

OPEC

Monthly Oil Market Report

11 October 2018

Feature article:
Winter oil market outlook

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Oil Market Highlights

Crude Oil Price Movements

In September, the OPEC Reference Basket increased sharply by almost 7%, or \$4.92 m-o-m, to average \$77.18/b the highest since October 2014. Crude oil futures prices also increased for the month, mainly supported by geo-political tension, growing concerns over a shortage in global oil supply and low US oil inventories, particularly in Cushing, Oklahoma. ICE Brent was \$5.27 higher at \$79.11/b compared with the previous month, NYMEX WTI was up \$2.24 at \$70.08/b and DME Oman increased by \$6.08 to \$78.75/b. Year-to-date (y-t-d), ICE Brent was \$20.23 higher at \$72.74/b, NYMEX WTI increased by \$17.43 to \$66.79/b and DME Oman was up \$19.25 at \$70.48/b, compared to the same period a year earlier. The Brent-WTI spread widened to average \$9.02/b for the month. Speculative net long positions ended mixed, significantly higher for ICE Brent, while lower for NYMEX WTI. As for market structure, the backwardation in Dubai expanded sharply in September, while that of WTI eased. The Brent market structure flipped into backwardation amid concerns over a shortage global oil supply. Apart from Asian grades, the global sour discount to sweet crudes decreased due to an anticipated tightening of sour crude and high availability of sweet crude.

World Economy

The global economic growth forecast for 2018 was revised down slightly by 0.1 percentage point (pp) to now stand at 3.7%, due mainly to slowing growth in some emerging and developing economies. The 2019 forecast remains unchanged at 3.6%. In the OECD, growth in the US is assessed unchanged at 2.9% in 2018 and 2.5% in 2019 and Euro-zone growth remains at 2.0% for 2018 and 1.9% for 2019. GDP growth in Japan remains at 1.1% in both 2018 and 2019. In the non-OECD countries, India's and China's growth forecasts remains unchanged at 7.6% and 6.6% in 2018, respectively, and 7.4% and 6.2%, respectively, in 2019. Growth in Brazil was revised down by 0.1 pp to 1.1% in 2018, and by 0.2 pp to 1.8% in 2019. Russia's GDP growth forecast is unchanged to stand at 1.6% in 2018 and 1.7% in 2019.

World Oil Demand

In 2018, world oil demand growth is estimated at 1.54 mb/d, following a downward revision of around 80 tb/d from the previous month's assessment, mainly to reflect the most up-to-date data in OECD Europe and the Middle East, as well as the latest developments in the economies of in Latin America. Total oil demand for the year is now pegged at 98.79 mb/d. In 2019, world oil demand growth is forecast at 1.36 mb/d, down by around 50 tb/d from last month's projections, mainly reflecting adjustments in the economic projections for Turkey, Brazil and Argentina. As a result, total world oil demand is anticipated to reach 100.15 mb/d. Oil demand growth is projected to be driven by Other Asia, led by India, followed by China, and OECD America. In 2019, OECD demand is forecast to grow by 0.25 mb/d, while non-OECD countries will drive oil demand growth by adding an estimated 1.11 mb/d.

World Oil Supply

Non-OPEC oil supply growth in 2018 is estimated at 2.22 mb/d, an upward revision of 0.20 mb/d from the previous month's assessment. The US, Canada, Kazakhstan and Brazil are expected to be the main drivers for y-o-y growth, while Mexico, Norway, Indonesia and Vietnam will show the largest declines. Total non-OPEC supply for 2018 is now estimated at 59.77 mb/d. Non-OPEC oil supply growth in 2019 is forecast at 2.12 mb/d, representing a downward revision of around 0.03 mb/d from last month's projections. The US, Brazil and Canada are the main growth drivers, while Mexico, Norway, Indonesia and Vietnam are expected to see the largest declines. The 2019 non-OPEC supply forecast remains subject to many uncertainties, with potential skewed to the upside. Non-OPEC supply is forecast to average 61.89 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 September, OPEC crude oil production increased by 132 tb/d to average 32.76 mb/d, according to secondary sources.

Product Markets and Refining Operations

Refinery margins in all the main trading hubs weakened in September, on retreating demand further exacerbated by nature-related events, despite the onset of peak refinery maintenance season. In the US, high refinery runs have kept product inventories well sustained fuelling bearish sentiment and thus softening the product market. In Europe, product markets lost ground, mostly pressured by gasoline, naphtha and fuel oil weakness, along with high feedstock costs, despite support from planned and unplanned outages reported during the month. In Asia, losses at the top and bottom of the barrel were partially offset by support from rising retail fuel prices due to a tightening gasoil market.

Tanker Market

Dirty tanker market sentiment was mixed in September. On average, dirty tanker freight rates were up by 4% from the month before, as a result of higher rates for Suezmax and Aframax, while VLCC rates remained flat. The overall dirty tanker market continued to suffer from an oversupply of ships, which mostly pressured freight rates. Relative gains were achieved in the Suezmax and Aframax classes due to the hurricane season, in addition to transit and port delays in several areas. Average clean tanker spot freight rates were also slightly positive, however gains were limited.

Stock Movements

Preliminary data for August showed that total OECD commercial oil stocks rose by 14.2 mb m-o-m to stand at 2,841 mb. This was 165 mb lower than the same time one year ago, and 47 mb below the latest five-year average. Crude stocks indicated a deficit of 6 mb, while products stocks witnessed a deficit of 41 mb. However, OECD commercial stocks remain 271 mb above the January 2014 level. In terms of days of forward demand cover, OECD commercial stocks rose by 0.5 days m-o-m in August to stand at 59.3 days. This was 3.8 days below the same period in 2017 and 2.5 days lower than the latest five-year average.

Balance of Supply and Demand

Demand for OPEC crude in 2018 is estimated at 32.7 mb/d, 0.8 mb/d lower than the 2017 level. In 2019, demand for OPEC crude is forecast at 31.8 mb/d, around 0.9 mb/d lower than the estimated level in 2018.

Feature Article

Winter oil market outlook

The oil market in the winter season is generally characterized by demand for diesel, particularly in the northern hemisphere, leaving product markets more vulnerable to developments related to the middle of the barrel. In 2017, refining margins weakened in winter and product markets were mainly sustained by firm gasoil demand.

Looking back, European diesel demand growth dropped last winter in 4Q17 from levels observed at the beginning of the year and deteriorated further in 2Q18. The trend in 3Q18 so far confirms market weakness. This general slowdown in the European gasoil market is largely a consequence of the 2015 diesel emissions controversy and higher global oil prices. Hence, in 2018 the European gasoil market has transitioned from the fastest-growing diesel market to the slowest among selected countries shown in **Graph 1**.

In the US, while heating oil has seen pressure due to substitution by natural gas, demand for middle distillates has nevertheless been strong on healthy economic activity, including manufacturing, construction and freight movement. In the winter of 2017, refinery runs in the US were at record highs due to Hurricane Harvey, though this is not expected to be repeated this winter. Following this year's driving season, refining margins have begun to decline seasonally, in addition to being pressured by smaller crack spreads, which could lower refinery throughput further in the months to come.

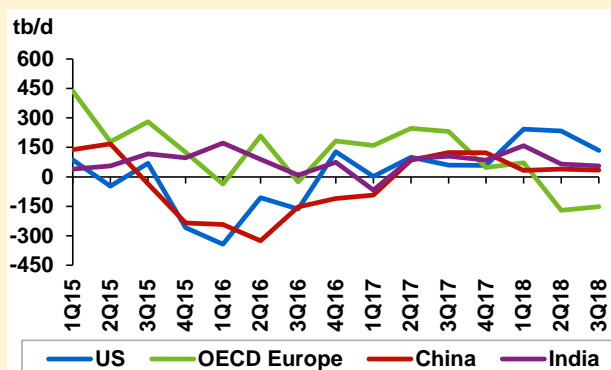
In non-OECD countries, strong economic growth, particularly in India and China, has been supportive of industrial activities, such as heavy equipment operations for mining and farming and power generation, as well as passenger and commercial transportation. Diesel growth in India for 2018 continues to see strong momentum, as well as ongoing improvements in LPG requirements for residential use. In China, LPG and gasoline are the engines of demand growth, with seasonal agricultural activities providing further support for diesel demand in the coming months.

With regard to oil inventories, OECD stocks have witnessed a downward trend since the implementation of the Declaration of Cooperation, with an inventory draw in all product categories compared with a year earlier. As per the latest available data, OECD commercial product stocks stood at 41 mb below the seasonal average.

Looking ahead, based on current market developments, global product markets are projected to see some weakness, compared with the same quarter a year earlier. In Europe, gasoil cracks are expected to continue to come under pressure, as diesel-powered vehicles remain under scrutiny. At the same time, gasoline markets in the region are expected to show some counter-seasonal gains, providing moderate support to otherwise softening European product markets (**Graph 2**).

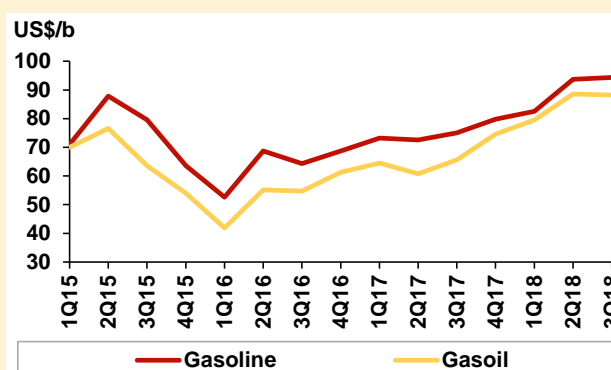
In the US, the diesel market will be impacted by various factors such as weather conditions during 4Q18 and 1Q19 and the performance of the industrial and construction sectors. Meanwhile, product demand in non-OECD countries, mainly in China and India, is expected to be driven by positive GDP growth projections for those economies. In addition, limitations in refining capacity in Latin America and Africa, due to a lack of investment, will most likely continue to encourage product imports, providing additional support to global gasoline and middle distillate crack spreads. However, the current weakness in some emerging market currencies and subsidy reductions could negatively impact product demand in the emerging markets in the months to come.

Graph 1: Gasoil demand in key regions, y-o-y change



Source: OPEC Secretariat.

Graph 2: Gasoline and gasoil prices in Europe



Note: * 3Q18 based on July and August data.

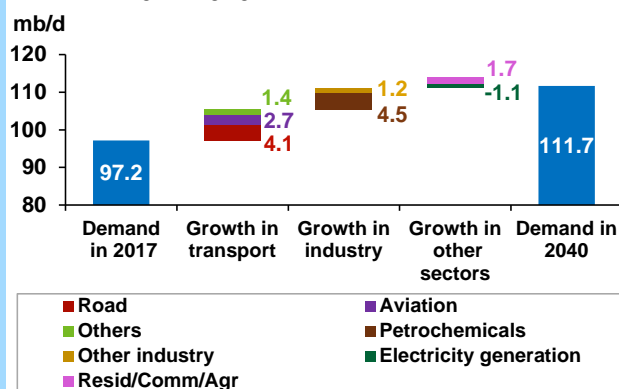
Sources: Argus Media and OPEC Secretariat.

World Oil Outlook 2018

World Oil Outlook 2018 lays out OPEC's vision of the energy landscape until 2040

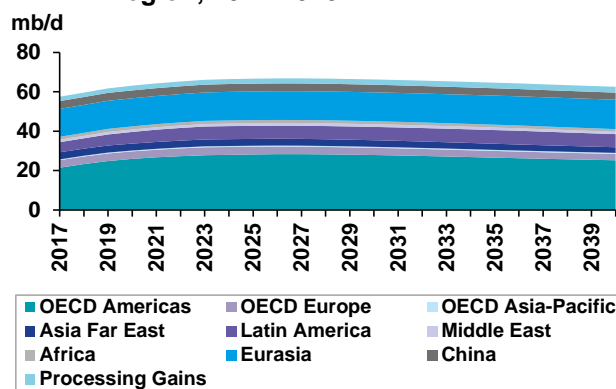
Now in its 12th edition, the recently-published World Oil Outlook 2018¹ presents medium- and long-term projections for energy demand, as well as an in-depth look at future oil demand, supply, developments in downstream and trade, in addition to a review of developments in energy-related technologies and policies.

Graph 1: Sectoral oil demand growth, 2017-2040



Source: OPEC Secretariat.

Graph 2: Long-term non-OPEC supply by region, 2017-2040



Source: OPEC Secretariat.

Key findings include:

- Total primary energy demand is set to expand by a robust 91 mboe/d, or 33%, between 2015 and 2040, rising to 365 mboe/d. This is driven predominantly by Developing countries, which see almost 95% of the overall energy demand growth. Most of this will come from Asia, but Africa is expected to play an increasingly important role too.
- Natural gas witnesses the largest growth in absolute terms in the reporting period (+32 mboe/d), and renewables the largest growth in percentage terms (+7.4% per annum). Oil remains the fuel with the highest share of the energy mix over the forecast period, at 28% in 2040.
- Oil demand is expected to increase by 14.5 mb/d to reach 111.7 mb/d in 2040, higher than in last year's World Oil Outlook. Demand growth is driven by non-OECD regions, which see a huge increase of 23 mb/d.
- In terms of sectors, transportation remains the major driver of incremental demand to 2040, rising by more than 8 mb/d, mostly in road transportation. A significant oil demand increase is also expected in the industrial sector, predominantly in petrochemicals, which in fact see more growth than in road transportation over the forecast period at 4.5 mb/d.
- On the supply side, non-OPEC countries are set to increase liquids production by more than 9 mb/d to grow to 67 mb/d between 2017 and 2027, with the major driver being US tight oil, but there are also significant additions from Canada, Brazil and Kazakhstan.
- Beyond this period, however, non-OPEC supply is set to decline again by 4 mb/d, chiefly due to losses in US tight oil production, as well as depletion in other regions, such as the Asia-Pacific, North Sea and Latin America.
- Combining projections for oil demand and non-OPEC supply, this indicates that in the long-term, the demand for OPEC crude will increase to around 40 mb/d in 2040, up from 32 mb/d in 2018, while the share of OPEC crude in the global oil supply is estimated to increase from 34% in 2018 to 36% in 2040.

¹ The WOO 2018, as well as an interactive version, can be accessed at www.opec.org. A special WOO app is also available for free download in both Android and iOS versions.

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Crude Oil Price Movements

The OPEC Reference Basket (ORB) ended sharply higher in September, increasing by almost 7% to \$77.18/b, its highest value since October 2014. The ORB also ended 3Q18 higher at \$74.11/b, and its year-to-date (y-t-d) value rose by \$20.21, or 40.3%, to \$70.34/b compared with the same period in 2017. All ORB component values improved solidly along with their respective crude oil benchmarks, particularly Dated Brent and Dubai, which rose by almost 8% and 7%, respectively, over the month.

Crude oil futures also ended the month significantly higher. Nevertheless, NYMEX WTI futures rose at a slower pace compared to ICE Brent, or DME Oman. The oil market in September was underpinned by growing concerns over global oil supply shortage from several regions, relatively healthy global oil demand and a higher geopolitical risk premium. In September, ICE Brent was on average \$5.27, or 7.1%, higher at \$79.11/b, DME Oman rose by \$6.08, or 8.4%, over the month to settle at \$78.75/b, while NYMEX WTI rose \$2.24, or 3.3%, to average \$70.08/b. Y-t-d, ICE Brent is \$20.23, or 38.5%, higher at \$72.74/b, and DME Oman was up by \$19.25, or 37.6%, to average \$70.48/b, while NYMEX WTI increased by \$17.43, or 35.3%, to \$66.79/b. The first-month ICE Brent/NYMEX WTI spread widened by \$3.03 to \$9.02/b in September, from \$6.00/b in August.

Despite higher prices, hedge funds and money managers decreased their combined futures and options net long positions in NYMEX WTI by 19,338 contracts, or 5.5%, to 332,143 contracts, while in ICE Brent, net long positions rose from 389,066 contracts to 496,343 lots, an increase of 107,277 contracts, or 27.6%. The long-to-short ratio in ICE Brent increased sharply, from 11:1 to 19:1, while the ratio in NYMEX WTI decreased from 17:1 to 14:1.

The North Sea Brent structure flipped into backwardation in September and widened further amid higher concerns over global oil supply shortages. The Dubai backwardation market structure expanded in September on strong buying interest from Asian refiners, adding to worries on global oil supply shortages in the coming months. Nonetheless, WTI backwardation narrowed again last month as US crude oil production surged to historically high levels.

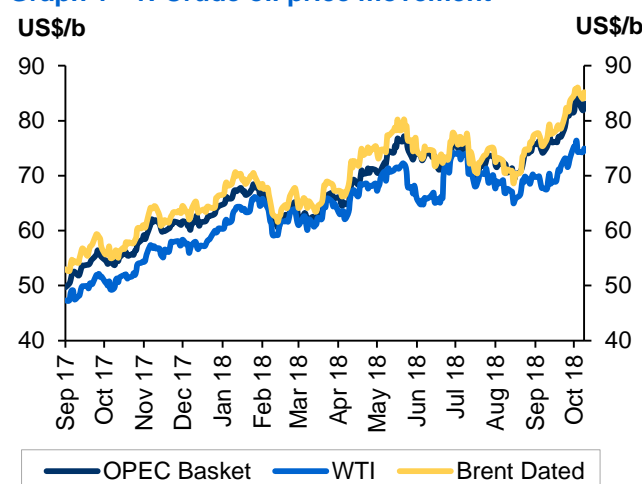
In Asia, sweet/sour differentials widened significantly as domestic light sweet crude was supported by reduced west-east arbitrage and a higher Brent price. However, in Europe and the US Gulf Coast (USGC), sour crude discounts to sweet crudes decreased amid anticipated tightening of the sour crude market and strong seasonal demand. High supply of light sweet crude in the Atlantic Basin also supported the narrowing of the spread.

OPEC Reference Basket

The ORB surged by almost 7% in September to average above \$77/b for the first time since October 2014. Global crude oil prices continued their upward trend throughout the month bolstered by robust market fundamentals as well as a higher geopolitical risk premium. Oil prices were supported by relatively healthy global oil demand and growing concerns over global oil supply shortages, along with a continuous decline in US crude oil inventories, which have fallen for five straight weeks by more than 20 mb to reach a level of 394.1 mb during the week ending 14 September.

Crude oil physical benchmarks also traded higher in September but by varying magnitudes. While Dated Brent and Dubai increased by \$6.16 and \$4.75 m-o-m, respectively, WTI spot prices rose by only \$2.21 m-o-m in September.

Graph 1 - 1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

Crude Oil Price Movements

All **ORB component values** increased sharply along with their respective crude oil benchmarks, particularly Dated Brent and Dubai. Physical crude oil differentials also experienced an improvement, buoyed by strong demand and worries over tighter oil supplies.

Higher price differentials and the rise of crude benchmark Brent's outright prices supported light sweet crude prices of the Basket components in **West and North Africa**, rising above \$78/b, on a monthly average. Saharan Blend, Es Sider, Girassol, Bonny Light, Equatorial Guinea's Zafiro and Gabon's Rabi values increased by \$6.40/b on average, or 8.9%, to \$78.41/b in September. Physical crude differentials for these grades were supported by lower availability of North Sea crude for October loading, following longer-than-expected maintenance of the Buzzard field, the main contributor of Forties crude. Differentials were also supported by strong demand, particularly from Asia.

Latin American ORB components edged up, but at a slower pace, following the WTI price trend. Venezuelan Merey and Ecuador's Oriente were higher by \$1.93, or 2.9%, to \$69.31/b, and by \$4.73, or 6.8%, at \$74.12/b, respectively.

The ORB components of the **Middle Eastern** crudes were also supported by strong buying interest in the physical market, particularly from China, where Chinese independent refineries recently increased their purchases as they look to fill crude import quotas before the end of the year. The value of multiple-region destination grades Arab Light, Basrah Light, Iran Heavy and Kuwait Export, also rose to higher levels along with the higher Dubai benchmark price, despite lower OSPs. On a monthly average, prices rose by \$4.92, or 6.9%, to \$76.61/b. Middle Eastern spot components Murban and Qatar Marine also saw their values rise by \$3.84, or 5.1% to \$78.75/b and by \$4.00, or 5.5%, to \$76.45/b, respectively.

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

	<u>Aug 18</u>	<u>Sep 18</u>	<u>Change</u> <u>Sep/Aug</u>	<u>%</u>	<u>Year-to-date</u> <u>2017</u>	<u>2018</u>
Basket	72.26	77.18	4.92	6.8	50.13	70.34
Arab Light	73.38	78.16	4.78	6.5	50.24	71.10
Basrah Light	71.10	76.18	5.08	7.1	49.57	69.14
Bonny Light	73.29	79.45	6.16	8.4	52.12	72.96
Djeno*	69.66	76.18	6.52	9.4	50.25	69.48
Es Sider	70.74	77.10	6.36	9.0	50.34	70.68
Girassol	73.20	79.48	6.28	8.6	52.03	72.48
Iran Heavy	70.46	75.28	4.82	6.8	49.60	68.70
Kuwait Export	71.82	76.82	5.00	7.0	49.39	69.28
Qatar Marine	72.45	76.45	4.00	5.5	50.75	69.93
Merey	67.38	69.31	1.93	2.9	45.47	64.38
Murban	74.91	78.75	3.84	5.1	52.68	72.79
Oriente	69.39	74.12	4.73	6.8	47.52	67.09
Rabi Light	71.86	78.04	6.18	8.6	50.79	71.15
Sahara Blend	72.64	79.55	6.91	9.5	51.55	72.43
Zafiro	72.74	79.10	6.36	8.7	51.55	72.07
Other Crudes						
Dated Brent	72.64	78.80	6.16	8.5	51.81	72.11
Dubai	72.47	77.22	4.75	6.6	51.02	70.12
Isthmus	67.05	74.44	7.39	11.0	52.83	69.01
LLS	72.62	77.43	4.81	6.6	51.74	71.09
Mars	69.34	74.39	5.05	7.3	48.30	67.61
Minas	66.90	72.02	5.12	7.7	47.24	66.59
Urals	71.62	78.50	6.88	9.6	50.72	70.79
WTI	67.99	70.20	2.21	3.3	49.33	66.92
Differentials						
Brent/WTI	4.65	8.60	3.95	-	2.48	5.20
Brent/LLS	0.02	1.37	1.35	-	0.08	1.02
Brent/Dubai	0.17	1.58	1.41	-	0.79	2.00

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

M-o-m, the **ORB value** rose by \$4.92, or 6.8%, to settle at \$77.18/b on a monthly average in September. Y-t-d, the ORB value was \$20.21, or 40.3%, higher at \$70.34/b compared with the same period in 2017.

On 10 October, the ORB stood at \$82.60/b, \$5.42 above the September average.

The oil futures market

Futures oil prices have surged in September, driven by growing concerns over global oil supply shortages from several regions and by a higher geopolitical tensions. Oil futures prices were also supported by a steady decline in US crude oil inventories, which have fallen for five straight weeks by more than 20 mb to reach 394.1 mb during the week ending 14 September. Hurricane Florence, which made landfall and threatened oil infrastructures along the energy hub on the USGC, added worries related to oil supply. Nevertheless, NYMEX WTI futures rose at a lower rate compared to ICE Brent or DME Oman, due to rising US crude oil supply and the start of the US refinery maintenance season.

In September, **ICE Brent** rose by \$5.27, or 7.1%, to \$79.11/b, while **NYMEX WTI** increased by \$2.24, or 3.3%, to average \$70.08/b. Y-t-d, ICE Brent is \$20.23, or 38.5%, higher at \$72.74/b, while NYMEX WTI increased by \$17.43, or 35.3%, to \$66.79/b, compared to the same period a year earlier.

DME Oman prices soared to record-high levels against other international crude oil benchmarks in late September, due to strong demand from Asian refiners and particularly from Chinese independent refiners amid low end-of-month liquidity. DME Oman rose by \$6.08, or 8.4%, over the month to settle at \$78.75/b on a monthly average basis. Y-t-d, DME Oman was up by \$19.25, or 37.6%, at \$70.48/b compared to the same period a year earlier.

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

	Aug 18	Sep 18	Change Sep/Aug	%	Year-to-date 2017	2018
NYMEX WTI	67.85	70.08	2.24	3.3	49.36	66.79
ICE Brent	73.84	79.11	5.27	7.1	52.51	72.74
DME Oman	72.67	78.75	6.08	8.4	51.23	70.48
Transatlantic spread (ICE Brent-NYMEX WTI)	6.00	9.02	3.03	50.5	3.15	5.94

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

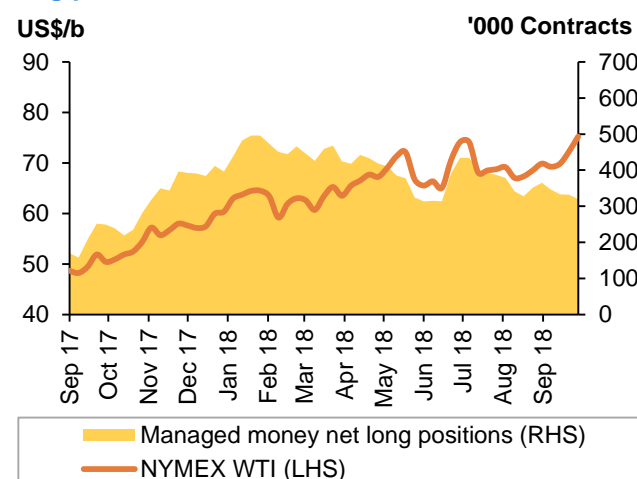
Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

On 10 October, ICE Brent stood at \$83.09/b and NYMEX WTI at \$73.17/b.

Hedge funds and other money managers cut their combined net long positions in futures and options linked to **NYMEX WTI**, despite the surge in crude oil futures prices. However they increased their combined net long positions linked to ICE Brent. Managed money activities were more bullish in global oil benchmark Brent compared with US WTI, owing to record-high US oil production that is expected to keep pressure on oil prices.

Hedge funds and money managers decreased their combined futures and options net long positions in NYMEX WTI by 19,338 contracts, or 5.5%, to 332,143 contracts on 25 September, the *US Commodity Futures Trading Commission (CFTC)* said.

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

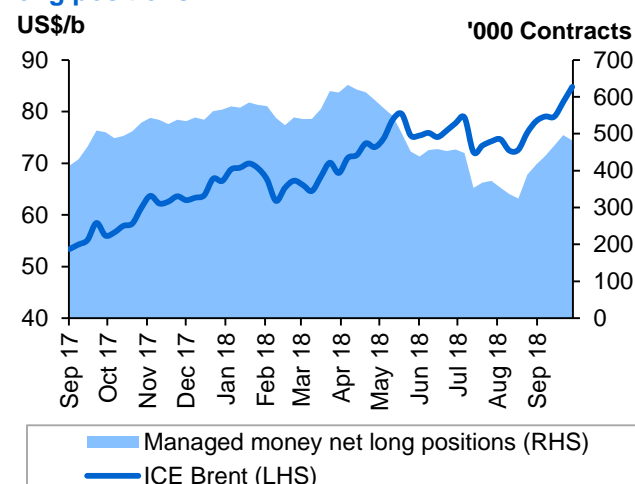


Sources: CFTC, CME Group and OPEC Secretariat.

Speculator groups increased their combined futures and options net long positions again in **ICE Brent** from 389,066 to 496,343 lots, an increase of 107,277 contracts, or 27.6%, according to the *ICE Exchange*.

The **long-to-short ratio** in ICE Brent speculative positions increased sharply, from 11:1 to 19:1, while the ratio in NYMEX WTI decreased from 17:1 to 14:1. Total futures and options open interest volume in the two exchanges was higher by 195,855 contracts, or 3.3%, to stand at 6.1 million contracts.

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

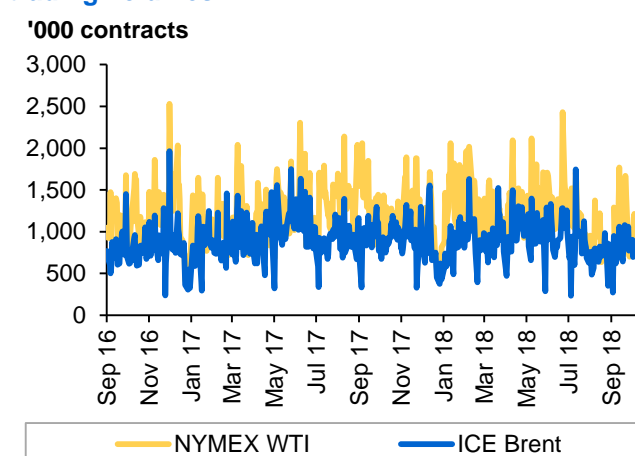


Sources: Intercontinental Exchange and OPEC Secretariat.

The **daily average traded volume** for NYMEX WTI contracts increased sharply by 264,383 lots, or 30.9%, to 1,119,212 contracts, and that of ICE Brent was 130,708 contracts higher, up by 18.2%, at 848,341 lots. The daily aggregate traded volume for both crude oil futures markets increased by 395,092 contracts to 2.0 million futures contracts, or about 2.0 billion b/d of crude oil.

The **total traded volume** in NYMEX WTI was 2.5% higher at 20.1 million contracts, and that of ICE Brent was 2.8% higher at 17.0 million contracts.

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



Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

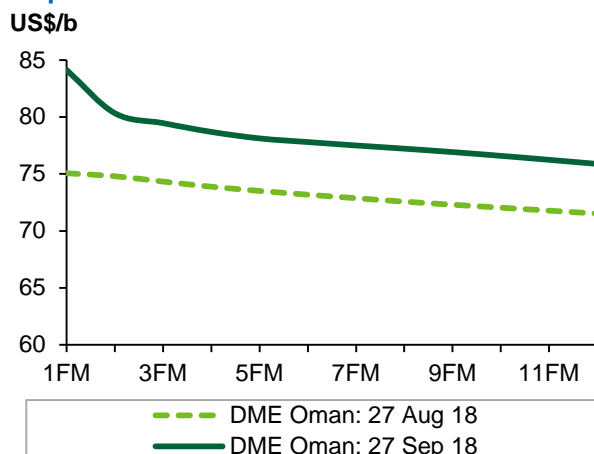
The futures market structure

The **Dubai** backwardation market structure steepened sharply in September on strong buying interest from Asian refiners, in addition to worries over global oil supply shortages in the coming months.

The **Brent** market structure flipped back into backwardation in September, after experiencing a deep contango in August. The Brent backwardation structure widened on higher concerns over global oil supply amid healthy oil demand. Lower North Sea crude availability due to maintenance in the Buzzard oil field also helped strengthen the Brent backwardation structure.

Nonetheless, in the US, the **WTI** backwardation narrowed again last month, as US crude oil production surged to historical high levels and refineries reduced their input sharply amid seasonal maintenance.

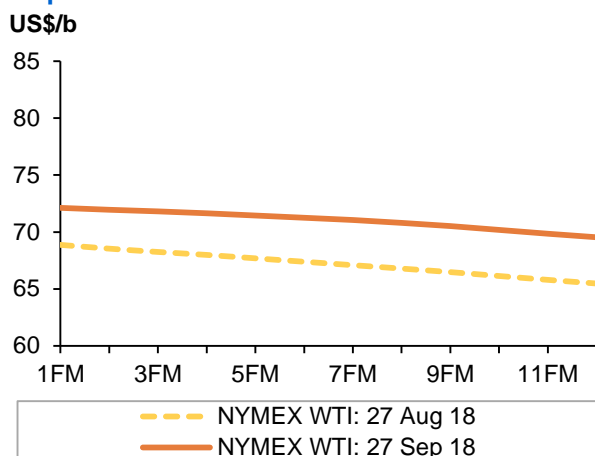
Graph 1 - 5: DME Oman forward curves



Note: FM = future month.

Sources: Dubai Mercantile Exchange and OPEC Secretariat.

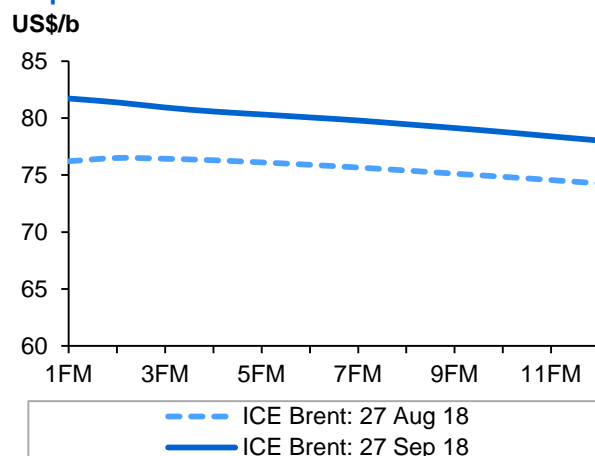
Graph 1 - 6: NYMEX WTI forward curves



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 67¢/b contango turned into backwardation of 81¢/b, an increase of \$1.49. The Dubai M1/M3 46¢/b premium increased to a \$1.40/b premium, up by 95¢. In the US, the WTI backwardation of \$1.15/b retreated to 54¢/b, where M1/M3 narrowed by 61¢.

The spread between ICE Brent and NYMEX WTI widened further in September to \$9.02/b, reaching its widest level since last June. While the upward trend of the WTI price slowed down due to domestic market fundamentals, such as higher oil production and heavy refinery maintenance, Brent remained underpinned by concerns about global oil supply shortages in the coming months. Low WTI benchmark prices relative to Brent and Dubai fostered US crude exports, especially to Asia.

The first-month ICE Brent/NYMEX WTI spread widened by \$3.03 to \$9.02/b in September, from \$6.00/b in August.

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

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	27 Aug 18	68.87	68.54	68.25	67.39	65.48	-3.39
	27 Sep 18	72.12	71.96	71.82	71.26	69.53	-2.59
	Change	3.25	3.42	3.57	3.87	4.05	0.80
ICE Brent	27 Aug 18	76.21	76.50	76.43	75.90	74.27	-1.94
	27 Sep 18	81.72	81.38	80.93	80.06	78.03	-3.69
	Change	5.51	4.88	4.50	4.16	3.76	-1.75
DME Oman	27 Aug 18	75.06	74.80	74.33	73.18	71.52	-3.54
	27 Sep 18	84.13	80.33	79.46	77.80	75.88	-8.25
	Change	9.07	5.53	5.13	4.62	4.36	-4.71

Note: FM = future month.

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

The light sweet/medium sour crude spread

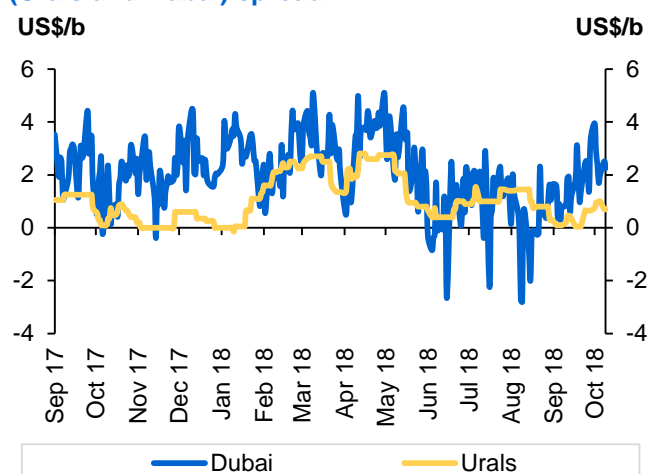
In Asia, **sweet/sour differentials** widened significantly, while in Europe and in the USGC, sour crude discounts to sweet crudes decreased amid an anticipated tightening of the sour crude market and strong seasonal demand. High supply of light sweet crude in the Atlantic Basin also supported the narrowing of the spread.

In **Asia**, the Tapis premium over Dubai widened sharply in September despite lower sour crude supplies. The Tapis/Dubai spread widened by \$1.68, to \$3.91/b, as domestic light sweet crude was supported by reduced west-east arbitrage and a higher Brent price. Moreover, robust Asian oil demand for light sweet crude amid healthy Asian refinery margins added support. Indeed, the Dated Brent/Dubai spread widened by \$1.41 to \$1.58/b in September, compared to August's differential of 17¢/b.

In **Europe**, the light sweet North Sea Brent premium to Urals medium sour crude narrowed by 73¢ in September, to the advantage of Urals, settling at 30¢/b. The Urals market strengthened throughout September, underpinned by lower regional availability and strong buying interest, especially from Asia. A lower flow of sour crude into Europe supported Urals differentials, particularly in the Mediterranean.

In the **USGC**, the LLS premium over medium sour Mars decreased again by 24¢ to an average of \$3.04/b, as sour crude prices strengthened on prospects of lower global sour crude availability and US light sweet crude production reaching record levels. WTI Midland differentials improved on expectations that additional pipeline takeaway capacity will drain Permian oversupply.

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



Sources: Argus Media, OPEC Secretariat and Platts.

The impact of the US dollar (USD) and inflation on oil prices

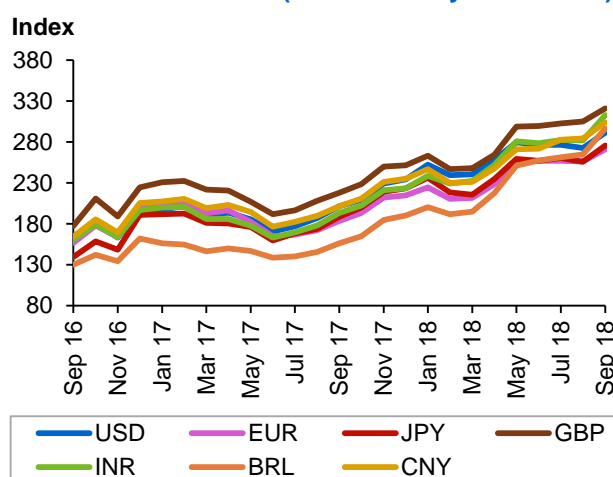
On average, the **USD** generally strengthened against emerging market currencies but was mixed against major currency counterparts. The relatively faster monetary tightening by the US Federal Reserve, compared with other major economies Central Banks, continued to support the dollar, though, some weakness of the dollar was observed in the first weeks of the month following lower than expected inflation readings in the US, while the prospect of some positive development out of trade talks between China and the US – which did not materialized and culminated in additional imposition of tariffs - also encouraged risk taking and weakened the dollar. At the same time, in Europe, some perceived hawkishness in ECB communications supported the euro during the month, while the expectation of a potential breakthrough in Brexit negotiations was a positive development for the pound sterling. The dollar declined by 1.0% against the euro and by 2.1% against the Swiss franc, but some of the gains against the dollar faded towards the end of the month, mainly as a result of the ongoing budget impasse between the government of Italy and the European Union. Against the pound sterling the dollar declined by 1.4%, with some bits of UK economic data coming above market expectations, and the expectation of some agreement between the EU and the UK could be reached in the fall. The dollar advanced against the Japanese yen by 0.8%, fuelled by the re-election of Prime Minister Abe as president of the ruling Liberal Democratic Party,, and the Bank of Japan reiterating its outlook of maintaining a very accommodative monetary policy until the 2% inflation target is reached.

Meanwhile **currencies of emerging economies** remain under pressure, especially those facing relatively large external financing needs in the short term. The dollar rose on an m-o-m average by 28.1% against the Argentinian peso, however, the exchange rate stabilized at the end of the month after the announcement of a revamped agreement with the IMF, which increased the total assistance by the fund from \$50 billion to \$57 billion – which larger assistance in increased availability of funds for the year 2019 – and the increase in the central bank policy rate from 60% to 65%, and the compromise to restrict base money growth. Against the Turkish lira, the dollar rose on average by 11% m-o-m, though the lira found some footing supported by an increase in the policy rate of the Central Bank of Turkey from 17.75% to 24.00%. The dollar advanced significantly against the Indian rupee by 3.8% m-o-m and it was up 12.4% y-t-d. This followed the overall emerging markets trend with the expectation of a widening current account deficit, amid the overall strengthening of the dollar. At the beginning of October, the Reserve Bank of India kept retain its policy rate unchanged, contrary to market expectations for a rate hike, translating into further increases in the USD against the rupee. On average, the USD was relatively stable against the Chinese yuan in September, and is up by 3.8% y-o-y.

Against **commodity exporters' currencies**, the USD advanced by 4.8% m-o-m against the Brazilian real – up by 25.1% this year, though some recovery in the real was observed in the final days approaching the first round of elections. Against the Russian ruble it increased by 2.5% on a m-o-m average, however, higher oil prices and an interest rate hike by the Central Bank of Russia translated into declines of the dollar against the ruble in the second half of the month.

Against the **former North American Free Trade Agreement (NAFTA)** partner's currencies, the USD increased on average by 1.3% m-o-m against the Mexican peso, and is flat 1.3% y-t-d in September, while it declined against the Canadian dollar by 0.1% on average. The Canadian dollar was strengthened by the prospect of a last minute deal to revamp NAFTA, which materialized at the beginning of October.

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



Sources: IMF and OPEC Secretariat.

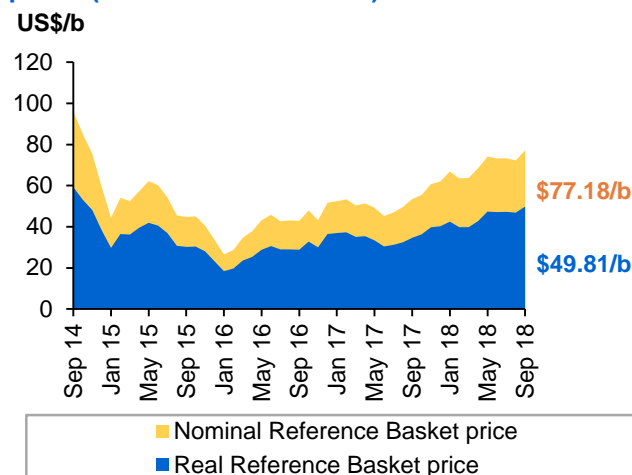
Crude Oil Price Movements

In **nominal terms**, the price of the ORB increased by \$4.92, or 6.8%, from \$72.26/b in August to \$77.18/b in September.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB increased to \$49.81/b in September from \$46.96/b in August (base June 2001=100) in the previous month.

Over the same period, the **USD** decreased by 0.6% against the import-weighted modified Geneva I + USD basket², while inflation decreased by 0.1% m-o-m.

Graph 1 - 10: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price² (base June 2001 = 100)



Source: OPEC Secretariat.

² 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 September, the price of energy commodities generally increased, with large gains in crude oil, further increases in natural gas, but some weakness in coal, which remains close to 6-year highs. In the group of non-energy commodities, metal prices declined in the first half of the month, though they recovered thereafter on lower-than-expected tariffs imposed by the US on China and a large drop in metals stocks, while concerns about slowing global manufacturing expansion and trade disputes persisted. Precious metals continued to be weakened by the impact of higher interest rates in the US.

Trends in selected commodity markets

Average energy prices increased by around 5.0% in September. Y-t-d, 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 Sep 18/Aug 18	Year-to-date	
		Jul 18	Aug 18	Sep 18		2017	2018
Energy*		91.8	90.3	94.8	5.0	65.8	88.1
Coal, Australia	US\$/mt	119.6	117.3	114.2	-2.7	85.3	108.2
Crude oil, average	US\$/b	72.7	71.1	75.4	6.0	50.8	69.7
Natural gas, US	US\$/mbtu	2.8	3.0	3.0	1.0	3.0	2.9
Natural gas, Europe	US\$/mbtu	7.8	7.9	8.9	13.0	5.5	7.6
Non-energy*		84.1	82.7	81.1	-1.9	83.2	86.4
Base metal*		88.0	85.6	84.5	-1.2	82.4	92.7
Precious metals*		95.1	92.1	91.2	-1.0	97.6	98.4

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

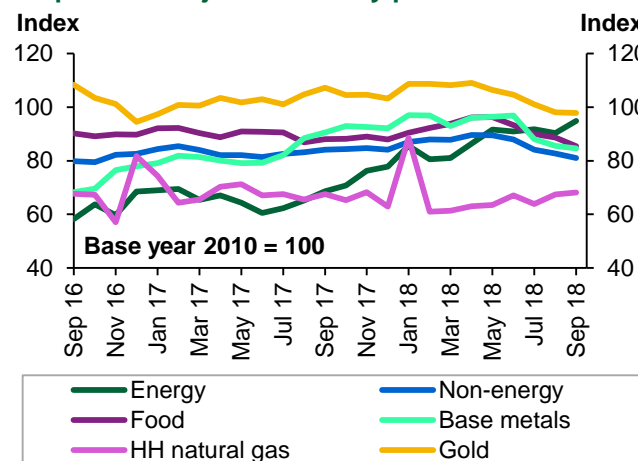
Source: OPEC Secretariat, World Bank, Commodity price data.

In September, the **Henry Hub natural gas index** increased on average by 7¢, or 1.0%, to \$2.99/mmbtu compared with the previous month to average \$2.92/mmbtu. As has been the case since February, prices fluctuated in a tight range, with two counterbalancing forces. First, expectations of higher output - reaching levels 15% higher than a year ago during some weeks of September, have generally put pressure on prices. At the same time, inventory levels that have been persistently lower than the five-year average mainly due to higher demand as result of a colder-than-average winter, followed by a warmer-than-average summer. According to the US Energy Information Administration (EIA), utilities added 98 bcf to working gas underground storage during the week ending 28 September, higher than median analyst expectations for an 88 bcf build. The build left total working gas in underground storage at 2,866 bcf, which was 17.5% lower than the previous five-year average. One month ago it was 18.5% lower than the five-year average. Forecasts of cooler temperatures over the last stretch of the injection season would potentially dim inventory build-ups, supported prices above \$3/mmbtu at the beginning of October.

Meanwhile, **natural gas prices in Europe** increased in September, with import border prices up by 1.0% to \$8.06/mmbtu. Hub-based prices surged more than 10%, supported by the ongoing price rally in the energy complex and the rally in carbon emissions prices – which have tripled during the last twelve months reaching to stand currently at €21/metric tonne– which encourages switching from coal to gas. However, prices receded towards the end of the month as both coal and carbon emission prices lost some ground. Natural gas inventories for EU Member States were at around 82.8% of capacity at the end of September – last year's end of September level was around 84.3% according to Gas Infrastructure Europe.

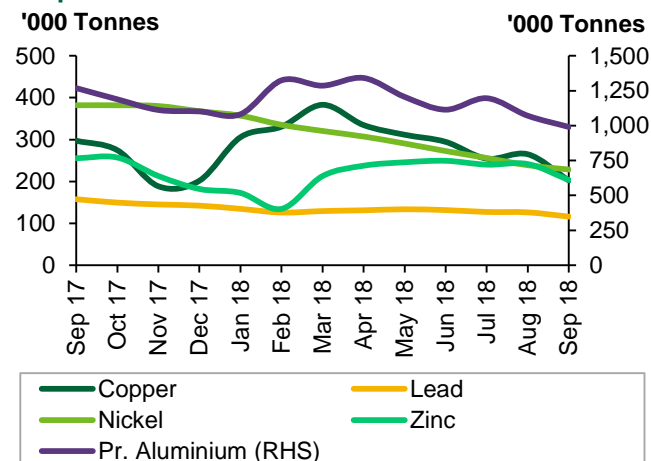
Thermal coal prices decreased to an average of \$114.2/mt in September, or 2.7% m-o-m, but remain elevated, still 13% higher since the beginning of the year. Prices receded from their peak in July, when they reached their highest point since 2012, fuelled by rising demand for power generation in East Asia due to heat waves and the impact of environmental measures, which were restricted to mining activity. However, seasonal moderation in temperatures during the last two months and some restrictions to coal imports by Chinese authorities – which protect local producers at a time of ramp up in production – have caused prices to lose some ground. In China, thermal power output was up by 7.7% from January to September compared with the previous year according to the National Bureau of Statistics. The rate of growth was faster in September at 6.0% y-o-y than the in August at 4.3%, though it's still a deceleration from the 8% y-o-y seen in June. Meanwhile, also in China, coal output ramped up in August by 4.2% y-o-y, after declining by 2.0% y-o-y in July. The last available data of Chinese coal imports showed an increase by 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 Analytics and OPEC Secretariat.

Graph 2 - 2: Inventories at the LME



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

Base metal prices fell on average, though at a lower rate than in the previous two months. During the first half of September prices weakened, as has been the case since mid-June, on concerns over slower expansion in global manufacturing — which in some countries is contracting — and the uncertainties associated to the ongoing trade disputes. However, the latest imposition of a 10% tariff by the US on China imports worth \$200 billion was short the expectation for a 25% rate – though they will increase to that rate in January 2019 if no agreement is reached before. A 10% tariff would likely result in a lesser impact, combined with the depreciation of the Chinese yuan in the last couple of months. In addition, decreasing inventories in London Metal Exchange (LME) designated warehouses occurred at a much faster speed than in the previous month for the majority of base metals, also supporting prices. Inventories in the Shanghai Futures Exchange (SHFE) designated warehouses also generally declined during the month. Manufacturing prospects continued to slow, as shown by the JP Morgan Global manufacturing PMI, which reached a 2-year low of 52.2 in September, with the new export sub-component dropping to 49.7, which indicates contraction. Copper prices were average m-o-m, following the aforementioned declining trend in the first half of the month and recovering thereafter. Copper inventories at the LME experienced their largest fall since November 2017, down 24% over the month, and below 200,000 tonnes for the first time since December 2017. At the same time, copper stocks also have fallen significantly by around 14% over the month in SHFE designated warehouses. These drops in inventories suggest demand remained robust, at least in the short term. Aluminium prices have recently been volatile, up around 10% in the space of a few days, at the beginning of October on news of a potential stop of the production from the Norsk Hydro ASA, Alunorte plant in Brazil – the world's largest aluminium refinery – due to raw material handling problems. The market has already reversed the gains achieved due to sanctions on Russian aluminium company RUSAL.

In the group of **precious metals**, prices continued to be under pressure due to rising real interest rates. Gold prices declined slightly by 0.3%, and silver prices declined by 4.8%. Meanwhile, platinum prices were relatively stable. Speculators increased their net short positions in precious metals and have remained solidly bearish since July.

Investment flows into commodities

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

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

	Open interest		Net length			
	Aug 18	Sep 18	Aug 18	% OI	Sep 18	% OI
Crude oil	2,287	2,260	350	15	347	15
Natural gas	1,584	1,638	150	9	110	7
Precious metals	712	676	-104	-15	-128	-19
Copper	269	235	-28	-10	-16	-7
Total	4,852	4,809	189	5	20	5

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

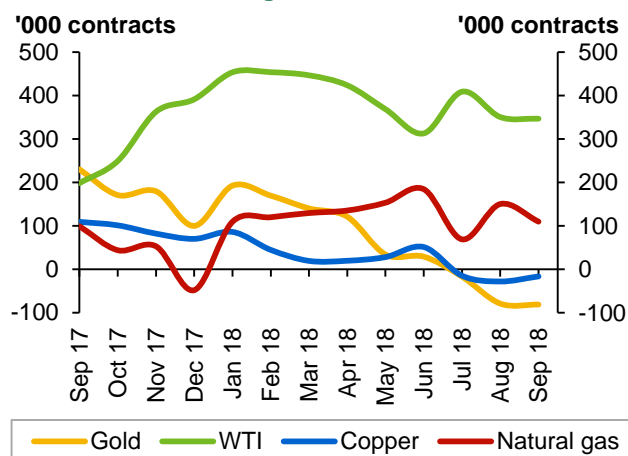
Sources: US Commodity Futures Trading Commission and OPEC Secretariat.

Henry Hub's natural gas OI increased in September by 3.4%, while money managers' average net long positions decreased by around 27% m-o-m to 109,791 contracts.

Copper's OI declined in September by 16.7%. In terms of the monthly average, money managers decreased their net short position by 41% to an average of 16,268 contracts.

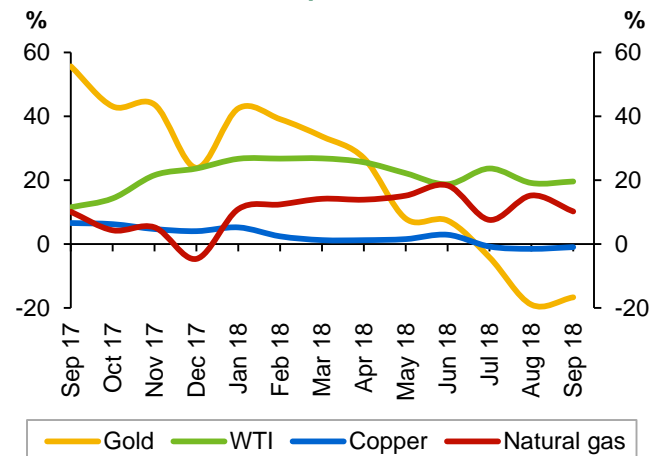
Precious metals' OI declined by 5.0%. Money managers further increased their net short position by 23% to 127,629 lots, with increased net short positions, mainly in silver.

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 remains solid, but is facing potential headwinds. Following a period of relatively synchronized growth, the economic growth trends between, and within, major regions are increasingly diverging. While growth in the major OECD economies remains well supported, decelerating trends have become visible in some emerging markets and developing countries (EMDCs). A combination of monetary tightening of the G4 central banks, weakening financial situations in some EMDCs, rising trade tensions and ongoing geopolitical challenges in some parts of the world are thus challenging the growth trend. Hence, the global economic growth forecast for 2018 was revised down slightly by 0.1 percentage point to now stand at 3.7%, while the 2019 forecast remains unchanged at 3.6%. The forecast considers that there will be no further significant rises in trade tariffs in major economies and that the impact of current disputes will remain limited. Moreover, it considers that EMDCs' market wobbles will remain contained.

OECD growth remains unchanged at a still solid 2.4% for 2018 and 2.1% for 2019. However, within the OECD group of countries, the growth trends differ considerably. The US shows very high growth in both years of the forecast period at 2.9% in 2018 and 2.5% in 2019, significantly supported by 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 ongoing weaknesses in some areas of the banking system. Japan is exhibiting low growth of 1.1% in both forecast years, as the economy continues to face relatively soft domestic demand and some external trade-related weakness.

In the emerging markets, Brazil's forecast was revised down to now stand at 1.1% for 2018 and 1.8% for 2019 as the economy faces softening domestic demand and the effects of currency depreciation. Russia's GDP is expected to grow by 1.6% in 2018, followed by 1.7% in 2019 as the economy remains impacted by a combination of sanctions and low domestic demand. However, India's and China's economic growth are forecast at significantly higher levels, with respective GDP growth forecasts of 7.6% and 6.6% for 2018, and of 7.4% and 6.2% for 2019, unchanged from last month.

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

	World	OECD	US	Japan	Euro-zone	UK	China	India	Brazil	Russia
2018	3.7	2.4	2.9	1.1	2.0	1.3	6.6	7.6	1.1	1.6
Change from previous month	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
2019	3.6	2.1	2.5	1.1	1.9	1.4	6.2	7.4	1.8	1.7
Change from previous month	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0

Note: * 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

OECD

OECD Americas

US

2Q18 GDP growth was confirmed at 4.2% quarter-on-quarter (q-o-q) at a seasonally adjusted annualized rate (SAAR) in the third and final estimate, by the Bureau of Economic Analysis. Personal consumption was very strong. At a growth rate of 3.8% q-o-q SAAR, it contributed more than half of the quarter's growth rate. The strong GDP growth number was recently accompanied by high and rising lead indicators and ongoing improvements in the labour market situation, which all seem to point to a continuation of a positive trend. The growth dynamic was also reflected in the decision by the US Federal Reserve (Fed) to again raise interest rates at its latest September meeting. Moreover, strong growth in the remainder of 2018, in combination with well supported inflation, may lead the Fed to push for more substantial tightening, which would probably

dampen growth going forward. In addition, rising uncertainties about trade barriers could slow down future growth momentum. Some growth momentum is forecast to be carried over into 2019, although it is forecast to taper off slightly as monetary tightening will impact growth in the coming year. The most recent rise in US Treasury yields has reflected this expectation of strong US economic growth leading the Fed to continue monetary tightening at probably a quicker-than-anticipated path. It remains to be seen if the sell-off in bonds continues and whether rates keep on rising quickly, but real interest rates that have now been moving above 1% for the first time in seven years are surely an indication that there may be some more to come. It will be important to monitor this situation as continued capital outflows from emerging markets, in combination with further weakening currencies in these economies, may challenge growth patterns there even further.

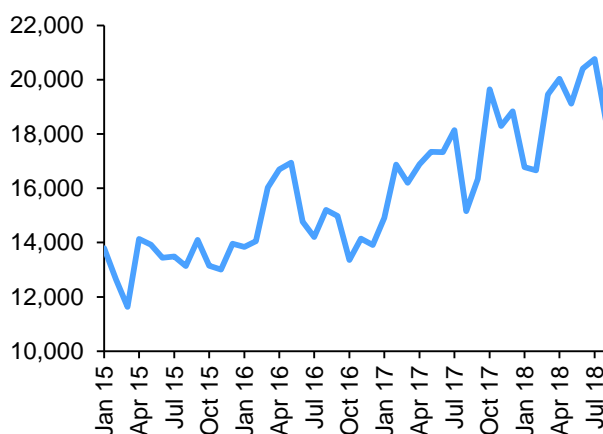
Trade in oil products has continued to support US economic development. August's petroleum product exports rose by 21.7% y-o-y compared to 14.7% y-o-y in July. In absolute terms, they accounted for \$18.44 billion, slightly lower than the absolute level for July, which stood at \$20.76 billion. Also, energy sector-related investments are likely to continue growing, supporting US GDP growth.

Further tightening in the labour market was seen in September, lending strong support to the Fed's monetary tightening path. The **unemployment rate** fell to 3.7%, the lowest rate since 1969. The average hourly earnings growth for the private sector stood at a solid rate of 2.8% y-o-y, which is slightly below last month's level of 2.9%, which, however, constituted the highest rate since 2009. Long-term unemployment rose to 22.9%, while the participation rate remained steady at 62.7%. This still low participation rate could provide room to the upside in the US economy, without putting excessive pressure on earnings and inflation. **Non-farm payrolls** increased by 124,000 in September, after a significant upward revision of 270,000 in August.

Naturally an important Fed focus is the development in consumer prices, i.e. **inflation** numbers, which held up well in August. Overall inflation stood at 2.7% y-o-y in August compared to 2.9% y-o-y in July. The important core inflation – excluding volatile items, such as food and energy – stood at 2.2% y-o-y in August, compared to 2.4% y-o-y in July. Additionally, the Fed's favoured inflation index, the personal consumption expenditure price index (PCE index), retracted slightly to stand at 2.2% in August, compared to 2.3% in July. PCE inflation is now above the Fed's inflation target of around 2% for the sixth consecutive month. These mentioned improvements in the economy led the Fed to raise its key interest rate to a target range of 2.00% to 2.25% at its latest September meeting, and it is expected to raise the rate one more time this year.

Graph 3 - 1: US petroleum exports, seasonally adjusted

Millions of chained 2012 US\$



Sources: Census Bureau and Haver Analytics.

The overall economy's strength was also reflected in **consumer sentiment**, according to the index published by the Conference Board. The index stood at 138.4 in September, compared to 134.7 in August. After a strong rise of 6.8 index points in August, this month's rise of 3.7 kept the index easily at its highest level since 2000. With this strong support in consumer confidence in all the past months, domestic demand held up extremely well in August, with retail sales growing by 6.6% y-o-y, compared to already high levels in July and June of 6.7% y-o-y and 6.1% y-o-y, respectively, all numbers on a nominal and seasonally adjusted basis.

Industrial production also increased considerably again in August, rising by 4.9% y-o-y, compared to an already high level of 4.0% in July, on a seasonally adjusted basis.

September's **Purchasing Managers' Index (PMI)**, as provided by the Institute of Supply Management (ISM), also indicated strong support for the underlying economy in both the services and the manufacturing sectors. The manufacturing PMI stood at 59.8, only slightly below the August level of 61.3 and still above the 58.1 recorded in July. The important index for the services sector rose to 61.6 in September, the highest level this year and compared to 58.5 in August and 55.7 in July.

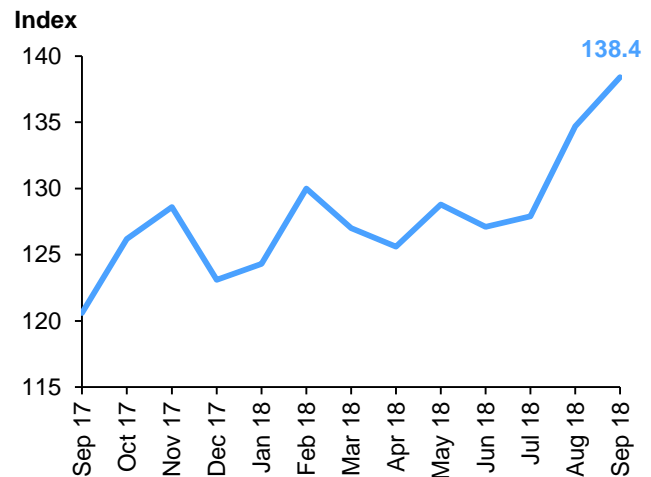
Depending on the currently strong 3Q18 growth momentum, there may still be some room to the upside for US economic growth. For the time being, however, the US GDP growth forecast remains unchanged for both 2018 and 2019. The GDP growth forecast for 2018 is at 2.9% and for 2019 at 2.5%.

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 and higher interest rates, which will likely counterbalance some of the economic growth dynamic. Also, trade-related issues need close monitoring, particularly trade relations of the US with China. While so far the impact of the additional tariffs on both sides is limited, this is an area that will need close attention.

Canada

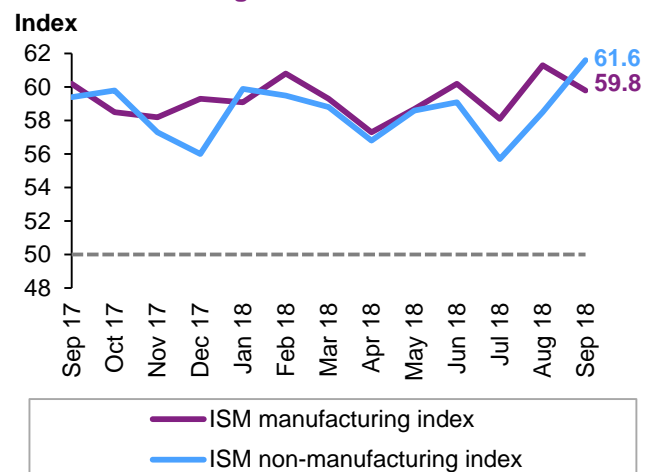
Positively, negotiations in connection with the **North American Free Trade Agreement (NAFTA)** were concluded, and NAFTA was replaced by the overall similar terms of the **United States-Mexico-Canada Agreement (USMCA)**. As exports constitute an important element for the Canadian economy, this is a positive outcome as trade restrictions have been largely avoided. Indeed, exports were particularly strong in August and July, rising by 15.5% y-o-y and 15.9% y-o-y, respectively. This comes after already strong 2Q18 exports, rising by 4.6% y-o-y. Industrial production continued to expand at a solid level in July, rising by 2.8% y-o-y, compared to 3.0% y-o-y in June. The PMI index for manufacturing continues to experience strong momentum, albeit retracting slightly in September to stand at 54.8, compared to 56.8 in August. These indicators confirm, to some extent, a continuation of healthy GDP growth levels, which stood at 2.9% q-o-q SAAR in 2Q18, after only 1.4% q-o-q SAAR growth in 1Q18.

Graph 3 - 2: US consumer confidence index



Sources: The Conference Board and Haver Analytics.

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



Sources: Institute for Supply Management and Haver Analytics.

Considering the improving growth dynamic has already been taken into consideration, the **GDP growth** forecast remains unchanged and stands at 2.1% for 2018 and 1.8% in 2019.

OECD Asia Pacific

Japan

The momentum in the Japanese economy seems to have picked up slightly, although it remains at a low level on a yearly average. Domestic demand has recovered to some extent, while it remains to be seen whether this is temporary, and exports have continued on a good trend. All in all, Japan continues to grow at a slow pace just above 1% on average. This is about its growth potential, given that it is already enjoying very low unemployment and high industrial utilization rates. Wage pressure, stemming from the tight labour market, appears to be filtering through in terms of somewhat higher inflation, but it remains a gradual process. Inflation has also been supported by developments in the oil market. This slightly improving inflation supports the Bank of Japan's (BoJ) target to achieve an inflation rate of around 2%, while, at the same time, the BoJ may currently continue its accommodative monetary policy. In the latest release of GDP numbers, the strong pick-up in 2Q18 was confirmed. GDP growth stood at 3.0% q-o-q SAAR in 2Q18, after a decline of 0.9% q-o-q SAAR in 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. However, uncertainties with regard to the Japanese growth dynamic remain. Rising protectionism may impact the export-driven economy, while domestic demand may remain sluggish.

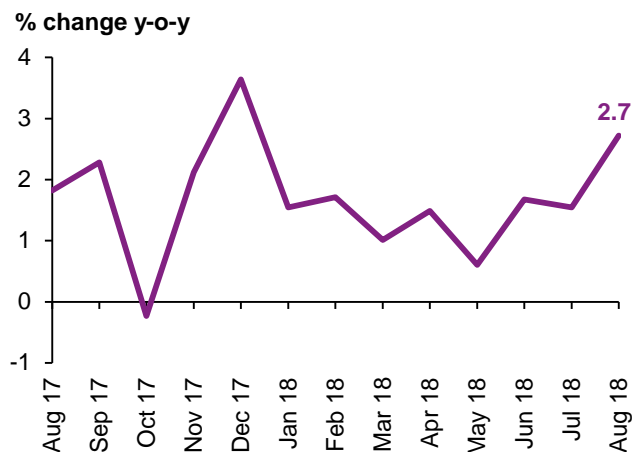
Inflation has recently picked up further and while it may still take the BoJ some time to achieve its goal of raising inflation to healthier levels, the strengthening trend has continued after already a solid pick-up at the beginning of the year. Nonetheless, inflation remains clearly below the BoJ's target of 2%. Support came again from rising energy prices, as well as from some wage growth momentum. In August, monthly earnings rose by a respectable level of 1.3% y-o-y, although this is slightly lower than the July level of 1.4%. Quarterly earnings growth in 2Q18 stood at 2.1%, the highest since 2014. As a consequence, the wage-level driven core inflation, which excludes food and energy, rose again slightly in August to stand at 0.4% y-o-y, after July's growth of 0.3% y-o-y. However, it is clear that core inflation remains very low, standing at even 0.2% y-o-y in June. Given the tightness in the labour market, the unemployment rate remained at a very low level of 2.4% y-o-y in August.

Exports continued their recovery, rising in August by 6.6% y-o-y after reaching 3.9% y-o-y, non-seasonally adjusted, in July. **Industrial production** remained low. After strong growth in May, when industrial production increased by 3.5%, the June, July and August growth levels were considerably lower at only 0.9% y-o-y, 0.8% y-o-y and 0.2% y-o-y, respectively. The slow-down was already indicated by somewhat softening manufacturing orders in the past months. It is also in line with the narrative of the Ministry of Economy, Trade and Industry, which said that the weaker industrial activity also partly reflected the impact of weather-related issues in some parts of the country over the summer, although it is expected that this delay in production may be somewhat offset in the coming months. On a positive note, manufacturing orders recovered considerably in July to grow by 11.5% y-o-y, after falling by 3.4% y-o-y in June, indicating some pick-up in final production.

Domestic retail demand recovered in August after remaining relatively sluggish in the past months. Retail trade rose by 2.7% y-o-y in August, after decelerating to 1.5% y-o-y in July and after hitting 1.7% y-o-y in June, a level that has so far marked the highest growth in 2018, now being clearly and positively replaced by the August level. However, the general trend underscores the ongoing apathy in terms of local demand, and it will be seen if the pick-up in August will be a temporary recovery. However, with further real income growth and appreciation likely, the positive trend could continue.

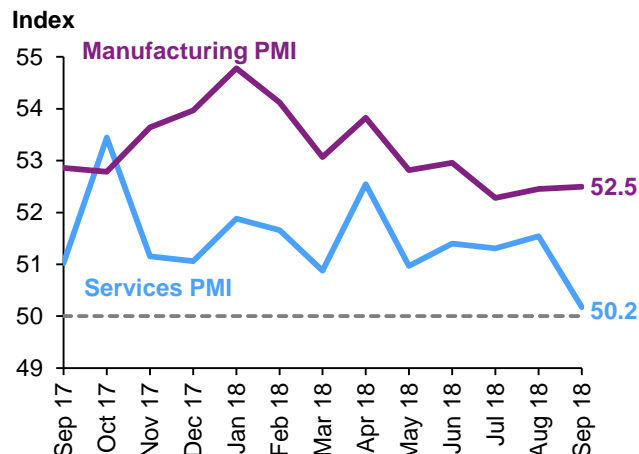
The latest September **PMI number** for the manufacturing sector was unchanged and stood at 52.5. While this is a solid level, the services sector PMI – the sector that constitutes around two-thirds of the Japanese economy – stood at only 50.2 in September, compared to 51.5 a month earlier.

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 somewhat slowing of the Japanese economy has already been taken into account in the past month's GDP growth forecast. While some recovery is forecast in 2H18, the **GDP growth forecast** remains unchanged at a level of 1.1% in both 2018 and 2019. Challenges in the economy remain, and given the possibility of further potential trade related issues in combination with the tight labour market situation and high capacity utilization rates, there are still some downside risks to the current growth forecasts.

For 2019, it remains also 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.

South Korea

The **South Korean economy's** solid expansion is facing some signs of moderation, but this may be temporary following improving sentiment and confidence indices. Exports, a key element in the solid growth trend of the South Korean economy, declined by 9.2% y-o-y in September after a rise of 7.7% y-o-y in August and 5.2% y-o-y in July. Industrial production increased by 1.8% y-o-y in August, after a rise of 1.3% y-o-y in July and 1.4% y-o-y in June. The latest PMI number for the manufacturing sector points to a recovery in the sector, standing at 51.3 in September, compared to 49.9 in August and 48.3 in July, indicating a strong pick-up. Improvements in the economy are forecast to continue, as domestic developments and external trade are forecast to gain momentum over 2018. However, the prospect of increased trade protectionism could potentially pose some headwinds for the economy.

As the current 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 remains unchanged at 2.4% with growth expected to slow down slightly in line with developments in the OECD economies and China – its most important trading partners.

OECD Europe

Euro-zone

The **Euro-zone continues to grow at a solid level** and is forecast to recover in the 2H18 after weak growth in 1H18 GDP. However, while growth is forecast to pick up again, it is expected to slow down marginally in 2019 due to monetary tightening by the ECB and some cyclical deceleration in key economies. Among the most serious 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 ongoing monitoring. Italy's budget situation has become clearer after the government's latest proposal to increase the deficit to 2.4% in 2019. However, this deficit level is based on a GDP growth assumption in 2019 of 1.5%, which given recent developments seems contentious. The government proposed to reduce the deficit in subsequent years, to 2.1% in 2020 and 1.9% in 2021. Given these challenging numbers the market appears unconvinced and Italy's government yields rose in reaction to this announcements. Italian 10-year treasury yields have jumped by more than 180 bp on average since May, reaching around 3.6%. If markets are not being convinced that the fiscal spending plan of the government will result in sustainable higher growth levels, this strategy could backfire and worsen Italy's medium-term fiscal position and limit the fiscal room for future governments. This could, in the worst case scenario undermine, the growth benefit entirely and lead Italy into worse sovereign financials. Another policy-related issue to monitor is Brexit. While there is a likelihood that it will be resolved before the definite exit date in March 2019, Brexit remains another layer of uncertainty for the EU with potentially negative consequences for the Euro-zone if it is not addressed soon. With inflation having picked up, the ECB is forecast to pursue its announced path of monetary tightening; however, 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.

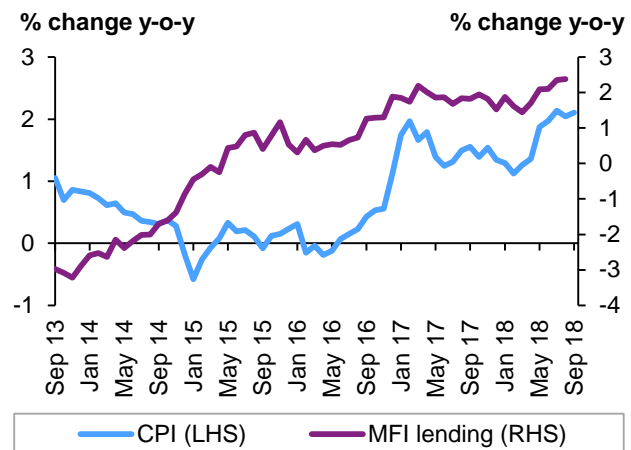
In the **labour market**, the unemployment rate fell slightly to stand at 8.1% in August, compared to 8.2% in the previous three months and marking the lowest level since 2008, while at the same time still providing ample room to the upside, which may support economic growth further. This improving labour market situation should lift wages as well, an element in the labour market that has shown gentle improvement. The latest available yearly growth number on hourly earnings from Eurostat shows that 2Q18 earnings rose by 2.2% y-o-y, comparing to 2.1% y-o-y in 1Q18 and a 4Q17 performance of 2.0% y-o-y growth. In line with these labour market indicators, retail trade has continued to perform well so far and picked up again in August, growing by 3.2% y-o-y, rising from 2.9% y-o-y in July and only a bit below the June number of 3.5% y-o-y.

Importantly **industrial production** decelerated significantly in July, as it stood at only 0.1% y-o-y, considerably lower than the June level of 2.2% y-o-y and after standing at 2.3% y-o-y in May. Manufacturing activity performed better than the average as it rose by 0.6% in July. This is, however, also a remarkable slowdown from May and June levels of 3.0% y-o-y in both months. The sub-sector of mining and quarrying declined by 13.5% y-o-y, constituting the largest drag within the sub-groups. 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 2.5% y-o-y in July, after 3.2% y-o-y in June, and after 4.5% y-o-y in May.

Total **inflation** remained at around the ECB's target level, reaching 2.1% y-o-y in September and 2.0% y-o-y in August. 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 and reaching 2.1% y-o-y in 3Q18. 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% again in September, 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, buys €15 billion in bonds each month, half of the €30 billion it has bought until then. The deposit rate, which is 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 August and July, comparing to 2.1% in June and May. With **lending activity and inflation** picking up, the positive economic dynamic has gained pace and is expected to continue in the coming months.

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

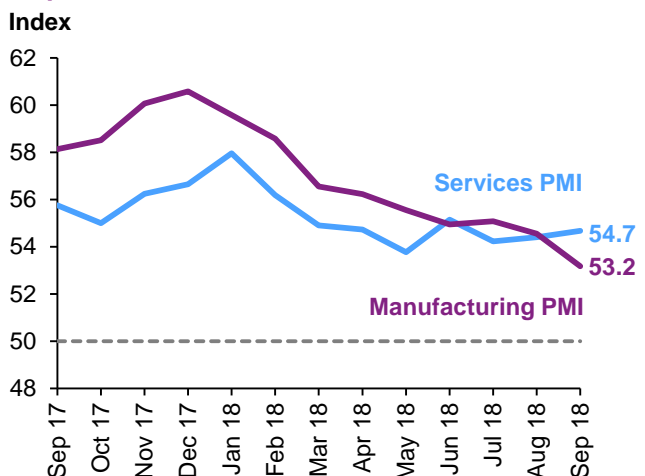


Sources: Statistical Office of the European Communities, European Central Bank and Haver Analytics.

The Euro-zone's latest **PMI** indicators in September generally point to a continuation of solid growth in the economy. The manufacturing PMI fell slightly to 53.2, compared to 54.6 in August. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, rose to 54.7, comparing to 54.4 in August.

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.

Graph 3 - 7: Euro-zone PMIs



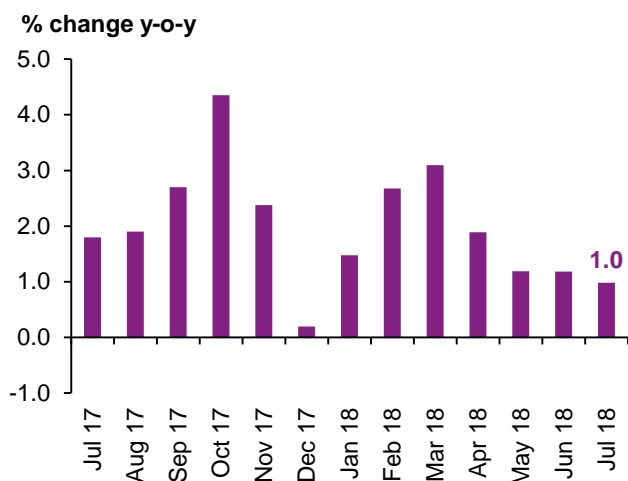
Sources: IHS Markit and Haver Analytics.

UK

A final agreement on how the UK will exit the EU remains elusive. While uncertainty about the Brexit process continues, despite the EU indicating that there is some possibility of an agreement towards the end of the year, the EU is preparing a tough contingency plan for a 'no deal' scenario. This plan is expected to be revealed ahead of the upcoming October 17 summit and will include measures that are likely disrupt businesses in the UK. However, the President of the European commission highlighted the possibility of an agreement by November, if no agreement will be found by October. However, the likelihood of a hard Brexit remains. With less 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.

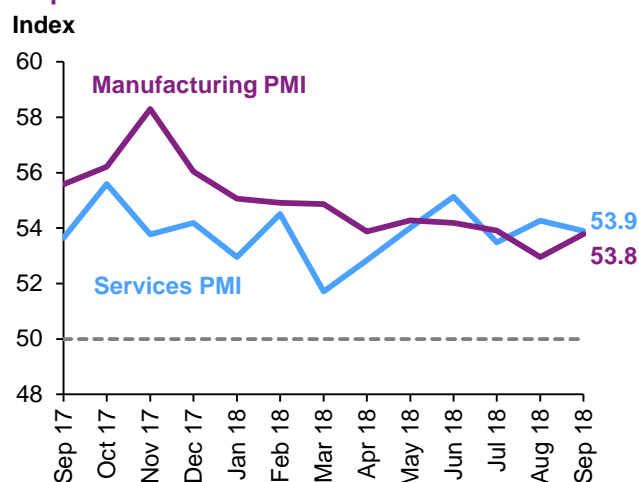
Some continued positive momentum is seen in **retail trade** in value terms, which were still growing considerably, rising by 5.6% y-o-y in August, only a touch below the 5.9% y-o-y growth in July. Also, the weak pound sterling seems to have supported growth in **exports**, which rose by 8.9% y-o-y in 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 and rising level of 2.7% y-o-y in August, comparing to 2.5% y-o-y in July and 2.4% y-o-y in June.

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. The PMI for manufacturing rose again to a level of 53.8 in September, compared to 53.0 in August, pointing at a continued expansion in the sector. The very important services sector, which constitutes the majority of the UK's economy, fell only slightly to a level of 53.9 in September, compared to 54.3 in August.

While some recovery is forecast to take place in 2H18 – in line with economic activity in the EU –, 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
Brazil	1.1	1.8	3.7	4.1	-31.7	-35.9	-7.0	-5.6	78.7	83.7
Russia	1.6	1.7	3.1	4.5	65.9	63.5	0.3	0.4	10.2	9.4
India	7.6	7.4	4.7	4.9	-75.1	-70.9	-3.6	-3.2	49.2	47.7
China	6.6	6.2	2.1	2.8	66.3	19.5	-3.6	-3.9	19.0	21.5

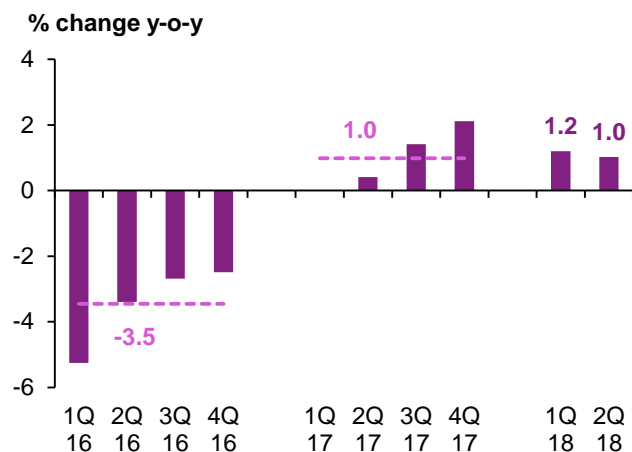
Note: * 2018 and 2019 = Forecast.

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

Brazil

Brazil's trade surplus fell to \$4.97 billion in September 2018, down from \$5.18 in September 2017. Exports rose by 3% y-o-y in September, while imports went up by 4.7% y-o-y. The increase in imports was a result of higher purchases of fuels and lubricants, which increased by 18.5%, and intermediate goods, which rose by 4.5%. Imports from China and the EU fell by 10%, whereas imports from the US and Argentina went up by 28% and 13%, respectively. GDP posted growth of 1.0% y-o-y in 2Q18, which is the second weakest growth rate since the economy came out of recession in 2Q17. The weak growth was mainly due to slower growth in private consumption and a decline in exports amid firm imports.

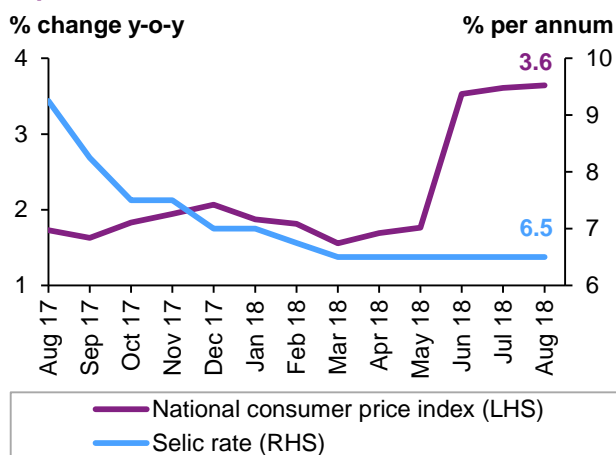
Graph 3 - 10: Brazil's GDP growth



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

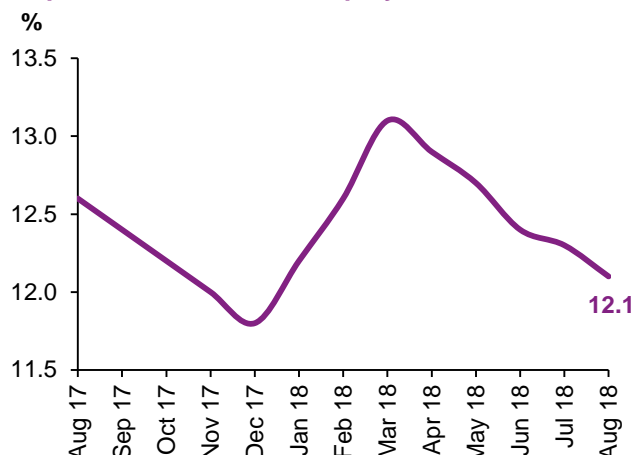
The **Brazilian real** depreciated by 4.8% m-o-m versus the dollar in September, following a 2.6% depreciation in August. The accumulated depreciation in the real since February amounts to 25.4%. **Inflation** stood at 3.6% y-o-y in August, unchanged from the previous month. Inflation almost doubled in June to 3.5% y-o-y, up from 1.8% in May. The central bank also held its benchmark **interest rate** unchanged at 6.5% in September for the seventh consecutive month. The unemployment rate fell to 12.1% in August, from 12.3% in July and 12.4% in June. The **consumer confidence index** was largely stable in September, registering 83.6.

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

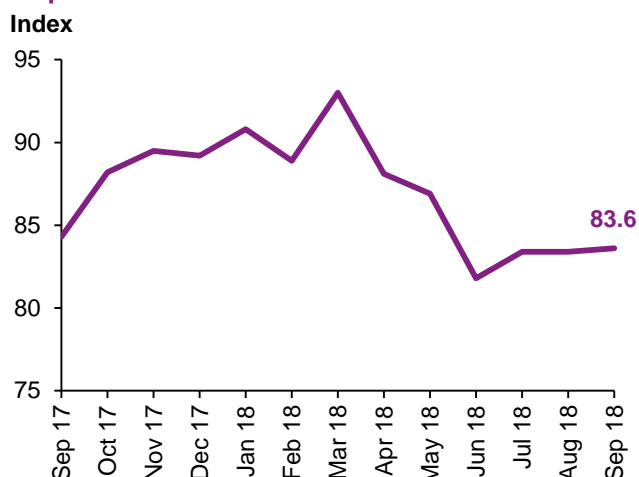


Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.

The IHS Markit Brazil **manufacturing PMI** reading for September showed further manufacturing sector growth. However, with the PMI registering 50.9 in September, down from 51.1 in August, the net improvement in operating conditions signalled by the index was marginal. The headline index was primarily supported by rising new orders. The increase in new orders in September was the strongest in five months. New order increases were centred on the domestic market as export sales fell for the third time in the past five months. The survey showed that production levels continued to increase during September. However, the production growth rate was marginal and the lowest in the current three-month sequence of expansion. The survey also showed that employment in the manufacturing sector was marginally lower during September, the second consecutive monthly decline in employment.

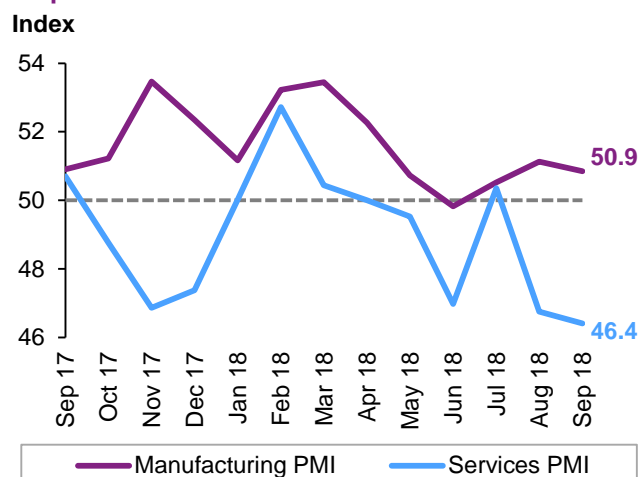
The **services sector index** pointed to a marked and accelerated output drop. Political tensions, economic fragility, weak demand and client defaults were among the factors behind the decline in business activity, according to the IHS Markit Brazil services PMI. The Brazil Services Business Activity Index fell to a 19-month low of 46.4 in September, from 46.8 in August. For 3Q18 as a whole, the index was at 47.8, the lowest quarterly average since 4Q17.

Graph 3 - 13: Brazil's consumer confidence index



Sources: Fundação Getúlio Vargas and Haver Analytics.

Graph 3 - 14: Brazil's PMIs



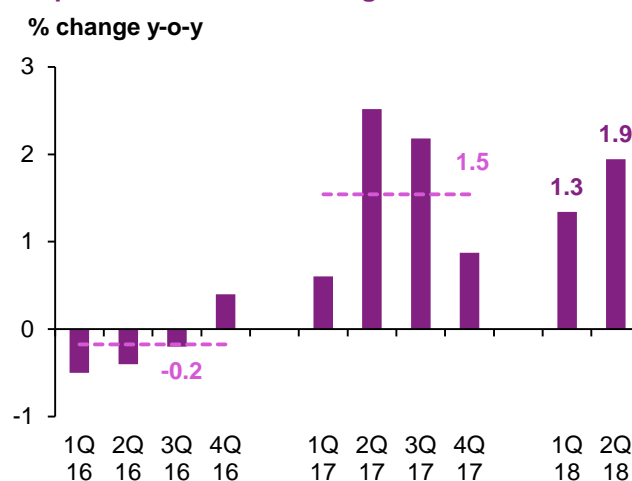
Sources: IHS Markit and Haver Analytics.

The continued contraction in the services sector, combined with challenges for Brazilian exports to Argentina, its third largest trading partner, are adding to the downside momentum amid high political uncertainty prior to the general election. **Brazil's GDP** is forecast to grow by 1.1% y-o-y in 2018 and 1.8% in 2019.

Russia

Russia's GDP growth in 2Q18 was revised higher by the Federal State Statistics Service to 1.9% y-o-y, up from a preliminary estimate of 1.8%. This follows a 1.3% y-o-y growth in 1Q18. Household consumption grew by a slightly lower rate of 2.6% y-o-y in 2Q18 vs. 2.8% in the previous quarter. Government consumption, on the other hand, had a slightly higher rate of growth of 0.6% y-o-y in 2Q18 vs 0.5% in the previous quarter. GFCF showed a slower increase of 1.0% y-o-y in 2Q18, from 1.8% in 1Q18. The pace of imports expansion notably dropped from 9.6% y-o-y in 1Q18 to 2.8% in 2Q18, whereas exports expanded by 7.3% y-o-y in 2Q18, up from 6.8% in 1Q18.

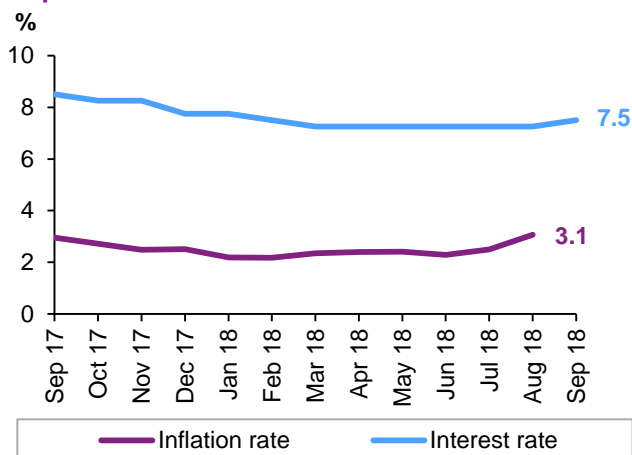
Graph 3 - 15: Russia's GDP growth



Sources: Federal State Statistics Service and Haver Analytics.

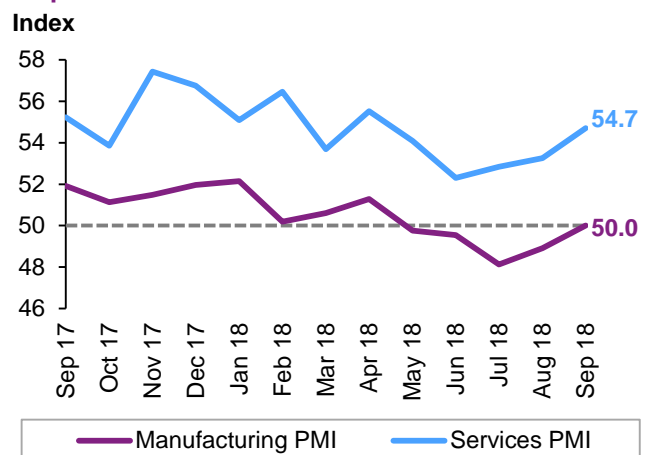
The **ruble** depreciation continued in September falling by 2.5% m-o-m, following a 5.1% depreciation in August. On a y-o-y comparison, the ruble was 17.5% lower in September 2018, compared to the same month a year earlier. Thus, consumer price **inflation** in August surpassed the 3% y-o-y level for the first time in 12 months. Yet, inflation movement is less acute when compared to the ruble's depreciation. Inflation stood at 3.1% y-o-y in August, up from 2.5% in July. In response to the ruble depreciation and the rise of inflation, the central bank increased its benchmark **one-week repo rate** in September by 25 basis points to 7.50%. It is the first interest rate rise since November 2014. The **interest rate** had been kept stable at 7.25% in the six months prior to September.

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

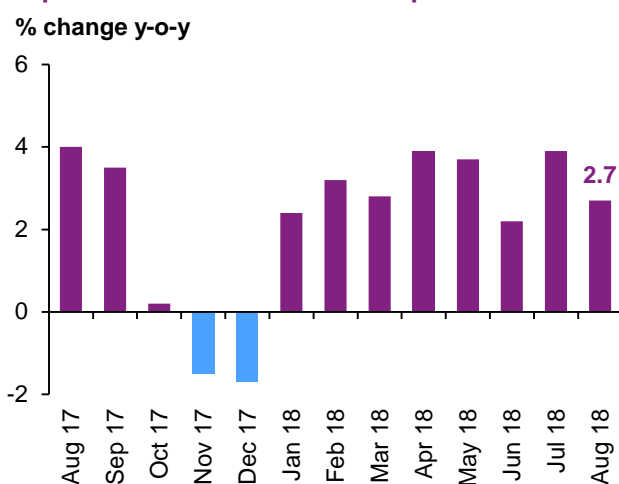


Sources: IHS Markit and Haver Analytics.

The four-month contraction in the **manufacturing** sector came to an end in September, with the IHS Markit Russia Manufacturing PMI posting 50.0, up from 48.9 in August. However, September's index reading did not return to growth territory as the level points to no-change. Yet, the September survey showed that for the first time since June, production levels had risen, albeit only a fractional increase. Some firms highlighted concerns surrounding weaker market demand due in part due to an unfavourable exchange rate. New business also slightly rose in September, although currency movements were again stated as a factor behind the fragile demand conditions. The survey showed that as a result of higher purchase prices, buying activity decreased for the fifth successive month as many firms stated they were delaying purchasing or utilizing stocks during production. **Industrial production** grew by 2.7% y-o-y in August, a drop from 3.9% y-o-y in July

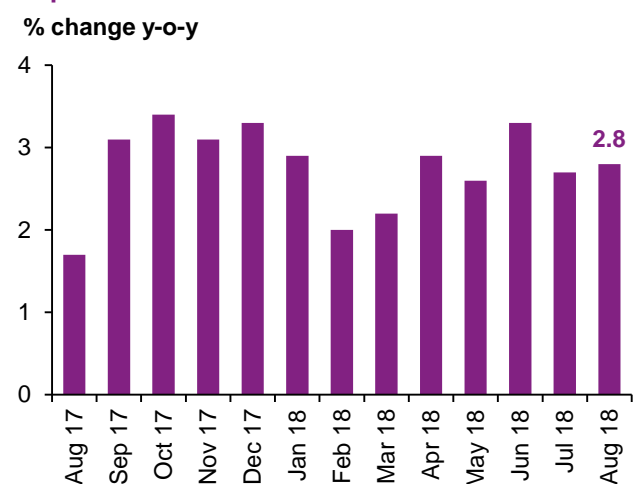
The growth momentum in the **services sector** seen in August extended into September with the IHS Markit Russia Services Business Activity PMI increasing to 54.7 in September, up from August's 53.3. The latest figure signalled a strong rise in business activity, the highest level for five months. However, the average growth rate in the services sector for 3Q18 was the weakest for over two years. For the sixteenth consecutive month in August, retail sales continued to expand. The rate of increase was 2.8% y-o-y, from 2.7% in July.

Graph 3 - 18: Russia's industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 19: Russia's retail sales



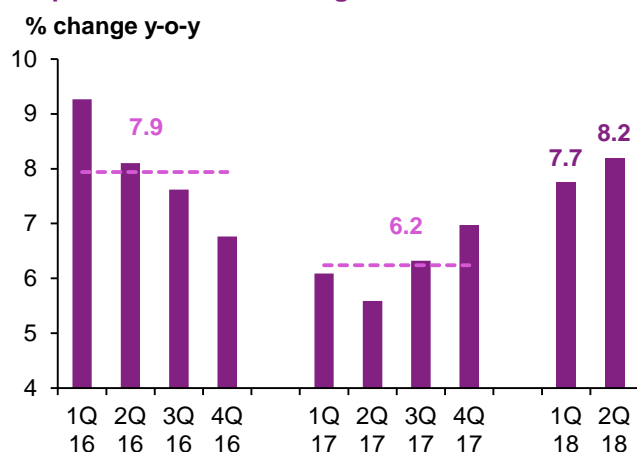
Sources: Federal State Statistics Service and Haver Analytics.

Russia's GDP growth forecasts point to 1.6% y-o-y in 2018 and 1.7% in 2019.

India

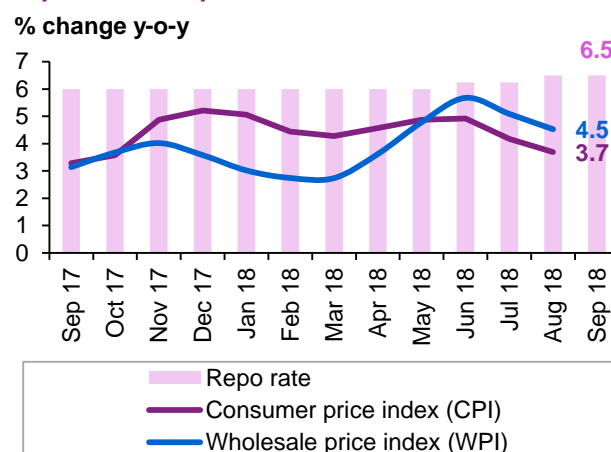
After a slowdown to 6.7% in the 2017 fiscal year (FY2017 — ending March 2018), India's economic momentum has come back during 1Q18 (April–June), with real **GDP growth** accelerating to 8.2%, supported by strong public investment and recovering household consumption. However, further recovery will be limited by greater external headwinds to growth, resulting in higher trade and fiscal deficits, tighter monetary policy, weaker investment, and ultimately weaker growth during the rest of FY2018 and in FY2019.

Graph 3 - 20: India's GDP growth



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

Graph 3 - 21: Repo rate and inflation in India



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

Strong double-digit expansion in real fixed investment during the June 2018 quarter, combined with recent improvements in corporate profits, credit growth, and capacity utilization, point to a tentative **recovery in business investment**. The normalization of business activity after disruptions from the introduction of the goods and services tax (GST) in July 2017 and improvements in domestic demand should bode well for further capacity expansion. India's markets have come under renewed stress in recent days, following debt default by a large infrastructure finance company that raised concerns about the wider health of the non-banking financial sector. A joint statement from the Reserve Bank of India (RBI) and Exchange Board of India (SEBI) to satisfy investors' concerns has been followed by suggestions from the government that the cash reserve ratio should be lowered to ease the liquidity situation. For now, the RBI has relaxed statutory liquidity ratio norms.

India's rupee (INR) continued to depreciate through 1H18, crossing the INR72.50/\$1.00 mark. India remains particularly vulnerable to ongoing strengthening of the US dollar and foreign capital outflows, owing to its widening current-account and fiscal deficits, which are driven in part by rising global oil prices. The upcoming general elections in early 2019 may add to currency volatility. That being said, India's economic fundamentals are now much stronger than during the 2012–13 rupee crisis, suggesting that a repeat is unlikely, even as the rupee continues to depreciate.

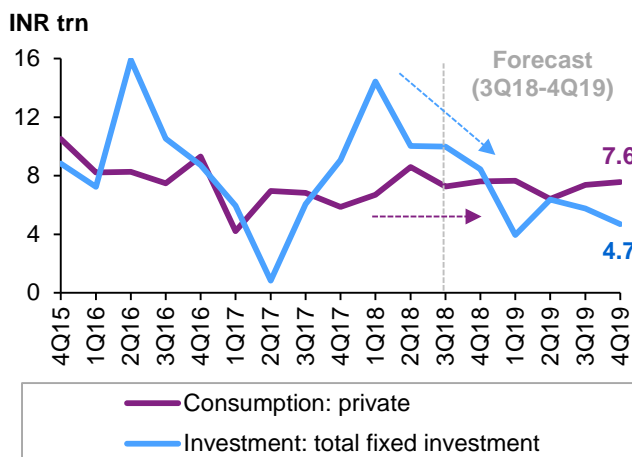
Weaker food price pressures offset the impact of rising oil prices and rupee depreciation on both retail and wholesale inflation, likely prompting the Reserve Bank of India (RBI) to hold **interest rates** unchanged in October after two consecutive rate rises. India's **CPI inflation** declined by 3.7% y-o-y in August 2018, from 4.2% y-o-y in July. It is the lowest inflation rate since October 2017, mainly due to a sharp slowdown in food costs. The weakness in food prices, which make up nearly half of the Indian consumer price basket, offset price increases in imported goods stemming from a weakening rupee and rising crude oil costs.

India's **WPI** rose by 4.5% y-o-y in August 2018, after a 5.1% gain the prior month. It is the lowest wholesale inflation figure since April, as the cost of fuel increased at a softer pace, while food prices declined further. On a monthly basis, wholesale prices increased by 0.3% in August, compared with a 0.4% rise in July. The effects of a weak currency and higher oil prices have yet to filter through to CPI inflation, which fell below the RBI's 4% medium-term target last month. However, the outlook is marred by risks of future inflationary pressures.

Moderating headline inflation, despite ongoing rupee weakening, is good news for India's urban consumers and businesses alike, particularly as it likely means that the RBI will keep interest rates unchanged when it meets next in October, after raising rates twice since June. However, the recent moderation in inflation is not all positive for the economy. Falling food prices will once again hurt rural spenders, who depend heavily on crop incomes. The government's recent increase in farm procurement prices will benefit only a small portion of farmers, while overall rural spending may soften again, threatening the tentative recovery in private consumption. The Indian economy showed a strong rebound during the June quarter, supported by the acceleration in private spending.

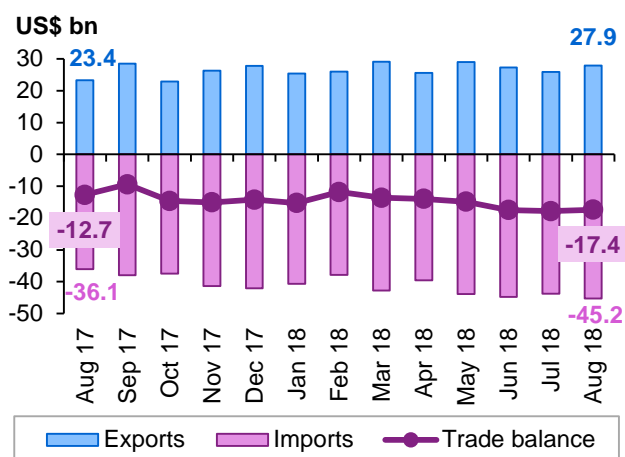
Consumer inflationary pressure remains in the coming month, while the risk of stagflation remains low. Services price inflation may continue to rise due to a further increase in rentals and the risk of an oil price hike. Moreover, the recovery of pork prices and increase in imported goods prices may add additional upward pressure to the CPI in 4Q18. However, as the PPI was on a downward trajectory and fresh vegetable price inflation may ease as weather conditions improve, the risk of stagflation remains low this year.

Graph 3 - 22: India's consumer spending and investment



Sources: Oxford Economics, Haver Analytics and OPEC Secretariat.

Graph 3 - 23: India's trade balance

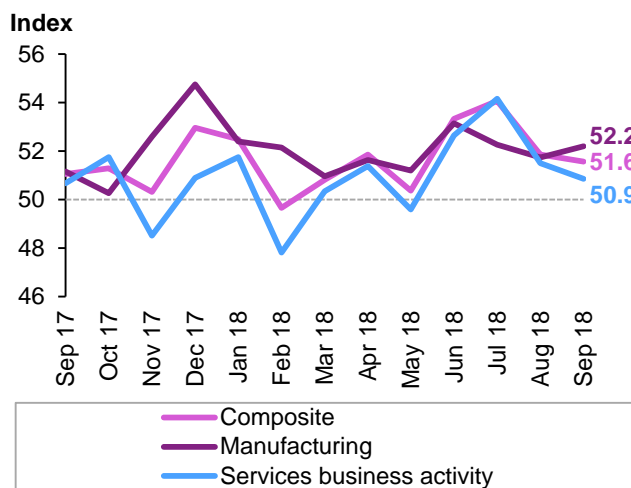


Sources: Ministry of Commerce and Industry and Haver Analytics.

India's **trade deficit** widened sharply to \$17.4 billion in August 2018, from \$12.7 billion the same time last year. However, the modest narrowing m-o-m in August due to the rupee's depreciation is boosting export growth. The currency declined by more than 12% since the beginning of 2018, boosting Indian export competitiveness and somewhat reducing import demand. The trade deficit will remain large in the short term, but is unlikely to deteriorate as far as in 1H18, particularly after the government announced measures to restrict non-essential imports in the second week of September 2018. After widening to 2.4% of GDP during the June quarter, it is expected that the current-account deficit will remain close to 2.5% of GDP in 2H18 and widen slightly in 2019, though remaining under 3%. **Imports** stood at \$45.2 billion in August, up by 3.3% m-o-m in US dollar terms. **Exports** grew by 19.3% y-o-y in August, partially offsetting a 25.4% y-o-y rise in imports and reducing the merchandising trade deficit to \$17.4 billion in August from \$17.9 billion in July.

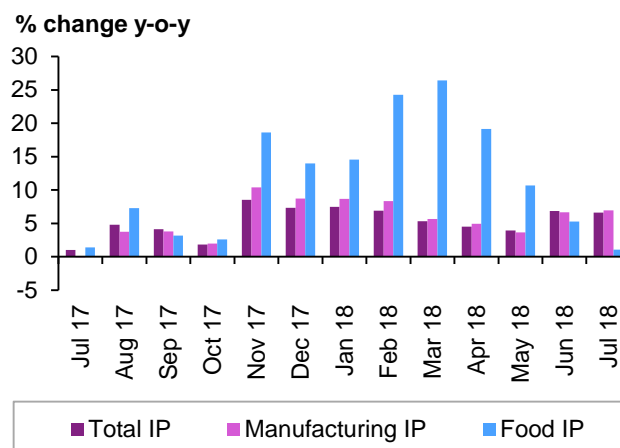
India's Nikkei manufacturing PMI rose to 52.2 in September from a three-month low of 51.7 in August. Headline PMI improved, supported by rising export sales, though business confidence touched a three-month low amid rising cost pressures.

Graph 3 - 24: India's PMI



Sources: Nikkei, IHS Markit and Haver Analytics.

Graph 3 - 25: India's industrial production (IP) breakdown



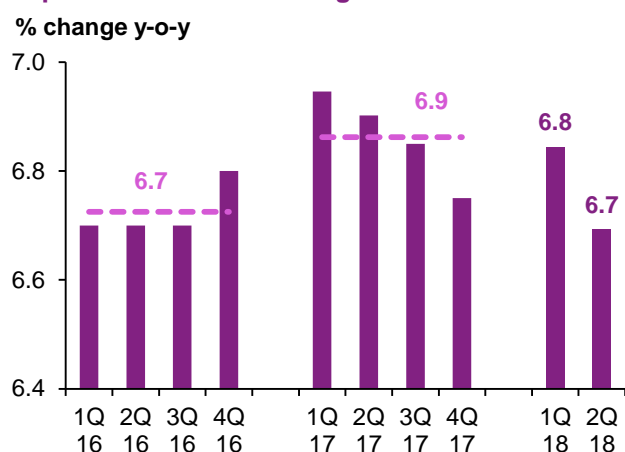
Sources: Ministry of Statistics and Program Implementation of India and Haver Analytics.

India's GDP remained unchanged from the previous month at 7.6% for 2018 and 7.4% for 2019.

China

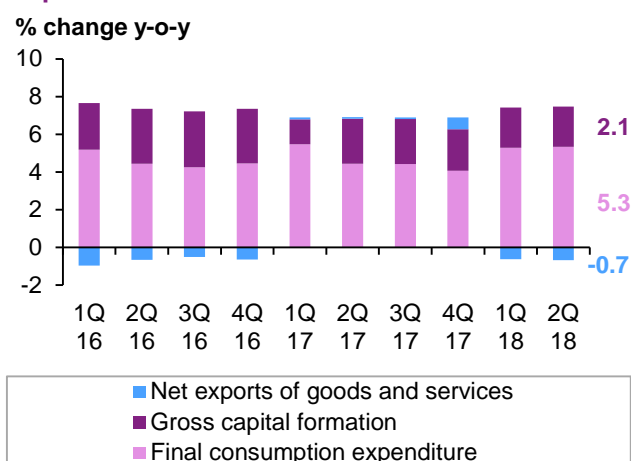
China's overall GDP growth momentum held up in August, supported via slightly stronger investment and consumption. However, credit growth has yet to respond to the monetary policy easing started in 2Q18, stressing downward pressure for the rest of the year. Indeed, it seems growth will be challenged in the coming months by slow credit growth and the trade conflict with the US, but the government's growth support policies will be measured, as lowering risk in the financial system remains a policy objective. China's overall export growth eased in August. But the continued strength of exports to Association of Southeast Asian Nations (ASEAN) and the US provide some relief to current global demand trends. Nonetheless, it is expected that the trade conflict with the US will escalate further before subsequent de-escalation, and that the dispute will soon become a drag on exports. A weaker yuan has helped Chinese exporters in recent months, but policymakers have taken measures to support it, including re-introduction of the "countercyclical factor" in setting the fixing rate for the yuan, confirming that they want to dampen the pressure for yuan depreciation.

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.

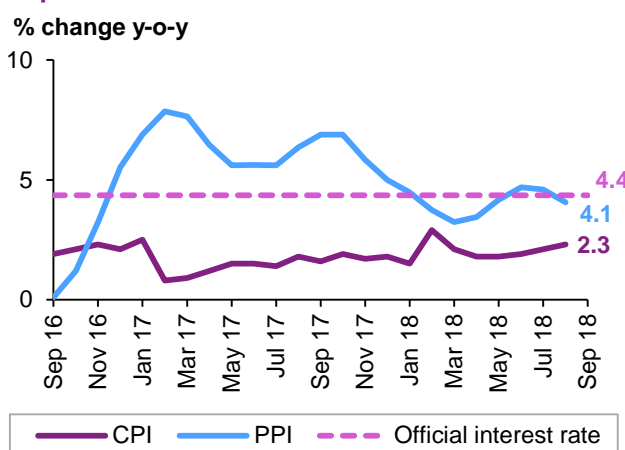
China's government plans to accelerate infrastructure spending to boost the cooling economy. At the same time, spending on health and education, social security and the environment continues to rise solidly, in line with the central government's aspiration for higher-quality growth.

The service activities index grew by 7.5% y-o-y in August, down from 7.8% y-o-y in July. Service activities index growth rates in August and July were at their lowest point since China introduced the index in January 2017. Industrial production growth rose marginally in August, to 6.1% y-o-y, up from 6.0% y-o-y in July. Retail sales also rebounded moderately in August, growing by 9.0% y-o-y, up from 8.8% y-o-y in July. However China's growth slowdown should be moderate in the coming quarters. After the US-China trade conflict intensified, the Chinese government has emphatically indicated it will maintain economic stability. US tariffs impact Chinese exports and thus will be countered, at least partially, via government stimulus.

China's **CPI** increased by 2.1% y-o-y in August, up from 2.1% in July, according to the National Bureau of Statistics (NBS). This was the third consecutive month of increase since June, and the highest over the past six months. Higher food inflation led the headline CPI increase, as flooding in Shandong province drove up fresh vegetable prices and a decline in pork prices continued to narrow. Moreover, education price inflation increased as the new school semester started in September and residential-related price inflation increased with souring rental costs in summer.

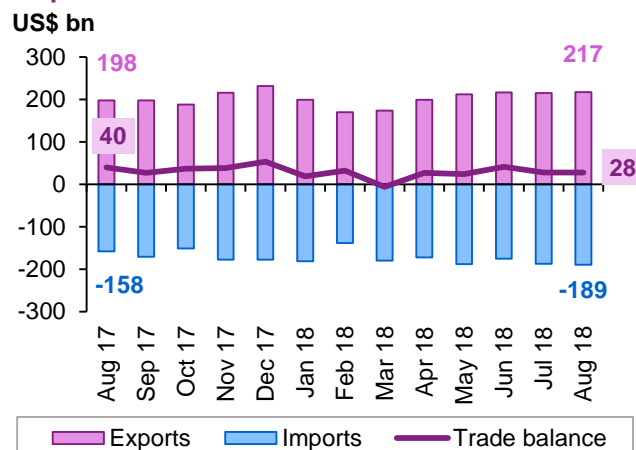
China's **PPI** increased by 4.1 % from a year earlier in August 2018, after a 4.6 % rise in the previous month. The PPI declined across heavy industrial sectors, while increasing in the consumer goods manufacturing sectors. By sector, ferrous metals, crude oil processing and non-ferrous metals processing reported higher price inflation compared with the previous month.

Graph 3 - 28: China's CPI and PPI



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

Graph 3 - 29: China's trade balance



Sources: General Administration of Customs of China and Haver Analytics.

China's **foreign trade** will continue to be moderate for the remainder of this year, due to the escalation of US-China trade tensions and slowing domestic demand. China's merchandise **exports** expanded to 9.8% y-o-y in August in US dollars, slowing from revised growth of 12.1% in July, according to *the General Administration of Customs*. The headline deceleration came with softening demand from the European Union (EU), Japan, and ASEAN. However, exports to the US improved, reflecting in-advance exports to avoid further tariffs and a strong US economy, as well as the effectiveness of a weaker renminbi. By product, integrated circulate export growth slowed to 15.7% in August compared with 19.5% in July and over 30% in June and May. China's merchandise **imports** expanded by 20.0% y-o-y in US dollars, dropping from 27.3% in July. Continuing weakness in domestic investment and industrial production contributed to a slowdown in import growth. Strong imports in crude oil, natural gas, and agricultural products were the main contributors to import growth, while coal, copper, and auto import growth fell. The trade surplus slightly declined to \$27.9 billion in August from \$28.1 trillion in July, as imports continued to grow faster than exports. However, China's trade surplus against the US continued to increase during this period.

There will be greater pressure and uncertainty over China's exports and currency under the escalation of US-China trade tensions and a softening world economy. On 17 September 2018, the US announced a second tranche of tariffs on China, with 10% on an additional \$200 billion of Chinese goods to be imposed from 24 September, with the tariff rate to rise to 25% on 1 January 2019. To retaliate, China may impose tariffs of 10% on \$60 billion of US goods as announced in early August (see China: 6 August 2018: China vows retaliatory tariffs on \$60 billion of US goods, domestic easing and capital control expected with escalating trade tensions). If the next round of US-China trade talks fails and the US imposes tariffs on another \$276 billion of Chinese goods, China is likely to fight back by stepping up regulations for US firms in

China, imposing consumer boycotts on top US bands, or banning exports to the US as Lou suggested. China expressed confidence in its economy, but it is still preparing for a further trade dispute escalation in order to avoid a significant slowdown; tax rebates have been raised for exporters, value-added tax has been reduced, and fiscal and monetary policy have been eased to support infrastructure investment.

The **official NBS manufacturing PMI** fell to 50.8 in September of 2018 from 51.3 the previous month, missing the market consensus of 51.2. It was the weakest reading since February, as both output (53.0 vs 53.3 in August) and new orders (52.0 vs 52.2) increased the least in seven months, while new export orders contracted for the fourth straight month (48.0 vs 49.4) as the economy braces for an escalation in trade tension with the US. In addition, buying activity rose less (51.5 vs 51.8) amid softening business sentiment (56.4 vs 57.0). Meantime, employment shrank the most since February (48.3 vs 49.4) and orders in hand (45.2 vs 46.7) fell at a faster rate. Input prices rose at the steepest pace in nine months while output charges were unchanged.

The **non-manufacturing PMI** rose to a three-month high of 54.9 in September 2018, from 54.2 a month earlier, slightly above market estimate of 54.8. New order growth accelerated (51.0 vs 50.6 in August), and business sentiment remained strong despite softening (60.1 vs 61.4). In addition, new export orders contracted less and were at their slowest pace in five months (49.8 vs 49.0). Meanwhile, employment fell for the first time since June (49.3 vs 50.4). Considering inflation, input prices rose for the sixth straight month, while output charges rose further. The services sector accounts for over half of China's economy, with rising wages giving consumers more spending power.

China's Caixin manufacturing PMI fell to a 16-month low of 50.0 in September 2018 from 50.6, its most subdued level since mid-2017 (albeit an improvement over most of 2015 and 1H16) as total new orders stagnated and new export orders declined at their fastest pace in more than two years.

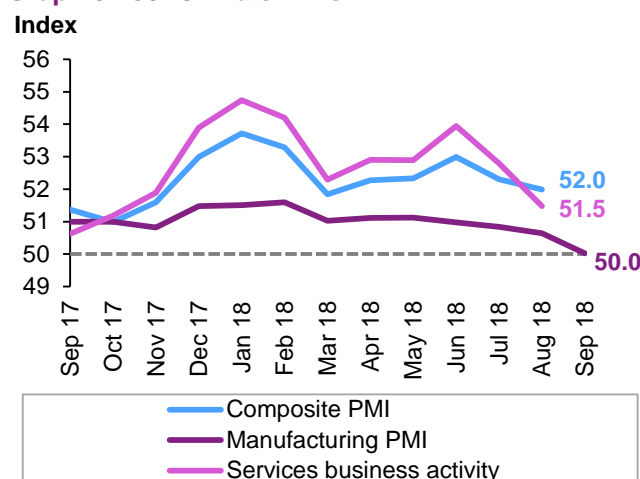
China's **GDP growth** expectations were kept unchanged at 6.6% and 6.2%, consecutively, for 2018 and 2019.

OPEC Member Countries

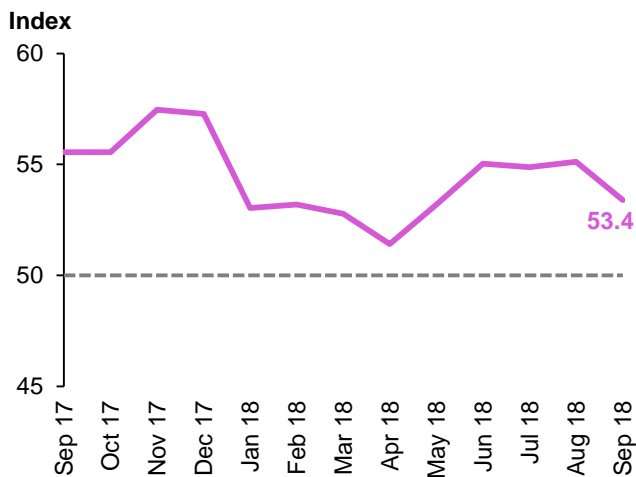
Saudi Arabia

In **Saudi Arabia**, the General Authority for Statistics announced that GDP growth in 2Q18 stood at 1.6% y-o-y, up from 1.2% in the previous quarter. Data showed positive growth movement across all components of GDP. Most notably was the increase in government final consumption expenditure, which rose by 7.5% y-o-y in 2Q18, up from 1.6% in 1Q18. Private consumption also went up from a 2.0% y-o-y increase in 1Q18 to a 2.5% rise in the most recently reported quarter. GFCF went from a 3.4% y-o-y decline in 1Q18 to a 5.2% expansion in 2Q18. The trade part was also supportive to growth, with an acceleration in exports growth and a decline in imports. Exports grew by 7.0% y-o-y in 2Q18, up from a 0.4% contraction in 1Q18. Imports fell by 6.5% y-o-y in 2Q18, compared to a 3.7% drop in the previous quarter. Business conditions in the non-oil private sector continued to improve in September, albeit at a slower pace compared to August. The Emirates NBD Saudi Arabia PMI registered 53.4 in September, down from 55.1 in August. This was due to softer growth in output and new orders.

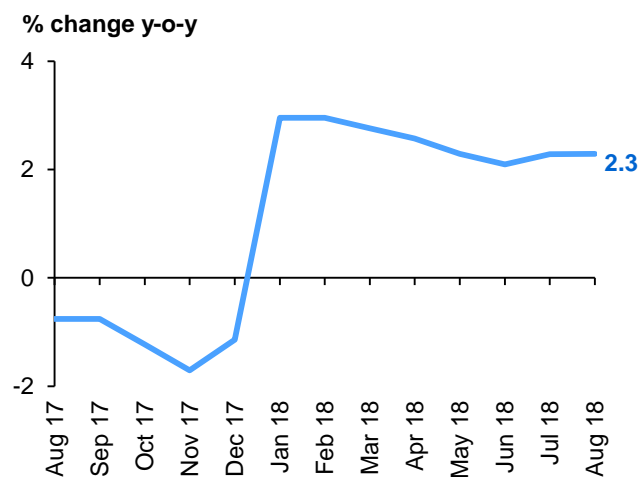
Graph 3 - 30: China's PMIs



Sources: Caixin, IHS Markit and Haver Analytics.

Graph 3 - 31: Saudi Arabia's composite PMI


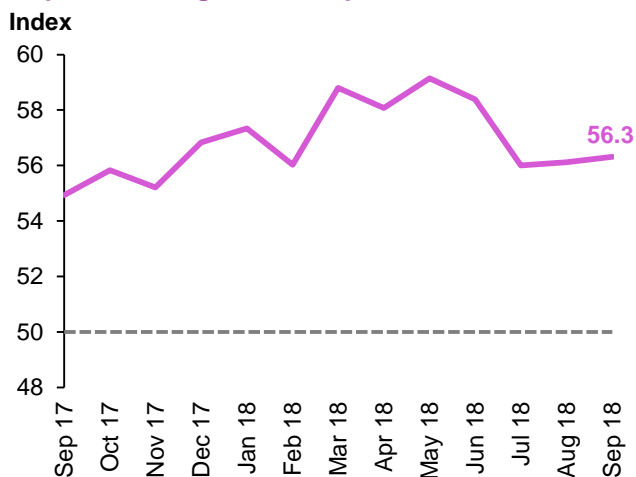
Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 32: Saudi Arabia's inflation


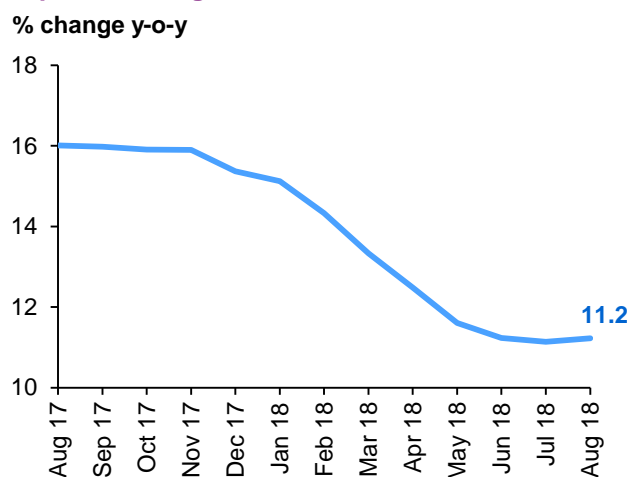
Sources: General Authority for Statistics and Haver Analytics.

Nigeria

In **Nigeria**, the Stanbic IBTC Bank Nigeria PMI in September rose to 56.3, up from 56.1 in August. The expansion was of continued improving business conditions in the Nigerian private, with businesses recording increased output and new orders during September. The survey also showed that input price pressures softened markedly during the month. Output growth across the private sector increased by a higher rate during September amid strong inflows of new orders. Despite the rising output requirements, firms reported a slower rate of employment growth that hit a 15-month low in September. In 2Q18 the services sector, showed a rebound from a 0.5% y-o-y contraction in 1Q18 to a 2.1% expansion. GDP growth stood at 1.5% y-o-y in 2Q18, after the 2.0% 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. Inflation slightly increased in August to 11.2%, from 11.1% in July. In comparison, inflation was at 16% y-o-y in August 2017.

Graph 3 - 33: Nigeria's composite PMI


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

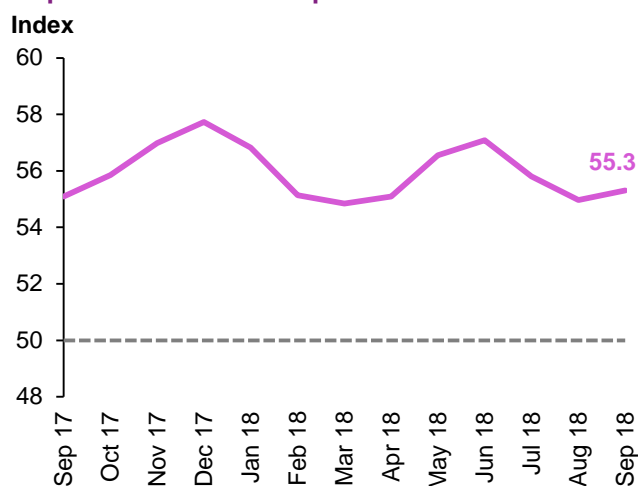
Graph 3 - 34: Nigeria's inflation


Sources: National Bureau of Statistics and Haver Analytics.

The United Arab Emirates (UAE)

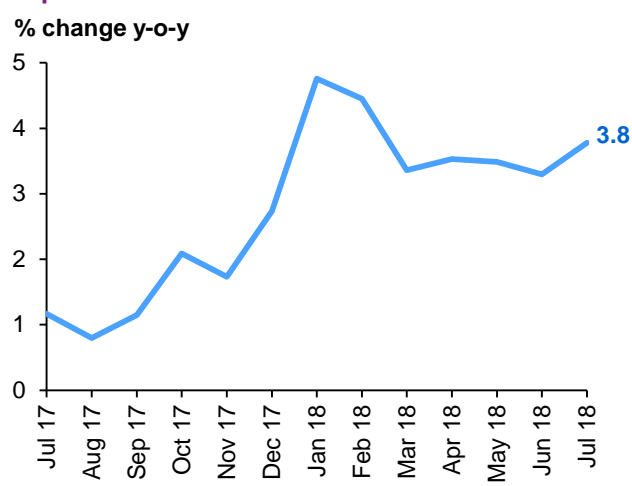
In the **UAE**, operating conditions in the non-oil private sector remained in expansion territory in September, even improving from August's strong performance, according to Emirates NBD UAE PMI. The index posted 55.3 in September, up from 55.0 in August. This signals a steady expansion in the non-oil private sector in Q318. Y-t-d, the PMI has averaged 55.7, similar to the same period last year. Although output and new work rose sharply in September, supported by growth in export orders, employment remained below the neutral 50-level for the second consecutive month. The majority of firms reported no change in staffing in September, but around 2% of firms indicated a decline in jobs last month. Inflation increased in July to 3.8% y-o-y, from 3.3% in June. The two main price rises were in the transportation and textiles and clothing sectors. Transportation prices jumped by 17.4% y-o-y in July, from 10.7% in June. Whereas inflation in textiles and clothing increased by 18.6% y-o-y in July, from 16.4% in June. The prices for housing, water, electricity and gas dropped by 3.6% y-o-y in July, which followed a 3.0% contraction a month earlier.

Graph 3 - 35: UAE's composite PMIs



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 36: UAE's inflation

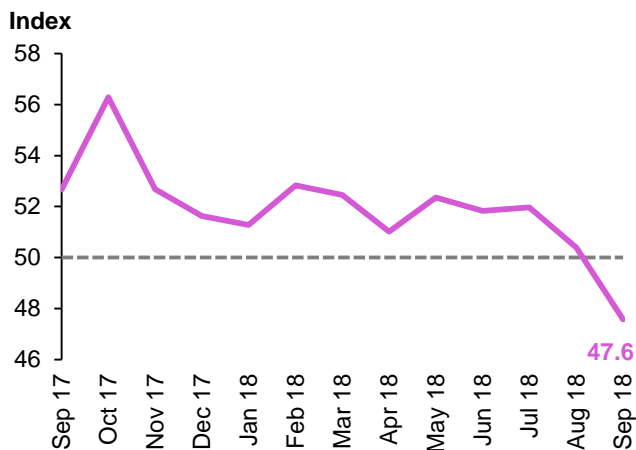


Sources: National Bureau of Statistics and Haver Analytics.

Qatar

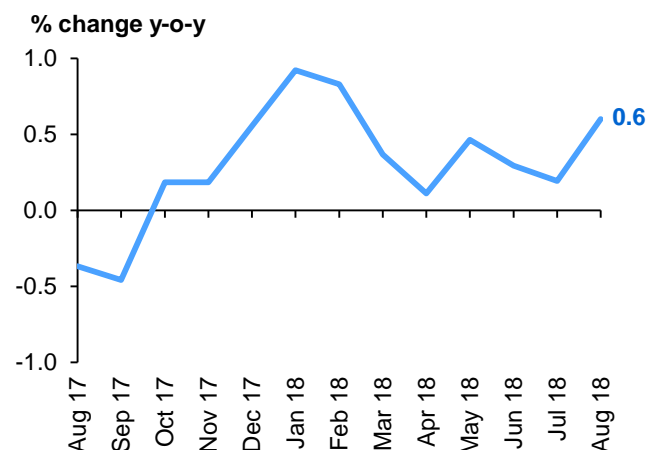
In **Qatar**, the non-mining and quarrying sector witnessed faster growth of 4.9% y-o-y in 1Q18, up from 4.3% in the previous quarter. Gross value added in the construction sector accelerated by 17.2% y-o-y in 1Q18, up from 16.5% in the previous quarter. GDP grew by 1.4% y-o-y in 1Q18. Growth in the country's non-oil and gas private sector was interrupted in September, according to the Qatar Financial Centre PMI. The index registered a level of 47.6 in September, down from 50.4 in August. The August survey had signalled a further improvement in new orders inflow, yet at slower pace. The rate of job creation was marked in August, as a result of increasing new orders and solid business confidence. In August, input prices fell at the fastest pace in the survey's history, leading to a fall in selling prices in the same month, also a survey record. Consumer price inflation eased in July to only 0.2% y-o-y, down from 0.3% in June.

Graph 3 - 37: Qatar's composite PMI



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

Graph 3 - 38: Qatar's inflation



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

Other Asia

Philippines

In the **Philippines**, the trade deficit increased markedly to \$3.6 billion in July 2018, from \$1.3 billion in July 2017. Imports were up by nearly 32% y-o-y, while exports barely increased by 0.3%. Imports of iron ore and steel rose by 136% y-o-y, and transport equipment by 61%. Imports from South Korea rose by 51% y-o-y in July, from the EU they increased by almost 80% and from ASEAN countries by 21%. Exports rose to China by 10% and to ASEAN countries by 11%, while exports to Japan dropped by 19% y-o-y. Inflation in the Philippines rose 6.4% y-o-y in August, up from 5.7% in July, to reach the highest reading since March 2009, as a result of price increases in food and beverages. Prices of food and beverages went up by 8.5% y-o-y in August, from 7.1% a month earlier. Inflation slowed for other categories like housing, water, electricity, gas and other fuels. The central bank inflation target range is between 2% and 4% during the period 2018-2020. The central bank raised its key overnight reverse repurchase rate by 50 basis points to 4.5% at the end of September, as it aims to contain inflationary pressures and support the currency. GDP grew by 6% in 2Q18, from 6.6% in 1Q18, on the back of slower growth rates in government spending and private consumption. Trade's contribution to growth was negative in 2Q18 as exports rose less than imports. Exports increased by 13% y-o-y, whereas imports expanded by 19.7% in 2Q18. GFCF accelerated by 20.7% y-o-y in 2Q18, up from 12.4% in 1Q18.

Africa

Egypt

In **Egypt**, GDP expanded by 5.4% in 2Q18, slightly lower than the 5.5% growth registered in the previous quarter. The Egyptian pound was largely stable in August and September. The pound depreciated by only 0.1% m-o-m in September after appreciating by the same rate in August. In August, inflation accelerated to 13.6% y-o-y, up from 13.0% a month earlier. Business conditions in the country's private sector returned to contraction in September, according to the Emirates NBD Egypt PMI. The index fell from 50.5 in August to 48.7 in September. This indicates that despite the two months of consecutive improvement in July and August, there remains some weakness in the economic recovery. The overall downturn reflected the first decline in new orders for three months. Following a broad stabilization in August, output across the non-oil private sector declined during September due to weak underlying demand. After a record increase in employment in August, job creation stagnated during September. The survey showed that firms continued to face higher input costs over the month, reflecting increases in both salaries and purchase costs. The 12-month outlook for output strengthened in September's survey, when compared to August.

Latin America

Argentina

The IMF announced that it has reached a revised agreement with **Argentina** to provide a bigger and faster bailout to be accompanied with a set of strengthened economic policies. The agreement, on the one hand, will front load IMF financing, increase available resources by \$19 billion through the end of 2019, and brings the total amount available under the program to \$57.1 billion through 2021. At the core of the new agreement, however, is a fiscal policy aimed at reaching a budgetary balance by 2019, one year earlier than previously intended, and then to move to a 1% primary surplus in 2020. Another part of the announced plan is strong monetary policy focused on reducing inflation through the replacement of the inflation target regime with a monetary base target. This new framework will contain the supply of money, and keep short-term interest rates at their currently high levels, with the aim to bring down inflation and inflation expectations.

GDP shrank by 4.2% y-o-y in 2Q18, from a 3.9% growth in 1Q18. The drop follows five consecutive quarters of expansion. This also represents the sharpest decline since 3Q14. While remaining in growth territory, private consumption expanded at a notably slower pace of 0.3% y-o-y in 2Q18, from 4.3% growth in the previous quarter. The same trend is exhibited in the GFCF, which grew by 3.1% y-o-y in 2Q18, from 15.7% in the previous quarter. The decline in government consumption worsened to 2.1% y-o-y in 2Q18, from 1.2% in 1Q18. Exports moved from a 6.4% y-o-y expansion in 1Q18 to a 7.5% contraction in 2Q18, whereas imports continued to increase in 2Q18, although by a slower rate vis-à-vis the previous quarter.

Transition region

Czech Republic

In the **Czech Republic**, the manufacturing sector lost further momentum at the end of the 3Q18, as order book growth eased to its weakest in nearly two years, according to the latest IHS Markit Czech Republic manufacturing PMI showed. September also saw slower rises in both output and employment across the sector, while businesses became less optimistic about the outlook. Meanwhile, cost pressures intensified, with the rate of input cost inflation faced by goods producers reaching its highest level for 11 months. The index dropped to a 22-month low because of slower growth in new orders. The index posted 53.4 in September, from 54.9 in August. It also showed a drop in the rates of expansion in production and job creation during September. GDP growth stood at 2.7% y-o-y in 2Q18, from 3.4% in 1Q18. This underscores the slowest pace of growth since the end of 2014. Household consumption, government consumption, and GFCF all showed lower rates of growth in 2Q18 y-o-y.

World Oil Demand

World oil demand is projected to increase by 1.54 mb/d in 2018, a downward revision of around 80 tb/d from the previous month's report. Total global oil consumption for the year is expected to average 98.79 mb/d.

Oil demand growth in the OECD region was revised lower by around 30 tb/d in 2018, due to slower-than-expected data in OECD Europe and Asia Pacific. In OECD Europe, diesel oil requirements in 2Q18 weakened amid lower-than-expected demand for automotive diesel and heating oil in Germany and France, leading to a downward revision in oil demand growth in OECD Europe by around 20 tb/d for the year. Following a solid 1H18, demand growth declined during the month of July 2018 in South Korea. This, combined with a continuation of the sluggish oil requirements from Japan, resulted in a downward revision of oil demand in OECD Asia Pacific by around 20 tb/d for 2018. On the other hand, firm oil demand data for July 2018 supported an upward revision for the year in OECD America by around 10 tb/d.

In the non-OECD region, oil demand growth was also revised lower by around 45 tb/d in 2018, mainly reflecting the slower momentum in Latin America and the Middle East. Weaker-than-expected demand from Brazil, Argentina, Venezuela and Saudi Arabia resulted in a downward revision by around 20 tb/d for each region.

In 2019, world oil demand is anticipated to grow by 1.36 mb/d to average 100.15 mb/d, a downward revision of 50 tb/d from last month's report. OECD Europe and Latin America were revised down by 20 tb/d and 30 tb/d, respectively, amid a slight easing of economic growth expectations in those regions next year. Most of the oil demand growth is anticipated to originate from Other Asia, led by India, followed by China, then OECD Americas. OECD countries are forecast to see a rise in oil demand growth by 0.25 mb/d while non-OECD countries will drive oil demand growth by adding an estimated 1.11 mb/d.

World oil demand in 2018 and 2019

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

	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018</u>	<u>Change 2018/17</u>	
							<u>Growth</u>	<u>%</u>
Americas	25.02	25.20	25.40	25.43	25.44	25.37	0.35	1.40
of which US	20.23	20.57	20.64	20.58	20.58	20.59	0.36	1.77
Europe	14.30	13.95	14.19	14.78	14.47	14.35	0.05	0.35
Asia Pacific	8.06	8.54	7.65	7.72	8.31	8.06	-0.01	-0.08
Total OECD	47.38	47.69	47.24	47.93	48.22	47.77	0.39	0.83
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	6.49	6.82	6.47	6.53	0.03	0.39
Middle East	8.17	8.19	7.98	8.56	7.90	8.16	-0.01	-0.18
Africa	4.20	4.35	4.32	4.27	4.38	4.33	0.13	3.01
Total DCs	32.13	32.44	32.63	33.08	32.71	32.72	0.59	1.83
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
Total "Other regions"	17.74	17.68	18.03	18.33	19.15	18.30	0.56	3.15
Total world	97.25	97.80	97.90	99.35	100.08	98.79	1.54	1.58
Previous estimate	97.20	97.76	97.91	99.38	100.20	98.82	1.62	1.67
Revision	0.05	0.04	-0.01	-0.04	-0.12	-0.03	-0.08	-0.08

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

	<u>2018</u>	<u>1Q19</u>	<u>2Q19</u>	<u>3Q19</u>	<u>4Q19</u>	<u>2019</u>	<u>Change 2019/18</u>	
							<u>Growth</u>	<u>%</u>
Americas	25.37	25.46	25.63	25.71	25.69	25.62	0.26	1.01
of which US	20.59	20.81	20.84	20.84	20.81	20.82	0.23	1.12
Europe	14.35	13.99	14.20	14.81	14.49	14.37	0.03	0.18
Asia Pacific	8.06	8.53	7.61	7.70	8.28	8.03	-0.03	-0.34
Total OECD	47.77	47.98	47.44	48.21	48.47	48.03	0.25	0.53
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	6.53	6.42	6.56	6.90	6.54	6.61	0.08	1.18
Middle East	8.16	8.26	8.05	8.64	7.97	8.23	0.07	0.91
Africa	4.33	4.46	4.43	4.37	4.48	4.44	0.11	2.45
Total DCs	32.72	33.07	33.27	33.73	33.36	33.36	0.64	1.96
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
Total "Other regions"	18.30	18.12	18.49	18.79	19.64	18.77	0.47	2.54
Total world	98.79	99.17	99.21	100.74	101.46	100.15	1.36	1.38
Previous estimate	98.82	99.17	99.27	100.82	101.63	100.23	1.41	1.43
Revision	-0.03	-0.01	-0.06	-0.09	-0.17	-0.08	-0.05	-0.05

Note: * 2018 and 2019 = Forecast.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

OECD

OECD Americas

US

Following strong oil demand growth during the first two quarters of 2018, the latest available monthly data indicates resilient **US oil demand growth** for July 2018, with y-o-y gains of about 0.5 mb/d, or 2.5%.

To an overwhelming extent, the growth share in July 2018 oil requirements can be attributed to middle distillates, which continued to be supported by the growth in industrial and manufacturing activities, as well as NGLs/LPG, largely intended as a feedstock for the petrochemical industry.

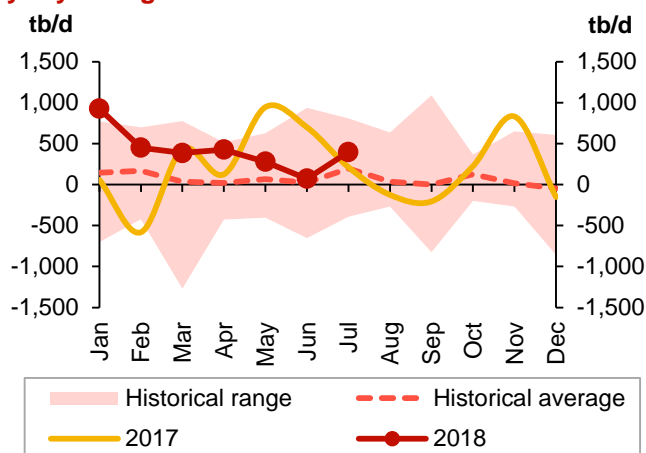
Diesel oil added a strong 0.32 mb/d or 8.7% y-o-y, as industrial production was higher by more than 4% y-o-y and the transportation of freight index was higher by 8.2% y-o-y during the same period.

Gasoline and jet/kerosene demand grew compared to the same month in 2017, similar to the trend observed with residual fuel oil requirements. The weak growth in gasoline demand in July 2018, of around 45 tb/d or 0.5% y-o-y, was in line with slightly declining car sales during the same month, around 0.1% y-o-y, and broadly flat vehicle miles travelled 0.3% y-o-y. With the end of the driving season in 2018, the performance of gasoline demand remained substantially lower compared to recent historical patterns and was not one of the main motors behind US oil demand growth during the current year.

The first seven months of 2018 show US oil demand higher, with demand growing for all the main petroleum categories with the exception of gasoline, which remained flat y-o-y and naphtha, which showed declines, mainly due to substitution with lighter hydrocarbons. Growth was particularly strong for NGLs/LPG, distillates and jet/kerosene requirements.

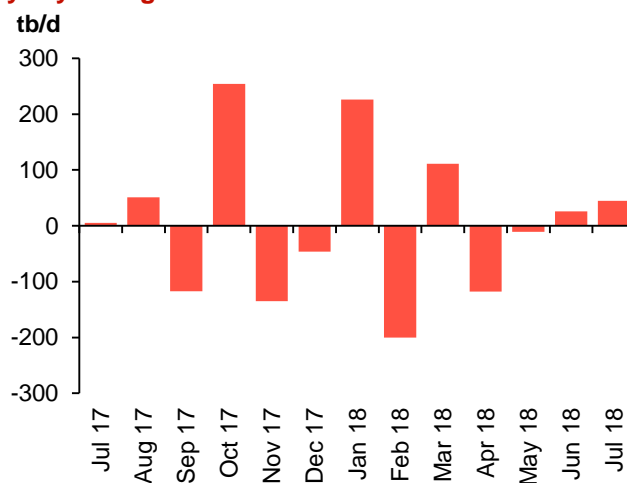
Preliminary figures for August 2018, which are based on weekly data, show an increase of around 3.7% y-o-y, with LPG, jet/kerosene and distillate requirements rising, but being partly offset by disappointing gasoline and residual fuel oil demand. September 2018 preliminary data indicates another solid month in US oil demand for the majority of the main petroleum product categories, with NGLs/LPG distillates and jet/kerosene leading demand in the last month of the driving season.

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

	Jul 18	Jul 17	Change 2018/17 tb/d	%
LPG	2,665	2,517	148	5.9
Naphtha	226	220	6	2.7
Gasoline	9,640	9,595	45	0.5
Jet/kerosene	1,773	1,735	38	2.2
Diesel oil	3,958	3,642	316	8.7
Fuel oil	337	287	50	17.4
Other products	2,313	2,414	-102	-4.2
Total	20,912	20,410	501	2.5

Sources: US Energy Information Administration and OPEC Secretariat.

For the remainder of 2018 and 2019, **US oil demand** is anticipated to be strongly determined by the healthy economic activity, particularly with regard to the industrial and transportation sectors, with distillates, NGLs/LPG and jet kerosene expected to be the most sought petroleum product categories. Gasoline requirements are expected to be lower than initially anticipated, with fuel prices playing a major role in future developments. Upside potential lies in the projected growth of the economy and oil usage in the industrial and transportation sectors, while fuel substitution, fuel prices and vehicle efficiencies are the main downside risks.

Mexico

In **Mexico**, August 2018 was marked by decreasing oil demand, particularly affecting all main petroleum product categories, with the exception of naphtha, jet kerosene and residual fuel oil. LPG, gasoline and diesel requirements fell y-o-y., Mexican oil demand in August 2018 decreased by a considerable 50 tb/d, or 2.5%, y-o-y. Consequently, Mexican oil demand growth in 2018 is expected to remain in the negative territory y-o-y. However, for 2019, oil demand is projected to grow slightly, as a result of the expected positive economic growth.

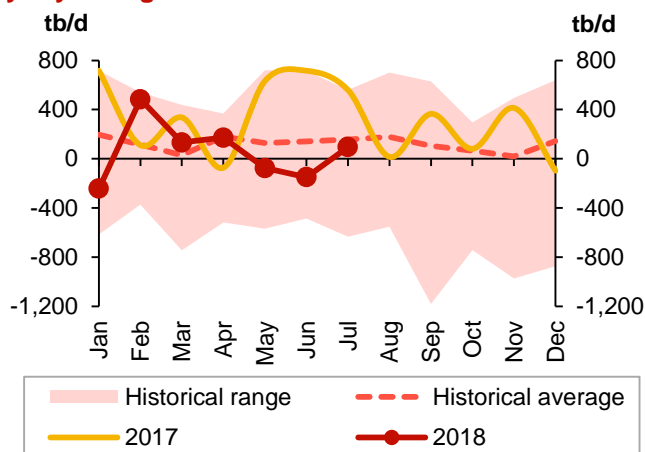
Canada

Canada's oil requirements rose slightly in July 2018 by 24 tb/d y-o-y, with all main product categories, except LPG and naphtha, being in the positive. With regard to the overall picture in 2018, projections of Canada's oil demand remained at the same level as in the previous month, increasing slightly compared to 2017. Depending on the development of the overall economy, 2019 Canadian oil requirements are projected to slightly exceed those in 2018.

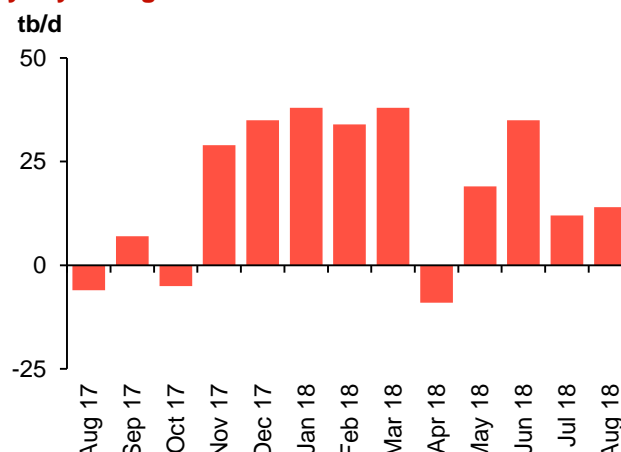
In 2018, **OECD Americas oil demand** is projected to grow by 0.35 mb/d compared with 2017. 2019 OECD Americas oil demand is forecast to grow by 0.26 mb/d compared with 2018.

OECD Europe

European oil demand flipped to positive territory in July 2018, showing slight growth of around 90 tb/d compared with July 2017. However, this level of growth remains far below the growth recorded in recent years. Several factors account for the increase not being as large as in recent years: the effects of economic growth in some countries in the region have been offset by weaker economies within the region, more specifically currency devaluations, oil price-related effects, and the impact of the warm weather on heating fuel requirements. Additional concerns continue to pose uncertainties for future oil requirements, most of them region specific, for example high taxation schemes on oil usage. Nevertheless, the expected oil demand in the region for 2018 and 2019 could also be impacted by some positive factors relating mostly to industrial and road transportation fuels.

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 for Business, Energy & Industrial Strategy and OPEC Secretariat.

Preliminary information for August 2018 for the **big consuming countries in Europe** (Germany, France, Italy and UK) indicates a decline in oil demand requirements of around 1% y-o-y, mostly on the back of a reduction in diesel oil demand in both Germany and France. Diesel oil demand was impacted by the strong shift towards gasoline-driven vehicles, delays in winter stocking and low water levels at the Rhine river limiting barge movements. In 2018, diesel's share of the EU new car market fell to less than 40% in 1H18, down from a multi-year level of around 50%.

Data for the first eight months of 2018 showed an increase in European oil demand y-o-y, with road transportation – notably gasoline – and industrial fuels accounting for the bulk of the increases. These developments are supported by the positive momentum in auto sales and the solid expansions in all major auto markets, which witnessed a substantial shift towards gasoline-motored vehicles compared with diesel some years ago. The general expectations for the region's oil demand during 2018 and 2019 have worsened since last month's projections as a result of the above-mentioned uncertainties. High taxation policies on oil use and fuel substitution still remain the main factors that could curb oil demand despite economic growth, in combination with the high historical baseline.

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

	Aug 18	Aug 17	Change 2018/17	
			tb/d	%
LPG	472	467	5	1.1
Naphtha	649	682	-33	-4.8
Gasoline	1,172	1,147	25	2.2
Jet/kerosene	911	884	27	3.0
Diesel oil	3,219	3,261	-42	-1.3
Fuel oil	237	245	-8	-3.2
Other products	588	647	-59	-9.1
Total	7,249	7,333	-84	-1.1

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

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

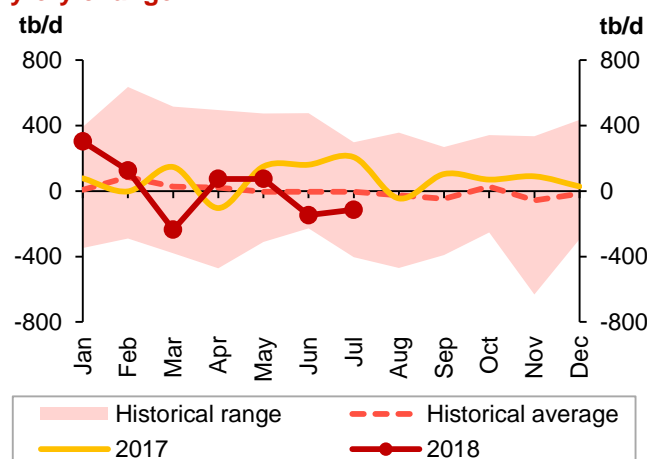
OECD Europe oil demand is projected to grow by 50 tb/d in 2018, for the third consecutive year, while in 2019 oil demand will grow by around 30 tb/d, compared with 2018.

OECD Asia Pacific

Japan

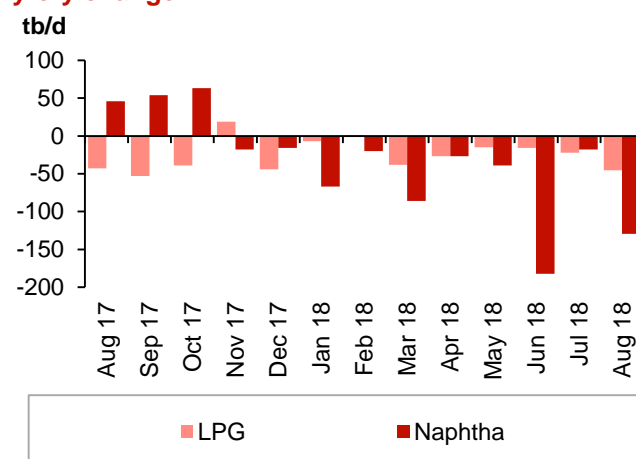
Preliminary data indicates that **Japanese oil demand** decreased by 0.16 mb/d, or 4.3%, y-o-y in August 2018, a sixth consecutive monthly decrease and with a mixed picture across product categories. Jet/kerosene, gas/diesel oil and residual fuel oil demand grew steadily, but have been more than offset by sharp declines in the requirements for LPG, naphtha, gasoline and crude for direct burning. The latter came as a result of fuel substitution with residual fuel oil and other energy commodities.

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.

The outlook for Japan's overall 2018 oil demand remains bearish with the risks being skewed further towards the downside. Oil demand projections for 2019 assume a decline of around 0.1 mb/d compared with 2018, with risks also pointing to the downside.

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

	<u>Aug 18</u>	<u>Aug 17</u>	<u>Change 2018/17</u> <u>tb/d</u>	<u>%</u>
LPG	319	364	-45	-12.5
Naphtha	657	786	-129	-16.5
Gasoline	944	989	-45	-4.5
Jet/kerosene	335	334	1	0.3
Diesel oil	751	713	38	5.3
Fuel oil	283	254	29	11.6
Other products	375	388	-13	-3.3
Total	3,664	3,828	-164	-4.3

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

South Korea

In **South Korea**, July 2018 came up bearish, decreasing by approximately 56 tb/d or 2.0%, y-o-y, the first y-o-y decrease in three months. Slight gains in the petrochemical industry, especially for LPG requirements, have been more than offset by shrinking requirements for all other main petroleum categories, notably naphtha, and residual fuel oil. Nevertheless, the outlook for South Korean oil demand during 2018 and 2019 remains healthy and unchanged as compared to last month's projections.

Australia

The region's oil demand has also been supported for another month by increasing oil usage in **Australia**, supported by the country's booming mining industry and with gains in diesel oil demand.

OECD Asia Pacific oil demand growth is estimated to decrease slightly in 2018, as compared to 2017. Oil demand in the region is projected to fall further, by around 30 tb/d y-o-y in 2019.

Non-OECD

China

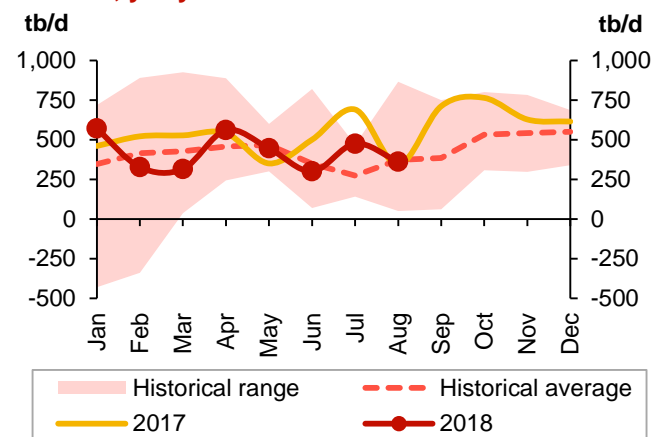
The pace of growth in **China's oil demand** continued in August 2018 with growth registering approximately 0.36 mb/d y-o-y, with total demand pegged at 11.8 mb/d. This relatively robust oil demand growth remained in line with firm economic growth, which is reflected in the steady performance of the transportation and industrial sectors. As in recent months, demand for LPG grew substantially, in line with healthy growth in the petrochemical industry. LPG demand growth was estimated at 0.16 mb/d y-o-y, with total consumption at 1.75 mb/d. PDH operating rates were at 80% during the month of August with additional support stemming from the return of Wanhua Chemical's 0.75 mtpy PDH plant in Yantai and the shift to the gasoline specification "China VI", which has tightened the octane levels domestically, leading to higher demand for octane boosters.

Diesel oil demand returned to growth after declining y-o-y in July, with gains of around 0.26 mb/d, or 7.9%, y-o-y. Support for diesel oil resulted from higher coal production by 4.2%, as well as an improvement in steel output, which also increased by 2.7% y-o-y in August.

Jet/kero total consumption is now pegged at 0.79 mb/d, up by 39 tb/d y-o-y, propelled by an uplift in domestic travel in the country. According to the *China National Bureau of Statistics* and *Haver Analytics*, air passenger traffic increased by more than 12.2% in August 2018, in addition to a healthy cargo traffic growth of around 7.3% y-o-y.

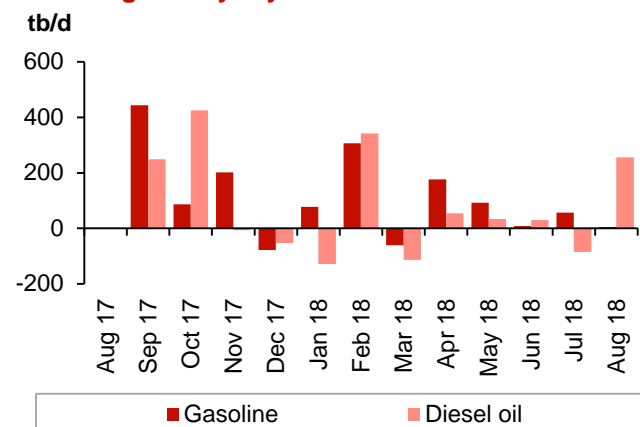
Gasoline demand slowed down significantly, to only show y-o-y growth of 5 tb/d y-o-y, as vehicle sales data are now suggesting declines as compared to August 2017. Passenger car sales shed around 4.5% y-o-y according to statistics of the China Association of Automobile Manufacturers (CAAM).

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



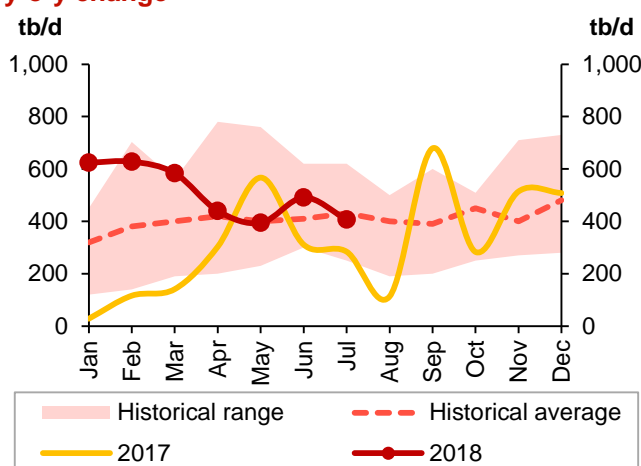
Sources: Facts Global Energy, China OGP (Xinhua News Agency), Argus Global Markets, JODI, National Bureau of Statistics, China and OPEC Secretariat.

Going forward, the overall outlook risk remains unchanged compared with last month, which was relatively balanced. The factors pointing to the upside are the expected economic growth in combination with a healthy petrochemical industry and there is upside potential in the transportation sector. Some downside risks remain related to fuel substitution in the industrial sector, in addition to efficiencies and alternative vehicle penetration in the road transportation sector. Projections for 2019 take into account assumptions such as rising transportation and industrial fuels, slightly lower GDP growth compared with 2018, a continuation of fuel quality programmes targeting fewer emissions, and a continuation of fuel substitution with natural gas and coal.

For 2018, **China's oil demand** is projected to grow by 0.42 mb/d, while oil demand in 2019 is projected to increase again by 0.36 mb/d.

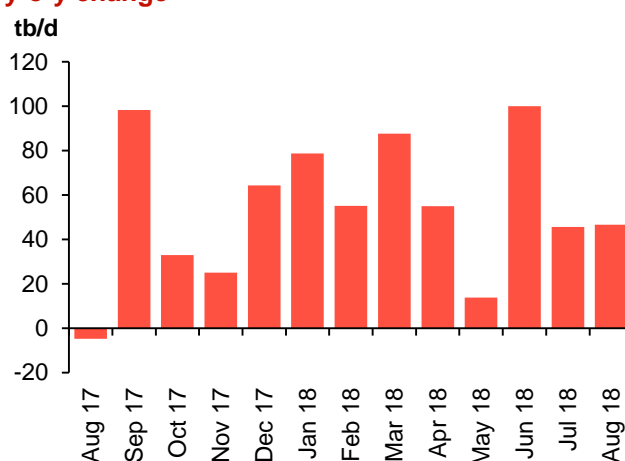
Other Asia

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

In August 2018, **Indian oil demand** rose slightly by 34 tb/d, or around 1%, y-o-y, coming down from a significant growth of around 0.3 mb/d y-o-y in July 2018. However, looking at the product performance during the month, all main petroleum products registered decent gains including fuel oil, diesel oil and gasoline. This was largely offset by the steep decline in the "other products" category – including petroleum coke – which dropped by around 0.15 mb/d in August. This indicates that the fundamentals of oil demand growth in India remain strong as growth in economic activities, despite higher oil prices y-o-y, supported product demand in August.

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

	Aug 18	Aug 17	Change 2018/17	
			tb/d	%
LPG	768	746	21	2.9
Naphtha	302	299	3	1.1
Gasoline	647	600	47	7.8
Jet/kerosene	301	279	22	7.8
Diesel oil	1,622	1,554	68	4.4
Fuel oil	276	254	22	8.5
Other products	571	719	-148	-20.6
Total	4,486	4,452	34	0.8

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

World Oil Demand

LPG requirements inched higher by 21 tb/d, or 2.9%, y-o-y, as demand for household requirements continues to rise. More LPG connections are commissioned in support of the government objective of supplying clean cooking fuel to households and by building as much as 50 million LPG connections by mid-2019.

Demand for gasoline added 47 tb/d or 7.8% y-o-y, supported by solid vehicle sales data. Overall passenger vehicles sales recorded an increase of 9.8% during the period from April to August with the 2-wheeler segment, which consumes gasoline as a fuel, registering an increase of 11.5 % y-o-y during the same period.

Additionally, diesel oil demand also posted solid gains amid high sales of commercial vehicles, recording a strong 29.6% during the month of August. Commercial vehicle sales since the start of the Indian fiscal year increased by an astounding 41.7% as compared to the same period in 2017. This was reported by the Petroleum Planning and Analysis Cell (PPAC) in the Ministry of Petroleum and Natural Gas in India. Meanwhile, jet/kerosene saw high growth as domestic passenger traffic was robustly higher y-o-y. Demand growth for the product reached 22 tb/d, or 7.8%, y-o-y.

In 2018, oil demand in India is projected to remain healthy, supported by a firm economic outlook, supported by the goods and services tax (GST) policy and taking advantage of the low base line of comparison in 2017.

Indonesia

In **Indonesia**, oil demand grew strongly in July 2018, adding 57 tb/d, or 3.2%, y-o-y. This is in line with healthy gains in transportation fuels and the country's growing economy. Total consumption, accounting for all petroleum products, averaged around 1.81 mb/d. All main petroleum categories were positive with the exception of the "other products" category which declined by 6 tb/d y-o-y. Indonesia has been a source of strength for oil demand in the Other Asia region in 2018. Cumulatively, with data up to July 2018, the country has added a solid 78 tb/d, or 5.1%, as compared to the same period in 2017, driven by transportation fuels.

Thailand

In **Thailand**, rising jet/kerosene and gasoline demand during the month of July 2018 have offset declines in diesel oil and naphtha. Oil demand growth increased by 3 tb/d in July 2018 with total consumption averaging around 1.34 mb/d during the same period. On a year-to-date basis, oil demand has increased by a firm 30 tb/d as compared to the same period in 2017.

Singapore

Oil demand in **Singapore** recorded positive gains in July 2018 as all product categories registered positive gains with the exception of LPG. Bunker fuels as well as jet/kerosene were the products supporting demand growth with an increase of 2.7% and 1.9% y-o-y, respectively.

The outlook for the remainder of 2018 for **oil demand growth in Other Asia** indicates positive increases across the region. Oil demand is projected to be firm, dominated by transportation fuels, particularly gasoline. For 2019, oil demand growth in the region remains as highlighted in the previous month's report based on assumptions of steady economic conditions. 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.

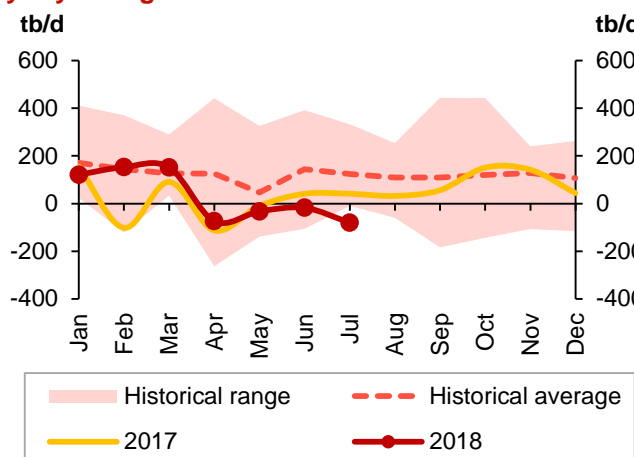
Oil demand in the Other Asia region is projected to rise by 0.45 mb/d in 2018, while in 2019 it is anticipated to rise by around 0.39 mb/d.

Latin America

Brazil

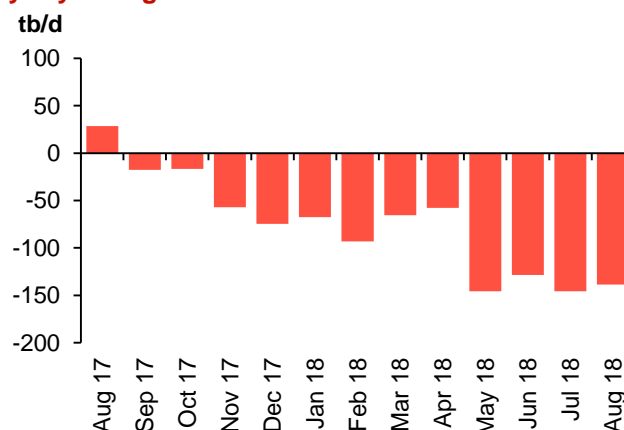
Latest data suggests that **Brazilian oil demand** declined in August 2018 for the second consecutive month and represents the fourth monthly decline since January 2018.

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.

Oil demand has dipped by 19 tb/d, or 0.7%, y-o-y as weakening demand for gasoline and fuel oil outpaced positive gains in other products, dragging overall demand growth into the negative. Gasoline demand continued to lose ground on end users' preference for ethanol. Demand for the product dropped by 0.14 mb/d, or 18.5%, y-o-y. As highlighted in previous *MOMR* reports, retail prices for gasoline remain less competitive compared to ethanol. Gasoline demand has seen y-o-y monthly declines since August 2017. Gasoline retail prices hovered around 4.45 reais per litre in August, as reported by National Agency of Petroleum, Natural Gas and Biofuels (ANP) and Haver Analytics, while ethanol prices averaged 2.66 reais per litre during the same month. Ethanol consumption consequently was boosted by 84 tb/d, or 21.8%, y-o-y.

For yet another month, fuel oil consumption decreased in August 2018 y-o-y, decreasing by 18 tb/d, or 14.4%, y-o-y, mainly in response to improvement in hydro power generation. Demand for diesel oil grew in August, albeit at a lower magnitude as compared to the previous month. The product rose by 10 tb/d, or 1.0%, y-o-y, in line with steady manufacturing activities in the past two months.

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

	<u>Aug 18</u>	<u>Aug 17</u>	<u>Change 2018/17</u> <u>tb/d</u>	<u>%</u>
LPG	260	250	10	4.2
Naphtha	146	144	2	1.4
Gasoline	612	751	-139	-18.5
Jet/kerosene	150	116	34	29.6
Diesel oil	1,025	1,015	10	1.0
Fuel oil	105	123	-18	-14.4
Other products	450	370	80	21.8
Total	2,748	2,767	-19	-0.7

Note: * = Inland deliveries.

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

Argentina

In **Argentina**, oil demand decreased in July 2018 by 1.3% y-o-y as fuel oil demand plummeted, outpacing moderate growth in the other main petroleum product categories. Total consumption in Argentina reached 0.68 mb/d in July 2018.

Venezuela

Oil demand continued to weaken in **Venezuela** in July 2018, down by 10.7% y-o-y as diesel oil and gasoline requirements fell sharply.

Ecuador

In **Ecuador**, August 2018 saw firm oil demand data with gains of 12.3% y-o-y. LPG, naphtha, gasoline, diesel oil and fuel oil were on the rise, while jet/kerosene and the “other products” category declined.

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

	<u>Aug 18</u>	<u>Aug 17</u>	<u>Change 2018/17</u> <u>tb/d</u>	<u>%</u>
LPG	39	36	3	9.1
Naphtha	14	11	3	23.9
Gasoline	72	68	4	5.8
Jet/kerosene	8	8	0	-2.7
Diesel oil	93	86	7	7.7
Fuel oil	32	17	15	85.3
Other products	20	20	0	-2.3
Total	276	246	30	12.3

Sources: JODI and OPEC Secretariat.

As such, **Latin America's oil demand** estimations for 2018 have been adjusted lower for the remainder of 2018. In 2019, improvements in GDP as compared to the current year provide ground for cautious optimism for oil demand growth. Brazil is projected to be the main contributor to growth, primarily due to growth in transportation fuels.

Looking forward, the risks for the remainder of 2018 are currently skewed to the downside, due to major economic concerns in various countries in the region. Similarly, projections for 2019 are tilted to the downside as weakening economic conditions in the region should limit oil demand growth potential. Demand growth will remain largely dependent on the possible improvement in the overall economy. In terms of products, diesel oil and gasoline are expected to show higher growth potential and are anticipated to fuel the industrial and transportation sectors.

Latin American oil demand is estimated to increase by around 30 tb/d in 2018. During 2019, oil demand growth is forecast higher than 2018, to record growth of around 80 tb/d.

Middle East

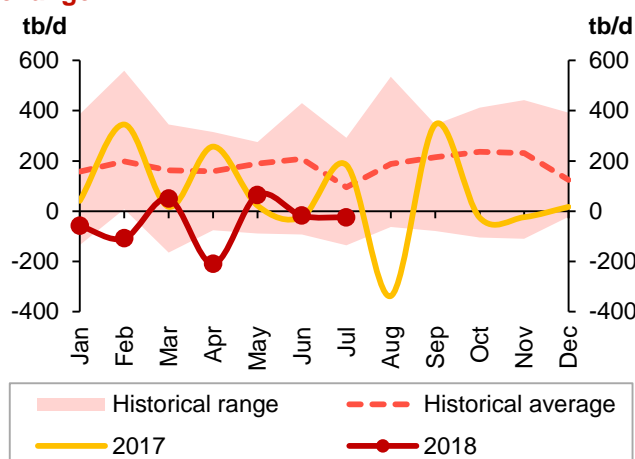
Saudi Arabia

In **Saudi Arabia**, oil demand fell sharply in August 2018, by a huge 0.25 mb/d, or 9.2%, y-o-y marking the fifth consecutive monthly decline on a y-o-y basis. Total product consumption fell as low as 2.42 mb/d, the lowest monthly total recorded for the month since 2013.

In cumulative terms, oil demand is set to decline in Saudi Arabia in 2018 as year-to-date data – with data up to August – shows a contraction of 0.14 mb/d with four months of data left till the end of the year. A drop in demand for direct crude burning for power generation purposes appears to be the major driver behind declines in 2018, in addition to weakness in diesel oil and gasoline requirements.

As indicated in previous reports, substitution with natural gas – and to some extent with fuel oil replacing diesel oil run power plants – has impacted both direct crude burning and diesel oil demand negatively. Diesel oil was further impacted by slower-than-expected construction activities. Direct crude burning dropped by 0.17 mb/d, or 25.6%, y-o-y, while diesel oil declined by 43 tb/d, or 7.4%, y-o-y in August.

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.

On the other hand, demand for fuel oil, jet/kerosene and light distillates recorded firm gains. Fuel oil demand increased by 0.12 mb/d, or 24%, y-o-y to meet higher power generation demand. Jet/kerosene demand increased by 15.6% on the back of an uptick in air traffic operations during the Hajj season. LPG demand added 22.4% y-o-y, driven by additional petrochemical usage.

Iraq

In **Iraq**, August 2018 oil demand growth accelerated at a healthy pace, increasing by 81 tb/d, or 12.9%, y-o-y. This marks the highest level of growth since April 2018. All product categories registered positive growth with fuel oil used to satisfy power generation requirements increasing the most – up by 0.10 mb/d, or 53.1%, y-o-y. Diesel oil and gasoline grew by 22.8% and 12.5% y-o-y, respectively, in line with positive developments in the transportation and construction sectors. Total product demand reached 0.71 mb/d in August 2018.

Other countries in the Middle East

Other countries in the region experienced positive growth during the month of July 2018, with **Kuwait**, the **UAE** and **Qatar** adding around 61 tb/d, 36 tb/d and 45 tb/d y-o-y, respectively.

Looking forward, **oil demand growth in the Middle East region** is anticipated to continue to be tilted to the downside for the remainder of 2018, with uncertainties surrounding demand growth data from Saudi Arabia and elsewhere in the region, as substitution by other fuels and subsidy reduction policies are assumed to limit the demand growth potential. In 2019, oil demand growth is expected to improve from the levels seen in the current year, primarily as a result of steady economic conditions, coupled with a low base line of comparison.

In the Middle East, oil demand is now expected to decline by 15 tb/d in 2018, while 2019 is forecast to show growth of around 70 tb/d.

World Oil Supply

Non-OPEC oil supply in 2018 was revised up by 0.22 mb/d from the previous MOMR to average 59.77 mb/d, due to upward revisions in the historical production data of the US, Canada, Russia, Colombia and ethanol (since 2016) of Brazil. Moreover, the supply forecast for the US, Canada, Colombia and Azerbaijan in 4Q18 was re-assessed due to the higher production performance in 3Q18. These upward revisions were partially offset by downward revisions due to lower-than-expected output in Brazil, Kazakhstan, Mexico, Norway, Denmark and some Asian countries. As a result, y-o-y growth was revised up by 0.20 mb/d to now stand at 2.22 mb/d. The US, Brazil, Canada, Kazakhstan, UK and Australia are expected to be the main drivers for y-o-y growth, while Mexico, Norway, Indonesia and Vietnam will show the largest declines.

Non-OPEC oil supply in 2019 was also revised up by 0.18 mb/d and is now projected to reach an average of 61.89 mb/d. However, in terms of y-o-y growth, it was revised down by 0.03 mb/d to now stand at 2.12 mb/d mainly due to downward revisions to the India, Malaysia and Egypt supply forecasts for next year. The US, Brazil, Canada, the UK, Kazakhstan and Australia are the main drivers of growth, while Mexico, Norway, Indonesia and Vietnam are expected to see the largest declines. The 2019 non-OPEC supply forecast is subject to many uncertainties with the upside potential looming larger than the downside risk.

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 September, OPEC crude oil production increased by 132 tb/d to average 32.76 mb/d, according to secondary sources.

Non-OPEC supply in September, including OPEC NGLs, rose by 0.10 mb/d m-o-m to average 66.30 mb/d, higher by 2.93 mb/d y-o-y. As a result, preliminary data indicates that global oil supply increased in September by 0.23 mb/d m-o-m to average 99 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	23.54	2.05	25.11	1.57
OECD Europe	3.85	0.02	3.86	0.01
OECD Asia Pacific	0.41	0.02	0.46	0.05
Total OECD	27.80	2.09	29.43	1.64
Other Asia	3.51	-0.07	3.48	-0.04
Latin America	5.22	0.07	5.58	0.36
Middle East	1.23	0.00	1.22	-0.01
Africa	1.54	0.03	1.60	0.06
Total DCs	11.50	0.02	11.89	0.38
FSU	14.13	0.08	14.15	0.03
Other Europe	0.12	-0.01	0.12	0.00
China	3.98	0.00	4.02	0.04
Non-OPEC production	57.53	2.18	59.62	2.09
Processing gains	2.25	0.04	2.28	0.03
Non-OPEC supply	59.77	2.22	61.89	2.12

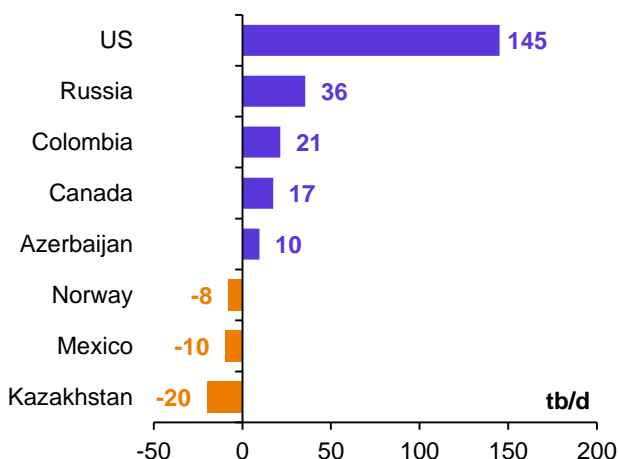
Note: * 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

Monthly revisions to non-OPEC supply growth forecast

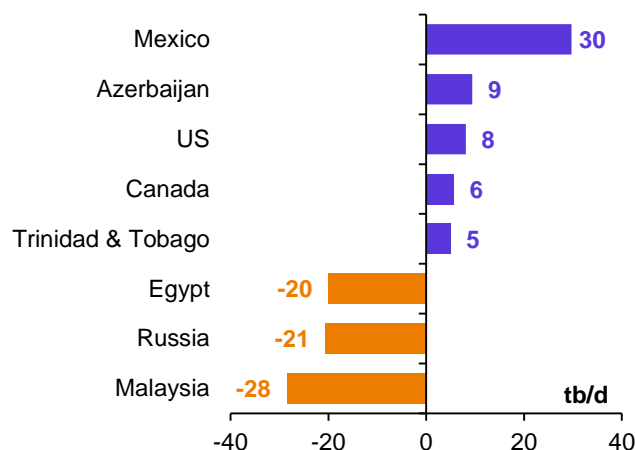
The **non-OPEC oil supply growth forecast for 2018** was revised up by 0.20 mb/d to average 2.22 mb/d. On a country basis, the cumulative expected growth in the US, Canada, Other OECD Europe, Other OECD Asia Pacific, Colombia, Russia and Azerbaijan was revised up by 0.25 mb/d in 2018, while the oil supply growth forecast for Mexico, Norway, Denmark and Kazakhstan was revised down by 0.04 mb/d (**Graph 5 – 1**).

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



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

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

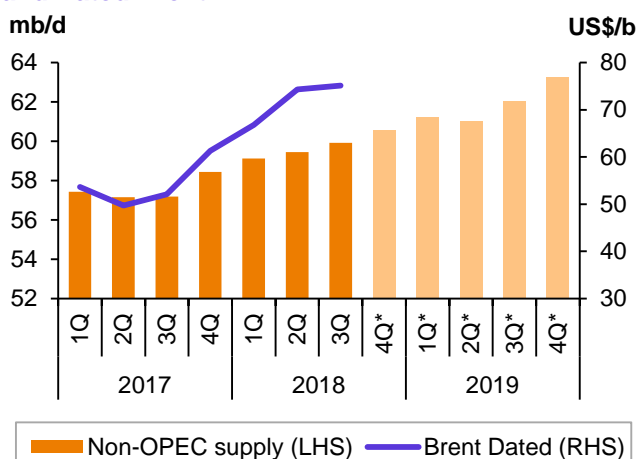


Note: * 2019 = Forecast.
Source: OPEC Secretariat.

Monthly revisions to **non-OPEC oil supply growth for 2019**, as seen in **Graph 5 - 2**, indicate upward revisions - mainly in Canada, Mexico, Other Asia Pacific and Azerbaijan -- totalling 0.06 mb/d, while oil supply forecasts for India, Malaysia, Yemen and Egypt were revised down by 0.10 mb/d.

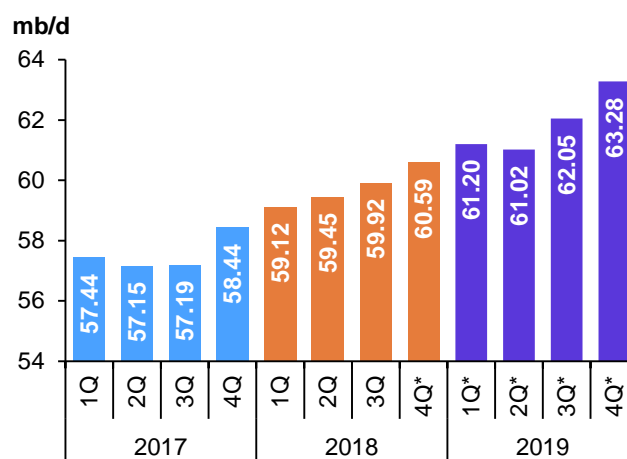
As a result, y-o-y growth for non-OPEC supply in 2019 was revised down by 0.03 mb/d to average 2.12 mb/d.

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



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

Graph 5 - 4: Non-OPEC quarterly oil supply



Note: * 4Q18-4Q19 = 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	23.35	23.69	24.17	23.54	2.05	9.52
of which US	14.40	15.53	16.22	16.68	16.70	16.29	1.89	13.09
Europe	3.83	3.92	3.73	3.79	3.97	3.85	0.02	0.58
Asia Pacific	0.39	0.40	0.38	0.41	0.45	0.41	0.02	4.49
Total OECD	25.71	27.25	27.46	27.89	28.58	27.80	2.09	8.11
Other Asia	3.59	3.58	3.51	3.46	3.51	3.51	-0.07	-2.04
Latin America	5.15	5.15	5.20	5.14	5.38	5.22	0.07	1.27
Middle East	1.24	1.21	1.25	1.26	1.22	1.23	0.00	-0.21
Africa	1.50	1.52	1.53	1.55	1.53	1.54	0.03	2.13
Total DCs	11.48	11.45	11.50	11.41	11.65	11.50	0.02	0.19
FSU	14.05	14.10	14.14	14.30	13.96	14.13	0.08	0.53
of which Russia	11.17	11.14	11.18	11.44	10.98	11.19	0.02	0.14
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	3.95	4.03	3.98	0.00	0.10
Total "Other regions"	18.15	18.17	18.25	18.37	18.11	18.23	0.07	0.40
Total non-OPEC production	55.35	56.87	57.20	57.67	58.34	57.53	2.18	3.94
Processing gains	2.21	2.25	2.25	2.25	2.25	2.25	0.04	1.67
Total non-OPEC supply	57.56	59.12	59.45	59.92	60.59	59.77	2.22	3.85
Previous estimate	57.54	59.07	59.35	59.64	60.15	59.56	2.02	3.50
Revision	0.01	0.05	0.10	0.28	0.44	0.22	0.20	0.35

Note: * 2018 = Forecast.

Source: OPEC Secretariat.

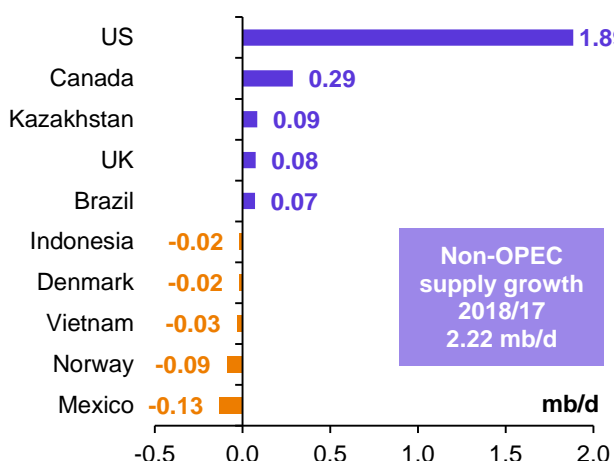
Table 5 - 3: Non-OPEC oil supply in 2019*, mb/d

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18 Growth	%
Americas	23.54	24.44	24.60	25.37	26.01	25.11	1.57	6.67
of which US	16.29	16.93	17.47	17.86	18.41	17.67	1.38	8.50
Europe	3.85	3.96	3.65	3.81	4.02	3.86	0.01	0.27
Asia Pacific	0.41	0.44	0.45	0.47	0.49	0.46	0.05	13.28
Total OECD	27.80	28.84	28.70	29.65	30.52	29.43	1.64	5.88
Other Asia	3.51	3.49	3.48	3.48	3.47	3.48	-0.04	-1.00
Latin America	5.22	5.47	5.50	5.56	5.81	5.58	0.36	6.99
Middle East	1.23	1.23	1.23	1.22	1.22	1.22	-0.01	-0.90
Africa	1.54	1.56	1.59	1.61	1.64	1.60	0.06	4.21
Total DCs	11.50	11.74	11.79	11.87	12.14	11.89	0.38	3.33
FSU	14.13	14.16	14.12	14.13	14.19	14.15	0.03	0.19
of which Russia	11.19	11.19	11.19	11.19	11.19	11.19	0.00	0.00
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	0.04	1.13
Total "Other regions"	18.23	18.34	18.25	18.25	18.34	18.30	0.07	0.39
Total non-OPEC production	57.53	58.92	58.74	59.77	61.00	59.62	2.09	3.63
Processing gains	2.25	2.28	2.28	2.28	2.28	2.28	0.03	1.25
Total non-OPEC supply	59.77	61.20	61.02	62.05	63.28	61.89	2.12	3.54
Previous estimate	59.56	60.94	60.82	61.91	63.14	61.71	2.15	3.61
Revision	0.22	0.26	0.19	0.14	0.14	0.18	-0.03	-0.07

Note: * 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

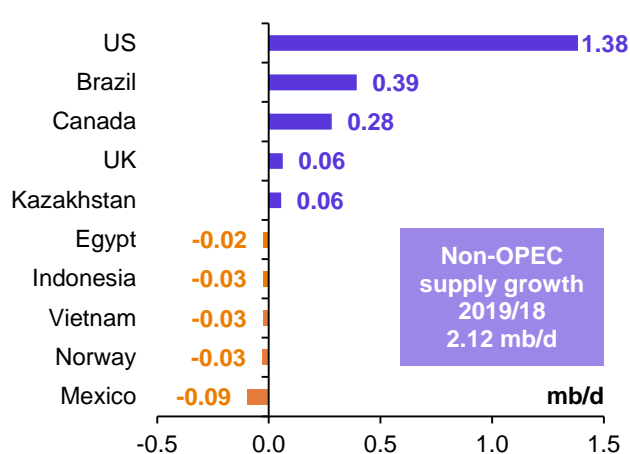
Graph 5 - 5: Annual supply changes for selected countries in 2018*



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 2.09 mb/d to average 27.80 mb/d. This has been revised up by 157 tb/d since the last MOMR, representing an upward revision in supply growth of 153 tb/d. OECD Americas is forecast to see an increase of 2.05 mb/d y-o-y to average 23.54 mb/d, while oil supply in OECD Europe will show minor growth of 0.02 mb/d to average 3.85 mb/d (of which 3.1 mb/d is from the North Sea). The supply from OECD Asia Pacific is expected to grow by 0.02 mb/d y-o-y to average 0.41 mb/d.

Yearly growth of 1.64 mb/d is forecast for OECD oil supply in **2019** to average 29.43 mb/d. OECD Americas, Europe and Asia Pacific all are expected to grow next year by 1.57 mb/d, 0.01 mb/d and 0.05 mb/d to average 25.11 mb/d, 3.86 mb/d and 0.46 mb/d, respectively.

OECD Americas

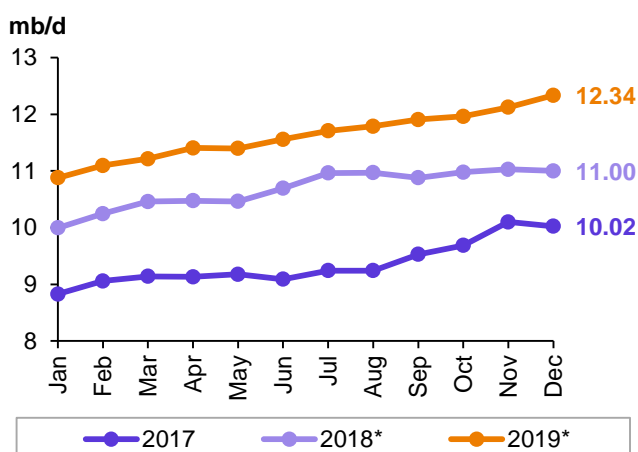
US

US crude oil output (including lease condensate) in July surged by 0.27 mb/d to a higher level, up by 2.5% m-o-m based on monthly data, to average 10.96 mb/d following growth of 0.23 mb/d in June, while the estimated average monthly output based on preliminary weekly data in July showed an increase of only 50 tb/d m-o-m to 10.95 mb/d. US crude oil output in July 2018 showed growth of 1.73 mb/d, up by 18.8%, y-o-y. The main reason for m-o-m growth was increasing output in the Gulf of Mexico (GoM), which rose by 11.4% once again, up by 0.19 mb/d, following last month's rise by 0.15 mb/d.

Federal offshore GoM's field production of crude oil reached 1.85 mb/d, the highest ever recorded in history, 74 tb/d higher than the peak in March 2017. As mentioned in the previous MOMR, output recovery in the GoM in July was due to increased field production in Jack/St.Malo, where total output rose to a record high 0.2 mb/d. Moreover, the oil production ramp-up in the Kaikias (peak capacity: 40 tb/d) and Stampede (peak capacity: 80 tb/d) projects also supported GoM oil output in July.

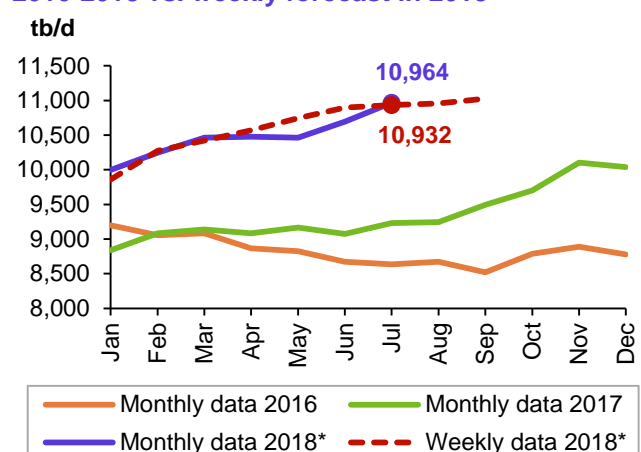
According to data from the US Energy Information Administration (EIA), the m-o-m growth of crude oil output in Texas was up by only 46 tb/d, which compared with growth of 165 tb/d in June, seems to suggest that the pipeline capacity constraints are serious. Total oil output in Texas reached an average of 4.47 mb/d in July, mainly from the Permian Basin, while production in the state of New Mexico rose by 13 tb/d, mainly from the Eagle Ford shale play, to average 0.67 mb/d. Meanwhile, oil production in North Dakota (+41 tb/d), Oklahoma (+19 tb/d) and Colorado, mainly from the DJ basin (+18 tb/d), increased in July while oil output in Alaska dropped m-o-m by 56 tb/d to average 395 tb/d.

Graph 5 - 7: US monthly crude oil production



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

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

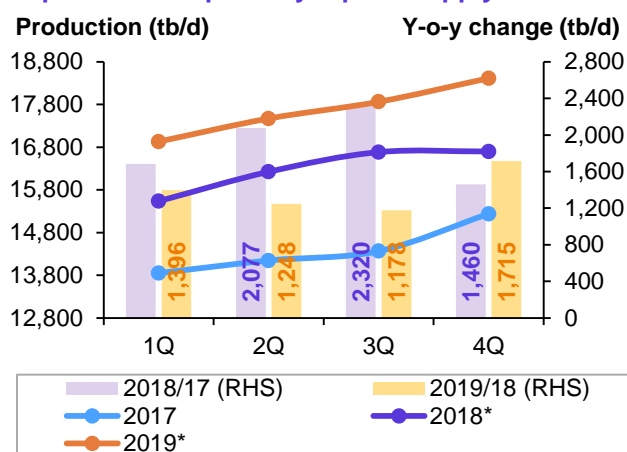


Note: * 2018 = Forecast.
Sources: EIA and OPEC Secretariat.

As a result, US crude oil production increased by 0.31mb/d in 2Q18 q-o-q to average 10.54 mb/d, higher by 1.41 mb/d compared with the same quarter a year ago. In 2Q18, 15% of total crude oil output came from offshore and the remainder was produced in onshore fields, mainly from shale plays. The share of Texas in crude oil production in 2Q18 was around 41% of total US crude, amounting to 4.30 mb/d, up 0.93 mb/d y-o-y.

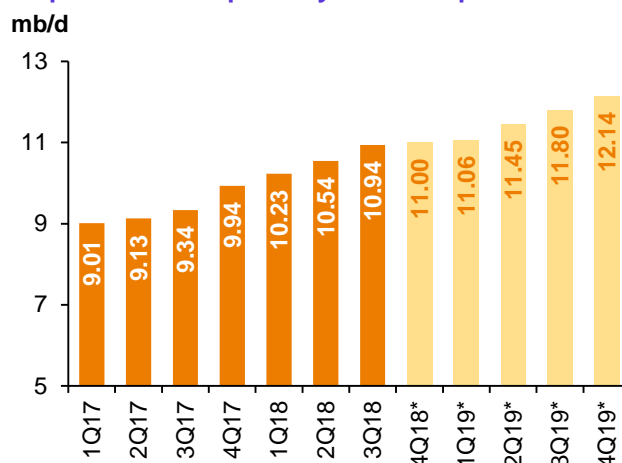
US liquids output in July (excluding processing gains) recorded an increase of 0.30 mb/d m-o-m to average 16.73 mb/d, up by 2.39 mb/d y-o-y. According to the EIA, m-o-m US liquids supply growth in July was supported by crude oil production, while NGLs output showed a growth of 0.08 mb/d m-o-m at 4.41 mb/d. The output of other non-conventional liquids, mainly biofuels, is estimated to have decreased m-o-m by 0.05 mb/d to 1.36 mb/d.

Graph 5 - 9: US quarterly liquids supply



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

Graph 5 - 10: US quarterly crude oil production



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

US liquids supply in 2018 is expected to average 16.29 mb/d, revised up by 0.15 mb/d from the previous MOMR to average 1.89 mb/d, partly due to a historical revision in 2Q18 and also a reassessment of the supply forecast for 2H18, mainly due to higher-than-expected growth in July 2018.

US liquids supply in **2019** is forecast to reach an average of 17.67 mb/d, representing y-o-y growth of 1.38 mb/d, remained unchanged in the expected growth compare to the last month MOMR.

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

	2016	2017	Change 2017/16	2018*	Change 2018/17	2019*	Change 2019/18
Tight crude	4.24	4.71	0.47	6.03	1.32	6.99	0.96
Gulf of Mexico crude	1.60	1.68	0.08	1.70	0.02	1.72	0.02
Conventional crude oil	2.99	2.96	-0.03	2.96	0.00	2.94	-0.02
Unconventional NGLs	2.58	2.77	0.19	3.22	0.45	3.57	0.35
Conventional NGLs	0.93	1.01	0.08	1.08	0.07	1.12	0.04
Biofuels + Other liquids	1.27	1.27	0.00	1.30	0.03	1.33	0.03
US total supply	13.61	14.40	0.80	16.29	1.89	17.67	1.38

Note: * 2018 and 2019 = Forecast.

Sources: US EIA, Rystad Energy and OPEC Secretariat.

US tight crude output in July 2018 is estimated to have grown by 0.13 mb/d m-o-m to average 6.08 mb/d, an increase of 1.48 mb/d y-o-y, according to the EIA, which examines tight oil production estimates by play. Crude output from shale and tight formations through horizontal wells in the Permian Basin was up by 42 tb/d in July m-o-m to average 2.77 mb/d, followed by an increase of 15 tb/d m-o-m at Eagle Ford to average 1.24 mb/d. The Niobrara play added 23 tb/d to average 0.44 mb/d, and m-o-m growth of 43 tb/d was also seen in the Bakken play to average 1.25 mb/d. Tight crude output in other shale plays increased by a total of 7 tb/d m-o-m in July to average 0.37 mb/d. The preliminary estimate for August 2018 shows US tight crude has already reached at 6.16 mb/d mark, representing an increase of 86 tb/d, m-o-m.

On a yearly basis, US tight crude for **2018** is forecast to grow by 1.33 mb/d to average 6.03 mb/d, revised up by 0.04 mb/d from last month's assessment. This is partially due to the EIA's revision on historical data. Tight crude production from the Permian Basin is expected to grow by 0.79 mb/d y-o-y and will reach an average of 2.68 mb/d. Permian's share in US tight crude growth in 2018 would be around 58%. It is worth pointing out that year-to-date (Jan-Jul) tight crude production from the Bakken shale play in North Dakota increased by 0.18 mb/d to average 1.19 mb/d. In the same period, tight oil output in the Permian, Eagle Ford and the Niobrara-Codell plays increased, respectively, by 0.85 mb/d to average 2.60 mb/d, 0.11 mb/d to average 1.19 mb/d and 0.12 mb/d to average 0.42 mb/d. (More details on tight crude historical output as well as the forecast for 2018 and 2019 are shown in **Table 5 - 5** below. The combined US unconventional NGLs and tight crude production was 9.25 mb/d and had expected growth of 1.77 mb/d, which constitute a share of 57% of total US liquids production and around 94% of total US supply growth in 2018, respectively.

Table 5 - 5: US tight oil production growth

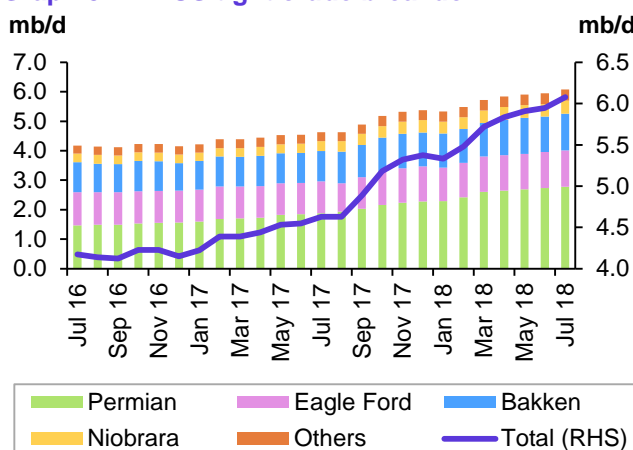
Shale play	2017		2018*		2019*	
tb/d	Production	Y-o-y change	Production	Y-o-y change	Production	Y-o-y change
Permian tight	1.91	0.45	2.68	0.77	3.18	0.50
Bakken shale	1.06	0.03	1.22	0.16	1.41	0.19
Eagle Ford shale	1.09	-0.08	1.27	0.18	1.36	0.09
Niobrara shale	0.34	0.04	0.44	0.10	0.51	0.07
Other tight plays	0.31	0.02	0.42	0.11	0.53	0.11
Total	4.71	0.47	6.03	1.32	6.99	0.96

Note: * 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

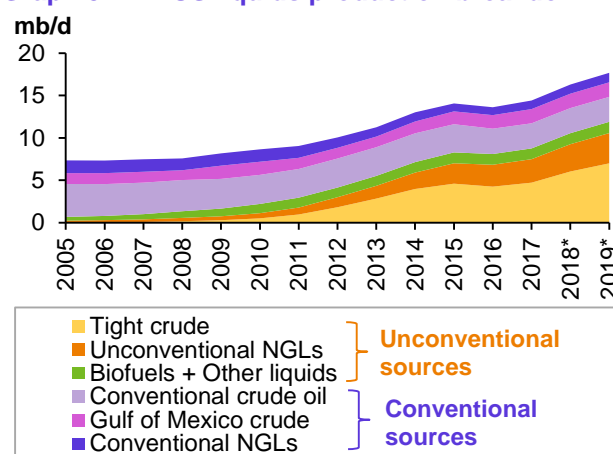
For **2019**, y-o-y growth in US tight crude will occur at a slower pace of 0.96 mb/d to average 6.99 mb/d, due to several fundamental constraints but mainly the limited pipeline capacity to transfer Permian oil to the US Gulf Coast. Tight crude production from the Permian Basin is likely to grow by 0.50 mb/d to average 3.18 mb/d, 37%, or 0.29 mb/d, less growth than expected for the current year. In North Dakota, production growth from Bakken shale is expected to grow at faster pace in 2019, with y-o-y growth of 0.19 mb/d, while lower growth of 0.09 mb/d from Eagle Ford shale is anticipated. For Niobrara and other shale regions, a y-o-y growth of 0.07 mb/d and 0.11 mb/d is forecast, respectively.

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.

US oil rig count

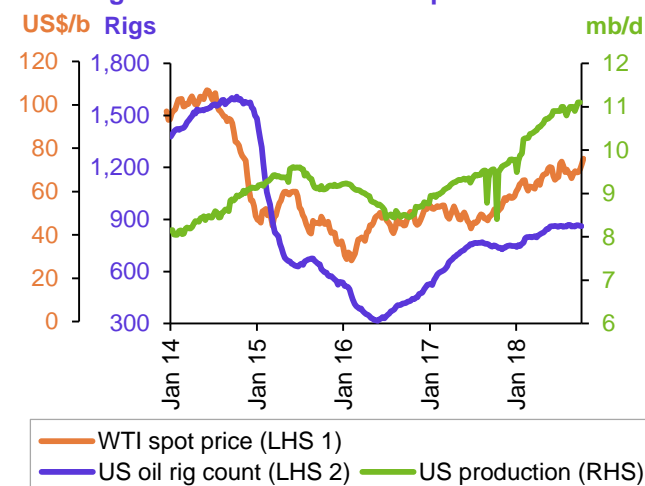
The **total US oil and gas rig count** was down by 2 units w-o-w to 1,052 rigs in the week ending 5 October 2018.

Concerning the **oil and gas split in September**, there was no change in oil rig count m-o-m and it remained constant at 864 rigs while gas rigs increased by 3 units m-o-m to reach 187 rigs. The corresponding y-o-y increase for oil rigs was 113 units or 15%.

Regarding **drilling trajectory**, the number of horizontal rigs (active in oil and gas fields) fell by 3 units w-o-w to reach 919 rigs.

By **basin**, the oil rig count in the Permian Basin rose by 1 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 - 13: The comparison between WTI price, US oil rig count and US crude oil production



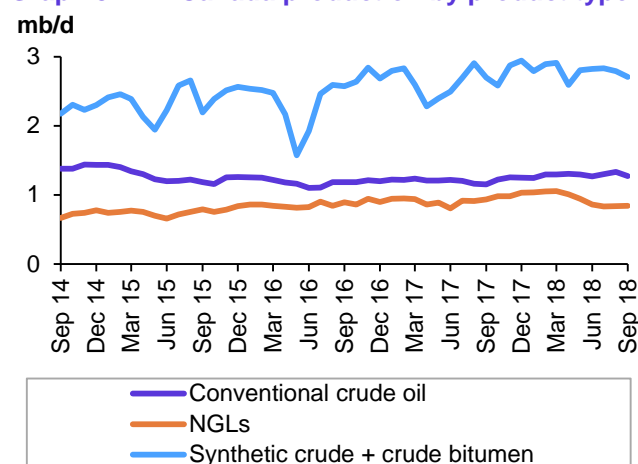
Sources: Baker Hughes, EIA and OPEC Secretariat.

Canada

Canada's liquids supply decreased by 0.09 mb/d m-o-m in June, based on official data, to average 4.99 mb/d, mainly due to decrease in conventional crude oil output by 28 tb/d to average 1.27 mb/d and also NGLs production was down by 86 tb/d to average 0.86 mb/d. In June, production of synthetic crude was increased by 0.12 mb/d m-o-m, after upgraders returned from planned maintenance, although non-upgraded bitumen production was down by 100 tb/d m-o-m. Total average production of Canadian oil sands in June increased by 21 tb/d to 2.86 mb/d. By actual completion data in 2Q18, this quarter's forecast was revised up by 23 tb/d to average 5.0 mb/d, up by 0.51 mb/d y-o-y. Despite decreased production in June, crude exports to the US increased by 21 tb/d compared to May, rising to 3.57 mb/d.

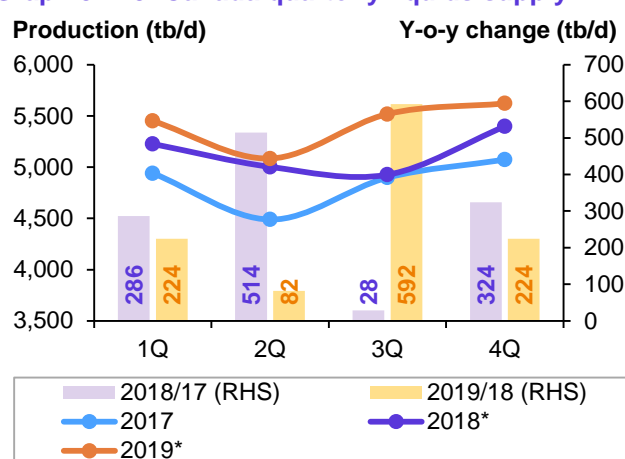
For July, the preliminary indications show more or less a steady production in Canada at 5.0 mb/d compared to June. Oil sands and conventional crude output forecast at 2.87 mb/d and 1.30 mb/d, respectively, while NGLs production is estimated to decline by 24 tb/d to average 0.83 mb/d. Conventional crude output are forecast to increase in July by 31 tb/d, mainly coming from the offshore Hebron field ramp-up. Higher production of conventional crude is expected to offset by lower synthetic production in Mildred Lake and Jackfish.

Graph 5 - 14: Canada production by product type



Source: OPEC Secretariat.

Graph 5 - 15: Canada quarterly liquids supply



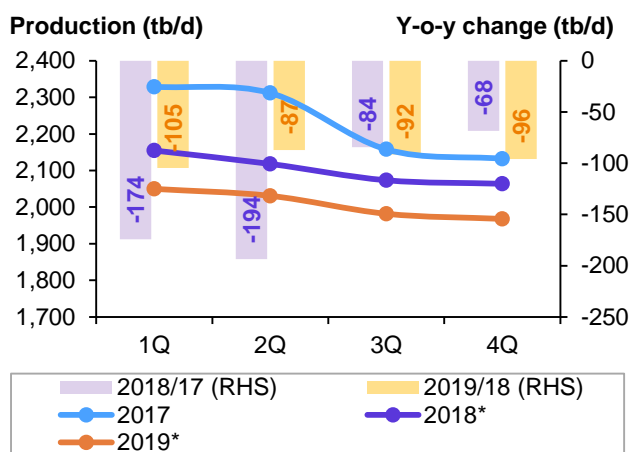
Note: * 2018 and 2019 = Forecast.
Source: OPEC Secretariat.

Canada's liquids supply is expected to increase by 0.29 mb/d y-o-y to average 5.14 mb/d in 2018, indicating an upward revision of 0.02 mb/d following higher-than-expected output in 2Q18, while slightly lower growth of 0.28 mb/d is anticipated next year to reach 5.42 mb/d. Canada is the fourth largest oil producer in the world since 2015.

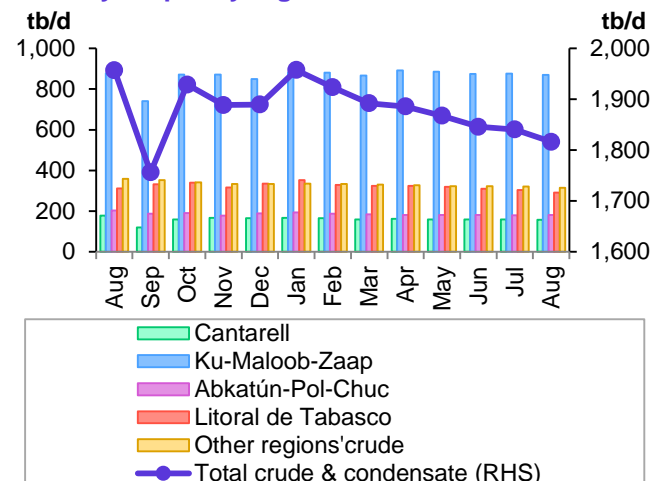
Mexico

Mexico's liquids supply in 2018 is expected to decline by 0.13 mb/d to average 2.10 mb/d, revised down by 0.01 mb/d due to the lower than expected output in July and August, compared with last month's assessment. Average liquids output in July decreased by 35 tb/d to 2.06 mb/d, lower by 0.14 mb/d y-o-y, while crude oil and NGLs down by 24 tb/d and 11 tb/d to average 1.82 mb/d and 0.24 mb/d, respectively.

Graph 5 - 16: Mexico's quarterly liquids supply



Graph 5 - 17: Mexico crude and condensate monthly output by region



Average liquids output for the current year-to-date (eight months) fell by 0.18 mb/d to average 2.12 mb/d compared to the same period a year ago, with the losses mainly seen in light crude, to average 0.59 mb/d, down by 0.12 mb/d. Mexico's total crude output for the current year-to-date dropped by 0.13 mb/d to average 1.87 mb/d, declined by 6.6% y-o-y, while NGLs declined by 15.4% y-o-y to average 0.25 mb/d. In August, Mexico's crude exports, despite decreasing in oil production, rose m-o-m by 26 tb/d to 1.18 mb/d, up by 0.07 mb/d y-o-y due to higher export of heavy Maya while Isthmus exports were cut due to hefty declines. Preliminary production data for September indicates a slightly higher output, rising by 0.01 mb/d to average 2.07 mb/d. Because of this, oil production in 3Q18 is estimated to decline by 0.05 mb/d q-o-q to average 2.07 mb/d. In Mexico, all producing oil fields are in decline except Ku-Maloob-Zaap, which has the highest production at about 0.84 mb/d year-to-date.

The outlook for **Mexico's liquids supply in 2019** indicates a further decline of 0.09 mb/d, revised up by 30 tb/d compared to the previous assessment, with annual average output of 2.01 mb/d.

OECD Europe

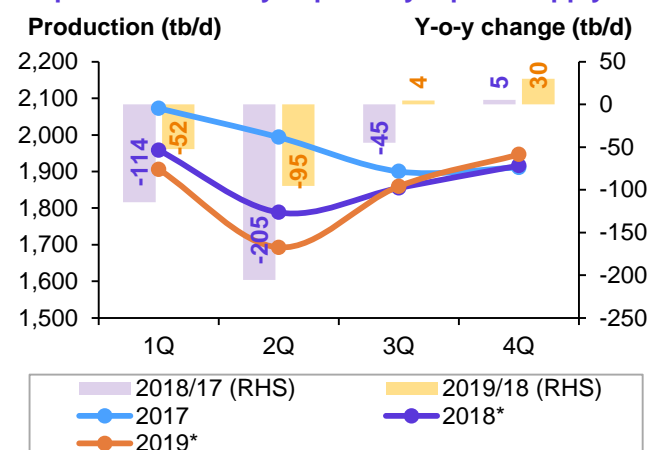
Norway

Norway's oil supply for 2018 is expected to decline by 0.09 mb/d y-o-y to average 1.88 mb/d due to the limited new field start-ups, revised down by 0.01 mb/d from the previous MOMR. Preliminary production figures for August 2018 show average daily production of 1.87 mb/d of crude, NGLs and condensate, indicating a decrease of 0.04 mb/d m-o-m. Liquids production in August declined by 0.05 mb/d y-o-y and the total year-to-date output is 1.88 mb/d, showing a decline of 0.14 mb/d or 6.9%.

In August, crude oil output was down by 23 tb/d m-o-m to average 1.50 mb/d and was also lower by 51 tb/d y-o-y. NGLs output also declined by 19 tb/d to average 0.37 mb/d, more or less the same level as in August 2017. According to the NPD, production in August fell below forecast levels due to technical problems at some fields and oil production is approximately 0.2% lower than the NPD's forecast for August, and about 3.5% below the forecast this year.

In 1H18, crude oil output from the Troll, Ekofisk, Oseberg, Alvheim, Gudrun, Heidrun, Eldfisk, Skarv, Asgard and other small fields declined. For September the forecast is lower production of crude oil at 1.43 mb/d.

Graph 5 - 18: Norway's quarterly liquids supply



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

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 1.85 mb/d. The natural decline in mature fields will be partially offset by expansions in the Martin Linge and Oseberg fields.

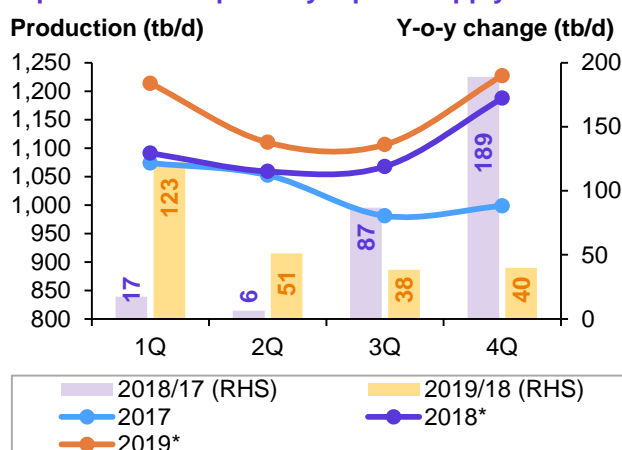
UK

UK oil supply is projected to rise by 0.08 mb/d y-o-y to average 1.10 mb/d in 2018. UK liquids production in August 2018 was down by 0.03 mb/d m-o-m to average 1.02 mb/d, 0.10 higher than in July 2017, due to less maintenance.

Crude oil output in August accounted for 0.86 mb/d, down by 33 tb/d compared with a month earlier but up by 45 tb/d, y-o-y. NGLs output in August grew m-o-m by a minor 4 tb/d to average 126 tb/d, up by 45 tb/d y-o-y. Production of non-conventional liquids in the UK, mainly biofuels, continued to hold at 31 tb/d in August. The forecast for crude oil production performance during the last eight months of 2018 was lower than originally thought, mainly due to heavy maintenance. The m-o-m decline in August was due to maintenance at Elgin Franklin, ETAP, Pierce and Thistle, and the brief shut-in of the Graben export line. The average year-to-date crude oil output is estimated at 919 tb/d, 16 tb/d higher than the same period a year ago.

For September, two weeks of maintenance at Buzzard field with production capacity of 0.14 mb/d led to halted production there of 0.14 mb/d. The oil supply forecast for 2018 was revised down by a minor 4 tb/d to average 1.10 mb/d, representing y-o-y growth of 0.08 mb/d.

Graph 5 - 19: UK quarterly liquids supply



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

Production ramp-ups in 2019 are expected to come from the Catcher field, Western Isles, Clair Ridge, Beryl, Mariner and Quad 204 WoS. The liquids supply in 2019 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 crude oil production** in August declined by 55 tb/d to average 68 tb/d. This led to a downward revision in the liquids supply forecast by 27 tb/d in 3Q18 to average 0.10 mb/d. As the result, absolute oil supply in 2018 was revised down by 7 tb/d in 2018 and 2019 to average 0.12 mb/d and 0.11 mb/d, respectively, representing a y-o-y decline of 0.02 mb/d and 0.01 mb/d.

Developing Countries

Total oil supply of developing countries (DCs) for 2018 is expected to reach an average of 11.50 mb/d, revised up by 0.03 mb/d in absolute supply. This followed an upward revision in historical biofuel supply and an upward revision in Colombia's production in 3Q18, compared with last month's assessment, representing growth of 0.02 mb/d for DCs. While production is expected to increase in Latin America by 0.07 mb/d to average 5.22 mb/d, and in Africa by 0.03 mb/d to average 1.54 mb/d, a y-o-y decline of 0.07 mb/d is anticipated for Other Asia to average 3.51 mb/d and steady oil production at 1.23 mb/d is anticipated in the Middle East.

For **2019**, growth of 0.38 mb/d is anticipated for DCs' oil supply due to ongoing field development in Latin America, particularly Brazil, to average 11.89 mb/d. The oil supply forecast next year for DCs sees an increase in Latin America and Africa, while oil supply in Other Asia and the Middle East will decline. Oil supply in Latin America is forecast to grow by 0.36 mb/d to average 5.58 mb/d, while in Africa it is expected to add 0.06 mb/d to average 1.60 mb/d. In the Middle East and other Asia, supply will decline by 0.01 mb/d to average 1.22 mb/d and by 0.04 mb/d, respectively, to average 3.48 mb/d.

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

	1Q	2Q	3Q	4Q	Yearly	Change Y-o-y
2017	11.53	11.46	11.45	11.49	11.48	-0.04
2018*	11.45	11.50	11.41	11.65	11.50	0.02
2019*	11.74	11.79	11.87	12.14	11.89	0.38

Note: * 2018 and 2019 = Forecast.

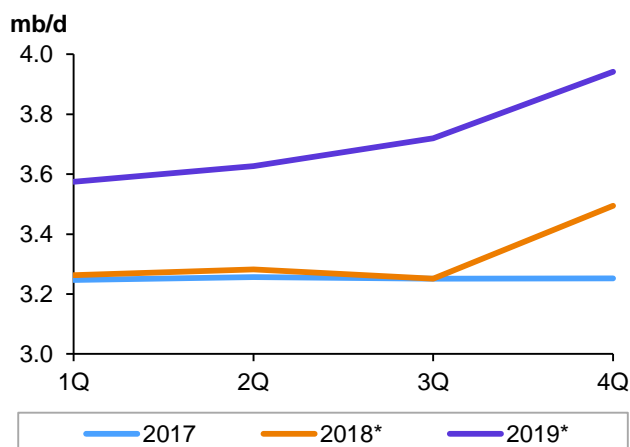
Source: OPEC Secretariat.

Latin America

Brazil

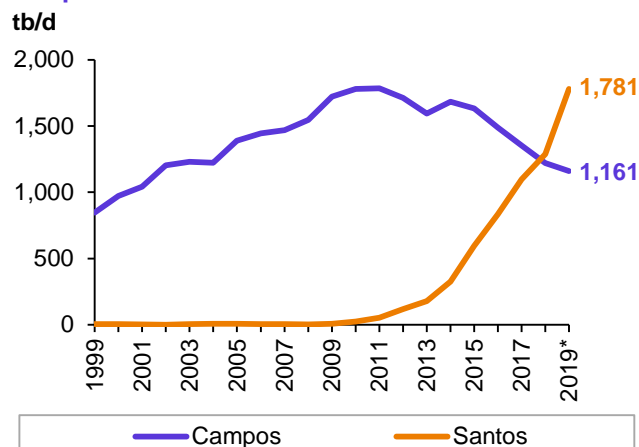
According to official data, **Brazil's crude oil output** fell by 15 tb/d to average 2.58 mb/d in July, lower by 48 tb/d y-o-y. The preliminary forecast estimates a further reduction of 49 tb/d (mainly from Santos pre-salt output) to average 2.53 mb/d in August but for September crude oil output is likely to reach 2.59 mb/d.

According to the *Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (ANP)*, in August, production of crude oil in Lula field in the Santos Basin declined by 0.08 mb/d to average 0.8 mb/d following maintenance at two FPSOs – Cidade de Angra dos Reis and Cidade de Maricá – which led to reduction of pre-salt production to 1.37 mb/d. In August, the production ramp-up of Tartaruga Verde field in the Campos Basin was increased to 24 tb/d. However, total production of this basin, following maintenance at P-31 and P-25 both in the Albacora field, declined compare to July's level. Brazil's liquids production in all quarters of 2018 was revised up by 46 tb/d owing to the revisions of historical ethanol production since 1Q16. However, the oil supply forecast in 3Q18 was revised down by 81 tb/d to average 3.25 mb/d. Hence, oil supply in 2018 is forecast to grow by 0.07 mb/d y-o-y to average 3.32 mb/d. For the next year, liquids supply is expected to rise by 0.39 mb/d to average 3.72 mb/d.

Graph 5 - 20: Brazil's quarterly liquids supply, 2016-2018

Note: * 2018 and 2019 = Forecast.

Source: OPEC Secretariat.

Graph 5 - 21: Brazil's crude oil production in Campos and Santos Basins

Note: * 2018 and 2019 = Forecast.

Source: Rystad Energy and OPEC Secretariat.

FSU

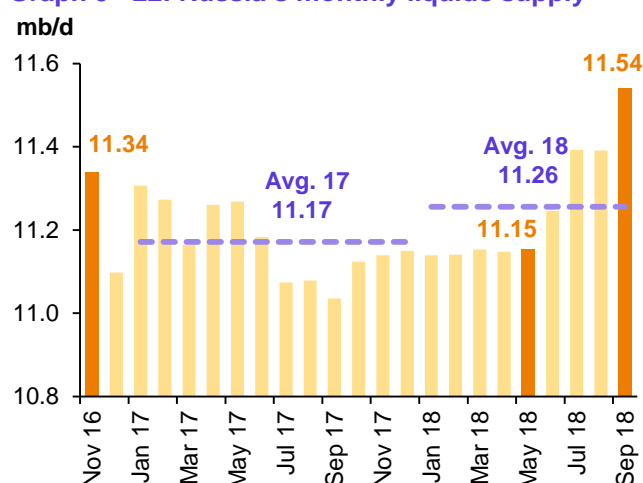
FSU oil production for 2018 is expected to grow by 0.08 mb/d to average 14.13 mb/d, revised up by 28 tb/d from the previous forecast. Oil production in Russia and Kazakhstan is estimated to grow by 0.02 mb/d and 0.09 mb/d to average 11.19 mb/d and 1.82 mb/d, respectively. Azeri oil production is expected to remain stagnant y-o-y at 0.80 mb/d while oil supply from FSU others will decline by 0.02 mb/d to average 0.32 mb/d.

For **2019**, FSU's oil supply is estimated to grow by 0.03 mb/d to average 14.15 mb/d, mainly coming from Kazakhstan (0.06 mb/d). Azerbaijan and FSU Others are expected to see contractions of 0.01 mb/d and 0.02 mb/d, respectively, while oil supply in Russia is likely to remain unchanged y-o-y at 11.19 mb/d.

Russia

Russia has hit a new post-Soviet record for oil production in September, an increase of 0.15 mb/d from the previous month, to average 11.54 mb/d, according to preliminary estimates. Previously, Russia's liquids supply stood at 11.39 mb/d in July and August, according to estimates from secondary sources.

Consequently, Russia's oil supply for 3Q18 has been revised up by 141 tb/d to average 11.44 mb/d, and is thus expected to average 11.19 mb/d for 2018, representing y-o-y growth of 0.02 mb/d.

Graph 5 - 22: Russia's monthly liquids supply

Source: OPEC Secretariat.

The preliminary estimate of Russia's liquids supply for 3Q18 indicates growth of 0.26 mb/d q-o-q to average 11.44 mb/d, up by 0.38 mb/d compared to same quarter in 2017. Russian companies have begun to increase their production. The largest increase has come from Rosneft through an increase in production in Yuganskneftegaz by adding 60 tb/d, the same volume as they increased in August, followed by incremental output from one of the PSA's projects. Rosneft, the country's leading state-controlled producer, by the middle September had pumped about 102 tb/d above its October 2016 level. Surgutneftegas was 16 tb/d above the same baseline, while Tatneft added nearly 7 tb/d.

For **2019**, Russia is assumed to maintain the current estimate of average production of 2018 at 11.19 mb/d. In 2019, Russian oil companies have the potential to increase production further through greenfield development. Incremental production of oil, NGLs and condensate could come from several projects, such as Uvat, East-Siberian, Vankorneft, Messoyakha and Yamal LNG. However, new incremental production will be partially offset by declines occurring in mature fields.

Caspian

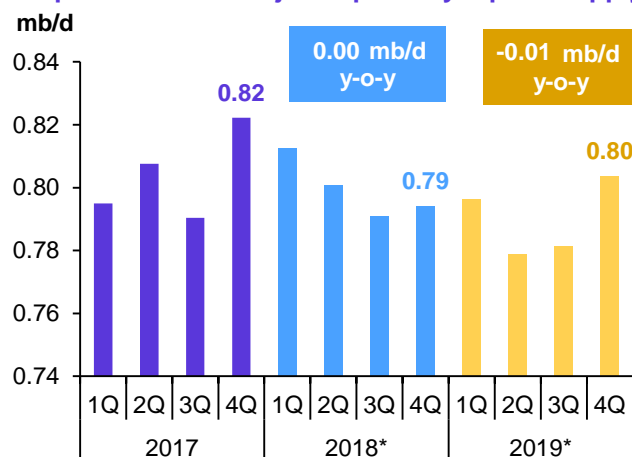
Azerbaijan

Azerbaijan's liquids output in August remained unchanged m-o-m at average 0.79 mb/d, but production in September is estimated to rise to 0.80 mb/d, according to preliminary production data.

Crude oil output from the ACG complex (Azeri-Chirag-Guneshli fields) offshore Azerbaijan rose slightly during the first half of the year to 596 tb/d, according to Nefte Compass. Annual declines in the Chirag and deepwater Guneshli fields have been compensated by growth in the Azeri field. Azerbaijan's liquids production averaged 0.80 mb/d in the first eight months of 2018, which indicates a stagnant output y-o-y.

The country's oil supply in 2018 is expected to remain unchanged at 0.80 mb/d. For 2019, oil production in Azerbaijan is forecast to decrease further by 0.01 mb/d to average 0.79 mb/d.

Graph 5 - 23: Azerbaijan's quarterly liquids supply



Kazakhstan

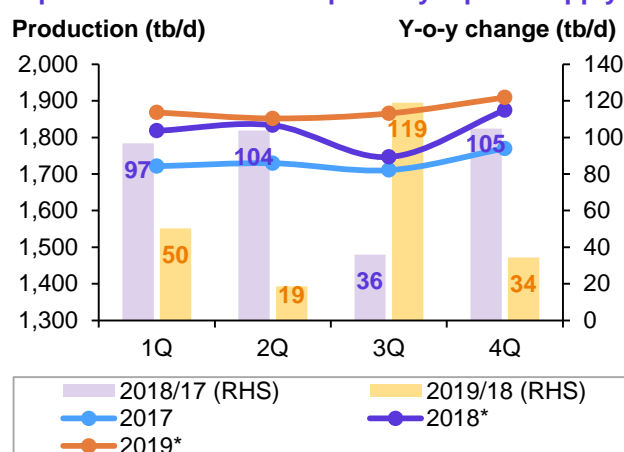
In **Kazakhstan**, the liquids output in August decreased by 0.17 mb/d to average 1.67 mb/d, with crude oil output dropping by 173 tb/d to average 1.40 mb/d. Preliminary production data shows oil output in September up by 0.06 mb/d to average 1.73 mb/d.

According to actual production data in the first eight months of the year (January to August), liquids production rose by 90 tb/d, or 5.2%, to average 1.81 mb/d, compared with the same period in 2017. Growth was driven mainly by the Kashagan field.

For **2018**, the Kazakhstan's average annual output is expected to grow by 0.09 mb/d to reach 1.80 mb/d, revised down by 0.02 mb/d from the previous month.

In **2019**, the oil supply is forecast to grow by 0.06 mb/d to reach 1.87 mb/d, due to the ongoing Kashagan field ramp-up.

Graph 5 - 24: Kazakhstan quarterly liquids supply

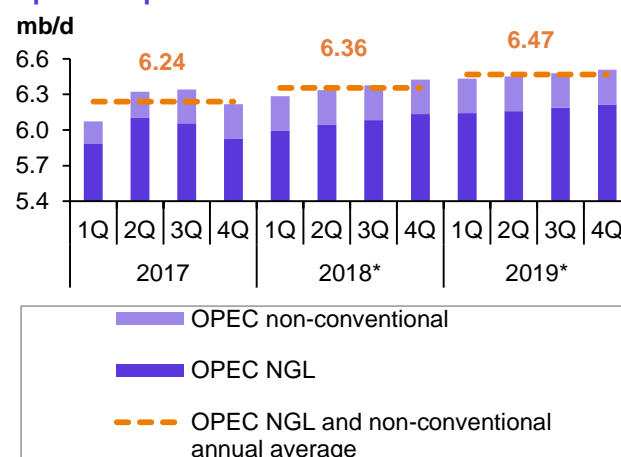


OPEC NGL and non-conventional oils

OPEC NGL and non-conventional liquids output is expected to grow, respectively, by 0.12 mb/d to average 6.36 mb/d in 2018 and by 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 - 25: 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

	<u>2016</u>	<u>2017</u>	<u>Change</u> <u>17/16</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018*</u>	<u>Change</u> <u>18/17</u>	<u>2019*</u>	<u>Change</u> <u>19/18</u>
Total OPEC	6.15	6.24	0.09	6.29	6.34	6.38	6.43	6.36	0.12	6.47	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 32.76 mb/d in September, an increase of 132 tb/d over the previous month. Crude oil output increased mostly in Saudi Arabia, Libya and Angola, while production declined in Iran, I.R., Venezuela and Algeria.

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

	<u>2016</u>	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Sep 18</u>	<u>Sep/Aug</u>
Algeria	1,090	1,043	1,014	1,024	1,056	1,061	1,057	1,049	-8
Angola	1,718	1,634	1,562	1,490	1,474	1,443	1,462	1,519	57
Congo	216	252	306	324	314	316	313	312	-1
Ecuador	545	530	515	519	529	525	531	531	0
Equatorial Guinea	160	133	134	127	124	124	126	124	-2
Gabon	221	200	195	187	187	187	188	187	-1
Iran, I.R.	3,515	3,813	3,817	3,818	3,599	3,747	3,597	3,447	-150
Iraq	4,392	4,446	4,441	4,480	4,618	4,563	4,642	4,650	8
Kuwait	2,853	2,708	2,704	2,708	2,804	2,793	2,806	2,812	6
Libya	390	817	991	889	890	673	950	1,053	103
Nigeria	1,556	1,658	1,780	1,653	1,704	1,643	1,722	1,748	26
Qatar	656	607	593	602	617	616	618	616	-2
Saudi Arabia	10,406	9,954	9,949	10,114	10,425	10,363	10,404	10,512	108
UAE	2,979	2,915	2,850	2,873	2,979	2,960	2,974	3,004	30
Venezuela	2,154	1,911	1,545	1,382	1,236	1,273	1,239	1,197	-42
Total OPEC	32,851	32,623	32,394	32,190	32,557	32,288	32,629	32,761	132

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>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Sep 18</u>	<u>Sep/Aug</u>
Algeria	1,146	1,059	1,004	1,025	1,066	1,064	1,062	1,072	10
Angola	1,722	1,632	1,519	1,477	1,475	1,455	1,481	1,489	8
Congo	225	263	320	334	..	..	..	..	..
Ecuador	549	531	512	516	524	523	530	519	-12
Equatorial Guinea	..	129	127	124	118	119	113	123	10
Gabon	229	210	192	185	..	190	188	..	..
Iran, I.R.	3,651	3,867	3,811	3,804	3,789	3,806	3,806	3,755	-51
Iraq	4,648	4,469	4,360	4,360	4,460	4,460	4,460	4,460	0
Kuwait	2,954	2,704	2,702	2,704	2,784	2,800	2,800	2,752	-48
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,427	1,536	1,611	1,526	1,638	1,530	1,670	1,717	47
Qatar	652	600	594	600	601	619	612	570	-42
Saudi Arabia	10,460	9,959	9,942	10,128	10,399	10,288	10,412	10,502	90
UAE	3,088	2,967	2,841	2,876	2,998	2,975	2,972	3,050	78
Venezuela	2,373	2,035	1,623	1,523	1,451	1,469	1,448	1,434	-14
Total OPEC	..	..	..	..	..	..	..	..	..

Notes: .. Not available.

Totals may not add up due to independent rounding.

Source: OPEC Secretariat.

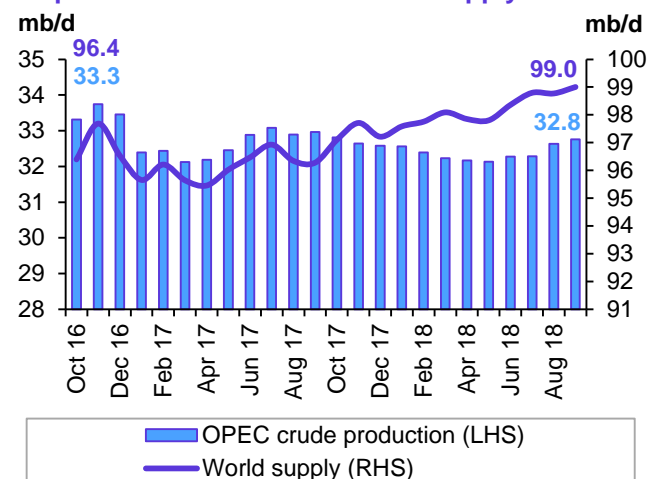
World oil supply

Preliminary data indicates that **global oil supply** increased by 0.23 mb/d to average 99 mb/d in September 2018, compared with the previous month.

An increase in non-OPEC supply (including OPEC NGLs) of 0.10 mb/d compared to the previous month in September was mainly driven by Latin America. Along with a rise in OPEC crude oil production of 0.13 mb/d in September, this equates to a total increase in global oil output by 2.72 mb/d, y-o-y.

The **share of OPEC crude oil in total global production** increased by 0.1 pp to 33.1% in September 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 - 26: OPEC and world oil supply



Source: OPEC Secretariat.

Product Markets and Refinery Operations

Refinery margins in all the main trading hubs weakened in September due to demand side pressure amid some backlash from nature, namely prevailing droughts in Europe, the landfall of the powerful Mangkhut typhoon in southern China and Hurricane Florence in the southeastern US, despite the onset of peak refinery maintenance season.

In the **US**, high refinery runs have kept product inventories well supported fuelling bearish sentiment in the product market.

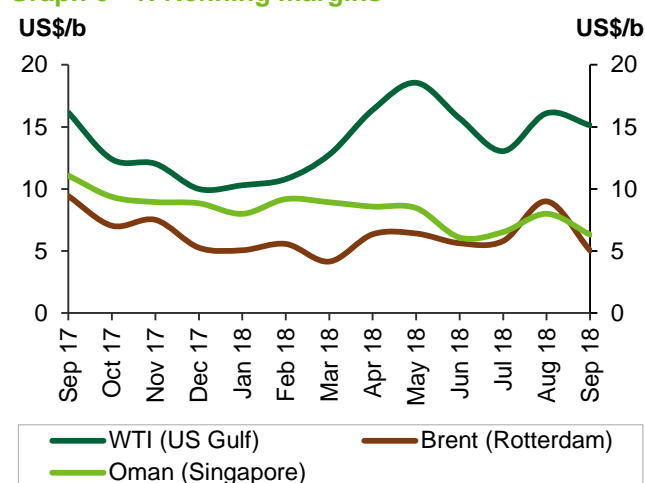
In **Europe**, product markets lost ground mostly pressured by gasoline, naphtha and fuel oil weakness, and high feedstock costs despite support from planned and unplanned outages reported during the month.

In **Asia**, losses were more limited compared with other markets as support from rising retail fuel prices amid a tightening gasoil market was offset by considerable pressure from the top and bottom of the barrel.

Refinery margins

US refinery margins dipped in September as seasonally lower gasoline demand along with high refinery runs witnessed in early September weighed on the performance of product markets. On the other hand, the positive performance recorded at the middle of the barrel -- driven by lower than expected gasoil inventory levels -- proved to be insufficient to overturn the overall negative outcome. Unlike last year, the peak of hurricane season did not inflict any major product output disruptions in September, although the landfall of Hurricane Florence may have exerted further pressure on products consumption in some areas of the southeastern coast as a result of the devastations. US refinery margins for WTI averaged \$15.13/b in September, down by 97¢ m-o-m and by \$1.02 y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus Media and OPEC Secretariat.

Product markets in **Europe** weakened and saw losses all across the barrel, mostly pressured by severe gasoline weakness. Meanwhile, a focus on diesel production, given the high feedstock prices witnessed over the month, contributed to further pressure as refineries with medium complexity struggled to make profits and saw refinery margins enter negative territory. Furthermore, product stock builds amid volume flow restrictions to the inland markets due to low water levels in the Rhine River, despite support from planned and unplanned outages registered during the month, further contributed to the negative performance witnessed all across the barrel. Refinery margins for Brent in Europe averaged \$5.04/b in September, down by \$3.96 compared to a month earlier and by \$4.38 y-o-y.

The **Asian** refinery margins lost some ground as pressure from lengthening naphtha and fuel oil balances amid modest gasoline demand weighed on the regional product market. In addition, incremental gasoline output and spot delivery offers from the new Nghi Son refinery were reported to have pressured South Korean exports to Vietnam, further contributing to a product oversupply environment in that region. On the other hand, gasoil prices hit a multi-year record high, exacerbated by gasoil market tightness in the region on the back of peak autumn maintenance season, as lower refinery intakes in Japan, Indonesia and India contributed to a reduction in gasoil output. In addition, the short-term suspension of operations and air travel in China, and devastation in the Philippines caused by the landfall of what was considered the world's

strongest storm of the year, Typhoon Mangkhut, further contributed to losses. Refinery margins for Oman in Asia lost \$1.68 m-o-m to average \$6.32/b in September, which was lower by \$4.75 y-o-y.

Refinery operations

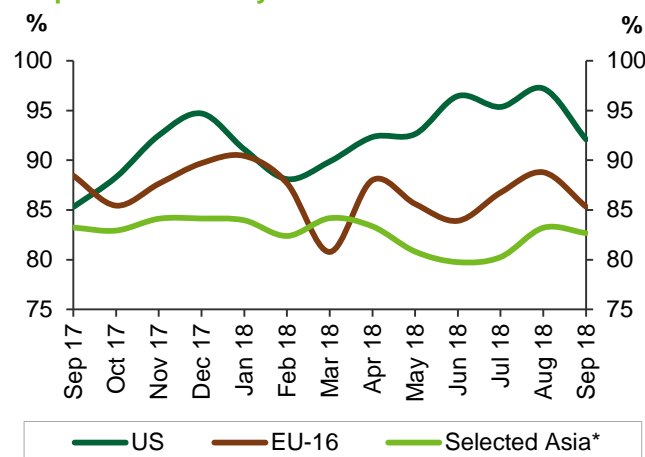
In the **US**, refinery utilization rates declined in September to average 92.09%, which corresponds to a throughput of 17.2 mb/d. This represented a drop of 5.1 pp and 920 tb/d, respectively, compared with the previous month. Y-o-y, the September refinery utilization rate was up by 6.8 pp, with throughputs showing a rise of 1.3 mb/d.

European refinery utilization averaged 85.32%, corresponding to a throughput of 10.41 mb/d. This is a m-o-m decline of 3.5 pp and 420 tb/d, respectively. On a y-o-y basis, it is down by 3.1 pp and 371 tb/d.

In selected **Asia** - comprising Japan, China, India and Singapore - refinery utilization rates declined as well, averaging 82.67% in September, corresponding to a throughput of 21.3 mb/d. Compared to the previous month, throughputs were down by 0.5 pp and 140 tb/d, while y-o-y they were down by 0.6 pp and up by 29 tb/d.

Looking forward, refinery throughputs are expected to continue under pressure in the coming month as peak autumn maintenance season continues to unfold. Total offline volumes due to scheduled refinery maintenance in October are expected to reach 6.2 mb/d compared with 6.1 mb/d in September. Of this total volume, the US and Asia make up for the majority, accounting for 25.5% and 19.5%, respectively.

Graph 6 - 2: Refinery utilization rates



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

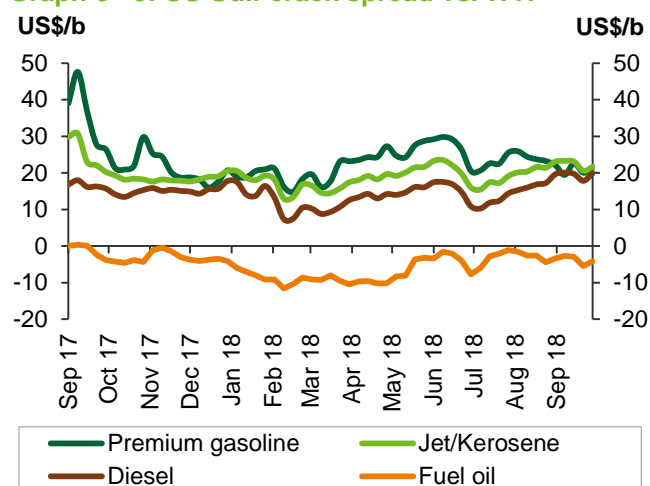
Product markets

US market

The **US gasoline** market over the course of the month was rather disappointing, and exhibited significant losses compared with the previous month. On a wider spectrum, the gasoline market performance was even more alarming compared with the strong positive performance observed last year driven by product disruptions and heavy peak maintenance season. Gasoline crack spreads declined in September in response to the 1.1 mb uptick in stock levels registered as of the week ended 21 September.

Additional pressure most likely emerged from the RVP switch as gasoline prices adjusted in response to the changes in gasoline's vapour pressure specifications which tend to be less stringent during the winter months, which allows for the addition of higher octane booster blending components. Thus, higher final volumes result in slight downward pressure on gasoline prices during the winter months.

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



Sources: Argus Media and OPEC Secretariat.

Product Markets and Refinery Operations

Although this development represents a loss with regards to crack spreads in the immediate short-term, it is viewed as a supporting factor theoretically in the months to come as a lower gasoline retail price could serve as an incentive for consumption. In the last four years, the average price drop from summer to winter grade was estimated at \$8.20/b. In September, the US gasoline crack spread against WTI averaged \$21.08/b, down by \$2.53 m-o-m and a hefty \$13.75/b y-o-y.

The **US Gulf Coast (USGC) jet/kerosene market** strengthened slightly, supported by bullish market sentiment which was fuelled by expectations of lower jet fuel production amid anticipation of a pick-up in demand for last minute air travellers as the driving season comes to an end. This positive outcome came despite a considerable stock build of 4.6 mb reaching a 7-year high of 46.6 mb. In the near term, jet/kerosene cracks are expected to remain on the low side, and consumption from the aviation sector eases up, according to past trends. The US jet/kerosene crack spread against WTI averaged \$22.18/b, up by 77¢ m-o-m but lower by \$1.97 y-o-y.

US gasoil crack spreads exhibited the strongest performance during the month compared to all other key products. During the first three weeks of the month, a strong inventory stock build up was recorded. However, the negative effect of this development was offset by an uptick in gasoil drawdowns in the last week of the month. At the same time, higher diesel deliveries to Europe, which reached their highest level since January, contributed to the upside.

Additional support came from the narrower gasoline/diesel spread, as diesel prices rose by \$4.50 compared to a month earlier and by \$23.28 y-o-y on a barrel basis. Despite the observed support recorded at the initial stages of this development, in the long-term, gasoil cracks could come under pressure as truckers and passenger vehicle consumers adjust to rising diesel costs and seek ways to reduce costs. The US gasoil crack spread against WTI averaged \$19.43/b, up by \$2.29 m-o-m and higher by \$2.79 y-o-y.

US fuel oil crack spreads against WTI in September reversed trends and fell to a four-month low, pressured by a lengthening balance which reflected on the stock levels rise witnessed over the course of the month. In September, the US fuel oil crack spread against WTI averaged minus \$3.79/b, down by 65¢ m-o-m and by \$2.46 y-o-y.

European market

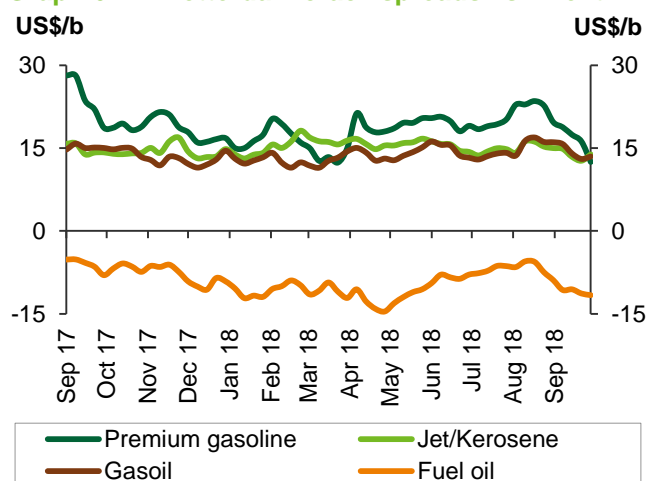
The **gasoline crack spreads** in Rotterdam embarked on a steep downward trajectory attributed to gasoline stock builds in the Atlantic Basin. This fuelled bearish sentiment in the market and led to sharp losses registered during the month. With the driving season now behind us, and seasonally lower gasoline demand, little potential for a considerable upturn is to be expected in the near term once the peak autumn maintenance season is over.

The gasoline crack spread against Brent averaged \$16.23/b in September, down by \$6.18 m-o-m and by \$7.27 y-o-y.

The **jet/kerosene market** weakened but managed to keep losses capped as jet/kerosene cracks fell albeit by the lowest extent compared to all other products across the barrel in the European market. The Rotterdam jet/kerosene crack spread against Brent averaged \$13.71/b, down by \$1.65 m-o-m and by 94¢ y-o-y.

The **gasoil crack spreads** lost ground pressured by larger than expected ARA and US stock builds. Furthermore, gasoil deliveries to German ports were reported to have increased by 51% in the week ended 24 September. This may have contributed to the poor performance observed in September. Meanwhile, prevailing low water levels in the Rhine River continue to pose challenges to the gasoil market as flows to the

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus Media and OPEC Secretariat.

inland regions remain restricted. However, looking forward, some support is expected as the peak autumn maintenance season could exert pressure on stock levels in the near term. Brent averaged \$14.06/b, which was lower by \$1.83 m-o-m and by \$1.20 y-o-y.

At the bottom of the barrel, the **fuel oil 3.5% crack spread** dropped steeply in reflection of the rising Brent crude oil price. The poor performance was attributed to declining demand amid a lengthening European fuel oil market as stock builds fuelled bearish sentiment. In the near term, demand is expected to remain weak, therefore fuel oil cracks most likely will remain under pressure. In Europe, fuel oil cracks averaged minus \$14.08/b in September, losing \$4.07 m-o-m, and \$5.01 y-o-y.

Asian market

The **Asian gasoline 92 market** remained flat in September as losses resulting from weaker regional demand were offset by gains attributed to robust exports from the region.

Further support came from additional volume requirements from Japan, Indonesia and India as refinery intakes in these countries fell due to outages, prompting lower product output.

In addition, the Singapore gasoline crack spread against Oman averaged \$10.29/b, marginally up by 32¢ m-o-m but down by \$3.75 y-o-y.

The Singapore light **distillate naphtha crack spreads** weakened over the course of the month as relative oversupply in the region drove the market structure on a deep contango. Furthermore, the onset of steam cracker maintenance across the region resulted in lower naphtha demand, a factor which further weighed on cracks. The Singapore naphtha crack spread against Oman averaged \$1.83/b, having declined by \$1.12 m-o-m and by \$3.52 y-o-y.

The **jet/kerosene** excess supplies in North Asia and Singapore weighed on cracks on the back of ample volume arrivals from South Korea and India. The weakness was further exacerbated by healthy jet fuel inventory levels in the US which lead to closed arbitrage opportunities to that country.

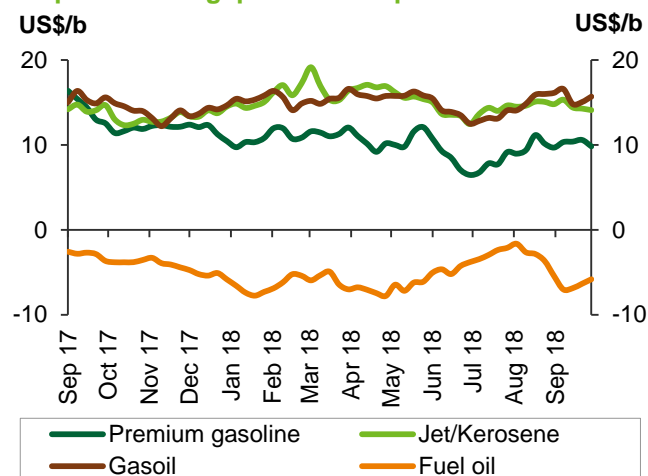
Declining travel demand from the aviation sector in the northern hemisphere will most likely keep gains limited, which will be partly offset by kerosene related support from space heating requirements in the coming months. The Singapore jet/kerosene crack spread against Oman averaged \$14.53/b, slightly down by 31¢ m-o-m and marginally down by 4¢ y-o-y.

Asian **gasoil crack spreads** strengthened slightly over the month as gasoil prices averaged \$93.38/b, reaching a multi-year record high, up by \$24.23/b compared to a year earlier. This lent some support on cracks.

The Asian market tightness witnessed in September along with the maintenance related refinery outages prompted flows originating in India and the Middle East to be diverted to Singapore instead of Europe. As a result, gasoil deliveries to Europe were estimated to have dropped by half compared with a month earlier. The Singapore gasoil crack spread against Oman averaged \$16.16/b, slightly up by 62¢ m-o-m and by 42¢ y-o-y.

The Singapore **fuel oil market** remained well supplied by firm deliveries coming from the West of Singapore and Europe. This, coupled with the lengthening balance on a global level amid declining demand from Pakistan, contributed to the negative performance recorded over the month. The Singapore fuel oil cracks against Oman, averaged minus \$6.50/b, down by \$3.15 m-o-m and by \$3.71 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus Media and OPEC Secretariat.

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

<u>Event</u>	<u>Time frame</u>	<u>Asia</u>	<u>Europe</u>	<u>US</u>	<u>Observations</u>
Winter season outlook	Oct 18 – Dec 18	<p>↓ Low impact on product markets</p> <p>Dependent on industrial activity, petrochemical and transportation sectors</p>	<p>↓ High impact on product markets</p> <p>Dependent on transport and weather</p>	<p>↓ High impact on gasoline markets</p> <p>Dependent of weather developments and heating oil requirements</p>	<p>Weakening expected on declining gasoline demand in the US, along with declining gasoil demand in Europe.</p> <p>Product markets will be largely dependent on exports to non-OECD driven by economic growth.</p> <p>Refinery runs may come under pressure.</p>
End of peak autumn maintenance season	Nov 18	<p>↓ High impact on product markets</p>	<p>↓ High impact on product markets</p>	<p>↓ High impact on product markets</p>	<p>Stock build ups (some products), along with higher product output as refineries resume operations may exacerbate product oversupply. Therefore, refinery runs may come under pressure.</p>

Source: OPEC Secretariat.

Table 6 - 2: Refinery operations in selected OECD countries

	<i>Refinery throughput, mb/d</i>				<i>Refinery utilization, %</i>			
	<u>Jul 18</u>	<u>Aug 18</u>	<u>Sep 18</u>	<u>Change Sep/Aug</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Sep 18</u>	<u>Change Sep/Aug</u>
US	17.74	18.08	17.16	-0.92	95.35	97.21	92.09	-5.1 pp
Euro-16*	10.58	10.83	10.41	-0.42	86.75	88.79	85.32	-3.5 pp
France*	1.18	1.28	1.18	-0.11	94.58	102.48	93.99	-8.5 pp
Germany*	1.90	1.86	1.80	-0.06	86.65	85.01	82.05	-3.0 pp
Italy*	1.33	1.39	1.35	-0.04	64.91	67.89	65.81	-2.1 pp
UK*	1.09	1.04	0.93	-0.10	82.94	78.90	71.06	-7.8 pp
Selected Asia**	20.67	21.43	21.29	-0.14	80.26	83.21	82.67	-0.5 pp

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*
Total OECD	37.71	37.49	38.18	38.49	38.34	37.68	37.76	39.15
OECD Americas	19.00	18.78	19.09	19.02	18.99	18.79	19.51	20.08
of which US	16.43	16.51	16.88	16.89	17.01	16.75	17.50	17.66
OECD Europe	12.11	11.94	12.27	12.66	12.40	11.93	11.83	12.36
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	1.85
Italy	1.35	1.30	1.40	1.48	1.45	1.35	1.33	1.35
UK	1.14	1.09	1.10	1.13	1.09	0.93	1.04	1.02
OECD Asia Pacific	6.60	6.78	6.82	6.80	6.95	6.97	6.43	6.72
of which Japan	3.26	3.28	3.23	3.24	3.19	3.33	2.85	3.07
Total Non-OECD	40.59	41.26	42.00	42.01	42.97	42.54	43.01	43.77
of which:								
China	10.44	10.77	11.35	11.27	11.92	11.75	11.86	11.83
Middle East	6.69	6.91	7.04	7.12	7.20	6.99	7.12	7.46
Russia	5.64	5.58	5.59	5.62	5.64	5.78	5.78	5.84
Latin America	4.89	4.54	4.39	4.37	4.35	4.23	4.27	4.27
India	4.56	4.93	4.98	4.82	5.21	5.19	5.05	4.99
Africa	2.14	2.19	2.16	2.20	2.09	2.11	2.08	2.22
Total world	78.30	78.75	80.18	80.50	81.31	80.22	80.77	82.93

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.

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

	Aug 18	Sep 18	Change Sep/Aug	2017	Year-to-date 2018
US Gulf (Cargoes FOB):					
Naphtha*	74.20	76.17	1.97	55.09	71.25
Premium gasoline (unleaded 93)	91.60	91.28	-0.32	74.42	89.61
Regular gasoline (unleaded 87)	87.67	85.73	-1.94	68.57	83.94
Jet/Kerosene	89.40	92.38	2.98	66.07	86.02
Gasoil (0.2% S)	85.13	89.63	4.50	62.31	81.24
Fuel oil (3.0% S)	62.63	65.15	2.52	47.05	60.20
Rotterdam (Barges FoB):					
Naphtha	70.82	74.71	3.89	53.66	68.62
Premium gasoline (unleaded 98)	95.01	95.03	0.02	75.13	90.28
Jet/Kerosene	87.96	92.51	4.55	66.84	87.31
Gasoil/Diesel (10 ppm)	88.49	92.86	4.37	66.35	85.90
Fuel oil (1.0% S)	65.73	67.75	2.02	48.71	62.14
Fuel oil (3.5% S)	62.59	64.72	2.13	44.31	59.02
Mediterranean (Cargoes FOB):					
Naphtha	70.61	74.54	3.93	52.81	68.06
Premium gasoline**	87.78	87.41	-0.37	66.56	82.28
Jet/Kerosene	86.79	91.02	4.23	65.12	85.52
Diesel	88.72	93.03	4.31	66.92	85.87
Fuel oil (1.0% S)	66.43	68.74	2.31	49.55	63.23
Fuel oil (3.5% S)	63.97	66.11	2.14	46.18	60.42
Singapore (Cargoes FOB):					
Naphtha	71.76	75.39	3.63	54.04	69.20
Premium gasoline (unleaded 95)	84.83	89.53	4.70	68.01	82.54
Regular gasoline (unleaded 92)	82.44	87.51	5.07	65.43	80.15
Jet/Kerosene	87.31	91.75	4.44	65.32	85.38
Gasoil/Diesel (50 ppm)	88.01	93.38	5.37	66.33	85.24
Fuel oil (180 cst)	69.12	70.72	1.60	49.67	64.60
Fuel oil (380 cst 3.5% S)	68.57	70.54	1.97	49.24	63.93

Note: * Barges.

** Cost, insurance and freight (CIF).

Sources: Argus Media and OPEC Secretariat.

Tanker Market

Dirty tanker market sentiment was mixed in September. On a m-o-m comparison, dirty tanker freight rates were up by 4%. This gain was a result of higher rates for Suezmax and Aframax, while VLCC rates remained flat. Overall dirty tanker market remains influenced by an oversupply of ships, with charterers continuing to keep the market generally under pressure. Earnings for dirty tankers were mostly weak as the market maintained its seasonal low tonnage demand as it comes out of the summer months. Nevertheless some gains were achieved in Suezmax and Aframax classes driven by transit delays in the Turkish straits and port delays in the Mediterranean. Additionally, freight rates did gain some ground in September due to the hurricane season.

Average clean tanker spot freight rates also evolved positively in September despite, although the gains were limited. Marginally enhanced rates registered in the East of Suez, while in the West of Suez gains were partly driven by higher bunker prices.

Spot fixtures

Global spot fixtures rose by 3.4% m-o-m in September. **OPEC spot fixtures** also increased in September, up by 0.75 mb/d, or 5.3% m-o-m, averaging 14.92 mb/d, according to preliminary data.

The gains in fixtures were mainly registered on Eastern routes. Fixtures on the **Middle East-to-East** bound destinations were up 4%, or 0.31 mb/d, m-o-m. In the **Middle East-to-West**, fixtures dropped by 0.04 mb/d m-o-m. Fixtures **outside of the Middle East** went up by 11.1% m-o-m.

Compared with the same period one year earlier, all fixtures were higher with the exception of Middle East-to-West fixtures, which dropped by 8% from the previous year.

Table 7 - 1: Spot fixtures, mb/d

	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
All areas	21.85	21.00	21.71	0.71
OPEC	14.78	14.17	14.92	0.75
Middle East/East	8.06	7.87	8.18	0.31
Middle East/West	2.18	2.00	1.96	-0.04
Outside Middle East	4.54	4.31	4.78	0.48

Sources: Oil Movements and OPEC Secretariat.

Sailings and arrivals

Preliminary data showed that **OPEC sailings** increased by 0.17 mb/d m-o-m in September, averaging 24.94 mb/d, which is 1 mb/d higher y-o-y.

September **arrivals in Far Eastern ports** showed the only increase during the month, rising by 0.23 mb/d m-o-m. **Arrivals at North American, European and West Asian ports** all declined from the previous month, by 0.17 mb/d, 0.14 mb/d and 0.06 mb/d, respectively, to average 10.31 mb/d, 11.80 mb/d and 4.36 mb/d in September.

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

	<u>Jul 18</u>	<u>Aug 18</u>	<u>Sep 18</u>	<i>Change</i> <u>Sep 18/Aug 18</u>
Sailings				
OPEC	24.97	24.77	24.94	0.17
Middle East	18.27	18.07	18.24	0.17
Arrivals				
North America	10.02	10.48	10.31	-0.17
Europe	11.94	11.94	11.80	-0.14
Far East	8.80	8.81	9.04	0.23
West Asia	4.44	4.41	4.36	-0.06

Sources: Oil Movements and OPEC Secretariat.

Dirty tanker freight rates

Very large crude carrier (VLCC)

VLCC spot freight rates turned flat in September compared to the previous month, to stand at WS44 points on average.

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

	Size <i>1,000 DWT</i>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Sep 18</u>	<i>Change</i> <u>Sep 18/Aug 18</u>
Middle East/East	230-280	49	54	55	1
Middle East/West	270-285	19	24	22	-2
West Africa/East	260	50	55	56	1

Sources: Argus Media and OPEC Secretariat.

The month started on a softer note for VLCC as spot freight rates on different routes declined, despite the relatively reasonable demand for the first and second decades of the month. The VLCC market continued to suffer from a surplus of ships, which kept rates mostly under pressure.

Freight rates in the Middle East and West Africa waned, as the markets were mostly quiet. Therefore, VLCC spot freight rates for tankers operating on the Middle East-to-East route showed an increase of only WS1 point from the previous month, to average WS55 points in September. VLCC spot freight rates for tankers operating on the West Africa-to-East route showed a similar gain, up by WS1 point from a month earlier to average WS56 points.

VLCC spot freight rates on the Middle East-to-West long-haul route dropped by a small WS2 points from a month earlier, to average WS22 points in September.

Towards the end of the month, freight rates firmed marginally as activities picked up and a thinner list was seen in the Middle East and West Africa. Moreover, higher volumes from Latin America and increased bunker prices, combined with improved sentiment in other markets, such as the North Sea and Caribbean, supported freight rates.

Generally spot freight rates were weak in September, impacted by continuing typical seasonal developments usually witnessed in the summer months. Nevertheless, on an annual basis, average spot freight rates for VLCCs were higher by 14% than the same month a year before.

Suezmax

Suezmax spot freight rates increased marginally in September, compared to the previous month, up by WS5 points to stand at WS62 points. On average, this is a similar level to the same month last year. In September, Suezmax saw occasional healthy demand in different markets.

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

	Size 1,000 DWT	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
West Africa/US Gulf Coast	130-135	66	61	68	7
Northwest Europe/US Gulf Coast	130-135	56	53	56	3

Sources: Argus Media and OPEC Secretariat.

In the East, the Suezmax market was mostly steady. A flurry of loading requirements in the middle of the month supported freight rates in the Atlantic. Additionally, rates were supported by the hurricane season in the Americas. Spot freight rates for eastern destinations firmed towards the end of the month, driven by higher bunker prices and delays in the Turkish straits. Delays in the Black Sea drove some rate enhancements in this area.

As a result, registered spot freight rates for tankers operating on the West Africa-to-USGC route increased by WS7 points, compared to the previous month, to average WS68 points in September.

Spot freight rates on Northwest Europe (NWE)-to-USGC routes increased by WS3 points m-o-m to average WS56 points.

Aframax

Aframax spot freight rates showed a decline across most reported routes in September compared to the month previous. Nevertheless, the drop was offset by higher spot rates registered in the Caribbean, which was, affected by the hurricane season, as tonnage availability in the region was thin. As a result, Aframax spot freight rates on Caribbean/US East Coast (USEC) route were up by WS34 points to stand at WS152 points in September. This is an increase of 28% from August.

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

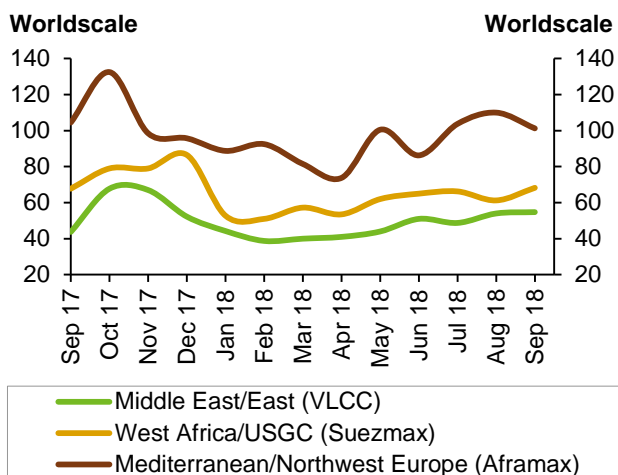
	Size 1,000 DWT	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
Indonesia/East	80-85	97	105	103	-2
Caribbean/US East Coast	80-85	98	119	152	34
Mediterranean/Mediterranean	80-85	111	115	107	-7
Mediterranean/Northwest Europe	80-85	104	110	101	-9

Sources: Argus Media and OPEC Secretariat.

In the Mediterranean, Aframax spot freight rates declined despite showing occasional increases. Furthermore, the weak Suezmax market and maintenance programmes in some ports affected rates negatively, causing rates in the Mediterranean to drop and reversing the gains achieved in the previous month. Spot freight rates for Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes declined by 6% and 8% m-o-m, respectively, to stand at WS107 points and WS101 points.

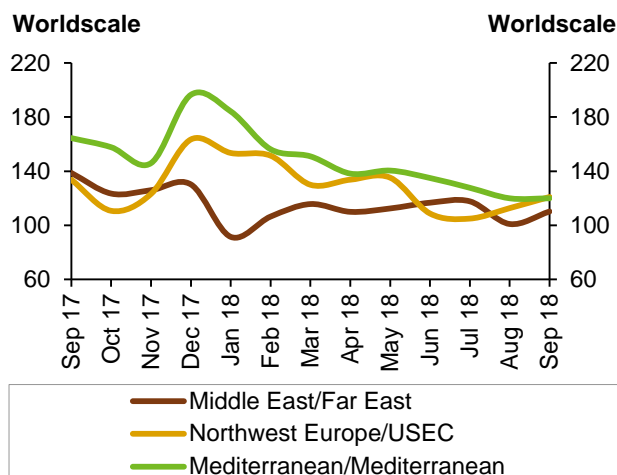
Aframax freight rates in the East dropped on the Indonesia-to-East route by 2% m-o-m to average WS103 points in September.

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

Clean tanker market sentiment was mixed in September, with clean spot freight rates exhibiting different patterns. On average, clean spot freight rates increased by 2% m-o-m. Nonetheless, the increase in rates is only relative, with rates 25% below those achieved one year ago.

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

	Size 1,000 DWT	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
East of Suez					
Middle East/East	30-35	118	101	110	9
Singapore/East	30-35	135	129	123	-7
West of Suez					
Northwest Europe/US East Coast	33-37	105	113	121	8
Mediterranean/Mediterranean	30-35	128	120	120	0
Mediterranean/Northwest Europe	30-35	138	130	130	0

Sources: Argus Media and OPEC Secretariat.

In the **East of Suez**, spot freight rates on reported Middle East-to-East rose by WS9 points m-o-m to average WS110 points in September. Spot freight rates registered for tankers operating on the Singapore-to-East route dropped by WS7 points, compared to the previous month, to average WS123 points.

Looking to the **West of Suez**, the clean tanker market in the Mediterranean was mostly slow in September as demand was mostly weak. Therefore, both Mediterranean-to-Mediterranean and Mediterranean-to-NWE rates showed no change from the previous month to average WS120 points and WS130 points, respectively. On the contrary, rates for tankers operating on the NWE-to-USEC route increased by WS8 points, compared to the previous month, to settle at WS121 points in September.

Oil Trade

In September, preliminary data showed that US crude oil imports fell by 87 tb/d from the previous month to average 7.8 mb/d. On an annual basis, the level is higher by 522 tb/d compared to the same month a year earlier, or 7%. On a year-to-date (y-t-d) basis, US crude oil imports in September were 121 tb/d lower compared to the same period a year earlier. US product monthly imports increased by 98 tb/d from the month previous to stand at 2.5 mb/d, and were up by 81 tb/d, or 3% y-o-y.

Japan's crude oil imports increased in August by 465 tb/d, or 16%, to average 3.4 mb/d. On a y-o-y comparison, crude imports were up by 188 tb/d. Japan's product imports, not including LPG, were up in August by 21 tb/d m-o-m to average 583 tb/d, an increase of 4%, while the level was flat compared to the same time last year.

China's crude oil imports rose in August by 420 tb/d, or 5%, to reach 9.04 mb/d. On an annual comparison, China's crude imports were higher than last year by 1 mb/d, or 13%.

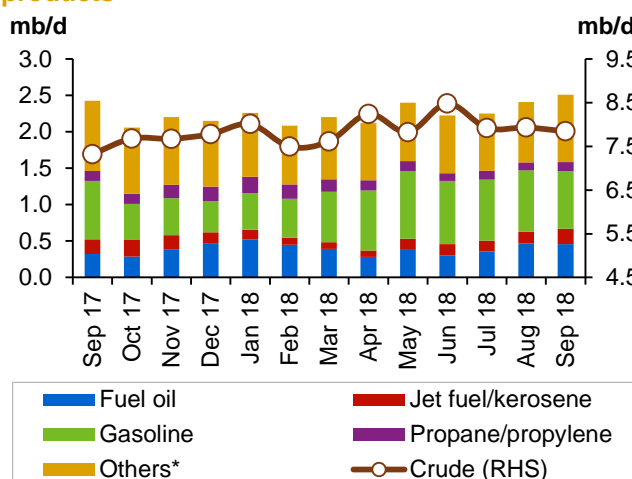
In August, India's crude imports fell by 222 tb/d, or 5%, compared to the previous month to average 4.4 mb/d, while it went up by 125 tb/d, or 3% y-o-y. India's product imports in August rose slightly by 14 tb/d m-o-m to average 858 tb/d, while y-o-y it was lower by 58 tb/d.

US

In September, preliminary data showed that **US crude oil imports** decreased to average 7.8 mb/d, down by 87 tb/d from the previous month. On an annual basis, the level is higher by 522 tb/d, or 7%. On a y-t-d basis, US crude oil imports in September were 121 tb/d lower compared to the same period a year earlier. The crude refinery intake showed a significant decline of around 800 tb/d from the previous month.

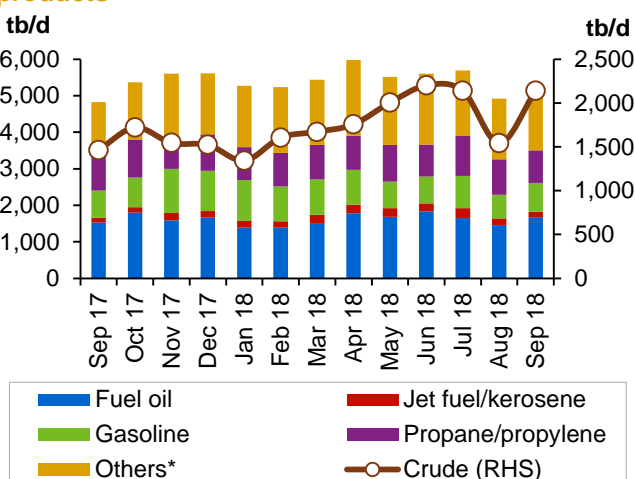
US products imports in September increased by 98 tb/d m-o-m to stand at 2.5 mb/d. Y-o-y it was up by 81 tb/d, or 3%. On a y-t-d comparison, product imports increased by a similar amount, up by 87 tb/d compared to the same period a year earlier.

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



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

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



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

US crude exports increased significantly in September. US crude exports hit 2.1 mb/d in September, up by 598 tb/d from the previous month.

US product exports in September were 319 tb/d higher m-o-m, to average 5.2 mb/d. On an annual comparison, product exports were higher than a year before by 413 tb/d, or 9%.

As a result, **US total net imports declined by 906 tb/d compared to the previous month to average 3 mb/d in September and lower by 488 tb/d compared to the same time last year.**

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

	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
Crude oil	5,784	6,391	5,706	-685
Total products	-3,435	-2,509	-2,730	-221
Total crude and products	2,349	3,882	2,976	-906

Sources: US EIA and OPEC Secretariat.

Regarding **crude supplies to the US** in July, Canada remained the number one crude supplier to the US, accounting for 45% of total US crude imports. This was despite a drop of 423 tb/d in its monthly volume from June. Saudi Arabia was again the second largest supplier to US, with the country seeing a m-o-m increase of 41 tb/d in its exports to the US. Mexico was third largest supplier, accounting for 8% of total US crude imports, although its exports to the US were down by 172 tb/d, or 21%, from a month before.

US crude imports from OPEC Member Countries (MCs) in July fell by 61 tb/d, or 2% m-o-m. They accounted for 33% of total US crude imports.

US product imports from OPEC MCs in July were slightly down by 13 tb/d, or 5%, compared to the previous month.

In terms of **US product supplier share**, Canada, Russia and South Korea maintained their positions as the three largest suppliers to the US in July, higher by 6%, 8% and 14%, respectively, from a month ago.

From the perspective of **US product exports**, Mexico, Canada and Japan were the first-, second- and third-largest buyers from the US - accounting for 24%, 10% and 7% of total US product exports, respectively.

Looking into **US crude imports by region** in July, imports from North America dropped by 420 tb/d m-o-m to average 3.6 mb/d. Despite the drop, North America remained the top region for US crude imports, followed by Latin America, which stood at 1.9 mb/d in July. The Middle East region was the third-largest region, with an average of 1.4 mb/d, albeit a drop of 360 tb/d from a year ago. Imports from Africa and the FSU were slightly higher in July, compared to the the previous month.

Japan

Japan's crude oil imports increased in August by 465 tb/d m-o-m, or 16%, to average 3.4 mb/d. On a y-o-y comparison, crude imports were up by 188 tb/d.

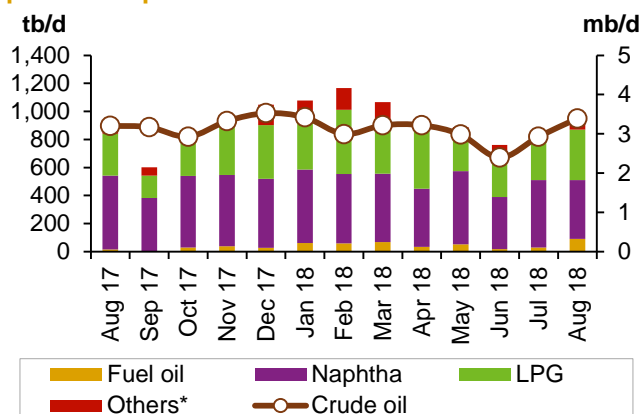
In terms of **Japan's crude supplier share**, Saudi Arabia, the UAE and Qatar were again the top three suppliers to Japan in August. Saudi Arabia, as in July, was the largest crude supplier to Japan, holding a share of 34% of total crude imports, with its exports 176 tb/d higher m-o-m. The UAE was second-largest supplier, with a share of 30% of total crude exports, followed by Qatar with a share of 9%.

Volumes imported from the UAE and Qatar were higher m-o-m by 201 tb/d and 65 tb/d, respectively.

Japan's product imports, not including LPG, were up in August by 21 tb/d, to average 583 tb/d, an increase of 4% m-o-m, but flat y-o-y. Japan's oil product sales dropped from a year earlier.

Japan's product exports increased by 81 tb/d in August to average 588 tb/d – the highest level seen so far this year. On a y-o-y comparison, however, the figure is lower by 83 tb/d compared to the same month last year.

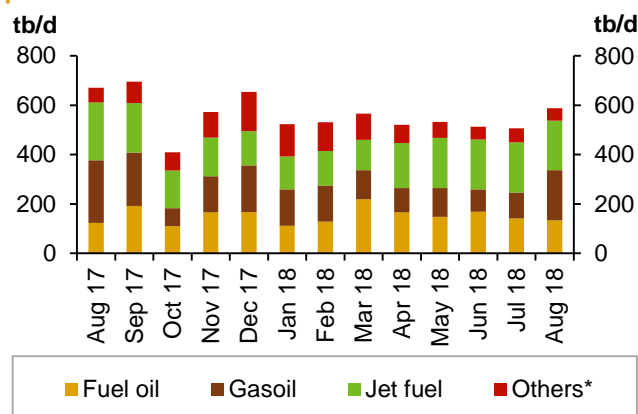
Graph 8 - 3: Japan's imports of crude and petroleum products



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** rose m-o-m in August by 405 tb/d to average 3.4 mb/d, which is higher by 266 tb/d compared to same time last year.

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

	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change</u> <u>Aug 18/Jul 18</u>
Crude oil	2,395	2,927	3,392	465
Total products	-63	55	-5	-59
Total crude and products	2,332	2,982	3,388	405

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

China

China's crude oil imports increased in August to reach 9.04 mb/d, an increase of 420 tb/d, or 5%, from July. Similarly, China's refinery crude intake increased by almost 470 tb/d in August. On an annual comparison, China's crude imports were higher by 1 mb/d, or 13%, compared to last year. Crude imports in August were higher, as volumes from all major suppliers increased.

Russia remained the **top supplier to China** in August and showed a m-o-m increase of 20 tb/d. Similarly, imports from the second largest supplier, Saudi Arabia, were up by 10 tb/d from the previous month. The third-largest supplier to China, Iraq, also saw exports increase, by 90 tb/d from one month before. In August, the three top crude oil suppliers to China accounted for 15%, 11% and 11% of the market share, respectively.

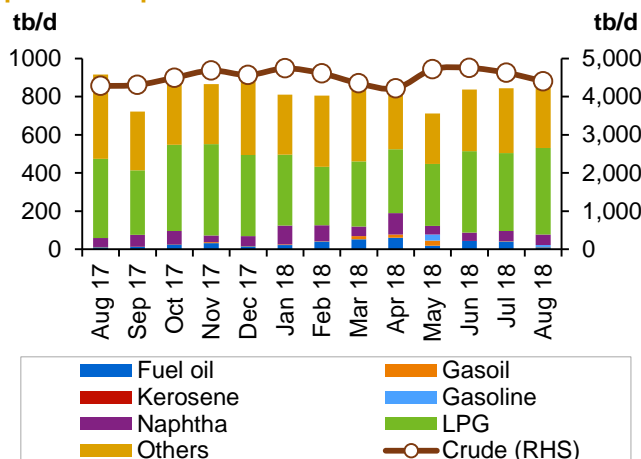
India

In August, **India's crude imports** fell by 222 tb/d, or 5% m-o-m, to average 4.4 mb/d, while they rose by 125 tb/d, or 3%, y-o-y. Nevertheless, India's crude intake was up by 100 tb/d in August.

India's product imports in August rose slightly by 14 tb/d m-o-m to average 858 tb/d. On a y-o-y comparison, it was lower by 58 tb/d.

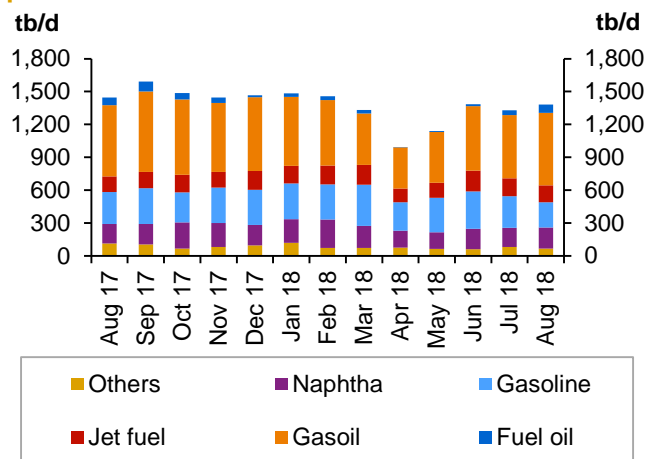
India's product exports were up in August by 55 tb/d, or 4%, to average 1.4 mb/d. On a y-o-y basis, product exports were lower by 62 tb/d, or 4%.

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.

Consequently, **India's net imports dropped by 263 tb/d m-o-m to average 3.9 mb/d. This reflects an increase of 130 tb/d y-o-y.**

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

	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change</u> <u>Aug 18/Jul 18</u>
Crude oil	4,752	4,624	4,402	-222
Total products	-547	-484	-525	-40
Total crude and products	4,205	4,140	3,877	-263

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.

Former Soviet Union (FSU)

Total crude oil exports from the FSU increased slightly by 74 tb/d, or 1%, to average 6.8 mb/d in August. **Total crude exports through Russian pipelines** also rose m-o-m by 190 tb/d, or 5%, to average 4 mb/d.

In the **Transneft system**, total shipments from the Black Sea averaged 587 tb/d in August, as shipments from Novorossiysk increased by 65 tb/d, or 12%, from a month previous.

Total Baltic Sea exports increased by 23 tb/d m-o-m in August, as shipments from the Primorsk port terminal decreased by 24 tb/d as a result of port maintenance offset with the Ust-Luga port terminal exports increased by 46 tb/d.

Druzhba pipeline total shipments increased by 53 tb/d m-o-m to average 1 mb/d in August. Similarly, Kozmino shipments also rose by 49 tb/d m-o-m, or 8%, to average 673 tb/d.

Exports in August through the **Lukoil system** were up from July in the Barents Sea where Varandey offshore platform exports rose by 58 tb/d m-o-m, while Baltic Sea exports through the Kalinigrad port terminal stayed flat from one month before to average 601 tb/d.

As for **other routes**, Russia Far East total exports were down by 25 tb/d m-o-m in August, as volumes from the Aniva Bay terminal fell. Central Asia total exports stood at 246 tb/d in August, an increase of 19 tb/d from the previous month.

Black Sea total exports fell by 139 tb/d m-o-m in August, mainly due to exports through Novorossiysk port terminal (CPC) dropping by 111 tb/d m-o-m.

In the Mediterranean Sea, BTC supplies showed a drop of 32 tb/d m-o-m in August, or 4%, to average 686 tb/d.

Total FSU products exports rose by 39 tb/d, or 1%, compared with the previous month to average 2.9 mb/d in August. This gain in product exports came as a result of higher naphtha and VGO exports, with increased volumes of 90 tb/d and 38 tb/d, m-o-m, respectively.

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

		2017	1Q18	2Q18	Jul 18	Aug 18
Transneft system						
Europe	Black Sea total	605	521	536	522	587
	Novorossiysk port terminal - total	605	528	536	522	587
	of which: Russian oil	424	362	375	365	429
	Others	181	171	162	157	158
	Baltic Sea total	1,516	1,289	1,297	1,229	1,252
	Primorsk port terminal - total	871	755	783	742	719
	of which: Russian oil	871	755	783	742	719
	Others	0	0	0	0	0
	Ust-Luga port terminal - total	645	538	514	487	534
	of which: Russian oil	470	351	316	325	371
	Others	175	176	198	162	162
	Druzhba pipeline total	1,009	987	987	958	1,011
	of which: Russian oil	977	953	955	926	979
	Others	32	32	32	32	32
Asia	Pacific ocean total	645	593	623	624	673
	Kozmino port terminal - total	645	608	623	624	673
	China (via ESPO pipeline) total	336	552	554	601	601
	China Amur	336	553	554	601	601
Total Russian crude exports		4,111	3,940	3,997	3,934	4,124
Lukoil system						
Europe & North America	Barents Sea total	170	144	125	106	164
	Varandey offshore platform	170	134	125	106	164
Europe	Baltic Sea total	13	7	7	7	7
	Kalinigrad port terminal	13	7	7	7	7
Other routes						
Asia	Russian Far East total	343	364	372	350	325
	Aniva Bay port terminal	127	134	137	97	72
	De Kastri port terminal	216	235	235	253	253
	Central Asia total	262	237	225	226	246
	Kenkiyak-Alashankou	262	231	225	226	246
Europe	Black Sea total	1,277	1,397	1,393	1,384	1,245
	Novorossiysk port terminal (CPC)	1,194	1,325	1,337	1,317	1,206
	Supsa port terminal	72	66	53	58	39
	Batumi port terminal	11	3	3	9	0
	Kulevi port terminal	0	0	0	0	0
	Mediterranean Sea total	707	677	693	718	686
	BTC	707	685	693	718	686
Russian rail						
	Russian rail	40	33	32	30	32
	of which: Russian oil	40	32	32	30	32
	Others	0	0	0	0	0
Total FSU crude exports		6,923	6,798	6,844	6,756	6,830
Products						
	Gasoline	193	234	169	231	229
	Naphtha	549	532	544	432	522
	Jet	35	36	36	54	39
	Gasoil	980	1,102	1,010	988	934
	Fuel oil	1,025	996	932	905	887
	VGO	308	327	275	231	269
Total FSU product exports		3,089	3,271	2,967	2,841	2,880
Total FSU oil exports		10,012	10,069	9,811	9,597	9,710

Sources: Argus Nefte Transport and Argus Global Markets.

Stock Movements

Preliminary data for August showed that total OECD commercial oil stocks rose by 14.2 mb m-o-m to stand at 2,841 mb. This was 165 mb lower than the same time one year ago and 47 mb below the latest five-year average. Compared to the seasonal norm, crude stocks indicated a deficit of 6 mb, while products stocks witnessed a deficit of 41 mb. In terms of the number of days of forward cover, OECD commercial stocks rose by 0.5 days m-o-m in August to stand at 59.3 days. This was 3.8 days below the same period in 2017 and 2.5 days lower than the latest five-year average.

Preliminary data for September showed that US total commercial oil stocks rose by 22.1 mb m-o-m, a third consecutive monthly rise. At 1,248.7 mb, total US commercial stocks stood 55 mb lower than the same period a year ago, but 17.6 mb higher than the latest five-year average. Within the components, crude and products stocks rose by 2.5 mb and 19.6 mb, m-o-m, respectively.

OECD

Preliminary data for August showed that **total OECD commercial oil stocks** rose by 14.2 mb m-o-m, the second consecutive monthly rise. At 2,841 mb, total OECD commercial oil stocks were 165 mb lower than the same time one year ago and 47 mb below the latest five-year average.

Within the components, crude stocks indicated a deficit of 6 mb, while products stocks were 41 mb lower, when compared to the latest five-year average. It should be noted that the overhang has been reduced by more than 384 mb since January 2017. In August, crude stocks m-o-m fell by 13.4 mb, while product stocks rose by 27.6 mb.

Within the regions, OECD Americas and OECD Asia Pacific in August rose by 14.3 mb and 7.9 mb m-o-m, respectively, while OECD Europe inventories fell by 7.9 mb, reversing the build of last month.

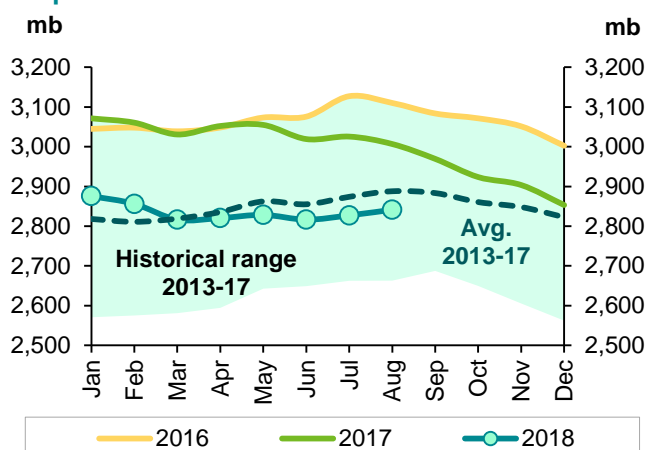
OECD commercial **crude stocks** in August fell by 13.4 mb m-o-m, ending the month at 1,397 mb. This was 97.8 mb lower than the same time a year ago and 5.9 mb lower than the latest five-year average. Compared to the previous month, OECD Americas and OECD Europe experienced stock draws, while OECD Asia Pacific inventories witnessed a stock build.

In contrast, OECD **product inventories** in August rose by 27.6 mb m-o-m to stand at 1,445 mb. This was 67.6 mb below the same time a year ago and 40.6 mb below the seasonal norm. All three OECD regions experienced product stock builds m-o-m.

In terms of **days of forward cover**, OECD commercial stocks in August rose by 0.5 days m-o-m to stand at 59.3 days. This was 3.8 days below the same period in 2017 and 2.5 days lower than the latest five-year average.

Within the regions, OECD Americas was 1.5 days of forward cover lower than the historical average, standing at 59.2 days in August. OECD Europe stocks stood at 2.8 days below the latest five-year average to end August at 64.7 days. OECD Asia Pacific indicated a deficit of 5.3 days below the seasonal norm, standing at 49.6 days in August.

Graph 9 - 1: OECD commercial oil stocks



Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US EIA.

OECD Americas

OECD Americas total commercial stocks rose by 14.3 mb m-o-m in August, the second consecutive monthly rise. At 1,494 mb, they stood at 81 mb below the same month a year ago, and 3.4 mb below the latest five-year average. Within the components, crude stocks fell 7.8 mb, while product stocks rose 22.2 mb, m-o-m.

Commercial crude oil stocks in OECD Americas fell by 7.8 mb m-o-m in August to stand at 748 mb. This was 72.1 mb lower than the same period a year ago, but 0.7 mb higher than the latest five-year average. This drop came from higher US crude throughput, which increased by around 300 tb/d to average 17.7 mb/d.

In contrast, **product stocks** in OECD Americas rose by 22.2 mb m-o-m in August to stand at 746 mb. This was 8.8 mb below the same time one year ago and 4.1 mb below the seasonal norm. Lower US product consumption was behind the product stock build.

OECD Europe

OECD Europe's total commercial stocks fell by 7.9 mb m-o-m in August to stand at 953 mb. This was 35.9 mb lower than the same time a year ago and 1.4 mb below the latest five-year average. Crude stocks fell by 9.1 mb, while product inventories rose by 1.2 mb, m-o-m.

OECD Europe's **commercial crude stocks** fell by 9.1 mb m-o-m in August to stand at 430 mb. This was 16.1 mb higher than a year earlier and 27.7 mb higher than the latest five-year average. The drop in crude oil stocks could be attributed to lower crude supply in the region.

In contrast, OECD Europe's **total commercial product stocks** rose by 1.2 mb m-o-m to end August at 523 mb. This was 52 mb below the same time a year ago and 29 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 rose by 7.8 mb m-o-m in August, reversing the drop of the previous two months. At 394 mb, they were 49 mb lower than a year ago and 42 mb below the latest five-year average. Within the components, crude and products stocks rose by 3.6 mb and 4.2 mb, m-o-m, respectively.

OECD Asia Pacific's **crude inventories** rose by 3.6 mb m-o-m to end August at 219 mb. This was 42 mb below the same time a year ago and 34 mb lower than the seasonal norm.

OECD Asia Pacific's **total product inventories** rose by 4.2 mb m-o-m to end August at 175 mb. This was 6.9 mb below the same time a year ago and 7.4 mb lower than the seasonal norm.

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

	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change</u> <u>Aug 18/Jul 18</u>	<u>Aug 17</u>
Crude oil	1,422	1,410	1,397	-13.4	1,494
Products	1,394	1,417	1,445	27.6	1,512
Total	2,816	2,827	2,841	14.2	3,007
Days of forward cover	58.8	58.8	59.3	0.5	63.1

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

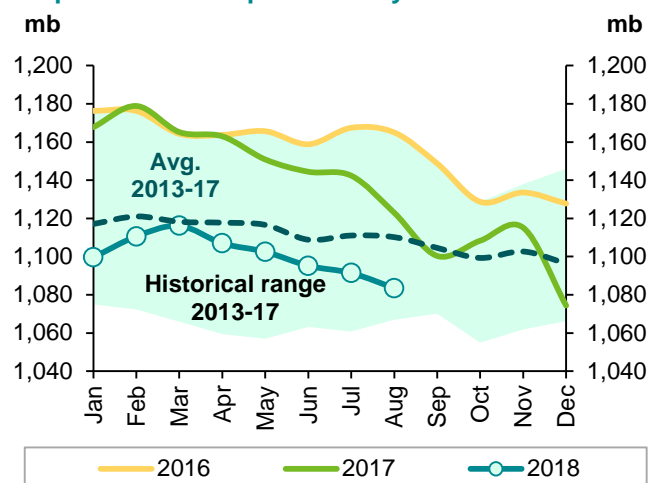
Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US EIA.

EU plus Norway

Preliminary data for August showed that **total European commercial oil stocks** fell by 7.9 mb m-o-m to stand at 1,083 mb. This was 39.5 mb, or 3.5% lower than the same time a year ago, and 26.7 mb, or 2.4%, lower than the latest five-year average. Within the components, crude stocks fell by 9.1 mb, while products stocks rose by 1.2 mb, m-o-m.

European **crude inventories** fell in August to stand at 481 mb. This was 4.0 mb, or 0.8%, higher than the same period a year ago and 3.2 mb, or 0.7%, higher than the latest five-year average. The drop in crude oil stocks could be attributed to lower crude supply in the region. Higher refinery throughput in EU countries, which increased by around 30 tb/d, also contributed to the draw in EU crude stocks.

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



Sources: Argus, Euroilstock and OPEC Secretariat.

In contrast, European **total product stocks** rose by 1.2 mb m-o-m, ending August at 602 mb. This was 43.5 mb, or 6.7%, lower than the same time a year ago, and 30.0 mb, or 4.7%, lower than the seasonal norm. Within products, gasoline and distillate stocks witnessed builds, while residual fuel experienced a stock draw.

Gasoline and distillate stocks rose by 1.0 mb and 1.1 mb m-o-m, to end August at 110 mb and 399 mb, respectively. Gasoline stocks were 0.7 mb lower than the same time last year and about 0.6 mb above the latest five-year average. Distillate stocks were 44.7 mb, or 10.1%, lower than the same time one year ago, and 26.5 mb, or 6.2%, below the seasonal norm. Weak domestic consumption for both products was behind the inventory builds.

In contrast, **residual fuel stocks** fell by 0.5 mb m-o-m in August to stand at 64 mb. At this level, they are 0.4 mb, or 0.6%, below the same time a year ago, and 11.1 mb, or 14.7%, under the latest five-year average.

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

	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change</u> <u>Aug 18/Jul 18</u>	<u>Aug 17</u>
Crude oil	488.1	490.6	481.4	-9.1	477.5
Gasoline	114.7	109.3	110.3	1.0	111.0
Naphtha	29.5	28.6	28.2	-0.4	25.9
Middle distillates	395.9	398.2	399.3	1.1	444.0
Fuel oils	67.1	64.7	64.2	-0.5	64.6
Total products	607.1	600.8	602.0	1.2	645.5
Total	1,095.2	1,091.4	1,083.5	-7.9	1,122.9

Sources: Argus, Euroilstock and OPEC Secretariat.

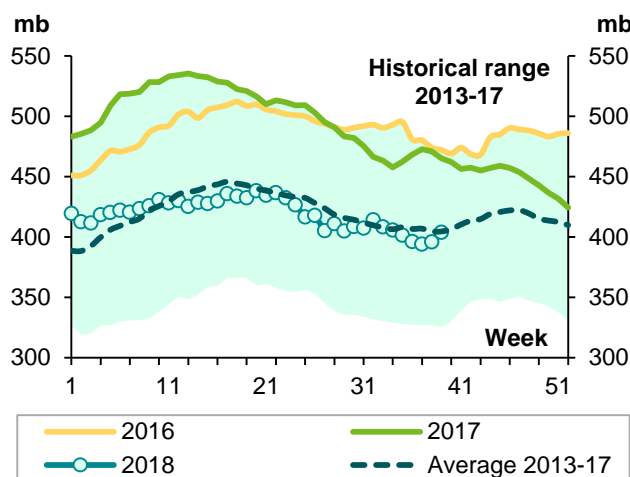
US

Preliminary data for September showed that **US total commercial oil stocks** rose by 22.1 mb m-o-m, the third consecutive monthly increase. At 1,248.7 mb, total US commercial stocks stood at 55 mb, or 4.3%, lower than the same period a year ago, but 17.6 mb, or 1.4%, higher than the latest five-year average. Within the components, crude and products stocks rose by 2.5 mb and 19.6 mb, m-o-m, respectively.

US commercial crude stocks rose in September to stand at 404.0 mb, which was 65.6 mb, or 14.0%, below the same time last year, and 5.3 mb, or 1.3%, under the latest five-year average. The build came from lower crude throughput, which decreased by around 900 tb/d to average 17.2 mb/d. Lower crude imports limited further crude oil stock builds. In September, crude inventories in Cushing, Oklahoma, fell by around 0.4 mb to end the month at 24.5 mb, which is the lowest level since October 2014.

Total product stocks rose by 19.6 mb m-o-m in September to stand at 844.8 mb, which is 10.2 mb, or 1.2%, above from the level seen in the same month in 2017, and 22.9 mb, or 2.8%, above the seasonal average. Within products, all products experienced stock builds.

Graph 9 - 3: US weekly commercial crude oil inventories



Sources: US EIA and OPEC Secretariat.

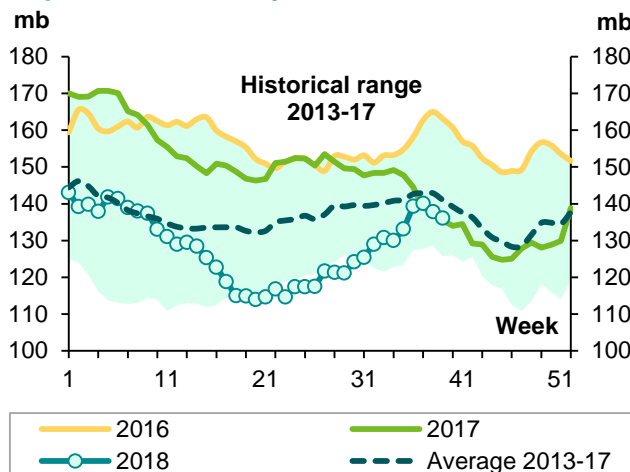
Gasoline stocks rose by 0.6 mb m-o-m in September, the second consecutive monthly build. At 235.2 mb, they were 12.0 mb, or 5.4%, above the level witnessed in the same month last year, and 13.6 mb, or 6.1%, higher than the seasonal norm. This monthly build came mainly from lower gasoline consumption in September. Indeed, gasoline consumption m-o-m fell by more than 300 tb/d in September to average 9.3 mb/d.

Distillate stocks increased by 3.0 mb m-o-m in September, the fourth consecutive monthly rise. At 136.1 mb, distillate stocks stood at 1.2 mb, or 0.9%, below the same period a year ago, and 5.6 mb, or 3.9%, under the latest five-year average. The build came mainly on the back of lower distillate demand.

Jet fuel stocks rose by 4.2 mb m-o-m in September, to stand at 46.2 mb, which is 2.6 mb, or 5.9%, above the level the same time a year ago, and 4.2 mb, or 10.1%, over the latest five-year average.

Residual fuel stocks rose by 0.2 mb in September m-o-m, ending September at 28.0 mb. At this level, they stand at 5.6 mb, or 16.7%, below the same time a year ago and 9.2 mb, or 24.8%, below the latest five-year average.

Graph 9 - 4: US weekly distillate inventories



Sources: US EIA and OPEC Secretariat.

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

	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18	Sep 17
Crude oil	409.3	401.5	404.0	2.5	469.6
Gasoline	233.9	234.6	235.2	0.6	223.2
Distillate fuel	127.1	133.1	136.1	3.0	137.3
Residual fuel oil	29.3	27.8	28.0	0.2	33.6
Jet fuel	41.0	42.0	46.2	4.2	43.6
Total products	802.9	825.1	844.8	19.6	834.6
Total	1,212.3	1,226.6	1,248.7	22.1	1,304.1
SPR	660.0	660.0	660.0	0.0	673.6

Sources: US EIA and OPEC Secretariat.

Japan

In Japan, **total commercial oil stocks** rose by 7.8 mb m-o-m in August, the third consecutive monthly rise, to stand at 139 mb. At this level, they were 8.1 mb, or 5.5%, below the level of a year ago, and 20.7 mb, or 13.0%, below the latest five-year average. Within the components, crude and products stocks rose m-o-m by 3.6 mb and 4.2 mb, respectively.

Japan's **commercial crude oil stocks** increased in August to stand at 78.2 mb. This was 3.3 mb, or 4.0%, below the same month a year ago, and 11.7 mb, or 13.0%, under the seasonal norm. The build was driven by higher crude imports, which increased by around 460 tb/d, or 15.9%, to average 3.4 mb/d. Higher refinery throughput, which rose by 265 tb/d, or 8.9%, to average 3.25 mb/d, limited a further drop in crude oil stocks.

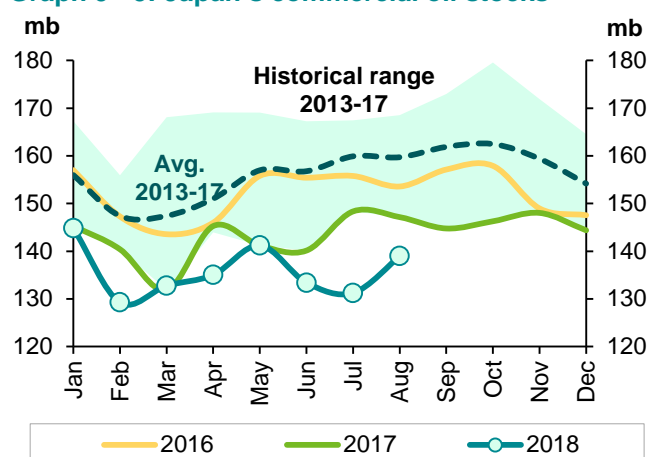
Japan's **total product inventories** rose m-o-m by 4.2 mb to end August at 60.8 mb. This was 4.8 mb, or 7.4%, lower than the same month last year, and 9.0 mb, or 12.9%, below than the seasonal norm. Within products, the picture was mixed; gasoline, middle distillates and fuel oil stocks experienced stock builds, while naphtha inventories witnessed a draw.

Gasoline stocks rose by 0.6 mb m-o-m to stand at 10.0 mb in August. This was 0.6 mb, or 5.5%, lower than the same time a year ago, and 0.9 mb, or 8.2%, below the latest five-year average. The build was mainly driven by higher gasoline production, which rose by 5.0% compared to the previous month. Higher domestic gasoline sales limited any further build in gasoline stocks.

Distillate stocks increased by 4.0 mb m-o-m to stand at 29.5 mb in August. This was 0.6 mb, or 1.9%, lower than the same time a year ago, and 3.6 mb, or 10.9%, below the seasonal average. Within the distillate components, jet fuel, kerosene and gasoil stocks rose m-o-m in August by 10.7%, 24.8% and 8.6%, m-o-m, respectively. Higher output was behind the build in distillate component inventories.

Total residual fuel oil stocks rose by 0.7 mb m-o-m to stand at 12.9 mb in August. This was 1.1 mb, or 8.0%, below the same period a year ago, and 2.1 mb, or 13.7%, less than the latest five-year average. Within the fuel oil components, fuel oil A and fuel B.C rose by 3.6% and 7.0%, respectively. The build was driven by lower domestic sales, combined with higher output.

Graph 9 - 5: Japan's commercial oil stocks



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

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

	<u>Jun 18</u>	<u>Jul 18</u>	<u>Aug 18</u>	<u>Change</u> <u>Aug 18/Jul 18</u>	<u>Aug 17</u>
Crude oil	78.1	74.7	78.2	3.6	81.5
Gasoline	10.0	9.4	10.0	0.6	10.6
Naphtha	8.5	9.4	8.3	-1.1	10.9
Middle distillates	23.8	25.5	29.5	4.0	30.1
Residual fuel oil	13.0	12.2	12.9	0.7	14.1
Total products	55.3	56.5	60.8	4.2	65.6
Total**	133.4	131.2	139.0	7.8	147.1

Note: * At the end of the month.

** Includes crude oil and main products only.

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

Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

Singapore

At the end of August, **Singapore total product stocks** fell slightly by 0.1 mb m-o-m to stand at 40.2 mb. This was 11.3 mb, or 21.9%, below the same period a year ago. Refined product stocks showed a mixed picture, with light distillates exhibiting a m-o-m build, while middle distillates and fuel oil indicated stock draws.

Light distillates stocks fell by 2.1 mb m-o-m reversing the build of last month to stand at 13.1 mb in August. This level was 0.8 mb, or 6.5 %, below the same time year ago.

In contrast, **middle distillates and residual fuel stocks** rose by 0.3 mb and 1.7 mb, m-o-m, ending the month of August at 10.4 mb and 16.7 mb, respectively. Middle distillate stocks were 2.5 mb below the same period a year ago, while residual fuel stocks remained at a higher deficit of 9.7 mb, when compared to the same period last year.

ARA

Total product stocks in ARA fell by 4.1 mb m-o-m in August. At 38.9 mb, product stocks in ARA were 5.1 mb, or 11.6%, below the same time a year ago. All products witnessed stock draws.

Gasoline and gasoil stocks fell by 1.7 mb and 0.2 mb m-o-m in August to stand at 6.5 mb and 18.2 mb, respectively. At this level, they remained below that of the same time last year. The drop was mainly driven by strong exports from ARA.

Residual fuel stocks fell by 1.3 mb from the previous month, ending August at 6.6 mb. This was 2.3 mb, or 25.8%, below the same period a year earlier.

Balance of Supply and Demand

Demand for OPEC-15 crude in 2018 stood at 32.7 mb/d, 0.2 mb lower than last MOMR report, and 0.8 mb/d lower than the 2017 level. According to secondary sources, OPEC crude production averaged 32.4 mb/d in 1Q18, which is in line with demand for OPEC crude. In the second quarter, OPEC crude production stood at 32.2 mb/d, which is 0.1 mb/d higher than the demand for OPEC crude. OPEC crude production stood at 32.6 mb/d in the third quarter, around 0.5 mb/d lower than demand for OPEC crude.

Demand for OPEC-15 crude in 2019 is forecast to decline by 0.9 mb/d y-o-y to average 31.8 mb/d, around 0.3 mb/d lower than the last assessment.

Balance of supply and demand in 2018

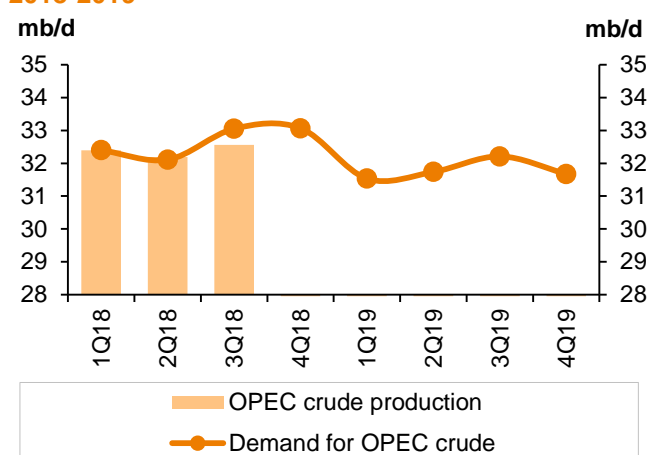
Demand for OPEC-15 crude for 2018 was revised down by 0.2 mb/d from the previous report to stand at 32.7 mb/d, 0.8 mb/d lower than the 2017 level.

Compared with the last *MOMR*, 1Q18 remained unchanged, while 2Q18, 3Q18 and 4Q18 were revised down by 0.1 mb/d, 0.3 mb/d and 0.6 mb/d, respectively.

When compared with the same quarter in 2017, 1Q18 was 0.2 mb/d higher, while the second and third quarters were 1.0 mb/d and 1.4 mb/d lower. The fourth quarter is expected to fall by 1.0 mb/d.

According to secondary sources, OPEC crude production averaged 32.4 mb/d in 1Q18, which is in line with demand for OPEC crude. In the second quarter, OPEC crude production stood at 32.2 mb/d, which is 0.1 mb/d higher than the demand for OPEC crude. OPEC crude production stood at 32.6 mb/d in the third quarter, around 0.5 mb/d lower than 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
(a) World oil demand	97.25	97.80	97.90	99.35	100.08	98.79	1.54
Non-OPEC supply	57.56	59.12	59.45	59.92	60.59	59.77	2.22
OPEC NGLs and non-conventionals	6.24	6.29	6.34	6.38	6.43	6.36	0.12
(b) Total non-OPEC supply and OPEC NGLs	63.80	65.40	65.79	66.30	67.02	66.13	2.33
Difference (a-b)	33.45	32.40	32.11	33.05	33.06	32.66	-0.79
OPEC crude oil production	32.62	32.39	32.19	32.56			
Balance	-0.83	0.00	0.08	-0.49			

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 was revised down by 0.3 mb/d from the previous report to stand at 31.8 mb/d, 0.9 mb/d lower than the 2018 level.

Compared with the last *MOMR*, 1Q19, 2Q19 and 4Q19 were revised down by 0.3 mb/d each, while the third quarter was revised down by 0.2 mb/d.

When compared with the same quarter in 2018, the first and second quarters are forecast to decrease by 0.9 mb/d and 0.4 mb/d, respectively, while the third and fourth quarters are expected to fall by 0.8 mb/d and 1.4 mb/d, respectively.

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

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18
(a) World oil demand	98.79	99.17	99.21	100.74	101.46	100.15	1.36
Non-OPEC supply	59.77	61.20	61.02	62.05	63.28	61.89	2.12
OPEC NGLs and non-conventionals	6.36	6.43	6.45	6.48	6.51	6.47	0.11
(b) Total non-OPEC supply and OPEC NGLs	66.13	67.63	67.47	68.53	69.79	68.36	2.23
Difference (a-b)	32.66	31.53	31.74	32.21	31.67	31.79	-0.87

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
World demand													
OECD	46.52	46.97	47.38	47.69	47.24	47.93	48.22	47.77	47.98	47.44	48.21	48.47	48.03
Americas	24.59	24.87	25.02	25.20	25.40	25.43	25.44	25.37	25.46	25.63	25.71	25.69	25.62
Europe	13.83	13.99	14.30	13.95	14.19	14.78	14.47	14.35	13.99	14.20	14.81	14.49	14.37
Asia Pacific	8.10	8.10	8.06	8.54	7.65	7.72	8.31	8.06	8.53	7.61	7.70	8.28	8.03
DCs	30.89	31.51	32.13	32.44	32.63	33.08	32.71	32.72	33.07	33.27	33.73	33.36	33.36
FSU	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
Other Europe	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
China	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
(a) Total world demand	94.16	95.61	97.25	97.80	97.90	99.35	100.08	98.79	99.17	99.21	100.74	101.46	100.15
Non-OPEC supply													
OECD	25.36	24.86	25.71	27.25	27.46	27.89	28.58	27.80	28.84	28.70	29.65	30.52	29.43
Americas	21.08	20.57	21.49	22.93	23.35	23.69	24.17	23.54	24.44	24.60	25.37	26.01	25.11
Europe	3.82	3.86	3.83	3.92	3.73	3.79	3.97	3.85	3.96	3.65	3.81	4.02	3.86
Asia Pacific	0.46	0.43	0.39	0.40	0.38	0.41	0.45	0.41	0.44	0.45	0.47	0.49	0.46
DCs	11.75	11.52	11.48	11.45	11.50	11.41	11.65	11.50	11.74	11.79	11.87	12.14	11.89
FSU	13.69	13.85	14.05	14.10	14.14	14.30	13.96	14.13	14.16	14.12	14.13	14.19	14.15
Other Europe	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
China	4.40	4.09	3.97	3.94	3.99	3.95	4.03	3.98	4.06	4.01	4.00	4.03	4.02
Processing gains	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
Total non-OPEC supply	57.51	56.65	57.56	59.12	59.45	59.92	60.59	59.77	61.20	61.02	62.05	63.28	61.89
OPEC NGLs + non-conventional oils	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) Total non-OPEC supply and OPEC NGLs	63.56	62.80	63.80	65.40	65.79	66.30	67.02	66.13	67.63	67.47	68.53	69.79	68.36
OPEC crude oil production (secondary sources)	31.90	32.85	32.62	32.39	32.19	32.56							
Total supply	95.46	95.65	96.42	97.80	97.98	98.85							
Balance (stock change and miscellaneous)	1.30	0.04	-0.83	0.00	0.08	-0.49							
OECD closing stock levels, mb													
Commercial	2,989	3,002	2,853	2,816	2,816								
SPR	1,588	1,600	1,568	1,575	1,570								
Total	4,577	4,602	4,421	4,391	4,386								
Oil-on-water	1,017	1,102	1,025	1,036	1,014								
Days of forward consumption in OECD, days													
Commercial onland stocks	64	63	60	60	59								
SPR	34	34	33	33	33								
Total	97	97	93	93	92								
Memo items													
(a) - (b)	30.60	32.81	33.45	32.40	32.11	33.05	33.06	32.66	31.53	31.74	32.21	31.67	31.79

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

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>1Q18</u>	<u>2Q18</u>	<u>3Q18</u>	<u>4Q18</u>	<u>2018</u>	<u>1Q19</u>	<u>2Q19</u>	<u>3Q19</u>	<u>4Q19</u>	<u>2019</u>
World demand													
OECD	-	-	0.05	0.04	0.01	0.04	-0.04	0.01	0.02	-0.01	0.02	-0.06	-0.01
Americas	-	-	0.05	0.04	0.06	0.11	-	0.05	0.04	0.06	0.11	-	0.05
Europe	-	-	-	-	-0.05	-0.02	-0.02	-0.02	-0.02	-0.07	-0.04	-0.04	-0.04
Asia Pacific	-	-	-	-	-	-0.05	-0.02	-0.02	-	-	-0.05	-0.02	-0.02
DCs	-	-	-	-	-0.02	-0.08	-0.08	-0.05	-0.03	-0.05	-0.11	-0.11	-0.08
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-
(a) Total world demand	-	-	0.05	0.04	-0.01	-0.04	-0.12	-0.03	-0.01	-0.06	-0.09	-0.17	-0.08
Non-OPEC supply													
OECD	-	-	-	-	0.06	0.21	0.35	0.16	0.26	0.21	0.18	0.21	0.22
Americas	-	-	-	-	0.06	0.22	0.33	0.15	0.24	0.19	0.16	0.19	0.20
Europe	-	-	-	-	-0.01	-0.02	-	-0.01	-	-	-	-	-
Asia Pacific	-	-	-	-	0.01	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02
DCs	0.01	0.01	0.01	0.04	0.04	-0.03	0.07	0.03	-0.01	-0.04	-0.07	-0.09	-0.05
FSU	-	-	-	-	-	0.09	0.03	0.03	0.02	0.02	0.02	0.02	0.02
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	0.01	-	-	-	-	-	-	-
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	0.01	0.01	0.01	0.05	0.10	0.28	0.44	0.22	0.26	0.19	0.14	0.14	0.18
OPEC NGLs + non-conventionals	-	-	-	-	-	-	-	-	-	-	-	-	-
(b) Total non-OPEC supply and OPEC NGLs	0.01	0.01	0.01	0.05	0.10	0.28	0.44	0.22	0.26	0.19	0.14	0.14	0.18
OPEC crude oil production (secondary sources)	-0.01	-0.01	-	0.01	-	-	-	-	-	-	-	-	-
Total supply	-	-	0.01	0.06	0.10	-	-	-	-	-	-	-	-
Balance (stock change and miscellaneous)	-	-	-0.03	0.01	0.11	-	-	-	-	-	-	-	-
OECD closing stock levels (mb)													
Commercial	-	-	-	-	-5	-	-	-	-	-	-	-	-
SPR	-	-	-	-	2	-	-	-	-	-	-	-	-
Total	-	-	-	-	-4	-	-	-	-	-	-	-	-
Oil-on-water	-	-	-	-	2	-	-	-	-	-	-	-	-
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	-	-	-	-	-	-	-	-	-	-
SPR	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-
Memo items													
(a) - (b)	-0.01	-0.01	0.03	-	-0.11	-0.32	-0.56	-0.25	-0.27	-0.25	-0.22	-0.31	-0.27

Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the September 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>
Closing stock levels, mb												
OECD onland commercial	2,989	3,002	2,853	3,076	3,084	3,002	3,031	3,019	2,969	2,853	2,816	2,816
Americas	1,561	1,598	1,498	1,611	1,621	1,598	1,606	1,596	1,571	1,498	1,468	1,470
Europe	993	989	943	1,026	1,013	989	1,022	999	965	943	970	958
Asia Pacific	435	414	412	438	450	414	404	424	433	412	378	388
OECD SPR	1,588	1,600	1,568	1,592	1,596	1,600	1,600	1,588	1,578	1,568	1,575	1,570
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	486
Asia Pacific	416	421	423	421	421	421	422	423	423	423	422	422
OECD total	4,577	4,602	4,421	4,668	4,679	4,602	4,630	4,608	4,547	4,421	4,391	4,386
Oil-on-water	1,017	1,102	1,025	1,094	1,068	1,102	1,043	1,052	998	1,025	1,036	1,014
Days of forward consumption in OECD, days												
OECD onland commercial	64	64	60	65	65	64	64	63	62	60	60	59
Americas	63	65	59	64	65	65	64	63	62	59	58	58
Europe	73	72	67	71	72	72	72	68	67	67	69	66
Asia Pacific	51	49	48	56	54	49	53	54	52	48	50	50
OECD SPR	34	34	33	34	34	34	34	33	33	33	33	33
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	54
OECD total	98	98	92	99	99	98	98	97	95	92	93	92

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

	2015	2016	2017	3Q18	4Q18	2018	Change 18/17	1Q19	2Q19	3Q19	4Q19	2019	Change 19/18
US	14.1	13.6	14.4	16.7	16.7	16.3	1.9	16.9	17.5	17.9	18.4	17.7	1.4
Canada	4.4	4.5	4.9	4.9	5.4	5.1	0.3	5.5	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	2.0	2.0	2.0	2.0	2.0	-0.1
OECD Americas	21.1	20.6	21.5	23.7	24.2	23.5	2.0	24.4	24.6	25.4	26.0	25.1	1.6
Norway	1.9	2.0	2.0	1.9	1.9	1.9	-0.1	1.9	1.7	1.9	1.9	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	0.8	0.7	0.7	0.1	0.7	0.7	0.7	0.7	0.7	0.0
OECD Europe	3.8	3.9	3.8	3.8	4.0	3.8	0.0	4.0	3.6	3.8	4.0	3.9	0.0
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
OECD Asia Pacific	0.5	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.5	0.5	0.5	0.5	0.1
Total OECD	25.4	24.9	25.7	27.9	28.6	27.8	2.1	28.8	28.7	29.7	30.5	29.4	1.6
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	0.8	0.8	0.8	0.8	0.8	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	0.7	0.7	0.8	0.8	0.7	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
Other Asia	3.7	3.7	3.6	3.5	3.5	3.5	-0.1	3.5	3.5	3.5	3.5	3.5	0.0
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	3.3	3.3	3.5	3.3	0.1	3.6	3.6	3.7	3.9	3.7	0.4
Colombia	1.0	0.9	0.9	0.9	0.9	0.9	0.0	0.9	0.9	0.8	0.9	0.9	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
Latin America	5.2	5.1	5.2	5.1	5.4	5.2	0.1	5.5	5.5	5.6	5.8	5.6	0.4
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
Middle East	1.3	1.3	1.2	1.3	1.2	1.2	0.0	1.2	1.2	1.2	1.2	1.2	0.0
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	0.6	0.6	0.6	0.6	0.6	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
Africa	1.6	1.5	1.5	1.6	1.5	1.5	0.0	1.6	1.6	1.6	1.6	1.6	0.1
Total DCs	11.8	11.5	11.5	11.4	11.6	11.5	0.0	11.7	11.8	11.9	12.1	11.9	0.4
FSU	13.7	13.9	14.1	14.3	14.0	14.1	0.1	14.2	14.1	14.1	14.2	14.2	0.0
Russia	10.8	11.1	11.2	11.4	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	1.7	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
Other Europe	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
China	4.4	4.1	4.0	3.9	4.0	4.0	0.0	4.1	4.0	4.0	4.0	4.0	0.0
Non-OPEC production	55.3	54.5	55.3	57.7	58.3	57.5	2.2	58.9	58.7	59.8	61.0	59.6	2.1
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
Non-OPEC supply	57.5	56.6	57.6	59.9	60.6	59.8	2.2	61.2	61.0	62.0	63.3	61.9	2.1
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
OPEC (NGL+NCF)	6.0	6.1	6.2	6.4	6.4	6.4	0.1	6.4	6.5	6.5	6.5	6.5	0.1
Non-OPEC & OPEC (NGL+NCF)	63.6	62.8	63.8	66.3	67.0	66.1	2.3	67.6	67.5	68.5	69.8	68.4	2.2

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	4Q17	1Q18	2Q18	3Q18	Aug 18	Sep 18	Change Sep/Aug
US	977	509	875	366	921	964	1,037	1,051	1,050	1,053	3
Canada	192	131	207	76	204	273	106	208	220	202	-18
Mexico	52	26	17	-8	12	19	25	30	29	33	4
OECD Americas	1,221	665	1,099	434	1,137	1,257	1,168	1,289	1,299	1,288	-11
Norway	17	17	15	-2	15	15	14	14	15	13	-2
UK	14	9	9	0	6	6	6	8	7	7	0
OECD Europe	117	96	92	-4	88	86	82	84	85	86	1
OECD Asia Pacific	17	7	15	9	16	16	21	22	21	22	1
Total OECD	1,355	768	1,206	438	1,240	1,359	1,271	1,395	1,405	1,396	-9
Other Asia*	202	180	186	6	199	196	193	204	204	200	-4
Latin America	145	68	70	2	82	80	77	83	83	83	0
Middle East	102	88	74	-14	70	73	75	76	77	72	-5
Africa	29	17	16	-1	15	16	24	29	28	32	4
Total DCs	478	353	346	-7	365	365	368	392	392	387	-5
Non-OPEC rig count	1,833	1,121	1,552	431	1,606	1,724	1,639	1,786	1,797	1,783	-14
Algeria	51	54	54	0	53	53	52	48	49	49	0
Angola	11	6	3	-4	2	3	3	4	4	4	0
Ecuador	12	4	6	2	6	6	6	9	10	8	-2
Equatorial Guinea**	1	1	1	0	1	1	1	1	1	1	0
Gabon	4	1	1	0	2	3	4	3	3	3	0
Iran**	54	59	61	2	61	61	61	61	61	61	0
Iraq**	52	43	49	6	52	58	60	58	57	59	2
Kuwait**	47	44	54	9	52	54	54	50	50	50	0
Libya**	3	1	1	0	1	1	1	7	8	9	1
Nigeria	30	25	28	3	28	32	32	34	33	33	0
Qatar	8	8	10	2	7	8	11	9	9	9	0
Saudi Arabia	155	156	149	-7	147	145	143	150	152	149	-3
UAE	42	51	52	1	53	53	54	56	57	56	-1
Venezuela	110	100	91	-9	85	88	72	69	69	67	-2
OPEC rig count	579	552	558	6	550	566	554	558	563	558	-5
World rig count***	2,412	1,673	2,110	437	2,156	2,289	2,193	2,345	2,360	2,341	-19
of which:											
Oil	1,750	1,189	1,541	352	1,591	1,727	1,667	1,809	1,824	1,800	-24
Gas	563	370	466	96	466	468	432	440	442	444	2
Others	100	113	103	-10	98	94	95	95	94	97	3

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

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

OPEC Basket average price

US\$/b



up 4.92 in September

September 2018	77.18
August 2018	72.26
Year-to-date	70.34

September OPEC crude production

mb/d, according to secondary sources



up 0.13 in September

September 2018	32.76
August 2018	32.63

Economic growth rate

per cent

	World	OECD	US	Japan	Euro-zone	China	India
2018	3.7	2.4	2.9	1.1	2.0	6.6	7.6
2019	3.6	2.1	2.5	1.1	1.9	6.2	7.4

Supply and demand

mb/d

2018		18/17	2019		19/18
World demand	98.8	1.5	World demand	100.2	1.4
Non-OPEC supply	59.8	2.2	Non-OPEC supply	61.9	2.1
OPEC NGLs	6.4	0.1	OPEC NGLs	6.5	0.1
Difference	32.7	-0.8	Difference	31.8	-0.9

OECD commercial stocks

mb

	Jun 18	Jul 18	Aug 18	Aug 18/Jul 18	Aug 17
Crude oil	1,422	1,410	1,397	-13.4	1,494
Products	1,394	1,417	1,445	27.6	1,512
Total	2,816	2,827	2,841	14.2	3,007
Days of forward cover	58.8	58.8	59.3	0.5	63.1

Next report to be issued on 13 November 2018.