OPEC

Monthly Oil Market Report

13 November 2018

Feature article:

Recent developments in global oil inventories

Organization of the Petroleum Exporting Countries

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Oil Market Highlights

Crude Oil Price Movements

The OPEC Reference Basket (ORB) ended October higher, increasing by $2.21, or 2.9% month-on-month (m-o-m), to average $79.39/b, the highest monthly average since October 2014. Crude oil futures also peaked in early October, hitting a four-year high, with ICE Brent reaching $86.29/b, as the market focused on concerns over potential oil supply shortages. ICE Brent increased by $1.52 m-o-m, or 2%, reaching $80.63/b in October, while NYMEX WTI rose by 67¢, m-o-m, or 1.0%, averaging $70.76/b. Year-to-date, ICE Brent was $20.54, or 39%, higher at $73.58/b, while NYMEX WTI increased $17.63, or 36%, to $67.23/b, compared with the same period a year earlier. The Brent-WTI spread widened by 85¢ reaching $9.87/b. Brent and Dubai backwardation structures eased over the month, coming under pressure from higher crude oil production and an oil price correction that concentrated in the prompt months. In the US, the WTI price structure flipped into contango for the first time since last May, reflecting weak supply and demand fundamentals in Cushing, Oklahoma. Hedge funds and other money managers slashed their combined speculative net length positions to end the month at their lowest levels in more than a year.

World Economy

The global economic growth forecast for 2018 remains unchanged at 3.7%, while the 2019 forecast was revised down slightly by 0.1 percentage point (pp) to now stand at 3.5%, on the back of a slowing dynamic amid rising trade tensions, monetary tightening, particularly in the US, and mounting challenges in emerging markets and developing economies. In the OECD, growth in the US is assessed to be unchanged at 2.9% in 2018, but was revised slightly upward to 2.6% in 2019. Euro-zone growth was revised down to 1.9% for 2018 and to 1.7% for 2019. GDP growth in Japan remains at 1.1% in both 2018 and 2019 each. In the non-OECD countries, both India's and China's growth forecasts were revised slightly downward to 7.5% and 6.5% for 2018, respectively, and lowered to 7.2% and 6.1%, respectively, for 2019. Growth in Brazil remains unchanged at 1.1% in 2018 and at 1.8% in 2019. Russia's GDP growth forecast is also unchanged at 1.6% in 2018 and 1.7% in 2019.

World Oil Demand

In 2018, oil demand growth is anticipated to increase by 1.50 mb/d y-o-y, a downward revision from the previous month of 40 tb/d, mainly due to weaker-than-expected oil demand data from the Middle East and, to a lesser extent, China during 3Q18. Expected total oil demand for the year is anticipated to reach 98.79 mb/d. In 2019, world oil demand growth is forecast to grow by 1.29 mb/d y-o-y, about 70 tb/d lower than last month's projection, with total world consumption to reach 100.08 mb/d. The OECD region will contribute positively to oil demand growth, increasing by 0.25 mb/d y-o-y, while the non-OECD region is assumed to see larger growth by 1.04 mb/d in 2019.

World Oil Supply

Non-OPEC oil supply growth in 2018 is estimated at 2.31 mb/d, an upward revision of 0.09 mb/d from the previous month's assessment. The US, Canada, Kazakhstan and Russia are expected to be the main drivers for this growth, while Mexico, Norway, Vietnam and China are expected to show the largest declines. With this, total non-OPEC supply for 2018 is now estimated at 59.86 mb/d. In 2019, non-OPEC oil supply growth was revised up by 0.12 mb/d from the previous month, forecast to stand at 2.23 mb/d and is now projected to reach an average of 62.09 mb/d. The upward revision comes despite a downward adjustment for oil supply in Canada, China, Brazil and Mexico. The US, Brazil, Canada and the UK are expected to be the main growth drivers, while Mexico, Norway, Vietnam and Indonesia are still expected to see the sizeable declines. OPEC NGLs in 2018 and 2019 are expected to grow by 0.10 mb/d and 0.11 mb/d to average 6.34 mb/d and 6.45 mb/d, respectively. In October, OPEC crude oil production increased by 127 tb/d to average 32.90 mb/d, according to secondary sources.

Product Markets and Refining Operations

Product Markets in the Atlantic Basin during October showed a mixed performance. In the US, product markets strengthened on the back of positive performance at the middle and the bottom of the barrels, as lower product output, due to peak maintenance season and considerable gasoil and jet/kerosene inventory drawdowns, provided a boost to refining margins. In Europe, product markets lost ground as gasoline cracks plummeted to new lows, exhibiting the highest y-o-y decline since December 2017. This, coupled with naphtha weakness weighed on cracks, despite support from the middle and bottom of the barrels. In Asia, product markets lost some ground as severe weakening at the top of the barrel, owing to regional gasoline oversupply, outweighed support from the bottom of the barrel, attributed to lower gasoil and fuel oil output.

Tanker Market

Sentiment in the dirty tanker market strengthened considerably in October, as freight rates for all classes showed improvements on all major trading routes. Average dirty tanker spot freight rates rose by 28%, compared to a month earlier. Gains in the dirty tanker sector were driven by higher seasonal tonnage demand, weather delays in different regions, and ship replacements, among other factors. Nevertheless, tanker market gains in October were affected by higher bunker prices, thus raising operational cost. On the other hand, clean tanker freight rates also experienced gains in both directions of Suez, albeit to a lesser degree.

Stock Movements

Preliminary data for September showed that total OECD commercial oil stocks rose by 5.5 mb m-o-m to stand at 2,858 mb. This was 111 mb lower than the same time one year ago, and 25.3 mb below the latest five-year average. Crude stocks indicated a deficit of 29.6 mb, while products stocks witnessed a surplus of 4.3 mb. However, OECD commercial stocks remain 287 mb above the January 2014 level. In terms of days of forward demand cover, OECD commercial stocks fell by 0.4 days m-o-m in September to stand at 59.3 days. This was 2.7 days below the same period in 2017 and 2.1 days lower than the latest five-year average.

Balance of Supply and Demand

Demand for OPEC crude in 2018 is estimated at 32.6 mb/d, 0.9 mb/d lower than the 2017 level. In 2019, demand for OPEC crude is forecast at 31.5 mb/d, around 1.1 mb/d lower than the estimate 2018 level.

Feature Article

Recent developments in global oil inventories

Two years ago, the global oil market was in a precarious position. As a result of supply heavily outpacing demand between 2014 and 2016, global oil inventories expanded rapidly. OECD commercial inventories measured by the difference to the latest five-year average – a key indicator of the health of the oil market – reached a record high of more than 400 mb in July 2016, clearly reflecting a huge excess of supply.

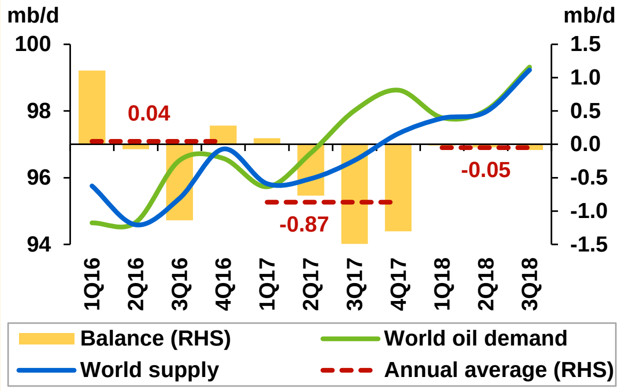
In response to this critical situation, OPEC and 10 non-OPEC oil producing countries decided that a response was urgently necessary. Under the umbrella of the 'Declaration of Cooperation' (DoC) of December 2016, participating countries undertook voluntary productions adjustments aimed at reducing the oil stock overhang, and accelerating the rebalance between supply and demand.

The DoC has had a transformative impact on the oil market. Since it became effective, total OECD commercial stocks in absolute terms have dropped by 213 mb since January 2017.

Within the components, crude inventories fell by 143 mb and refined products witnessed a drop of 70 mb over the entire period. Indeed, in 2017, the stocks draw amounted to 196 mb/d. In 2018, the picture has been mixed, with crude stocks dropping by 36 mb, while those for refined products have increased by 18 mb.

Stock draws in 2017 also benefitted from a surge in world oil demand, which outpaced global supply by 0.87 mb/d. In 2018, there has been a slowdown in the OECD commercial stock draw, which could be attributed to the narrowing gap between world oil demand and supply, which indicates a marginal deficit of approximately 0.05 mb/d, resulting in a balanced market by the end of the year (***Graph 1***).

Graph 1: World oil demand and supply, 2016-2018



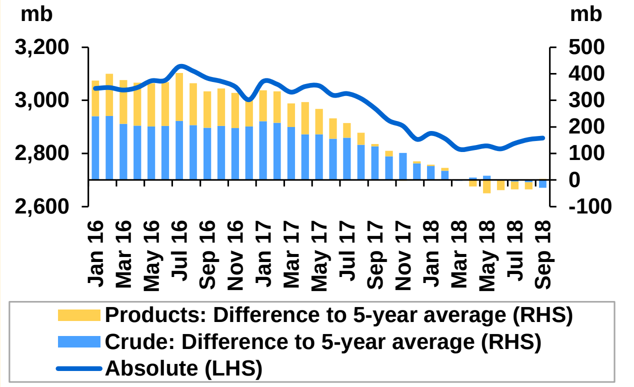
Source: OPEC Secretariat.

The adjustments in production of the participating countries by 0.8 mb/d y-o-y in 2017, and 0.5 mb/d in the first three quarters of 2018, compared to the same period a year earlier, contributed to elimination of the excess overhang in OECD commercial stocks over the last two years (***Graph 2***). This was particularly apparent in crude oil stocks.

Although the oil market has reached a balance now, the forecasts for 2019 for non-OPEC supply growth indicate higher volumes outpacing the expansion in world oil demand, leading to widening excess supply in the market. The recent downward revision to the global economic growth forecast and associated uncertainties confirms the emerging pressure on oil demand observed in recent months.

OPEC and participating non-OPEC countries in the DoC will next meet at the beginning of December to assess market developments and consider how best to continue their cooperation over the coming period. The DoC partners remain unwaveringly focused on supporting oil market stability for the benefit consumers, producers, and the industry, as well as the world economy, at large.

Graph 2: OECD commercial oil inventories and difference to 5-year average



Source: OPEC Secretariat.

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Crude Oil Price Movements

The OPEC Reference Basket (ORB) in October averaged higher for the second straight month, increasing by $2.21, or 2.9% m-o-m, to $79.39/b, the highest monthly average since October 2014. All ORB component values improved, along with their respective crude oil benchmarks, particularly Dated Brent and Dubai, which rose by almost 3% each, while WTI improved by around 1% m-o-m.

Crude oil futures also ended higher in October for the second consecutive month. Oil prices peaked in early October, hitting a four-year high, with ICE Brent reaching $86.29/b, as the market focused on worries about oil supply. Yet oil prices witnessed a drop over the second half of the month, as sharp sell-offs in global equity markets, growing concerns regarding China-US trade tensions and a weaker outlook for emerging economies raised worries about global economic and oil demand growth outlooks. In October, ICE Brent was on average $1.52, or 1.9%, higher at $80.63/b compared to a month earlier, while NYMEX WTI rose 67¢, or 1.0%, to average $70.76/b. Year-to-date (y-t-d), ICE Brent was $20.54, or 38.7%, higher at $73.58/b, while NYMEX WTI increased by $17.63, or 35.5%, to $67.23/b compared with the same period the previous year. The first-month ICE Brent/NYMEX WTI spread widened by 85¢ to $9.87/b m-o-m.

Hedge funds and other money managers slashed their combined speculative net length positions linked to both ICE Brent and NYMEX WTI, which ended the month at their lowest levels in more than a year. Worries about potential global oil demand growth and easing concern over global oil supply shortages led hedge funds and other money managers to liquidate their long positions throughout October.

Brent and Dubai backwardation structures eased in October, coming under pressure from higher crude oil production from countries in the Middle East and Russia. The oil price correction concentrated in the prompt months also weighed on the front end of the curve. The Brent front month M1-M2 flipped into contango. In the US, the WTI price structure also flipped into contango for the first time since last May, reflecting weak supply and demand fundamentals in the oil hub at Cushing, Oklahoma. The NYMEX WTI contango structure lingers across the curve until March/April 2019.

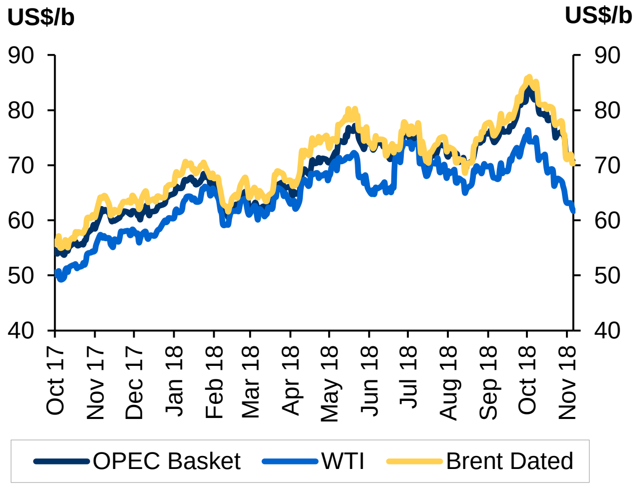
The sweet/sour differential widened in the main markets, mainly supported by sharp increases in outright sweet crude prices, especially Brent, and higher supply of sour crudes, particularly in the Middle East and Europe.

OPEC Reference Basket

In October, the **ORB** averaged higher for the second straight month, increasing by $2.21, or 2.9% m-o-m, to $79.39/b, the highest monthly average since October 2014. Prices rose in the first half of the month, supported by ongoing concerns over global oil supply shortages. However, ORB price components fell sharply in the second half of October, reflecting respective crude oil benchmark trends, after supply shortage worries mitigated amid signs of a well-supplied spot market, weaker refining margins and higher crude oil inventories, particularly in the US.

Crude oil physical benchmarks traded higher in October, but at a different pace. While Dated Brent and Dubai rose by $2.32 and $2.18, m-o-m, respectively, the WTI spot price increased by 55¢.

Graph 1 - 1: Crude oil price movement



Sources: Argus Media, OPEC Secretariat and Platts.

All **ORB component values** increased in October, along with their respective crude oil benchmarks. Nonetheless, crude oil differentials eased, due to a well-supplied spot market and weaker refining margins.

Light sweet crude **ORB components from West and North Africa**, including Saharan Blend, Es Sider, Girassol, Bonny Light, Equatorial Guinea's Zafiro and Gabon's Rabi, increased by $2.41 on average, or 3.1%, to $80.83/b in October. These crude prices were up on a higher Dated Brent price, while differentials eased. The West African (WAF) market was under pressure due to weaker refining margins, higher freight rates and rising exports of US crude oil to Asia, in addition to more crude oil supply from Libya.

Latin American ORB components improved along with the WTI price in October, with Venezuelan Merey and Ecuador's Oriente averaging higher, respectively, by $5.94, or 8.6%, to $75.25/b, and by $1.36, or 1.8%, at $75.48/b.

The value of **multiple-region destination grades** Arab Light, Basrah Light, Iran Heavy and Kuwait Export, expanded on average by $1.86, or 2.4%, m-o-m to $78.47/b in October, benefitting from increases in their official selling prices (OSPs) in addition to a higher Dubai price.

Similarly, **Middle Eastern spot components** Murban and Qatar Marine also saw their values rising by $2.53, or 3.2% to $81.28/b and by $2.44, or 3.2%, to $78.89/b, respectively.

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

			Change		Year-to-date	
	Sep 18	Oct 18	Oct/Sep	%	2017	2018
Basket	**77.18**	**79.39**	**2.21**	**2.9**	**50.68**	**71.30**
Arab Light	78.16	80.02	1.86	2.4	50.80	72.05
Basrah Light	76.18	78.26	2.08	2.7	50.13	70.11
Bonny Light	79.45	82.09	2.64	3.3	52.72	73.93
Djeno*	76.18	78.52	2.34	3.1	50.91	70.44
Es Sider	77.10	79.62	2.52	3.3	50.97	71.63
Girassol	79.48	82.24	2.76	3.5	52.63	73.52
Iran Heavy	75.28	77.04	1.76	2.3	50.08	69.59
Kuwait Export	76.82	78.56	1.74	2.3	49.91	70.27
Qatar Marine	76.45	78.89	2.44	3.2	51.20	70.88
Merey	69.31	75.25	5.94	8.6	46.01	65.54
Murban	78.75	81.28	2.53	3.2	53.16	73.69
Oriente	74.12	75.48	1.36	1.8	48.16	67.99
Rabi Light	78.04	80.37	2.33	3.0	51.36	72.13
Sahara Blend	79.55	81.12	1.57	2.0	52.20	73.36
Zafiro	79.10	81.82	2.72	3.4	52.18	73.11
Other Crudes						
Dated Brent	78.80	81.12	2.32	2.9	52.37	73.07
Dubai	77.22	79.40	2.18	2.8	51.49	71.11
Isthmus	74.44	80.03	5.59	7.5	53.16	70.18
LLS	77.43	78.93	1.50	1.9	52.32	71.92
Mars	74.39	75.82	1.43	1.9	48.90	68.51
Minas	72.02	73.66	1.64	2.3	47.58	67.34
Urals	78.50	80.16	1.66	2.1	51.35	71.79
WTI	70.20	70.75	0.55	0.8	49.56	67.32
Differentials						
Brent/WTI	8.60	10.37	1.77	-	2.81	5.75
Brent/LLS	1.37	2.19	0.82	-	0.05	1.15
Brent/Dubai	1.58	1.72	0.14	-	0.88	1.97

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

M-o-m, the **ORB value** rose by $2.21, or 2.9%, to settle at $79.39/b in October. Y-t-d, the ORB value was $20.62, or 40.7%, higher at $71.30/b compared with the same period in 2017.

On 12 November, the ORB stood at $69.82/b, $9.57 below the October average.

The oil futures market

Crude oil futures ended slightly higher in October for the second consecutive month. Oil prices peaked in early October, hitting a four-year high, with ICE Brent reaching $86.29/b, as the market focused on oil supply worries. Yet, oil prices witnessed a correction over the second half of October and continued to fall until the end of the month, as sharp sell-offs in global equity markets, growing concerns regarding China-US trade tensions and a weaker emerging economies outlook raised worries on global economic and oil demand growth outlooks. Oil prices fell further after US data showed a continuing build in US crude oil inventories, driven by record-high crude oil production and the refinery maintenance season. According to US Energy Information Administration (EIA) data, US crude oil inventories continued to grow for six consecutive weeks to 26 October, adding more than 22 mb, compared with the week ended 28 September. Higher US crude oil inventories and the rise of US crude oil production to historical levels slowed the increase of NYMEX WTI futures, compared with ICE Brent and DME Oman.

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

			Change		*Year-to-date*	
	Sep 18	Oct 18	Oct/Sep	%	2017	2018
NYMEX WTI	70.08	70.76	0.67	1.0	49.60	67.23
ICE Brent	79.11	80.63	1.52	1.9	53.04	73.58
DME Oman	78.75	80.05	1.30	1.6	51.69	71.52
Transatlantic spread (ICE Brent-NYMEX WTI)	*9.02*	*9.87*	*0.85*	*9.4*	*3.44*	*6.35*

Note: Totals may not add up due to independent rounding.
Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

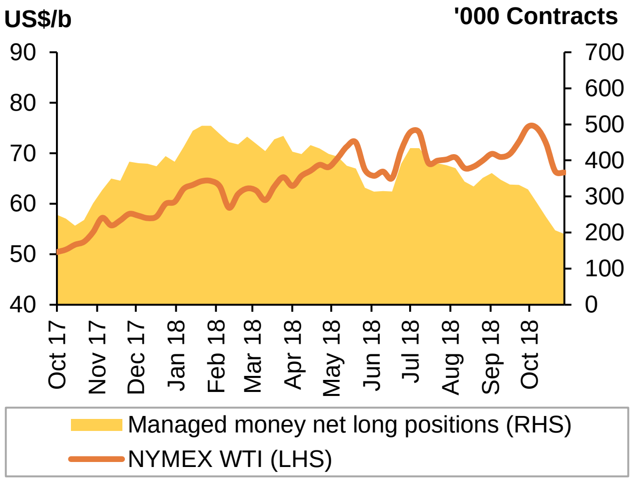
In October, ICE Brent was on average $1.52, or 1.9% higher m-o-m, at $80.63/b, while NYMEX WTI rose 67¢, or 1.0%, to average $70.76/b. Y-t-d, ICE Brent is $20.54, or 38.7%, higher at $73.58/b, while NYMEX WTI increased by $17.63, or 35.5%, to $67.23/b, compared to the same period a year earlier. DME Oman also rose by $1.30 in October, or 1.6%, over the previous month, to settle at $80.05/b. For the year, DME Oman was up by $19.83, or 38.4%, at $71.52/b, compared with the same period in the previous year.

On 12 November, ICE Brent stood at $70.12/b and NYMEX WTI at $59.93/b.

Hedge funds and other money managers have slashed combined speculative net length positions linked to both ICE Brent and NYMEX WTI and ended the month at their lowest levels in more than a year. Worries about global oil demand growth and easing concern over potential global oil supply shortages led hedge funds and other money managers to liquidate their long positions throughout the month of October.

Hedge funds and other money managers cut their combined net long positions in futures and options linked to **NYMEX WTI** by 135,947 contracts, or 40.9%, to 196,196 contracts in October, the US Commodity Futures Trading Commission (CFTC) said.

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



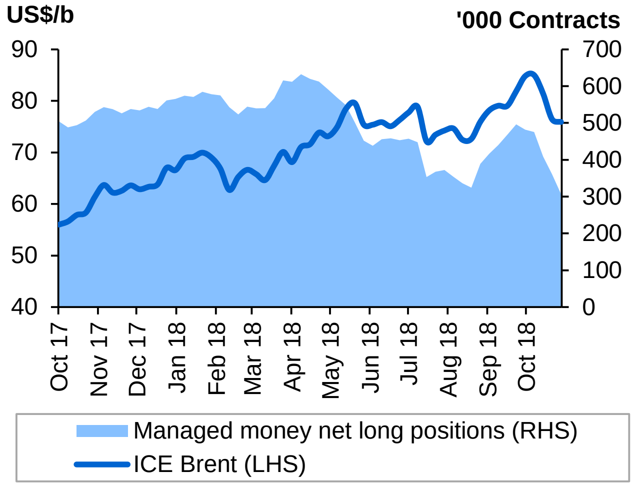
Sources: CFTC , CME Group and OPEC Secretariat.

The speculator group also sharply decreased their combined futures and options net long positions in **ICE Brent** from 496,343 to 307,112 lots, a drop of 189,231 contracts, or 38.1%, according to the ICE Exchange.

The **long-to-short ratio** in ICE Brent speculative positions decreased sharply from 19:1 to 5:1, and the ratio in NYMEX WTI decreased from 14:1 to 4:1.

Total futures and options open interest volume in the two exchanges was lower by 496,194 contracts, or 8.1%, to stand at 5.6 million contracts.

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



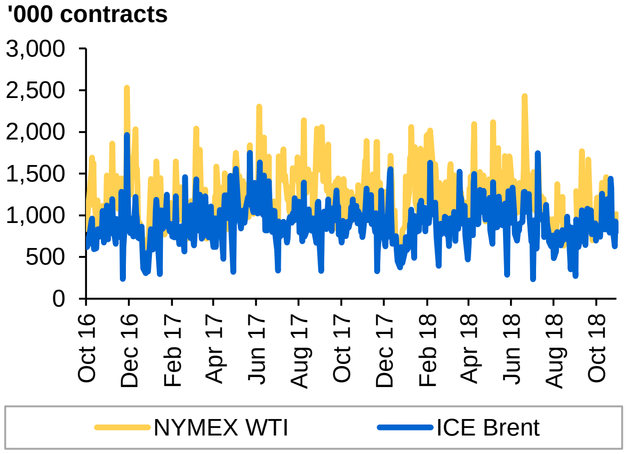
Sources: Intercontinental Exchange and OPEC Secretariat.

The **daily average traded volume** for NYMEX WTI contracts decreased slightly by 45,741 lots, or 4.1%, to 1,065,476 contracts, while that of ICE Brent was 70,600 contracts higher, up by 8.3%, at 918,941 lots.

The **daily aggregate traded volume** for both crude oil futures markets increased slightly by 24,860 contracts to remain at 2.0 million futures contracts, or about 2.0 billion b/d of crude oil.

The **total traded volume** in NYMEX WTI was 16.1% higher at 24.5 million contracts, and that of ICE Brent was 24.6% higher at 21.1 million contracts.

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



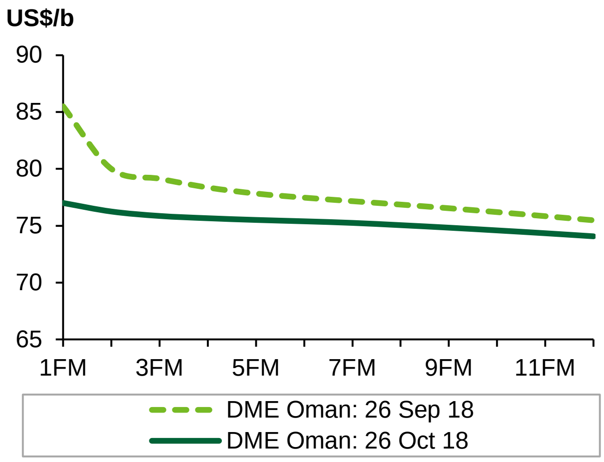
Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.

The futures market structure

The **Dubai** backwardation structure eased in October, coming under pressure from higher crude oil production from Middle Eastern countries and from Russia, in addition to the weak sour crude market. An oil price correction concentrated in the prompt months also weighed on the front end of the curve.

Brent's backwardation structure eased in October, and the front month M1-M2 flipped into contango, partly due to a deep price correction and oil price sell-off, which was concentrated in the front months, in addition to signs of higher oil supply from major oil producers and concerns about oil demand growth.

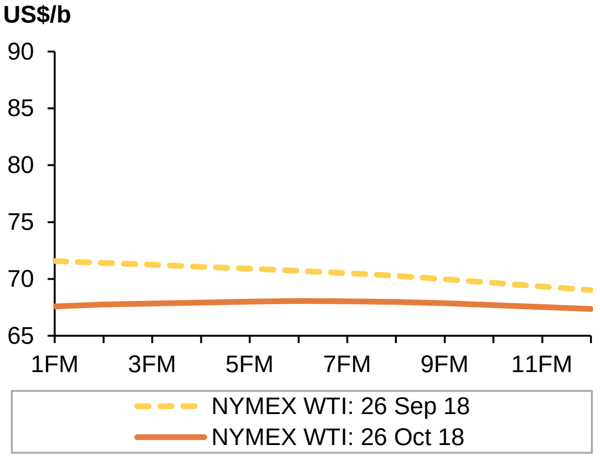
Graph 1 - 5: DME Oman forward curves



Note: FM = future month.
Sources: Dubai Mercantile Exchange and OPEC Secretariat.

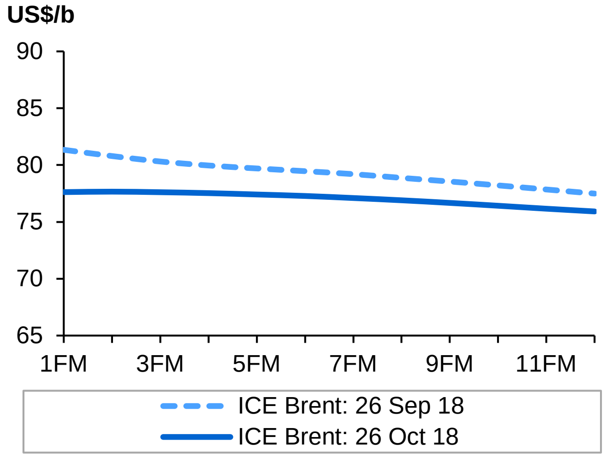
In the US, the **WTI** price structure flipped into contango for the first time since last May, reflecting weak supply and demand fundamentals in the Cushing, Oklahoma oil hub. The NYMEX WTI contango structure lingered across the curve until March/April. Higher US crude production, an ongoing rise in US crude oil inventories for six consecutive weeks, as well as peak refinery maintenance season, pressured prompt prices. WTI prices at Cushing also softened ahead of commissioning of the Sunrise pipeline extension, which is expected to come online in early November. The Sunrise pipeline extension has connections to the storage hub in Cushing, Oklahoma.

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**, North Sea Brent M1/M3 backwardation eased to 65¢/b, a decrease of 16¢. The Dubai M1/M3 $1.14/b premium decreased to $1.14/b premium, down by 26¢. In the US, the WTI backwardation of 54¢/b retreated sharply to 4¢/b, where M1/M3 narrowed by 50¢.

The spread between the ICE Brent and NYMEX WTI benchmarks widened again in October to $9.87/b on a continuing increase in US crude oil inventories, which rose for six consecutive months to the week of 26 October, adding more than 22 mb, from the week ending 28 September. Higher US crude oil production and refinery maintenance season in the US added pressure to WTI prices. On the other hand, Brent prices were supported, particularly in the first half of October, by concerns over potential global oil supply shortages and rising geopolitical tensions.

The first-month **ICE Brent-NYMEX WTI spread** widened by 85¢ to $9.87/b in October from $9.02/b a month earlier.

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

		1FM	2FM	3FM	6FM	12FM	12FM-1FM
NYMEX WTI	26 Sep 18	71.57	71.41	71.25	70.71	69.02	-2.55
	26 Oct 18	67.59	67.75	67.84	68.05	67.37	-0.22
	Change	**-3.98**	**-3.66**	**-3.41**	**-2.66**	**-1.65**	**2.33**
ICE Brent	26 Sep 18	81.34	80.79	80.31	79.46	77.49	-3.85
	26 Oct 18	77.62	77.66	77.61	77.28	75.92	-1.70
	Change	**-3.72**	**-3.13**	**-2.70**	**-2.18**	**-1.57**	**2.15**
DME Oman	26 Sep 18	85.50	80.00	79.13	77.47	75.48	-10.02
	26 Oct 18	77.00	76.25	75.86	75.39	74.07	-2.93
	Change	**-8.50**	**-3.75**	**-3.27**	**-2.08**	**-1.41**	**7.09**

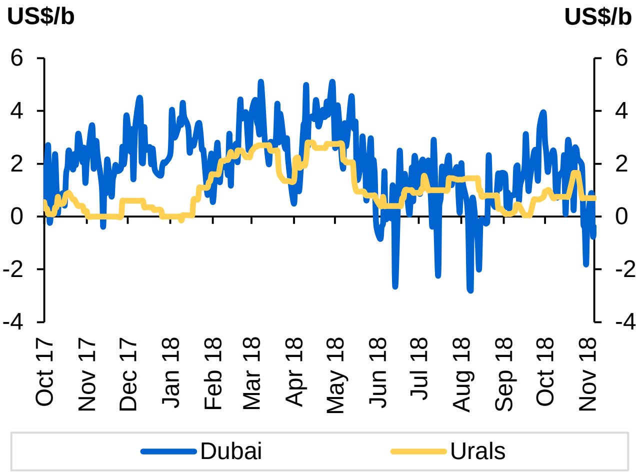
Note: FM = future month.
Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.

The light sweet/medium sour crude spread

The **sweet/sour differentials** widened in the main markets, mainly supported by sharp increases in outright sweet crude prices, especially Brent, and a greater supply of sour crudes, particularly in the Middle East and Europe.

In **Asia**, the Tapis premium over Dubai widened further in October amid a well-supplied sour crude market and higher prices for Asian domestic light sweet crudes. The Tapis/Dubai spread widened by 97¢, to $5.18/b. Higher crude oil supply from the Middle East and narrower ICE Brent premiums to Dubai swaps put pressure on sour crudes. In the meantime, domestic light sweet crudes found support from a lower supply of similar crudes from the Atlantic Basin, as higher freight rates limited buying interest from outside the region, particularly from West Africa.

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



Sources: Argus Media, OPEC Secretariat and Platts.

In **Europe**, the light sweet North Sea Brent premium to Urals medium sour crude widened further in October, reaching its highest level since last May. Ample Urals supply for October loading and sluggish European demand weighed on prices. However, the spread between light sweet North Sea Brent and Urals medium sour crude narrowed in late October on stronger fuel oil margins and higher demand in Northwest Europe.

In the **USGC**, the Light Louisiana Sweet (LLS) premium over medium-sour Mars increased slightly by 7¢ to an average of $3.11/b, as light sweet crude prices were supported by robust demand for export. Both sour Mars and LLS differentials relative to WTI futures firmed in October, as coastal grades were supported by a wider WTI/Brent spread.

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

On average, the **USD** advanced further in October, as the strength of the US economy continues to support a relatively faster monetary tightening by the US Fed, particularly in respect to the central banks of other major economies. Against the euro, the dollar advanced by 1.5% m-o-m, with the recent economic slowdown suggesting an even slower pace of tightening by the ECB next year. Against the Swiss franc, the dollar rose by 2.6%. Against the pound sterling the dollar advanced by 0.4%, moving sideways following Brexit developments. Against the Japanese yen, the dollar advanced by 0.7% m-o-m, as the BoJ remains committed to its very accommodative monetary policy.

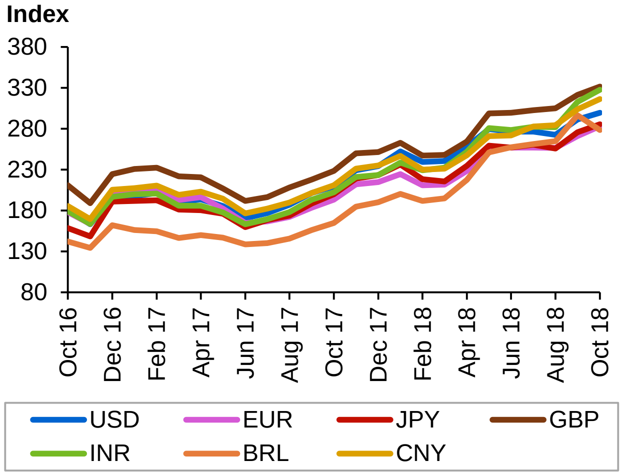
Elsewhere, **emerging economy currencies** were mixed with the USD losing ground against the currencies that have experienced the worst performances this year. The dollar fell on average by 3.8% m-o-m against the Argentinian peso and by 8.0% against the Turkish lira. This was the result of higher monetary policy rates, improving trade balances, and receding fears of sanctions by the US against Turkey. The dollar lost 8.7% against the Brazilian real, given the receding political uncertainty following the general election, some improvements in leading indicators, and some stabilization of the Argentinian peso.

On average, the USD advanced against the Chinese yuan in October by 1.2%. It is up by 5.0% y-o-y.

Against the Indian rupee it gained 2.0% m-o-m, with the Reserve Bank of India surprising the market at the beginning of the month by keeping policy rates unchanged. The dollar is up by 14.6% against the rupee since the beginning of the year.

Against the Russian ruble the dollar decreased on average by 2.7%, partly as a result of the central bank of Russia's decisions to hike rates in September and to suspend foreign currency purchases in the domestic market.

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



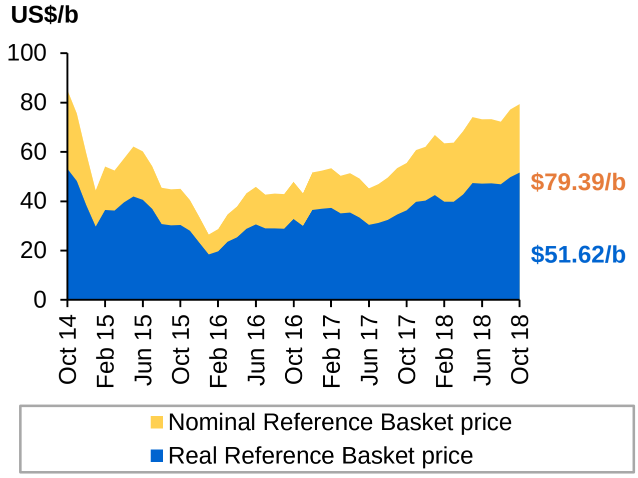
Sources: IMF and OPEC Secretariat.

In **nominal terms**, the price of the ORB increased by $2.21, or 2.9%, from $77.18/b in September to $79.39/b in October.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB increased to $51.62/b in October from $49.73/b in September (base June 2001=100).

Over the same period, the **USD** increased by 0.9% against the import-weighted modified Geneva I + USD Basket[1], while inflation was relatively flat m-o-m.

Graph 1 - 10: Impact of inflation and currency fluctuations on the spot OPEC Reference Basket price1 (base June 2001 = 100)



Source: OPEC Secretariat.

[1] *The 'Modified Geneva I + USD Basket' includes the euro, the Japanese yen, the USD, 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 October, the price of energy commodities was mixed. While natural gas jumped in the US with the onset of colder weather amid lower-than-average inventories, the opposite weather pattern weakened prices in Europe. Coal prices, meanwhile, declined to a six-month low due to lower demand from China. Crude oil prices advanced slightly on average compared to the previous month, but prices declined sharply on a month-end comparison, reversing the majority of the gains achieved since mid-August.

In the group of non-energy commodities, base metal prices recovered some ground with continuing declines in metal stocks providing support, especially for copper and zinc. However, concerns about slowing global manufacturing expansion and trade disputes persisted, preventing further appreciation. Precious metals recovered with sell-offs in global equity markets, which spurred on safe heaven demand.

Trends in selected commodity markets

The energy price index increased by around 1.3% in October. Y-t-d, energy prices have been on average around 34% higher than for the same period last year.

Table 2 - 1: Commodity prices

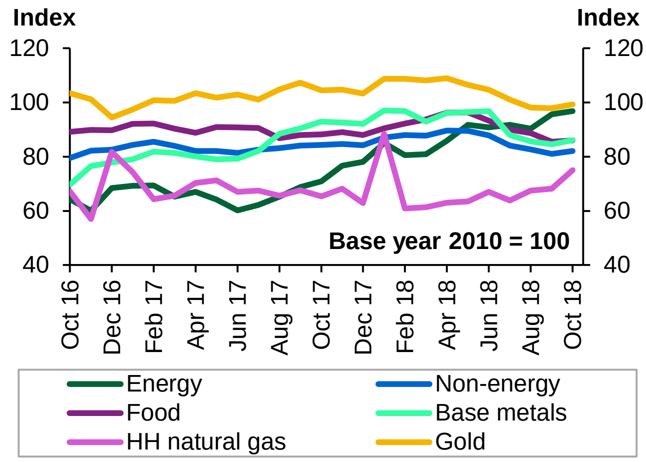
Commodity	Unit	Monthly averages			% Change	Year-to-date	
		Aug 18	Sep 18	Oct 18	Oct 18/Sep 18	2017	2018
Energy*		**90.4**	**95.6**	**96.8**	**1.3**	**66.2**	**88.9**
Coal, Australia	US$/mt	117.3	114.2	108.7	-4.8	86.5	108.2
Crude oil, average	US$/b	71.1	75.4	76.7	1.8	51.3	70.4
Natural gas, US	US$/mbtu	3.0	3.0	3.3	10.0	3.0	3.0
Natural gas, Europe	US$/mbtu	8.1	9.5	8.8	-7.7	5.5	7.6
Non-energy*		**82.7**	**81.1**	**82.1**	**1.2**	**83.3**	**86.0**
Base metal*		**85.6**	**84.5**	**86.1**	**1.8**	**83.5**	**92.0**
Precious metals*		**92.0**	**91.2**	**92.6**	**1.6**	**97.7**	**97.8**

*Note: * World Bank commodity price indices (2010 = 100).*
Sources: World Bank, Commodity price data; OPEC Secretariat.

In October, the **Henry Hub natural gas index** increased on average by 30¢, or 10.0%, to $3.29/mmbtu compared with the previous month to average $2.99/mmbtu. Prices finally broke above the tight range in which prices have fluctuated since the end of winter. The arrival of cooler temperatures over the last stretch of the injection season dimmed expectations for shortening of the deficit in inventories in relation to the five–year average. According to the US EIA, utilities added 48 bcf to working gas underground storage during the week ending 26 October, slightly lower than median analyst expectations for a 51 bcf build. The build left total working gas in underground storage at 3,143 bcf, which was 16.9% lower than the previous five-year average. One month ago, it was 17.5% lower than the five-year average. However, the US climate prediction centre forecasts warmer than normal conditions for much of the US, but particularly in the Northern and Western regions from December to February which could soften demand.

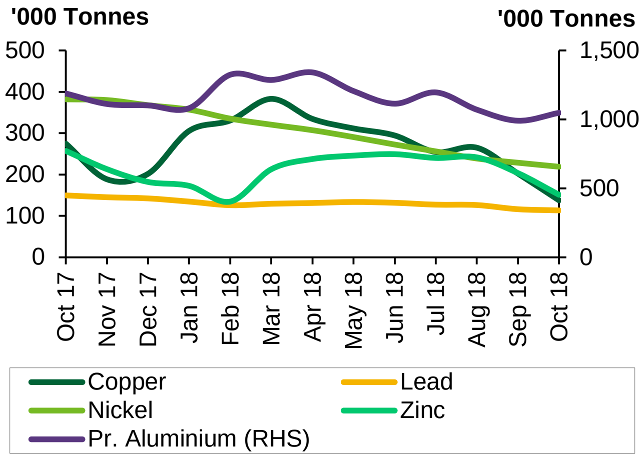
Meanwhile, **natural gas prices in Europe** decreased in October. Hub prices declined by 7.7% m-o-m, as warmer-than-average temperatures reduced demand for power generation. This also resulted in a large drop in coal prices. The price for carbon emissions dropped from €21/mt to around €17/mt at the end of the month. Natural gas inventories for EU Member States were at around 87.3% of capacity at the end of October – last year's end-of-October level was around 90.6% according to Gas Infrastructure Europe. Another factor driving prices down is the drop in crude oil, which is limiting the upside potential in future months.

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.

Thermal coal prices decreased to an average of $108.7/mt in October, or 4.8% m-o-m, its lowest since May. Prices have been under pressure with seasonal moderation in demand in East Asia, especially after the heatwave at the beginning of the summer, while at the same, the government of China has restricted imports for the last two months. In fact, the latest available data shows coal imports fell by 8.2% m-o-m in October, though they were up by 8.5% y-o-y. In the January-October period, imports were 11.5% higher than the same period last year. Meanwhile, coal output in China, has continued to ramp up, increasing by 5.2% in September y-o-y, faster than the 4.3% pace seen in August, while power generation grew by 4.6% y-o-y versus growth of 7.3% y-o-y the previous month, according to the National Bureau of Statistics. Most recently at the beginning of November, the National Climate Centre of China forecasted a warmer-than-average winter, further weakening the outlook for coal demand.

Base metal prices were mixed, with some metals finding support since mid-September as a result of tightening inventories and some optimism that a potential deal between the US and China on trade-related disputes could be achieved before tariffs rise from 10% to 25% in January 2019. However, the continuing slowdown in the expansion of global manufacturing, especially in China, continues to prevent further recovery in metal prices. The JPM Global Manufacturing Purchasers Managers' Index declined to another two-year low of 52.1 in October from 52.2 the previous month, with the new export sub-component improving slightly to 49.9 from 49.7 in September, but still signalling contraction. Copper prices rose on average by 2.8%, with further decreases of inventories in London Metal Exchange (LME)-designated warehouses, below 140,000 mt - its lowest level in more than two years, providing support. According to the International Copper Study Group, in the January-July period, the market had a deficit of around 155,000 mt. Zinc prices were the best performer of the base metals group, rising by 9.8% on a monthly average compared to the previous month. As has happened with copper, the recovery started the previous month following a sharp decline in LME-designated warehouse inventories to lows not seen since late 2007, of below 30,000 mt at the end of September, though some large deliveries to stocks afterwards prevented further increases.

In the group of **precious metals**, prices recovered after five months of losses, supported by large drops in world equity markets, which spurred on safe haven demand. Gold prices advanced by 1.4%, and silver prices advanced by 2.3%. Meanwhile, platinum prices were relatively stable. Speculators maintained a net short position in gold during the month.

Investment flows into commodities

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

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

	Open interest		*Net length*			
	Sep 18	Oct 18	Sep 18	% OI	Oct 18	% OI
Crude oil	2,260	2,181	347	15	252	12
Natural gas	1,638	1,615	110	7	237	15
Precious metals	676	672	-128	-19	-98	-15
Copper	235	242	-16	-7	-6	-2
Total	**4,809**	**4,711**	**20**	**5**	**384**	**25**

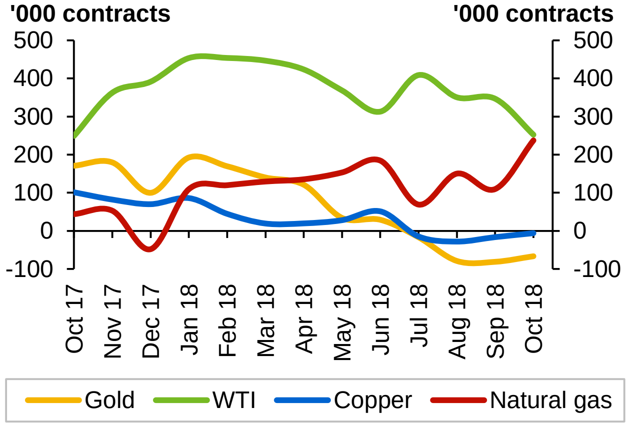
Note: Data on this table is based on monthly average.
Sources: US Commodity Futures Trading Commission and OPEC Secretariat.

Henry Hub's natural gas OI decreased in October by 1.4%, while money managers' average net long positions jumped by 2.2 times to 237,451 contracts.

Copper's OI increased in October by 2.8%. Money managers decreased their net short position by around 64% to an average of 5,906 contracts.

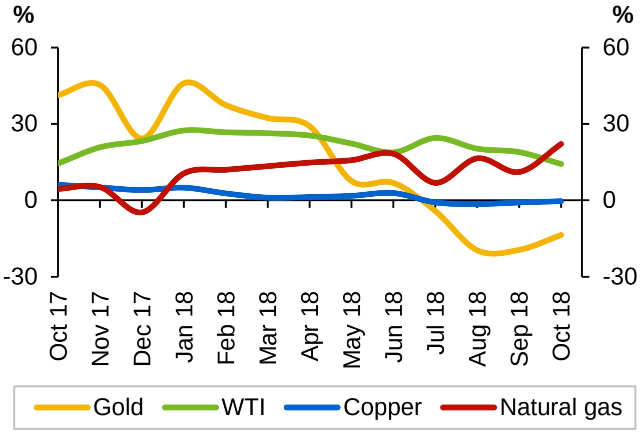
Precious metals' OI declined by 0.6%. Money managers decreased their net short position by 23% to 97,803 lots.

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



Note: Data on this graph is based on monthly average.
Sources: US Commodity Futures Trading Commission and OPEC Secretariat.

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



Note: Data on this graph is based on monthly average.
Sources: US Commodity Futures Trading Commission and OPEC Secretariat.

World Economy

With the important exception of the US economy, the slow-down in the global economic growth trend has become more accentuated lately. Latest output numbers and economic indicators have confirmed a slowing growth trend in several important economies, leading to a downward revision of the global economic growth forecast for 2019 to 3.5%, following growth of 3.7% in 2018. This comes after several key measures in the past weeks have indicated a slowing dynamic amid rising trade tensions, monetary tightening, particularly by the US Fed, and mounting challenges in several emerging market and developing economies.

In the OECD, the divergence of growth trends has increased. In the US, the significant fiscal stimulus has supported strong growth in 3Q18 and the expectation of the momentum to carry over into the following year has led to an upward revision for 2019. Following an estimated 2.9% for 2018, the 2019 growth forecast has now been revised up to 2.6%. In contrast to this strong momentum in the US, Euro-zone growth has disappointed in 3Q18, leading to a downward revision in both 2018 and 2019, to growth levels of 1.9% and 1.7%, respectively. The growth forecast in Japan remains unchanged as a low growth trend of 1.1% in both 2018 and 2019 has already been considered. However, further downside risks to the OECD growth of 2.4% in 2018 and 2.0% in 2019 remains, amid ongoing monetary tightening by the G4 central banks and continuing issues in the EU – Brexit-related uncertainties and Italy's fiscal issues, to name the most important ones.

In the emerging economies, both India and China continue to grow at high levels, but some deceleration has recently become evident. Consequently, economic growth was revised down slightly in both economies. China's growth now stands at 6.5% for 2018 and 6.1% in 2019. India's economic growth seems to be slowing by roughly the same pace and has been revised down to 7.5% in 2018 and lowered to 7.2% in 2019. Growth in Brazil and Russia has already been revised lower over the past months, with no need for further adjustment at this time. Growth in Brazil is forecast at 1.1% in 2018 and 1.8% in 2019. Depending on the policy actions by the incoming government after the most recent elections, as well as commodity price developments, the growth forecast for 2019 may change. Russia's growth remains at 1.6% in 2018 and is forecast at 1.7% in 2019, also dependent on political developments and commodity prices.

Rising global debt is another important aspect that may dampen economic growth going forward. Debt levels in the OECD have risen in key economies and in some emerging and developing economies these trends also present a concern. It remains to be seen how this situation will affect growth in the near term, at a time when central banks are engaged in monetary policy normalization and raising interest rates. Especially the growth trend in 2H19 remains uncertain as the fiscal stimulus in the US is expected to taper off, China's slow-down to continue, Euro-zone issues remaining and probably India is also facing lower growth levels

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**	**1.9**	**1.3**	**6.5**	**7.5**	**1.1**	**1.6**
Change from previous month	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	-0.1	0.0	0.0
2019	**3.5**	**2.0**	**2.6**	**1.1**	**1.7**	**1.4**	**6.1**	**7.2**	**1.8**	**1.7**
Change from previous month	-0.1	-0.1	0.1	0.0	-0.2	0.0	-0.1	-0.2	0.0	0.0

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

OECD

OECD Americas

US

US **economic growth** remains well supported by the fiscal stimulus measures. GDP growth in 3Q18 was reported by the Bureau of Economic Analysis at 3.5% quarter-on-quarter (q-o-q) at a seasonally-adjusted annualized rate (SAAR) in the first of the usual three estimates. This comes after an already very high economic growth level of 4.2% q-o-q SAAR in 2Q18. The strong GDP growth number was accompanied by ongoing improvements in the labour market situation, which is likely to continue on a positive trend in the near future. Importantly, earnings growth has held up well, with improvements also witnessed recently. These rising income levels, in combination with a potentially growing participation rate, are forecast to support domestic consumption.

The strong growth momentum is forecast to be carried over into 2019, although it is expected to taper off slightly as monetary tightening will likely negatively impact growth next year. Robust growth in the coming months, in combination with higher inflation, may also lead the Fed to push for more substantial tightening, which would, in turn, probably dampen growth going forward. Rising interest rates may already have had some negative effect on the housing market, a very important source of US economic growth and also a significant platform for US private households' wealth. In addition, the potential negative consequences of an increasing budget deficit, used to finance the fiscal stimulus, may pose further risks, and the most recent trade-related initiatives may also have a negative impact on the US economy too. The tariffs, if implemented as announced, may lift inflation, with the probable consequence of a further rise in interest rates.

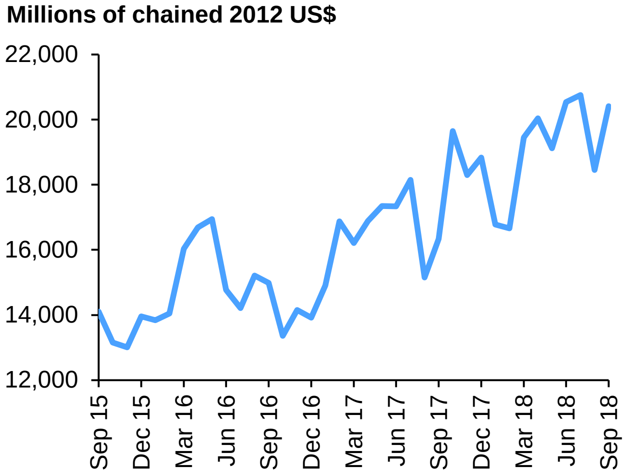
At a growth rate of 4.0% q-o-q SAAR in 3Q18, **private household consumption** contributed the majority of growth at a level of 2.7 percentage points. The second driving force in the 3Q18 dynamic was inventory building, evidently in anticipation of continued strong demand in the coming months. However, this strong momentum in inventories may lead to lower growth in the coming quarters. The inventory build-up contributed around 2.0 percentage points to 3Q18 GDP growth.

The past week's rise in US Treasury yields reflects the expectation of strong US economic growth leading to the Fed continuing its monetary tightening. Consequently, real interest rates remained above 1%. It will be important to monitor this situation as continued capital outflows from emerging markets, in combination with a further weakening of currencies in these economies, may further challenge growth patterns in these countries.

A buoyant oil-sector has continued to support US economic development. September's **petroleum product exports** rose by 24.9% y-o-y, compared to 21.8% y-o-y in August. In absolute terms, they accounted for $20.40 billion, higher than the absolute level for August, which stood at $18.45 billion. The strong oil supply output increase is likely to continue to support US GDP growth.

The positive momentum in the labour market continued in October, again lending strong support to the Fed's monetary tightening path. The **unemployment rate** remained at 3.7%. The average hourly earnings growth for the private sector increased at a considerable rate of 3.1% y-o-y, which is not only above last month's level of 2.8%, but also the largest increase since 2009. Long-term unemployment improved slightly to stand at 22.5%, while the participation rate rose to 62.9%. As the participation rate may improve further in the coming months there is still some upside room for employment, without the labour market overheating beyond the already tight conditions.

Graph 3 - 1: US petroleum exports, seasonally adjusted



Sources: Census Bureau and Haver Analytics.

Non-farm payrolls increased by 250,000 in October, after a slightly downward revised 118,000 in September.

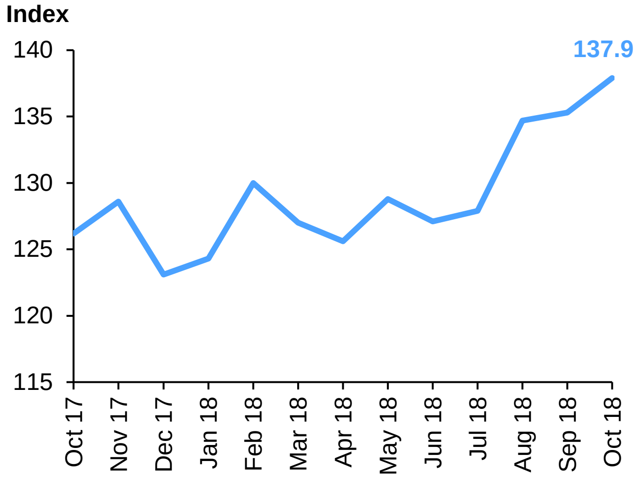
The Fed has confirmed that it is staying course for further monetary tightening as the economy continues to improve. While the Fed kept its target range at 2.0% to 2.25% in its latest November meeting of the Federal Open Market Committee (FOMC), the next interest rate increase is expected for December. Naturally, an important Fed focus is on the development of consumer prices, i.e. **inflation** numbers, which held up well in September, albeit with a slight decline m-o-m. Overall inflation stood at 2.3% in September, compared to 2.7% y-o-y in August and 2.9% y-o-y in July. The September level is the lowest since February. The important core inflation – excluding volatile items, such as food and energy – stood at 2.2% y-o-y in September, unchanged from August. Additionally, the Fed's favoured inflation index, the personal consumption expenditure price index (PCE index), retracted slightly to stand at 2.0% in September, compared to 2.2% in August and 2.3% in July. This downward trend in important inflation measures may turn out to be temporary, but it is important to note that it seems not to have been triggered by energy price movements. If energy prices decline further, however, there is evidently some further downside for inflation. Moreover, it is not expected that the relatively higher weighted categories, such as housing – including rents – and Medicare will rise so fast so quickly on a yearly base. So, while inflation has now been above the Fed's inflation target of around 2% for seven consecutive months, inflation constitutes an area that the Fed will continue to carefully monitor as it currently offers some downside.

The very important **housing sector**, as well as the mortgage market, exhibited mixed developments in some of its most important measures amid the dynamic of rising interest rates. The 15-year average fixed mortgage rate in October stood at 4.25%, according to a calculation published by the Wall Street Journal. This compares to an average annual 15-year rate of 3.37% in 2017. This rise in financing cost seems to have already had an impact on house prices. The S&P CoreLogic Case-Shiller Home Price Index Composite 20 for metropolitan areas shows a slowing trend in price-increases. The August rise stood at 5.5% y-o-y, compared to the July increase of 5.9% y-o-y, which also was the level of the average yearly rise in 2017. Furthermore, the yearly change in the house pricing index of the Federal Housing Finance Agency (FHFA) has also continued a slowing dynamic with a monthly price rise of 6.1% in August, after 6.6% in July and this compares to a yearly average of 6.7% in 2017. Existing home sales in September decelerated too, with an annualised level of 5.15 million entities, compared to 5.33 million in August and 5.54 million in 2017. New home sales also fell to a level of 553,000 from 585,000 in the previous month and compares to an annual 2017 average of 616,000, which was the highest level since 2007. The September level was the lowest in more than one and a half years.

The general economy's strength was also reflected in **consumer sentiment**, according to the index published by the Conference Board. The index rose to 137.9 in October, moving up from 135.3 in September. This marked the highest level since 2000. Retail sales grew by 4.7% y-o-y in September, a high level, but well below the August level of 6.5% y-o-y, both numbers are on a nominal and seasonally adjusted basis.

Industrial production also increased considerably again in September, rising by 5.1% y-o-y, compared to 4.9% y-o-y in August, on a seasonally adjusted basis.

Graph 3 - 2: US consumer confidence index

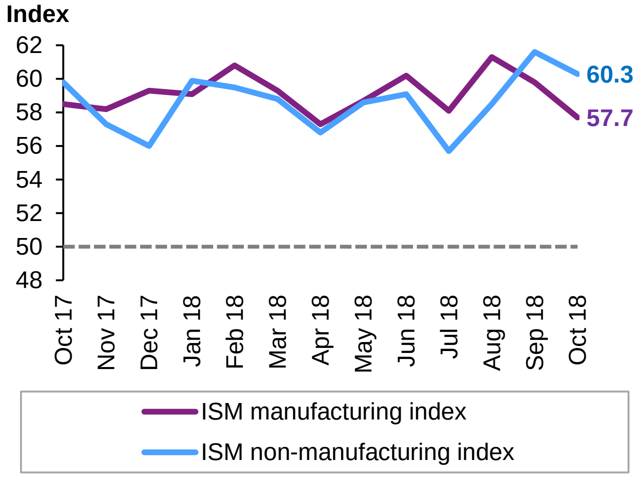


Sources: The Conference Board and Haver Analytics.

October's **Purchasing Managers' Index (PMI),** as provided by the Institute of Supply Management (ISM), indicated some slowdown in the manufacturing and services sector, although both remained at high levels. The manufacturing PMI stood at 57.7 in October, compared to 59.8 in September. The important index for the services sector fell to 60.3, from 61.6 in September. It should be noted, however, that September marked the highest level this year.

Backed by the strong 3Q18 growth impetus, and the ongoing 4Q18 dynamic, the growth momentum is expected to carry over into 2019. Hence, the 2019 **GDP growth forecast** was revised up to 2.6%, from 2.5% in October. This is still very much supported by the fiscal stimulus. The stimulus effect is, however, forecast to taper off in 2019, particularly in the second half of the year. The 2018 GDP growth forecast remains at 2.9%.

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



Sources: Institute for Supply Management and Haver Analytics.

Importantly, trade-related issues need close monitoring, particularly trade relations between 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. Moreover, uncertainties remain about the impact of monetary tightening, as well as domestic policy issues, in general. Any of these disruptive areas could derail the growth dynamic very quickly.

Canada

Positive output numbers continue to support a healthy growth trend in Canada. It should be noted that this may also lead the central bank to a quicker interest rate increase, after it had already raised its key policy interest rate by 25 bp to 1.75% at its October meeting. Moreover, positive remarks about the near-term development of the Canadian economy by the Governor of the Bank of Canada appear to indicate a faster pace for future increases. The governor also highlighted that rates would ultimately need to reach a neutral level of around 2.5% to 3.5% to keep inflation on track. He also expressed his confidence that wage growth will accelerate to between 3% and 3.5% as productivity improves, although average hourly wages advanced by 2.4% y-o-y in September, which marked a slowdown from previous months. Thus, it remains to be seen if this positive development as expected by the central bank will materialise soon.

Inflation, another key-indicator for the Bank of Canada, held up well to stand at 2.4% y-o-y in September, albeit a slight retraction from the August level of 2.7% y-o-y. **Industrial production** continued to expand at a solid level in August, rising by 2.8% y-o-y. **Retail trade** also continued its healthy growth trend, with a level of 3.5% in August, the same level as July. Nonetheless, despite the positive momentum the PMI index for manufacturing continued to decelerate in October declining to a level of 53.9 from 54.8 last month.

Canada's growth dynamic stays unchanged and its **GDP growth forecast** remains at 2.1% and 1.8% for 2018 and 2019, respectively.

OECD Asia Pacific

Japan

Overall, **Japan** continues to grow at a slow pace of just above 1%. This marks the country's current 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 this remains a gradual process. Inflation has also been supported by developments in the oil market, while this may now turn with energy prices witnessing a recent drop. The slightly improving inflation rate is supporting the Bank of Japan's (BoJ) target to achieve an inflation rate of around 2%, while at the same time the BoJ will likely continue its accommodative monetary policy. However, most recent comments by the head of the central bank indicate an end to the very expansionary monetary stimulus somewhere in the future. It remains to be seen whether this will happen soon as uncertainties remain with regard to the Japanese growth dynamic. Rising protectionism may impact the export-driven economy, while domestic demand may also remain sluggish. In general, the BoJ has confirmed that that it will continue its monetary stimulus with quantitative and qualitative monetary easing (QQE), but a somewhat tighter monetary policy could take effect after the consumption tax hike scheduled to take place in October 2019.

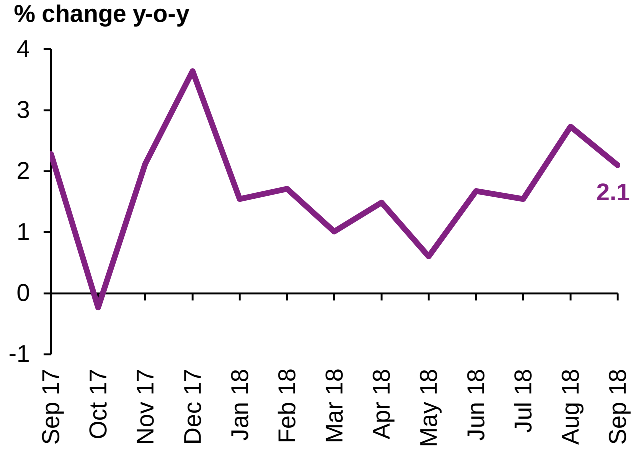
Inflation held up well in September, but decelerated slightly, and the level is still clearly below the BoJ's target level of 2%. Support came again from rising energy prices in September, although this may now turn as prices in October have dropped. Some continued support over the next months may come again from the tight labour market as rising wages may lift inflation. In September, monthly earnings rose by a respectable level of 1.2% y-o-y, the same level as in August. However, the wage-level driven core inflation, which excludes food and energy, stood at only 0.3% y-o-y in September, after August's growth of 0.4% y-o-y. Given the labour market tightness, the unemployment rate fell again and stood at only 2.3% in September, which is slightly below the already very low level of 2.4% y-o-y in August.

Along with other economic indicators, **export** growth continued to slow too, falling in September to 1.3% y-o-y, non-seasonally adjusted, after reaching 6.6% y-o-y in August. September **industrial production** declined as well, falling by 0.6% y-o-y, after a decline of 0.1% y-o-y in August. Following very strong growth in May, when industrial production increased by 3.5%, the subsequent months have all been lower. The slowdown has already been indicated by a somewhat softening in manufacturing orders in the past months. While the narrative of the Ministry of Economy, Trade and Industry in the past month highlighted that weaker industrial activity was also partly impacted by weather-related issues in some parts of the country over the summer, it appears that the underlying momentum is clearly slowing. Manufacturing orders indicated an ongoing slowing momentum, as they fell by 5.4% y-o-y in September, after growth of 4.9% y-o-y in August.

Domestic retail demand mirrored the slowing trend in the Japanese economy, decelerating to a growth level of 2.1% y-o-y in September, after growth of 2.7% in August. The August level seems to have been only a temporary recovery from low retail growth numbers in the previous months. This trend underscores the ongoing apathy in terms of local demand, and it remains to be seen how this continues. With further real income growth and appreciation likely, the development may at least be supported at a low growth level.

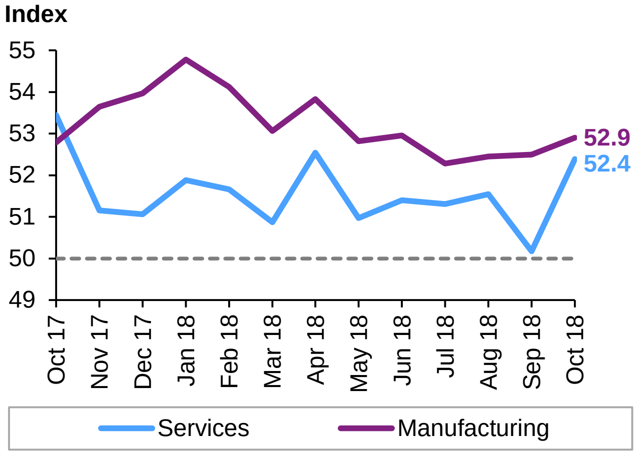
The latest October **PMI numbers** for both the manufacturing and the services sector indicated some slight improvements. The manufacturing PMI rose to a level of 52.9, compared to a level of 52.5 in September. The services sector PMI – the sector that constitutes around two-thirds of the Japanese economy – recovered strongly to stand at 52.4, after this year's low of 50.2 in September.

Graph 3 - 4: Japan's retail trade



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

Graph 3 - 5: Japan's PMIs



Sources: IHS Markit, Nikkei and Haver Analytics.

The somewhat slowing of the Japanese economy has already been taken into account in the current GDP growth forecast. However, given the most recent, slightly more accentuated slowing development, there is still some room to the downside. Moreover, the possibility of further potential trade related issues, in combination with the tight labour market situation and high capacity utilization rates, could pose some risk to economic growth. For 2019, it remains to be seen how and when the sales tax increase will be implemented. For the time being, it is envisaged to be introduced in October next year. Hence, the 2019 forecast assumes that the sales tax level will be increased from 8% to 10% in 4Q19. For the time being, the **GDP growth forecast** remains unchanged at a level of 1.1% in both 2018 and 2019.

South Korea

The **South Korean economy's** solid expansion is continuing to face some signs of moderation. After very strong growth of 4.1% q-o-q SAAR in 1Q18 and slightly lower growth of 2.4% q-o-q SAAR in 2Q18, the latest release of the 3Q18 GDP growth number shows a continuation of the slowing trend as the GDP growth expansion decelerated to 2.3% q-o-q SAAR. Importantly, investments fell by 5.5% y-o-y in 3Q18. Some recovery from the low growth levels, however, is expected to take hold in 4Q18. In this respect, exports, a key growth element for the South Korean economy, rose by 14.6% y-o-y in October, after a decline of 2.2% y-o-y in September.

The latest **PMI number** for the manufacturing sector points to a recovery in the sector, with the level standing at 51.0 in October, which almost matches the 51.3 in September. This is an important increase, and indicates a strong pick-up, when compared to 49.9 in August and 48.3 in July. Improvements in the economy are forecast to continue, as domestic developments and external trade are forecast to gain momentum over the rest of 2018. However, the prospect of increased trade protectionism could potentially pose some economic headwinds.

Given the somewhat weaker-than-expected 3Q18 GDP growth number, the **GDP growth** forecast for 2018 was revised down slightly to stand at 2.6%, compared to 2.8% last month. Growth in 2019 indicates some further annual slowdown, in line with developments in the OECD economies and China − its most important trading partners – but it remains unchanged at 2.4% compared to last month.

OECD Europe

Euro-zone

The **Euro-zone growth** momentum clearly slowed in 3Q18 and the deceleration is likely to spill over into 2019. Growth in the 3Q18 stood at only 0.2% q-o-q at a seasonally adjusted rate. It is expected that growth will pick up again in 4Q18, but is then forecast to slow in 2019, due to anticipated ECB monetary tightening and some cyclical deceleration in key economies. Among the most serious challenges for the Euro-zone are elevated sovereign debt levels in some economies, particularly Italy. Moreover, some weak areas in the banking sector require ongoing monitoring.

Italy's budget situation remains a concern, after the EU Commission rejected the government's 2019 budget proposal to increase the country's deficit to 2.4% in 2019. In this respect, it should be noted that the government's proposed budget deficit of 2.4% is based on a 2019 GDP growth assumption of 1.5%, which, given recent developments, seems unlikely. The government proposed to reduce the deficit in subsequent years, to 2.1% in 2020 and 1.9% in 2021. Contrary to these optimistic assumptions, the EU Commission assumes that Italy's deficit will reach 2.9% in 2019 and 3.1% in 2020, hence, breaching the EU's 3% maximum level. This is based on the assumption that Italy's economy would expand by 1.2% in 2019 and 1.3% in 2020. In the meantime, Italy's 10-year treasury yields have jumped by about 180 bp on average since May, temporarily hitting more than 3.6%, while in recent weeks it has moved back to around 3.4%. This situation, if it continues, will also make refunding requirements for the already ailing Italian banks even more challenging. Therefore, while the government's fiscal spending plan is aimed to reach higher growth levels, the strategy could backfire, worsening Italy's medium-term fiscal position.

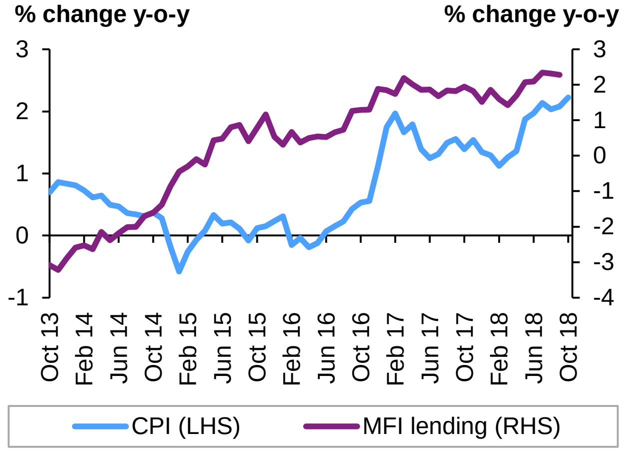
Another policy-related issue to monitor is Brexit. While the financial market's assumption is that the remaining hurdles will be resolved before the UK's exit date in March 2019 or that at least an agreement on a transition will be found, the Euro-zone could potentially suffer negative consequences, if details on Brexit are not agreed upon soon, or if the UK exits with no deal.

In the **labour market**, the unemployment rate in September remained at 8.1% for the third consecutive month, compared to a level of 8.6% at the beginning of the year. This is the lowest level since 2008. However, the unemployment remains high and there is still ample room to the upside, which may further support economic growth. This improving labour market situation should lift wages too, an element in the labour market that has shown a moderate improvement. The latest available yearly growth number on hourly earnings from Eurostat shows that 2Q18 earnings rose by 2.2% y-o-y, compared to 2.1% y-o-y in 1Q18 and a 4Q17 performance of 2.0% y-o-y. In line with these labour market indicators, retail trade has continued to perform well so far this year and picked up again in September, albeit at a slightly lower level than August. September retail trade grew by 2.6% y-o-y, compared to 3.7% y-o-y in August.

Industrial production remained at the lower end as it grew by only 0.8% y-o-y in August, a slight uptick from the July level of 0.5% y-o-y. This compares to the June level of 2.4% y-o-y and the May level of 2.6% y-o-y. Manufacturing activity performed better than average again, rising by 1.0% y-o-y, after a level of 0.9% in July. However, this is still a remarkable slowdown from May and June levels of 3.3% and 3.2% y-o-y, respectively. The sub-sector of mining and quarrying declined considerably again, falling by 11.7% y-o-y, after declining by 12.6% y-o-y in July. This constitutes the largest drag within all the sub-groups. The increase in new orders in the manufacturing sector, a good lead indicator for future manufacturing activity, again indicates a decelerating underlying growth trend in the sector. Manufacturing order growth stood at 1.7% y-o-y in August, after 2.0% y-o-y in July, 3.0% y-o-y in June and 4.5% y-o-y in May.

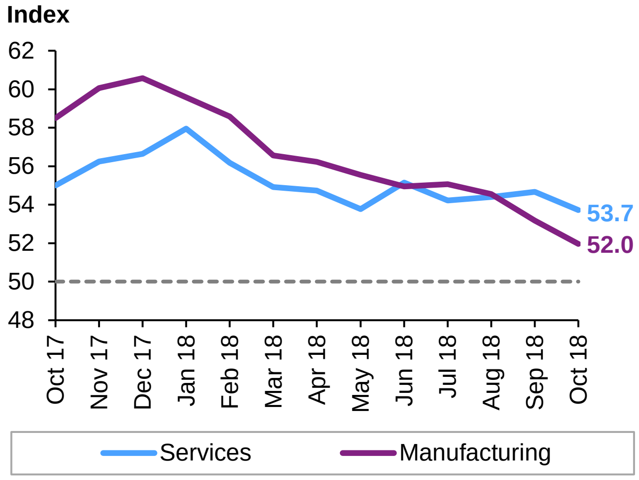
Inflation levels saw a positive trend, as not only energy-related total inflation increased, but also core inflation moved up again, driven by the ongoing improvements in the labour market. Total inflation stood at 2.3% y-o-y in October, after 2.1% y-o-y in September and 2.0% y-o-y in August. This confirms the improving trend, as 1Q18 inflation stood at 1.3% y-o-y, before moving up to 1.7% y-o-y in 2Q18 and then reaching 2.1% y-o-y in 3Q18. While this dynamic was largely due to rising energy prices, rising wages and income growth now also seem to have kicked in, but it remains to be seen given the deceleration in the global economy, whether this is a sustainable trend. Core inflation – the CPI, excluding energy and food – rose by 0.2 percentage points to reach 1.1% in October, while it has previously been almost unchanged since January. The positive momentum in general inflation, in combination with the expected increase in core inflation, as well as recovering growth in 4Q18, are forecast to support the ECB's current monetary policy.

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



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

Graph 3 - 7: Euro-zone PMIs



Sources: IHS Markit and Haver Analytics.

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 showed stable growth, rising by 2.4% y-o-y in September, the same level as in August and July, and compared to 2.1% in June and May. With **lending activity and inflation** having picked up, the economic momentum is expected to continue in the coming months, although the dynamic for the 2H19 seems to be less certain, particularly as further monetary tightening is expected to take hold in 2019.

The Euro-zone's latest October **PMI indicators** generally point to a continuation of healthy underlying growth in the economy, albeit at a decelerating level. The manufacturing PMI fell to stand at 52.0, compared to 53.2 in September. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, retracted to 53.7, compared to 54.7 the previous month. It is important to note that both levels are the lowest so far in 2018.

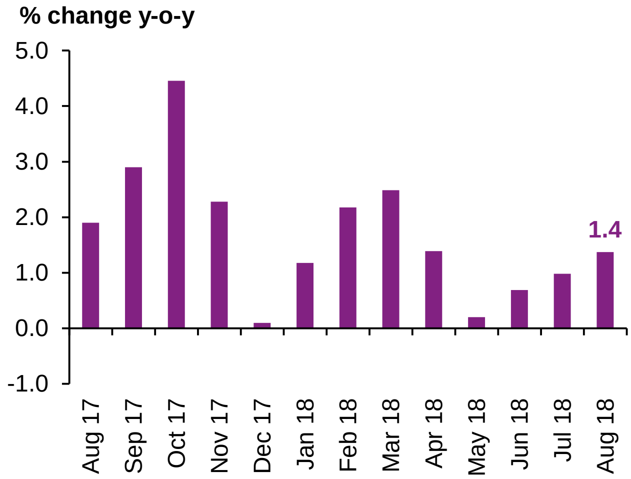
Given the low GDP growth in 3Q18 and the expectation of a continuation of the decelerating trend, the **GDP growth** forecast was revised down for both 2018 and 2019. GDP growth in 2018 is now forecast at 1.9%, compared to 2.0% in the previous month. GDP growth in 2019 is now expected at1.7%, down from 1.9% in the previous month. Political uncertainties, the Brexit process, weakness in the banking sector, as well as monetary policies, remain important factors to monitor.

UK

There remain significant uncertainties when it comes to the **ongoing Brexit negotiations**. Both EU officials and UK negotiators signal a generally positive attitude in public and there remains an assumption that an agreement could be found as most of the treaty text is ready, as recently highlighted again by the EU's chief negotiator. However, one particular sticking point remains the tricky question of the Irish border, among others, and domestic support for the UK government in its Brexit strategy appears to be fragile. So, a final agreement on how the UK will exit the EU remains vague and, the likelihood of a hard Brexit remains. With only a few months until the UK's formal exit from the EU in March 2019, it is clear numerous sensitive issues remain unresolved.

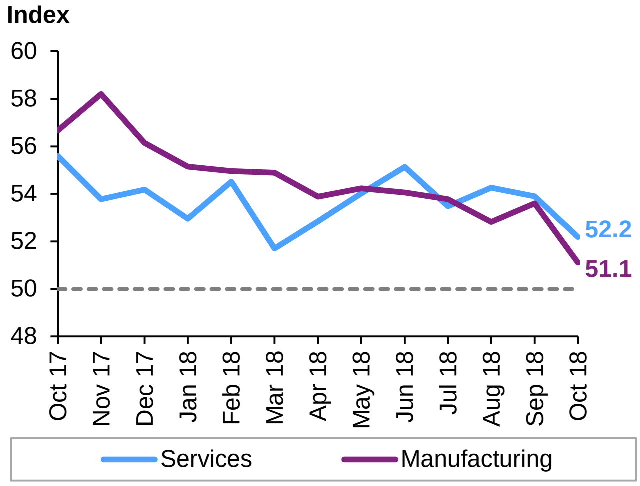
In the meantime, the latest indicators point to some deceleration in the UK's economy, counterbalanced to some extent by exports. Some continued positive momentum is seen in **retail trade** in value terms, which is still growing considerably, rising by 4.9% y-o-y in September. However, a clear decelerating trend has become apparent in recent months, as this compares to 5.7% y-o-y in August and 6.0% y-o-y in July. Moreover, the weak pound sterling seems to have supported growth in **exports**, which rose by 7.5% y-o-y in August, only a touch below the 7.8% y-o-y growth in July. The latest available data shows that **industrial production** has improved slightly, as it grew by 1.4% y-o-y in August, compared to 1.0% y-o-y in July, 0.7% y-o-y in June and 0.2% y-o-y in May. Inflation remained high at 2.4% y-o-y, only slightly below the 2.7% y-o-y in August and the 2.5% y-o-y in July.

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 October **PMI** lead indicators point to a slowing activity in both the manufacturing and services sectors. The PMI for manufacturing declined to 51.1, after 53.6 in September and 52.8 in August. The very important services sector, which constitutes the majority of the UK's economy, retracted considerably to a level of 52.2, comparing to 53.9 in September and 54.3 in August.

While some recovery is forecast to take place in 4Q18 – 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	4.3	-31.7	-41.7	-7.1	-5.7	78.8	84.2
Russia	1.6	1.7	3.1	4.5	66.1	63.0	0.3	0.4	10.2	9.5
India	7.5	7.2	4.5	5.0	-63.7	-58.6	-3.6	-3.3	49.4	48.0
China	6.5	6.1	2.1	2.8	73.8	20.8	-3.6	-3.9	18.8	21.3

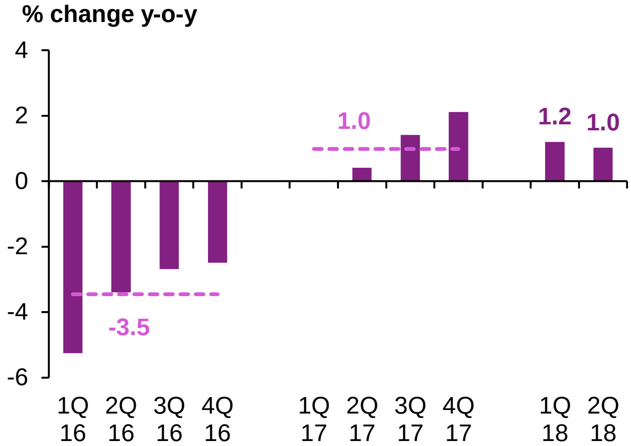
*Note: * 2018 and 2019 = Forecast.*

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

Brazil

The **trade surplus** rose in October 2018 to $6.1 billion from the $5.2 billion registered in October 2017. Exports to China increased due to an increase in crude oil and soybeans sales, while imports also increased, mainly due to higher purchases of crude oil. Both exports and imports rose by 17.7% y-o-y in October. Exports of crude oil and soybeans increased by 138% and 124%, respectively. The largest rises in imports were for intermediate and consumption goods, by 16.5% and 13.0%, respectively. Exports to China rose by 75%, to the US by 37% and to the European Union by 9%. Imports from the Middle East increased by 135%, from the US by 23%, and from China by 14%.

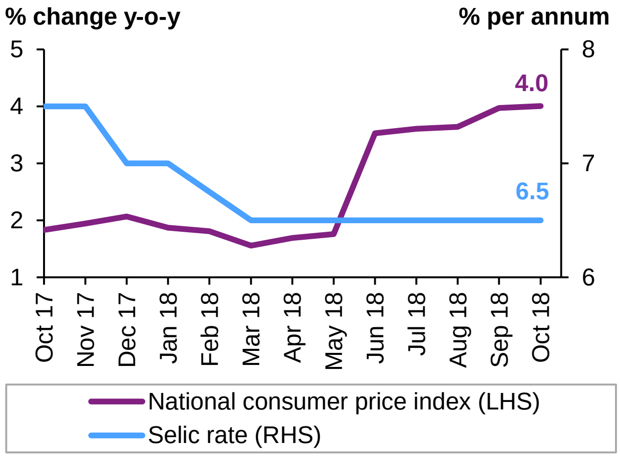
Graph 3 - 10: Brazil's GDP growth



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

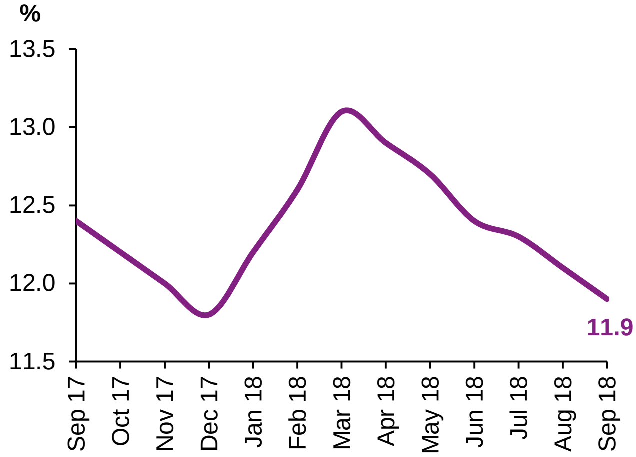
In October, the **real** appreciated for the first time since January by 8.7% m-o-m. It depreciated by 4.8% m-o-m vs. the dollar in September, following a 2.6% depreciation in August. The accumulated depreciation in the real since the beginning of 2018 amounted to 14.2%. **Inflation** slightly increased in September to stand at 4.00% y-o-y, up from 3.6% in August. Six months ago, inflation stood at only 1.8%.The central bank also held its benchmark **interest rate** unchanged at 6.50% in October for the eighth month in a row. The **unemployment rate** fell to 11.9% in September from 12.1% in August and 12.3% in July. The **consumer confidence index** improved in October, posting 87.7, up from 83.6 in September.

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



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

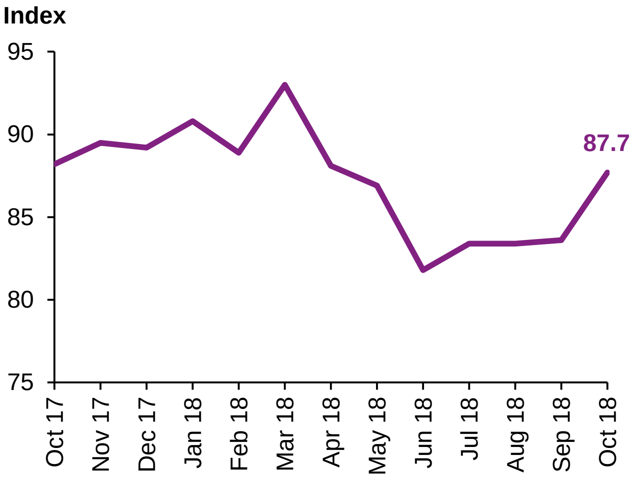
Graph 3 - 12: Brazil's unemployment rate



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

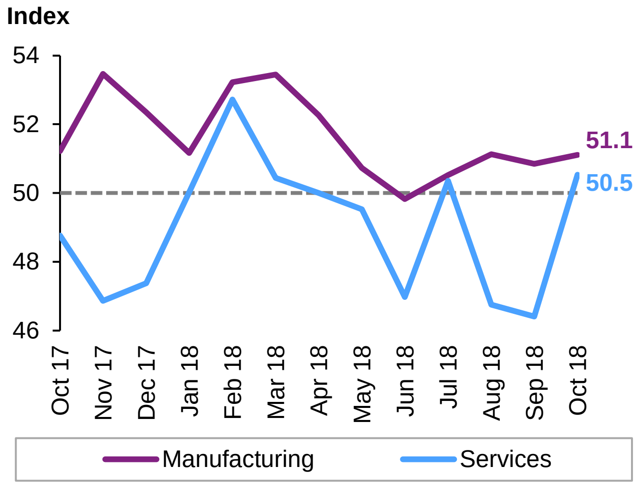
The IHS Markit Brazil **manufacturing** PMI reading for October showed further improvement in manufacturing sector business conditions. The headline index registered 51.1 in October, up from 50.9 in September, and was primarily supported by a fourth successive rise in production and new orders. The survey also showed a lift in manufacturing employment for the first time in three months. Firms reported that the launch of new products and continuous improvements in demand translated into new order growth in October. The production rise seen in October was marginal, as political uncertainty, subdued household consumption and elections restricted output growth in October. Brazilian manufacturers remained optimistic that output will be higher in a year's time. Sentiment was supported by demand growth beliefs, gains in market share, investment intentions and the end of elections. Nevertheless, worries about the high level of unemployment and economic uncertainty weighed on confidence, which was at a three-month low.

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.

Brazilian **service** providers experienced a pick-up in new work during October, which led to a renewed upturn in business activity and the first expansion in jobs in over three-and-a-half years. At the same time, business sentiment improved to its highest level since October 2013. The IHS Markit Brazil services business activity index posted in expansion territory for the first time in three months. The index stood at 50.5 in October, up from 46.4 in September.

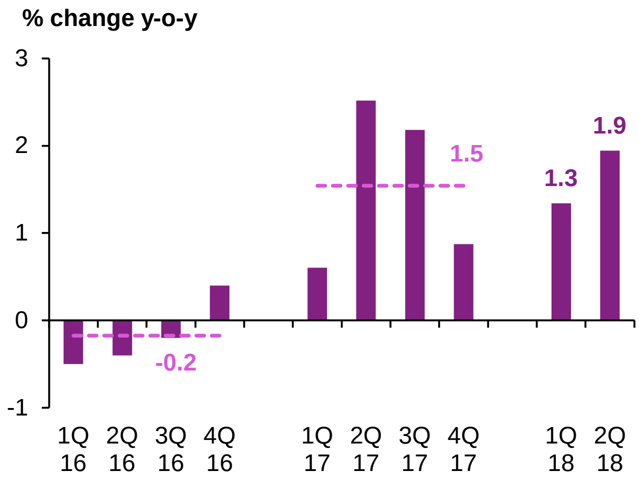
Improvements in the trade balance and the manufacturing sector are the two main positive indications of Brazil's economy. Despite the fact that inflation is currently not too high, its recent upward trend is something to closely monitor in the coming months, alongside the exchange rate and the central bank interest rate. Challenges to exports to Argentina have been ongoing since May, intensifying in September, when exports dropped by 35% y-o-y. There is no change this month to Brazil's GDP. The **Brazil's GDP** is forecast to grow by 1.1% y-o-y in 2018 and 1.8% in 2019.

Russia

Russia's trade surplus increased in August to $15.8 billion, up from $6.7 billion one year earlier. Exports rose by nearly 29% y-o-y, while imports dropped by 3.5% y-o-y. 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 1.3% y-o-y growth in 1Q18.

Depreciation in the **ruble** continued for eight months before reversing in October, when the ruble appreciated by 2.7% m-o-m, following a 2.4% depreciation in September. In a year-on-year comparison, the ruble was 14.0% lower in October from one year earlier.

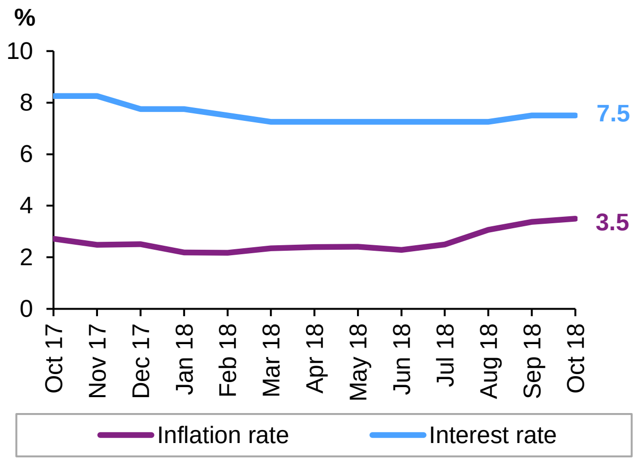
Graph 3 - 15: Russia's GDP growth



Sources: Federal State Statistics Service and Haver Analytics.

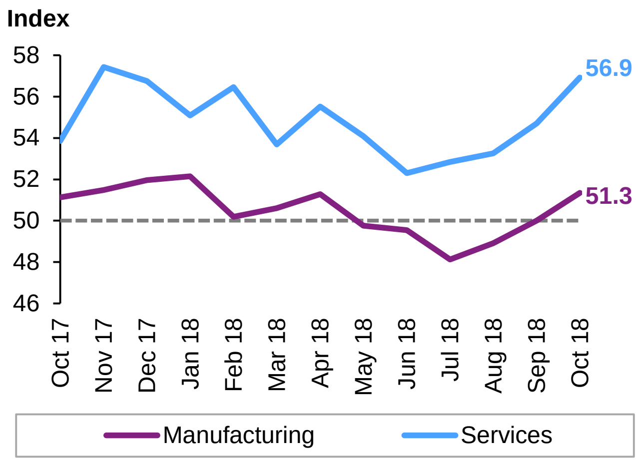
Consumer price **inflation** increased to 3.5% in October, after hitting 3.4% y-o-y in September for the first time since mid-2017. In August, inflation surpassed 3% y-o-y for the first time in 12 months. In response to the ruble's depreciation and rise in inflation, the central bank increased its benchmark **one-week repo rate** in September by 25 basis points to 7.50%. It is the first rise in the interest rate since November 2014. The interest rate was kept stable at 7.25% in the six months prior to September. The benchmark interest rate was unchanged in September and October.

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

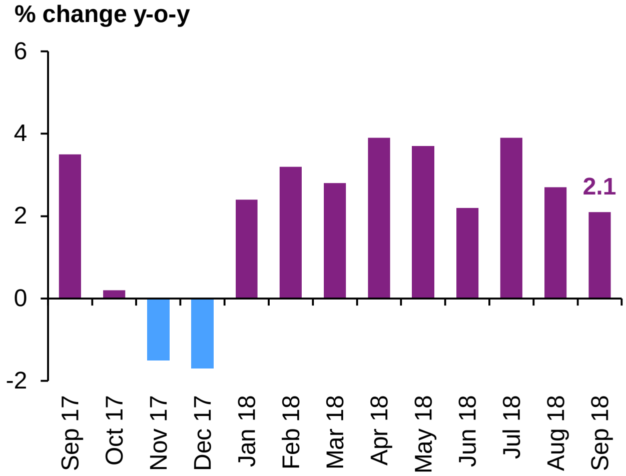


Sources: IHS Markit and Haver Analytics.

Business conditions in the **manufacturing** sector improved in October for the first time since April, according to the IHS Markit Russia manufacturing PMI. The index registered 51.3 in October, up from September's 50.0. Overall performance across the goods-producing sector was supported by solid and faster expansion in output and new orders, with foreign demand also increasing. Encouragingly, employment growth accelerated to its highest point since January 2017, as pressure on capacity became more apparent. In line with firmer client demand, firms expressed a robust degree of optimism towards future output. The survey shows that growth in new business received by goods producers accelerated to its fastest point since January, amid reports of new client acquisitions and new product launches. Business confidence remained strongly optimistic in October, with manufacturing firms signalling the second-highest degree of confidence since May 2015. **Industrial production** grew by 2.1% y-o-y in September, from 2.7% y-o-y in August.

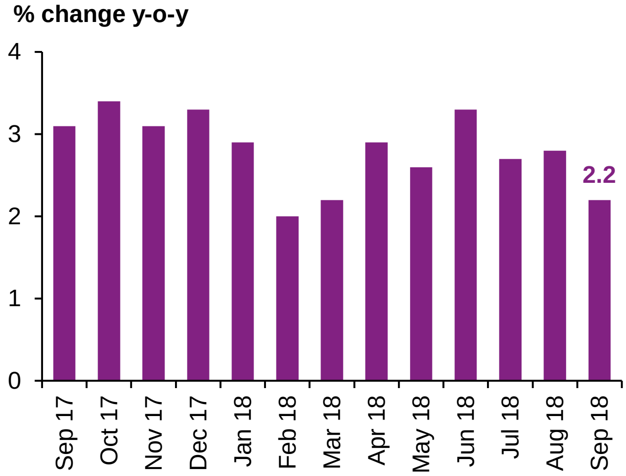
October data indicated a sharp increase in business activity across the **service** sector in Russia. The rate of output expansion accelerated amid a quicker rise in new business, with both increasing the most since November 2017. Subsequently, employment levels rose for the first time since May and the contraction in outstanding business eased to its weakest point in three months. The IHS Markit Russia services business activity index rose to 56.9 in October, up from 54.7 a month earlier. For the eighteenth month in a row, **retail sales** continued on an increasing streak in September. The rate of increase was 2.2%, from 2.8% in August.

Graph 3 - 18: Russia's industrial production



Sources: Federal State Statistics Service and Haver Analytics.

Graph 3 - 19: Russia's retail sales



Sources: Federal State Statistics Service and Haver Analytics.

The **Russia's GDP growth** forecast points to growth of 1.6% y-o-y in 2018 and 1.7% in 2019.

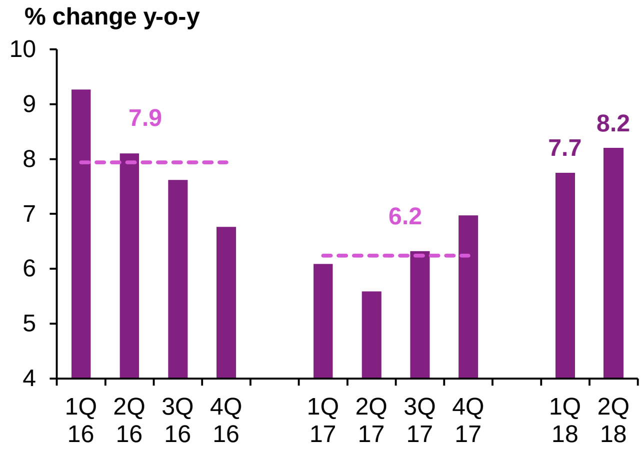
India

India remains particularly vulnerable to ongoing strengthening of the US dollar and foreign capital outflows, owing to its widening current-account and fiscal deficits, driven in part by rising global oil prices. The upcoming general elections in early 2019 may also add to currency volatility. It seems India's economic fundamentals are now much stronger than during the 2012–13 rupee crisis, suggesting that its repeat is unlikely, even as the rupee continues to depreciate. Robust inflows of foreign direct investment (FDI) and a more-than-adequate level of foreign exchange reserves are also important safeguards against a currency crisis.

Manufacturing continued to make up for ground lost in August, with a robust and accelerated rise in new orders boosting production growth in October. Consumer, intermediate and investment goods output all increased at stronger rates. A combination of domestic and foreign orders fuelled the upturn in overall activity, although export orders displayed the slowest expansion since July, whilst total new work rose at the sharpest pace since mid-year. The employment trend was particularly encouraging, with job creation at a 10-month high. Firms sought to increase their competitive edge through marketing activity and investment in research and development, which kept business sentiment positive. However, goods producers see challenges and uncertainties ahead, which in turn translated into the weakest degree of optimism seen in 20 months.

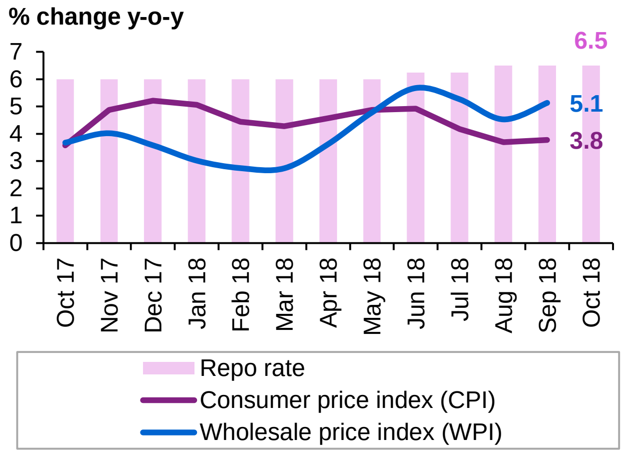
The business expectation outlook dropped to the lowest point in 20 months in both the manufacturing and service sectors, and firms are becoming more guarded in the face of growing uncertainties. The sustainability of current market conditions and political worries (leading up to India's 2019 general election) both weighed on optimism and pose a downside risk to growth.

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.

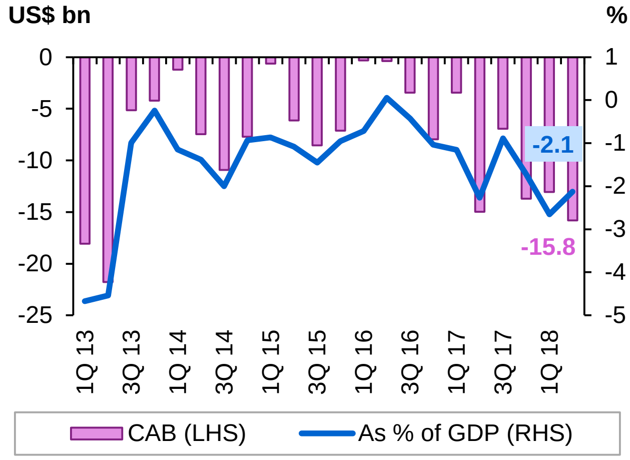
Inflation, although still moderate, started rising in September and will accelerate more rapidly in the coming months, driven by a sharp rupee depreciation, rising oil prices, and recovering food prices. Following two interest rate hikes in mid-2018, the RBI will tighten monetary policy further, with the next rate hike coming as early as December 2018.

India's **consumer price index (CPI) inflation** was up to 3.8% in September from 3.7% in August. Food inflation increased only slightly, in line with central bank expectations. However, the Reserve Bank of India (RBI) cut its inflation forecasts to 4.0% from 4.6% in 2Q18, highlighting low food inflation. India's **WPI** rose by 5.1% y-o-y in September, after a 4.5% gain the prior month and above market estimates of 4.9%. The cost of manufacturing products and fuel continued to rise, while food prices fell much less in compare to last month.

India's **trade deficit** widened to $13.98 billion in September 2018 from $9.4 billion y-o-y. **Imports** rose by 10.5% y-o-y to $41.9 billion in September, boosted by purchases of gold (51.5%); petroleum and crude (33.6%); coal, coke and briquettes (23.6%) and electronic goods (11.4%). **Exports** declined by 2.2% y-o-y to $27.95 billion in September. Sales rose for plastics and linoleum (28.2%); petroleum products (26.8%); chemicals (16.9%); drugs and pharmaceuticals (3.8%); and cotton and handloom (3.6%).

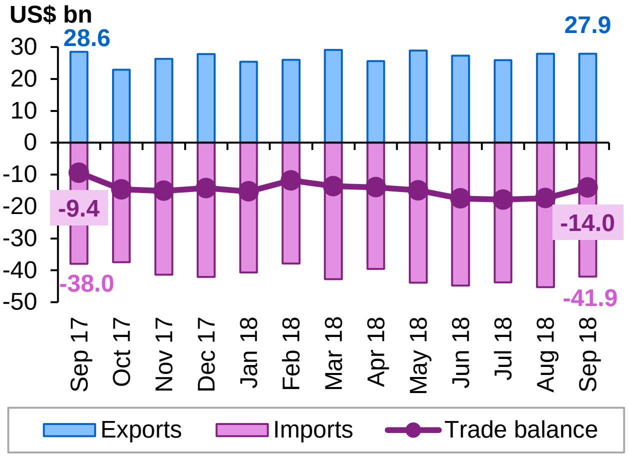
India's **current account balance deficit** widened slightly to $15.8 billion, or 2.1% of the GDP, in 2Q18 from $15.0 billion y-o-y (2.3% of the GDP). The goods deficit rose to $45.7 billion from $41.9 billion.

Graph 3 - 22: India's current account balance



Sources: Reserve Bank of India and Haver Analytics.

Graph 3 - 23: India's trade balance



Sources: Ministry of Commerce and Industry and Haver Analytics.

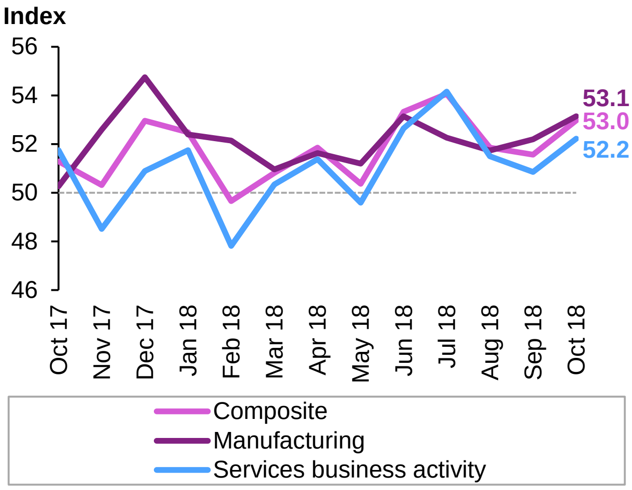
India's **direct tax rates** for large enterprises are likely to remain unchanged until after the next general election (currently scheduled for early 2019). Stronger mechanisms for tax collection are likely to be introduced to offset the loss of fiscal revenues.

The Nikkei India **manufacturing PMI** rose from 52.2 in September to 53.1 in October. Manufacturing sector growth in India gathered momentum in October, as firms responded to stronger order inflows by scaling up production, input purchasing and employment. Price gauges continued to point to upward inflationary pressure, but were similar to September's readings. Ongoing improvements in demand, coupled with technological advancements and favourable market conditions, prompted a stronger upswing in production.

October data pointed to a stronger improvement in India's service sector, with an accelerated upturn in new work underpinning quicker rises in activity and jobs. Cost inflationary pressure eased, resulting in a softer increase in selling prices. At 52.2 in October, the Nikkei India **services PMI** was in expansion territory for the fifth straight month. Moreover, rising from 50.9 in September, the latest figure pointed to the quickest rate of growth since July. Although service firms retained an optimistic view towards growth prospects, confidence faded in October. Positive sentiment was supported by expectations of greater inbound tourism, marketing efforts and investment plans.

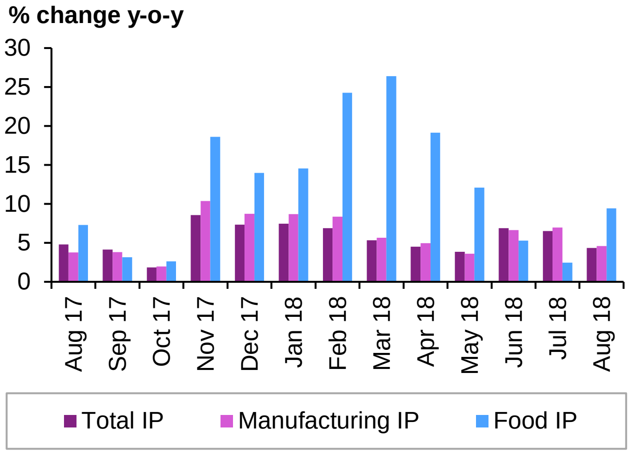
The India **composite PMI** improved from 51.6 in September to 53.0 in October.

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 2018 **GDP** was revised down from 7.6% last month to 7.5%, despite a positive 2Q18 GDP outcome and more evidence of investment turning the corner. It seems the 2H18 outlook will be impacted by several downside risks, such as rupee depreciation and inflationary growth. However, the GDP forecast for 2019 was lowered further from 7.4% to 7.2%, reflecting persistent external headwinds to growth and rising domestic interest rates following the RBI's rate hikes in June and August.

Generally India's economy in the coming year is expected to continue to see a further deterioration in consumer and business sentiment, a sharper-than-expected rise in global oil and commodity prices, and a further deterioration in corporate and bank balance sheets. The further escalation of trade tension retaliation measures could spread into additional products and services and destabilize financial markets, potentially more seriously impacting India's external trade performance and financial stability. Some drivers will also support India's economy and offset downward risks such as upward salary and allowance revisions, stronger-than-expected global demand and rupee depreciation, which will help lift Indian exports and expedite the resolution of corporate bankruptcies.

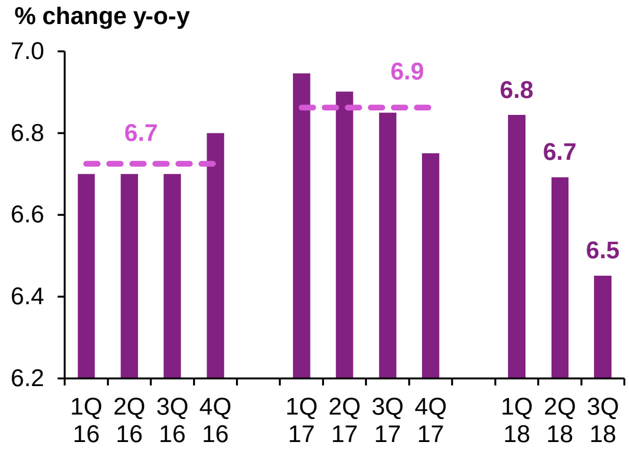
China

China's GDP growth slowed from 6.7% y-o-y in 2Q18 to 6.5% y-o-y in 3Q18. Economic growth in the first three quarters fell to 6.7% y-o-y, from 6.8% y-o-y in the first two quarters.

GDP's component on the supply side, the growth slowdown was entirely due to a slowdown in the industrial sector. Growth in secondary sectors (manufacturing plus mining) in 3Q18 fell to 5.3% y-o-y from 6.0% in 2Q18. Growth in primary and tertiary sectors rose to 3.6% and 7.9% y-o-y in 3Q18, respectively, from 3.2% y-o-y and 7.8% y-o-y.

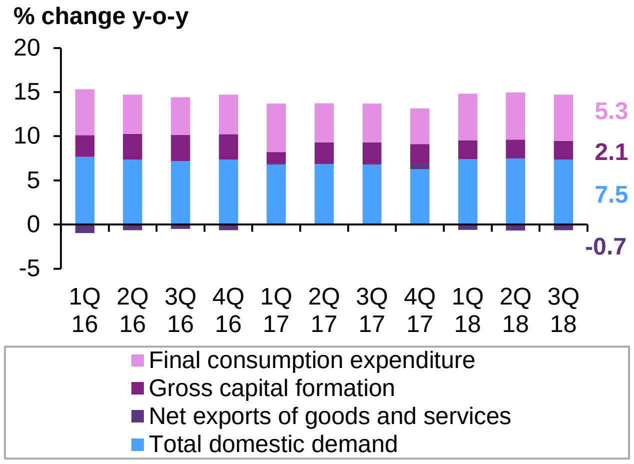
GDP's component on the demand side, weakening investment was the main cause of a 3Q18 GDP growth slowdown. Fixed-asset investments in 3Q18 grew by 4.6% in the quarter, down from 5.6% in 2Q18. Exports continued to post double-digit growth, showing little impact from the US-China trade tension. Exports grew by 11.7% y-o-y in 3Q18, up from 11.5% y-o-y in 2Q18. Consumer demand remained stable. Retail sales rose by 9.0% y-o-y in 3Q18, the same as in 2Q18.

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.

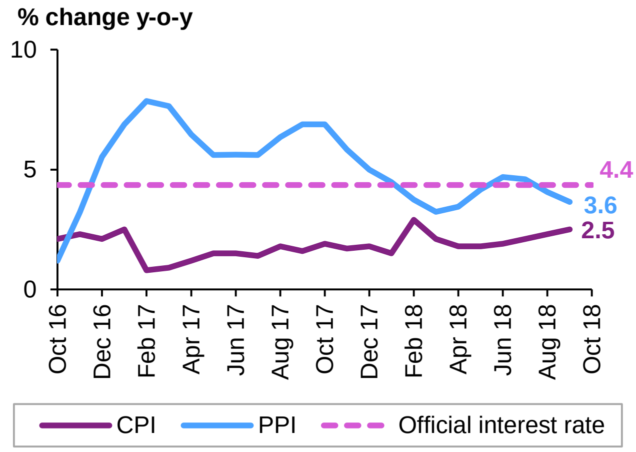
New tariffs on an additional $200 billion of Chinese exports imposed by the US government will apply downward pressure to export-oriented manufacturing activity in the coming months. However, a sharp decline in manufacturing PMI is unlikely, as the Chinese government is rolling out growth-supportive policies to mitigate the negative effect of the US-China trade tension on the Chinese economy. Local governments have accelerated special local government bond issues to finance infrastructure investment, which will boost the demand for manufacturing goods.

Overall, expansion across the manufacturing sector was still weak. Production and business confidence continued to cool despite stable demand. Pressure on production costs didn't ease. China's economy is not expected to see an obvious improvement in either 4Q18 or 1Q19.

China's **CPI** rose to a seven-month high of 2.5% y-o-y in September from 2.3% the previous month. Food prices surged, while the cost of non-food items continued to increase. On a monthly basis, consumer prices rose by 0.7% in September, the same as in August and in line with market expectations. This remained the highest monthly figure since February.

China's **producer prices index (PPI)** increased by 3.6% from a year earlier in September, after a 4.1% rise the previous month and compared with market expectations of 3.5%. It was the lowest reading since April.

Graph 3 - 28: China's CPI and PPI

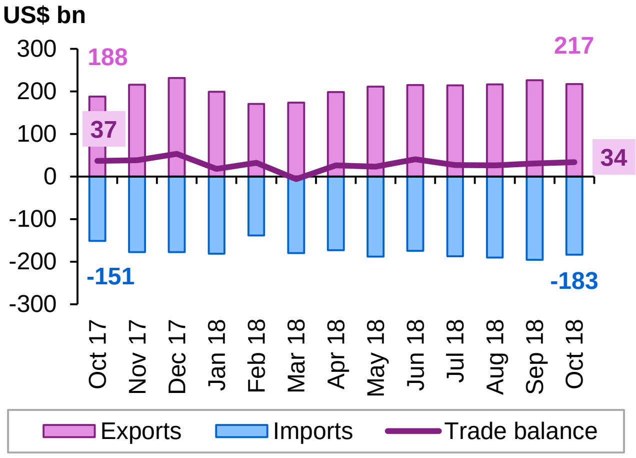


Sources: China Index Academy, China National Bureau of Statistics, Soufan and Haver Analytics.

China's **trade surplus** narrowed to $34.01 billion in October of 2018 from $36.89 billion y-o-y. **Imports** jumped 21.4 % y-o-y to $131.83 billion while exports increased at a slower 15.6% to $159.72 billion. The trade surplus with the US, China's largest export market, narrowed to $31.78 billion in October from a fresh record high of $34.13 billion in September. Over the first ten months of the year, the trade surplus came in at $258.15 billion. **Exports** from China rose 15.6% y-o-y to $217.28 billion in October 2018 after a 14.5% rise in September.

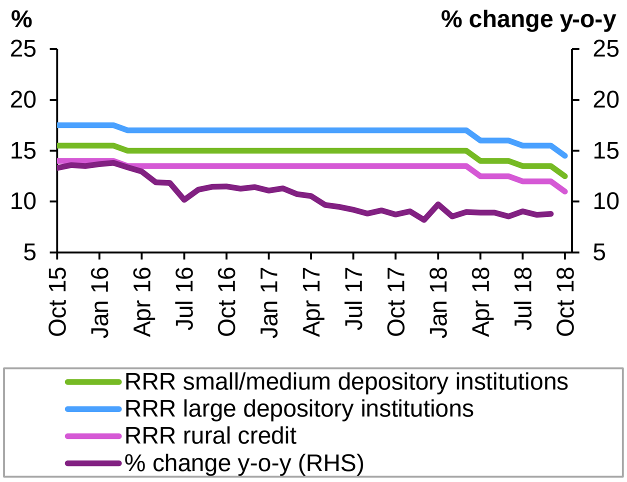
The Chinese government will limit trade tension damage by relaunching fiscal and monetary stimulus policies. Due to the government's deleveraging drive to contain China's massive debt overhang, investment growth, including infrastructure investment, has slowed to historical lows, while shadow banking financing has been silent. Beijing has recently indicated a rebalancing of its policy agenda to focus on stability. Specifically, China will pursue a policy of "six stabilities": stability in employment, finance, external trade, foreign investment, overall investment, and expectations.

Graph 3 - 29: China's trade balance



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

Graph 3 - 30: China's reserve requirement ratio (RRR) vs. money supply



Sources: People's Bank of China and Haver Analytics.

Signs of more relaxed monetary and fiscal policy conditions have begun to surface. The Chinese central bank cut the **reserve requirement ratio** by 100 basis points on 14 October. The government cut personal income tax rates for middle and low-income households on 1 October. New non-traditional financing (total social financing less renminbi loans) turned positive in August and September. Chinese local government debt issuance surged to 2.2 trillion yuan in June–August, which is around half of total local debt issued for all of 2017. This signals infrastructure investment will soon rebound, given that many of China's infrastructure projects are financed by local governments.

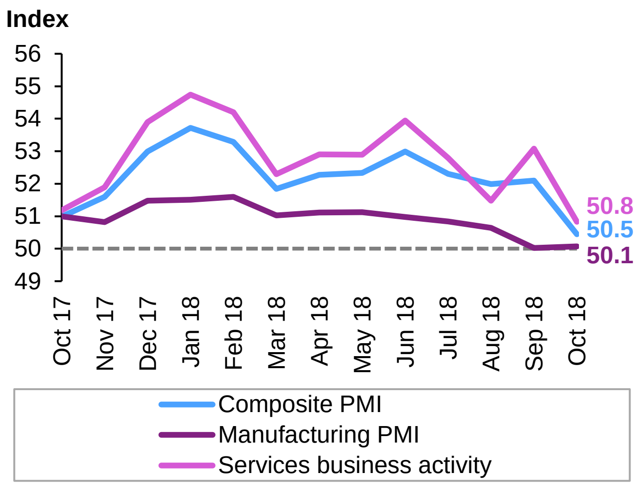
The **official NBS manufacturing PMI** eased to 50.2 in October, down 0.6 percentage points (pp) from September, according to a release from the National Bureau of Statistics (NBS). The headline deceleration was driven by declines in all five sub-indices: output, new orders, inventory, employment, and suppliers' delivery time. In the face of headwinds from US-China trade friction, new export orders fell for the third consecutive month in October.

The **composite PMI** output index was down from the previous month to 50.5 in October, driven by a deceleration in both manufacturing and non-manufacturing activity.

The **Caixin China manufacturing PMI** index edged up to 50.1 in October from the month before (50.0 in September). The sub-indices for new orders and employment both edged higher, with the former remaining in expansion territory and the latter in contraction territory.

The **Caixin China general services business activity index** declined to 50.8 in October from 53.1 in September, marking its lowest point since September 2017. The new business index declined to its lowest level since November 2008 and business expectations slipped to a three-year low.

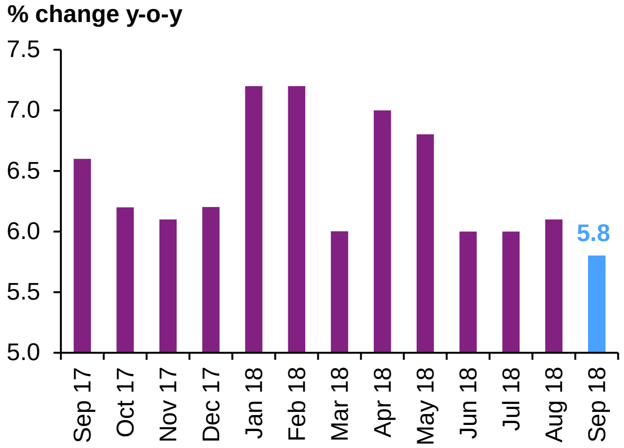
Graph 3 - 31: China's PMIs



Sources: Caixin, IHS Markit and Haver Analytics.

China remains firmly on track to meet its growth target of around 6.5% for 2018, revised down from 6.6% last month. However, growth is expected to slow further in 4Q18, due to a drop in the output sub-index for the second straight month, despite remaining in positive territory, in line with the recent significant drop in value-added industrial output and despite a rise in manufacturing investment. Overall, expansion across the manufacturing sector was still weak. It seems 2019 has seen modest credit growth, weaker real estate activity and the negative impact of the trade conflict, thus it was also revised down **GDP growth** for 2019 to 6.1% from 6.2%, due to stronger trade headwinds. The tariffs on an additional $200 billion of Chinese exports to the US will lower China's near-term growth, but not significantly.

Graph 3 - 32: China's industrial production



Sources: China National Bureau of Statistics and Haver Analytics.

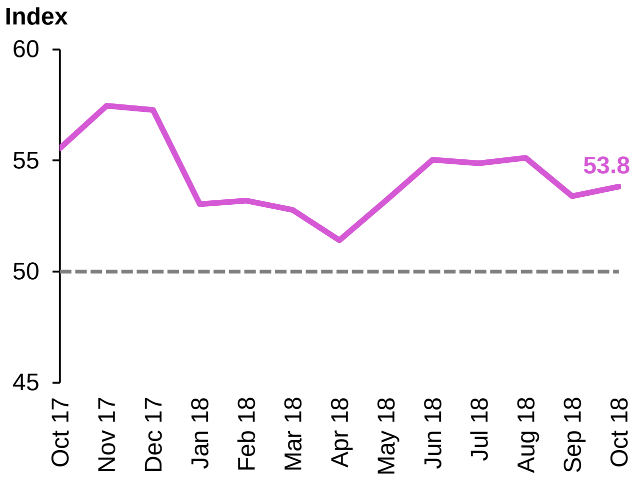
Downside risks for the Chinese economy in 2019 include: the escalation of trade barriers with the US; a banking crisis due to the poor health of Chinese commercial banks; a Chinese real estate market crash; and failure to reform state-owned industrial and banking sectors. However, the Chinese economy will be supported by stronger-than-expected Chinese exports due to the strong global economy, led by the US economy, stronger consumer demand, more aggressive economic reforms and productivity boosting.

OPEC Member Countries

Saudi Arabia

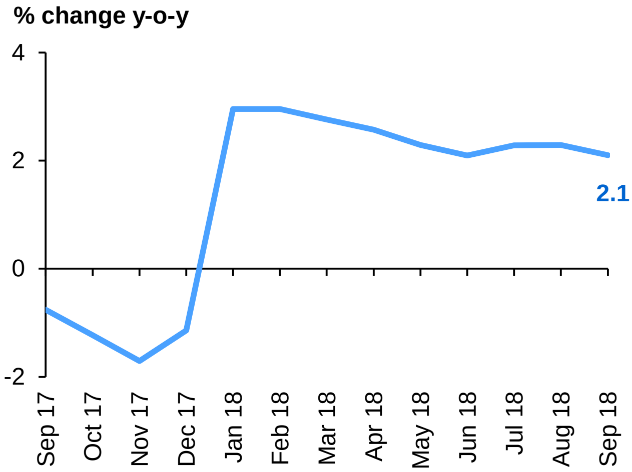
In **Saudi Arabia**, inflation stood at 2.1% y-o-y in September, from 2.3% a month earlier, reflecting a general easing trend as compared to the beginning of the year. The country's total reserve assets amount to 1.90 trillion riyal in September, from 1.91 trillion riyal in August. Foreign currency and deposits abroad stood at 0.66 trillion riyal in September, down from 0.69 trillion riyal in August. Investment in foreign securities increased in September to 1.20 trillion riyal, from August's 1.18 trillion. Foreign reserves of gold was at 1.6 billion riyal, unchanged since February 2008.

Graph 3 - 33: Saudi Arabia's composite PMI



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 34: Saudi Arabia's inflation



Sources: General Authority for Statistics and Haver Analytics.

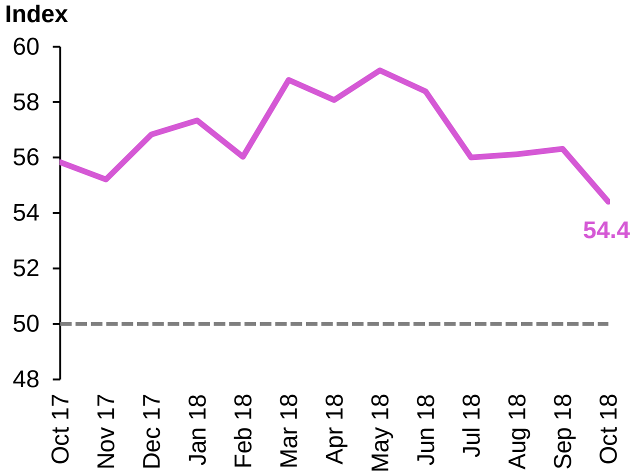
The country's non-oil private sector showed another improvement in October, according to the Emirates NBD Saudi Arabia PMI. The index rose to 53.8 in October, from 53.4 in September, as employment and new orders growth picked up. New export orders also recovered after contracting in September, reflecting increased external demand. However, output rose at the slowest rate since April, suggesting that the rise in new work has yet to feed through to actual output. The employment index rose to 51.3 in October from 50.7

in September. Business optimism about future output increased markedly in October, with nearly half of all firms surveyed expecting their output to be higher in a year's time, while the other half expected current levels of output to be sustained.

Nigeria

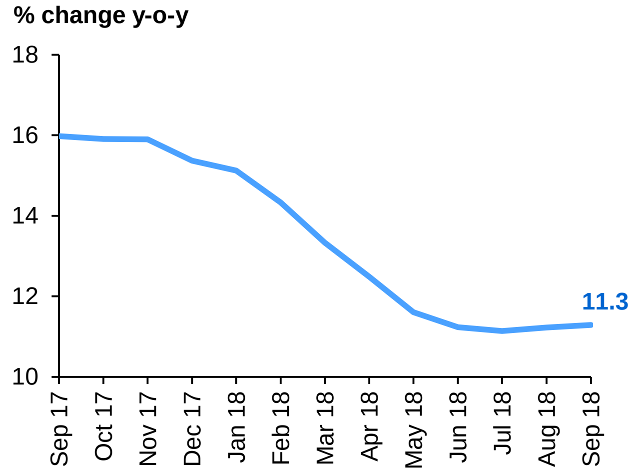
In **Nigeria**, inflation slightly increased in September to 11.3% y-o-y, from 11.2% in the previous month. Inflation still higher the central bank's upper-limit target of 9%. The Stanbic IBTC Bank Nigeria PMI registered 54.4 in October, to signal a further solid improvement in the health of the Nigerian private sector. Business conditions have now strengthened in each of the past 22 months. That said, down from 56.3 in September, the latest reading pointed to a more moderate improvement and the least marked since June 2017. It is an evidence of the weaker aggregate demand as overall output grew at its slowest pace since June 2017. Similarly, the PMI recorded slower growth in new orders as the sub index dropped to its lowest this year. In line with trends in output and new orders, purchasing activity increased at a sharp but reduced pace in October. The rate of accumulation in stocks of purchases picked up, however, as companies responded to improving customer demand.

Graph 3 - 35: Nigeria's composite PMI



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

Graph 3 - 36: Nigeria's inflation



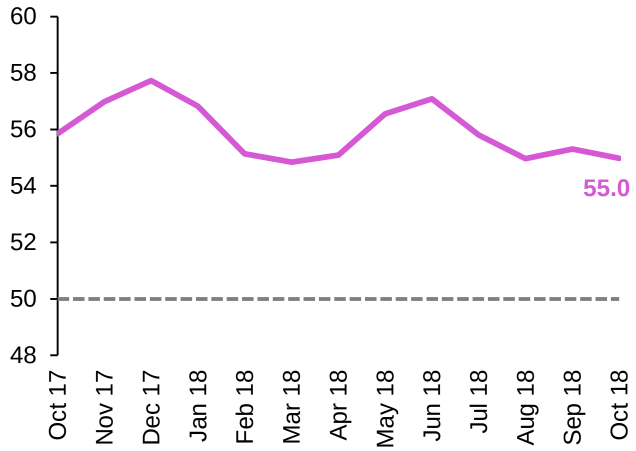
Sources: National Bureau of Statistics and Haver Analytics.

The United Arab Emirates (UAE)

In the **UAE**, the GDP of Abu Dhabi grew by 1.5% y-o-y in 2Q18, up from 0.1% y-o-y in the previous quarter. Financial and insurance activities witnessed remarkable spike in growth from 4.4% y-o-y in 1Q18, to 11.1% in 2Q18. Output by nonfinancial corporations moved from a 0.5% contraction in 1Q18, to a growth of 0.6% in 2Q18. Public administration and defence expanded by 4.6% y-o-y in 2Q18 vs 5.2% in the previous quarter.

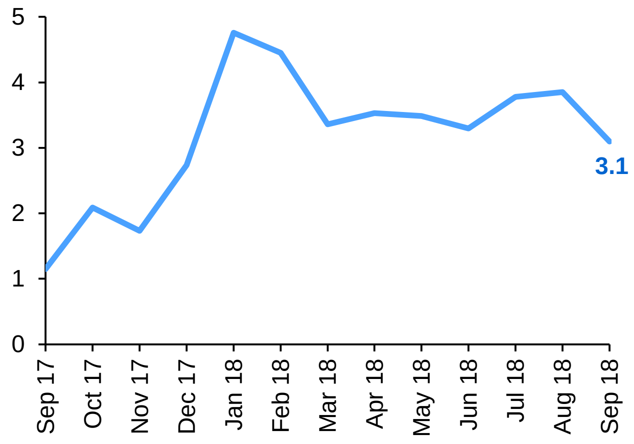
Operating conditions in the non-oil private sector remained well into the expansion territory in October. The headline UAE PMI eased to 55.0 in October from 55.3 in September. It has been broadly stable between 55 and 56 for the last four months, indicating growth in the UAE's non-oil private sector at a similar rate to last year, when official GDP data showed the non-oil sector expanded 2.5%. The survey showed that business optimism about future output rose to a record high in October, with nearly 78% of firms surveyed indicating they expected their output to be higher in a year's time. The announcements of increased government spending and Expo 2020 investment may have contributed to improved sentiment last month.

Graph 3 - 37: UAE's composite PMIs



Sources: Emirates NBD, IHS Markit and Haver Analytics.

Graph 3 - 38: UAE's inflation



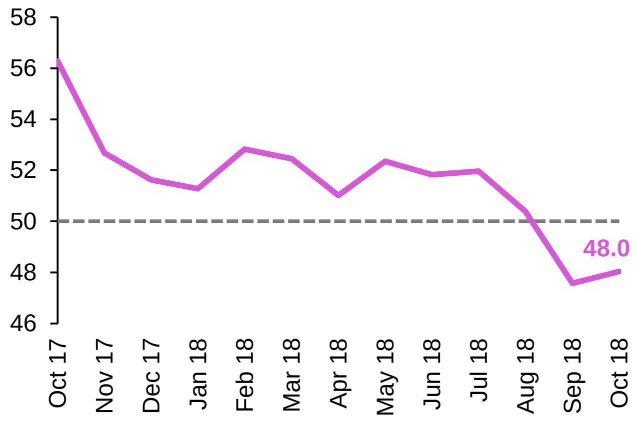
Sources: National Bureau of Statistics and Haver Analytics.

Qatar

In **Qatar**, GDP expanded by 2.5% y-o-y in 2Q18, up from 2.0% in 1Q18. The sector of mining and quarrying shrank by 1.1% y-o-y in 2Q18, from a 2.1% decline in the previous quarter. While the non-mining and quarrying sector posted growth of 6.1% y-o-y in 2Q18, up from 5.8% in the previous quarter. As a part of the non-mining and quarrying sector, manufacturing showed robust growth of 14.1% y-o-y in 2Q18, from 10.8% in 1Q18.

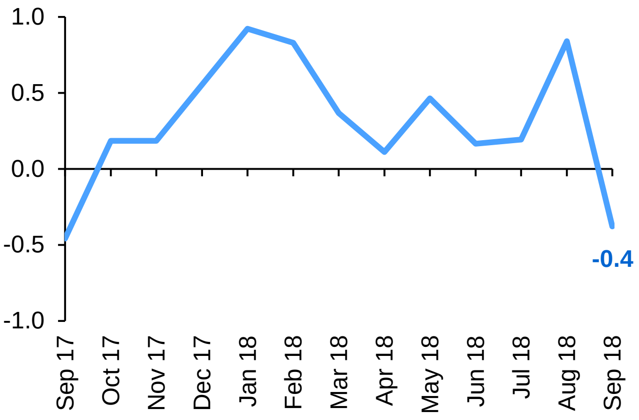
The construction sector continued its strong performance in 2Q18, expanding by 15.3% y-o-y. Inflation in September dropped by 0.4% y-o-y, down from a rise in prices by 0.9% registered in August. Cost of transportation increased by 6.1% y-o-y in September, after increasing by 8.4% in August. The central bank policy rate remained at 2.50% in October, as was the case since the beginning of the year. Qatar Financial Centre PMI slightly improved in October, though remained in the contraction territory. The index increased to 48.0 in October, up from 47.6 in September.

Graph 3 - 39: Qatar's composite PMI



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

Graph 3 - 40: Qatar's inflation



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

Other Asia

Indonesia

In the **Indonesia**, GDP continued to grow by more than 5% for the seventh quarter in a row in 3Q18. GDP posted 5.2% y-o-y growth in 3Q18, from 5.3% and 5.1% in 2Q18 and 1Q18, respectively. Growth in private consumption fractionally slowed to 5.1% y-o-y in 3Q18, from 5.2%. On the other hand, general government consumption accelerated by 6.3% y-o-y in 3Q18, up from 5.2% in the previous quarter. GFCF also rose by a higher rate of 7.0% y-o-y in 3Q18, up from 5.9% in 2Q18. Exports of goods and services went up by 7.5% y-o-y in 3Q18, slightly lower than a 7.6% in 2Q18. Imports, on the other hand, went up by 14.1% y-o-y, in 3Q18, from 15.3% in the previous three months. The central bank of Indonesia left its 7-day reverse repurchase rate unchanged at 5.75% in late October, after two consecutive hikes. The central bank described the decision as consistent with ongoing efforts to reduce the current account deficit within a manageable threshold, while maintaining the attractiveness of domestic financial markets, thereby bolstering external resilience in Indonesia against a backdrop of persistently high global uncertainty. The Rupiah is undergoing depreciation, albeit with contained volatility. The rupiah depreciated in September, continuing into October 2018, in line with currencies of other peer countries. On average, the rupiah depreciated 2.1% during September 2018, and continued depreciate by similar rate in October 2018. On a year-over-year comparison, the rupiah depreciated by 12.2% in the first ten months of 2018, which is not as severe as with some other developing countries. Manufacturing conditions across Indonesia improved at a slower rate at the start of the fourth quarter. Higher output and employment boosted the headline PMI in October, while firms continued to raise purchasing activity and build input inventories. The Nikkei Indonesia Manufacturing PMI edged down to 50.5 in October, from 50.7 in September. The survey also brought signs of softer client demand, with declines seen in both total new orders and export sales. At the same time, inflationary pressures intensified, driven by a weak rupiah. That said, firms remained generally positive about the longer-term business outlook.

Africa

South Africa

In **South Africa**, trade balance switched to a deficit of 2.95 rand in September, down from a surplus of 8.8 billion rand in August. Trade deficit amounted to 0.3 billion during the first nine months of 2018 and the deficit posted in September was the smallest since February. Exports went up by 10.4% y-o-y in September, while imports accelerated by 19.3%. Exports to Europe rose by nearly 43% y-o-y and to Africa by 10% in September. Exports dropped to America and Asia by 1.2% y-o-y and 3.2% in September, respectively. Imports increased by 44% y-o-y from Africa, by 12% from America, by 27% from Asia, by 4% from Europe, and by 14% from Oceania. The unemployment rate increased to 27.5% in 3Q18, up from 27.2% in 2Q18. The number of unemployed people rose by 127 thousand to 6.21 million, leading to the highest unemployment rate since 3Q17. In 2Q18, the total number of unemployed people stood at 6.08 million. In 3Q17, the unemployment rate was at 27.7%. South Africa's private sector saw a substantial deterioration in operating conditions in October, according to IHS Markit South Africa PMI. The PMI fell from 48.0 in September to 46.9 in October, signalling the sharpest decline in the health of the private sector since July 2014. Latest survey data indicated that businesses were affected by a number of economic factors leading to weak demand across the sector. The survey highlighted the steepest drop in output in over four years. New orders also fell sharply, with export demand continuing to decline. As a result, firms reduced purchasing activity at a solid pace. Employment bucked the trend by growing for the first time in four months. Meanwhile, firms raised selling prices at the fastest rate in over two years.

Latin America

Colombia

In **Colombia**, GDP grew in 2Q18 by fastest pace of 2.8% y-o-y since 3Q15, up from 2.2% in 2Q18. This improvement was due to faster rates of growth in household consumption, GFCF, and exports. Household consumption rose by 2.7% y-o-y in 2Q18, up from 2.0% in the previous quarter, while GFCF switched from a 0.7% y-o-y contraction in 1Q18 to a 1.8% growth in 2Q18. Exports went up by 3.0% y-o-y in 2Q18, after falling by 0.7% in 1Q18. Growth in government consumption while continued, it slightly dropped from 6.0% y-o-y in 1Q18 to 5.6% in 2Q18. After ending the third quarter on a solid footing, factories in Colombia lost some steam. Most manufacturing gauges moved lower in October as softer growth of new work translated into slower increases in production as well as employment and a renewed decline in input purchasing. Encouragingly, input cost inflation moderated, which in turn led to a weaker rise in selling prices. The Davivienda Colombia manufacturing PMI fell from 52.8 in September to 52.0 in October.

Transition region

Czech Republic

In **Czech Republic**, October data indicated a solid improvement in business conditions in the manufacturing sector, despite the rate of overall growth easing for the fourth successive month to the lowest in nearly two years. The upturn was supported by a solid increase in output, however, new orders rose only marginally during the month. Similarly, growth in demand from foreign clients softened to a near two-year low. Accordingly, the rate of job creation was the weakest since August 2016. Meanwhile, a slowdown in the automotive sector and concerns surrounding global trade tensions dampened firms' expectations towards output growth for the coming 12 months. The IHS Markit Czech Republic Manufacturing PMI registered 52.5 in October, down from 53.4 in September. The latest PMI reading slipped further from the highs seen at the start of the year. Although indicative of a solid improvement in the health of the sector, it signalled the weakest growth for almost two years. GDP growth stood at 2.7% y-o-y in 2Q18, from 3.4% in 1Q18. This highlights slowest pace of growth since end of 2014. Household consumption, government consumption, and GFCF have all showed lower rates of growth in 2Q18.

World Oil Demand

World oil demand growth in 2018 is now forecast at 1.50 mb/d, some 40 tb/d lower than last month's report. This is despite some positive upward revisions to the OECD region. Global oil demand is now projected to average 98.79 mb/d in 2018.

OECD oil demand growth was revised higher by 50 tb/d in 2018, due to better-than-expected data in OECD America. Strong light and middle distillates demand, amid a robust petrochemical sector and healthy development in industrial activities, were the main factors behind the upward adjustments in the US during 3Q18.

In the non-OECD region, oil demand growth in 2018 was revised down by around 90 tb/d, given the slower-than-expected growth in Other Asia, the Middle East and China during 3Q18. In Other Asia, easing demand growth in India during 3Q18 due to weather conditions hindering economic activities, in addition to slower-than-expected demand from Indonesia, led to downward revisions of around 10 tb/d. In the Middle East, a downward revision of around 50 tb/d was due to lower demand growth in Saudi Arabia. Oil demand in Saudi Arabia was significantly impacted by efficiency advancements and fuel substitution, in addition to the continuing economic shift weighing on several oil demand-related sectors, particularly transportation. Demand in China was also revised lower by around 30 tb/d, amid signs of easing demand growth in 3Q18.

For 2019, projections for world oil demand growth are now pegged at 1.29 mb/d, which is 70 tb/d lower than last month, specifically in light of the economic adjustments in the non-OECD region and, more generally, on uncertainties regarding the overall global economic development. Overall, the OECD is anticipated to rise by 0.25 mb/d, with OECD Americas expanding solidly, OECD Europe remaining in the positive and OECD Asia Pacific declining. In the non-OECD region, oil demand growth is expected to be around 1.04 mb/d, with improvements in Latin America and the Middle East from 2018 levels. World oil demand is now projected to average 100.08 mb/d in 2019.

World oil demand in 2018 and 2019

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

	2017	1Q18	2Q18	3Q18	4Q18	2018	Change 2018/17 Growth	%
Americas	25.06	25.20	25.40	25.63	25.59	25.46	0.40	1.60
of which US	*20.27*	*20.57*	*20.64*	*20.78*	*20.73*	*20.68*	*0.41*	*2.01*
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	**47.42**	**47.69**	**47.24**	**48.13**	**48.37**	**47.86**	**0.44**	**0.94**
Other Asia	13.24	13.55	13.84	13.38	13.96	13.68	0.44	3.31
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	6.48	6.81	6.47	6.53	0.02	0.31
Middle East	8.17	8.19	7.96	8.40	7.90	8.11	-0.06	-0.73
Africa	4.20	4.35	4.32	4.27	4.38	4.33	0.13	3.01
Total DCs	**32.13**	**32.44**	**32.60**	**32.86**	**32.71**	**32.65**	**0.53**	**1.64**
FSU	4.70	4.66	4.65	4.94	5.01	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	12.65	13.07	12.71	0.39	3.18
Total "Other regions"	**17.74**	**17.68**	**18.18**	**18.32**	**18.90**	**18.27**	**0.53**	**2.99**
Total world	**97.29**	**97.80**	**98.02**	**99.32**	**99.98**	**98.79**	**1.50**	**1.54**
Previous estimate	97.25	97.80	97.90	99.35	100.08	98.79	1.54	1.58
Revision	0.04	0.00	0.12	-0.03	-0.10	0.00	-0.04	-0.04

*Note: * 2018 = Forecast.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

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

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18 Growth	%
Americas	25.46	25.46	25.64	25.91	25.85	25.72	0.26	1.03
of which US	*20.68*	*20.82*	*20.85*	*21.04*	*20.97*	*20.92*	*0.24*	*1.15*
Europe	14.35	13.98	14.19	14.80	14.48	14.37	0.02	0.13
Asia Pacific	8.06	8.53	7.61	7.70	8.28	8.03	-0.03	-0.34
Total OECD	**47.86**	**47.98**	**47.44**	**48.41**	**48.62**	**48.12**	**0.25**	**0.53**
Other Asia	13.68	13.91	14.21	13.75	14.34	14.05	0.37	2.70
of which India	*4.75*	*5.03*	*4.93*	*4.58*	*5.21*	*4.94*	*0.19*	*4.04*
Latin America	6.53	6.39	6.53	6.87	6.52	6.58	0.05	0.81
Middle East	8.11	8.25	8.01	8.47	7.96	8.17	0.06	0.74
Africa	4.33	4.46	4.43	4.37	4.48	4.44	0.11	2.45
Total DCs	**32.65**	**33.01**	**33.19**	**33.46**	**33.30**	**33.24**	**0.59**	**1.80**
FSU	4.82	4.75	4.74	5.03	5.11	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	12.71	12.61	13.18	12.99	13.42	13.05	0.34	2.67
Total "Other regions"	**18.27**	**18.11**	**18.63**	**18.77**	**19.37**	**18.72**	**0.45**	**2.46**
Total world	**98.79**	**99.10**	**99.26**	**100.64**	**101.29**	**100.08**	**1.29**	**1.31**
Previous estimate	98.79	99.17	99.21	100.74	101.46	100.15	1.36	1.38
Revision	0.00	-0.07	0.05	-0.10	-0.17	-0.07	-0.07	-0.07

*Note: * 2018 and 2019 = Forecast.*
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

OECD

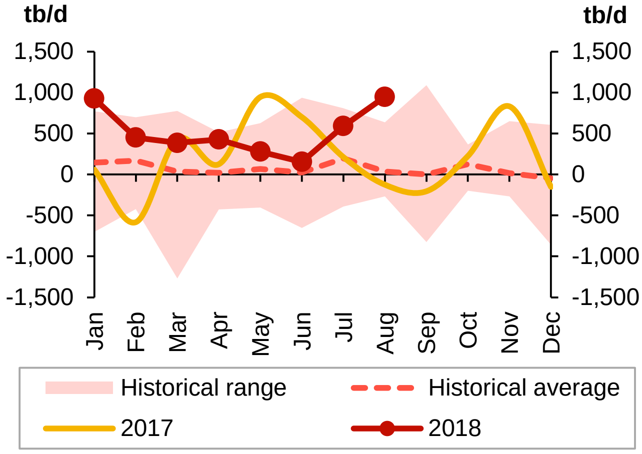
OECD Americas

US

Following strong **US oil demand** growth during the first half of 2018, as well as in the month of July, the latest available monthly data implies bullish US oil demand growth for August 2018, with y-o-y gains of about 1.1 mb/d, or 5.1%. The overall growth level was the highest since January 2018.

The growth share in August 2018 oil requirements can be attributed to NGLs/LPG that were largely intended as a feedstock for the petrochemical industry, contrasting a weak August 2017, and distillates, which continued to be supported by the growing industrial and manufacturing activities. There was also robust growth in jet/kerosene, in line with solid growth in travelling activities and increasing consumer confidence. Gasoline demand in August was flat, compared to the same month in 2017, while residual fuel oil requirements declined y-o-y.

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



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

The sluggish August 2018 gasoline demand came despite a rising level of vehicle miles travelled, which increased by 1.23% y-o-y in August, and notwithstanding marginal gains in total light vehicle retail sales of around 1% y-o-y.

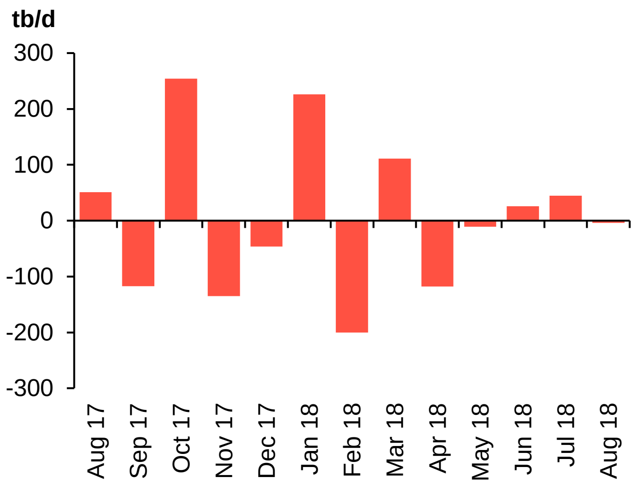
Initial vehicle sales data for September suggests a declining trend y-o-y. With the end of the 2018 driving season, gasoline demand growth remained lower for another month when compared to historical patterns. Gasoline is not one of the main components driving the strong US oil demand growth during the current year.

In cumulative terms, with eight months of data in 2018, oil demand in the US shows a significant increase, when compared to the same period last year.

The main drivers of growth during the first eight months of 2018 have been NGLs/LPG, as a feedstock for the petrochemical industry, diesel in the industrial sector and jet/kerosene. Gasoline demand declined as a result of higher retail prices, which was around 17% higher y-o-y, as well as due to efficiency gains in the transportation sector. Naphtha demand declined mainly as a result of substitution with lighter hydrocarbons.

September 2018 figures, which are based on preliminary weekly data, show an increase of around 4.2% y-o-y, with NGLs/LPG, jet/kerosene and distillate requirements rising, but this is partly offset by disappointing gasoline and residual fuel oil demand.

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



Source: US Energy Information Administration.

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

	Aug 18	Aug 17	Change 2018/17 tb/d	%
LPG	2,717	2,164	553	25.6
Naphtha	246	217	29	13.4
Gasoline	9,748	9,752	-4	0.0
Jet/kerosene	1,857	1,763	94	5.3
Diesel oil	4,173	4,004	169	4.2
Fuel oil	312	346	-34	-9.8
Other products	2,540	2,296	243	10.6
Total	**21,593**	**20,542**	**1,050**	**5.1**

Sources: US EIA and OPEC Secretariat.

For October, based on preliminary data, monthly data implies a smaller growth of around 0.3 mb/d, or 1.4% y-o-y. US oil demand is expected to remain strong throughout the remainder of 2018, with industrial, and to some extent, transportation fuels, dominating the implied growth share.

The US is projected to remain the main contributor to 2019 OECD oil demand growth.

Mexico

Mexico's oil demand witnessed another monthly drop in September 2018, falling by 0.11 mb/d or 5.5% y-o-y. This is the sixth consecutive monthly drop and implies an overall bearish year-to-date (y-t-d) picture for 2018. The bulk of oil demand losses in September 2018 came from diesel and gasoline, which was only partly offset by slightly rising requirements for naphtha, jet/kerosene and residual fuel oil. The risks for 2018 and 2019 Mexican oil demand remain skewed to the downside, mainly as a result of anticipated fuel substitution.

Canada

In **Canada**, oil demand in August fell y-o-y. Gains in gasoline, diesel and residual fuel oil demand were more than offset by declines in required LPG, naphtha and gasoline. The prospects for Canadian oil demand in 2018 and 2019 are slightly in the positive, as a result of an expanding economy, with downside risks focused on vehicle efficiencies and fuel substitution.

The overall risks for 2019 **OECD America oil demand** are skewed to the upside, mainly as a result of anticipated firm economic growth, particularly in the US. Nonetheless, there are factors that may push oil demand to the downside, with fuel substitution and developments in vehicle efficiencies the principal ones.

In 2018, OECD Americas oil demand is expected to grow by 0.40 mb/d compared to 2017. In 2019, OECD Americas oil demand is projected to increase at a lower level of 0.26 mb/d y-o-y.

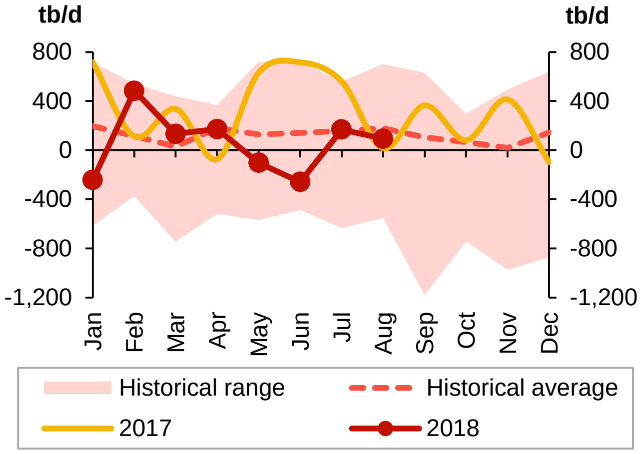
OECD Europe

August 2018 data showed softening growth in **OECD Europe oil demand** y-o-y, lower than the growth seen during the period 2015–2017. During August, demand for main oil consuming countries in the region, Germany, Italy, France and the UK, declined by around 40 tb/d y-o-y collectively. However, declines were more than offset by positive oil requirements in Spain, the Netherlands, Turkey, Poland and a number of other countries in the region. Total OECD Europe recorded growth of around 0.1 mb/d y-o-y during August. Y-t-d in 2018, OECD Europe oil demand is dominated by gains in gasoline, jet/kerosene, LPG and residual fuel oil requirements, which have been partly offset by declines in demand for diesel and naphtha.

Despite softening in magnitude, the implied y-t-d increase in European oil demand is in line with the region's steady economy, and was additionally supported by firm requirements in the transportation sector. During August, the positive momentum in auto sales continued with a remarkable increase of more than 31% y-o-y ahead of the introduction of the new Worldwide Harmonized Light Vehicle Test Procedure (WLTP) that applies to all new car registrations from 1 September 2018. Y-t-d auto sales growth registered a more than 6% rise y-o-y.

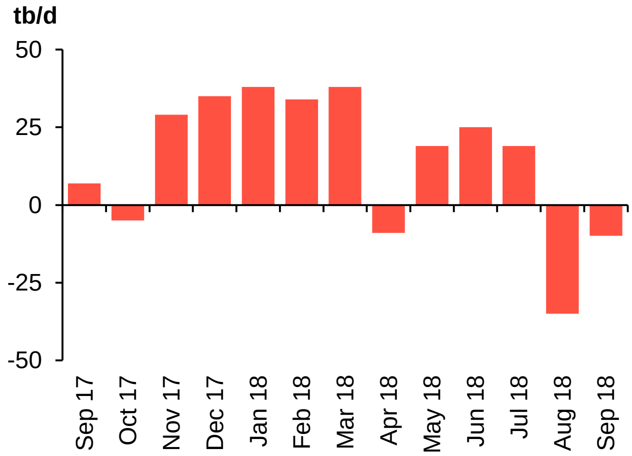
Early indications for September 2018 show oil demand losses of approximately 0.11 mb/d in Germany and France and 10 tb/d in the UK. In Italy, however, initial data suggests growth of around 35 tb/d y-o-y.

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



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

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



Sources: Joint Organisations Data Initiative, UK Department for Business, Energy & Industrial Strategy and OPEC Secretariat.

The outlook for Europe's oil demand during the remainder of 2018 is generally steady as we approach the year end, despite the assumption of modest heating fuel requirements in 4Q18 in light of expectations of a warmer-than-expected winter. However, for 2019, oil demand in OECD Europe faces a number of uncertainties, which mostly concern the region's high oil demand baseline in recent years and economic uncertainties, skewing risks more to the downside.

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

			Change 2018/17	
	Sep 18	Sep 17	tb/d	%
LPG	432	454	-22	-4.9
Naphtha	567	642	-75	-11.7
Gasoline	1,136	1,129	7	0.6
Jet/kerosene	917	892	25	2.8
Diesel oil	3,350	3,479	-129	-3.7
Fuel oil	251	244	7	3.0
Other products	720	711	9	1.3
Total	**7,373**	**7,551**	**-178**	**-2.4**

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

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

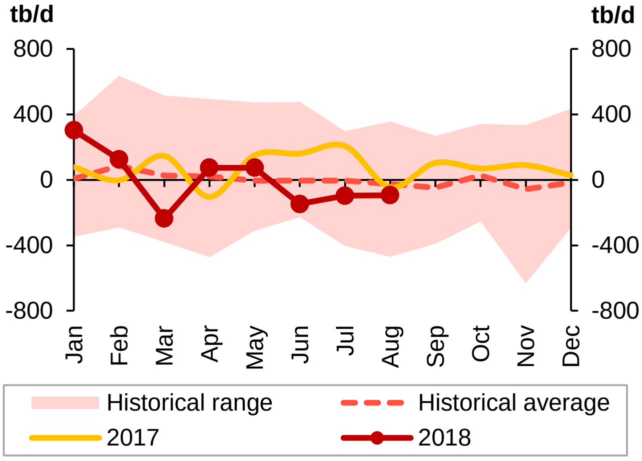
OECD Europe's oil demand is projected to grow by 50 tb/d in 2018, while in 2019 oil demand in the region is forecast to grow by 20 tb/d y-o-y.

OECD Asia Pacific

Japan

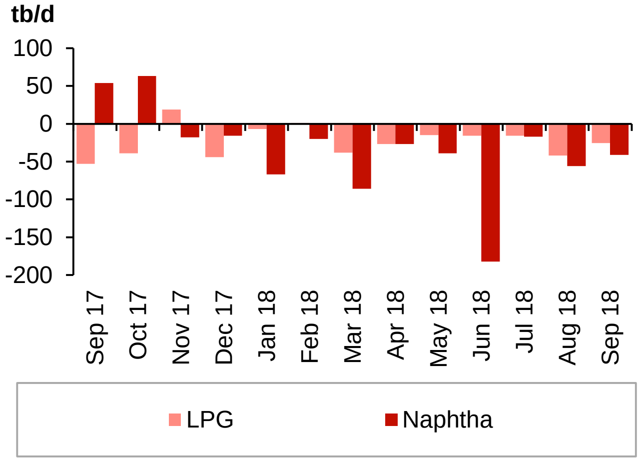
Preliminary data for September 2018 implies that **oil demand in Japan** fell by 0.13 mb/d, y-o-y, the seventh consecutive monthly drop. Small gains were observed in diesel demand, while the performance of all other main product categories was in negative territory y-o-y. Losses were also registered in demand for volumes of oil for direct use – crude and fuel oil – mainly as a result of fuel substitution. This trend is anticipated to continue over the coming months, amid the possibility of further nuclear plant restarts. In October, the Ikata 3 nuclear plant was the latest plant to restart operations, bringing the number of active reactors to eight. Demand for petrochemical feedstocks, LPG and naphtha were down y-o-y, as heavy cracker maintenance in September weighed on demand, with offline ethylene capacity of around 70,000 tons y-o-y.

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 negative overall Japanese oil demand growth y-t-d in 2018 is generally in line with developments in the main economic indicators in the country and their relation to oil demand and is expected to continue during the remainder of 2018 and 2019. Additional downside risks for 2019 are possible further losses in fuel oil and crude direct burning demand, while losses may be partly weakened by additional volumes of oil required for the country's petrochemical industry.

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

			Change 2018/17	
	Sep 18	Sep 17	tb/d	%
LPG	315	340	-26	-7.5
Naphtha	724	765	-41	-5.4
Gasoline	876	900	-24	-2.7
Jet/kerosene	341	378	-37	-9.7
Diesel oil	769	767	2	0.3
Fuel oil	238	247	-9	-3.5
Other products	359	356	3	0.8
Total	**3,622**	**3,753**	**-131**	**-3.5**

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

South Korea

In **South Korea**, August 2018 oil demand declined for the second month in a row. Softening macroeconomic indicators, combined with higher crude oil prices y-o-y, continued to weigh on product demand. Strong decreases were observed in demand for naphtha and LPG during the month amid planned cracker maintenance, which between September and November were higher y-o-y. Diesel usage in the industrial sector, together with gasoline demand in the transportation sector and fuel oil requirements in the industrial sector, took the lion share of gains.

Nonetheless, the outlook for South Korean oil demand during the remainder of 2018 and in 2019 remains positive, with risks skewed to the upside.

Australia

With available data up to August 2018, y-t-d oil demand appears robust in **Australia** with growth of 40 tb/d or 4.2%. The large majority of the gains are seen for diesel, in line with the country's mining sector activities.

OECD Asia Pacific oil demand is expected to decline by 10 tb/d in 2018 and is projected to fall by 30 tb/d, y-o-y in 2019.

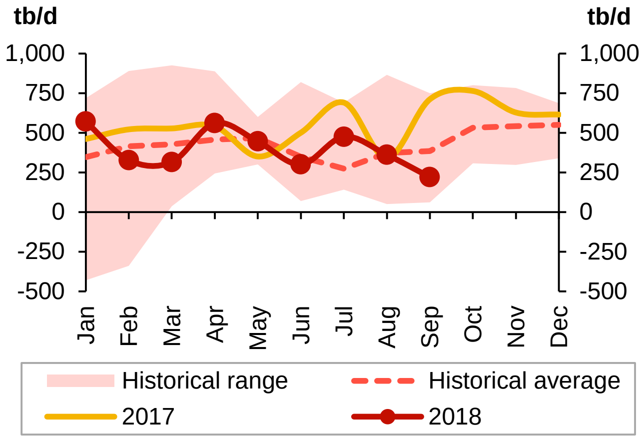
Non-OECD

China

Chinese oil demand grew by 0.2 mb/d, or around 2%, y-o-y in September 2018, easing back from the higher growth rates experienced during 1H18, as economic activities softened, which, in turn, affected oil demand in the transportation and industrial sectors. As in previous months, demand for LPG and jet/kerosene expanded substantially on account of healthy growth in the petrochemical industry, as well as in the aviation and residential sectors. LPG was supported by increased utilization in Propane Dehydrogenation Plants (PDH), despite some unplanned outages, with utilization rates reportedly reaching figures close to 90%.

For gasoline, following several strong months of growth during 2018, demand increased strongly y-o-y in September 2018, supported by increased driving during the Mid-Autumn festival, with expectations for further gains during the week-long national holiday in October.

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.

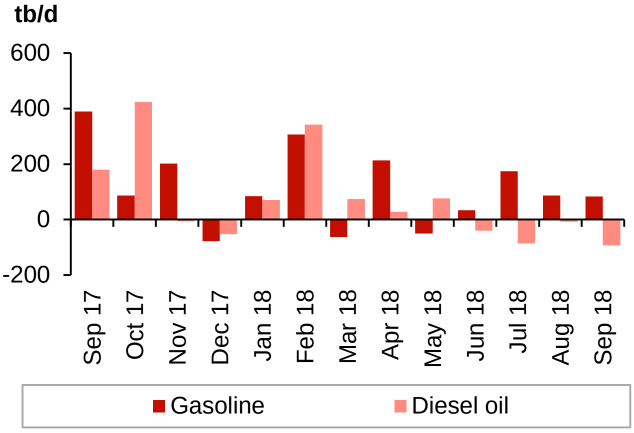
However, car sales, including SUVs, have been declining. According to the China Association of Automobile Manufacturers and Haver Analytics, motor vehicle sales declined by more than 12% y-o-y in September 2018, with SUV sales declining by as much as 10% y-o-y.

Residual fuel oil demand also showed gains y-o-y, while diesel requirements declined y-o-y.

While Chinese oil demand is expected to grow by 0.39 mb/d in 2018, the overall outlook for 2019 remains slightly skewed to the downside, as trade concerns with the US are foreseen to continue. Projected economic growth, in combination with a flourishing petrochemical industry and substantial upside potential in the country's transportation sector, are the main factors pointing to the upside. Additional downside relates to fuel substitution in the industrial sector, as well as efficiencies and alternative vehicle penetration in the road transportation sector.

For 2018, **China's oil demand** is projected to grow by 0.39 mb/d, while oil demand in 2019 is forecast to increase by 0.34 mb/d.

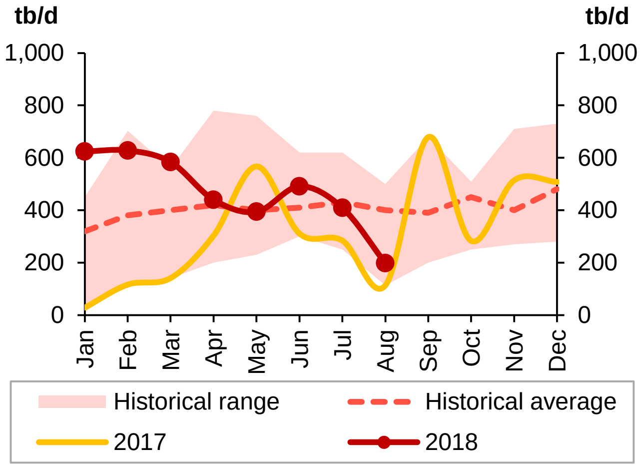
Graph 4 - 8: China's diesel and gasoline demand growth y-o-y



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

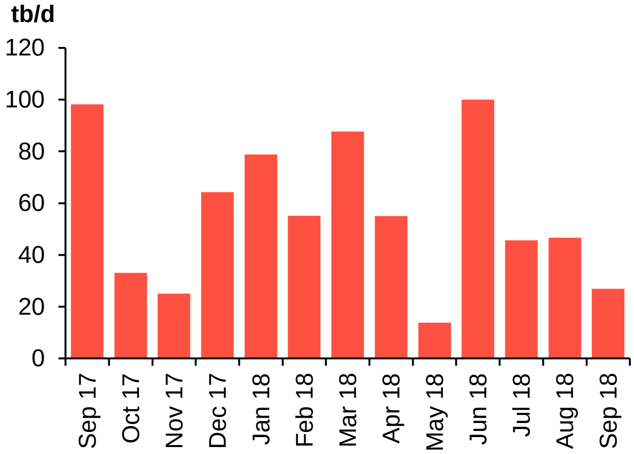
Other Asia

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



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

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



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

India

India's oil demand in September 2018 saw a softening momentum for the second consecutive month. September 2018 data implies a mere 60 tb/d growth y-o-y, significantly lower than the average 0.3 mb/d growth for the first seven months of 2018. It should be noted, however, that the same month in 2017 represents a strong historical baseline.

This softness in oil demand growth numbers can be primarily attributed to flooding denting oil demand growth, especially for diesel. However, the bulk of additionally required volumes for September was related to the residential and transportation sectors, with LPG and gasoline growing firmly, but this was partly offset by declines in naphtha and diesel requirements. The growth in oil demand for the transportation sector is in line with rising average income levels, a continuously improving road network and firm and expanding vehicle sales.

In addition to the road transportation sector, LPG requirements in the residential and transportation sectors continued their positive momentum during September. Weak diesel demand in September was a result of a high historical baseline, in combination with less demand for power generation and weather conditions limiting demand.

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

	Sep 18	Sep 17	Change 2018/17 tb/d	%
LPG	879	827	53	6.4
Naphtha	336	348	-11	-3.2
Gasoline	676	649	27	4.2
Jet/kerosene	238	238	0	-0.1
Diesel oil	1,726	1,739	-13	-0.7
Fuel oil	215	215	0	0.2
Other products	684	677	7	1.0
Total	**4,754**	**4,692**	**62**	**1.3**

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

In September, jet/kerosene and residual fuel oil demand were flat y-o-y, while solid growth was registered in demand for bitumen in construction activities. Finally, naphtha demand in the petrochemical and other industrial sectors declined y-o-y. The oil price environment and the healthy growing economy are currently the main factors driving future developments in India's oil demand. Consequently, oil demand expectations for the remaining part of 2018 and 2019 remain strong, with risks being balanced between the upside and downside.

Indonesia

In **Indonesia**, increasing transportation fuel requirements, notably for gasoline, diesel and jet/kerosene, as well as LPG in the residential sector, resulted in an overall 2% increase in oil requirements y-o-y during August. Indonesia's oil demand, particularly transportation fuel requirements, significantly depends on the country's domestic subsidy and retail price policies.

Thailand

In **Thailand**, the latest available data implies oil demand growth in August of around 20 tb/d, or 1% y-o-y. Demand for all main petroleum categories was in the positive, but particularly for LPG, gasoline and diesel.

The Philippines

In **the Philippines**, oil demand in August fell y-o-y, with the majority of petroleum product categories' witnessing shrinking demand, most notably naphtha, jet/kerosene and LPG.

Going forward, risks for **Other Asia's oil demand** in 2018 and 2019 remain balanced between the upside and downside, with economic activities in the region's biggest oil consumers, as well as oil prices being the main underlying factors.

Oil demand in Other Asia is projected to increase by 0.44 mb/d during 2018. For 2019, oil demand in the region is anticipated to rise by 0.37 mb/d.

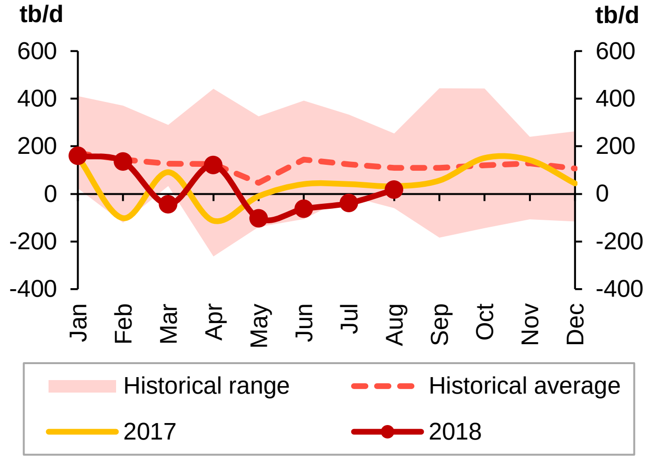
Latin America

Brazil

In **Brazil**, the latest available data shows that oil demand grew during September, up by almost 1% y-o-y.

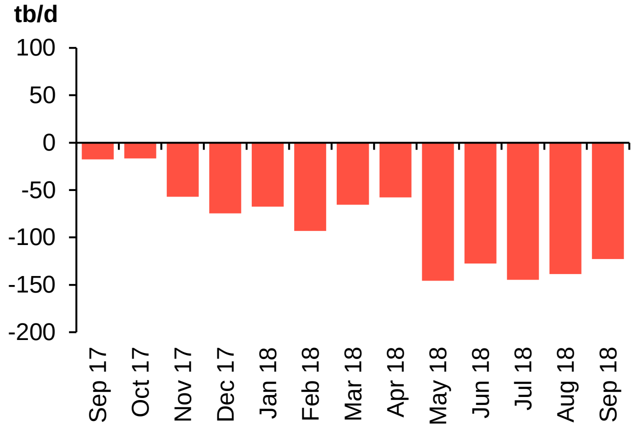
Oil demand gains were led by jet/kerosene, which rose by around 32%, and diesel at 1%. Demand for gasoline was challenged by higher retail prices, when compared to ethanol. Consequently drivers' preferences shifted towards consuming more ethanol. Ethanol retail prices were at 2.80 Reais/liter in September 2018, while gasoline retail prices were at a record high of 4.63 Reais/liter. LPG demand growth switched slightly into negative territory, as did residual fuel oil requirements.

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.

The expectations for Brazil's oil demand in 2018 and 2019 remain unchanged from last month, with risks balanced between the upside and downside. However, there is some cautious optimism as far as 2019 is concerned. Projected oil demand growth for Brazil is strongly dependent on the development of the country's economy.

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

			Change 2018/17	
	Sep 18	Sep 17	tb/d	%
LPG	229	236	-8	-3.2
Naphtha	146	145	1	0.7
Gasoline	612	735	-123	-16.7
Jet/kerosene	150	114	36	31.4
Diesel oil	1,025	1,018	7	0.7
Fuel oil	105	119	-14	-11.9
Other products	450	336	114	33.9
Total	**2,717**	**2,704**	**13**	**0.5**

*Note: * = Inland deliveries.*

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

Argentina

In **Argentina**, oil demand in August declined y-o-y for the fourth consecutive month. Nevertheless, some demand gains were recorded in a number of the main petroleum product categories, notably gasoline and diesel, while requirements for residual fuel showed substantial declines y-o-y.

Ecuador

Latest preliminary data for **Ecuador's oil demand** in September suggests gains y-o-y. These are dominated by robust gasoline and residual fuel oil demand.

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

	Sep 18	Sep 17	Change 2018/17 tb/d	%
LPG	41	37	4	10.8
Naphtha	12	13	-1	-7.7
Gasoline	73	68	5	7.4
Jet/kerosene	7	7	0	0.0
Diesel oil	92	91	1	1.1
Fuel oil	28	21	7	33.3
Other products	21	20	1	5.0
Total	**274**	**257**	**17**	**6.6**

Sources: JODI and OPEC Secretariat.

Going forward, risks for **Latin America's 2019 oil demand growth** point to a slight upward improvement, which is mainly the result of expected improving economic conditions for Brazil and Argentina. On the other hand, some negative risks may also stem from slower-than-expected improvements in the region's overall economy.

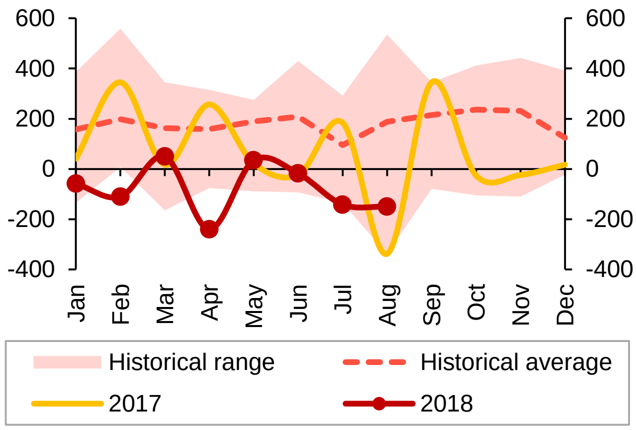
Latin American oil demand is expected to increase by 20 tb/d in 2018. During 2019, the region's oil demand growth is forecast to rise by around 50 tb/d y-o-y.

Middle East

Saudi Arabia

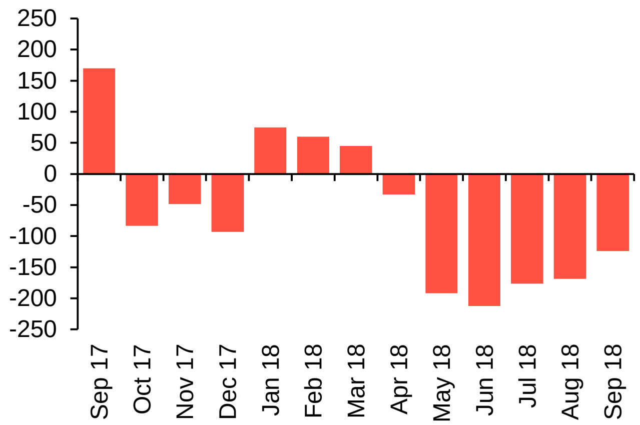
In **Saudi Arabia**, September oil demand growth remained in negative territory for the sixth consecutive month, with numbers now indicating a sharp 14% y-o-y drop. The main factors behind the bearish oil demand requirements during September were shrinking crude direct use, as a result of efficiency advancements and fuel substitution, as well as continuing economic shift that impacts several oil demand-related sectors, particularly transportation.

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.

During September, declines were significant in demand for LPG, diesel, jet/kerosene and crude direct use. Oil demand in Saudi Arabia remained sluggish overall during the first nine months of 2018, with losses averaging a remarkable 0.17 mb/d or -7% y-o-y.

Iraq

Oil demand in the first nine months of 2018 has risen in **Iraq**, despite declining crude direct use, which has been partly substituted by natural gas and residual fuel oil. During September, oil demand rose by almost 0.2 mb/d y-o-y. Overall gains were observed in rising requirements for all main petroleum product categories, with the exception of jet/kerosene and crude direct use, where demand growth moved into negative territory. Demand was particularly strong for residual fuel oil, diesel, gasoline and LPG.

IR Iran

During the first eight months of 2018, oil demand growth was negative in **IR Iran**, with a mixed picture among petroleum product categories. Gasoline accounted for the bulk of additional volumes, but this was more than offset by shrinking residual fuel oil and jet/kerosene requirements.

For the remainder of 2018 and into 2019, **oil demand growth in the Middle East** will likely be subject to a number of challenges, which, in general, point more towards the downside. This includes substitution with natural gas, partial subsidy removals in several countries, as well as government programmes towards efficiencies, particularly related to oil use in the road transportation sector. On the other hand, economic and industrial activity developments in various countries of the region may lend some upward support for future oil demand.

For 2018, Middle East oil demand is forecast to decline by 60 tb/d y-o-y, while oil demand in 2019 is projected to increase by 60 tb/d y-o-y.

World Oil Supply

Non-OPEC oil supply growth in 2018 was revised up by 0.09 mb/d from the previous MOMR, and is now estimated at 2.31 mb/d, mainly due to upward revisions in historical US and Russian production data, as well as a reassessment of their supply forecasts, which partially offset downward revisions in historical production data for Norway, the UK, Brazil and China. The US, Canada, Kazakhstan, Russia and the UK 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 growth in 2019 was revised up by 0.12 mb/d to stand at 2.23 mb/d and is now forecast to reach an average of 62.09 mb/d, despite a downward reassessment of the oil supply forecasts for Canada, Mexico, Brazil and China. The US, Brazil, Canada and the UK are expected to be the main growth drivers, while Mexico, Norway, Indonesia and Vietnam are projected to see the largest declines. There are many challenges and uncertainties with regard to the 2019 non-OPEC supply forecast, including oil transport infrastructure constraints in the US and Canada.

OPEC NGLs are expected to grow by 0.10 mb/d, revised down by 0.02 mb/d in 2018 compared with the previous estimate, to average 6.34 mb/d, and are forecast to grow by 0.11 mb/d in 2019 to average 6.45 mb/d. In October, OPEC crude oil production increased by 127 tb/d to average 32.90 mb/d, according to secondary sources.

Non-OPEC supply in October, including OPEC NGLs, rose by 0.31 mb/d m-o-m to average 66.86 mb/d, higher by 2.58 mb/d y-o-y. As a result, preliminary data indicates that global oil supply increased in October by 0.44 mb/d m-o-m to average 99.76 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	23.71	2.21	25.46	1.76
OECD Europe	3.80	-0.03	3.84	0.04
OECD Asia Pacific	0.41	0.02	0.46	0.05
Total OECD	**27.92**	**2.20**	**29.77**	**1.85**
Other Asia	3.51	-0.07	3.48	-0.04
Latin America	5.16	0.01	5.49	0.33
Middle East	1.24	0.00	1.22	-0.01
Africa	1.53	0.03	1.60	0.07
Total DCs	**11.44**	**-0.04**	**11.79**	**0.35**
FSU	14.18	0.13	14.20	0.02
Other Europe	0.12	-0.01	0.12	0.00
China	3.95	-0.02	3.93	-0.02
Non-OPEC production	57.61	2.27	59.82	2.21
Processing gains	2.25	0.04	2.28	0.03
Non-OPEC supply	**59.86**	**2.31**	**62.09**	**2.23**

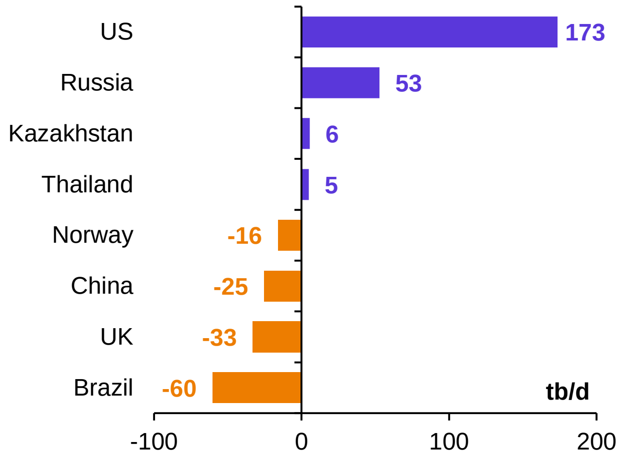
*Note: * 2018 and 2019 = Forecast.*

Source: OPEC Secretariat.

Monthly revisions to non-OPEC supply growth forecast

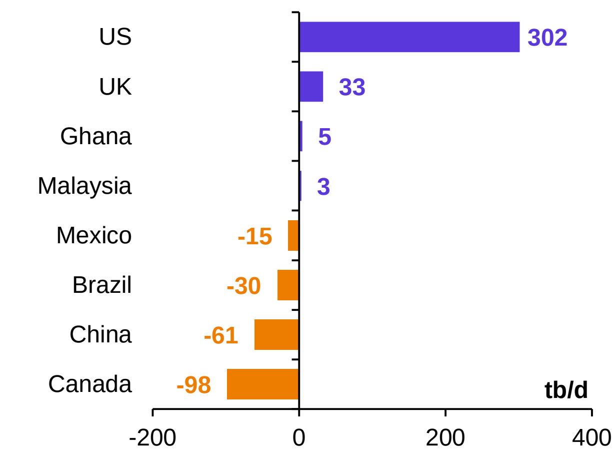
The **non-OPEC oil supply growth forecast for 2018** was revised up by 0.09 mb/d to average 2.31 mb/d. On a country basis, cumulative expected growth in the US, Russia, Kazakhstan and Thailand was revised up by 0.24 mb/d in 2018, while the oil supply growth forecast for Mexico, Norway, China, the UK and Brazil was revised down by 0.14 mb/d (***Graph 5 – 1***).

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



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

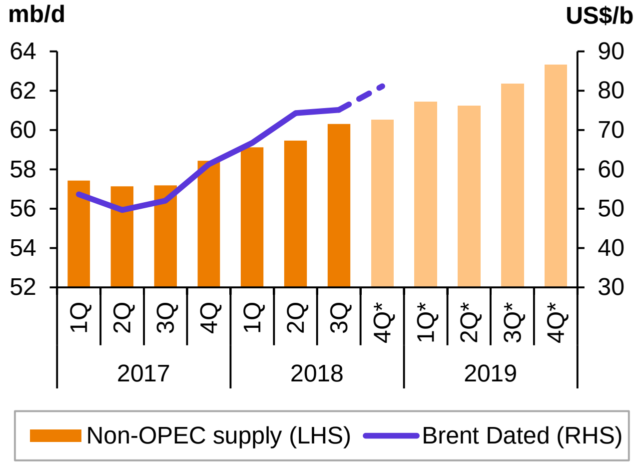
Graph 5 - 2: MOMR Nov 18/Oct 18 revisions in 2019* annual supply changes



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

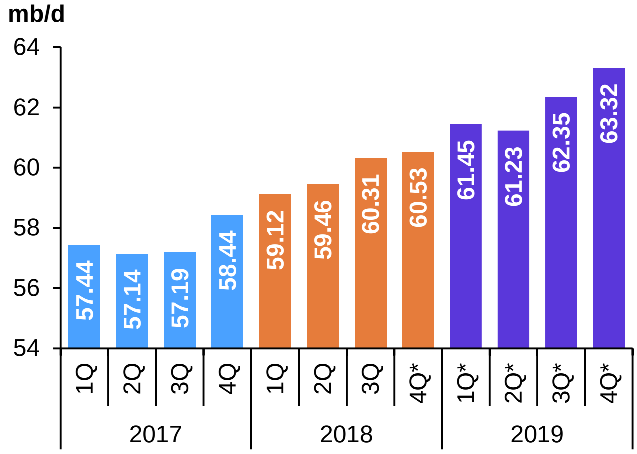
Monthly revisions to **non-OPEC oil supply growth for 2019**, as seen in ***Graph 5 - 2***, indicate upward revisions mainly in the US and the UK totalling 0.33 mb/d, while oil supply forecasts for Thailand, Kazakhstan, Norway, Mexico, Brazil, China and Canada were revised down cumulatively by 0.22 mb/d. As a result, y-o-y growth for non-OPEC supply in 2019 was revised up by 0.12 mb/d to average 2.23 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	24.28	24.25	23.71	2.21	10.29
of which US	*14.40*	*15.53*	*16.22*	*17.07*	*17.01*	*16.46*	*2.06*	*14.30*
Europe	3.83	3.92	3.73	3.67	3.90	3.80	-0.03	-0.69
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**	**28.35**	**28.59**	**27.92**	**2.20**	**8.57**
Other Asia	3.59	3.58	3.53	3.44	3.51	3.51	-0.07	-2.09
Latin America	5.15	5.15	5.20	5.10	5.19	5.16	0.01	0.13
Middle East	1.24	1.21	1.25	1.26	1.22	1.24	0.00	-0.08
Africa	1.50	1.52	1.53	1.54	1.53	1.53	0.03	1.83
Total DCs	**11.48**	**11.46**	**11.50**	**11.34**	**11.46**	**11.44**	**-0.04**	**-0.36**
FSU	14.05	14.10	14.14	14.32	14.17	14.18	0.13	0.95
of which Russia	*11.17*	*11.14*	*11.18*	*11.44*	*11.19*	*11.24*	*0.07*	*0.62*
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	3.93	3.94	3.95	-0.02	-0.54
Total "Other regions"	**18.15**	**18.17**	**18.25**	**18.37**	**18.23**	**18.26**	**0.11**	**0.59**
Total non-OPEC production	**55.34**	**56.87**	**57.21**	**58.06**	**58.28**	**57.61**	**2.27**	**4.10**
Processing gains	2.21	2.25	2.25	2.25	2.25	2.25	0.04	1.67
Total non-OPEC supply	**57.55**	**59.12**	**59.46**	**60.31**	**60.53**	**59.86**	**2.31**	**4.01**
Previous estimate	57.56	59.12	59.45	59.92	60.59	59.77	2.22	3.85
Revision	0.00	0.00	0.01	0.39	-0.06	0.09	0.09	0.15

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

OECD

Total OECD oil supply in 2018 is expected to grow by 2.20 mb/d to average 27.92 mb/d. This has been revised up by 118 tb/d since the last MOMR, representing an upward revision in supply growth of 117 tb/d. OECD Americas is forecast to see an increase of 2.21 mb/d y-o-y to average 23.71 mb/d after an upward revision by 166 tb/d, while oil supply in OECD Europe will show a contraction of 0.03 mb/d to average 3.80 mb/d (of which 3.1 mb/d is from the North Sea) after a downward revision by 48 tb/d. Supply from OECD Asia Pacific is expected to grow by 0.02 mb/d y-o-y to average 0.41 mb/d.

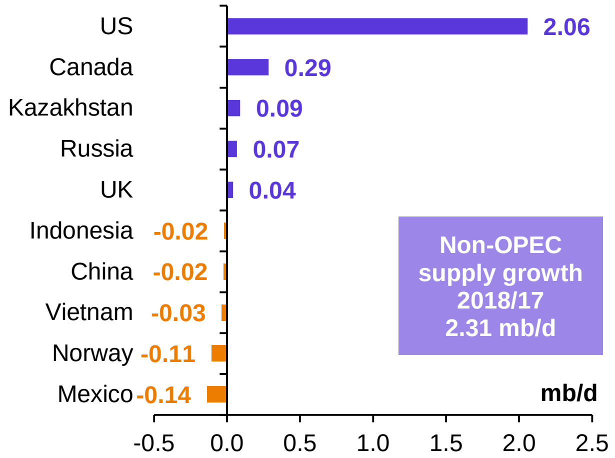
Yearly growth of 1.85 mb/d is forecast for OECD oil supply in **2019** to average 29.77 mb/d. OECD Americas, Europe and Asia Pacific all are expected to grow next year by 1.76 mb/d, 0.04 mb/d and 0.05 mb/d to average 25.46 mb/d, 3.84 mb/d and 0.46 mb/d, respectively.

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

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18 Growth	%
Americas	23.71	24.85	24.96	25.83	26.21	25.46	1.76	7.42
of which US	*16.46*	*17.43*	*17.93*	*18.47*	*18.76*	*18.15*	*1.69*	*10.24*
Europe	3.80	3.94	3.63	3.79	4.00	3.84	0.04	0.94
Asia Pacific	0.41	0.44	0.45	0.47	0.49	0.46	0.05	13.28
Total OECD	**27.92**	**29.22**	**29.04**	**30.08**	**30.70**	**29.77**	**1.85**	**6.63**
Other Asia	3.51	3.49	3.48	3.47	3.47	3.48	-0.04	-1.02
Latin America	5.16	5.38	5.41	5.47	5.72	5.49	0.33	6.46
Middle East	1.24	1.23	1.23	1.22	1.22	1.22	-0.01	-1.02
Africa	1.53	1.56	1.59	1.61	1.64	1.60	0.07	4.52
Total DCs	**11.44**	**11.65**	**11.70**	**11.78**	**12.05**	**11.79**	**0.35**	**3.10**
FSU	14.18	14.21	14.17	14.18	14.24	14.20	0.02	0.13
of which Russia	*11.24*	*11.24*	*11.24*	*11.24*	*11.24*	*11.24*	*0.00*	*-0.03*
Other Europe	0.12	0.12	0.12	0.12	0.12	0.12	0.00	-1.08
China	3.95	3.97	3.92	3.91	3.94	3.93	-0.02	-0.41
Total "Other regions"	**18.26**	**18.30**	**18.21**	**18.21**	**18.30**	**18.26**	**0.00**	**0.01**
Total non-OPEC production	**57.61**	**59.17**	**58.95**	**60.07**	**61.04**	**59.82**	**2.21**	**3.83**
Processing gains	2.25	2.28	2.28	2.28	2.28	2.28	0.03	1.25
Total non-OPEC supply	**59.86**	**61.45**	**61.23**	**62.35**	**63.32**	**62.09**	**2.23**	**3.73**
Previous estimate	59.77	61.20	61.02	62.05	63.28	61.89	2.12	3.54
Revision	0.09	0.25	0.21	0.30	0.04	0.20	0.12	0.19

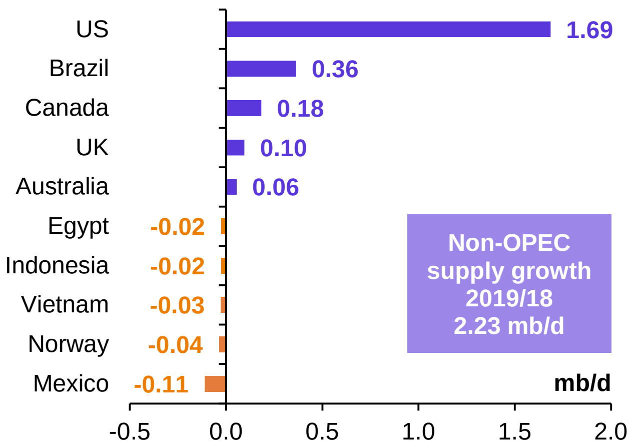
*Note: * 2018 and 2019 = Forecast.*
Source: OPEC Secretariat.

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.

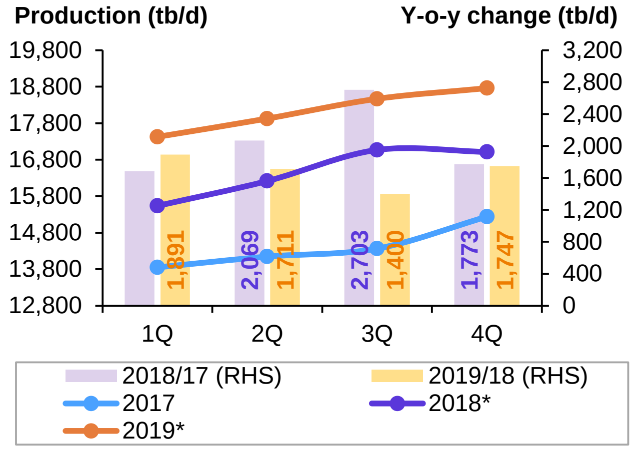
OECD Americas

US

US crude oil output (including lease condensate) in August surged by 0.42 mb/d, much higher than the US Energy Information Administration's (EIA's) expectation, which was for only 90 tb/d, up by 3.8% m-o-m, following 2.4% m-o-m growth in July based on monthly data, to average 11.35 mb/d. The EIA's monthly data was unexpectedly higher by 388 tb/d than estimated average monthly output based on preliminary weekly data in August (10,958 tb/d). US crude oil output in August showed growth of 2.1 mb/d, or 22.7%, y-o-y.

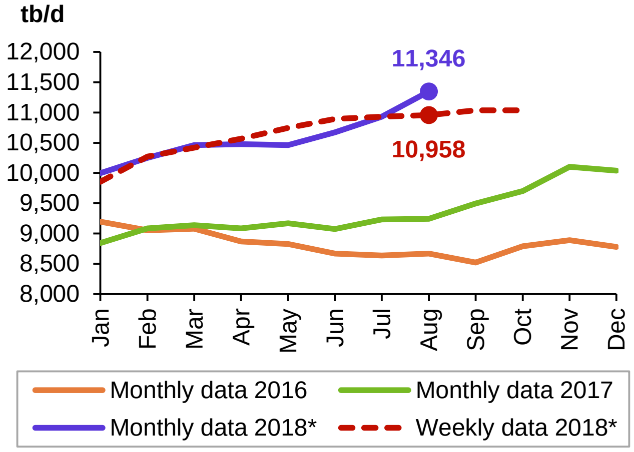
The main m-o-m increase came from the Gulf Coast (PADD 3) at 259 tb/d to average 7,425 tb/d, stemming mostly from Texas (126 tb/d to average 4.58 mb/d), the Gulf of Mexico (GoM) (74 tb/d to average 1.92 mb/d, the highest ever recorded) and New Mexico, which added 55 tb/d to average 0.72 mb/d. The next largest growth was seen in PADD 4, where an increase of 65 tb/d to average 0.89 mb/d came mainly from Colorado and Wyoming. Crude oil output in the Midwest – mainly North Dakota and Oklahoma – and the West Coast, including Alaska's production, increased m-o-m in August by 56 tb/d and 33 tb/d, respectively.

Graph 5 - 7: US quarterly liquids supply



*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.*
Souces: EIA and OPEC Secretariat.

Federal offshore GoM production of crude oil reached 1.92 mb/d, the highest recorded in history, 143 tb/d higher than the peak seen in March 2017 and higher y-o-y by an impressive 0.20 mb/d. Output recovery in the GoM is largely driven by Anadarko and Hess, which exhibited a combined jump in operating oil production of 66 tb/d in August amid the completion of temporary field maintenance, as very limited volumes came from new wells. Incremental output was mainly due to increased field production in Jack/St.Malo and Tahiti, where total output rose to a record high 0.15 mb/d and more than 0.10 mb/d, respectively. Moreover, 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 and August. Oil production from GoM in 1H18 declined by 0.08 mb/d compared with the same period a year ago to average 1.63 mb/d. Assuming averaged output of 1.88 mb/d in 3Q18 and 1.85 mb/d in 4Q18, oil production from GoM is likely to grow by 0.06 mb/d to average 1.74 mb/d in 2018, with similar growth expected for next year.

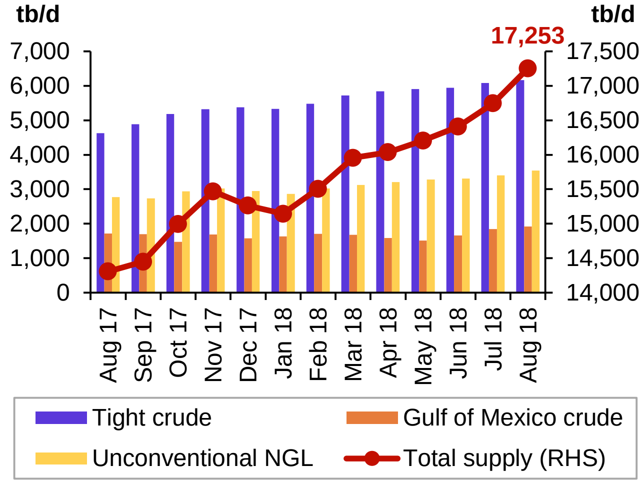
According to data from the EIA, m-o-m growth of crude oil output in Texas was up by a robust 126 tb/d, with production at 4.58 mb/d in August, up by 1.23 mb/d y-o-y and higher by ~37% compared with August 2017.

While oil production in Alaska declined by 15 tb/d (-3.1%) in the first eight months of 2018 compared with the same period in 2017, oil output in North Dakota was up by 179 tb/d (+15%). Oklahoma also added 100 tb/d (+23%).

Preliminary US crude oil production increased by 0.68 mb/d in 3Q18 q-o-q to average 11.22 mb/d, higher by 1.90 mb/d compared with the same quarter a year ago. In the first eight months of 2018, 84% of total crude oil output in the US came from onshore fields, mainly shale plays. Texan crude oil production over this period was around 48% of total US onshore production, amounting to 4.25 mb/d, up by 0.92 mb/d y-o-y.

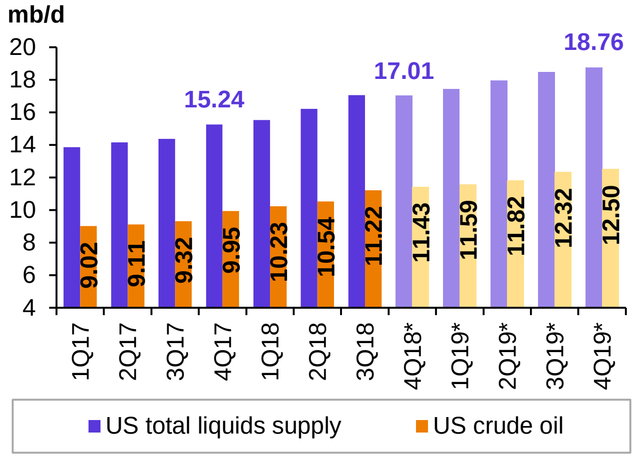
US liquids output in August (excluding processing gains) recorded an increase of 0.50 mb/d m-o-m to average 17.25 mb/d, up by 2.94 mb/d y-o-y. According to the EIA, m-o-m US liquids supply growth in August was supported by growth in crude oil production of 416 tb/d, while NGLs output showed growth of 159 tb/d m-o-m to 4.57 mb/d. The output of other non-conventional liquids, mainly biofuels, is estimated to have decreased m-o-m by 67 tb/d to 1.34 mb/d.

Graph 5 - 9: US monthly liquids supply by key component



Source: US EIA and 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 grow by 2.06 mb/d to average 16.46 mb/d, revised up by 0.17 mb/d from the previous MOMR, following a robust q-o-q increase in 3Q18 of 0.85 mb/d as well as a reassessment of the supply forecast for 4Q18.

Consequently, **US liquids supply in 2019** now is forecast to reach an average of 18.15 mb/d, representing y-o-y growth of 1.69 mb/d and revised up by 0.3 mb/d compared with last month's 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*	6.19	*1.48*	7.36	*1.17*
Gulf of Mexico crude	1.60	1.68	*0.08*	1.73	*0.05*	1.78	*0.05*
Conventional crude oil	2.99	2.96	*-0.03*	2.94	*-0.02*	2.92	*-0.02*
Unconventional NGLs	2.58	2.77	*0.19*	3.22	*0.45*	3.64	*0.42*
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***	**16.46**	***2.06***	**18.15**	***1.69***

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

US tight crude output in August 2018 is estimated to have grown by 0.30 mb/d m-o-m to average 6.38 mb/d, an increase of 1.75 mb/d y-o-y, according to preliminary shale and tight play oil production estimates. Crude output from shale and tight formations through horizontal wells in the Permian Basin was up by 151 tb/d in August m-o-m to average 2.92 mb/d, followed by an increase of 30 tb/d m-o-m at Eagle Ford to average 1.27 mb/d. The Niobrara play added 40 tb/d to average 0.48 mb/d, and m-o-m growth of 20 tb/d was also seen in the Bakken play, to average 1.27 mb/d. Tight crude output in other shale plays increased by a total of 65 tb/d m-o-m in August to average 0.44 mb/d.

On a yearly basis, **US tight crude for 2018** is forecast to grow by 1.48 mb/d to average 6.19 mb/d, revised up by 0.16 mb/d from last month's assessment. This is partially due to the EIA's revision to historical data. Tight crude production from the Permian Basin is expected to grow by 0.90 mb/d y-o-y and will reach an average of 2.81 mb/d. The Permian's share of US tight crude growth in 2018 would be around 61%. It is worth pointing out that year-to-date (January-August) tight crude production from the Bakken shale play in North Dakota increased by 0.18 mb/d y-o-y to average 1.20 mb/d.

In the same period, tight oil output in the Permian, Eagle Ford and Niobrara-Codell plays increased, respectively, by 0.87 mb/d to average 2.64 mb/d, by 0.18 mb/d to average 1.20 mb/d and by 0.08 mb/d to average 0.43 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). Combined US unconventional NGLs and tight crude production is expected to reach an average of 9.41 mb/d, indicating growth of 1.92 mb/d y-o-y, constituting a share of 57% of total US liquids production and around 94% of total US supply growth in 2018, respectively.

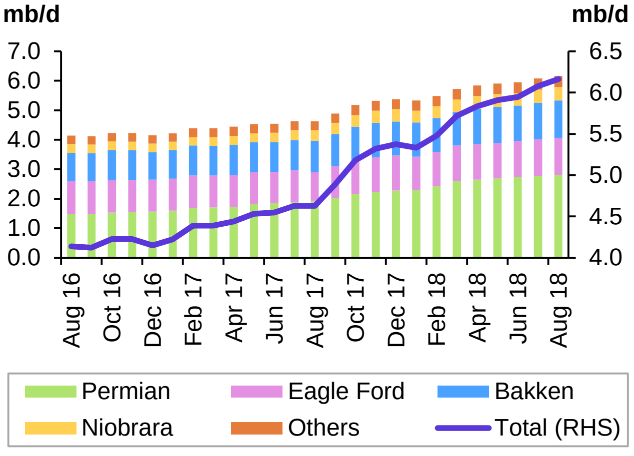
Table 5 - 5: US tight oil production growth

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*	2.81	*0.90*	3.41	*0.60*
Bakken shale	1.06	*0.03*	1.24	*0.18*	1.44	*0.20*
Eagle Ford shale	1.09	*-0.08*	1.27	*0.18*	1.47	*0.20*
Niobrara shale	0.34	*0.04*	0.46	*0.12*	0.53	*0.07*
Other tight plays	0.31	*0.02*	0.41	*0.10*	0.51	*0.10*
Total	**4.71**	***0.47***	**6.19**	***1.48***	**7.36**	***1.17***

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

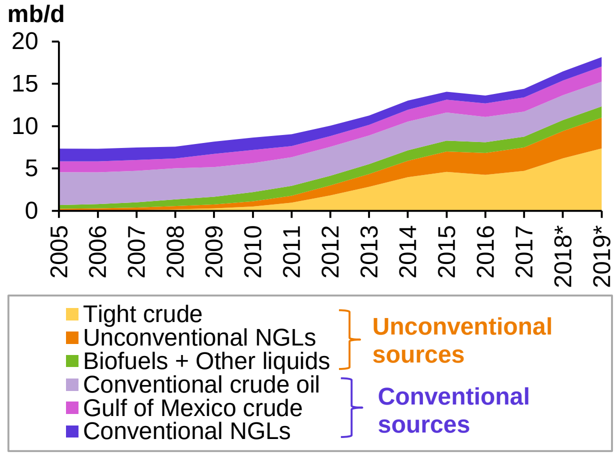
Y-o-y growth in **US tight crude for 2019** in will occur at a slower pace of 1.17 mb/d to average 7.36 mb/d, 310 tb/d less than expected for 2018, due to fundamental constraints, mainly limited pipeline capacity to transfer Permian oil to the US Gulf Coast. Tight crude production from the Permian Basin is likely to grow by 0.60 mb/d to average 3.41 mb/d; this is 50%, or 0.30 mb/d, less than is expected for the current year. In North Dakota, production growth from Bakken shale is expected to expand at around the same pace as in 2018, with y-o-y growth of 0.20 mb/d, while 0.20 mb/d from Eagle Ford shale is also anticipated. For Niobrara and other shale regions, y-o-y growth of 0.07 mb/d and 0.10 mb/d is forecast, respectively.

Graph 5 - 11: US tight crude breakdown



Souces: EIA and OPEC Secretariat.

Graph 5 - 12: US liquids production breakdown



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

US horizontal drilled but uncompleted wells (DUC)

US preliminary horizontal oil and gas DUCs were pegged at 4,423 as of October 2018, according to estimates by Rystad Energy. DUC inventories in the Permian, Eagle Ford, Bakken and Niobrara decreased at varying levels, as seen in ***Table 5 - 6***.

Table 5 - 6: US horizontal DUCs by main shale play

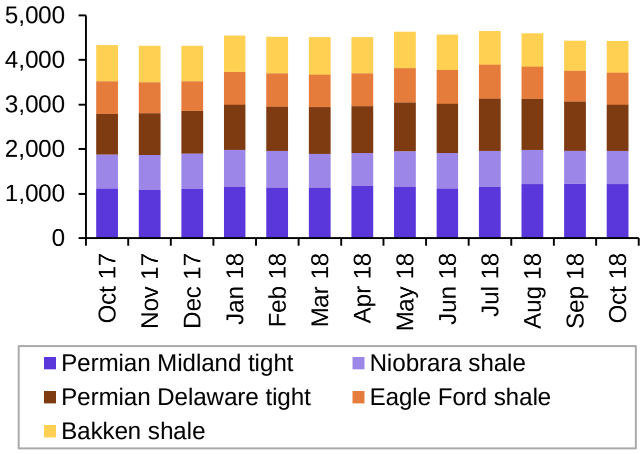
	Jul 18	Aug 18	Sep 18	Oct 18
Niobrara shale	798	764	742	743
Permian Midland tight	1,159	1,214	1,227	1,215
Permian Delaware tight	1,178	1,152	1,100	1,039
Eagle Ford shale	757	720	691	720
Bakken shale	753	749	674	706
Total	**4,645**	**4,599**	**4,434**	**4,423**

Source: OPEC Secretariat.

The number of horizontal DUCs in Eagle Ford bottomed out at 522 wells in January 2017 and rose to 810 wells in August 2017, but dropped again in August and September 2018. In Niobrara, they declined to 404 wells in May 2016 and rose to 830 wells in January 2018. In line with overall crude oil output in August 2018 showing a robust jump, oil production from Niobrara was also remarkable, as they completed 34 DUCs in the same month.

The DUC count in the Bakken rose to 1,245 wells in October 2014 and since declined to reach 765 wells in December 2016. Afterwards, the DUC count rose again to reach 841 wells in March 2018. However, by August and September, the number of DUCs had declined again. Horizontal DUCs in Permian Midland and Delaware fields bottomed out during the recession in June 2016 at 440 wells and 357 wells, respectively.

Graph 5 - 13: US DUCs by main shale play



Sources: Rystad Energy and OPEC Secretariat.

During August, September and October, the DUC count in Permian Delaware decreased from 1,178 wells in July to 1,039 wells in October. Completed wells taken from the DUC inventory in Permian Midland were not as deep as those in Delaware.

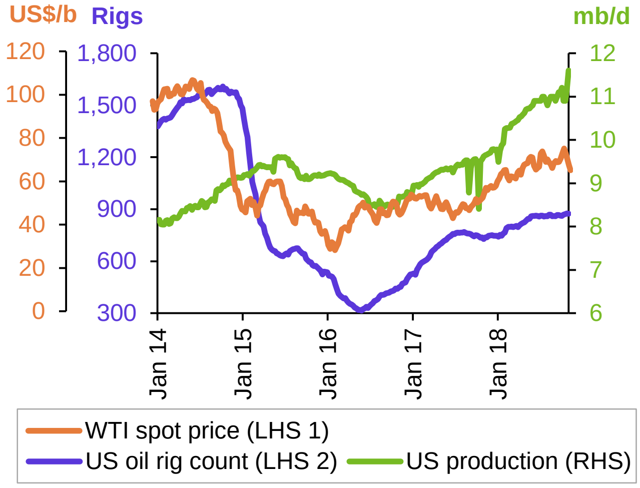
US oil rig count

The **total US oil and gas rig count** was down by 1 unit w-o-w to 1,067 rigs in the week ending 2 November 2018.

Concerning the **oil and gas split** in October m-o-m, 10 units were added in oil fields to reach 874 rigs, while gas rigs increased by 5 units m-o-m to reach 193 rigs. The corresponding y-o-y increase for oil rigs was 145 units, or 20%.

Regarding **drilling trajectory**, the number of horizontal rigs (active in oil and gas fields) was up by 2 units w-o-w to reach 929 rigs, adding 10 units m-o-m.

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

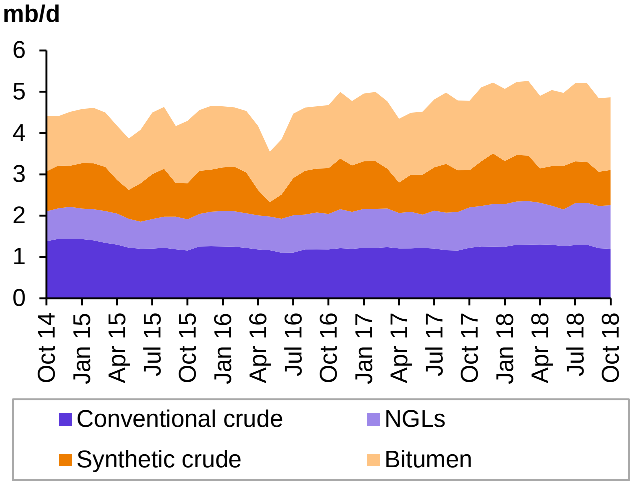


Sources: Baker Hughes, EIA and OPEC Secretariat.

Canada

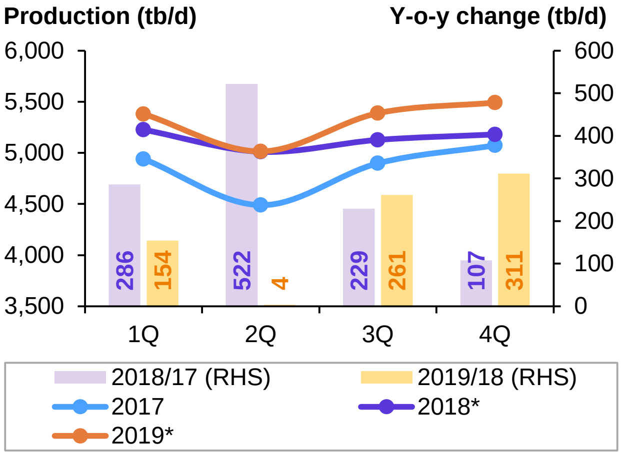
Canada's liquids supply rose by 0.24 mb/d in July m-o-m to average 5.25 mb/d, following a decline in June. This is higher by 0.4 mb/d, y-o-y, based on official data, mainly due to an increase in NGLs output of 126 tb/d to average 1.02 mb/d. Non-conventional liquids – mainly crude bitumen – were up by 82 tb/d to average 2.94 mb/d. In July, the production of conventional crude oil also increased by 28 tb/d to average 1.29 mb/d. Synthetic crude output in July decreased by 0.04 mb/d m-o-m, mainly due to the continuation of the Mildred Lake upgrader, while crude bitumen dropped by 41 tb/d in the Jackfish and Cold Lake projects.

Graph 5 - 15: Canada's production by product type



Source: OPEC Secretariat.

Graph 5 - 16: Canada's quarterly liquids supply



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

Preliminary indications for August show more or less steady production in Canada at 5.24 mb/d, compared with July. Oil sands and conventional crude output were forecast at 2.93 mb/d and 1.30 mb/d, respectively, while NGLs production is estimated to remain unchanged at 1.02 mb/d. Nevertheless, a full run of 360 tb/d at the synthetic crude upgrader was anticipated in September.

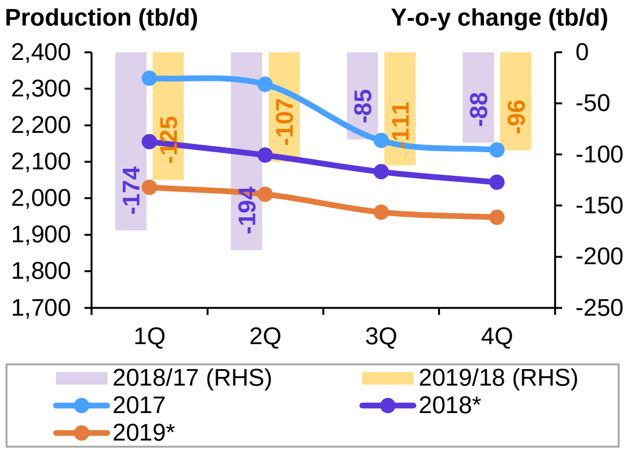
Canada's liquids supply in 2018 is expected to increase by 0.29 mb/d y-o-y to average 5.14 mb/d, unchanged compared with the previous month's assessment. Canada has been the fourth-largest oil producer in the world since 2015.

According to the National Energy Board, crude shipments to the US hit a record 207 tb/d in July, while 378 tb/d of other products arrived, including fuel oil. Since no new pipelines are set to come online until at least the end of 2019, more producers are turning to transfer by rail. It seems that Canada's oil supply is currently facing a serious bottleneck in the country's pipeline network until the Trans Mountain pipeline project is implemented. At the same time, Canadian heavy crude producers cannot tolerate the pressure of the discount on WCS (Western Canadian Select), which is at an unprecedented $50/b to WTI. The impact of these constraints has seen the Canadian oil supply growth forecast slow for next year, following a downward revision of 0.1 mb/d compared with the last forecast, to see y-o-y growth of 0.18 mb/d, indicating an average liquids supply of 5.32 mb/d in 2019.

Mexico

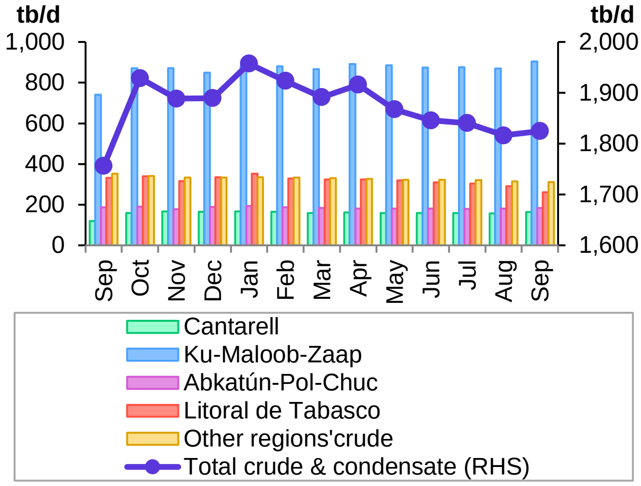
Mexico's liquids supply in 2018 is expected to decline by 0.14 mb/d to average 2.10 mb/d, revised down by 5 tb/d due to a downward adjustment in the supply forecast for 4Q18, owing to weak production performance expected in October, based on preliminary data. Nevertheless, average liquids output in September increased by a minor 9 tb/d to 2.07 mb/d, higher by 0.07 mb/d y-o-y, while crude oil was up by 9 tb/d to average 1.83 mb/d, mainly due to low maintenance.

Graph 5 - 17: Mexico's quarterly liquids supply



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

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



Sources: Pemex and OPEC Secretariat.

Average crude output for the current year-to-date (three quarters) fell by 0.11 mb/d to average 1.86 mb/d compared with the same period a year ago (-5.6%), while NGLs production dropped by 0.04 mb/d in the same time frame, to average 0.25 mb/d (-14.8%). Heavy crude and super light crude grew by 0.09 mb/d and 0.04 mb/d m-o-m, respectively, in September, while production of light crude and NGLs dropped compared with August. Oil production records from the last three quarters showed that all crude types declined, except heavy crude, which showed an increase of 24 tb/d to average 1.08 mb/d. In the latest production data provided by Pemex, the Mexico liquids output estimate in 3Q18 is set 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 0.11 mb/d, revised up by 20 tb/d compared with the previous assessment, with estimated annual average output of 1.99 mb/d.

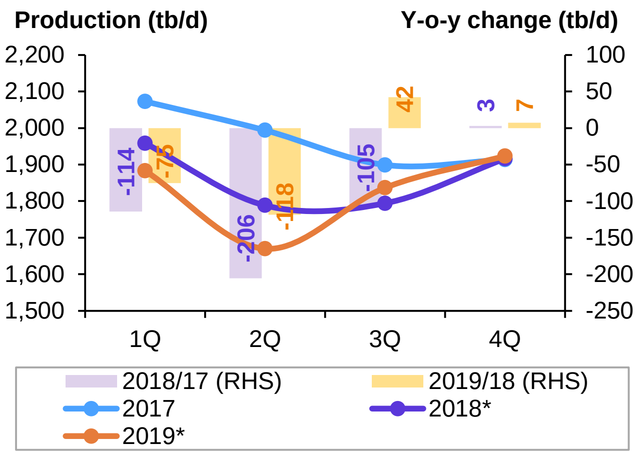
OECD Europe

Norway

Norway's oil supply for 2018 is expected to decline by 0.11 mb/d y-o-y to average 1.86 mb/d, due to limited new field start-ups, revised down by 0.02 mb/d from the previous MOMR. Preliminary production figures for September 2018 show average daily production of 1.61 mb/d of crude, NGLs and condensate, contrary to a higher forecast, indicating a decrease of 0.26 mb/d m-o-m. Liquids production in September declined by 0.17 mb/d y-o-y and total liquids output for the first nine months in 2018 was at 1.85 mb/d, showing a decline of 0.14 mb/d or 7%, y-o-y.

In September, crude oil output was down by 194 tb/d m-o-m to average 1.30 mb/d, also lower by 139 tb/d y-o-y. NGLs output also declined by 62 tb/d to average 0.30 mb/d, 27 tb/d less than September 2017 output.

Graph 5 - 19: Norway's quarterly liquids supply



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

According to the NPD, production in September is about 12% below its monthly forecast, and about 4.4% below the forecast for 2018. Production in September is lower than expected due to a maintenance shutdown which was not included in the prognosis for several fields, including Goliat.

In 1H18, crude oil output from the Troll, Ekofisk, Oseberg, Alvheim, Gudrun, Heidrun, Eldfisk, Skarv, Asgard and other small fields declined. Regarding 4Q18 and beyond, the first phase of Oseberg (extension) field with a peak capacity of 25 tb/d started in October, and the results will be tangible in 2019.

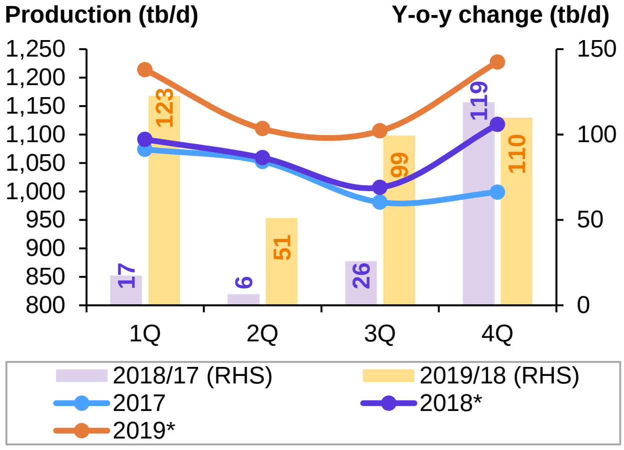
For 2019, Norway's oil supply is forecast to see another y-o-y decline, but at slower pace of 0.04 mb/d, due to new project ramp-ups. Total production is expected to be around 1.83 mb/d. The Martin Linge project – with capacity of 50 tb/d – is expected to start production in 1Q19, along with other smaller projects. This will mostly offset declines in mature brownfields.

UK

UK oil supply is projected to rise by 0.04 mb/d y-o-y to average 1.07 mb/d in 2018. UK liquids production in September 2018 was up by 0.07 mb/d m-o-m to average 1.02 mb/d, 0.03 mb/d higher than in September 2017, according to official data. Nevertheless, the 2018 supply growth forecast was revised down by 33 tb/d in the new assessment, following weaker-than-expected output for 3Q18, due to two weeks of maintenance at Buzzard, Alma, Galia, Kraken and Pierce, as well as a downward revision to the 4Q18 forecast.

Crude oil output in September accounted for 0.87 mb/d, up by 47 tb/d compared with a month earlier, but unchanged from a year ago, mainly coming from fields such as Catcher and Quad 204. NGLs output was also up m-o-m by 20 tb/d to average 108 tb/d, up by 17 tb/d y-o-y. Production of non-conventional liquids in the UK, mainly biofuels, continued to hold at 38 tb/d in 2H18 so far. The forecast for crude oil production performance during the last three quarters of 2018 was lower than originally thought, mainly due to heavy unplanned maintenance. Preliminary data production for October shows that 4Q18 would be higher by 0.11 mb/d q-o-q following the return of full production from most of the fields mentioned above, including Forties.

Graph 5 - 20: 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 0.10 mb/d y-o-y, following delays in new start-ups and lower-than-expected progress in field ramp-ups in 2018.

Developing Countries (DCs)

Total developing countries' (DCs) oil supply for 2018 is expected to reach an average of 11.44 mb/d, revised up by 0.06 mb/d. This follows a downward revision in historical supply in 3Q18 in Other Asia (-25 tb/d), Latin America (-43 tb/d) and Africa (-10 tb/d) as well as a downward revision in the 4Q18 supply forecast for Latin America, compared with last month's assessment, representing a contraction of 0.04 mb/d for DCs. While production is expected to increase in Latin America by a minor 0.01 mb/d to average 5.16 mb/d, and in Africa by 0.03 mb/d to average 1.53 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 of 1.24 mb/d is anticipated in the Middle East.

For 2019, growth of 0.35 mb/d is anticipated for DCs, due to ongoing field development in Latin America, particularly Brazil, to average 11.79 mb/d. Next year's forecast oil supply for DCs shows an increase in Latin America and Africa, while the oil supply in Other Asia and the Middle East will decline. The oil supply in Latin America is forecast to grow by 0.33 mb/d to average 5.49 mb/d, while in Africa it is expected to add 0.07 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 to average 3.48 mb/d, respectively.

Table 5 - 7: Developing countries' liquids supply, mb/d

	1Q	2Q	3Q	4Q	Yearly	Change Y-o-y
2017	11.53	11.46	11.45	11.50	11.48	*-0.04*
2018*	11.46	11.50	11.34	11.46	11.44	*-0.04*
2019*	11.65	11.70	11.78	12.05	11.79	*0.35*

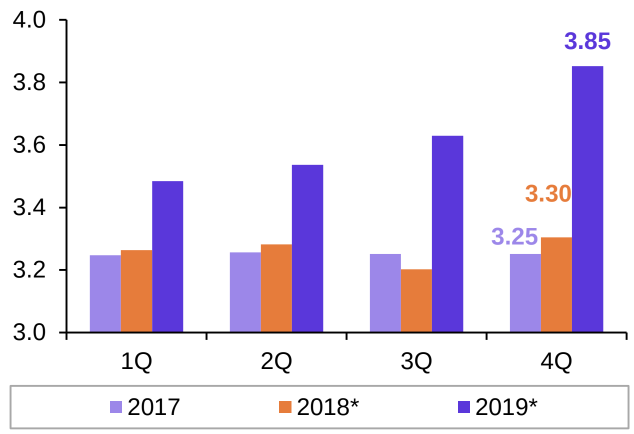
*Note: * 2018 and 2019 = Forecast.*
Source: OPEC Secretariat.

Latin America

Brazil

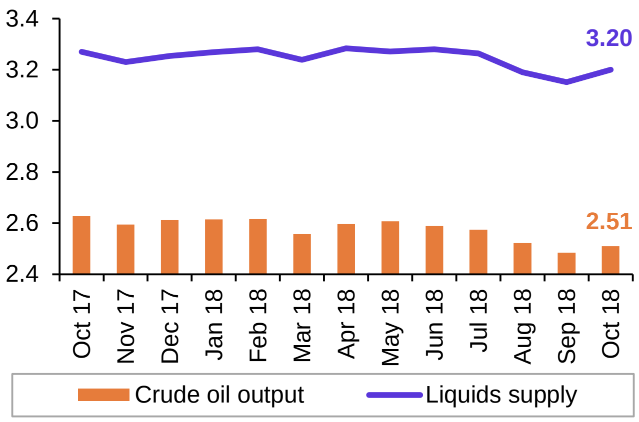
According to official data, **Brazil's crude oil output** fell by 53 tb/d to average 2.52 mb/d in August, lower by 54 tb/d y-o-y. Preliminary crude oil production data represents a further reduction of 38 tb/d, to average 2.48 mb/d in September, the lowest figure since May 2016, y-o-y, crude oil production in September 2018 declined by 0.17 mb/d compared with September 2017. However, crude oil output is likely to reach 2.51 mb/d in October, following a start-up on the P-69 FPSO at the end of the month, which will add 0.15 mb/d. Liquids supply was down by 0.04 mb/d to average 3.15 mb/d.

Graph 5 - 21: Brazil's quarterly liquids supply



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

Graph 5 - 22: Brazil's monthly liquids supply



Source: OPEC Secretariat.

According to Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (ANP), the main reason for the m-o-m decline in crude oil output was maintenance at the Roncador and Jubarte fields in the Campos Basin, which fell to 1.07 mb/d, a y-o-y drop of 0.25 mb/d, or decrease of 19%. Crude oil production declines in post-salt areas for 2018 offset incremental production from pre-salt reservoirs. Hence, total liquids supply, including ethanol, unexpectedly averaged 3.25 mb/d y-o-y for September, exactly the same as last year, though a y-o-y increase was expected at the beginning of the year.

As a result, liquids supply in 2018 is now forecast to grow by only 0.01 mb/d y-o-y to average 3.26 mb/d, following a downward revision of 0.06 mb/d. For next year, liquids supply is expected to rise by 0.36 mb/d to average 3.63 mb/d, revised down by 0.03 mb/d compared with last month's forecast.

FSU

FSU oil production for 2018 is expected to grow by 0.13 mb/d to average 14.18 mb/d, revised up by 58 tb/d from the previous forecast. Oil production in Russia and Kazakhstan is estimated to grow by 0.07 mb/d and 0.09 mb/d to average 11.24 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 the oil supply from FSU others will decline by 0.02 mb/d to average 0.32 mb/d.

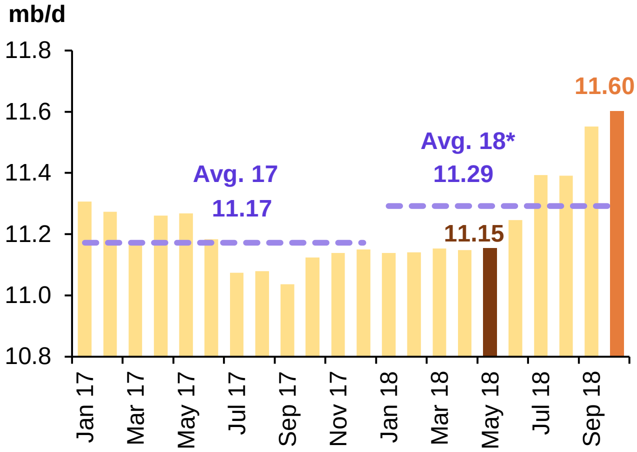
For 2019, FSU's oil supply is estimated to grow by 0.02 mb/d to average 14.20 mb/d, mainly coming from Kazakhstan (0.05 mb/d). Azerbaijan and FSU others are expected to see contractions of 0.01 mb/d and 0.02 mb/d, respectively, while Russia's oil supply is likely to remain unchanged y-o-y at 11.24 mb/d.

Russia

Russia has hit a new post-Soviet record for oil production in October, an increase of 0.05 mb/d from the previous month to average 11.60 mb/d, according to preliminary estimates. Russia's liquids supply stood at 11.39 mb/d in August and 11.55 mb/d in September, according to secondary sources. Russian exports outside the FSU were reported at 5.14 mb/d in October, up by over 7% from a month ago and 3% y-o-y, according to secondary sources.

Consequently, Russia's oil supply for 4Q18 has been revised up by 210 tb/d to average 11.19 mb/d, and is thus expected to average 11.24 mb/d for 2018, representing y-o-y growth of 0.07 mb/d.

Graph 5 - 23: Russia's monthly liquids supply



*Note: * Average January - October 2018.*
Sources: Nefta Compass and OPEC Secretariat.

Russian companies have increased production in October this year to 11.60 mb/d, which is 0.29 mb/d above production recorded in October 2016. The largest increase has come from Rosneft through Yuganskneftegaz, where 60 tb/d was added. About 0.10 mb/d more was pumped y-o-y in 2018 by the end of October to average 3.9 mb/d. Rosneft reported that its crude and condensate output peaked in October to average 4.78 mb/d, adding 200 tb/d from May 2018, when it started ramping up production. Rosneft is expected to produce an average of 4.62 mb/d in 2018 and is forecast to reach 4.8 mb/d to 4.9 mb/d in 2019. Oil production in companies Lukoil, Surgutneftegas, Gazprom Neft and Tatneft also increased in 2018, y-o-y, while Bashneft, Gazprom, Slavneft and Novatek showed output declines over the same period.

For 2019, Russia is assumed to maintain the current estimated average production of 11.24 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

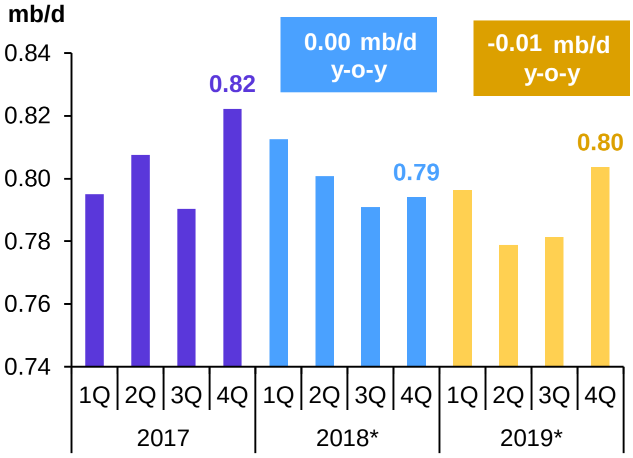
Azerbaijan

Azerbaijan's liquids output increased by 0.02 mb/d m-o-m to average 0.81 mb/d in September, following an increase of condensate production in the Shah Deniz offshore gas field in the Caspian. Liquids supply in October is expected to rise to 0.82 mb/d, according to preliminary production data. However, liquids supply is likely to drop in November mainly due to reduced crude oil output coming from the planned maintenance in the ACG offshore complex (Azeri-Chirag-Guneshli fields).

Crude oil output in September increased by 9 tb/d to average 719 tb/d while NGLs production was up by 13 tb/d to average 93 tb/d, higher by 16 tb/d, y-o-y. Azerbaijan's liquids production averaged 0.80 mb/d in the first nine months of 2018, indicating stagnant output y-o-y.

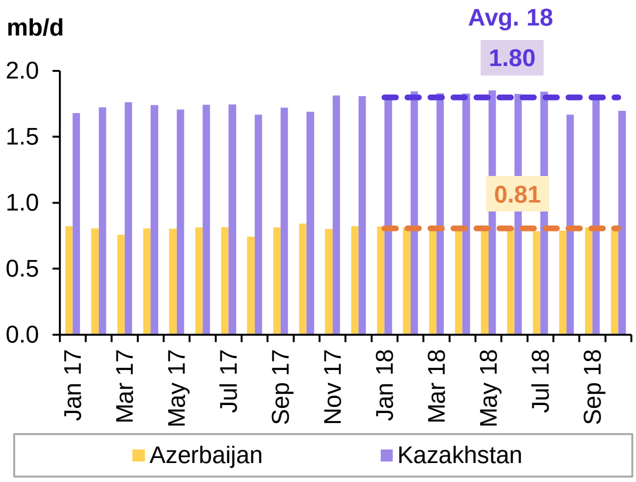
The country's liquids supply for 2018 is expected to remain unchanged at 0.80 mb/d. For 2019, liquids production in Azerbaijan is forecast to decrease further by 0.01 mb/d to average 0.79 mb/d.

Graph 5 - 24: Azerbaijan's quarterly liquids supply



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

Graph 5 - 25: Azerbaijan's and Kazakhstan's monthly liquids output



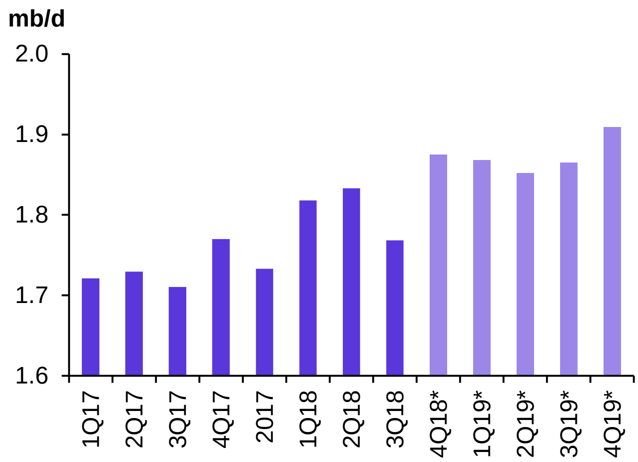
Source: OPEC Secretariat.

Kazakhstan

In **Kazakhstan**, the September liquids output recovered by 0.13 mb/d to average 1.80 mb/d, higher y-o-y by 0.07 mb/d, with crude oil output recovering by 0.13 mb/d to average 1.53 mb/d, mainly due to the return of production in the Tengiz field after the end of maintenance. September production in the Kashagan offshore field recovered to 0.28 mb/d. Preliminary production data shows oil output in October is likely to decline by 0.1 mb/d to average 1.70 mb/d.

According to actual production data in the first nine months of the year (January to September), liquids production rose by 0.09 mb/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.

Graph 5 - 26: Kazakhstan's quarterly liquids output



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

For 2018, Kazakhstan's average annual output is expected to grow by 0.09 mb/d to reach 1.82 mb/d, revised up by 6 tb/d from the previous month.

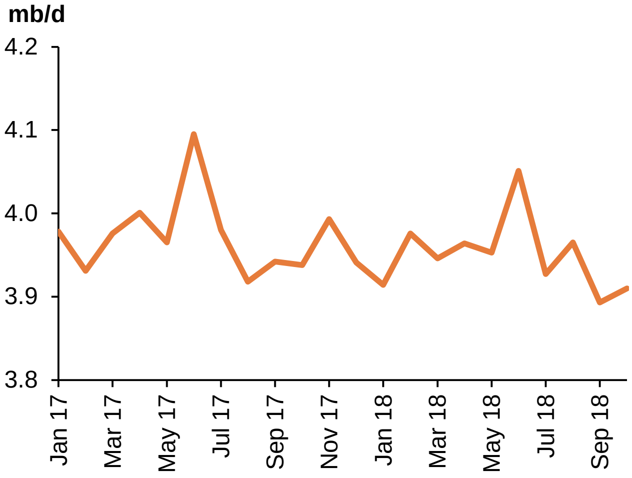
In 2019, the country's oil supply is forecast to grow by 0.05 mb/d to reach 1.87 mb/d, due to the ongoing Kashagan field ramp-up.

China

China's crude production in September fell to a six-year low of 3.694 mb/d, 74 tb/d lower m-o-m and 85 tb/d less than in September a year ago. As a result, China's liquids supply in September declined by 0.08 mb/d to average 3.89 mb/d, with 3Q18 declining by 0.06 mb/d q-o-q to 3.93 mb/d and lower by 0.02 mb/d, y-o-y. While decline rates have eased from an average of 0.15 mb/d in the first three quarters of 2017 to only 0.03 mb/d across the same period in 2018, production is unlikely to recover, as some major fields, such as the Daqing and Liaoning, suffer from steep depletion.

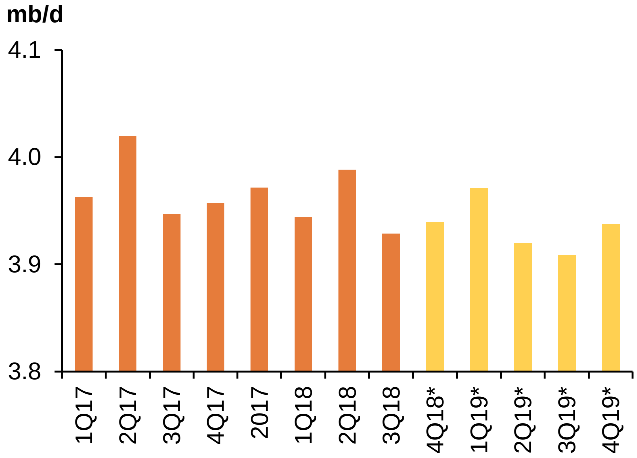
According to the China National Petroleum Corp., increasing domestic oil production, which comes mainly from mature fields, will be difficult. PetroChina's domestic oil production continued its three-year decline, falling by 0.4% to 2.01 mb/d. A number of PetroChina oilfields in the west of the country, including Qinghai, Xinjiang and Shaanxi, will not take their usual four-month winter break this year in order to boost domestic crude output. Although higher oil prices have helped the company resume production from more wells, this may not be sufficient to sustain domestic output, according to secondary sources.

Graph 5 - 27: China's monthly liquids output



Source: OPEC Secretariat.

Graph 5 - 28: China's quarterly liquids output



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

The annual production decline registered at 2.9% in 2017, or a contraction of 0.12 mb/d y-o-y, is likely to be compensated for by higher investment and drilling activity, leading to a much lower decline in the current year to average 3.95 mb/d. This represents a y-o-y decline of 0.02 mb/d, with the same contraction expected next year.

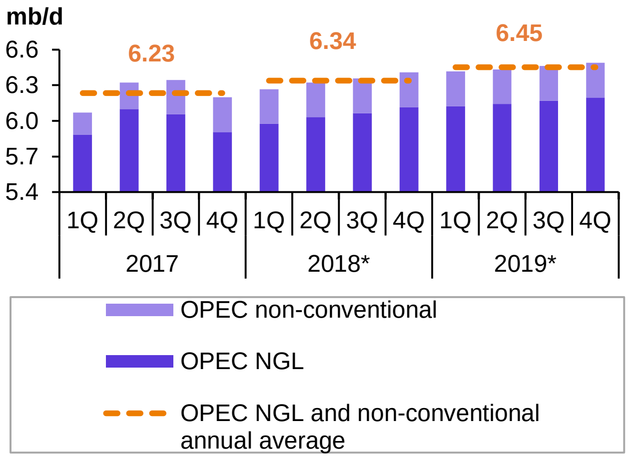
OPEC NGLs and non-conventional oils

OPEC NGLs and non-conventional liquids for 2018 were revised down by 0.02 mb/d, based on direct communication with MCs and are expected to grow by 0.10 mb/d to average 6.34 mb/d.

For 2019, they are likely to grow by 0.11 mb/d to average 6.45 mb/d, unchanged from last month's assessment.

Preliminary production data in September and October 2018 shows stagnant output at 6.42 mb/d, 0.08 mb/d higher than September 2017 and up by 0.20 mb/d compared with October 2017.

Graph 5 - 29: OPEC NGL and non-conventional liquids output



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

Table 5 - 8: OPEC NGL + non-conventional oils, mb/d

	2016	2017	Change 17/16	1Q18	2Q18	3Q18	4Q18	2018*	Change 18/17	2019*	Change 19/18
Total OPEC	**6.15**	**6.23**	0.09	6.27	6.32	6.36	6.41	**6.34**	0.10	**6.45**	0.11

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

OPEC crude oil production

According to secondary sources, **total OPEC-15 preliminary crude oil production** averaged 32.90 mb/d in October, an increase of 127 tb/d over the previous month. Crude oil output increased mostly in the UAE, Saudi Arabia, Libya and Angola, while production declined in IR Iran, Venezuela, Kuwait and Nigeria.

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

	2016	2017	1Q18	2Q18	3Q18	Aug 18	Sep 18	Oct 18	Oct/Sep
Algeria	1,090	1,043	1,014	1,026	1,059	1,057	1,057	1,054	-4
Angola	1,718	1,634	1,562	1,493	1,472	1,462	1,512	1,533	22
Congo	216	252	306	324	317	317	318	324	5
Ecuador	545	530	515	519	528	530	528	525	-3
Equatorial Guinea	160	133	134	127	124	124	123	131	8
Gabon	221	200	195	182	184	186	184	186	3
Iran, I.R.	3,515	3,813	3,817	3,818	3,604	3,609	3,452	3,296	-156
Iraq	4,392	4,446	4,441	4,480	4,629	4,642	4,654	4,653	0
Kuwait	2,853	2,708	2,704	2,708	2,798	2,803	2,797	2,764	-33
Libya	390	817	991	889	892	955	1,054	1,114	60
Nigeria	1,556	1,658	1,780	1,653	1,711	1,723	1,768	1,751	-17
Qatar	656	607	593	602	609	616	595	609	14
Saudi Arabia	10,406	9,954	9,949	10,114	10,422	10,404	10,502	10,630	127
UAE	2,979	2,915	2,850	2,873	2,982	2,969	3,018	3,160	142
Venezuela	2,154	1,911	1,545	1,383	1,242	1,240	1,211	1,171	-40
Total OPEC	**32,851**	**32,623**	**32,394**	**32,190**	**32,573**	**32,637**	**32,773**	**32,900**	***127***

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

Table 5 - 10: OPEC crude oil production based on *direct communication*, tb/d

	2016	2017	1Q18	2Q18	3Q18	Aug 18	Sep 18	Oct 18	Oct/Sep
Algeria	1,146	1,059	1,004	1,025	1,066	1,062	1,072	1,070	-2
Angola	1,722	1,632	1,519	1,477	1,475	1,481	1,489	1,457	-32
Congo	225	263	320	334	..	..	..	..	..
Ecuador	549	531	512	516	524	530	519	514	-5
Equatorial Guinea	..	129	127	124	118	113	123	108	-15
Gabon	229	210	192	185	..	188	..	..	..
Iran, I.R.	3,651	3,867	3,811	3,804	3,789	3,806	3,755	..	..
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	2,752	2,733	-19
Libya	..	..	..	..	..	..	..	..	..
Nigeria	1,427	1,536	1,611	1,526	1,611	1,670	1,634	1,772	138
Qatar	652	600	594	600	601	612	570	609	38
Saudi Arabia	10,460	9,959	9,942	10,128	10,399	10,412	10,502	10,642	141
UAE	3,088	2,967	2,841	2,876	2,998	2,972	3,050	3,270	220
Venezuela	2,373	2,035	1,623	1,523	1,451	1,448	1,434	1,433	-1
Total OPEC	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

Notes: .. Not available.
Totals may not add up due to independent rounding.
Source: OPEC Secretariat.

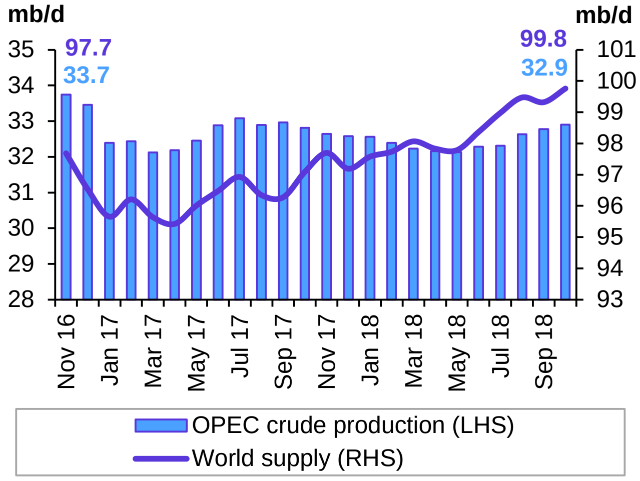
World oil supply

Preliminary data indicates that **global oil supply** increased by 0.44 mb/d to average 99.76 mb/d in October 2018, compared with the previous month.

An increase in non-OPEC supply (including OPEC NGLs) of 0.31 mb/d compared with the previous month, was mainly driven by OECD Americas. Along with a rise in OPEC crude oil production of 0.13 mb/d in October, this equates to a total increase in global oil output of 2.67 mb/d, y-o-y.

The **share of OPEC crude oil in total global production** remained unchanged at 33% in October 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 - 30: OPEC and world oil supply



Source: OPEC Secretariat.

Product Markets and Refinery Operations

Product markets in the Atlantic Basin during October saw a mixed performance.

In the US, product markets strengthened on the back of a positive performance in the middle and bottom of the barrel, as lower product outputs, due to the peak maintenance season and considerable gasoil and jet/kerosene inventory drawdowns, provided a boost to refining margins.

In Europe, product markets weakened as gasoline cracks plummeted to new lows with the highest year-on-year (y-o-y) decline since December 2017. This, coupled with naphtha weakness, weighed on cracks despite support from the middle and bottom of the barrel.

In Asia, product markets lost some ground, with a severe weakening at the top of the barrel owing to a regional gasoline oversupply outweighing support from the bottom of the barrel, attributed to lower gasoil and fuel oil output.

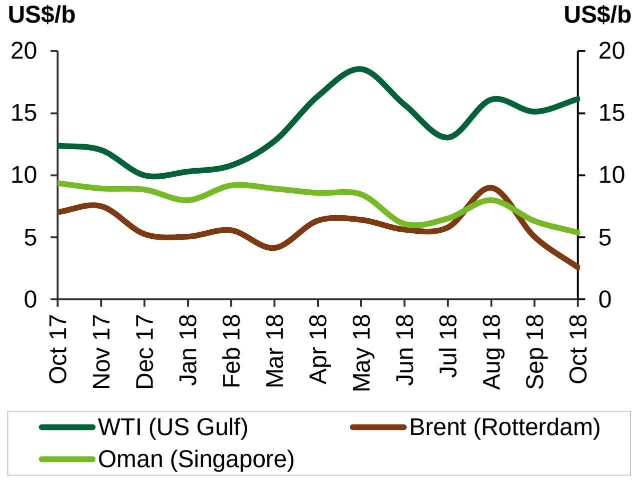
Refinery margins

In October, **US** refinery margins trended higher recovering losses registered in September. Support came from considerable jet fuel inventory level drawdowns, global market tightness and expectations of higher demand in the coming months that drove jet fuel prices to record highs. Moreover, strong domestic gasoil consumption over the month offered further support.

On the flip side, seasonally lower gasoline demand evidenced by a 9 mb gasoline stock build during the month capped refining margin gains and prevented additional improvements in refinery economics.

US refinery margins for WTI averaged $16.15/b in October, up by $1.02 m-o-m and by $3.76 y-o-y.

Graph 6 - 1: Refining margins



Sources: Argus Media and OPEC Secretariat.

Refinery margins in **Europe** plummeted to new multi-year record lows. Margins were pressured by sharp declines in light distillate cracks as the lengthening global gasoline balance contributed to strong ARA gasoline stock builds, which continued to weigh heavily on the European product market performance. The negative impact of the light distillates complex was exacerbated further by lower gasoline blending components requirements, typical for this time of the year.

In addition, prevailing product distribution constraints associated with low water levels in the River Rhine and limited gasoil and naphtha access to inland markets that dented the corresponding product cracks also contributed to the weakening seen over the month.

Refinery margins for Brent in Europe averaged $2.58/b in October, down by $2.46 compared to a month earlier and by $4.45 y-o-y.

Asian refinery margins in October declined to reach their lowest level seen since July 2016, mainly pressured by a steep fall in gasoline cracks over the month, despite some supply side pressure attributed to peak refinery maintenance. October refinery margins for Oman in Asia lost 93¢ m-o-m to average $5.39/b, which was lower by $3.98 y-o-y.

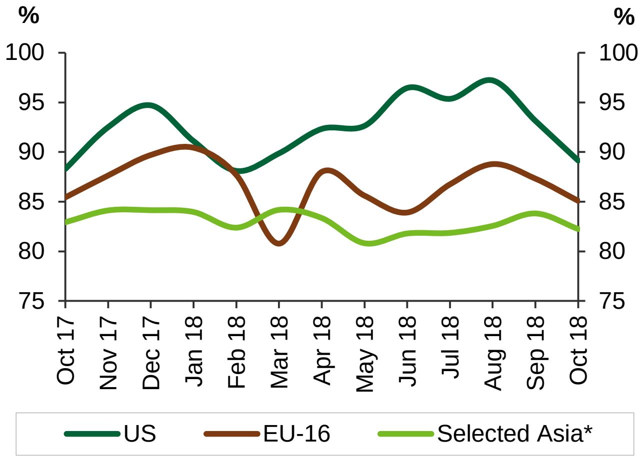
Refinery operations

In the **US**, refinery utilization rates declined in October to average 89.1%, which corresponds to a throughput of 16.6 mb/d. This represented a drop of 4.0 pp and 740 tb/d, respectively, compared with the previous month. Y-o-y, the refinery utilization rate was up by 0.8 pp, with throughputs showing a rise of 236 tb/d.

European refinery utilization in October averaged 85.09%, corresponding to a throughput of 10.38 mb/d. This is a m-o-m decline of 2.2 pp and 270 tb/d, respectively. On a y-o-y basis, utilization rates were down by 0.4 pp and throughputs by 34 tb/d.

In **selected Asia** – comprising Japan, China, India and Singapore – refinery utilization rates declined too, averaging 82.25% in October. This corresponds to a throughput of 21.3 mb/d. Compared to the previous month, throughputs were down by 1.6 pp, but remained flat on a barrel per day basis. Meanwhile, y-o-y utilization rates were down by 0.7 pp but throughputs were up by 701 tb/d.

Graph 6 - 2: Refinery utilization rates



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

Looking forward, refinery throughputs are expected to recover in the near term following the end of the peak autumn maintenance season driven by gasoil and jet fuel tightness. However, unfavourable refining margins in Europe could keep regional intakes on the low side as refining economics continue under steady and worsening scrutiny.

Product markets

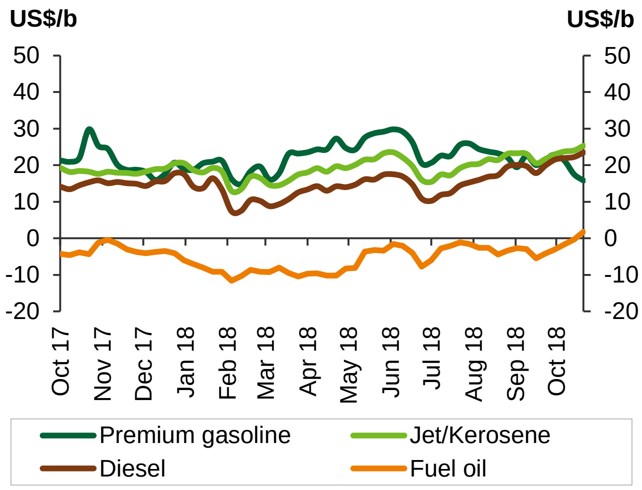
US market

The **US gasoline** market weakened following the end of the driving season as domestic consumption declined in line with seasonal trends.

The end of peak maintenance season in October, and the resulting rise in crude intakes, most likely further exacerbated losses, contributing to a lengthening balance.

Moreover, a 9 mb stock build recorded in October further contributed to the bearish sentiment that placed gasoline prices under scrutiny. In October, gasoline prices fell by $1.66 to average $89.62, repositioned at a discount vs. diesel. In October, the US gasoline crack spread against WTI averaged $18.87/b, down by $2.21 m-o-m and $4.75/b y-o-y.

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



Sources: Argus Media and OPEC Secretariat.

The **US Gulf Coast (USGC) jet/kerosene market** strengthened over the month, supported by bullish market sentiment that was fuelled by falling inventory levels, which declined by 3.4 mb in October. In addition, a strong price discount, compared with European jet fuel, provided a boost for exports from the USGC. Moreover, reduced refinery jet/kerosene outputs during the month, amid a tighter global market, provided further support.

The decline in jet fuel inventory levels, as well as expectations of strong demand in the coming months, particularly during the upcoming holiday season, contributed to bullish sentiment. This was evidenced by a jump in aviation fuel prices in the USGC. Jet/kerosene prices in October rose to $95.01, a new multi-year record high. With this, it became the highest priced product across the barrel in the USGC, at a hefty $5.39 premium over gasoline. The US jet/kerosene crack spread against WTI averaged $24.26/b, up by $2.08 m-o-m and by $5.77 y-o-y.

US gasoil crack spreads exhibited the strongest performance during October supported by inventory drawdowns that resulted in a hefty 9.8 mb drop in gasoil US stock levels. Lower refinery intakes, owing to the peak refinery maintenance season, limited gasoil output and contributed to the positive performance recorded in the USGC. The US gasoil crack spread against WTI averaged $22.55/b, up by $3.12 m-o-m and by $8.02 y-o-y.

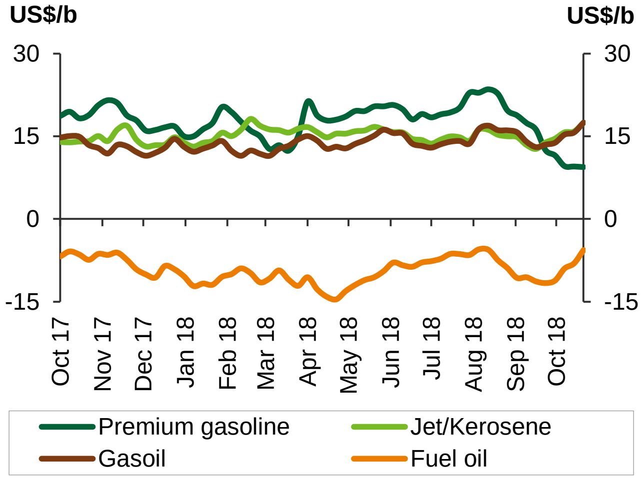
US fuel oil crack spreads against WTI in October trended upwards. This was driven by global market tightness, lower refinery outputs due to scheduled refinery maintenance and significant volume requirements from East of Suez. In October, the US fuel oil crack spread against WTI averaged minus 21 ¢/b, up by $3.58 m-o-m and by $3.78 y-o-y.

European market

The **gasoline crack spreads** in Rotterdam declined further in October. The spreads were pressured by lower seasonal demand, a global over supply and record-high ARA inventory levels. On a y-o-y basis, gasoline cracks have remained in negative territory for the last 10 months. They hit their lowest mark this year in October, representing a hefty $8.74 y-o-y decline.

The gasoline crack spread against Brent averaged $10.08/b in October, down by $6.16 m-o-m. The **jet/kerosene crack spreads** performed positively as a result of stronger fundamentals, with Atlantic Basin inventory levels trending lower and demand for spot offers moving higher. The Rotterdam jet/kerosene crack spread against Brent averaged $16.33/b, up by $2.61 m-o-m and by $2.25 y-o-y.

Graph 6 - 4: Rotterdam crack spreads vs. Brent



Sources: Argus Media and OPEC Secretariat.

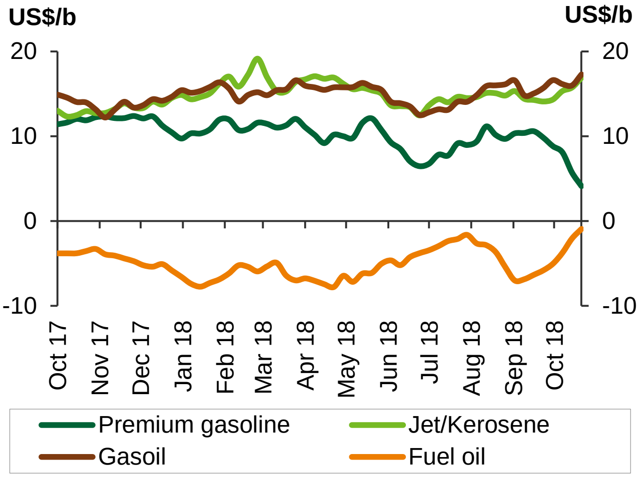
Gasoil crack spreads strengthened, supported by a cut in gasoil refinery output that was attributed to refinery scheduled outages and due to continued refinery intake cuts, driven by unfavourable economics due to weak refining margins. This has led to a tightening European gasoil market fuelling bullish market sentiment. In addition, prevailing intra-regional flow constraints caused by low water levels in the River Rhine continued to limit gasoil supply and, consequently, lend additional support to inland markets. The gasoil crack spreads against Brent averaged $16.06/b, which was higher by $1.99 m-o-m and by $1.65 y-o-y.

At the bottom of the barrel, the **fuel oil 3.5% crack spread** reversed its recent trend, rising to the largest m-o-m gain recorded compared with all other key products in the European market. Some of the bullish factors that contributed to this positive performance were lower refinery outputs caused by refinery turnarounds as offline volumes remained significant in October, and lower imports into the region, with both leading to a tighter balance. In Europe, fuel oil cracks averaged minus $11.45/b in October, gaining $2.62 m-o-m, but at a loss of $1.52 y-o-y.

Asian market

The **Asian gasoline 92 market** showed the strongest loss across the barrel as crack spreads dropped steeply to a new multi-year record lows in October. The severe weakening, which began with a declining trend in September is attributed to sizeable volumetric arrivals from Europe amid high gasoline outputs from China and South Korea. This further exacerbated the region's oversupplied environment. The Singapore gasoline crack spread against Oman averaged $6.24/b, down by $4.07 m-o-m and by $6.17 y-o-y.

Graph 6 - 5: Singapore crack spreads vs. Dubai



Sources: Argus Media and OPEC Secretariat.

The Singapore light **distillate naphtha crack spreads** saw an extension of the downward trend that is now a consecutive three-month decline. This poor performance was a reflection of the weakening gasoline cracks. The widening price difference between European naphtha and Asian naphtha further encouraged inflows. Furthermore, scheduled steam cracker shutdowns contributed to this negative performance. The Singapore naphtha crack spread against Oman averaged minus $4.50/b, declining by $2.67 m-o-m and by $6.67 y-o-y.

In the middle of the barrel, the **jet/kerosene crack spreads** in Asia strengthened slightly. The spreads were supported by strong inventory drawdowns in Japan and robust demand from India, despite a recorded four-year high in Indian jet fuel prices. Additional support is expected in the near future on the back of higher kerosene demand for heating requirements in the winter season. The Singapore jet/kerosene crack spread against Oman averaged $15.76/b, up by $1.23 m-o-m and by $3.03 y-o-y.

The Singapore **gasoil crack spreads** continued to increase in October on the back of refinery turnarounds prompting lower gasoil output, amid robust regional demand. The Singapore gasoil crack spread against Oman averaged $17.51/b, up slightly by $1.35 m-o-m and by $3.19 y-o-y.

The Singapore **fuel oil crack spreads** jumped further, extending the upward trend seen in the previous month as it inched closer to positive territory. The current fuel oil shortage in Asia that is contributing to market tightness continued to lend support. This development will most likely encourage inflows from Europe and the Middle East in the near future. Additional bullishness could also be expected as refineries continue to resort to upgrades in light of the upcoming IMO 2020 regulations. The Singapore fuel oil cracks against Oman, averaged minus $2.58/b, up by $3.92 m-o-m and by $1.12 y-o-y.

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

Event	Time frame	Asia	Europe	US	Observations
Improving jet fuel, kerosene, naphtha and gasoil demand	Nov 18 – Dec 18	↑ High positive impact on product markets	↑ Low positive impact on product markets	↑ Low positive impact on product markets	Upside potential for firm petrochemical feedstock requirements, aviation fuel demand, kerosene and heating oil will most likely sustain product markets in the near term.
End of peak autumn maintenance season	Nov 18 – Dec 18	↓ High negative impact on product markets	↓ High negative impact on product markets	↓ High negative impact on product markets	Refineries will most likely increase intakes following the end of peak maintenance season, increasing product availability and possibly pressuring on product markets.

Source: OPEC Secretariat.

Table 6 - 2: Refinery operations in selected OECD countries

	Refinery throughput, mb/d				Refinery utilization, %			
	Aug 18	Sep 18	Oct 18	Change Oct/Sep	Aug 18	Sep 18	Oct 18	Change Oct/Sep
US	**18.08**	**17.32**	**16.58**	**-0.74**	**97.21**	**93.14**	**89.14**	**-4 pp**
Euro-16*	**10.83**	**10.65**	**10.38**	**-0.27**	**88.79**	**87.32**	**85.09**	**-2.2 pp**
France*	1.22	1.11	1.17	0.07	97.37	88.42	93.80	5.4 pp
Germany*	1.89	1.75	2.01	0.26	86.52	80.12	91.83	-3.0 pp
Italy*	1.44	1.28	1.40	0.12	70.28	62.46	68.35	5.9 pp
UK*	1.17	1.10	1.01	-0.09	88.73	83.40	76.85	-6.5 pp
Selected Asia**	**21.26**	**21.58**	**21.27**	**-0.31**	**82.56**	**83.82**	**82.25**	**-1.6 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	4Q17	1Q18	2Q18	3Q18*	4Q18*
Total OECD	**37.71**	**37.49**	**38.18**	**38.34**	**37.68**	**37.65**	**39.19**	**38.79**
OECD Americas	**19.00**	**18.78**	**19.09**	**18.99**	**18.79**	**19.50**	**19.83**	**19.34**
of which US	16.43	16.51	16.88	17.01	16.75	17.50	17.70	17.35
OECD Europe	**12.11**	**11.94**	**12.27**	**12.40**	**11.93**	**11.73**	**12.53**	**12.40**
of which:	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
France	1.17	1.14	1.17	1.23	1.12	0.94	1.17	1.17
Germany	1.91	1.93	1.91	1.97	1.89	1.86	1.85	1.97
Italy	1.35	1.30	1.40	1.45	1.35	1.33	1.35	1.39
UK	1.14	1.09	1.10	1.09	0.93	1.04	1.12	1.01
OECD Asia Pacific	**6.60**	**6.78**	**6.82**	**6.95**	**6.97**	**6.43**	**6.82**	**7.05**
of which Japan	3.26	3.28	3.23	3.19	3.33	2.85	3.07	2.99
Total Non-OECD	**40.59**	**41.26**	**42.00**	**42.98**	**42.44**	**42.73**	**43.13**	**43.46**
of which:								
China	10.44	10.77	11.35	11.92	11.75	12.04	12.10	12.18
Middle East	6.69	6.91	7.04	7.20	6.99	7.07	7.38	7.41
Russia	5.64	5.58	5.59	5.65	5.69	5.65	5.81	5.68
Latin America	4.89	4.54	4.39	4.35	4.23	4.32	4.26	4.26
India	4.56	4.93	4.98	5.21	5.19	5.05	4.99	5.32
Africa	2.14	2.19	2.16	2.09	2.11	2.19	1.66	1.71
Total world	**78.30**	**78.75**	**80.19**	**81.32**	**80.13**	**80.39**	**82.32**	**82.25**

*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

		Sep 18	Oct 18	Change Oct/Sep	Year-to-date 2017	Year-to-date 2018
US Gulf (Cargoes FOB):						
Naphtha*		76.17	74.78	-1.39	55.09	71.60
Premium gasoline	*(unleaded 93)*	91.28	89.62	-1.66	74.42	89.61
Regular gasoline	*(unleaded 87)*	85.73	83.28	-2.45	68.57	83.88
Jet/Kerosene		92.38	95.01	2.63	66.07	86.92
Gasoil	*(0.2% S)*	89.63	93.30	3.67	62.31	82.44
Fuel oil	*(3.0% S)*	65.15	69.22	4.07	47.05	61.10
Rotterdam (Barges FoB):						
Naphtha		74.71	73.15	-1.56	53.66	69.08
Premium gasoline	*(unleaded 98)*	95.03	91.20	-3.83	75.13	90.37
Jet/Kerosene		92.51	97.45	4.94	66.84	88.33
Gasoil/Diesel	*(10 ppm)*	92.86	97.18	4.32	66.35	87.03
Fuel oil	*(1.0% S)*	67.75	73.08	5.33	48.71	63.23
Fuel oil	*(3.5% S)*	64.72	69.67	4.95	44.31	60.08
Mediterranean (Cargoes FOB):						
Naphtha		74.54	72.58	-1.96	52.81	68.52
Premium gasoline**		87.41	82.54	-4.87	66.56	82.30
Jet/Kerosene		91.02	95.67	4.65	65.12	86.54
Diesel		93.03	96.77	3.74	66.92	86.96
Fuel oil	*(1.0% S)*	68.74	74.28	5.54	49.55	64.33
Fuel oil	*(3.5% S)*	66.11	70.81	4.70	46.18	61.46
Singapore (Cargoes FOB):						
Naphtha		75.39	74.90	-0.49	54.04	69.77
Premium gasoline	*(unleaded 95)*	89.53	87.64	-1.89	68.01	83.05
Regular gasoline	*(unleaded 92)*	87.51	85.66	-1.85	65.43	80.70
Jet/Kerosene		91.75	95.16	3.41	65.32	86.35
Gasoil/Diesel	*(50 ppm)*	93.38	96.91	3.53	66.33	86.41
Fuel oil	*(180 cst)*	70.72	76.82	6.10	49.67	65.82
Fuel oil	*(380 cst 3.5% S)*	70.54	76.59	6.05	49.24	65.20

*Note: * Barges.*
*** Cost, insurance and freight (CIF).*
Sources: Argus Media and OPEC Secretariat.

Tanker Market

In October, tanker spot freight rates for dirty vessels increased considerably, with gains being registered across all classes trading on all major routes. As the market approaches the winter season, tanker market spot freight rates saw notable improvements following a year of accumulative losses. On average, dirty tanker spot rates rose by 28% in October from a month earlier.

Rate developments in October showed Aframax spot freight rates achieved the strongest growth compared with the larger classes, rising by WS25 points, supported by healthy tonnage demand on the main trading routes. Similarly, in the dirty segment, VLCC and Suezmax average spot freight rates increased by WS21 points and WS19 points, respectively, over a month earlier. These gains were mostly driven by higher seasonal tonnage demand, as well as increased transit and port delays in different regions, including the Caribbean, the Middle East and the Far East. In October, dirty tanker spot freight rates on most of the routes remained well above the rates of the same months a year earlier.

Clean tanker freight rates increased on almost all reported routes in October, with average spot rates rising for the East and West of Suez routes by 6% and 18%, respectively. The clean tanker market was mostly uneventful in October, while vessel oversupply persisted. Despite higher monthly rates, clean tanker rates in October remained below those registered the same month a year ago.

Spot fixtures

In October, **OPEC spot fixtures** dropped 3.9% from the previous month to average 14.33 mb/d, according to preliminary data.

The drop came on the back of lower spot fixtures on the Middle East-to-East and Middle East-to-West routes, which went down by 0.37 mb/d m-o-m each in October to average 7.79 mb/d and 1.62 mb/d, respectively. On the other hand, fixtures outside of the Middle East were up by 0.14 mb/d, m-o-m.

Table 7 - 1: Spot fixtures, mb/d

	Aug 18	Sep 18	Oct 18	Change Oct 18/Sep 18
All areas	**21.00**	**21.71**	**21.58**	**-0.13**
OPEC	14.17	14.92	14.33	-0.59
Middle East/East	7.87	8.15	7.79	-0.37
Middle East/West	2.00	1.98	1.62	-0.37
Outside Middle East	4.31	4.79	4.93	0.14

Sources: Oil Movements and OPEC Secretariat.

Sailings and arrivals

OPEC sailings dropped by 0.22 mb/d, or 0.9%, m-o-m in October to stand at 24.71 mb/d. Middle East sailings declined as well, down by 0.27 mb/d over the previous month, to average 17.97 mb/d.

Vessel arrivals went up in October at European and West Asian ports, increasing by 2.5% and 3.0%, respectively, over the previous month, while arrivals at North American ports showed a decline of 4.3% and Far Eastern ports stayed flat from the month before.

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

	Aug 18	Sep 18	Oct 18	Change Oct 18/Sep 18
Sailings				
OPEC	24.77	24.93	24.71	-0.22
Middle East	18.07	18.23	17.97	-0.27
Arrivals				
North America	10.48	10.31	9.86	-0.45
Europe	11.94	11.70	12.00	0.30
Far East	8.81	9.04	9.04	0.00
West Asia	4.41	4.36	4.49	0.13

Sources: Oil Movements and OPEC Secretariat.

Dirty tanker freight rates

Very large crude carriers (VLCCs)

Following the usual seasonal trend, **VLCC spot freight rates** showed notable gains in October from the previous month across all reported routes.

On average, VLCC spot freight rates increased considerably by 48% m-o-m to stand at WS66 points, up by 20% y-o-y. This long-awaited increase in rates was registered on all major trading routes mainly due to eastern destinations where freight rates registered for tankers operating on the Middle East-to-East route showed increases of WS28 points from a month before to average WS83 points. At the same time, bullish sentiment was spreading into other areas.

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

	Size *1,000 DWT*	Aug 18	Sep 18	Oct 18	Change Oct 18/Sep 18
Middle East/East	230-280	54	55	83	28
Middle East/West	270-285	24	22	33	11
West Africa/East	260	55	56	81	25

Sources: Argus Media and OPEC Secretariat.

The chartering market in West Africa (WAF) and the Middle East showed higher rates. Gains for VLCCs were driven by storms and weather delays in the Far East, discharge uncertainties at eastern ports, increases in chartering activities and replacement vessels. Therefore, VLCC spot freight rates on the Middle East-to-East route and rates on the WAF-to-East route rose by WS28 points and WS25 points to average WS83 points and WS81 points, respectively, showing increases of 51% and 45%, in October.

VLCC Middle East-to-West spot freight rates recovered as well, though to a lesser extent, up by WS11 points, or 47%, m-o-m in October to stand at WS33 points.

Suezmax

Suezmax spot freight rates rose further in October from one month before, increasing by WS19 points, or 29%.

In West Africa, Suezmax rates reached a level not seen in some time supported by higher activities and healthy tonnage demand. In the Middle East, bad weather conditions and prompt tonnage replacements drove freight rates to levels not seen for a while. Suezmax freight rates in October were also supported by arbitrage opportunities and lightering operations.

Therefore, rates registered for tankers trading on the Northwest Europe (NWE)-to-US Gulf Coast (USGC) route gained 21% to stand at WS67 points. Suezmax spot freight rates for tankers operating on the West Africa-to-USGC route went up by 37% from a month before to stand at WS94 points.

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

	Size *1,000 DWT*	Aug 18	Sep 18	Oct 18	*Change* Oct 18/Sep 18
West Africa/US Gulf Coast	130-135	61	68	94	26
Northwest Europe/US Gulf Coast	130-135	53	56	67	12

Sources: Argus Media and OPEC Secretariat.

On the other hand, a firming VLCC market and increases in bunker prices added further support to Suezmax freight rates in October, increasing ship owners' resistance to lower freight rates.

Aframax

In general, **Aframax spot freight rates** rose in October, although the levels of gains varied on different routes. Average rates rose in October, up by 21% from one month before, as a result of higher rates seen on all reported routes, although the larger increases remained on the Caribbean-to-US East Coast (USEC) route, which showed an increase of WS37 points from one month earlier. Scarcity of available vessels combined with weather delays in the Caribbean supported Aframax spot rates on that route. Aframax spot freight rate gains were also driven by higher rates in the Mediterranean on the back of tightening Aframax availability and increased transit delays in the Turkish Straits.

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

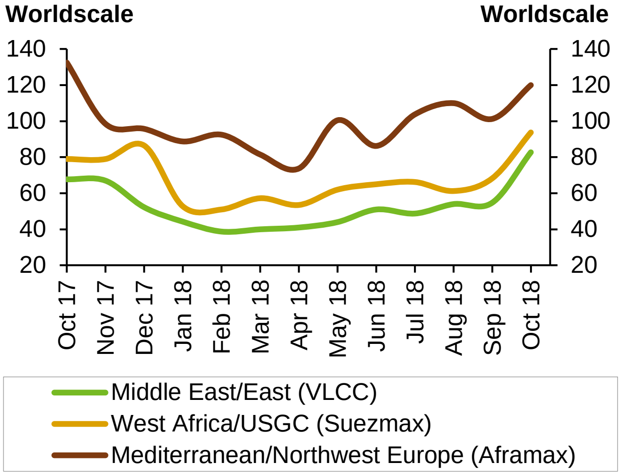
	Size *1,000 DWT*	Aug 18	Sep 18	Oct 18	*Change* Oct 18/Sep 18
Indonesia/East	80-85	105	103	123	21
Caribbean/US East Coast	80-85	119	152	189	37
Mediterranean/Mediterranean	80-85	115	107	129	22
Mediterranean/Northwest Europe	80-85	110	101	120	19

Sources: Argus Media and OPEC Secretariat.

Spot freight rates on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes rose by 21% and 19%, respectively, from the previous month to stand at WS129 and WS120 points.

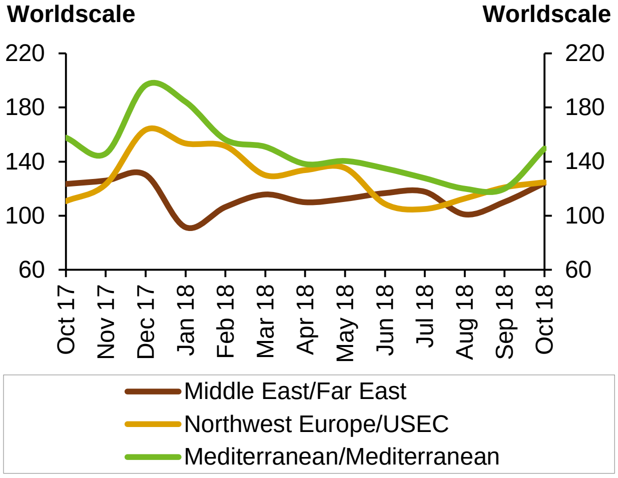
Similarly, the market in the east showed higher rates as Aframax spot rates went up on the Indonesia-to-East route by 20% m-o-m to stand at WS123 points. Aframax also benefited from a reduction in VLCC loading in the North Sea, which were replaced by smaller ships in the market.

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



Sources: Argus Media and Platts.

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



Sources: Argus Media and OPEC Secretariat.

Clean tanker freight rates

Clean tanker spot freight rates increased by 13% on average in October compared with the previous month. The gains were registered on fixtures in both directions of Suez, with rates edging up on most selected routes.

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

	Size *1,000 DWT*	Aug 18	Sep 18	Oct 18	*Change* Oct 18/Sep 18
East of Suez					
Middle East/East	30-35	101	110	124	14
Singapore/East	30-35	129	123	123	0
West of Suez					
Northwest Europe/US East Coast	33-37	113	121	125	4
Mediterranean/Mediterranean	30-35	120	120	150	30
Mediterranean/Northwest Europe	30-35	130	130	162	32

Sources: Argus Media and OPEC Secretariat.

In the **east**, spot freight rates for tankers operating on the Middle East-to-East route rose by WS14 points, while rates on the Singapore-to-East route remained flat. Spot freight rates on both routes averaged WS124 points and WS123 points, respectively, from the previous month.

Clean spot freight rates on the NWE-to-USEC route rose by WS4 points to stand at WS25 points. The Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes showed the highest increases on the back of enhanced activities in the area and as the Black Sea market firmed. Spot rates went up on both routes by WS30 points and WS32 points, respectively, to stand at WS150 and WS162 points.

Oil Trade

In October, preliminary data showed that US crude oil imports fell by 299 tb/d m-o-m to average 7.5 mb/d, or 7%. Y-t-d in October, US crude oil imports were 122 tb/d lower compared to the same period a year earlier. US product imports were down by 555 tb/d m-o-m to stand at 2 mb/d. Y-o-y this reflects a drop of 113 tb/d, or 6%.

Japan's crude oil imports dropped in September by 474 tb/d, or 14%, to average 2.9 mb/d. This reversed all the gains from August. On a y-o-y comparison, crude imports showed a decline of 252 tb/d, or 8%. Japan's product imports rose in September to average 608 tb/d, although the increase was limited to 26 tb/d. This reflected an increase of 4% m-o-m and 38% y-o-y.

China's crude imports were relatively stable in September compared to the month earlier. On an annual basis, crude imports averaged 9.1 mb/d in September up by 48 tb/d y-o-y. China's crude imports remained at high levels supported by demand from teapot refineries and a larger crude intake from the refining sector. China's product imports were up from the previous month by 90 tb/d to averaged1.4 mb/d. albeit this was slightly below the level one year ago.

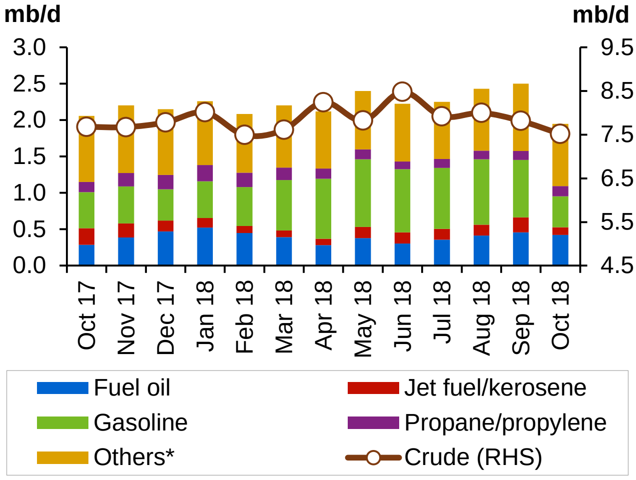
In September, India's crude imports remained almost flat from one month before to average 4.4 mb/d, although on an annual basis crude imports were up 92 tb/d, or 2%. Product imports in September increased slightly by 8 tb/d from the previous month to average 855 tb/d. This represents a y-o-y increase of 134 tb/d.

US

In October, preliminary data showed that **US crude oil imports** fell by 299 tb/d m-o-m to average 7.5 mb/d. On an annual basis, this represents a y-o-y decline of 164 tb/d, or 7%. Y-t-d in October, US crude oil imports were 122 tb/d lower compared to the same period a year earlier. US refinery crude intake dropped significantly in October, down by around 740 tb/d.

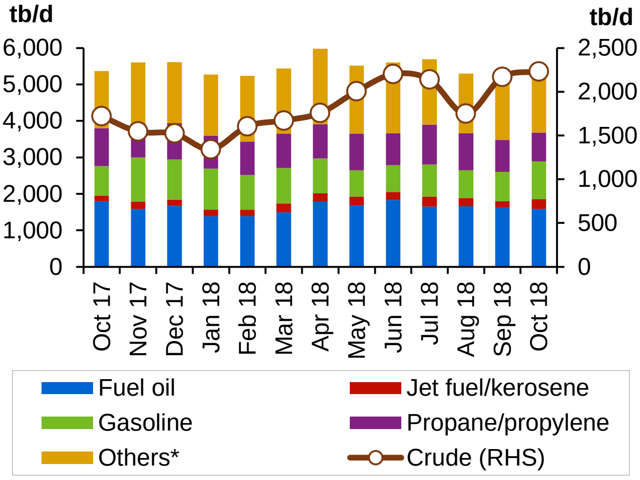
US crude exports increased further compared to the previous month, reaching a new peak average of 2.2 mb/d in October, up by 63 tb/d from a month earlier.

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 products imports in October declined by 555 tb/d m-o-m to stand at 2 mb/d. Y-o-y they were down by 113 tb/d, or 6%. On a y-t-d comparison, product imports were up by 68 tb/d compared to the same period a year earlier.

US product exports increased by 161 tb/d m-o-m to average 5.4 mb/d. On an annual comparison, product exports were almost flat compared to the same period last year.

Accordingly, **US net imports dropped by 1.1 mb/d m-o-m in October to average 1.9 mb/d,** down by 37% m-o-m and 30% y-o-y.

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

	Aug 18	Sep 18	Oct 18	Change Oct 18/Sep 18
Crude oil	6,251	5,647	5,286	-361
Total products	-2,862	-2,714	-3,430	-716
Total crude and products	**3,389**	**2,933**	**1,856**	**-1,077**

Sources: US EIA and OPEC Secretariat.

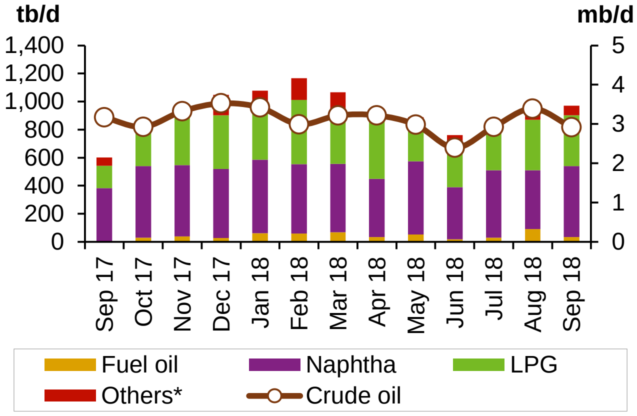
In terms of **crude suppliers to the US**, in August Canada remained the number one crude supplier, accounting for 46% of the total, with crude imports higher by 113 tb/d compared to the month before. Saudi Arabia was once again the second largest supplier to US, with a m-o-m increase of 129 tb/d. Mexico was third largest supplier, accounting for 11% of total US crude imports. Mexico's exports to the US were up by 234 tb/d, or 35%, compared to a month before.

Crude imports from OPEC Member Countries (MCs) in August declined by 119 tb/d, or 5% m-o-m. They accounted for 32% of total US crude imports.

Japan

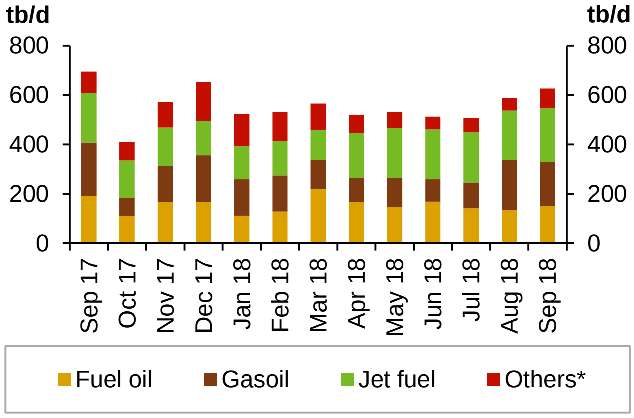
Japan's crude oil imports in September dropped by 474 tb/d, or 14%, to average 2.9 mb/d, reversing the increase seen in August. On a y-o-y comparison, crude imports showed a decline of 252 tb/d, or 8%. At the same time, the crude intake from refineries fell by 255 tb/d, compared to the month before.

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.

With regard to **suppliers' share in Japan**, Saudi Arabia, the UAE and Qatar remained the top suppliers to Japan in September. Saudi Arabia retained its position as prime crude supplier, holding a share of 35% of total crude exports. The UAE was second, with a share of 24% of total crude exports, and Qatar held the third position with a share of 8%. September imports from Saudi Arabia were down 137 tb/d from a month before, and imports from the UAE were down by 305 tb/d. Qatar's crude exports to Japan fell by 48 tb/d from the previous month.

However, Japan's **product imports** increased in September, although only by 26 tb/d, to average 608 tb/d. This reflects an increase of 4% m-o-m and 38% y-o-y. Japan's oil product sales continued on a declining trend, falling by 3.5% in September, compared to the same month last year.

Japan's **product exports** in September reached their highest level since December 2017, averaging 627 tb/d, up m-o-m by 39 tb/d, or 7%. Y-o-y, product exports show a drop of 69 tb/d, or 10%.

Accordingly, **Japan's net imports dropped by 487 tb/d in September, to average 2.9 mb/d,** down by 11% m-o-m and 3% y-o-y.

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

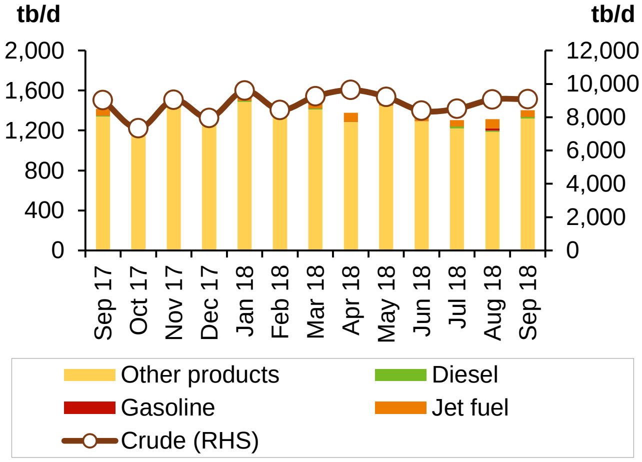
	Jul 18	Aug 18	Sep 18	*Change* Sep 18/Aug 18
Crude oil	2,927	3,392	2,918	-474
Total products	55	-5	-18	-14
Total crude and products	**2,982**	**3,388**	**2,900**	**-487**

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

China

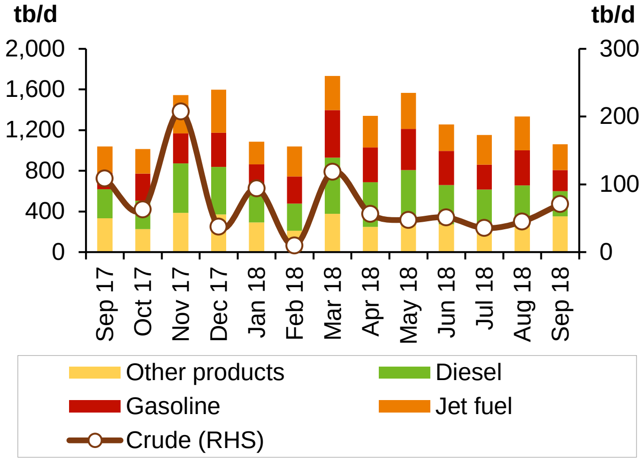
China's crude imports were relatively stable in September compared to a month earlier. On an annual basis, crude imports averaged 9.1 mb/d in September, up by 48 tb/d y-o-y. China's crude imports remained at high levels, supported by demand from teapot refineries and a larger crude intake from the refining sector. On a y-t-d basis, crude imports reflect an increase of 486 tb/d, or 6%.

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



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

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



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

China's product imports were up by 90 tb/d, compared to the previous month, to average 1.4 mb/d, although this was slightly below the level one year ago.

Russia remained the **top supplier to China** in September, showing a m-o-m increase of 220 tb/d. Similarly, imports from the second-largest supplier, Saudi Arabia, were up by 40 tb/d compared to the previous month. However, Iraq, the third-largest supplier to China, saw exports drop by 50 tb/d compared to August.

In terms of **China's exports** in September, the country exported a reduced level of petroleum products, down by 274 tb/d from the previous month. China product exports averaged 1.1 mb/d in September, which represents no significant change from the same month in 2017.

As a result, **China's net oil imports** increased by 355 tb/d in September compared to the previous month, and were up by 49 tb/d y-o-y.

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

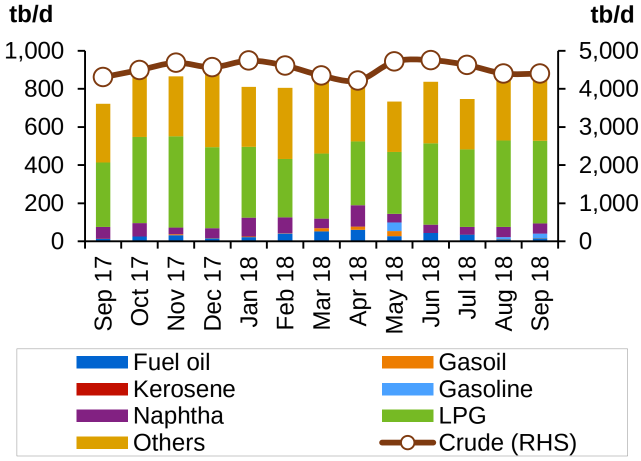
	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
Crude oil	8,470	9,018	9,008	-9
Total products	153	-23	341	364
Total crude and products	**8,623**	**8,995**	**9,350**	**355**

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

India

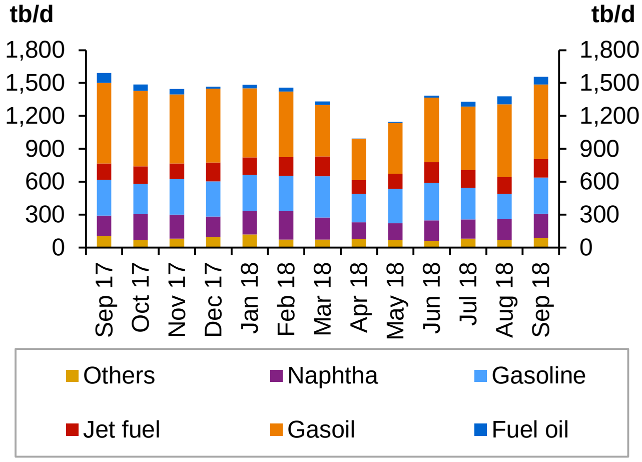
In September, **India's crude imports** remained almost flat from one month before to average 4.4 mb/d, although on an annual basis crude imports were up by 92 tb/d, or 2%. India's refining sector showed a higher September intake, up by almost 100 tb/d m-o-m.

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



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

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



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

India's **product imports** in September increased slightly by 8 tb/d compared to the previous month to average 855 tb/d. This reflects a y-o-y increase of 134 tb/d. Monthly product imports reached their highest levels since December 2017, with annual product growth mainly driven by increases in LPG, which have risen by 28% compared to the same time a year ago.

India's **product exports** in September remained at a high level and rose m-o-m by 179 tb/d, or 13%. The September level is the highest since September 2017. India's product exports averaged 1.6 mb/d. On a y-o-y basis, product exports fell by 35 tb/d, or 2%. India's monthly product exports were higher in all product categories, except fuel oil, which declined slightly compared to the previous month.

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

	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18
Crude oil	4,624	4,401	4,397	-5
Total products	-582	-532	-703	-171
Total crude and products	**4,042**	**3,869**	**3,694**	**-176**

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.

Consequently, **India's net imports** declined by 167 tb/d to average 3.7 mb/d. This reflected a drop of 5% m-o-m, albeit a gain of 260 tb/d, or 8%, y-o-y.

Former Soviet Union (FSU)

In September, **total crude oil exports from the FSU** increased by a slight 32 tb/d, or 1%, m-o-m to average 6.9 mb/d, while crude exports through Russian pipelines fell by 86 tb/d, or 2%, to average 4 mb/d.

In the **Transneft system**, total shipments from the Black Sea increased as shipments from Novorossiysk were up by 9 tb/d, or 2%, m-o-m to average 596 tb/d. However, total Baltic Sea exports dropped by 54 tb/d m-o-m in September, mainly due to shipments from the Primorsk port terminal falling by 23 tb/d. Total shipments through the Druzhba pipeline increased by 37 tb/d m-o-m to average 1 mb/d.

In Asia, **Kozmino shipments** declined by 76 tb/d, or 11%, m-o-m to average 598 tb/d.

Exports through the **Lukoil system** in the Barents Sea increased from the previous month. The Varandey offshore platform saw exports rise by 22 tb/d m-o-m in September. Baltic Sea exports through the Kalinigrad port terminal stayed flat to average 6 tb/d, while other routes showed mostly higher September exports, compared to the previous month.

As for other routes, **Russian Far East** total exports were up by 58 tb/d over the previous month. This was the result of higher exports from the Kastri and Aniva Bay port terminals, which saw m-o-m increases of 32 tb/d and 25 tb/d, respectively. Central Asia total exports rose by 23 tb/d m-o-m through the Kenkiyak-Alashankou pipeline to average 269 tb/d.

Black Sea total exports increased by 23 tb/d over the previous month, mainly due to an increase in exports from the Novorossiysk port terminal.

In the **Mediterranean Sea**, the Baku–Tbilisi–Ceyhan (BTC) pipeline supplies showed no change from the previous month to average 684 tb/d in September.

In terms of **products exports**, the FSU saw a m-o-m increase of 139 tb/d, or 5%, m-o-m to average 3 mb/d. This gain in product exports came as a result of higher exports of fuel oil and naphtha, which went up from the previous month by 113 tb/d and 30 tb/d, respectively. Exports of gasoline and jet fuel dropped in September compared to the previous month.

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

			2017	2Q18	3Q18	Aug 18	Sep 18
Transneft system							
	Europe	**Black Sea total**	**605**	**536**	**568**	**587**	**596**
		Novorossiysk port terminal - total	605	536	568	587	596
		of which: Russian oil	424	375	402	429	411
		Others	181	162	167	158	185
		Baltic Sea total	**1,516**	**1,297**	**1,227**	**1,252**	**1,199**
		Primorsk port terminal - total	871	783	719	719	695
		of which: Russian oil	871	783	719	719	695
		Others	0	0	0	0	0
		Ust-Luga port terminal - total	645	514	508	534	503
		of which: Russian oil	470	316	352	371	360
		Others	175	198	156	162	144
		Druzhba pipeline total	**1,009**	**987**	**1,006**	**1,011**	**1,048**
		of which: Russian oil	977	955	973	979	1,015
		Others	32	32	32	32	33
	Asia	**Pacific ocean total**	**645**	**623**	**632**	**673**	**598**
		Kozmino port terminal - total	645	623	632	673	598
		China (via ESPO pipeline) total	**336**	**554**	**600**	**601**	**598**
		China Amur	336	554	600	601	598
	Total Russian crude exports		**4,111**	**3,997**	**4,032**	**4,124**	**4,038**
Lukoil system							
	Europe &	**Barents Sea total**	**170**	**125**	**152**	**164**	**186**
	North America	Varandey offshore platform	170	125	152	164	186
	Europe	**Baltic Sea total**	**13**	**7**	**7**	**7**	**6**
		Kalinigrad port terminal	13	7	7	7	6
Other routes							
	Asia	**Russian Far East total**	**343**	**372**	**353**	**325**	**383**
		Aniva Bay port terminal	127	137	89	72	97
		De Kastri port terminal	216	235	264	253	286
		Central Asia total	**262**	**225**	**247**	**246**	**269**
		Kenkiyak-Alashankou	262	225	247	246	269
	Europe	**Black Sea total**	**1,277**	**1,393**	**1,299**	**1,245**	**1,268**
		Novorossiysk port terminal (CPC)	1,194	1,337	1,251	1,206	1,228
		Supsa port terminal	72	53	45	39	40
		Batumi port terminal	11	3	3	0	0
		Kulevi port terminal	0	0	0	0	0
		Mediterranean Sea total	**707**	**693**	**696**	**686**	**684**
		BTC	707	693	696	686	684
Russian rail							
		Russian rail	**40**	**32**	**30**	**32**	**28**
		of which: Russian oil	40	32	30	32	28
		Others	0	0	0	0	0
	Total FSU crude exports		**6,923**	**6,844**	**6,816**	**6,830**	**6,863**
Products							
		Gasoline	193	169	211	229	173
		Naphtha	549	544	502	522	552
		Jet	35	36	42	39	32
		Gasoil	980	1,010	961	934	962
		Fuel oil	1,025	932	931	887	1,000
		VGO	308	275	266	269	299
	Total FSU product exports		**3,089**	**2,967**	**2,913**	**2,880**	**3,019**
Total FSU oil exports			**10,012**	**9,811**	**9,730**	**9,710**	**9,881**

Sources: Argus Nefte Transport and Argus Global Markets.

Stock Movements

Preliminary data for September showed that total OECD commercial oil stocks rose by 5.5 mb m-o-m to stand at 2,858 mb. This was 111 mb lower than the same time one year ago, and 25.3 mb below the latest five-year average. Compared to the seasonal norm, crude stocks indicated a deficit of 29.6 mb, while products stocks witnessed a surplus of 4.3 mb. In terms of number of days of forward cover, OECD commercial stocks fell by 0.4 days m-o-m in September to stand at 59.3 days. This was 2.7 days below the same period in 2017 and 2.1 days lower than the latest five-year average.

Preliminary data for October showed that US total commercial oil stocks increased by 4.7 mb m-o-m. At 1,253.4 mb, total US commercial stocks stood at 18.8 mb, lower than the same period a year ago, but 32.9 mb higher than the latest five-year average. Within the components, in October, crude stocks rose by 27.8 mb m-o-m, while product inventories fell by 23.1 mb.

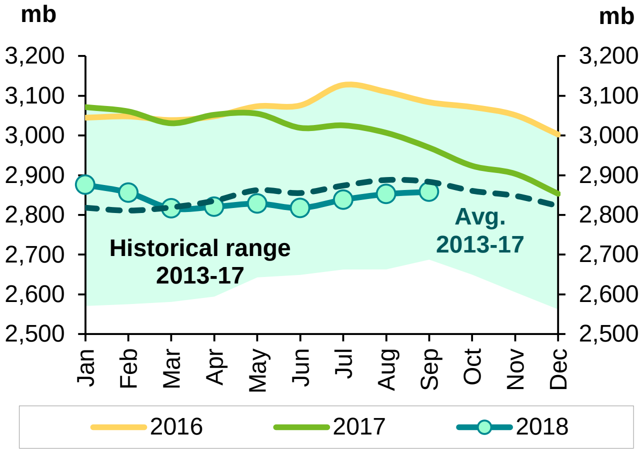
OECD

Preliminary data for September showed that **total OECD commercial oil stocks** rose by 5.5 mb m-o-m for the third consecutive month. At 2,858 mb, total OECD commercial oil stocks were 111 mb lower than the same time one year ago and 25 mb below the latest five-year average.

Within the components, crude stocks indicated a deficit of 29.6 mb, while product stocks are 4.3 mb above the latest five-year average. It should be noted that the overhang has been reduced by around 363 mb since January 2017. In September, crude stocks fell 13.5 mb while product stocks rose by 19.0 mb, m-o-m.

Within the regions, in September OECD Americas rose by 13.5 mb, while OECD Europe inventories fell by 8.1 mb, m-o-m. OECD Asia Pacific inventories remained almost unchanged.

Graph 9 - 1: OECD commercial oil stocks



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

OECD commercial **crude stocks** fell by 13.5 mb m-o-m in September, ending the month at 1,381 mb. This was 117 mb lower than the same time a year ago, and 30 mb lower than the latest five-year average. Compared to the previous month, the three OECD regions experienced stock draws.

In contrast, OECD **product inventories** rose by 19 mb m-o-m in September to stand at 1,477 mb. This was 6.0 mb above the same time a year ago and 4.3 mb higher than the seasonal norm. Within the OECD regions, OECD America and OECD Asia Pacific experienced product stock builds m-o-m, while OECD Europe witnessed product stock draws.

In terms of **days of forward cover**, OECD commercial stocks fell by 0.4 days m-o-m in September to stand at 59.3 days. This was 2.7 days below the same period in 2017 and 2.1 days lower than the latest five-year average.

Within the regions, OECD Americas had 1.2 days of forward cover lower than the historical average to stand at 59.4 days in September. OECD Europe stocks stood at 2.9 days below the latest five-year average to finish the month at 65.3 days. OECD Asia Pacific indicated a deficit of 4.0 days below the seasonal norm to stand at 48.4 days.

OECD Americas

OECD Americas total commercial stocks rose by 13.5 mb m-o-m in September, for the third consecutive month. At 1,511 mb, they stood at 60 mb below a year ago, but 12 mb above latest five-year average. Within the components, crude stocks fell 2.9 mb, while product stocks rose 16.4 mb, m-o-m.

Commercial **crude oil stocks** in OECD Americas fell by 2.9 mb m-o-m in September to stand at 746 mb. This was 81 mb lower than the same period a year ago, and 3.1 mb lower than the latest five-year average. This drop came mainly from lower crude imports as lower US crude throughput limited the drop in crude oil stocks.

In contrast, **product stocks** in OECD Americas rose by 16.4 mb m-o-m in September to stand at 765 mb. This was 20.7 mb above the same time one year ago, and 15.3 mb below the seasonal norm. Lower product consumption in the US could be the cause of the product stock build.

OECD Europe

OECD Europe's total commercial stocks fell by 8.1 mb m-o-m in September, ending the month at 945 mb. This was 20 mb lower than the same time a year ago, and 2.5 mb below the latest five-year average. Crude and products stocks fell by 6.5 mb and 1.6 mb, m-o-m, respectively.

OECD Europe's commercial **crude stocks** fell by 6.5 mb m-o-m in September, ending the month at 411 mb. This was 1.3 mb higher than a year earlier and 7.2 mb higher than the latest five-year average. The drop in crude oil stocks could be attributed to lower crude supply in the region, along with lower crude imports. However, lower refinery throughput in the EU countries limited further drops in EU crude stocks.

OECD Europe's commercial **product stocks** also fell by 1.6 mb m-o-m to end September at 534 mb. This was 21 mb below the same time a year ago and 10 mb lower than the seasonal norm. The build in product stocks came despite lower refinery output combined with lower demand in OECD Europe.

OECD Asia Pacific

OECD Asia Pacific's total commercial oil stocks remained unchanged in September, to stand at 402 mb. At this level, they were 31 mb lower than a year ago and 35 mb below the latest five-year average. Within the components, crude stocks fell by 4.1 mb, while product inventories rose by the same amount, m-o-m.

OECD Asia Pacific's **crude inventories** fell by 4.1 mb m-o-m to end the month of September at 223 mb, which was 38 mb below a year ago and 34 mb under the seasonal norm.

By contrast, OECD Asia Pacific's **total product inventories** rose by 4.1 mb m-o-m to end September at 179 mb, standing 6.6 mb above the same time a year ago, but 1.3 mb less than the seasonal norm.

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

	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18	Sep 17
Crude oil	1,413	1,394	1,381	-13.5	1,498
Products	1,425	1,458	1,477	19.0	1,471
Total	**2,838**	**2,852**	**2,858**	**5.5**	**2,969**
Days of forward cover	**59.2**	**59.7**	**59.3**	**-0.4**	**62.0**

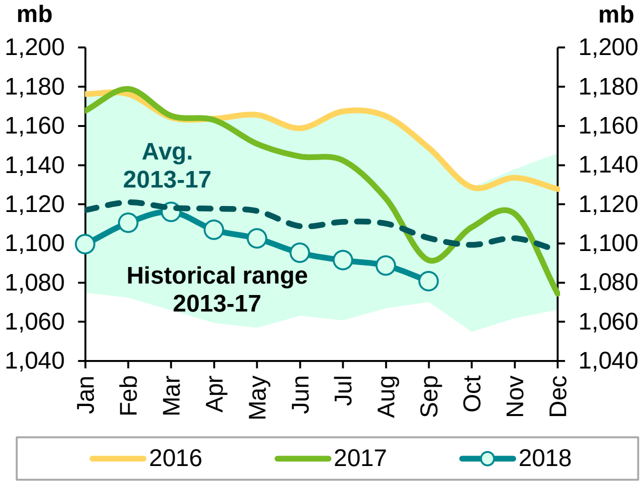
Note: Totals may not add up due to independent rounding.
Sources: Argus Media, Euroilstock, IEA, METI, OPEC Secretariat and US EIA.

EU plus Norway

Preliminary data for September showed that **total European commercial oil stocks** fell by 8.1 mb m-o-m to stand at 1,081 mb. This was 10.8 mb, or 1.0% lower than the same time a year ago, and 22.1 mb, or 2.0%, lower than the latest five-year average. Within the components, crude and products stocks fell by 6.5 mb and 1.6 mb, m-o-m, respectively.

European **crude inventories** fell in September to stand at 474 mb. This was 6.3 mb, or 1.3%, higher than the same period a year ago and they are in line with the latest five-year average. The drop in crude oil stocks could be attributed to lower crude supply in the region along with lower crude imports. However, lower refinery throughput in EU countries, which decreased by around 180 tb/d to stand at 10.65 mb/d limited further drops in EU crude stocks.

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



Sources: Argus, Euroilstock and OPEC Secretariat.

European **total product stocks** also fell by 1.6 mb m-o-m, ending September at 606 mb. This was 17 mb, or 2.7%, lower than the same time a year ago, and 22 mb, or 3.5%, lower than the seasonal norm. Within products, gasoline, distillates and residual fuel stocks witnessed draws, while naphtha experienced a stock build.

Gasoline and distillates stocks fell by 0.3 mb and 1.7 mb m-o-m, to end September at 109 mb and 404 mb, respectively. Gasoline stocks stood nearly 1.1 mb, or 1.0%, above last year level at the same time, while they are about 0.4 mb, or 0.3%, below the latest five-year average. Distillate stocks were 23.5 mb, or 5.5%, lower than the same time one year ago, and 18.1 mb, or 4.3%, lower the seasonal norm. Weak refinery output for both products was behind the build in inventories.

Residual fuel stocks in September also fell by 0.4 mb to stand at 64 mb. At this level, they are 1.4 mb, or 2.2%, above the same time a year ago, but 8.9 mb, or 12.2%, below the latest five-year average.

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

	Jul 18	Aug 18	Sep 18	*Change* Sep 18/Aug 18	Sep 17
Crude oil	**490.6**	**480.8**	**474.3**	**-6.5**	**468.0**
Gasoline	109.3	109.8	109.5	-0.3	108.4
Naphtha	28.6	28.6	29.5	0.9	25.5
Middle distillates	398.2	405.3	403.7	-1.7	427.2
Fuel oils	64.7	64.2	63.8	-0.4	62.4
Total products	**600.8**	**607.9**	**606.4**	**-1.6**	**623.4**
Total	**1,091.4**	**1,088.7**	**1,080.7**	**-8.1**	**1,091.4**

Sources: Argus, Euroilstock and OPEC Secretariat.

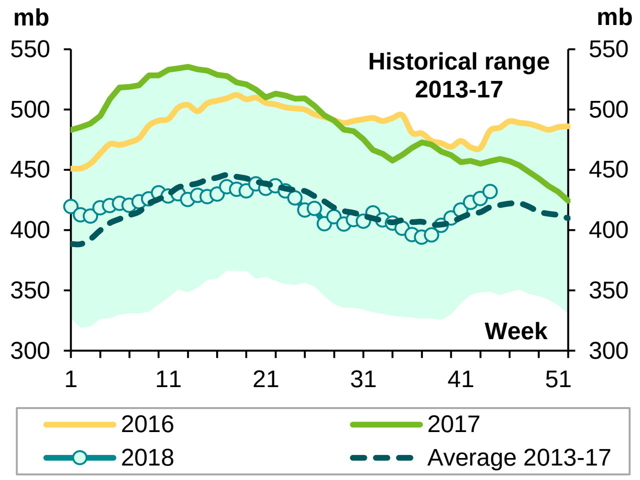
US

Preliminary data for October showed that **US total commercial oil stocks** fell by 4.7 mb m-o-m to stand at 1,253.4 mb. At this level, total US commercial stocks stood at 18.8 mb, or 1.5%, lower than the same period a year ago, but 32.9 mb, or 2.7%, higher than the latest five-year average. Within the components, crude stocks rose by 27.8 mb, while product stocks fell by 23.1 mb, m-o-m.

US commercial **crude stocks** rose in October to stand at 431.8 mb, which was 27.9 mb, or 6.1%, below last year at the same time, but 9.7 mb, or 2.3%, above the latest five-year average. This build came from lower crude throughput, which decreased by more than 700 tb/d to average 16.6 mb/d. Lower crude imports limited further builds in crude oil stocks. In October, crude inventories in Cushing, Oklahoma, rose by nearly 9 mb to end the month at 31.9 mb.

Total product stocks fell by 23.1 mb m-o-m in October to stand at 821.6 mb, which is 9.1 mb, or 1.1%, above from the level seen at the same time in 2017, and 23.2 mb, or 2.9%, above the seasonal average. Within products, with the exception of residual fuel oil and propylene, all products experienced stock draws.

Graph 9 - 3: US weekly commercial crude oil inventories



Sources: US EIA and OPEC Secretariat.

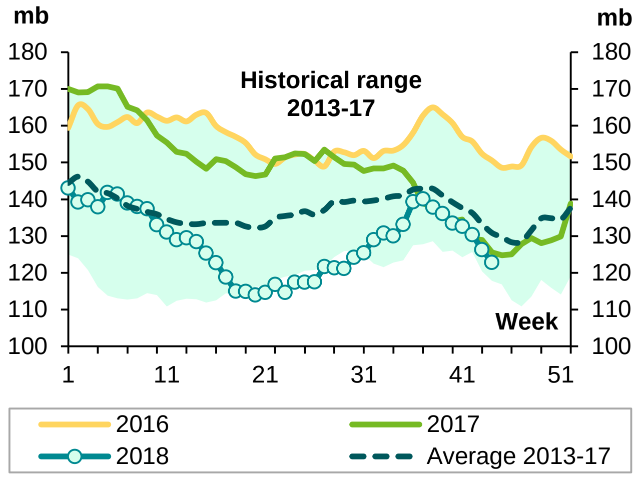
Gasoline stocks fell by 7.2 mb m-o-m in October, reversing the build of the last two months. At 228.0 mb, they were 12.1 mb, or 5.6%, above the level at the same time last year, and 12.7 mb, or 5.9%, higher than the seasonal norm. This monthly drop came mainly from lower gasoline output as gasoline consumption in October fell only slightly m-o-m.

Distillate stocks also fell by 13.3 mb m-o-m in October, reversing the build of the last four months. At 122.9 mb, distillates stocks stood at 7.2 mb, or 5.5%, below the same period a year ago, and 10.5 mb, or 7.9%, below the latest five-year average. The stock draw came mainly on the back of the higher distillate demand, which increased by more than 300 tb/d to average 4.2 mb/d. Lower distillate output also contributed to the fall in distillate stocks.

Jet fuel stocks declined by 3.9 mb m-o-m in October, to stand at 42.3 mb, which is 0.5 mb, or 1.2%, above the level of a year ago at the same time and 2.4 mb, or 6.0%, above the latest five-year average.

In contrast, **residual fuel stocks** rose by 1.7 mb in October compared to the previous month, ending the month at 29.7 mb. At this level, they stand at 0.2 mb, or 0.8%, below the same time a year ago and 7.4 mb, or 19.9%, 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

	Aug 18	Sep 18	Oct 18	Change Oct 18/Sep 18	Oct 17
Crude oil	**406.9**	**404.0**	**431.8**	**27.8**	**459.7**
Gasoline	236.1	235.2	228.0	-7.2	215.9
Distillate fuel	132.0	136.1	122.9	-13.3	130.1
Residual fuel oil	27.8	28.0	29.7	1.7	30.0
Jet fuel	41.8	46.2	42.3	-3.9	41.8
Total products	**824.6**	**844.8**	**821.6**	**-23.1**	**812.5**
Total	**1,231.5**	**1,248.7**	**1,253.4**	**4.7**	**1,272.2**
SPR	**660.0**	**660.0**	**654.7**	**-5.3**	**669.0**

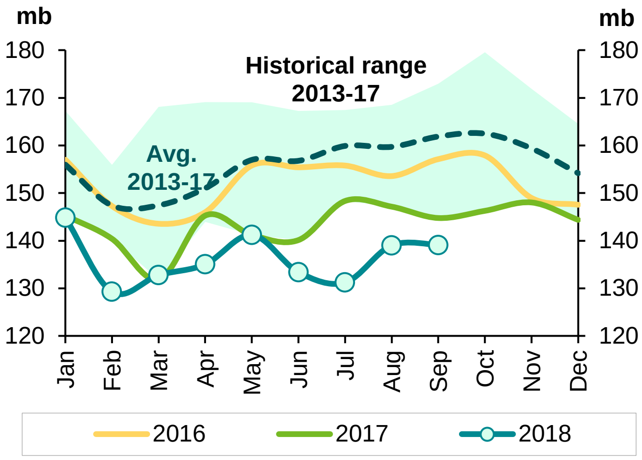
Sources: US EIA and OPEC Secretariat.

Japan

In **Japan, total commercial oil** stocks remained almost unchanged in September to stand at 139.1 mb. At this level, they were 5.7 mb, or 3.9%, below the level of a year ago, and 22.8 mb, or 14.1%, below the latest five-year average. Within the components, crude stocks fell by 4.1 mb, while products inventories fell by the same amount, m-o-m.

Japanese commercial **crude oil stocks** fell in September to stand at 74.2 mb. This was 6.9 mb, or 8.5%, below the same period a year ago, and 17.3 mb, or 18.9%, below the seasonal norm. The drop was driven by lower crude imports, which decreased by more than 470 tb/d, or 14%, to average at 2.9 mb/d. Lower refinery throughput which declined by around 200 tb/d, or 5.8%, to average 3.06 mb/d, limited a further drop in crude oil stocks.

Graph 9 - 5: Japan's commercial oil stocks



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

By contrast, Japan's **total product inventories** rose m-o-m by 4.1 mb to end September at 64.9 mb. This was 1.2 mb, or 1.9%, higher than the same month last year, but 5.5 mb, or 7.8%, lower than the seasonal norm. Within products, all products experienced stock builds.

Gasoline stocks rose by 0.4 mb m-o-m to stand at 10.3 mb in September. At this level, they were in line with the same time a year ago, and 0.3 mb, or 3.0%, below the latest five-year average. The build was mainly driven by lower gasoline consumption, which fell by 14.0% from the previous month. However, lower domestic gasoline production limited any further build in gasoline stocks.

Distillate stocks also rose by 1.9 mb m-o-m to stand at 31.5 mb in September. This was 0.5 mb, or 1.5%, higher than the same time a year ago, and 2.6 mb, or 7.7%, below the seasonal average. Within the distillate components, jet fuel and gasoil stocks rose m-o-m by 7.8% and 1.9%, respectively. Lower output was behind the build in these two products. In contrast, kerosene inventories fell by 20% m-o-m, driven by higher domestic consumption, which increased by more than 30%.

Total residual fuel oil stocks were almost unchanged to stand at 12.9 mb in September. This was 0.1%, below the same period a year ago, and 2.0 mb, or 13.3%, less than the latest five-year average. Within the fuel oil components, fuel oil A stocks fell by 7.8% on the back of higher consumption, while fuel B.C inventories rose by 2.4%, driven by higher output.

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

	Jul 18	Aug 18	Sep 18	Change Sep 18/Aug 18	Sep 17
Crude oil	**74.7**	**78.2**	**74.2**	**-4.1**	**81.0**
Gasoline	9.4	10.0	10.3	0.4	10.3
Naphtha	9.4	8.3	10.2	1.8	9.4
Middle distillates	25.5	29.5	31.5	1.9	31.0
Residual fuel oil	12.2	12.9	12.9	0.0	13.0
Total products	**56.5**	**60.8**	**64.9**	**4.1**	**63.7**
Total**	**131.2**	**139.0**	**139.1**	**0.0**	**144.8**

*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 September, **total product stocks in Singapore** fell by 0.6 mb m-o-m to stand at 39.6 mb. This was 5.3 mb, or 11.8%, below the same period a year ago. Refined product stocks show a mixed picture, with light distillates showing a m-o-m drop, while middle distillates and fuel oil experienced stock builds.

Light distillates stocks fell by 1.6 mb m-o-m for the second consecutive month to stand at 11.5 mb in September. This was 0.2 mb, or 1.8%, above the same time year ago.

In contrast, **middle distillate and residual fuel stocks** rose by 0.1 mb and 0.9 mb, m-o-m, ending the month of September at 10.5 mb and 17.6 mb, respectively. Middle distillate stocks were 0.1 mb below the same period a year ago, while residual fuel stocks stood at a higher deficit of 5.4 mb when compared to the same period last year.

ARA

Total product stocks in ARA rose by 7.9 mb in September m-o-m, reversing the drop of last month. At 47.3 mb, product stocks in ARA were 4.5 mb, or 10.5%, above the same time a year ago. Within products, all products witnessed stock builds, with the exception of jet fuel.

Gasoline and gasoil stocks rose by 2.2 mb and 3.5 mb m-o-m in September to stand at 5.8 mb and 21.8 mb, respectively. At this level, they remained above the level of the same time last year. This build was mainly driven by weaker consumption in the region.

Residual fuel stocks also rose by 1.7 mb from the previous month, ending September at 8.5 mb, in line with the same period a year earlier.

In contrast, **jet fuel stocks** fell by 0.1 mb from the previous month, ending September at 5.3 mb. This was 0.2 mb, or 3.6%, below the same period a year earlier.

Balance of Supply and Demand

Demand for OPEC-15 crude in 2018 stood at 32.6 mb/d, 0.1 mb lower than the last MOMR report and 0.9 mb/d below the 2017 level. In comparison, according to secondary sources, OPEC crude production averaged 32.4 mb/d and 32.2 mb/d in 1Q18 and 2Q18, respectively, which is in line with demand for OPEC crude. In the 3Q18, OPEC crude production stood at 32.6 mb/d, around 0.1 mb/d lower than demand for OPEC crude.

Demand for OPEC-15 crude in 2019 is forecast to decline by 1.1 mb/d next year to average 31.5 mb/d, around 0.3 mb/d lower than the last assessment.

Balance of supply and demand in 2018

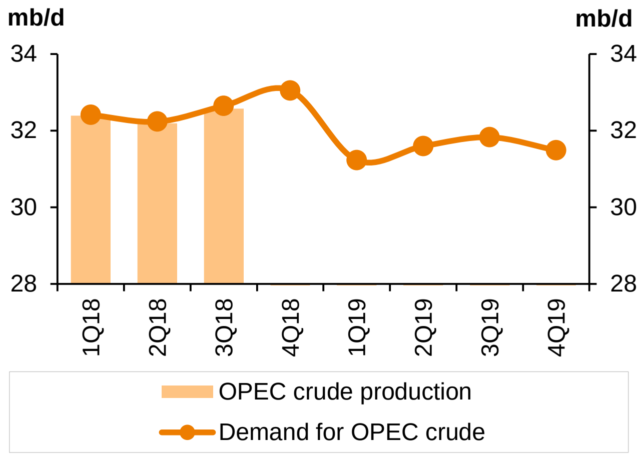
Demand for OPEC-15 crude in 2018 was revised down by 0.1 mb/d from the previous report to stand at 32.6 mb/d, 0.9 mb/d lower than the 2017 level.

Compared with the last *MOMR*, 1Q18 and 4Q18 remain unchanged, while 2Q18 was revised up by 0.1 mb/d. By contrast, 3Q18 was revised down by 0.4 mb/d.

When compared to the same quarters in 2017, 1Q18 was 0.2 mb/d higher, while the second and third quarters were 1.0 mb/d and 1.8 mb/d lower. The fourth quarter is expected to see a drop of 0.9 mb/d.

According to secondary sources, OPEC crude production averaged 32.4 mb/d in 1Q18 and 32.2 mb/d in 2Q18, respectively, which is in line with demand for OPEC crude. OPEC crude production stood at 32.6 mb/d in 3Q18, around 0.1 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	**97.29**	**97.80**	**98.02**	**99.32**	**99.98**	**98.79**	**1.50**
Non-OPEC supply	57.55	59.12	59.46	60.31	60.53	59.86	2.31
OPEC NGLs and non-conventionals	6.23	6.27	6.32	6.36	6.41	6.34	0.10
(b) Total non-OPEC supply and OPEC NGLs	**63.79**	**65.39**	**65.78**	**66.67**	**66.93**	**66.20**	**2.41**
Difference (a-b)	**33.50**	**32.41**	**32.23**	**32.65**	**33.05**	**32.59**	**-0.91**
OPEC crude oil production	**32.62**	**32.39**	**32.19**	**32.57**			
Balance	**-0.87**	**-0.02**	**-0.04**	**-0.08**			

*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 in 2019 was revised down by 0.3 mb/d compared to the previous report to stand at 31.5 mb/d, which is around 1.1 mb/d lower than the 2018 level.

Compared with the last *MOMR*, 1Q19 and 2Q19 were revised down by 0.3 mb/d and 0.1 mb/d, respectively, and 3Q19 and 4Q19 were revised down by 0.4 mb/d and 0.2 mb/d, respectively.

When compared to the same quarters in 2018, 1Q19 and 2Q19 are forecast to fall by 1.2 mb/d and 0.6 mb/d, respectively, and 3Q19 and 4Q19 are expected to fall by 0.8 mb/d and 1.6 mb/d, respectively.

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

	2018	1Q19	2Q19	3Q19	4Q19	2019	Change 2019/18
(a) World oil demand	**98.79**	**99.10**	**99.26**	**100.64**	**101.29**	**100.08**	**1.29**
Non-OPEC supply	59.86	61.45	61.23	62.35	63.32	62.09	2.23
OPEC NGLs and non-conventionals	6.34	6.42	6.43	6.46	6.49	6.45	0.11
(b) Total non-OPEC supply and OPEC NGLs	**66.20**	**67.87**	**67.66**	**68.81**	**69.81**	**68.54**	**2.34**
Difference (a-b)	**32.59**	**31.23**	**31.59**	**31.83**	**31.49**	**31.54**	**-1.05**

*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	47.42	47.69	47.24	48.13	48.37	47.86	47.98	47.44	48.41	48.62	48.12
Americas	24.59	24.87	25.06	25.20	25.40	25.63	25.59	25.46	25.46	25.64	25.91	25.85	25.72
Europe	13.83	13.99	14.30	13.95	14.19	14.78	14.47	14.35	13.98	14.19	14.80	14.48	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	32.60	32.86	32.71	32.65	33.01	33.19	33.46	33.30	33.24
FSU	4.58	4.63	4.70	4.66	4.65	4.94	5.01	4.82	4.75	4.74	5.03	5.11	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	12.65	13.07	12.71	12.61	13.18	12.99	13.42	13.05
(a) Total world demand	**94.16**	**95.61**	**97.29**	**97.80**	**98.02**	**99.32**	**99.98**	**98.79**	**99.10**	**99.26**	**100.64**	**101.29**	**100.08**
Non-OPEC supply													
OECD	25.36	24.86	25.71	27.25	27.46	28.35	28.59	27.92	29.22	29.04	30.08	30.70	29.77
Americas	21.08	20.57	21.49	22.93	23.35	24.28	24.25	23.71	24.85	24.96	25.83	26.21	25.46
Europe	3.82	3.86	3.83	3.92	3.73	3.67	3.90	3.80	3.94	3.63	3.79	4.00	3.84
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	11.46	11.50	11.34	11.46	11.44	11.65	11.70	11.78	12.05	11.79
FSU	13.69	13.85	14.05	14.10	14.14	14.32	14.17	14.18	14.21	14.17	14.18	14.24	14.20
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	3.93	3.94	3.95	3.97	3.92	3.91	3.94	3.93
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**	**57.55**	**59.12**	**59.46**	**60.31**	**60.53**	**59.86**	**61.45**	**61.23**	**62.35**	**63.32**	**62.09**
OPEC NGLs + non-conventional oils	6.05	6.15	6.23	6.27	6.32	6.36	6.41	6.34	6.42	6.43	6.46	6.49	6.45
(b) Total non-OPEC supply and OPEC NGLs	**63.56**	**62.80**	**63.79**	**65.39**	**65.78**	**66.67**	**66.93**	**66.20**	**67.87**	**67.66**	**68.81**	**69.81**	**68.54**
OPEC crude oil production (secondary sources)	31.90	32.85	32.62	32.39	32.19	32.57							
Total supply	95.46	95.65	96.41	97.78	97.97	99.24							
Balance (stock change and miscellaneous)	1.30	0.04	-0.87	-0.02	-0.04	-0.08							
OECD closing stock levels, *mb*													
Commercial	2,989	3,002	2,853	2,816	2,817	2,858							
SPR	1,588	1,600	1,568	1,575	1,570	1,569							
Total	**4,577**	**4,602**	**4,421**	**4,391**	**4,387**	**4,427**							
Oil-on-water	1,017	1,102	1,025	1,036	1,014	1,041							
Days of forward consumption in OECD, *days*													
Commercial onland stocks	64	63	60	60	59	59							
SPR	34	34	33	33	33	32							
Total	**97**	**97**	**92**	**93**	**91**	**92**							
Memo items													
(a) - (b)	**30.60**	**32.81**	**33.50**	**32.41**	**32.23**	**32.65**	**33.05**	**32.59**	**31.23**	**31.59**	**31.83**	**31.49**	**31.54**

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

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

	2015	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
World demand													
OECD	-	-	0.04	-	-	0.20	0.15	0.09	-	-	0.20	0.15	0.09
Americas	-	-	0.04	-	-	0.20	0.15	0.09	0.01	0.01	0.21	0.16	0.10
Europe	-	-	-	-	-	-	-	-	-0.01	-0.01	-0.01	-0.01	-0.01
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	-	-0.03	-0.22	-	-0.06	-0.05	-0.08	-0.27	-0.05	-0.12
FSU	-	-	-	-	0.15	0.05	-0.20	-	-	0.15	0.05	-0.20	-
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-0.06	-0.05	-0.03	-0.02	-0.02	-0.07	-0.07	-0.04
(a) Total world demand	**-**	**-**	**0.04**	**-**	**0.12**	**-0.03**	**-0.10**	**-**	**-0.07**	**0.05**	**-0.10**	**-0.17**	**-0.07**
Non-OPEC supply													
OECD	-	-	-	-	-	0.46	0.01	0.12	0.38	0.34	0.43	0.17	0.33
Americas	-	-	-	-	-	0.58	0.08	0.17	0.40	0.37	0.46	0.20	0.35
Europe	-	-	-	-	-	-0.12	-0.07	-0.05	-0.02	-0.02	-0.02	-0.02	-0.02
Asia Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-
DCs	-	-	-	0.01	0.01	-0.07	-0.19	-0.06	-0.09	-0.09	-0.09	-0.09	-0.09
FSU	-	-	-	-	-	0.02	0.21	0.06	0.05	0.05	0.05	0.05	0.05
Other Europe	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-0.02	-0.09	-0.03	-0.09	-0.09	-0.09	-0.09	-0.09
Processing gains	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-OPEC supply	-	-	-	-	0.01	0.39	-0.06	0.09	0.25	0.21	0.30	0.04	0.20
OPEC NGLs + non-conventionals	-	-	-0.01	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
(b) Total non-OPEC supply and OPEC NGLs	**-**	**-**	**-0.01**	**-0.01**	**-0.01**	**0.37**	**-0.08**	**0.07**	**0.23**	**0.19**	**0.28**	**0.02**	**0.18**
OPEC crude oil production (secondary sources)	**-**	**-**	**-**	**-**	**0.00**	**0.02**							
Total supply	-	-	-0.01	-0.01	-0.01	0.39							
Balance (stock change and miscellaneous)	-	-	-0.04	-0.01	-0.13	0.42							
OECD closing stock levels (mb)													
Commercial	-	-	-	-	1	-							
SPR	-	-	-	-	-	-							
Total	-	-	-	-	1	-							
Oil-on-water	-	-	-	-	-	-							
Days of forward consumption in OECD													
Commercial onland stocks	-	-	-	-	-	-							
SPR	-	-	-	-	-	-							
Total	**-**	**-**	**-**	**-**	**-**	**-**							
Memo items													
(a) - (b)	**-**	**-**	**0.04**	**0.01**	**0.13**	**-0.40**	**-0.01**	**-0.07**	**-0.30**	**-0.14**	**-0.38**	**-0.19**	**-0.25**

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the October 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

		2015	2016	2017	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18
Closing stock levels, mb													
OECD onland commercial		**2,989**	**3,002**	**2,853**	**3,084**	**3,002**	**3,031**	**3,019**	**2,969**	**2,853**	**2,816**	**2,817**	**2,858**
	Americas	1,561	1,598	1,498	1,621	1,598	1,606	1,596	1,571	1,498	1,468	1,471	1,511
	Europe	993	989	943	1,013	989	1,022	999	965	943	970	958	945
	Asia Pacific	435	414	412	450	414	404	424	433	412	378	388	402
OECD SPR		**1,588**	**1,600**	**1,568**	**1,596**	**1,600**	**1,600**	**1,588**	**1,578**	**1,568**	**1,575**	**1,570**	**1,569**
	Americas	697	697	665	697	697	694	681	676	665	667	662	662
	Europe	475	481	480	477	481	484	484	479	480	485	486	485
	Asia Pacific	416	421	423	421	421	422	423	423	423	422	422	422
OECD total		**4,577**	**4,602**	**4,421**	**4,679**	**4,602**	**4,630**	**4,608**	**4,547**	**4,421**	**4,391**	**4,387**	**4,427**
Oil-on-water		**1,017**	**1,102**	**1,025**	**1,068**	**1,102**	**1,043**	**1,052**	**998**	**1,025**	**1,036**	**1,014**	**1,041**
Days of forward consumption in OECD, days													
OECD onland commercial		**64**	**64**	**60**	**65**	**64**	**64**	**63**	**62**	**60**	**60**	**59**	**60**
	Americas	63	65	59	65	65	64	63	62	59	58	57	59
	Europe	73	72	67	72	72	72	68	67	67	68	65	66
	Asia Pacific	51	49	48	54	49	53	54	52	48	50	50	49
OECD SPR		**34**	**34**	**33**	**34**	**34**	**34**	**33**	**33**	**33**	**33**	**33**	**33**
	Americas	28	28	26	28	28	28	27	27	26	26	26	26
	Europe	35	35	34	34	35	34	33	33	34	34	33	34
	Asia Pacific	48	50	50	50	50	55	54	51	50	56	55	51
OECD total		**98**	**98**	**92**	**99**	**98**	**98**	**97**	**95**	**92**	**93**	**92**	**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	17.1	17.0	16.5	2.1	17.4	17.9	18.5	18.8	18.1	1.7
Canada	4.4	4.5	4.9	5.1	5.2	5.1	0.3	5.4	5.0	5.4	5.5	5.3	0.2
Mexico	2.6	2.5	2.2	2.1	2.0	2.1	-0.1	2.0	2.0	2.0	1.9	2.0	-0.1
OECD Americas	**21.1**	**20.6**	**21.5**	**24.3**	**24.2**	**23.7**	**2.2**	**24.8**	**25.0**	**25.8**	**26.2**	**25.5**	**1.8**
Norway	1.9	2.0	2.0	1.8	1.9	1.9	-0.1	1.9	1.7	1.8	1.9	1.8	0.0
UK	1.0	1.0	1.0	1.0	1.1	1.1	0.0	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**	**3.7**	**3.9**	**3.8**	**0.0**	**3.9**	**3.6**	**3.8**	**4.0**	**3.8**	**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**	**28.4**	**28.6**	**27.9**	**2.2**	**29.2**	**29.0**	**30.1**	**30.7**	**29.8**	**1.8**
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**	**3.4**	**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	3.2	3.3	3.3	0.0	3.5	3.5	3.6	3.9	3.6	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**	**5.2**	**5.2**	**0.0**	**5.4**	**5.4**	**5.5**	**5.7**	**5.5**	**0.3**
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**	**1.5**	**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**	**11.3**	**11.5**	**11.4**	**0.0**	**11.7**	**11.7**	**11.8**	**12.0**	**11.8**	**0.4**
FSU	**13.7**	**13.9**	**14.1**	**14.3**	**14.2**	**14.2**	**0.1**	**14.2**	**14.2**	**14.2**	**14.2**	**14.2**	**0.0**
Russia	10.8	11.1	11.2	11.4	11.2	11.2	0.1	11.2	11.2	11.2	11.2	11.2	0.0
Kazakhstan	1.6	1.6	1.7	1.8	1.9	1.8	0.1	1.9	1.9	1.9	1.9	1.9	0.1
Azerbaijan	0.9	0.8	0.8	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.8	0.0
FSU others	0.4	0.4	0.3	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.3	0.0
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**	**3.9**	**4.0**	**0.0**	**4.0**	**3.9**	**3.9**	**3.9**	**3.9**	**0.0**
Non-OPEC production	**55.3**	**54.5**	**55.3**	**58.1**	**58.3**	**57.6**	**2.3**	**59.2**	**59.0**	**60.1**	**61.0**	**59.8**	**2.2**
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**	**56.7**	**57.6**	**60.3**	**60.5**	**59.9**	**2.3**	**61.5**	**61.2**	**62.3**	**63.3**	**62.1**	**2.2**
OPEC NGL	5.8	5.9	6.0	6.1	6.1	6.0	0.1	6.1	6.1	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**	**6.3**	**0.1**	**6.4**	**6.4**	**6.5**	**6.5**	**6.5**	**0.1**
Non-OPEC & OPEC (NGL+NCF)	**63.6**	**62.8**	**63.8**	**66.7**	**66.9**	**66.2**	**2.4**	**67.9**	**67.7**	**68.8**	**69.8**	**68.5**	**2.3**

*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	Sep 18	Oct 18	Change Oct/Sep
US	977	509	875	*366*	921	964	1,037	1,051	1,053	1,063	*10*
Canada	192	131	207	*76*	204	273	106	208	202	192	*-10*
Mexico	52	26	17	*-8*	12	19	25	30	33	35	*2*
OECD Americas	1,221	665	1,099	*434*	1,137	1,257	1,168	1,289	1,288	1,290	*2*
Norway	17	17	15	*-2*	15	15	14	14	13	18	*5*
UK	14	9	9	*0*	6	6	6	8	7	7	*0*
OECD Europe	117	96	92	*-4*	88	86	82	84	86	92	*6*
OECD Asia Pacific	17	7	15	*9*	16	16	21	22	22	24	*2*
Total OECD	**1,355**	**768**	**1,206**	***438***	**1,240**	**1,359**	**1,271**	**1,395**	**1,396**	**1,406**	***10***
Other Asia*	202	180	186	*6*	199	196	193	204	200	197	*-3*
Latin America	145	68	70	*2*	82	80	77	83	83	80	*-3*
Middle East	102	88	74	*-14*	70	73	75	76	72	72	*0*
Africa	29	17	16	*-1*	15	16	24	29	32	32	*0*
Total DCs	**478**	**353**	**346**	***-7***	**365**	**365**	**368**	**392**	**387**	**381**	***-6***
Non-OPEC rig count	**1,833**	**1,121**	**1,552**	***431***	**1,606**	**1,724**	**1,639**	**1,786**	**1,783**	**1,787**	***4***
Algeria	51	54	54	*0*	53	53	52	48	49	46	*-3*
Angola	11	6	3	*-4*	2	3	3	4	4	4	*0*
Ecuador	12	4	6	*2*	6	6	6	9	8	8	*0*
Equatorial Guinea**	1	1	1	*0*	1	1	1	1	1	1	*0*
Gabon	4	1	1	*0*	2	3	4	3	3	4	*1*
Iran**	54	59	61	*2*	61	61	61	61	61	61	*0*
Iraq**	52	43	49	*6*	52	58	60	58	59	60	*1*
Kuwait**	47	44	54	*9*	52	54	54	50	50	50	*0*
Libya**	3	1	1	*0*	1	1	1	7	9	9	*0*
Nigeria	30	25	28	*3*	28	32	32	34	33	34	*1*
Qatar	8	8	10	*2*	7	8	11	9	9	9	*0*
Saudi Arabia	155	156	149	*-7*	147	145	143	150	149	155	*6*
UAE	42	51	52	*1*	53	53	54	56	56	58	*2*
Venezuela	110	100	91	*-9*	85	88	72	69	67	69	*2*
OPEC rig count	**579**	**552**	**558**	***6***	**550**	**566**	**554**	**558**	**558**	**568**	***10***
World rig count* **	**2,412**	**1,673**	**2,110**	***437***	**2,156**	**2,289**	**2,193**	**2,345**	**2,341**	**2,355**	***14***
of which:											
Oil	1,750	1,189	1,541	*352*	1,591	1,727	1,667	1,809	1,800	1,813	*13*
Gas	563	370	466	*96*	466	468	432	440	444	448	*4*
Others	100	113	103	*-10*	98	94	95	95	97	94	*-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 2.21 in October

October 2018	79.39
September 2018	77.18
Year-to-date	**71.30**

October OPEC crude production *mb/d, according to secondary sources*

up 0.13 in October

October 2018	32.90
September 2018	32.77

Economic growth rate *per cent*

	World	OECD	US	Japan	Euro-zone	China	India
2018	3.7	2.4	2.9	1.1	1.9	6.5	7.5
2019	3.5	2.0	2.6	1.1	1.7	6.1	7.2

Supply and demand *mb/d*

2018		**18/17**	**2019**		**19/18**
World demand	98.8	1.5	World demand	100.1	1.3
Non-OPEC supply	59.9	2.3	Non-OPEC supply	62.1	2.2
OPEC NGLs	6.3	0.1	OPEC NGLs	6.5	0.1
Difference	**32.6**	**–0.9**	**Difference**	**31.5**	**–1.1**

OECD commercial stocks *mb*

	Jul 18	Aug 18	Sep 18	Sep 18/Aug 18	Sep 17
Crude oil	1,413	1,394	1,381	–13.5	1,498
Products	1,425	1,458	1,477	19.0	1,471
Total	**2,838**	**2,852**	**2,858**	**5.5**	**2,969**
Days of forward cover	59.2	59.7	59.3	–0.4	62.0

Next report to be issued on 12 December 2018.