	-0.03	-0.03	-0.02	-0.02	-0.01	-0.23	-0.23	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12
<b>FSU</b>	-	-0.01	-0.01	-	-	0.17	-0.15	-	-	-	-	-	-
<b>Other Europe</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>China</b>	-	-	-	-	-	-0.08	-	-0.02	-	-	-	-	-
<b>Processing gains</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total non-OPEC supply</b>	-	-0.04	0.01	-0.03	0.13	-0.03	-0.30	-0.06	-0.06	-0.06	-0.02	-0.02	-0.04
<b>OPEC NGLs + non-conventionals</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	-	<b>-0.04</b>	<b>0.01</b>	<b>-0.03</b>	<b>0.13</b>	<b>-0.03</b>	<b>-0.30</b>	<b>-0.06</b>	<b>-0.06</b>	<b>-0.06</b>	<b>-0.02</b>	<b>-0.02</b>	<b>-0.04</b>
<b>OPEC crude oil production (secondary sources)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total supply</b>	-	-0.04	0.01	-0.03	0.13	-	-	-	-	-	-	-	-
<b>Balance (stock change and miscellaneous)</b>	-	-0.04	0.00	-0.11	0.13	-	-	-	-	-	-	-	-
<b>OECD closing stock levels (mb)</b>													
Commercial	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Oil-on-water</b>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Days of forward consumption in OECD</b>													
Commercial onland stocks	-	-0.01	-0.01	0.04	-0.01	-	-	-	-	-	-	-	-
SPR	-	-	-0.01	0.02	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	<b>-0.01</b>	<b>-0.01</b>	<b>0.07</b>	<b>-0.01</b>	-	-	-	-	-	-	-	-
<b>Memo items</b>													
<b>(a) - (b)</b>	-	<b>0.04</b>	-	<b>0.11</b>	<b>-0.13</b>	<b>-0.03</b>	<b>0.23</b>	<b>0.05</b>	<b>0.13</b>	<b>0.04</b>	<b>-0.06</b>	<b>-0.07</b>	<b>0.01</b>

Note: \* This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the August 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>2Q16</u>	<u>3Q16</u>	<u>4Q16</u>	<u>1Q17</u>	<u>2Q17</u>	<u>3Q17</u>	<u>4Q17</u>	<u>1Q18</u>	<u>2Q18</u>
<b>Closing stock levels, mb</b>												
<b>OECD onland commercial</b>	<b>2,989</b>	<b>3,002</b>	<b>2,854</b>	<b>3,076</b>	<b>3,084</b>	<b>3,002</b>	<b>3,033</b>	<b>3,018</b>	<b>2,970</b>	<b>2,854</b>	<b>2,816</b>	<b>2,822</b>
Americas	1,561	1,598	1,499	1,611	1,621	1,598	1,608	1,595	1,572	1,499	1,468	1,485
Europe	993	989	943	1,026	1,013	989	1,022	999	965	943	970	954
Asia Pacific	435	414	412	438	450	414	404	424	433	412	378	382
<b>OECD SPR</b>	<b>1,588</b>	<b>1,600</b>	<b>1,568</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>	<b>1,575</b>	<b>1,568</b>
Americas	697	697	665	697	697	697	694	681	676	665	667	662
Europe	475	481	480	474	477	481	484	484	479	480	485	484
Asia Pacific	416	421	423	421	421	421	422	423	423	423	422	422
<b>OECD total</b>	<b>4,577</b>	<b>4,602</b>	<b>4,421</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>4,421</b>	<b>4,391</b>	<b>4,390</b>
<b>Oil-on-water</b>	<b>1,017</b>	<b>1,102</b>	<b>1,025</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>1,025</b>	<b>1,036</b>	<b>1,012</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>65</b>	<b>65</b>	<b>64</b>	<b>65</b>	<b>63</b>	<b>62</b>	<b>60</b>	<b>60</b>	<b>59</b>
Americas	63	65	59	64	65	65	64	64	62	59	58	59
Europe	73	72	67	71	72	72	72	68	67	67	68	65
Asia Pacific	51	49	48	56	54	49	53	54	52	48	50	50
<b>OECD SPR</b>	<b>34</b>	<b>34</b>	<b>33</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>
Americas	28	28	26	28	28	28	28	27	27	26	26	26
Europe	35	35	34	33	34	35	34	33	33	34	34	33
Asia Pacific	48	50	50	54	50	50	55	54	51	50	56	55
<b>OECD total</b>	<b>98</b>	<b>98</b>	<b>92</b>	<b>99</b>	<b>99</b>	<b>98</b>	<b>99</b>	<b>97</b>	<b>95</b>	<b>92</b>	<b>93</b>	<b>92</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

				Change					Change				
	2015	2016	2017	3Q18	4Q18	2018	18/17	1Q19	2Q19	3Q19	4Q19	2019	19/18
US	14.1	13.6	14.4	16.4	16.4	16.1	1.7	16.7	17.3	17.7	18.3	17.5	1.4
Canada	4.4	4.5	4.9	4.9	5.4	5.1	0.3	5.4	5.1	5.5	5.6	5.4	0.3
Mexico	2.6	2.5	2.2	2.1	2.1	2.1	-0.1	2.1	2.0	2.0	1.9	2.0	-0.1
<b>OECD Americas</b>	<b>21.1</b>	<b>20.6</b>	<b>21.5</b>	<b>23.5</b>	<b>23.8</b>	<b>23.4</b>	<b>1.9</b>	<b>24.2</b>	<b>24.4</b>	<b>25.2</b>	<b>25.8</b>	<b>24.9</b>	<b>1.5</b>
Norway	1.9	2.0	2.0	1.9	1.9	1.9	-0.1	1.9	1.7	1.9	2.0	1.9	0.0
UK	1.0	1.0	1.0	1.1	1.2	1.1	0.1	1.2	1.1	1.1	1.2	1.2	0.1
Denmark	0.2	0.1	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	0.7	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>3.8</b>	<b>3.9</b>	<b>3.8</b>	<b>3.8</b>	<b>4.0</b>	<b>3.9</b>	<b>0.0</b>	<b>4.0</b>	<b>3.6</b>	<b>3.8</b>	<b>4.0</b>	<b>3.9</b>	<b>0.0</b>
Australia	0.4	0.4	0.3	0.3	0.4	0.3	0.0	0.4	0.4	0.4	0.4	0.4	0.1
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>0.4</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>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.0</b>
<b>Total OECD</b>	<b>25.4</b>	<b>24.9</b>	<b>25.7</b>	<b>27.7</b>	<b>28.2</b>	<b>27.6</b>	<b>1.9</b>	<b>28.6</b>	<b>28.5</b>	<b>29.5</b>	<b>30.3</b>	<b>29.2</b>	<b>1.6</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	0.8	0.9	0.9	0.0	0.9	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	0.8	0.8	0.8	0.8	0.0
Malaysia	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.8	0.8	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	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.0
Asia others	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
<b>Other Asia</b>	<b>3.7</b>	<b>3.7</b>	<b>3.6</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>-0.1</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>0.0</b>
Argentina	0.7	0.7	0.6	0.7	0.7	0.7	0.0	0.6	0.6	0.6	0.6	0.6	0.0
Brazil	3.1	3.1	3.2	3.3	3.4	3.3	0.1	3.5	3.6	3.7	4.0	3.7	0.4
Colombia	1.0	0.9	0.9	0.8	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
Latin 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>5.2</b>	<b>5.1</b>	<b>5.1</b>	<b>5.2</b>	<b>5.3</b>	<b>5.2</b>	<b>0.0</b>	<b>5.4</b>	<b>5.4</b>	<b>5.5</b>	<b>5.8</b>	<b>5.5</b>	<b>0.4</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	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
<b>Middle East</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</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>
Cameroon	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
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
Egypt	0.7	0.7	0.7	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.0
Ghana	0.1	0.1	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.3	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	0.2	0.2	0.2	0.2	0.0	0.3	0.3	0.3	0.3	0.3	0.0
Africa other	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>Africa</b>	<b>1.6</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>0.0</b>	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	<b>1.7</b>	<b>1.6</b>	<b>0.1</b>
<b>Total DCs</b>	<b>11.7</b>	<b>11.5</b>	<b>11.5</b>	<b>11.4</b>	<b>11.6</b>	<b>11.5</b>	<b>0.0</b>	<b>11.8</b>	<b>11.8</b>	<b>11.9</b>	<b>12.2</b>	<b>11.9</b>	<b>0.5</b>
<b>FSU</b>	<b>13.7</b>	<b>13.9</b>	<b>14.1</b>	<b>14.2</b>	<b>13.9</b>	<b>14.1</b>	<b>0.0</b>	<b>14.1</b>	<b>14.1</b>	<b>14.1</b>	<b>14.2</b>	<b>14.1</b>	<b>0.0</b>
Russia	10.8	11.1	11.2	11.3	11.0	11.2	0.0	11.2	11.2	11.2	11.2	11.2	0.0
Kazakhstan	1.6	1.6	1.7	1.8	1.9	1.8	0.1	1.9	1.9	1.9	1.9	1.9	0.1
Azerbaijan	0.9	0.8	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	0.3	0.3	0.3	0.3	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>4.4</b>	<b>4.1</b>	<b>4.0</b>	<b>3.9</b>	<b>4.0</b>	<b>4.0</b>	<b>0.0</b>	<b>4.1</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>0.0</b>
<b>Non-OPEC production</b>	<b>55.3</b>	<b>54.4</b>	<b>55.3</b>	<b>57.4</b>	<b>57.9</b>	<b>57.3</b>	<b>2.0</b>	<b>58.7</b>	<b>58.5</b>	<b>59.6</b>	<b>60.9</b>	<b>59.4</b>	<b>2.1</b>
Processing gains	2.2	2.2	2.2	2.2	2.2	2.2	0.0	2.3	2.3	2.3	2.3	2.3	0.0
<b>Non-OPEC supply</b>	<b>57.5</b>	<b>56.6</b>	<b>57.5</b>	<b>59.6</b>	<b>60.1</b>	<b>59.6</b>	<b>2.0</b>	<b>60.9</b>	<b>60.8</b>	<b>61.9</b>	<b>63.1</b>	<b>61.7</b>	<b>2.2</b>
OPEC NGL	5.8	5.9	6.0	6.1	6.1	6.1	0.1	6.1	6.2	6.2	6.2	6.2	0.1
OPEC Non-conventional	0.3	0.2	0.2	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
<b>OPEC (NGL+NCF)</b>	<b>6.0</b>	<b>6.1</b>	<b>6.2</b>	<b>6.4</b>	<b>6.4</b>	<b>6.4</b>	<b>0.1</b>	<b>6.4</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>0.1</b>
<b>Non-OPEC &amp; OPEC (NGL+NCF)</b>	<b>63.6</b>	<b>62.8</b>	<b>63.8</b>	<b>66.0</b>	<b>66.6</b>	<b>65.9</b>	<b>2.1</b>	<b>67.4</b>	<b>67.3</b>	<b>68.4</b>	<b>69.6</b>	<b>68.2</b>	<b>2.3</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	3Q17	4Q17	1Q18	2Q18	Jul 18	Aug 18	Change Aug/Jul
US	977	509	875	366	947	921	964	1,037	1,050	1,050	0
Canada	192	131	207	76	208	204	273	106	203	220	17
Mexico	52	26	17	-8	18	12	19	25	28	29	1
OECD Americas	1,221	665	1,099	434	1,174	1,137	1,257	1,168	1,281	1,299	18
Norway	17	17	15	-2	13	15	15	14	13	15	2
UK	14	9	9	0	11	6	6	6	10	7	-3
OECD Europe	117	96	92	-4	88	88	86	82	80	85	5
OECD Asia Pacific	17	7	15	9	15	16	16	21	22	21	-1
<b>Total OECD</b>	<b>1,355</b>	<b>768</b>	<b>1,206</b>	<b>438</b>	<b>1,277</b>	<b>1,240</b>	<b>1,359</b>	<b>1,271</b>	<b>1,383</b>	<b>1,405</b>	<b>22</b>
Other Asia*	202	180	186	6	178	199	196	193	207	204	-3
Latin America	145	68	70	2	75	82	80	77	83	83	0
Middle East	102	88	74	-14	75	70	73	75	79	77	-2
Africa	29	17	16	-1	17	15	16	24	27	28	1
<b>Total DCs</b>	<b>478</b>	<b>353</b>	<b>346</b>	<b>-7</b>	<b>346</b>	<b>365</b>	<b>365</b>	<b>368</b>	<b>396</b>	<b>392</b>	<b>-4</b>
<b>Non-OPEC rig count</b>	<b>1,833</b>	<b>1,121</b>	<b>1,552</b>	<b>431</b>	<b>1,622</b>	<b>1,606</b>	<b>1,724</b>	<b>1,639</b>	<b>1,779</b>	<b>1,797</b>	<b>18</b>
Algeria	51	54	54	0	54	53	53	52	45	49	4
Angola	11	6	3	-4	2	2	3	3	4	4	0
Ecuador	12	4	6	2	5	6	6	6	8	10	2
Equatorial Guinea**	1	1	1	0	1	1	1	1	1	1	0
Gabon	4	1	1	0	1	2	3	4	4	3	-1
Iran**	54	59	61	2	61	61	61	61	61	61	0
Iraq**	52	43	49	6	54	52	58	60	59	57	-2
Kuwait**	47	44	54	9	53	52	54	54	50	50	0
Libya**	3	1	1	0	1	1	1	1	5	8	3
Nigeria	30	25	28	3	27	28	32	32	35	33	-2
Qatar	8	8	10	2	10	7	8	11	9	9	0
Saudi Arabia	155	156	149	-7	148	147	145	143	148	152	4
UAE	42	51	52	1	53	53	53	54	55	57	2
Venezuela	110	100	91	-9	89	85	88	72	70	69	-1
<b>OPEC rig count</b>	<b>579</b>	<b>552</b>	<b>558</b>	<b>6</b>	<b>561</b>	<b>550</b>	<b>566</b>	<b>554</b>	<b>554</b>	<b>563</b>	<b>9</b>
<b>World rig count***</b>	<b>2,412</b>	<b>1,673</b>	<b>2,110</b>	<b>437</b>	<b>2,183</b>	<b>2,156</b>	<b>2,289</b>	<b>2,193</b>	<b>2,333</b>	<b>2,360</b>	<b>27</b>
<i>of which:</i>											
Oil	1,750	1,189	1,541	352	1,608	1,591	1,727	1,667	1,803	1,824	21
Gas	563	370	466	96	478	466	468	432	435	442	7
Others	100	113	103	-10	98	98	94	95	95	94	-1

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
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
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

## Glossary of Terms

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