# OPEC

## Monthly Oil Market Report

*12 December 2018*

## *Feature article:*

*Review of 2018, Outlook for 2019*

Organization of the Petroleum Exporting Countries

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Thursday, 13 June

Thursday, 11 July

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Wednesday, 11 September

Thursday, 10 October

Thursday, 14 November

Wednesday, 11 December

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# Oil Market Highlights

## Crude Oil Price Movements

The OPEC Reference Basket (ORB) ended November down by $14.06, or 17.7%, month-on-month (m-o-m), to average $65.33/b, its lowest level since last March. Year-to-date (y-t-d), the ORB value was $19.14, or 37.1%, higher at $70.75/b compared with the same period in 2017. Crude oil futures also dropped in November amid weaker market fundamentals as the market focused on global oil supply, which rose faster than expected. ICE Brent prices witnessed eight consecutive weekly declines to reach their lowest level since October 2017 on a daily basis. ICE Brent was on average $14.68, or 18.2%, m-o-m lower at $65.95/b, and NYMEX WTI fell $14.06, or 19.9%, m-o-m to average $56.69/b. Y-t-d, ICE Brent is $18.92, or 35.1%, higher at $72.87/b, while NYMEX WTI increased by $16.03, or 31.9%, to $66.27/b. The first-month ICE Brent/NYMEX WTI spread narrowed 62¢ to $9.26/b, from $9.87/b in the previous month. Both the ICE Brent and NYMEX WTI forward curves were in contango in November as global oil supply grew faster than oil demand, leading to higher oil stocks. The Dubai backwardation structure eased sharply in November due to higher crude oil supply. Hedge funds and other money managers continued to reduce their combined speculative net length positions linked to both ICE Brent and NYMEX WTI to reach their lowest levels since more than a year.

## World Economy

The global economic growth forecast remains unchanged at 3.7% for 2018 and at 3.5% for 2019. In the OECD, growth in the US is unchanged at 2.9% for 2018 and at 2.6% for 2019. Euro-zone growth remains at 1.9% for 2018 and 1.7% for 2019. GDP growth in Japan was revised down slightly to 1.0% for 2018, but is unchanged at 1.1% for 2019. In the non-OECD countries, both India’s and China’s growth forecasts remain at 7.5% and 6.5% for 2018, respectively, and at 7.2% and 6.1%, respectively, for 2019. Growth in Brazil remains unchanged at 1.1% for 2018 and at 1.8% for 2019. Russia’s GDP growth forecast is also unchanged at 1.6% for 2018 and 1.7% for 2019. While the upside to global growth is limited, the risk remains skewed to the downside amid ongoing trade tensions, monetary tightening and geopolitical challenges.

## World Oil Demand

In 2018, world oil demand growth is foreseen rising by 1.50 mb/d, unchanged from last month’s report. OECD Americas is expected to lead growth in OECD regions in response to strong gains for light and middle distillates throughout 2018. Other Asia is projected to lead demand growth in non-OECD and globally after strengthened product demand growth in India, Indonesia, Singapore and Thailand. Total oil demand is now pegged at 98.79 mb/d. In 2019, world oil demand is anticipated to rise by 1.29 mb/d, similar to last month’s projections. As a result, total world oil demand is anticipated to reach 100.08 mb/d. Oil demand growth is projected to originate from Other Asia, led by India, followed China, then OECD Americas. OECD countries will rise by 0.25 mb/d, while non-OECD countries will drive oil demand growth by adding an estimated 1.04 mb/d in 2019.

## World Oil Supply

Non-OPEC oil supply growth in 2018 is estimated at 2.50 mb/d, an upward revision of 0.19 mb/d from the previous month’s assessment. The US, Canada, Russia and Kazakhstan are expected to be the main growth drivers, while Mexico and Norway are anticipated to show the largest declines. With this, total non-OPEC supply for 2018 is now estimated at 60.03 mb/d. Non-OPEC oil supply growth in 2019 was revised down by 0.08 mb/d to stand at 2.16 mb/d and is now forecast to reach an average of 62.19 mb/d. This is mainly due to a lower oil supply forecast for Canada given Alberta’s announcement of a mandatory production adjustment, as well as downward supply forecast adjustments for the 10 non-OPEC participants in the Declaration of Corporation in the first half of 2019. The US, Brazil, Russia and the UK are the main drivers for next year’s growth, while Mexico and Norway are expected to see 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 November, OPEC crude oil production decreased by 11 tb/d to average 32.97 mb/d, according to secondary sources.

## Product Markets and Refining Operations

Product markets in the Atlantic Basin during November showed mixed performances. In the US, product markets weakened slightly despite positive performance at the middle of the barrel due to considerable gasoil and jet/kerosene inventory drawdowns. In Europe, product markets showed a strong recovery from the slump witnessed in the previous month, supported by soaring cracks in the middle and bottom of the barrel. Moreover, European product markets also benefitted from an additional boost all across the barrel driven by the decline in feedstock costs as well as bullish sentiment as refineries in France went on strike. In Asia, product markets continued to weaken, exhibiting slight losses in November as steep declines in cracks at the top of the barrel weighed on margins despite strong positive performances in the bottom of the barrel.

## Tanker Market

The tanker market experienced a general strengthening trend in November as freight rates in both the dirty and clean segments of the market increased. On average, dirty tanker spot freight rates rose by 21% from the previous month on the back of increased tonnage requirements, tonnage tightening and transit delays. The enhanced market activities were seen to drive rates higher in several areas, affecting all tanker sectors in the market, moreover a reduction in bunker prices reduced operational costs, thereby enhancing earnings.

## Stock Movements

Preliminary data for October showed that total OECD commercial oil stocks rose by 7.6 mb m-o-m for the fourth consecutive month to settle at 2,883 mb, which is 41 mb lower than the same time one year ago but 22.5 mb above the latest five-year average. Within the components, crude stocks indicated a surplus of 4.0 mb, while product stocks were 18.5 mb above the latest five-year average. In terms of days of forward cover, OECD commercial stocks rose by 0.5 days m-o-m to stand at 60.0 days in October, which was 1.0 day below the same period in 2017 and 1.2 days lower than the latest five-year average.

## Balance of Supply and Demand

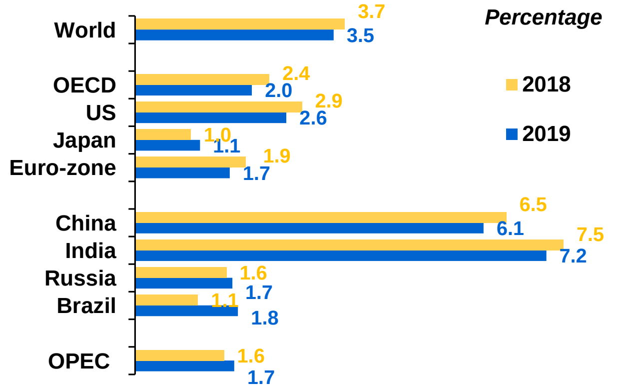
Demand for OPEC crude in 2018 is estimated at 32.4 mb/d, which is 1.1 mb/d lower than the 2017 level. In 2019, demand for OPEC crude is forecast at 31.4 mb/d, around 1.0 mb/d lower than the estimated 2018 level.

# Feature Article

## Review of 2018; outlook for 2019

After a healthy start to the year, the **world economy** in 2018 was marked by a rising divergence in growth trends. Within the OECD, the US managed to grow by a much higher rate than other economies, fueled by an extraordinary fiscal stimulus. Additionally, growth trends in the emerging and developing economies have become increasingly diverse, with high growth levels in India and China, while Russia, Brazil and others have managed only minor growth. Moreover, in the second half of the year, global growth trends became more fragile as growth in some major advanced economies slowed further. Also, currency issues along with fiscal challenges continued to have serious implications for some of the G20 economies, namely Argentina, Turkey and South Africa. Nonetheless, the global economic growth forecast for this year stands at a high level of 3.7% in 2018 (***Graph 1***), but the momentum is forecast to slow to 3.5% in 2019. Rising trade tensions, monetary tightening and geopolitical challenges are among the issues that skew economic risks even further to the downside in 2019. The upside appears limited, but is mainly resulting from a resolution of trade-related issues and the possibility of slower than currently anticipated monetary policy normalization by G4 central banks.

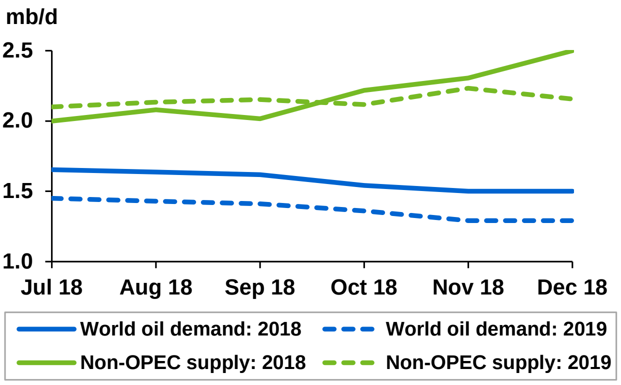
**Graph 1: 2019 real GDP growth for selected countries**




*Source: OPEC Secretariat.*

**World oil demand** in **2018** is projected to grow at a slower rate than during the previous year, albeit at healthy levels. Oil demand growth for 2018 is estimated at 1.50 mb/d, which was revised down by around 150 tb/d from the forecast in July 2018 (***Graph 2***). In OECD Americas, growth is driven by the significant expansion of petrochemical plants in the US, as well as solid economic activities. In the non-OECD, Other Asia is projected to lead demand growth, sustained by robust oil product consumption in India, Indonesia, Singapore and Thailand. Conversely, demand in the Middle East has weakened in response to economic reforms including subsidy removals, substitution plans and energy efficiency-related polices.

**Graph 2: World oil demand and non-OPEC supply revisions from initial forecast in 2018 and 2019**




*Source: OPEC Secretariat.*

For next year, global oil demand is forecast to increase by around 1.29 mb/d, some 160 tb/d lower than the initial forecast in July 2018, to average 100.1 mb/d, thereby surpassing the historical 100 mb/d threshold on an annual basis (***Graph 2***). In the OECD region, oil demand is projected to grow by 0.25 mb/d. Consumption in OECD Americas is expected to be firmly in the positive, driven by solid NGL and middle distillate requirements. In the non-OECD region, growth is anticipated to be around 1.04 mb/d, with slightly lower growth in China compared to this year. Other regions, such as Latin America and the Middle East, are expected to see higher growth y-o-y.

This year, **non-OPEC oil supply** growth outpaced initial market expectations and now stands at 2.50 mb/d, compared to 2.00 mb/d in July 2018 (***Graph 2***). Higher-than-expected supply growth in the US, Canada and Russia has been the key contributor to the upward revisions, particularly with regard to US tight oil. US oil output is now projected to grow by 2.13 mb/d in 2018. Non-OPEC supply is expected to see continued strong growth in 2019 on the back of increased investment in US tight oil, as well as robust growth expected from new projects in Brazil. Higher output in the UK due to upstream projects will also contribute to next year's growth. Consequently, non-OPEC supply is estimated to grow by 2.16 mb/d in 2019, an upward revision of around 60 tb/d from initial forecasts in July 2018. The forecast for the next year is subject to considerable uncertainties, particularly with regard to continued improvements in the productivity of US shale, oil transportation bottlenecks in the Permian Basin and Western Canada, and expected projects coming on-stream in other non-OPEC countries.

Based on the above forecasts, demand for OPEC crude in 2019 is expected to stand at 31.4 mb/d, which is lower than the demand levels seen this year. The decision of the 175th Meeting of the OPEC Conference and the 5th OPEC and non-OPEC Ministerial Meeting to adjust overall production by 1.2 mb/d, effective as of January 2019 for an initial period of six months, should contribute to sustainability of market stability.

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# Crude Oil Price Movements

*The **OPEC Reference Basket (ORB)** ended November down by over 17% m-o-m, hitting its lowest level since last March. This came as global markets grappled with the prospects of excess oil supply and lower global oil demand growth. M-o-m, the ORB value decreased by $14.06 to settle at $65.33/b. All ORB component values decreased in November, along with their respective crude oil benchmarks. Y-t-d, the ORB value was $19.14, or 37.1%, higher at $70.75/b, compared with the same period in 2017.*

***Crude oil futures** prices fell in all markets. Both ICE Brent and NYMEX WTI have dropped over November, reaching their lowest level in more than a year, after prices peaked at a four-year high in October. Oil prices continued to fall since early October and witnessed eight consecutive weekly declines, to reach their lowest level since October 2017. Oil prices continued to decline amid weaker market fundamentals as the market focused on global oil supply, which rose faster than expected. Slowing global economic momentum amid US-China trade tensions and the prospect of lower global oil demand growth also weighed on oil prices. In November, ICE Brent was on average $14.68, or 18.2%, lower at $65.95/b, and NYMEX WTI fell $14.06, or 19.9%, to average $56.69/b. Y-t-d, ICE Brent is $18.92, or 35.1%, higher at $72.87/b, while NYMEX WTI increased by $16.03, or 31.9%, to $66.27/b. The first-month ICE Brent/NYMEX WTI spread narrowed 62¢ to $9.26/b in November from $9.87/b in the previous month.*

***Hedge funds and other money managers** continued to reduce their combined speculative net length positions linked to both ICE Brent and NYMEX WTI, to reach their lowest levels in more than a year. Concerns about potential global market oversupply in coming months led hedge funds and other money managers to liquidate their long positions massively.*

*Both the **ICE Brent and the NYMEX WTI forward curves** were in contango in November, as global oil supply grew faster than oil demand, leading to higher oil stocks, especially in the US. The Dubai backwardation structure eased sharply in November due to higher crude oil supply, particularly from the Middle East and Russia.*

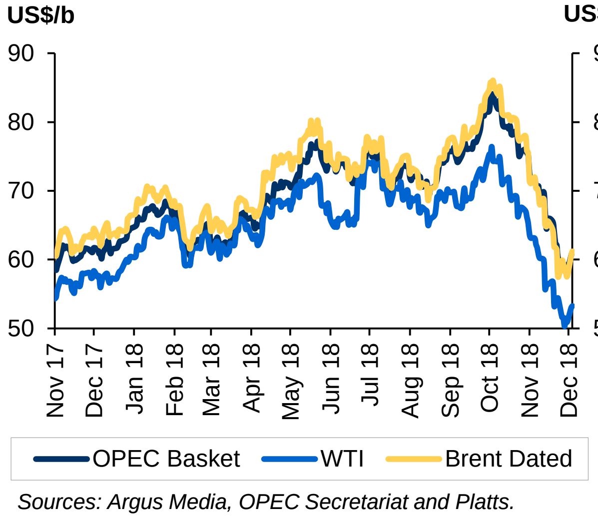
*The **sweet/sour differential** narrowed in main markets, particularly in Europe and Asia, thanks to the sharp decline in outright sweet crude prices in addition to higher middle distillates margins, while light distillates margins weakened.*

## OPEC Reference Basket

In November, the **ORB** lost a hefty $14.06, or 17.7% m-o-m, to average $65.33/b, reaching its lowest level since last March. ORB value experienced its largest monthly fall since January 2015, as concerns about supply disruptions eased and market sentiment turned focused on concerns about oil supply overhang and expectations of lower global oil demand growth. Meanwhile, weaker global economic data, particularly in the Euro-zone, China and India, as well as a strong US dollar (USD) and weaker refinery margins, also weighed on an already sluggish market performance.

Crude oil physical benchmarks fell dramatically in November, but at different paces. While Dubai and WTI spot prices decreased m-o-m by $13.61/b and $14.00/b, respectively, the Dated Brent fell by $16.46/b.

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




*Sources: Argus Media, OPEC Secretariat and Platts.*

All **ORB component values** decreased in November, along with their respective crude oil benchmarks and lower crude oil differentials, amid a well-supplied spot market and weak refining margins.

Light sweet crude **ORB components from West and North Africa**, including Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend and Zafiro, dipped $16.40 on average, or 20.3%, to $64.42/b in November. Crude oil prices were down on lower Dated Brent prices and curtailed crude differentials amid depressed refining margins. Light sweet crude were under further pressure from weaker light distillate cracks, particularly gasoline and naphtha cracks. On the other hand, despite healthy middle distillate margins, West African (WAF) market weakened amid lower demand from Asian refiners and higher competition from US crudes.

**Latin American ORB components** also declined in November along with the WTI price. Lower Mars medium sour crude differentials and higher sour crude supply in the USGC also weighed on sour crude prices. Venezuela's Merey and Ecuador's Oriente ended lower m-o-m by $9.38, or 12.5%, to $65.87/b, and by $15.72, or 20.8%, at $59.76/b, respectively.

The value of **multiple-region destination grades**, including Arab Light, Basrah Light, Iran Heavy and Kuwait Export, decreased by $13.86, or 17.7%, m-o-m to $64.62/b in November, along with the Dubai benchmark drop, which erased higher official selling prices (OSPs).

Similarly, **Middle Eastern spot components**, Murban and Qatar Marine, also saw their values declining m-o-m by $13.23, or 16.3%, to $68.05/b and by $13.01, or 16.5%, to $65.88/b, respectively.

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

| | | | Change | | Year-to-date | |
|---|---|---|---|---|---|---|
| | Oct 18 | Nov 18 | Nov/Oct | % | 2017 | 2018 |
| **Basket** | **79.39** | **65.33** | **-14.06** | **-17.7** | **51.62** | **70.75** |
| Arab Light | 80.02 | 66.36 | -13.66 | -17.1 | 51.75 | 71.53 |
| Basrah Light | 78.26 | 64.12 | -14.14 | -18.1 | 51.06 | 69.56 |
| Bonny Light | 82.09 | 65.90 | -16.19 | -19.7 | 53.70 | 73.19 |
| Djeno | 78.52 | 62.06 | -16.46 | -21.0 | 51.92 | 69.67 |
| Es Sider | 79.62 | 63.11 | -16.51 | -20.7 | 51.95 | 70.84 |
| Girassol | 82.24 | 65.66 | -16.58 | -20.2 | 53.59 | 72.79 |
| Iran Heavy | 77.04 | 62.83 | -14.21 | -18.4 | 50.93 | 68.97 |
| Kuwait Export | 78.56 | 65.15 | -13.41 | -17.1 | 50.81 | 69.79 |
| Merey | 75.25 | 65.87 | -9.38 | -12.5 | 46.92 | 65.57 |
| Murban | 81.28 | 68.05 | -13.23 | -16.3 | 54.05 | 73.17 |
| Oriente | 75.48 | 59.76 | -15.72 | -20.8 | 49.18 | 67.23 |
| Qatar Marine | 78.89 | 65.88 | -13.01 | -16.5 | 52.06 | 70.42 |
| Rabi Light | 80.37 | 63.91 | -16.46 | -20.5 | 52.31 | 71.37 |
| Sahara Blend | 81.12 | 64.96 | -16.16 | -19.9 | 53.22 | 72.58 |
| Zafiro | 81.82 | 65.36 | -16.46 | -20.1 | 53.17 | 72.39 |
| **Other Crudes** | | | | | | |
| Dated Brent | 81.12 | 64.66 | -16.46 | -20.3 | 53.32 | 72.30 |
| Dubai | 79.40 | 65.79 | -13.61 | -17.1 | 52.36 | 70.61 |
| Isthmus | 80.03 | 65.43 | -14.60 | -18.2 | 53.92 | 69.74 |
| LLS | 78.93 | 64.48 | -14.45 | -18.3 | 53.27 | 71.24 |
| Mars | 75.82 | 61.23 | -14.59 | -19.2 | 49.80 | 67.88 |
| Minas | 73.66 | 59.17 | -14.49 | -19.7 | 48.32 | 66.59 |
| Urals | 80.16 | 64.41 | -15.75 | -19.6 | 52.38 | 71.11 |
| WTI | 70.75 | 56.75 | -14.00 | -19.8 | 50.22 | 66.35 |
| **Differentials** | | | | | | |
| Brent/WTI | 10.37 | 7.91 | -2.46 | - | 3.11 | 5.95 |
| Brent/LLS | 2.19 | 0.18 | -2.01 | - | 0.05 | 1.06 |
| Brent/Dubai | 1.72 | -1.13 | -2.85 | - | 0.96 | 1.68 |

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

M-o-m, the **ORB value** fell m-o-m by $14.06, or 17.7%, to settle at $65.33/b in November. Y-t-d, the ORB value was $19.14, or 37.1%, higher at $70.75/b compared with the same period in 2017.

On 11 December, the ORB stood at $58.57/b, $6.76 below the November average.

# The oil futures market

**Crude oil futures prices** dropped sharply over November reaching their lowest level in more than a year, after prices peaked in October hitting a four-year high. Oil prices continued to fall since early October and witnessed eight consecutive weekly declines, to reach their lowest level since October 2017. Oil prices continued to decline amid weaker market fundamentals as the market focused on global oil supply, which rose faster than expected, particularly from the US. Also, several other producers signalled that output would grow quicker than expected in 2019. Slowing global economic momentum amid US-China trade tensions, weaker equity markets as well as concerns over oil demand growth added further pressure on oil prices. Oil prices extended losses in November following massive selloffs from hedge funds and other money managers, which reduced their net long positions to their lowest level in more than a year.

Furthermore, crude oil prices dropped further as US crude oil inventories continued to rise for ten consecutive weeks, to the week of 23 November, adding more than 56 mb, and reached their highest level since November 2017, despite increasing refineries production output and high US crude oil export levels.

In November, **ICE Brent** was on average $14.68, or 18.2%, m-o-m lower at $65.95/b, while **NYMEX WTI** fell m-o-m by $14.06, or 19.9%, to average $56.69/b. Y-t-d, ICE Brent is $18.92, or 35.1%, higher at $72.87/b, while NYMEX WTI increased by $16.03, or 31.9%, to $66.27/b. **DME Oman** crude oil futures also declined m-o-m by $14.41 in November, or 18.0%, over the previous month, to settle at $65.63/b. Y-t-d, DME Oman was up by $18.46, or 35.1%, at $70.99/b. On 11 December, ICE Brent stood at $60.20/b and NYMEX WTI at $51.65/b.

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

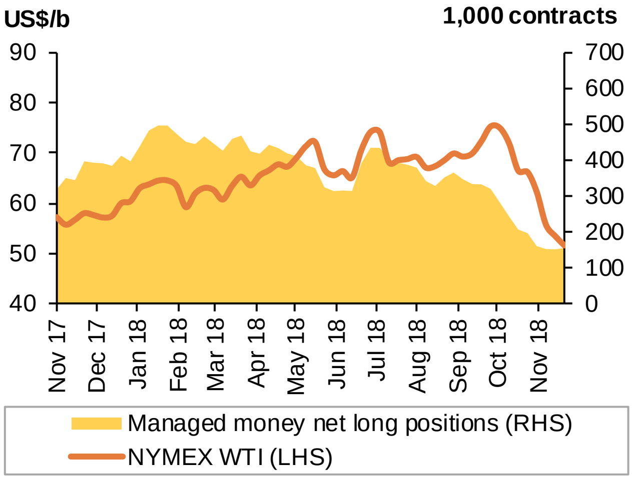
| | | | *Change* | | *Year-to-date* | |
|---|---|---|---|---|---|---|
| | Oct 18 | Nov 18 | Nov/Oct | % | 2017 | 2018 |
| **NYMEX WTI** | 70.76 | 56.69 | -14.06 | -19.9 | 50.24 | 66.27 |
| **ICE Brent** | 80.63 | 65.95 | -14.68 | -18.2 | 53.95 | 72.87 |
| **DME Oman** | 80.05 | 65.63 | -14.41 | -18.0 | 52.53 | 70.99 |
| **Transatlantic spread (ICE Brent-NYMEX WTI)** | ***9.87*** | ***9.26*** | ***-0.62*** | ***-6.2*** | ***3.71*** | ***6.60*** |

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

**Hedge funds and other money managers** continued to liquidate their combined speculative net length positions linked to both ICE Brent and NYMEX WTI, to reach their lowest levels in more than a year. Concerns about potential global market oversupply in coming months led hedge funds and other money managers to liquidate their long positions massively. Hedge funds and other money managers have reduced their net long positions, for both ICE Brent and NYMEX WTI, by around 480 mb since the beginning of October, amid worries about oil supply overhang and slowing demand.

Hedge funds and other money managers cut their combined net long positions in futures and options linked to **NYMEX WTI** by 41,173 contracts, or 21.0%, to 155,023 contracts in November, the US CFTC said.

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



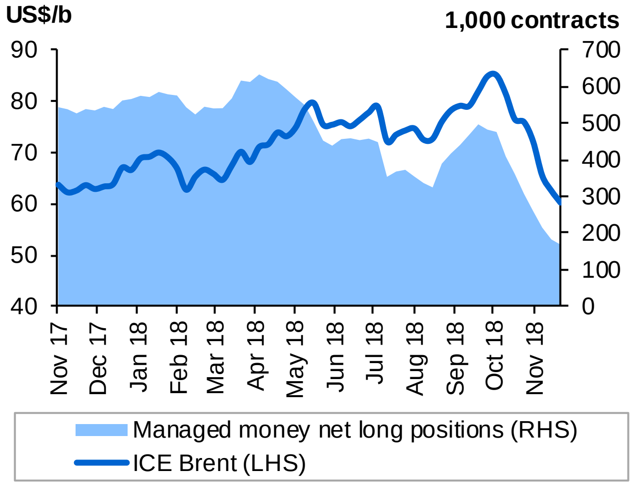

*Sources: CFTC, CME Group and OPEC Secretariat.*

The speculator group also sharply decreased their combined futures and options net long positions in **ICE Brent** by 138,600 contracts, or 45.1%, to 168,512 contracts in November, according to the ICE Exchange.

The **long-to-short ratio** in ICE Brent speculative positions continued to decrease from 5:1 to 3:1, and the ratio in NYMEX WTI decreased from 4:1 to 3:1.

**Total futures and options open interest volume** in the two exchanges increased by 176,945 contracts, or 3.2%, to stand at 5.8 million contracts.

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



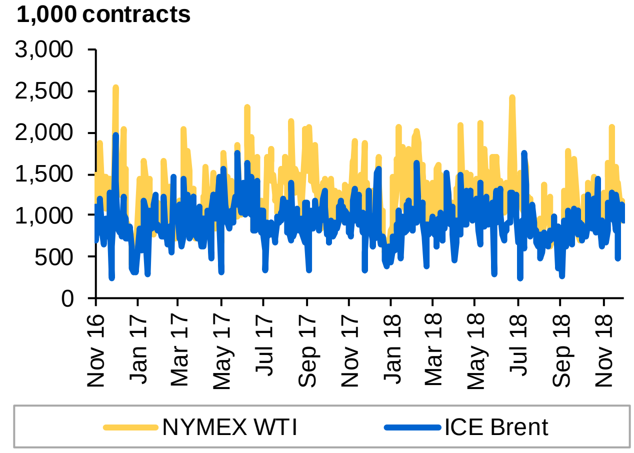

*Sources: Intercontinental Exchange and OPEC Secretariat.*

The November **daily average traded volume** for NYMEX WTI contracts increased sharply by 247,382 lots, or 23.2%, to 1,312,857 contracts, while daily average traded volume for ICE Brent was 66,223 contracts higher, up by 7.2%, at 985,164 lots.

The **daily aggregate traded volume** in November for both crude oil futures markets increased by 313,605 contracts m-o-m to stand at 2.3 million futures contracts, or about 2.3 billion b/d of crude oil.

The November **total traded volume** in NYMEX WTI was 12.5% higher at 27.6 million contracts, and that of ICE Brent was 2.5% higher at 21.7 million contracts.

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



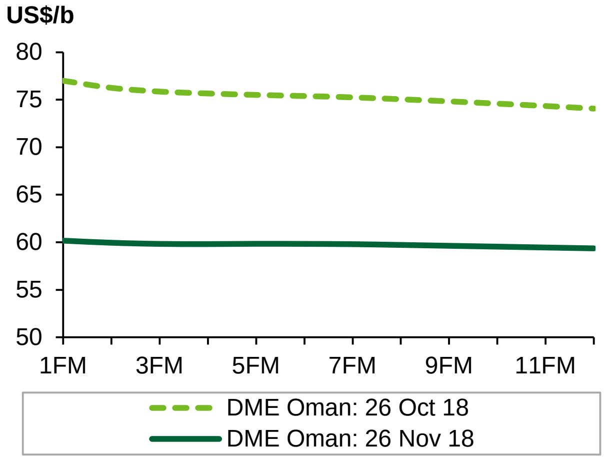

*Sources: CME Group, Intercontinental Exchange and OPEC Secretariat.*

# The futures market structure

The **Dubai backwardation structure** eased sharply in November due to higher crude oil supply, particularly from the Middle East and Russia, exceeding demand. The sharp drop in oil prices also weighed on the front months of the curve.

The **Brent forward price structure** slipped into contango in November as global oil supply was growing faster than oil demand, leading to higher oil stocks, especially in the US. The sharp fall in oil prices and the amplified sell-off from hedge funds and other money managers of their long positions have put more pressure on front month prices. The Brent contango structure persists across the curve for the next six months, and the whole curve flattened in the longer term.

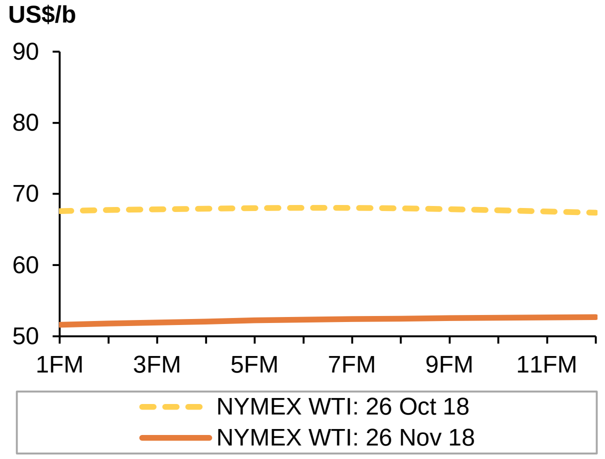
**Graph 1 - 5: DME Oman forward curves**




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

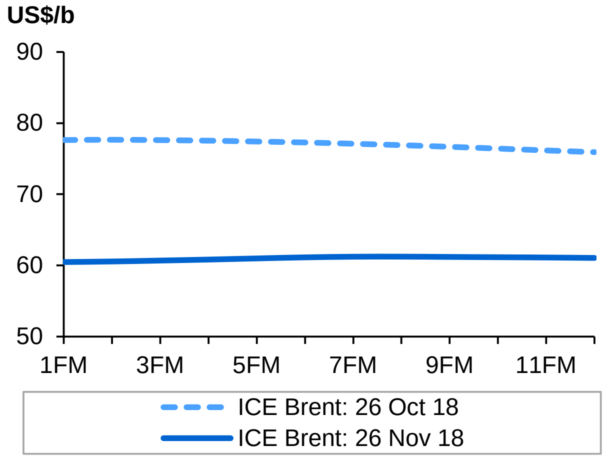
**The WTI price structure** remained in contango in November as market fundamentals remained weak in the oil hub of Cushing, Oklahoma. US crude oil production continued to grow in November to reach an historical high level of 11.7 mb/d, on a weekly basis. The crude oil inventory also increased sharply over ten consecutive weeks, accumulating at about 56 mb, to the week ending 23 November.

**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 of 65¢/b flipped into a contango of 52¢/b, a decrease of $1.17/b. The Dubai M1 $1.14/b premium to M3 decreased to 36¢/b premium, down by 78¢. In the US, the WTI backwardation of 4¢/b slipped into contango of 36¢/b, where (M1-M3) narrowed by 40¢.

The **spread between the benchmarks ICE Brent and NYMEX WTI** narrowed slightly in November to $9.26/b, but it remained largely wide, as US crude oil production continued to increase to record high levels, leading to higher US crude oil stocks. Nonetheless, NYMEX WTI prices found some support from higher demand from US refiners following the end of refinery maintenance season. On the other hand, Brent prices declined further in November, mirroring concerns over global oil market oversupply.

The first-month ICE Brent/NYMEX WTI spread narrowed 62¢ to $9.26/b in November, from $9.87/b in the previous month.

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

| | | 1FM | 2FM | 3FM | 6FM | 12FM | 12FM-1FM |
|---|---|---|---|---|---|---|---|
| **NYMEX WTI** | 26 Oct 18 | 67.59 | 67.75 | 67.84 | 68.05 | 67.37 | -0.22 |
| | 26 Nov 18 | 51.63 | 51.80 | 51.95 | 52.33 | 52.71 | 1.08 |
| | ***Change*** | **-15.96** | **-15.95** | **-15.89** | **-15.72** | **-14.66** | **1.30** |
| **ICE Brent** | 26 Oct 18 | 77.62 | 77.66 | 77.61 | 77.28 | 75.92 | -1.70 |
| | 26 Nov 18 | 60.48 | 60.56 | 60.69 | 61.14 | 61.06 | 0.58 |
| | ***Change*** | **-17.14** | **-17.10** | **-16.92** | **-16.14** | **-14.86** | **2.28** |
| **DME Oman** | 26 Oct 18 | 77.00 | 76.25 | 75.86 | 75.39 | 74.07 | -2.93 |
| | 26 Nov 18 | 60.17 | 59.95 | 59.83 | 59.83 | 59.36 | -0.81 |
| | ***Change*** | **-16.83** | **-16.30** | **-16.03** | **-15.56** | **-14.71** | **2.12** |

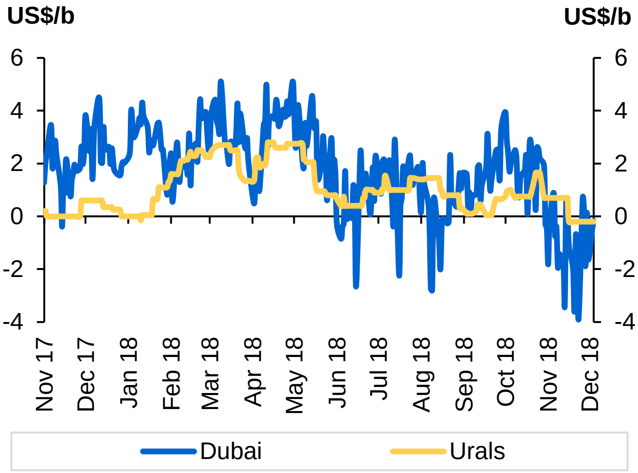
*Note: FM = future month.*
*Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.*

# The light sweet/medium sour crude spread

The **sweet/sour differential** narrowed in main markets, particularly in Europe and in Asia, due to sharp decline in outright sweet crude prices and higher middle distillates margins, while light distillates margins weakened.

In **Asia**, the Tapis premium over Dubai narrowed in November, despite higher crude oil supply from the Middle East and Russia. The Tapis/Dubai spread narrowed thanks to sharp decline in outright sweet crude prices, particularly Brent, compared to medium sour Dubai. Narrower Brent/Dubai spread also gave more support to Dubai related crudes. In addition, medium sour crudes were well supported by strong Middle distillates and fuel oil margins in Asia, while light sweet crudes were under further pressure from lower gasoline and Naphtha margins. The Tapis/Dubai spread narrowed by $2.45 to $2.73/b.

**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 narrowed sharply in November, and even turned to a discount since mid-November. Lower Urals availability in Europe for December loading and strong fuel oil margins in Europe pushed Urals differentials to Dated Brent to their highest level since five years. Higher volume of Urals crude was exported to Asia, and to the USGC. The Brent/Urals spread narrowed by 71¢ to 25¢/b.

In the **USGC**, the LLS premium over medium sour Mars was little changed as light sweet crude prices were supported by robust demand for exports. Furthermore, Mars price has been under pressure amid lower demand as well as higher supply coming from new offshore production of medium sour crude in the USGC. Mars forward price January-Mars slipped into contango mirroring well supplied sour crude market. Arrival of Ural cargo depressed prices further. The LLS/Mars spread narrowed by 14¢ to $3.25/b.

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

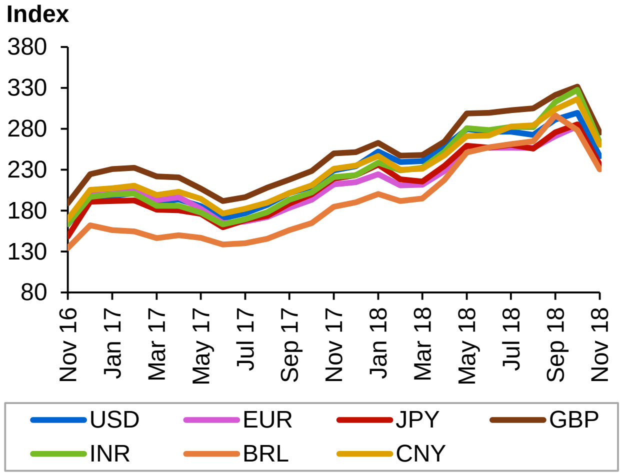
The **USD** generally advanced in November **against major currency counterparts**. While market expectations for interest rate hikes by the US Fed in 2019 have been adjusted down, the expected removal of monetary policy accommodation by the Fed is likely to continue at a faster than that expected by the central banks of other major economies. The dollar advanced against the euro by 1.0% m-o-m, with the loss of economic momentum dimming the expectation of an ECB interest rate increase towards the end of 2019. Meanwhile, the dollar rose by 0.8% against the Swiss franc. The dollar advanced against the pound sterling by 0.9%, moving sideways as in the previous months following Brexit developments. The dollar advanced by 0.5% m-o-m against the Japanese yen, with the Bank of Japan expected to retain its very accommodative monetary policy in view of low inflation.

Meanwhile, **emerging economy currencies** were mixed. On average, the USD advanced slightly against the Chinese yuan in November by 0.1%, with the expectation of some kind of agreement between the US and China at the G-20 meeting providing support for the yuan. Indeed, the USD declined against the yuan by 1.2% at the end of the first week of December, after a delay in tariff increases was agreed upon by both governments. It decreased against the Indian rupee by 2.4% m-o-m, helped by lower energy prices.

The USD advanced against **commodity exporter currencies**, up by 0.8% against the Brazilian real, and by 0.7% m-o-m against the Russian ruble.

The dollar lost 1.8% in a m-o-m average against the Argentinian peso, and by 7.9% against the Turkish lira, on the impact of monetary tightening measures by their central banks and improving trade balances.

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



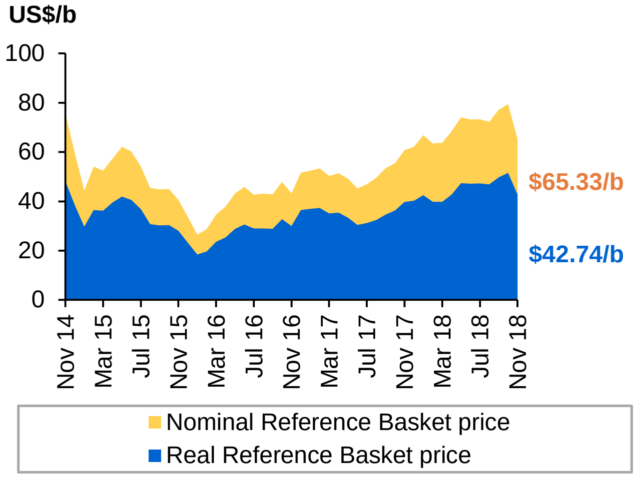

*Sources: IMF and OPEC Secretariat.*

In **nominal terms**, the price of the OPEC Reference Basket (ORB) decreased by $14.06, or 17.7%, from $79.39/b in October to $65.33/b in November.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB decreased to $42.74/b in November from a revised figure of $51.53/b (base June 2001=100) the previous month.

The **USD** increased by 0.7% over the same period against the import-weighted modified Geneva I + USD basket, while inflation eased slightly m-o-m.

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




*Source: OPEC Secretariat.*

# Commodity Markets

*In November, **energy commodity prices** were generally down, with the exception of natural gas in the US, where the mix of colder than average weather and significantly lower than-average inventories translated into a price jump. Elsewhere, prices weakened following a decline in crude oil, and the impact of warmer temperatures in Europe and East Asia, which put pressure on coal and natural gas.*

*In the group of **non-energy commodities**, base metal prices further declined amid a slowing in the expansion of global manufacturing, uncertainties related to trade disputes. In the group of precious metals, gold consolidated its previous month gains amid persistent weakness in global equity markets.*

## Trends in selected commodity markets

The **energy price index** decreased by around 15.4% in November. Y-t-d, energy prices have been on average around 31.5% higher than for the same period last year.

**Table 2 - 1: Commodity prices**

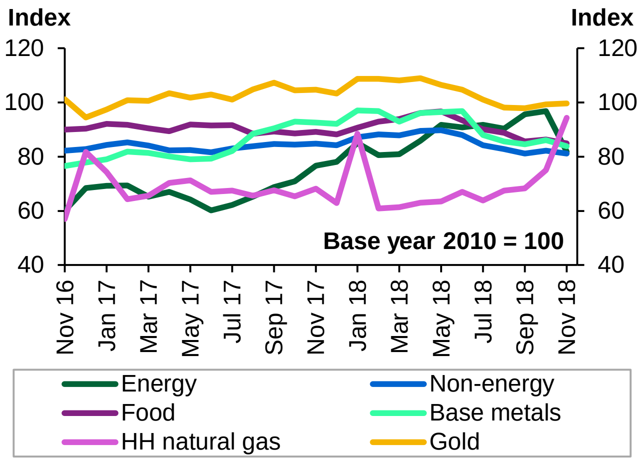
| Commodity | Unit | Monthly averages | | | % Change | Year-to-date | |
|---|---|---|---|---|---|---|---|
| | | Sep 18 | Oct 18 | Nov 18 | Nov 18/Oct 18 | 2017 | 2018 |
| **Energy*** | | **95.6** | **96.9** | **81.9** | **-15.4** | **67.2** | **88.3** |
| Coal, Australia | US$/mt | 114.2 | 108.7 | 100.7 | -7.4 | 87.4 | 107.5 |
| Crude oil, average | US$/b | 75.4 | 76.7 | 62.3 | -18.8 | 52.0 | 69.7 |
| Natural gas, US | US$/mbtu | 3.0 | 3.3 | 4.1 | 25.7 | 3.0 | 3.1 |
| Natural gas, Europe | US$/mbtu | 9.5 | 8.8 | 8.3 | -6.0 | 5.6 | 7.7 |
| **Non-energy*** | | **81.2** | **82.2** | **81.2** | **-1.3** | **83.7** | **85.6** |
| **Base metal*** | | **84.5** | **86.1** | **83.8** | **-2.6** | **84.3** | **91.3** |
| **Precious metals*** | | **91.2** | **92.6** | **92.7** | **0.1** | **97.9** | **97.4** |

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

In November, the **Henry Hub natural gas index** increased on average by 85¢, or 25.7%, to $4.14/mmbtu. Prices jumped at the beginning of the month on the arrival of colder than average temperatures, which further widened the inventory deficit in relation to the five-year average. This also led to a further reduction in the bearish bets of Money Managers, which are down by around 75% since mid-September. According to the US EIA, utilities withdrew 63 bcf to working gas underground storage during the week ending 30 November, slightly higher than the median analyst expectations for a 61 bcf build. The build left total working gas in underground storage at 2,991 bcf, which was 19.5% lower than the previous five-year average. The US Climate Prediction Center (CPC) forecast a switch to milder temperatures in December, which would likely limit stock withdrawals. In its last update, the CPC increased the probability of El Nino occurring in the northern hemisphere to 80%, from 70-75% the previous month.

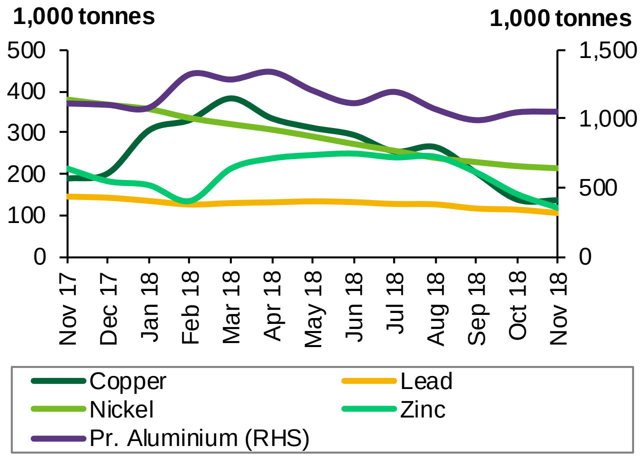
Meanwhile, **natural gas prices in Europe** decreased in November, mainly due to warmer than usual weather. Hub prices declined by 6.0% m-o-m, as warmer-than-average temperatures reduced demand for power generation, while at the same time the price of coal, a direct competitor, also dropped substantially. Natural gas inventories for EU Member States declined to around 81.4% of capacity at the end of November, versus 87.4% at the end of October, though they are still slightly higher than last year end of November level according to Gas Infrastructure Europe. In the following months the recent fall in crude oil prices would likely limit the upside potential for natural gas prices.

**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 $100.70/mt in November, or 7.4% m-o-m. During the last four months prices have declined by 16%, on the back of warmer than average temperatures moderating demand in East Asia. Furthermore, China's government has restricted imports for the last three months, and the most recent trade data shows coal imports fell by 17.0% m-o-m in October, and by 13.0% y-o-y. In the January-November 2018 period, imports were 9.3% higher than the same period last year, due to higher requirements in the first half of the year. Meanwhile, coal output in China has furthered ramp up, increasing by 8.0% y-o-y in October, faster than the 5.2% y-o-y in September. Thermal power generation grew by 3.0% y-o-y in October versus growth of 3.7% y-o-y the previous month, according to the National Bureau of Statistics. During October, the National Climate Centre of China forecasted a warmer-than-average winter, which if it materializes will further weaken the outlook for coal prices.

The **base metal price index** declined by 2.6% in November m-o-m, and its down around 13.4% compared to June. Year-to-date metal prices are around 8.3% higher than the same period last year. In general, the global slowdown in manufacturing activity continues to add pressure to metals. The JPM Global Manufacturing Purchasers Managers' Index was at a two-year low of 52.0 in November. The new export sub-component was slightly lower at 49.8, compared to 49.9 in October, signalling a further contraction. Copper prices declined by 0.4% m-o-m in November, however, the expectation that trade talks at the G-20 meeting between the US and China would prevent further escalation in the ongoing trade disputes, provided support during the month. At the same time inventories at the London Metal Exchange (LME)-designated warehouses declined below 140,000 mt in the second half of the month- after having jumped to 180,000 mt in the first week of November, providing support to prices. According to the latest estimates by the International Copper Study Group the global refined copper balance exhibited a 260,000 tonnes deficit during the first eight month of the year.

In the group of **precious metals**, prices advanced and consolidated previous month gains, supported by weakening sentiment in world equity markets that has resulted in lower medium-term interest rate expectations. Gold prices advanced by 0.4%, and platinum by 2.0%. Meanwhile, silver prices declined by 1.7%. Despite the last two month increases in gold prices, during the month speculators maintained a net short position in the commodity.

# Investment flows into commodities

**Open interest (OI)** decreased on average in November for selected US commodity futures markets, such as crude oil, copper and natural gas, but increased for precious metals. 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, 1,000 contracts**

| | *Open interest* | | *Net length* | | | |
|---|---|---|---|---|---|---|
| | Oct 18 | Nov 18 | Oct 18 | % OI | Nov 18 | % OI |
| **Crude oil** | 2,181 | 2,051 | 252 | 12 | 136 | 7 |
| **Natural gas** | 1,615 | 1,414 | 237 | 15 | 250 | 18 |
| **Precious metals** | 672 | 716 | -98 | -15 | -91 | -13 |
| **Copper** | 242 | 234 | -6 | -2 | 0 | 0 |
| **Total** | **4,711** | **4,415** | **384** | **25** | **254** | **23** |

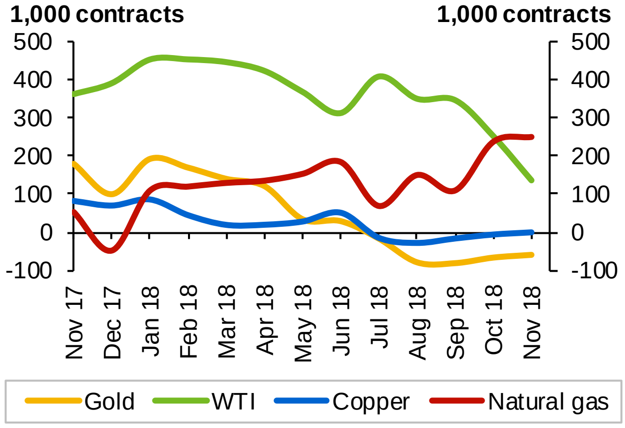
*Note: Data on this table is based on monthly average.*
*Sources: US Commodity Futures Trading Commission and OPEC Secretariat.*

**Henry Hub's natural gas OI** decreased in November by 12.5%, while money managers' average net long positions increased by 5.3% to 250,125 contracts.

**Copper's OI** decreased in November by 3.1% to 234,448 contracts. Money managers decreased their net short positions to only 172 contracts.

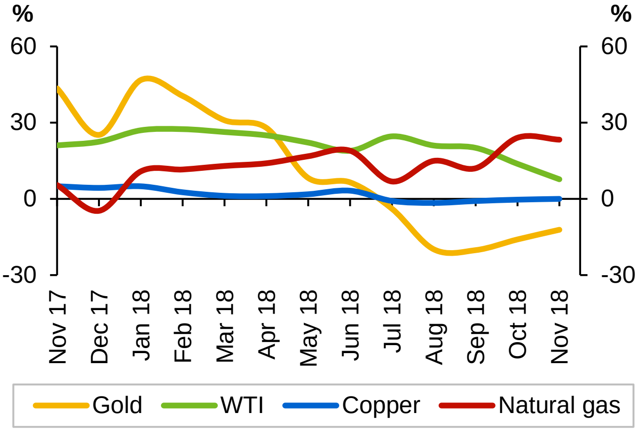
**Precious metals' OI** increased by 6.5%. Money managers decreased their net short position by 7.2% to 90,728 lots.

**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

*The past weeks' economic indicators have confirmed the somewhat slowing trend carrying over into 2019 as anticipated in last month's global economic growth forecast. Hence, the forecast remains unchanged at 3.5% for 2019, following 3.7% in 2018.*

*In the* ***OECD****, the divergence of growth trends has continued. In the US, the significant fiscal stimulus continued supporting strong growth. Following an estimated 2.9% for 2018, the 2019 growth forecast remains at 2.6%. In contrast to this strong momentum in the US, Euro-zone 3Q18 growth has been confirmed at its lowest level in more than five years, keeping growth at 1.9% for 2018 and at 1.7% for 2019. After negative growth again in 3Q18, the economic growth forecast for Japan has been revised down to 1.0% for 2018, followed by a low growth level of 1.1% in 2019. However, further downside risks to the OECD growth of 2.4% in 2018 and 2.0% in 2019 remain amid ongoing monetary tightening by the G4 central banks, continuing issues in the EU – Brexit-related uncertainties and Italy's fiscal issues – and Japan's envisaged sales tax increase, to name the most important ones.*

*In the* ***emerging economies****, both India and China continue to grow at high levels, but some deceleration has been confirmed recently. China's growth forecast remains at 6.5% for 2018 and 6.1% for 2019. India's economic growth seems to be slowing by roughly the same pace and remains at 7.5% for 2018 and at 7.2% for 2019. Growth in Brazil and Russia remains unchanged as well. 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.*

*Underlying challenges continue, causing the risk to world economic growth to be skewed to the downside. The most important issues are ongoing trade tensions, monetary tightening, particularly by the US Fed and mounting challenges in several emerging markets and developing economies. The growth trend in 2H19 remains particularly uncertain as fiscal stimulus in the US is expected to taper off, China's slow-down is forecast to continue, issues in the Euro-zone are expected to remain and India will most likely face 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** | **1.0** | **1.9** | **1.3** | **6.5** | **7.5** | **1.1** | **1.6** |
| Change from previous month | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

# OECD

## OECD Americas

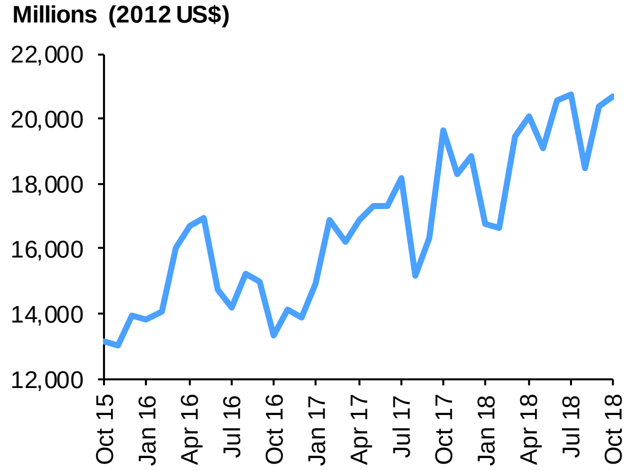
### US

**US economic growth** remains well supported by fiscal stimulus measures. GDP growth in 3Q18 was confirmed 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. Ongoing improvements in the labour market continued. Importantly, earnings growth remained well supported. These rising income levels, in combination with a potentially growing participation rate in the labour market, are forecast to support domestic consumption. However, signals of potentially dampening factors have emerged. The two important sources of wealth for private households, the equity market and house prices, have both shown a weakening trend. With somewhat lower fiscal stimulus effects in 2019 and some monetary tightening to continue, 2019 economic activity is forecast to taper off slightly. 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. At the latest G20 meeting, the US and China agreed on a 90-day suspension of further rising tariffs. Further tariffs, if implemented as announced, may lift inflation in the US, with the probable consequence being the need to raise interest rates further, but this remains to be seen. In connection to budget issues, some important deadlines are coming up that will potentially impact US economic growth. Particularly at the beginning of March, the suspension of the debt limit expires. Related discussions and a potential dead-lock may again highlight federal budgetary constraints at a time when the US Senate and the House of Representatives will have split majorities.

Moreover, the past weeks' rise in US Treasuries may reflect mounting worries about US economic development. The yield on the benchmark 10-year note fell to below 3% at the beginning of December, the lowest level since mid-September. Markets may also have been scaling back their views that the Fed will raise interest rates beyond the four times until the end of 2019 after the Fed chairman said that interest rates were currently just below neutral. On the other hand, the firming certainty that the Fed will raise interest rates by 25 bp in December have led to a rise in short-term interest rates, causing the yield curve to flatten and pushing the spread between 2- and 10-year Treasury yields to slightly more than 18 basis points, the lowest since July 2007, roughly when the US housing crisis began, leading to the global financial crisis. And indeed, the danger of an inversion of the yield curve, when the short-term interest rate exceed the level of long-term rates, is widely taken as an indicator of an impending economic recession.

A rise in output and exports of the oil sector has continued to support US economic development. September's **petroleum product exports** rose by 5.3% y-o-y. In absolute terms, they accounted for \$20.68 billion, almost matching the all-time high from July. The strong momentum of the oil sector is likely to continue to support US GDP growth.

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




*Sources: Census Bureau and Haver Analytics.*

The positive development in the labour market continued in November, 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 also remained at a considerable rate of 3.1% y-o-y for a second month in a row, constituting again the largest increase since 2009. Long-term unemployment fell again to stand at 20.8% in November, after 22.5% in October, while the participation rate remained at 62.9%. **Non-farm payrolls** increased only at 155,000 in November, lower than the slightly downward revised 237,000 in October.

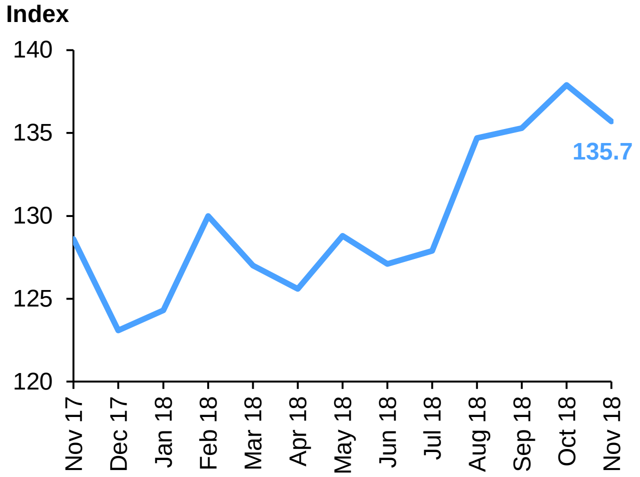
Overall inflation stood at 2.5% in October, compared to 2.3% y-o-y in September, but below the peak level of 2.9% y-o-y in July. The September level was the lowest since February. The important core inflation – excluding volatile items such as food and energy – stood at 2.2% y-o-y in October for the third month in a row, a healthy level and an indication of robust underlying economic development. Additionally, the Fed's favoured inflation index, the personal consumption expenditure price index (PCE index), remained at 2.0% in October, the same as in September, compared to 2.2% in August and 2.3% in July. Considering these not alarmingly high levels, it remains to be seen if inflation may stabilize around these levels, providing less pressure for the Fed to normalize rates. Energy prices may stabilize, and 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 basis.

The very important **housing sector** continues to show signs of exhaustion as exhibited in mixed developments in some of its most important measures amid the dynamic in the interest rate market with the rise in financing costs appearing to have an impact on housing prices. The S&P CoreLogic Case-Shiller Home Price Index Composite 20 for metropolitan areas shows a slowing trend in price increases. The September level increased by 5.1% compared to an August rise of 5.5% y-o-y and an increase in July of 5.9% y-o-y. Furthermore, the yearly change in the house pricing index of the Federal Housing Finance Agency (FHFA) has also continued on a slowing trend with a monthly price rise of 6.0% in September, compared to 6.3% in August and 6.7% in July. Existing home sales in October rose slightly, with an annualized level of 5.22 million entities, compared to 5.15 million in September, however still significantly below this year's peak level of 5.60 million in February. New home sales also fell to a level of 544,000 in October, the lowest level since March 2016.

The general economy's strength is reflected in **consumer sentiment**, according to the index published by the Conference Board. The index remained almost unchanged in November at a high level of 135.7, compared to 137.9 in October and 135.3 in September. Retail sales grew by 4.6% y-o-y in October, compared to 4.2% y-o-y in September, with both numbers calculated on a nominal and seasonally adjusted basis.

**Industrial production** also increased considerably again in October, rising by 4.1% y-o-y, albeit lower than the very strong September level of 5.6% y-o-y.

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

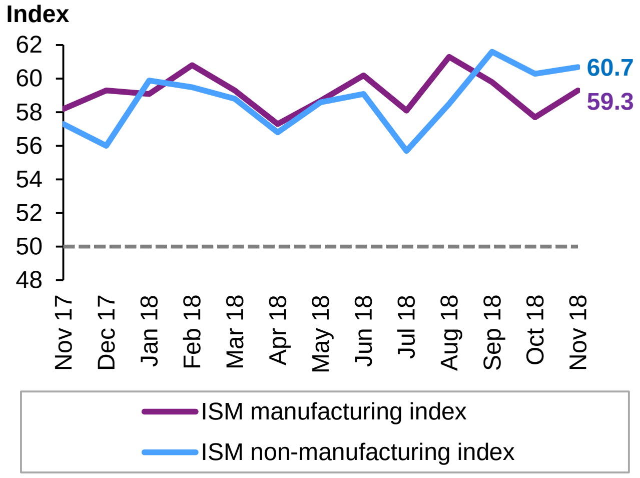



*Sources: The Conference Board and Haver Analytics.*

November's **Purchasing Managers' Index (PMI),** as provided by the Institute of Supply Management (ISM), indicated a continued strong dynamic in the manufacturing and services sector. The manufacturing PMI rose to 59.3 in November, compared to 57.7 in October. The important index for the services sector remained at 60.3, unchanged from the October level.

Backed by the strong 3Q18 growth impetus and the ongoing 4Q18 dynamic, the growth momentum is expected to carry over into 2019 as reflected already in the previous month's forecast. Hence, the 2019 **GDP growth forecast** remains at 2.6%. This is still very much supported by the fiscal stimulus, which 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.*

Trade-related issues remain important, particularly relations between the US with China. So far, and after the agreed-upon truce of 90 days, the impact of the tariffs on both sides is limited. However, this is an area that will need close monitoring. 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

After positive output numbers in the past months have led to the expectation that the central bank could lead to a quicker interest rate increase, it kept interest rates unchanged at its latest December meeting. Some weakening momentum in the economy was acknowledged, while, at the same time, it was highlighted that a neutral rate of around 3% will be necessary to keep inflation in check. This indicates a continuation of the monetary tightening path the central bank has already been engaged with. However, falling crude oil prices may not only lead to a less accentuated development in Canada's inflation, but also to less activity in Canada's economy, given its relatively important oil sector. Hence the slow-down may become even more accentuated after an already lower 3Q18 GDP growth, which stood at 2.0% q-o-q SAAR, compared to 2.9% q-o-q SAAR in 2Q18. Personal consumption turned out to be relatively weak in 3Q18 at 1.2% q-o-q SAAR. Investments even declined by 5.0% q-o-q SAAR.

**Inflation**, another key indicator for the Bank of Canada, held up well to stand at 2.4% y-o-y in October, and increase from the 2.2% y-o-y in September. **Industrial production** continued to slow down but still expanded at a solid level in September, rising by 2.4% y-o-y. **Retail trade** retracted considerably as it rose by only 1.6% y-o-y in September, after 3.6% y-o-y in August. Positive momentum is reflected in the latest **PMI index for manufacturing**, standing at a level of 54.9 in November, after 53.9 in October.

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

# OECD Asia Pacific

## Japan

**Japan's economy** has again shown a declining growth trend in 3Q18 after already experiencing negative GDP growth in 1Q18. This may have also been due to the natural disasters that struck the country in the summer. 3Q18 GDP fell by 1.2% q-o-q SAAR. The flooding in parts of Japan in July and the earthquakes in September may have accentuated the already low growth pattern in the Japanese economy. These temporary effects are expected to be compensated to some extent by a recovery in 4Q18 growth as output numbers and lead indicators have pointed at a strong rebound in the current months. However, on a yearly average, Japan's economy continues to grow at a slow pace of just above 1%. With ongoing very low unemployment and high industrial utilization rates, economic growth is limited by those factors in the short term. Some wage pressure, stemming from the tight labour market, appears to be slowly filtering through in terms of somewhat higher inflation. This is important for the Bank of Japan (BoJ) as it is after a normalization of its monetary policies sometime in the future, and this would require healthy inflation rates. Over the past months, total Inflation has also been supported by developments in the oil market. With the past weeks' declines in oil prices this may now turn. The BoJ remains focused on achieving an inflation rate of around 2%, hence, with ongoing low inflation, it will likely continue its accommodative monetary policy. However, the most recent comments by the head of the central bank indicate an end to the very expansionary monetary stimulus sometime after next year's sales tax increase, which will likely take place in 4Q19.

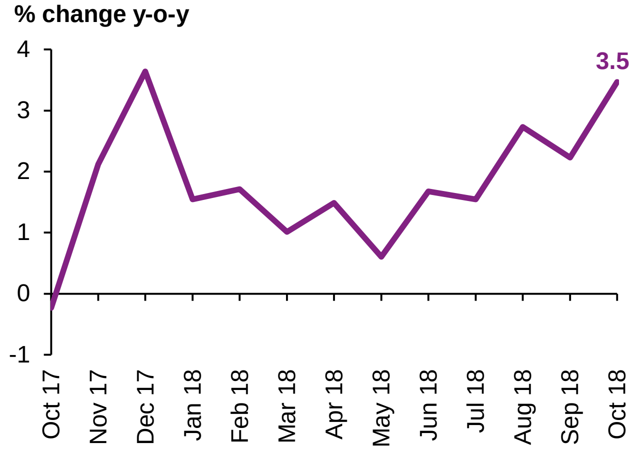
**Inflation** increased somewhat again in October and reached 1.4% y-o-y, the second-highest level this year, after the peak level in February of 1.5% y-o-y. However, last month's support coming from energy prices may not continue. More sustained support over the next months may come again from the tight labour market as rising wages may support inflation. In October, monthly earnings rose by a respectable level of 1.8% y-o-y, compared to 0.8% y-o-y in September and 1.2% y-o-y in August. However, the wage level-driven core inflation, which excludes food and energy, stood at only 0.4% y-o-y in October, only a minor rise from 0.3% y-o-y in September and no change when compared to August. Given the labour market tightness, the unemployment rate remained at an extremely low level of 2.4%, a slight uptick from September, when it stood at 2.4%.

Along with other economic indicators, **export** growth recovered as well after it had shown a slowing trend in the past months. It rose by 8.2% y-o-y, non-seasonally adjusted in October, after having declined by 1.3% y-o-y in September. The same rebounding trend was seen for **industrial production**, which, after declining by 2.5% y-o-y in September, increased by 4.2% y-o-y in October. However, manufacturing orders indicated an ongoing slowing momentum, dropping by 5.4% y-o-y in September, after growth of 4.9% y-o-y in August.

**Domestic retail demand** mirrored the recovering trend in the Japanese economy, expanding by 3.5% y-o-y in October, after growth of 2.2% in September. This marked the highest growth level in 2018. After much lower levels in the past months, it remains to be seen if this is a temporary trend or if there is a substantial recovery going on in local demand developments. Positively, with further real income growth and appreciation likely, the development may lift growth levels.

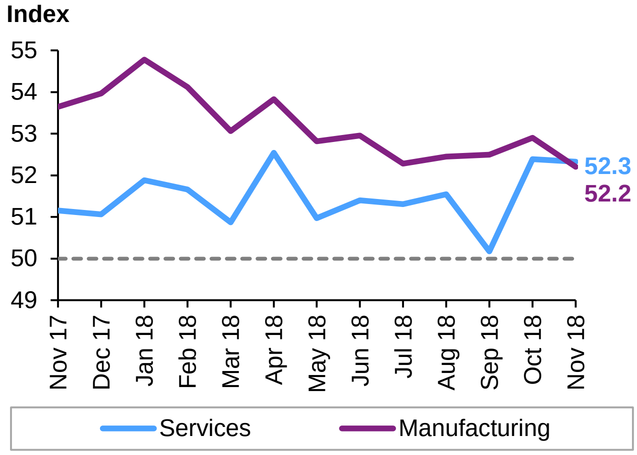
The latest October **PMI numbers** for both the manufacturing and the services sector are holding up well, but indicate some slight deceleration after improvements in the past month. The manufacturing PMI fell to 52.2 in November, compared to 52.9 in October. The services sector PMI – the sector that constitutes around two-thirds of the Japanese economy – moved down slightly as well to stand at 52.3 in November, after 52.4 in October.

**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 again considerable slow-down in 3Q18 GDP growth has led to a downward revision of the 2018 **GDP growth forecast**, now standing at 1.0%, compared to 1.1% in the past month, as a solid recovery is forecast in 4Q18. 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 2019. However, given this year's more accentuated slowing development, there is still some room to the downside also for underlying growth in 2019. 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.

## South Korea

The **South Korean economy's** is facing some moderate signs of a slow-down in line with its most important trading partners and its peer-Asian economies. 3Q18 GDP growth stood at its lowest level this year, at 2.3% q-o-q SAAR, while some recovery from the low growth levels is expected to take hold in 4Q18. Exports point at such a development, along with other indicators, as they grew by 22.8% y-o-y in October and 6.9% y-o-y in November. Industrial production at least recovered to 0.9% y-o-y in October, comparing to a flat growth level in September. On the negative side, the latest **PMI number** for the manufacturing sector points to another declining trend, standing at 48.6 in November, after 51.0 in October and 51.3 in September. Moreover, the prospect of increased trade protectionism could potentially pose some economic headwinds.

The **GDP growth** forecast for 2018 remains at 2.6%, with some risk skewed to the downside. Growth in 2019 indicates some further annual slowdown in line with developments in the OECD economies and China − its most important trading partners – and remains unchanged at 2.4%.

# OECD Europe

## Euro-zone

The **Euro-zone's growth** slowdown in 3Q18 was confirmed in the final GDP number release. Growth in the 3Q18 stood at only 0.2% q-o-q at a seasonally adjusted rate. While it is expected that growth will pick up again in 4Q18, any momentum is forecast to slow further 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. In fact, Italy may even have fallen into negative growth territory in 2H18 with domestic demand slowing. Additionally, some weak areas in the banking sector will require constant monitoring, particularly in Italy, which in combination with the weakening sovereign is increasingly exposed.

In addition to Italy's budget issues, political developments are increasingly taking centre stage in the Euro-zone. The recent protests in France will likely impact the short-term economic situation and it appears likely to lead to higher spending on social welfare. This will evidently have a negative impact on the budget situation in France. Germany's ruling party has also elected a new leader, which is an indication that the Chancellorship of Angela Merkel, currently the longest European serving leader, is coming to an end. This may also cause rising uncertainties in terms of European policies.

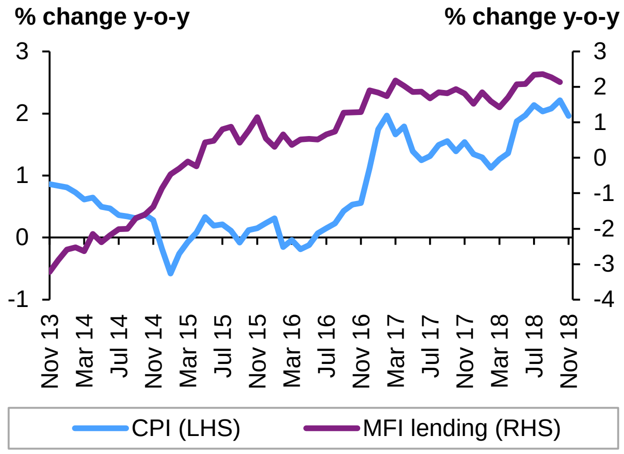
Adding to these are the latest developments concerning Brexit, with the political challenges for the current UK government growing. Thus far the assumption of the financial markets is that the remaining hurdles will be resolved before the UK's exit proposed date in March 2019, or that at least an agreement on a transition will be found. However, the latest postponement of a UK parliament vote on the negotiated treaty – given its likely defeat by members of parliament – means there is now more likelihood of negative consequences for the UK and the Euro-zone, particularly if no final deal on Brexit is agreed on soon. The consequences could clearly be even worse if the UK exits with no deal.

In the **labour market**, the unemployment rate in September remained at 8.1% for the fourth consecutive month, compared to a level of 8.6% at the beginning of the year. Nonetheless, the level of unemployment across the region differs widely among countries, with Germany having an unemployment rate of only 3.3% in October, the lowest on record, while France is at 8.9%, Spain at 14.8% and Greece at 18.6%. Positively, almost all the region's economies exhibit an improving trend and there is still some upside in the peripheral economies. However, it is Italy that is again a cause for concern, being the only major economy – the Euro-zone's third largest – that is experiencing a worsening trend. It has an unemployment rate of 10.6% in October, compared to 10.3% in September.

In line with improving labour market indicators, **retail trade** has continued to perform well so far this year. It picked up again in October, rising by 3.6% y-o-y, compared to 2.1% y-o-y in September. **Industrial production** remained at the lower end as it grew by only 0.7% y-o-y in September, compared to 0.9% y-o-y in August. Manufacturing activity again performed better than average, rising by 1.0% y-o-y, after a level of 0.9% in July. Sector-wise, construction was again a big support, growing by 4.1% y-o-y. 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 only 1.2% y-o-y in September, compared to 2.4% y-o-y in August and 2.1% y-o-y in July.

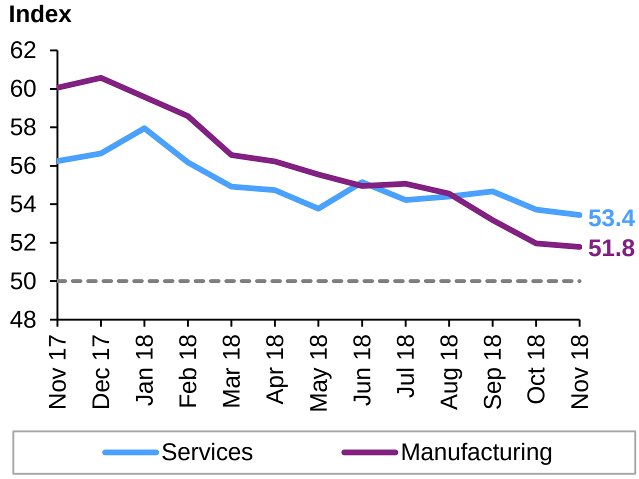
**Inflation** retracted again a little, which probably provides some breathing space for the ECB in its effort to normalise monetary policies. Total inflation stood at 2.0% y-o-y in November, holding up well, albeit a touch below the 2.2% y-o-y in October. Inflation in the 1Q18 stood at 1.3% y-o-y, before moving up to 1.7% y-o-y in 2Q18 and then hitting 2.1% y-o-y in 3Q18. While this dynamic was largely due to rising energy prices, rising wage and income growth now also appear to have kicked in. Nevertheless, it remains to be seen, given the deceleration in the global economy and the recent drop in energy prices, whether this is a sustainable trend. Core inflation – the CPI, excluding energy and food – fell by 0.1 percentage points to stand at 1.0% in November. It has been almost unchanged since January.

**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.*

Developments in lending activity – as a motor for investments – remain an important element to monitor. Although some areas of the Euro-zone's banking sector remain weak, the growth dynamic of the liquidity line has shown stable growth in the past months. The latest growth number now from October slowed slightly, standing at 2.1% y-o-y, compared to 2.3% y-o-y in September. With **lending activity and inflation** decelerating, it remains to be seen how growth momentum will be impacted by these developments and if these developments are only temporary. This will evidently be a major indicator for the ECB in terms of its envisaged monetary tightening path.

The Euro-zone's latest November **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 51.8, compared to 52.0 in October and 53.2 in September. The important PMI for the services sector, which constitutes the largest sector in the Euro-zone, retracted to 53.5, compared to 53.7 in October and 54.7 in September. The current level is now the lowest so far in 2018.

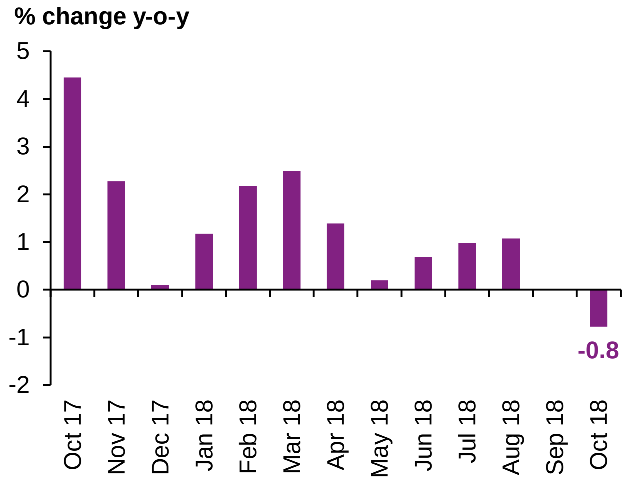
Given the confirmation of low GDP growth in 3Q18 and the expectation of a continuation of the decelerating trend, factors that were already taken into account in the previous month, the **GDP growth** forecast remains unchanged. GDP growth in 2018 is forecast at 1.9%, while GDP growth for 2019 remains at 1.7% Political uncertainties, the Brexit process, weakness in the banking sector, as well as monetary policies, remain important factors to monitor.

## UK

The latest Brexit developments have raised further uncertainties about the process. On December 10, the UK Prime Minister delayed a vote in parliament, in anticipation of a large opposition to the deal agreed with the EU. The Prime Minister is now looking to reopen negotiations with Brussels and EU Member States, although the EU has remained steadfast in its position that this cannot happen. Thus, it is unlikely that the EU will change the content of the deal. It means that there is now greater uncertainty looming over Brexit with only slightly more than three months to go until the UK is scheduled to formally exit the EU. According to the Bank of England, a disorderly break-up from the EU could have widely-felt and severe consequences. UK GDP could fall as much as 10.5% over a five-year period under the worst outcome of Brexit, compared with pre-referendum levels, and house prices could fall up to 30%.

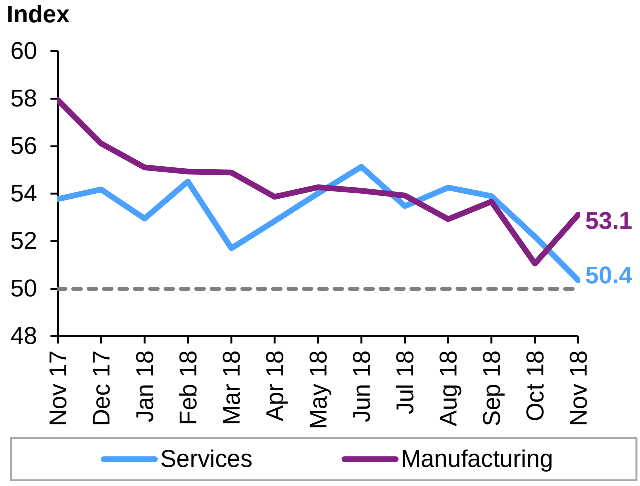
In the meantime, the latest indicators point to a continued deceleration in the UK's economy, although this is counterbalanced to some extent by exports. **Retail trade** in value terms continued to grow considerably, with a growth level of 4.0% y-o-y in October, albeit below the 5.2% in September. A clear decelerating trend has become apparent in recent months, as this figure compares to 5.6% y-o-y in August and 6.0% y-o-y in July. On the flip side, the weak pound sterling seems to have supported growth in **exports**, which rose by 4.7% y-o-y in October, up from 1.1% y-o-y in September. The latest available data confirms the slowing trend in **industrial production,** with a decline of 0.8% y-o-y in October. Inflation remained high, standing at 2.4% y-o-y for the second consecutive month, compared to 2.7% y-o-y in August and 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 November **PMI** lead indicators point to a mixed picture. While manufacturing may still benefit from the weak pound sterling, the services sector is clearly slowing. The PMI for manufacturing rose to 53.1, higher than the 51.1 in October. The very important services sector, which constitutes the majority of the UK's economy, retracted considerably to a level of 50.3. This compared to 52.2 in October, 53.9 in September and 54.3 in August, and is viewed as a worrying trend.

As some rebound is forecast to take place in 4Q18, the **2018 GDP growth** forecast remains at 1.3%, unchanged from the previous month. Some improvements are forecast to take place in the coming months, however, this now largely depends on near-term developments on Brexit. While the GDP growth forecast for **2019** remains unchanged, standing at 1.4%, the risk is now clearly skewed to the downside.

# 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 | 55.9 | 47.3 | -3.6 | -4.1 | 18.8 | 21.5 |

*Note: * 2018 and 2019 = Forecast.*

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

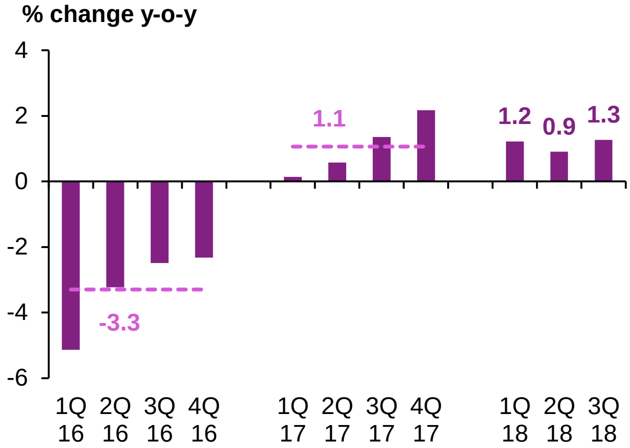
### Brazil

**GDP** grew by 1.3% y-o-y in 3Q18, up from 0.9% in the previous quarter. The increase in **private consumption** decelerated from 1.8% y-o-y in 2Q18 to 1.4% in 3Q18. Government consumption, on the other hand, increased by 0.3% y-o-y in 3Q18, after a 0.3% contraction in the previous quarter.

**GFCF** witnessed a notable improvement in 3Q18, growing by 7.8% y-o-y, its highest since 2Q13. **Exports** rose by 2.6% y-o-y in 3Q18, after declining by 2.9% in 2Q18, whereas **imports** jumped by 13.5% y-o-y in 3Q18, up from 6.5% in 2Q18.

The **trade surplus** rose in November 2018 to around $4.1 billion, from $3.5 billion in November 2017 as exports increased by 25.4% y-o-y to $20.9 billion and imports grew by 28.3% y-o-y to $16.9 billion. Exports were supported by soybeans, crude oil, iron ore, corn, and manufactured products. Exports to China grew by 31%, to the EU by 20.1% and to the US by 6.9%. Imports rose primarily due to higher imports of capital goods and intermediate goods. Imports from China rose by 8.6%, the EU by 3.0%, the US by 29.2%, and Argentina by 12.0%.

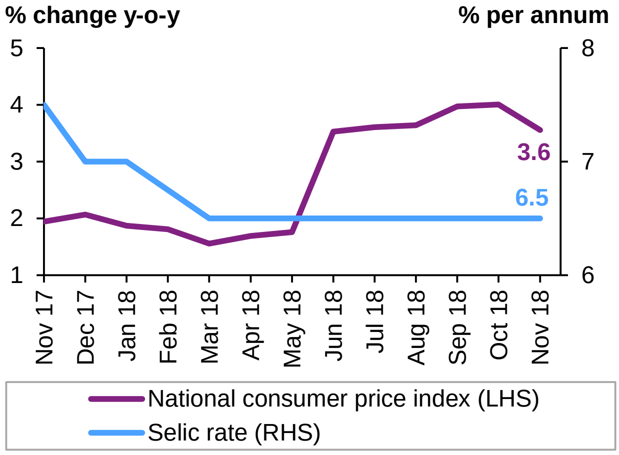
**Graph 3 - 10: Brazil's GDP growth**




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

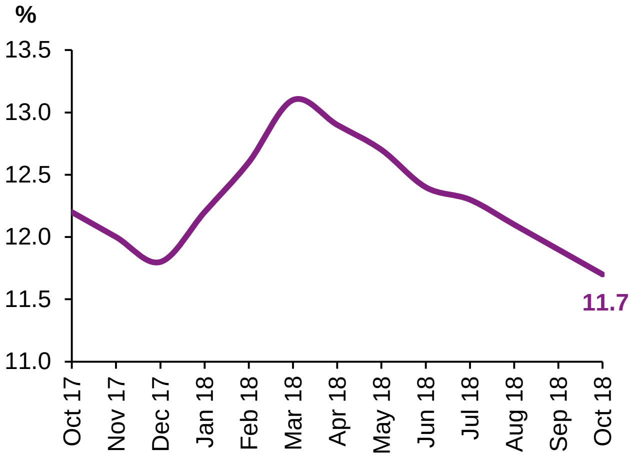
In November, the **real** was largely stable, depreciating by only 0.7% m-o-m, following October's appreciation of 8.7%. The accumulated depreciation in the real since the beginning of 2018 amounted to 15%. **Inflation** was steady in October at 4% y-o-y, unchanged from September's rate of increase. Six months ago inflation stood at only 1.8%.The central bank also held its benchmark **interest rate** unchanged at 6.50% in November for the ninth month in a row. The unemployment rate fell to 11.7% in October, from 11.9% in September and 12.1% in August. **Consumer confidence index** improved in November, posting 95.0, up from 87.7 in October.

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




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

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

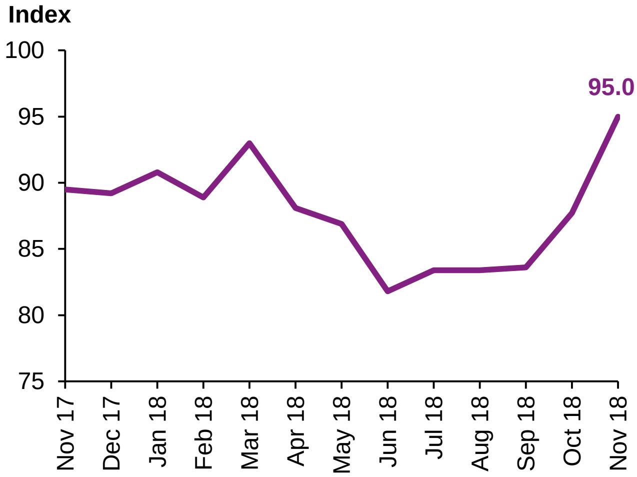



*Sources: Instituto Brasileiro de Geografia e Estatística and Trading Economics.*

The IHS Markit Brazil Manufacturing PMI reading in November showed improvement in business conditions in the **manufacturing sector**. The headline index rose to 52.7 in November, up from 51.1 in October, highlighting the strongest improvement in the health of the sector in eight months. Total new orders increased at the quickest pace since April amid reports of stronger domestic and international demand. Furthermore, growth was seen in each of the three monitored sub-sectors and led by consumer goods. New export orders displayed a renewed increase in November, after decreases were seen in September and October. Companies scaled up production and hired additional workers, to the greatest extent since March. At the same time, quantities of purchases increased, following contractions in each of the previous three months. Surveyed firms suggested that the upturn reflect inventory-replenishment initiatives and forecasts of sales growth.

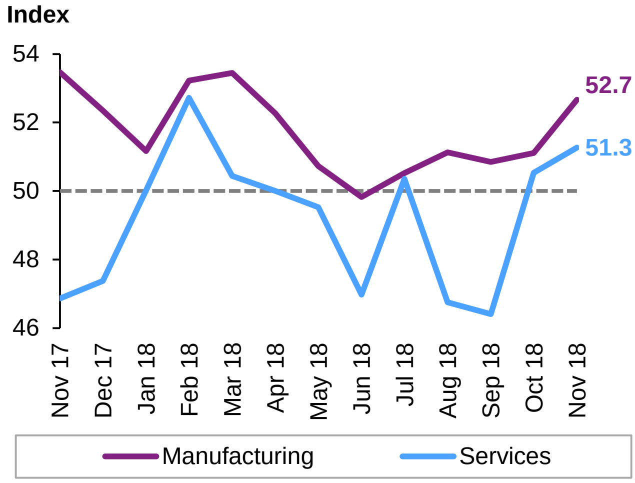
Brazil's **service sector** rebounded in November, with firms experiencing the second-strongest upturn in new business in close to six years. As a result, output growth gathered momentum. Rising from 50.5 in October to 51.3 in November, the seasonally adjusted IHS Markit Brazil Services Business Activity Index was at a nine-month high. New business growth picked up in November, with surveyed firms highlighting post-election optimism, new client wins and marketing initiatives as key factors boosting demand. The upturn was the second-fastest in almost six years and widespread across all five monitored categories for the first time in close to four years.

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




*Sources: Fundação Getúlio Vargas and Haver Analytics.*

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




*Sources: IHS Markit and Haver Analytics.*

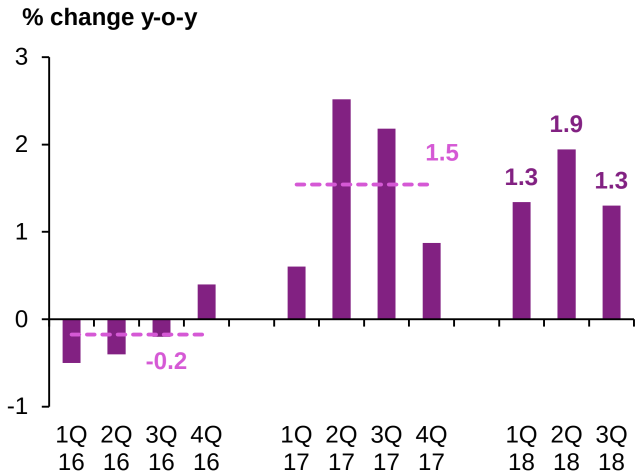
The slightly faster pace of GDP growth in 3Q18 together with improvements in trade balance and in the manufacturing sector, in addition to currency and inflation stabilization, are the main positive components of the economy of Brazil. Challenges to exports to Argentina have continued since May and intensified further in October, when exports dropped by 37.4% y-o-y. There is no change this month to Brazil's GDP. GDP is forecast to grow by 1.1% y-o-y in 2018 and 1.8% in 2019.

## Russia

**GDP** registered growth of 1.3% y-o-y in 3Q18, from 1.9% in the previous quarter. Retail trade growth slowed to 2.6% in 3Q18, from 2.9% in the previous period. In addition, industrial production increased by 2.9%, also slower than a 3.2% advance recorded in the previous quarter due to a slowdown in manufacturing which grew by 2.2% versus 4.3%.

Utilities continued to grow at the same pace of 0.5% while acceleration was seen in both mining and water supply. Mining increased by 4.9% in 3Q18, from 2.2% in 2Q18. Water supply increased by 4.1% in 3Q18, after contracting by 1.9% in 2Q18. On the other hand, agriculture contracted by 6.1% in 3Q18 versus 1.9% in 2Q18 and construction shrank by 0.4% from 0.9% growth in 2Q18.

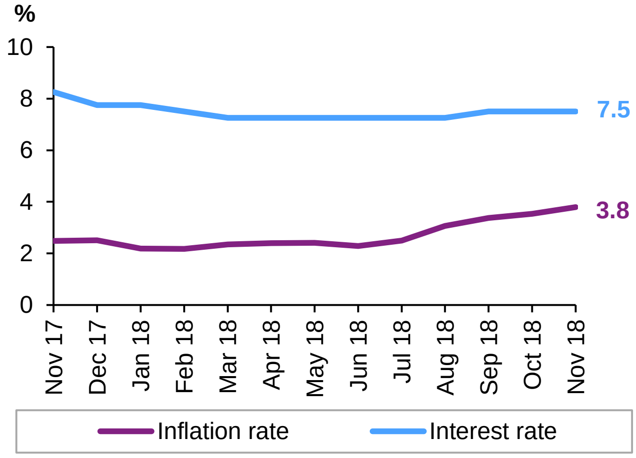
**Graph 3 - 15: Russia's GDP growth**




*Sources: Federal State Statistics Service and Haver Analytics.*

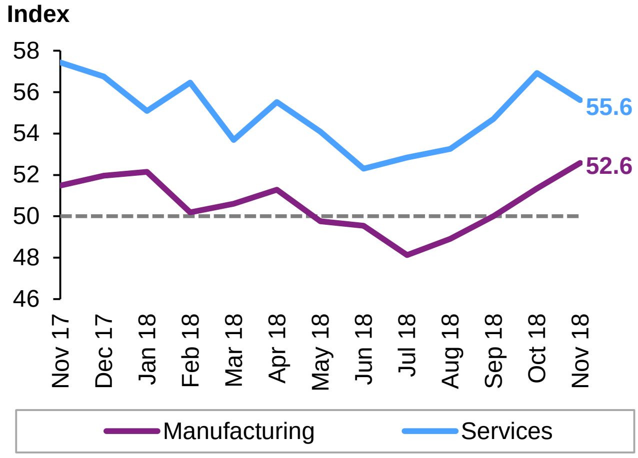
The **ruble** was largely stable in November, depreciating by only 0.7% m-o-m, after appreciating by 2.6% in October. On a y-o-y comparison, the ruble was 13.3% lower in November 2018 from its level a year earlier. Consumer Price Inflation in October hit 3.5% y-o-y, up from 3.4% a month earlier. Inflation has not reached this level since mid-2017. In August, inflation surpassed 3% y-o-y for the first time in 12 months. The central bank left its benchmark **one-week repo rate** unchanged in October and November at 7.50%, after increasing it by 25 basis points in September, which was 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.

**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**

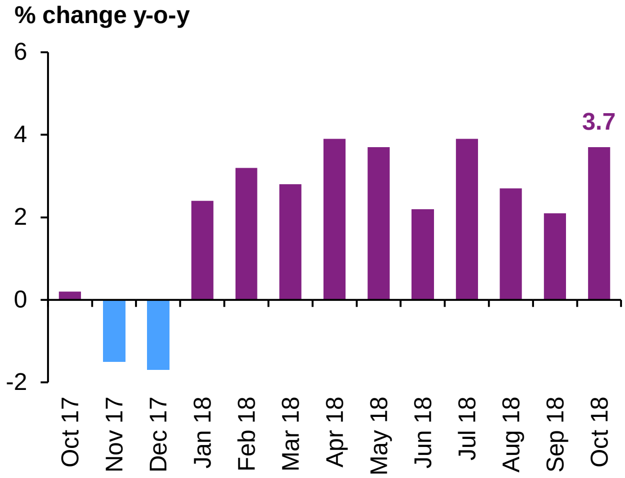



*Sources: IHS Markit and Haver Analytics.*

Business conditions in the **manufacturing sector** improved for the second month in a row in November, according to IHS Markit Russia Manufacturing PMI. The index rose to highest reading since July 2017 at 52.6 in November, up from 51.3 in October. The overall expansion was driven by faster upturns in output and new business, and the strongest increase in employment since January 2017. Foreign client demand also picked up, with new export orders rising solidly. Encouragingly, firms registered a robust degree of confidence in future output. Although price pressures remained marked, the rate of input cost inflation was well below those seen in the middle of the year, with some firms partly passing on higher costs to clients. Russian manufacturers reported a faster rise in output during November, with the rate of expansion reaching a ten-month high. **Industrial production** grew by 3.7% y-o-y in October, from 2.1% in September and 2.7% y-o-y in August.

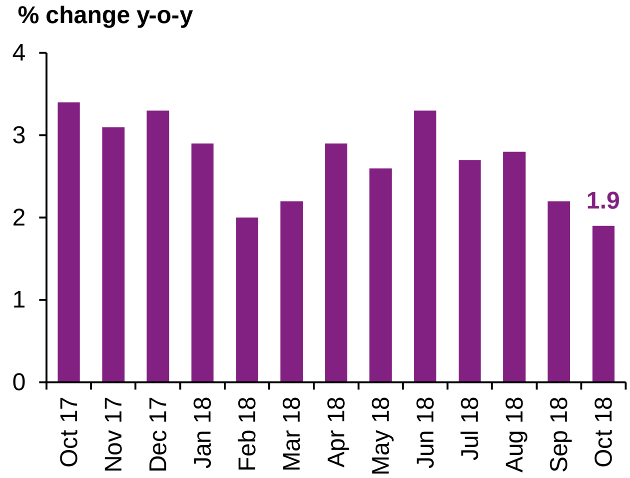
November data indicated that business activity upturn remains sharp in Russia's **services sector**. The IHS Markit Russia Services Business Activity Index posted 55.6 in November, down from 56.9 in October. The latest expansion was sharp overall and the second-fastest since February. October's reading of the index was an 11-month high. As well as an increase in client demand, surveyed firms attributed output growth to a quicker rise in new business and the launch of new products. New business received by Russian service providers grew at the second-strongest rate in a year in November.  Increased client demand was broad-based in November, with exporters also registering a faster rise in new business from abroad. Growth picked up to a four-month high and was solid overall. For the nineteenth month in a row, retail sales continued their increasing streak in October. The rate of increase was 1.9% y-o-y, from 2.2% in September.

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




*Sources: Federal State Statistics Service and Haver Analytics.*

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



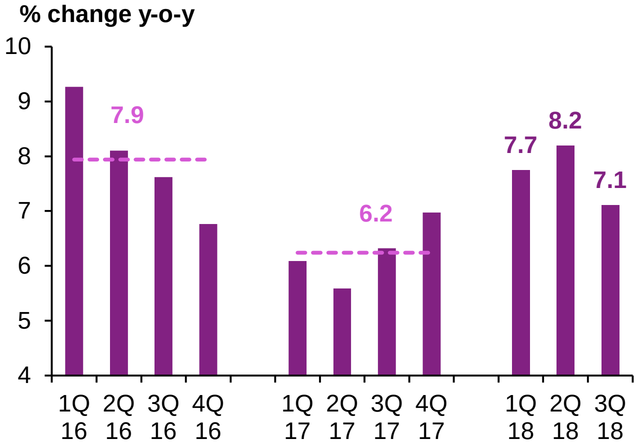

*Sources: Federal State Statistics Service and Haver Analytics.*

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

## India

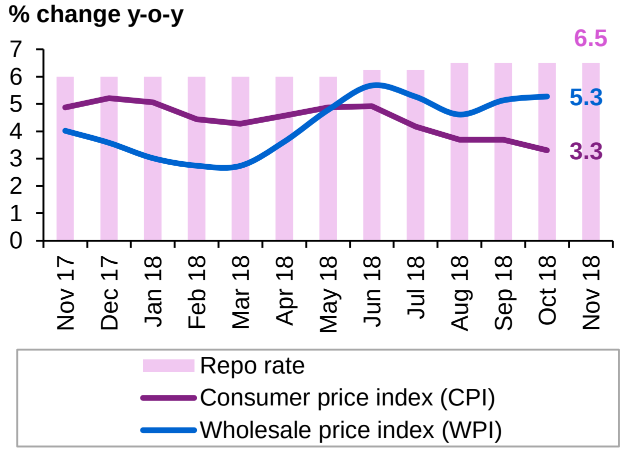
**India** GDP growth sharply slowed to 7.1% y-o-y in 3Q18, a sharp decrease from 8.2% y-o-y in 2Q18. DGPA growth was impacted by slower consumer spending and dampened by net exports. It is the lowest growth rate in three quarters, mainly due to a slowdown in consumer spending amid high commodity prices and a weaker rupee. Also, inventories, financial services, manufacturing and the farm sector rose less than 2Q18. Going forward, the economy should benefit from lower oil and commodity prices to some degree but it seems domestic demand will remain under pressure from financial sector issues, constraining overall growth.

**Graph 3 - 20: India's GDP growth**




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

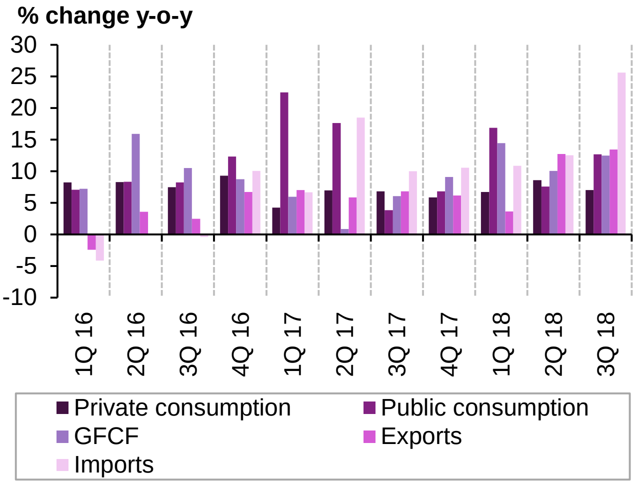
**Graph 3 - 21: Repo rate and inflation in India**




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

On the **demand side**, after peaking at 8.6% y-o-y in the June quarter, India's real consumer spending growth slowed sharply to 7.0% y-o-y during 3Q18, thus weakening momentum in domestic demand. The slowdown in spending growth was evident among both urban and rural households, as a sharp rise in fuel costs and muted employment figures weighed on household incomes and sentiment. In the 3Q18 there was a strong boost in public consumption, which grew by 12.7% y-o-y in real terms, up from 7.6% y-o-y in the June quarter. Much of this spending was channelled into infrastructure development projects such as road construction and rural housing schemes. Strong public investment supported further expansion of India's still-fragile capital expenditure cycle; real fixed investment growth registered at 12.5% y-o-y, marking the third consecutive quarter of double-digit growth.

**Graph 3 - 22: India's GDP growth by demand side**

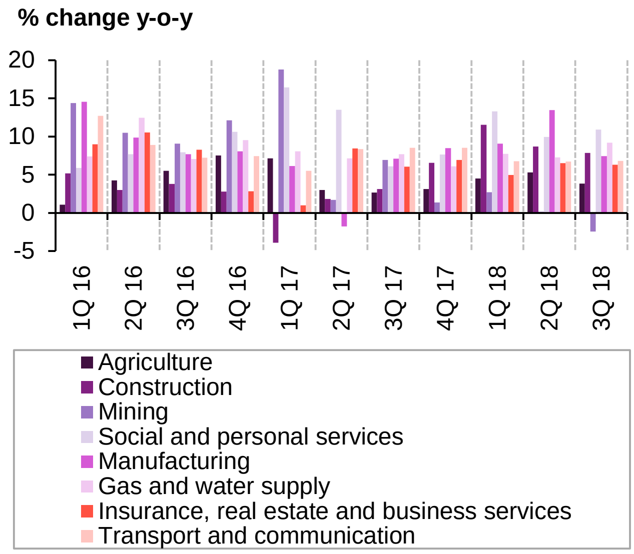



*Sources: Central Statistics Office and Haver Analytics.*

Meanwhile, imports of capital and infrastructure goods added to the effects of rapidly increasing global oil prices, leading to a sharp deterioration in the net export position during the September quarter that also weighed on overall growth. Real imports growth more than doubled from the June quarter to 25.6% y-o-y, significantly outpacing the 13.4% y-o-y growth in real exports.

On the **supply side** the economy grew at 6.9% in the September quarter, moderating from 8.0% y-o-y in the 3Q18. The agricultural sector grew at 3.8% y-o-y, down from 5.3% y-o-y in the June quarter. The slowdown in industrial growth was led by contraction in the mining-sector and a weaker expansion in manufacturing and construction. Manufacturing-sector growth, although still solid at 7.4% y-o-y, slowed sharply from its double-digit expansion in the previous quarter and recorded its weakest rate of expansion in a year, reflecting deterioration in domestic demand, rising input costs, and tighter credit conditions. Banking credit to industry grew at a meagre 1.5% y-o-y in 3Q18.Construction growth also moderated to a three-quarter low of 7.8% y-o-y, as banks exercised particular caution on lending to debt-laden real estate and infrastructure companies. Service-sector growth in the 3Q18 had already reflected some slowdown in financial, insurance, and real estate services growth but received strong support from an expansion in the public administration and defence sectors, mirroring the strength in government spending. In real terms, the services sector grew by 10.9%y-o-y, up from 9.9% y-o-y in the 2Q18.

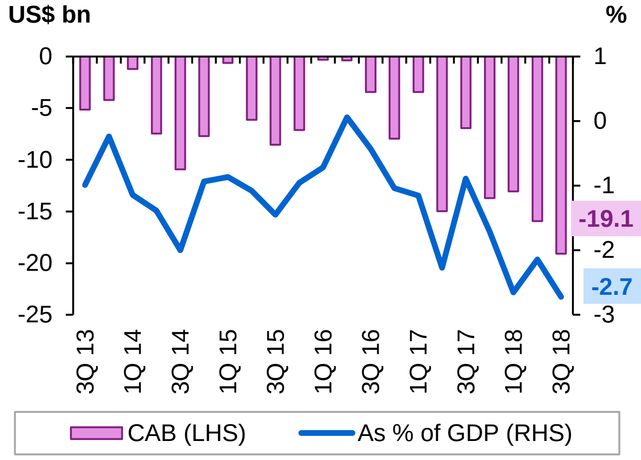
**Graph 3 - 23: India's GDP growth by supply side**




*Sources: Central Statistics Office and Haver Analytics.*

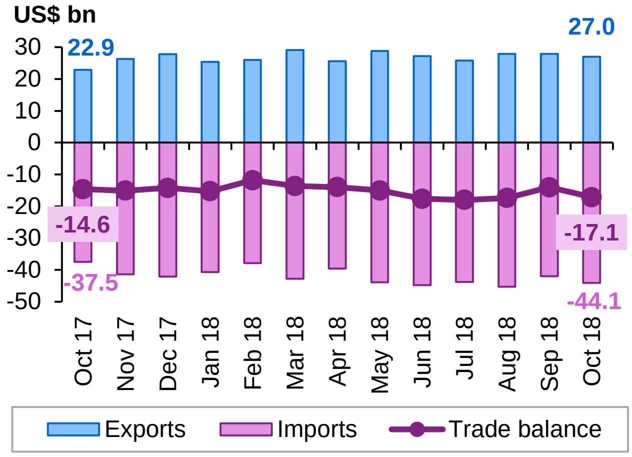
India's **CPI inflation** fell to 3.31% in October of 2018 from a downwardly revised 3.8% in September. It is the lowest inflation rate since September of 2017, mainly due to a drop in the cost of food. India's **wholesale price index (WPI)** rose by 5.28 % y-o-y in October of 2018, after a 5.1% gain in the prior month. It is the highest WTI inflation since June, as costs advanced faster for manufactured products and fuel. In terms of inflationary pressures easing, the balance of fundamentals has shifted towards a prolonged pause from the RBI, and we now look for only a 25 bp rate hike next year, to 6.75%.

**Graph 3 - 24: India's current account balance**




*Sources: Reserve Bank of India and Haver Analytics.*

**Graph 3 - 25: India's trade balance**

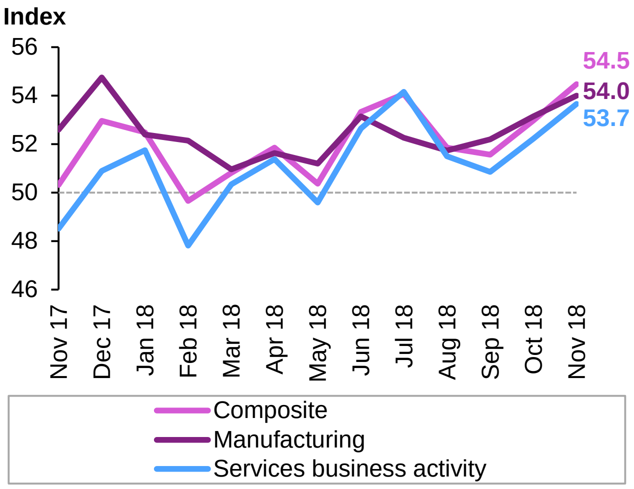



*Sources: Ministry of Commerce and Industry and Haver Analytics.*

India's **trade deficit widened** to $17.13 billion in October of 2018 from $14.6 billion y-o-y. **Exports** went up 17.9% y-o-y to $26.98 billion in October of 2018. Sales rose for petroleum products (49.4%); chemicals (34%); drugs and pharmaceuticals (12.8%); engineering goods (8.9%); and gems and jewellery (5.5%). Imports to India increased 17.6% y-o-y to $44.1 billion in October of 2018, boosted by purchases of petroleum and crude (52.6%); electronic goods (31.9%); and chemicals (26.6%).

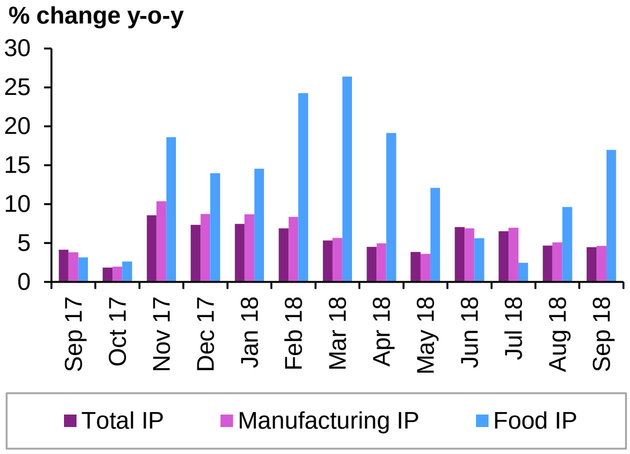
The Nikkei India **Manufacturing PMI** rose unexpectedly to an 11-month high of 54.0 in November 2018 from 53.1 in October and above market forecasts of 52.6. Sales and production advanced at the second-fastest rate in over two years and new export order growth quickened to the fastest in just under four years as producers reportedly received bulk orders from clients in key export destinations. Meanwhile, employment growth slowed slightly, but was nonetheless among the fastest seen in six years. On the price front, input cost inflation eased to a seven-month low. Looking ahead, sentiment improved from October's 20-month low supported in part by improved advertising campaigns.

**Graph 3 - 26: India's PMI**




*Sources: Nikkei, IHS Markit and Haver Analytics.*

**Graph 3 - 27: India's industrial production (IP) breakdown**




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

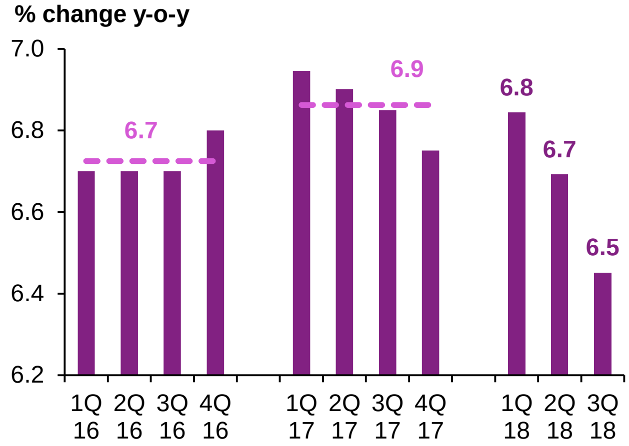
The Nikkei India **Services PMI** increased to 53.9 in November of 2018 from 52.2 in the previous month and easily beating market expectations of 52.5. The reading pointed to the strongest expansion in the service sector since July, as new business rose for the nine consecutive month, at the fastest pace in over two years. Meanwhile, the rate of job creation eased, but was still in line with the long-running average. On the price front, input price inflation slowed to a seven-month low while output cost inflation accelerated as companies benefited from a healthier demand environment.

We kept on change **India's GDP growth** for 2018 at 7.6% and 7.2% for 2019.

## China

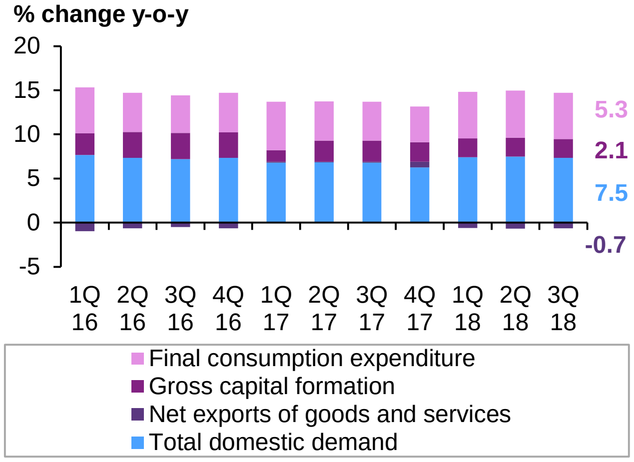
The surprisingly constructive G20 meeting may have brought a truce to the US-China trade tension, with positive comments from both sides. Higher tariffs have been put on hold for three months while negotiations take place on China's policies. According to the US side, China has also agreed to buy a "very substantial" amount of agricultural, energy and industrial goods. Despite this possible truce, the **China's GDP growth** rate is slowing down as a result of the years-long national deleveraging campaign and ongoing US-China trade tensions. To stimulate domestic demand, the Chinese government has shifted its policy to the growth-support side and temporarily eased on its deleveraging policies. The central bank has cut the required reserve ratio four times this year to improve liquidity conditions despite the depreciation pressure on the Chinese yuan. In addition, it has also stepped up efforts to help private companies raise funds. As the downward risks to the Chinese economy still remain significant, China's monetary policy is likely to maintain an easing bias in the near term. The central bank is expected to further cut the required reserve ratio and roll out more measures to ease the financing constraints of the private sector.

**Graph 3 - 28: China's GDP growth**




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

**Graph 3 - 29: China's GDP breakdown**



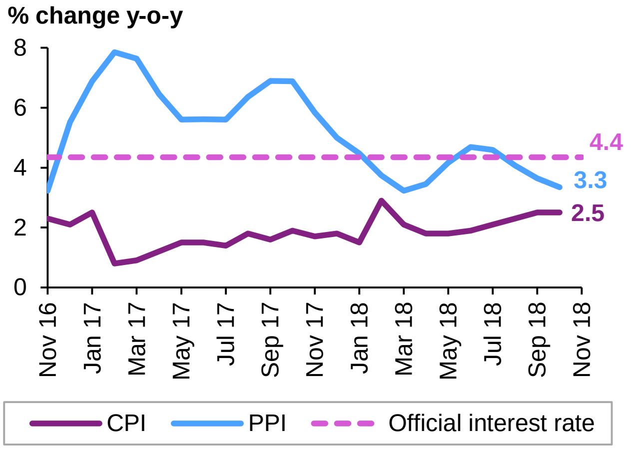

*Sources: China National Bureau of Statistics and Haver Analytics.*

China's government is considering various incentives for supporting the economy in 2019. A tax incentive could help to ease the cost burden of enterprises and increase disposable income for households, which in turn may motivate investment and private consumption. Tax cuts amounting to CNY1 trillion ($146.15 billion) are planned for 2019 following this year's estimated CNY1.3 trillion in tax cuts. The new round of tax cuts will be focused on value-added tax (VAT), corporate income tax, individual income tax, and social insurance payments. Tax reductions and exemptions for small firms and technical start-ups are also expected to be expanded.

China's **CPI** inflation stood at 2.5% y-o-y in October 2018, unchanged from the previous month's seven-month high and in line with market expectations. A slowdown in prices of food was offset by a faster rise in the cost of non-food products.

China's **producer price index (PPI)** increased by 3.3% y-o-y in October 2018, after a 3.6% rise in the previous month and matching market expectations. It was the lowest producer inflation since March.

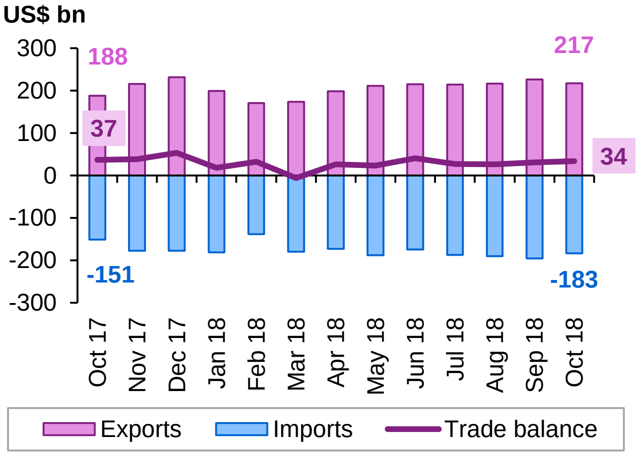
**Graph 3 - 30: China's CPI and PPI**




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

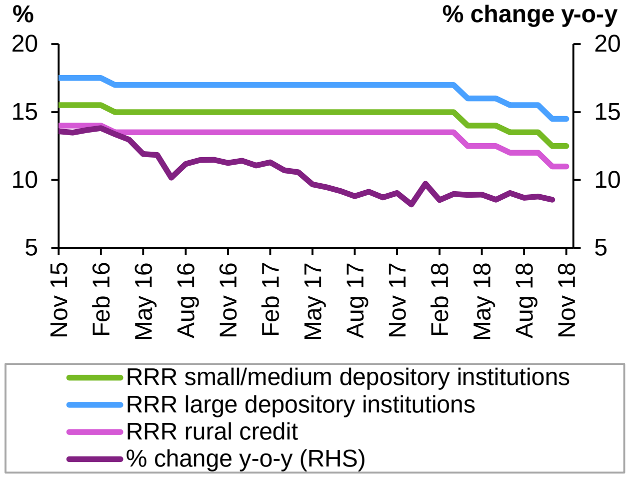
China's **trade surplus** narrowed to $34.01 billion in October 2018 from $36.89 billion in the same month a year earlier. Imports jumped 21.4% y-o-y to $131.83 billion, while exports increased at a slower 15.6% to $159.72 billion. The trade surplus with the US, China's largest export market, narrowed 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.

**Graph 3 - 31: China's trade balance**




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

**Graph 3 - 32: China's reserve requirement ratio (RRR) vs. money supply**

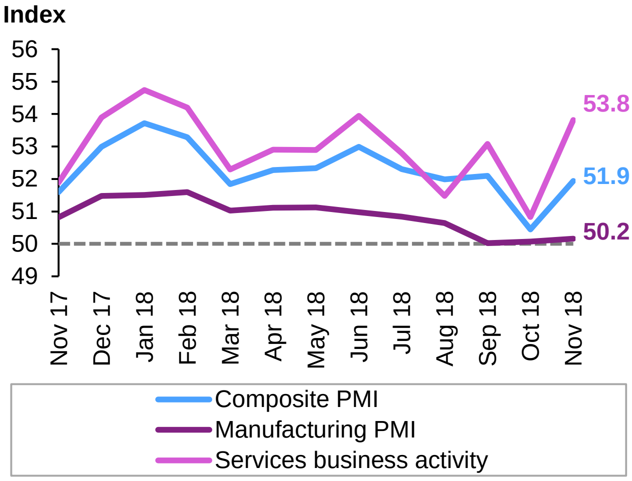



*Sources: People's Bank of China and Haver Analytics.*

The Official NBS **Manufacturing PMI** fell unexpectedly to 50.0 in November of 2018 from 50.2 in the previous month and missed the market consensus of 50.2. It was the lowest reading since a contraction in July 2016, as output rose at the lowest level in nine months (51.9 vs 52.0 in October), new order growth slowed further (50.4 vs 50.8), and new export orders shrank for the sixth straight month (47.0 vs 46.9). In addition, buying activity rose less (50.8 vs 51.0), reaching the lowest reading since February. Concurrently, employment (48.3 vs 48.1) and orders in hand (44.3 vs 44.3) continued to contract. On the price front, input prices increased much softer (50.8 vs 58) while output charge declined for the first time in eight months (46.4 vs 52). Additionally, sentiment weakened markedly (54.2 vs 56.4).

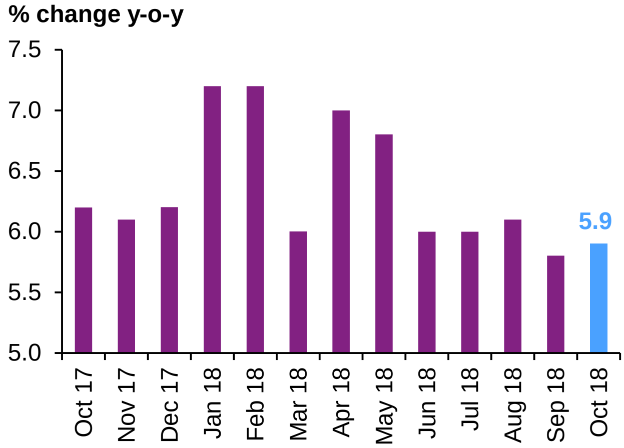
The official **Non-Manufacturing PMI** for China dropped to a 15-month low of 53.4 in November of 2018 from 53.9 a month earlier, thereby missing market expectations of 53.8. New order growth was steady (at 50.1), while employment contracted for the third consecutive month (48.7 vs 48.9 in October). New export orders rose for the first time in seven months (50.1 vs 47.8). On the price front, input prices went up much softer (50.8 vs 54.9), while output charge declined for the first time since March (49.4 vs 51.2).

**Graph 3 - 33: China's PMI**




*Sources: Caixin, IHS Markit and Haver Analytics.*

**Graph 3 - 34: China's industrial production**




*Sources: China National Bureau of Statistics and Haver Analytics.*

The Caixin China **Manufacturing PMI** came in at 50.2 in November 2018, holding steady from the previous months of 50.1, slightly above the market consensus of 50.1. While new orders rose a bit faster; output was stable for the second month in a row; and export sales fell for the 8th successive month, indicating the impact of the US-China trade friction on outbound shipments. At the same time, relatively muted client demand and efforts to lower costs contributed to a further reduction in employment. On the price front, inflationary pressures eased, with input costs increasing the least in seven months and selling prices falling for the first time in 1-1/2 years amid efforts to attract new business. Confidence towards the year ahead remained subdued.

The Caixin China General **Services PMI** fell to 50.8 in October 2018 from 53.1 in the previous month. The latest reading pointed to the weakest pace of expansion in the service sector since September 2017 due to the first stagnation of new business for nearly ten years amid the ongoing trade conflict with the US, while employment grew marginally on efforts to boost operational capacity after a slight reduction in September.

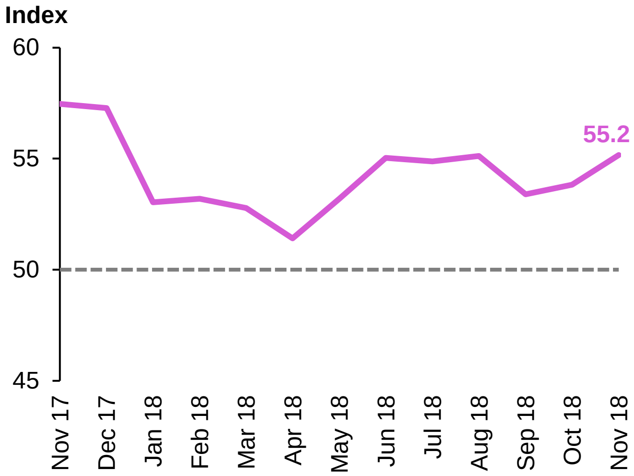
**China's GDP growth** remained unchanged at 6.5% for 2018 and 6.1% for 2019.

# OPEC Member Countries

## Saudi Arabia

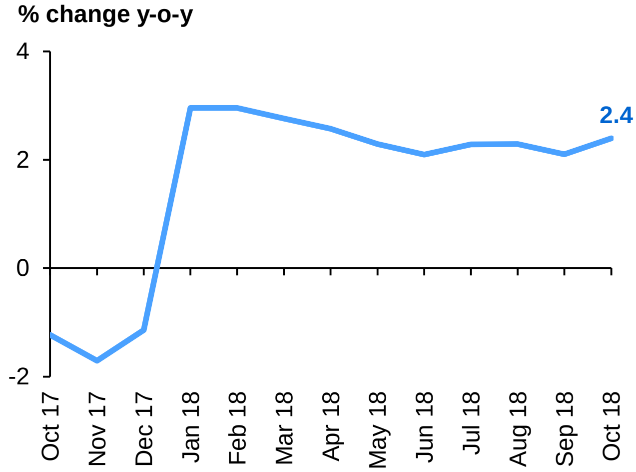
In **Saudi Arabia**, inflation stood at 2.4% y-o-y in October, up from 2.1% y-o-y in September. Slight inflation rises were noticed in the categories of food and beverages, furnishings, household equipment and maintenance, transport, recreation and culture, and restaurants and hotels. The country's total reserve assets amount to 1.89 trillion riyal in October, from 1.90 trillion riyal in September and 1.91 trillion riyal in August. Foreign currency and deposits abroad stood at 0.66 trillion riyal in October, unchanged from September's level.

**Graph 3 - 35: Saudi Arabia's composite PMI**




*Sources: Emirates NBD, IHS Markit and Haver Analytics.*

**Graph 3 - 36: Saudi Arabia's inflation**



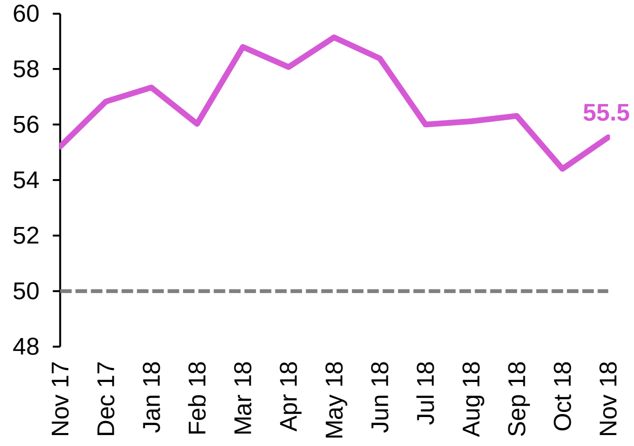

*Sources: General Authority for Statistics and Haver Analytics.*

Investment in foreign securities registered 1.19 trillion riyal in October, from September's 1.20 trillion riyal. Foreign reserves of gold were at 1.6 billion riyal in October, unchanged since February 2008. The Emirates NBD Saudi Arabia PMI rose to 55.2 in November from 53.8 in October, the highest reading this year. Both output and new orders increased at a faster rate in November, and new export order growth was firmer in November than it has been in recent months. The recovery in new orders mainly reflects stronger domestic demand. Firms remained strongly optimistic about their output in the coming year, citing planned new products, increased marketing and more competitive prices.

## Nigeria

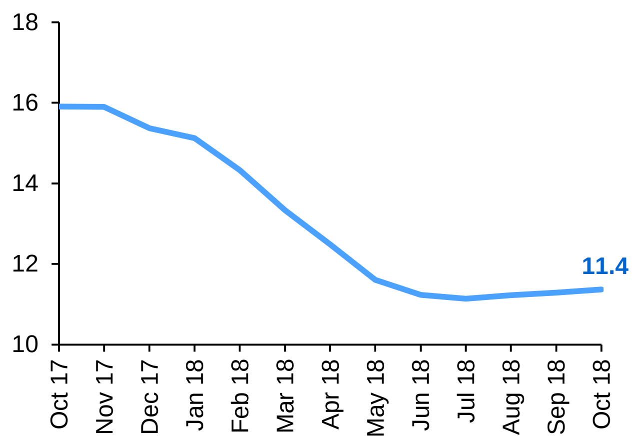
In **Nigeria,** inflation slightly increased in October to 11.4% y-o-y, from September's 11.3%. Inflation still higher the central bank's upper-limit target of 9%. Growth in the Nigerian private sector regained some momentum in November, having softened in October. Faster increases in output and new orders were recorded, albeit with rates of expansion remaining below those seen earlier in 2018. The Stanbic IBTC Bank Nigeria PMI posted 55.5 in November, signalling a marked monthly improvement in the health of the Nigerian private sector. The reading was up from October's 16-month low of 54.4, thereby pointing to a reacceleration in the rate of improvement. That said, business conditions strengthened to a lesser degree than the average for 2018 so far.

**Graph 3 - 37: Nigeria's composite PMI**




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

**Graph 3 - 38: Nigeria's inflation**

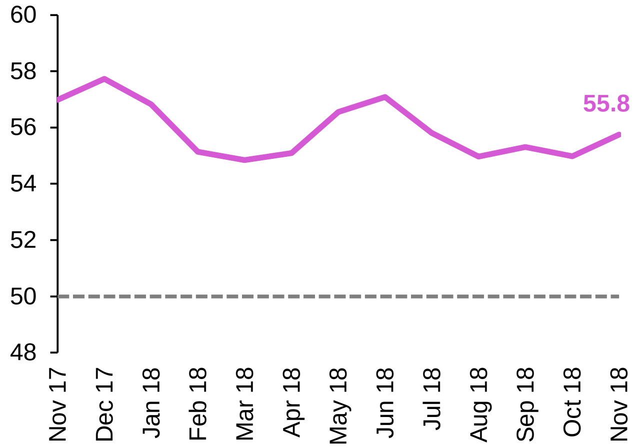



*Sources: National Bureau of Statistics and Haver Analytics.*

## The United Arab Emirates (UAE)

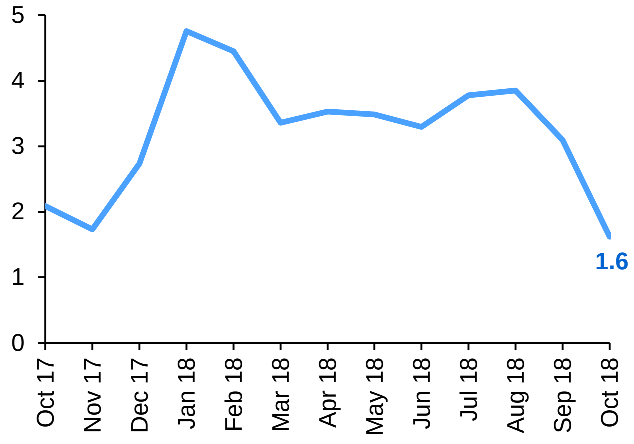
In the **UAE**, consumer price inflation notably eased in October to 1.6% y-o-y, from 3.1% a month earlier. Prices decreased in the categories of food, textile and clothing, housing, water, electricity and gas, furniture and household goods, transportation, communications, recreation and cultural goods and services, education, and restaurants and hotels. The Emirates NBD UAE PMI posted 55.8 in November, up from 55.0 in October. Central to the improvement in business conditions were sharp and accelerated rises in both output and new orders. New business increased to the greatest extent since June, with new export order growth quickening to a four-month high. Rising output requirements led non-oil companies to increase their purchasing activity and employment in November. Input buying increased sharply, and at the fastest pace in the year-to-date. Employment, meanwhile, rose only modestly as firms attempted to limit costs.

**Graph 3 - 39: UAE's composite PMIs**




*Sources: Emirates NBD, IHS Markit and Haver Analytics.*

**Graph 3 - 40: UAE's inflation**



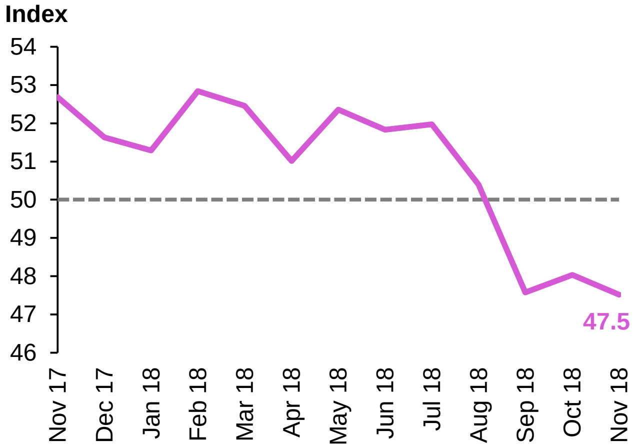

*Sources: National Bureau of Statistics and Haver Analytics.*

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 a 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 compared to 5.2% in the previous quarter.

## Qatar

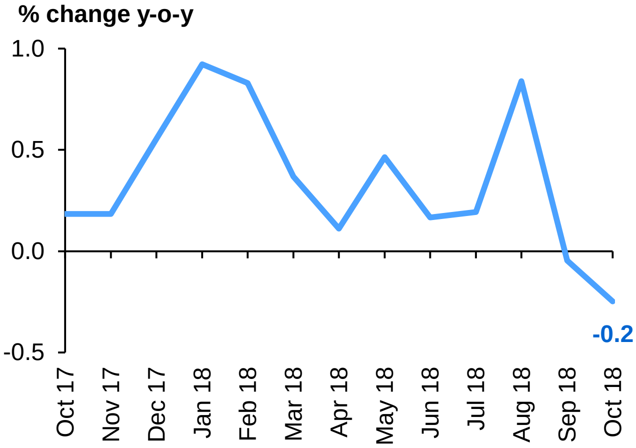
In **Qatar**, consumer price inflation fell for the second consecutive month in October. Inflation dropped by 0.3% y-o-y, after falling by 0.1% y-o-y in September. Inflation eased in the categories of food, housing, water, electricity and gas, furnishings and household equipment, transportation, recreation and culture, and restaurants and hotels. Whereas inflation in the health sector increased to 3.4% y-o-y in October, up from 2.9% in September. GDP expanded by 2.5% y-o-y in 2Q18, up from 2.0% in 1Q18.

**Graph 3 - 41: Qatar's composite PMI**




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

**Graph 3 - 42: Qatar's inflation**




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

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 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. Qatar Financial Centre PMI registered 47.5 in November, from 48.0 in October.

# Other Asia

## Philippines

In the **Philippines**, GDP posted growth of 6.1% y-o-y in 3Q18, compared to 6.2% in the previous quarter. This represents the slowest pace of economic growth since 2Q15, despite the increase in government consumption by a higher rate. Government consumption accelerated by its fastest pace since 4Q15 of 14.3% y-o-y in 3Q18, up from 11.9% in the previous quarter. Private consumption, however, grew by a lesser rate of 5.2% y-o-y in 3Q18, compared to 5.9% in 2Q18. After expanding by more than 21% y-o-y in 2Q18, capital formation rose by 16.7% in 3Q18. Both export and imports increased by higher rates in 3Q18, with exports rising by 14.3% y-o-y and imports by 18.9%. This followed export rises of 12.2% y-o-y in 2Q18 and imports expansion by 18.5%. The Nikkei Philippines Manufacturing PMI rose from 54.0 in October to 54.2 in November, signalling another notable improvement in the health of the manufacturing sector. The index has now risen for four consecutive months, with the latest reading an 11-month high. Operating conditions in the Philippines' manufacturing sector were buoyed by sharp uplifts in output and new orders in November. Production grew at the quickest rate in 23 months, despite the sharpest fall in new export orders seen across the series history. Employment growth remained weak, while backlogs continued to decline. Input prices rose at their softest pace oso far this year, leading to a reduction in selling charge inflation.

# Africa

## Egypt

In **Egypt**, the pound exchange rate versus the dollar was stable in October and November. Inflation increased from 15.4% y-o-y in September to 17.5% in October, breaching the upper limit set in the central bank target for inflation. Total external debt continued to increase in 2Q18. It reached $92.6 billion in 2Q18, from $88.2 billion in the previous quarter, registering a 17.2% y-o-y increase. The unemployment rate stood at 10.0% in 3Q18, rising from 9.9% in 2Q18. The Emirates NBD Egypt PMI rose from 48.6 in October to 49.2 in November, signalling the softest worsening of business conditions during the recent three-month sequence of deterioration. The survey showed that the downturn was led by a further decline in new orders during November, as Egyptian firms found that challenging economic conditions continued to weigh on demand. However, the drop in orders was slower than in October and only marginal overall. Similarly, output contracted for the third consecutive month but at a weaker pace. New export orders also fell, with the rate of the decrease slightly quicker than in October.

# Latin America

## Chile

The economy of **Chile** grew by 2.8% y-o-y in 3Q18, compared to 5.4% in the previous quarter. Both the private consumption and government consumption growth slowed in 3Q18. Private consumption growth went from 4.4% y-o-y in 2Q18 to 3.8% in 3Q18, while government consumption went from 3.5% y-o-y growth in 2Q18 to 2.3% in 3Q18. GFCF increased by 7.1% y-o-y in 3Q18, faster than a 7.0% increase in the previous quarter. Exports of goods and services had a sharp fall in their growth rate in 3Q18. Exports went up by only 1.7% y-o-y in 3Q18, after growing by 7.5% in 2Q18. Imports posted growth of 8.4% y-o-y in 3Q18, down from 10.3% in the previous quarter. The currency was largely stable on average in November, depreciating by only 0.1% m-o-m. The country's foreign reserves amounted to $37.6 billion in November, higher than October's $37.4 billion.

# Transition region

## Czech Republic

In the **Czech Republic**, GDP grew by 2.5% y-o-y in 3Q18, from 2.7% in the previous quarter due to the slower pace of growth in household consumption, GFCF, and exports alongside a higher increase in imports. Household consumption growth stood at 3.1% y-o-y in 3Q18, compared to 3.5% in 2Q18. Government consumption expanded by 5.4% y-o-y in 3Q18, compared to 3.1% in the previous quarter. GFCF went up by 9.4% y-o-y in 3Q18, slightly slower than the 9.6% growth in 2Q18. Export expansion somewhat fell from 4.5% y-o-y in 2Q18 to 4.4% in 3Q18, whereas import growth accelerated from 5.4% y-o-y in 2Q18 to 6.3% in 3Q18. In November, business confidence dropped to its lowest level since December 2012, according to IHS Markit Czech Republic Manufacturing PMI. At 51.8 in November, the headline figure was down from the 52.5 seen in October, representing the fifth successive monthly fall in the PMI. The health of the sector continued to improve, but at the weakest pace since August 2016. A key contributing factor towards the further drop in growth momentum in the manufacturing sector was a weaker rise in production. November survey data signalled the weakest improvement in operating conditions across the Czech manufacturing sector since August 2016. The subdued performance was driven by a slower expansion in output and the first decrease in new orders for over two years. Of concern was a drop in the level of business confidence. The degree of optimism was the lowest for almost six years following auto sector weakness and a drop in foreign demand. Reflective of more subdued demand conditions, the rate of output charge inflation eased despite input prices increasing at a faster pace. Output levels increased at the least marked rate for over two years, amid difficult demand conditions in the auto sector and subdued interest from domestic and foreign clients.

# World Oil Demand

***World oil demand*** *is now projected to increase by 1.50 mb/d in* ***2018****, unchanged from the previous month's report. Total global oil consumption is expected to average 98.79 mb/d.*

*Oil demand growth in the* ***OECD region*** *was kept unchanged as compared to last month with OECD America expected to lead growth in 2018 in response to strong demand for light and middle distillates. Solid macroeconomic indicators in the US spurred diesel requirements while expansions of production in cracking capacities in the US supported demand for NGLs/LPG. OECD Europe is projected to increase marginally as compared to 2017 at 50 tb/d, whereas oil demand in Asia Pacific is anticipated to decline.*

*In the* ***non-OECD region****, oil demand growth was also left relatively similar to last month's expectations. Other Asia is projected to lead demand growth in 2018 globally, increasing by 0.44 mb/d, after strength in product demand growth in India, Indonesia, Singapore and Thailand was observed throughout 2018. On the other hand, demand in Latin America and the Middle East softened to 20 tb/d and negative 60 tb/d, respectively, due to economic slowdown and various reforms, including subsidy removals, substitution plans and efficiency-related policies.*

*In* ***2019****, world oil demand is anticipated to rise by 1.29 mb/d to average 100.08 mb/d, unchanged from last month's report.*

*In the* ***OECD region****, oil demand is projected to grow by 0.25 mb/d, with OECD Americas being firmly in the positive driven by solid NGL and middle distillate requirements.*

*In the* ***non-OECD region****, growth is anticipated to be around 1.04 mb/d with slightly lower Chinese oil demand growth as compared with 2018; however, this is offset by higher oil requirements in other regions such as Latin America and the Middle East as compared to 2018 estimates.*

# 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 | 97.29 | 97.80 | 98.02 | 99.32 | 99.98 | 98.79 | 1.50 | 1.54 |
| Revision | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

*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 | 99.10 | 99.26 | 100.64 | 101.29 | 100.08 | 1.29 | 1.31 |
| Revision | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

*Note: * 2018 and 2019 = Forecast.*

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

*Source: OPEC Secretariat.*

# OECD

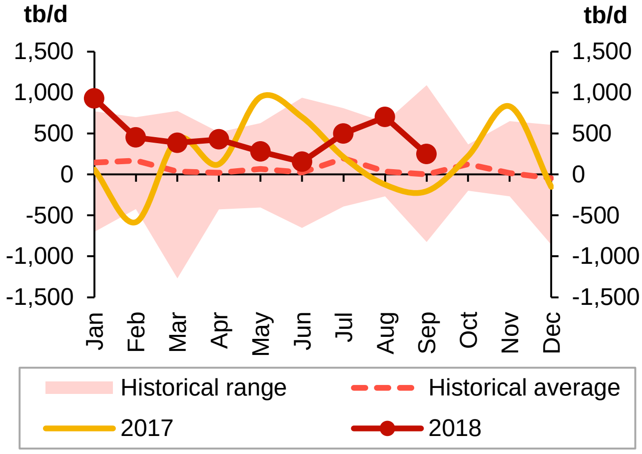
## OECD Americas

### US

The latest available September 2018 monthly **US** data show increasing oil demand as compared to the same month in 2017, with a mixed picture among the main petroleum product categories. Gasoline demand remained weak, declining by around 0.26 mb/d y-o-y amidst higher domestic retail prices and increasingly subdued vehicle sale statistics.

In line with healthy economic developments and, particularly, growing industrial activities, requirements for diesel increased y-o-y by 90 tb/d. Liquid hydrocarbons as feedstock for the petrochemical industry, LPG, ethane and naphtha rose strongly y-o-y in line with healthy petrochemical activities and on top of a weak historical baseline during the same month in 2017 as a result of extreme weather conditions in the country.

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



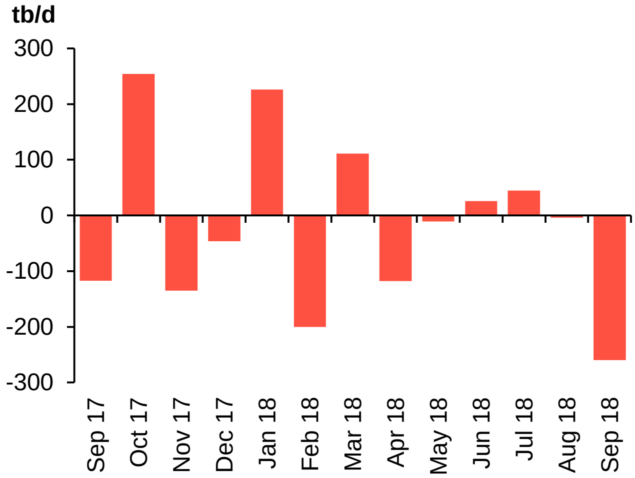

*Sources: National, Joint Organisations Data Initiative and OPEC Secretariat.*

Requirements for jet kerosene were also on the rise y-o-y, while gains were also registered in residual fuel oil demand, particularly for the industrial sector. Overall improvements have been additionally slightly lowered by declining diesel demand in the road transportation sector.

Preliminary weekly data for October and November 2018 imply a continuation of the robust trend seen during 2018 and hence hint to overall improvements of approximately 0.3 mb/d and 0.5 mb/d y-o-y, respectively. Despite the preliminary nature of this data, they highlight the potential for strong US demand and allow for further optimism in the near future.

Available data for 11 months in 2018 – monthly data until September and preliminary weekly data for October and November – show US oil demand growing strongly by around 0.52 mb/d with most main petroleum categories being on the rise. The gains originate in the demand for diesel, jet kerosene, as well as LPG and ethane, while the overall growth is being offset by declines in gasoline residual fuel oil and naphtha requirements.

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




*Source: US Energy Information Administration.*

The overall risks for the development of 2019 US oil demand growth can be considered as balanced towards the upside and downside.

Upside risks relate to the development of the overall economy and the price environment, while downside risks concern the economy, fuel substitution, vehicle efficiencies and the high baseline seen in oil demand during the last four years.

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

| | Sep 18 | Sep 17 | Change 2018/17 tb/d | % |
|---|---|---|---|---|
| LPG | 2,665 | 2,246 | 419 | 18.7 |
| Naphtha | 251 | 181 | 70 | 38.7 |
| Gasoline | 9,118 | 9,378 | -260 | -2.8 |
| Jet/kerosene | 1,700 | 1,641 | 59 | 3.6 |
| Diesel oil | 4,007 | 3,921 | 86 | 2.2 |
| Fuel oil | 362 | 302 | 60 | 19.9 |
| Other products | 2,139 | 2,263 | -125 | -5.5 |
| **Total** | **20,242** | **19,932** | **309** | **1.6** |

*Sources: US EIA and OPEC Secretariat.*

## Mexico

Following losses in the first three quarters of 2018, **Mexican oil demand** declined sharply in October 2018 y-o-y. Demand for all petroleum products shrank – the only exception being jet kerosene, which increased slightly. Declines originated mostly in gasoline and residual fuel oil requirements, the latter due to fuel substitution. Risks for 2019 Mexican oil demand continue to be skewed to the downside and depend mainly on the development of the overall economy and the degree of fuel substitution in the country's industrial sector.

## Canada

In **Canada**, September 2018 came up increasing y-o-y. Losses in LPG and naphtha were overwhelmed by robust gasoline, jet kerosene and diesel requirements. 2019 Canadian oil demand growth is projected to remain slightly in the positive as compared to 2018 with the risks being balanced towards the upside and the downside.

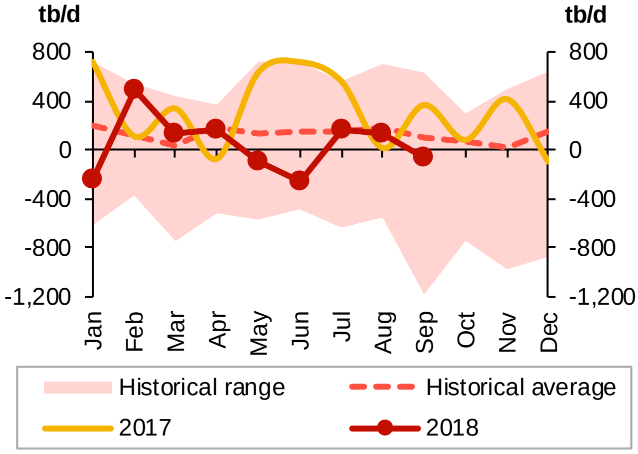
In 2018, **OECD Americas oil demand** is expected to grow by 0.40 mb/d as compared to 2017, while in 2019, it is projected to increase by 0.26 mb/d as compared to 2017.

# OECD Europe

**European oil demand** switched to the negative in September 2018, following positive oil requirements for July and August 2018, y-o-y. September 2018 oil demand was sluggish in Germany as a result of low naphtha requirements amid shutdowns at a number of petrochemical plans in addition to declining diesel demand for the road transportation and industrial sectors. Strong declines were also observed during September 2018 in France, mostly impacting diesel demand. September 2018 oil demand was positive y-o-y in the UK, Spain, Poland and a number of additional countries in line with the economic developments in the region and supported by the continuing low oil price environment. The latter was a bridge to oil demand in the road transportation sector, despite high taxation of oil usage, oil demand curbing policies, as well as fuel substitution. Early indications for October 2018 imply gains of approximately 0.21 mb/d y-o-y in the European Big 4 oil consumers with Germany, Italy and France seeing growth, while the UK remained flat y-o-y.

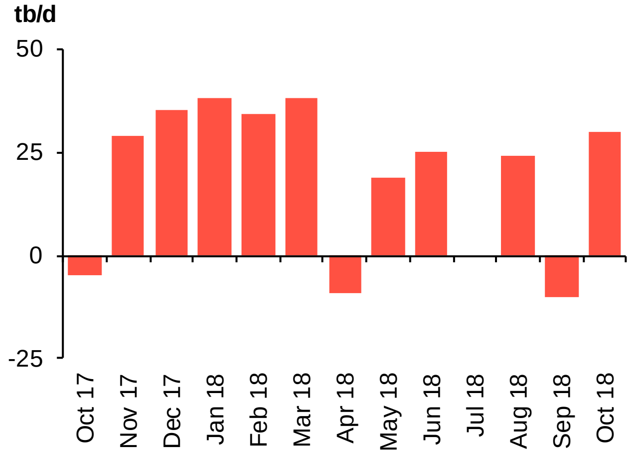
According to provisional figures from the European Automobile Manufacturer's Association (ACEA), European auto sales declined in October 2018 with an approximate 7% y-o-y loss, while y-t-d, they were up by roughly 2%. An additional significant development in the region is the continuing apparent shift of road transportation oil usage towards gasoline as compared to diesel, mainly as a result of regulatory policies designed to help reduce emissions.

**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 the region's oil demand in 2019 has remained unchanged compared to last month's projections. It is also capped with downside risks that relate mainly to factors affecting the region's oil demand (i.e. high taxation polices in oil use, particularly for private consumers, in combination with planned incentives for alternatives, fuel substitutions and the record high growth observed during the last three years). Therefore, 2019 oil demand growth expectations are substantially lower than those observed in 2018 as some of the positive effects during the current year will most likely fade away.

**OECD Europe's oil demand** is expected to grow by 50 tb/d in 2018 and by 20 tb/d in 2019.

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

| | | | Change 2018/17 | |
|---|---|---|---|---|
| | Oct 18 | Oct 17 | tb/d | % |
| LPG | 422 | 445 | -23 | -5.1 |
| Naphtha | 576 | 616 | -40 | -6.5 |
| Gasoline | 1,133 | 1,053 | 80 | 7.6 |
| Jet/kerosene | 867 | 824 | 43 | 5.2 |
| Diesel oil | 3,445 | 3,244 | 201 | 6.2 |
| Fuel oil | 254 | 268 | -14 | -5.3 |
| Other products | 634 | 668 | -34 | -5.1 |
| **Total** | **7,329** | **7,118** | **211** | **3.0** |

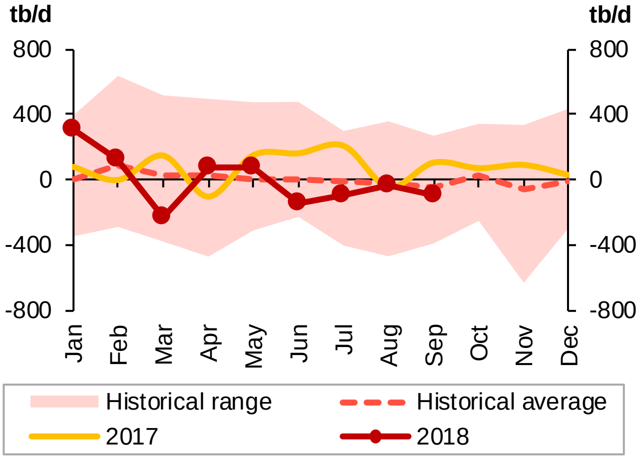
*Note: * Germany, France, Italy and the UK.*
*Sources: JODI, UK Department for Business, Energy & Industrial Strategy, Unione Petrolifera and OPEC Secretariat.*

# OECD Asia Pacific

## Japan

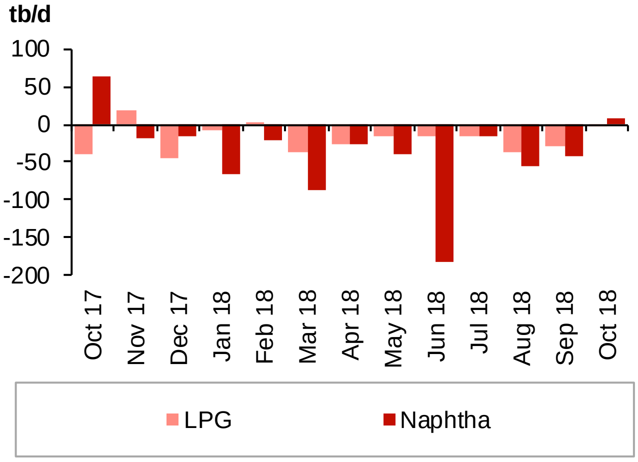
In **Japan**, with data up to October 2018, y-t-d oil demand was determined by falling requirements in most main petroleum product categories except for gasoline, diesel and residual fuel oil, which registered minor gains y-o-y. Losses were particularly strong in the demand for LPG, naphtha and direct use of crude oil for electricity generation as a result of substitution with other commodities and in line with warmer weather as compared to the same month in 2017 and the historical norm. This overall declining pattern is expected to continue into 2019 as substitution levels are projected to persist, affecting demand for fuel oil and direct crude for the purpose of power generation.

**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.*

As in the recent years, the petrochemical industry is expected to be the fundamental driver for any growth in Japanese oil demand during 2019, partly offsetting other declines in oil demand. The outlook risks for 2019 Japanese oil demand remain skewed towards the downside, largely depending on developments of the economy and the degree of fuel substitution.

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

| | | | Change 2018/17 | |
|---|---|---|---|---|
| | Oct 18 | Oct 17 | tb/d | % |
| LPG | 328 | 331 | -3 | -0.9 |
| Naphtha | 796 | 787 | 9 | 1.1 |
| Gasoline | 834 | 860 | -26 | -3.0 |
| Jet/kerosene | 434 | 448 | -14 | -3.0 |
| Diesel oil | 788 | 726 | 62 | 8.5 |
| Fuel oil | 270 | 233 | 37 | 15.9 |
| Other products | 340 | 349 | -9 | -2.6 |
| **Total** | **3,790** | **3,734** | **56** | **1.5** |

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

## South Korea

In **South Korea**, September 2018 came up with slightly declining oil demand requirements y-o-y. The majority of petroleum product categories' demand shrank, particularly diesel and residual fuel oil. Solid gains were observed in the demand for naphtha and jet kerosene y-o-y. Available data for nine months in 2018 imply solid growth in South Korean oil demand of approximately 30 tb/d, or 1%, y-o-y and with the bulk of this growth being captured by petroleum product usage in the petrochemical and industrial sectors.

As a result of y-t-d developments and the positive economic outlook, the 2019 risks for South Korean oil demand growth remain skewed to the upside. With available data up to September 2018, y-t-d oil demand appears strong in Australia, showing growth of 40 tb/d, or 4%, with the large majority of gains seen for diesel and in line with the country's healthy mining sector.

**OECD Asia Pacific oil demand** is expected to decline by 10 tb/d in 2018 y-o-y and by 30 tb/d in 2019 as compared to 2018.

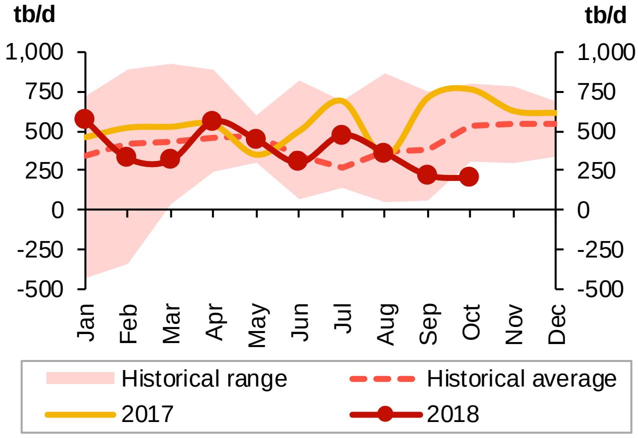
# Non-OECD

## China

**Chinese oil demand** recorded around 0.29 mb/d y-o-y in October 2018 based on the Secretariat's calculations. In absolute terms, the total oil demand for the country stood at 12.8 mb/d. Oil demand growth was determined by gains across most parts of the barrel with the exception of diesel and fuel oil, which declined by 20 tb/d and 24 tb/d, respectively, primarily due to slower industrial activities.

On the other hand, LPG consumption reached a total of around 1.85 mb/d, which is around 0.19 mb/d higher than the level recorded in January 2017, supported mainly by a build-up of stocks ahead of winter season and a 92% increase in utilization rates at propane dehydrogenations plants (PDH).

**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.*

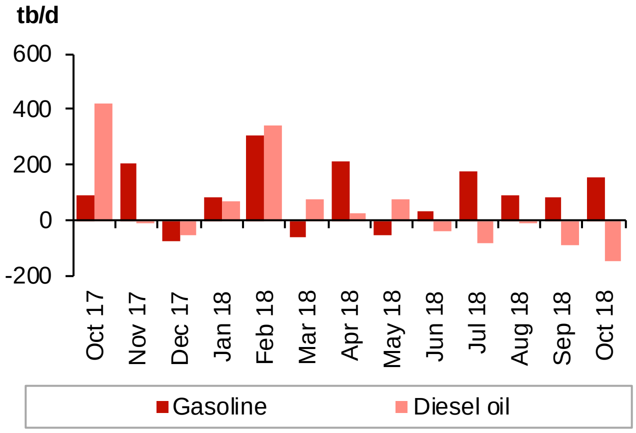
Total consumption was at 1.9 mb/d in October 2018. Gasoline demand grew in October, rising by 50 tb/d, with total demand at 3.0 mb/d. Demand was supported by the week-long holiday at the beginning of October. However, motor vehicle sales in October continued to post negative signals, putting China, the largest global car market, on the brink of its first decline since 1990 if declines continue at a similar magnitude during 4Q18. According to the China Association of Automobile Manufacturers and Haver Analytics, passenger car sales in China shed off 13.1% y-o-y during the month of October.

This can be attributed to the wider economic challenges in the country, which are aggravated by trade concerns with the US. Additionally, a stronger second hand market and the expiration of a rebate programme established in 2015 further amplified the downturn. Jet/kero total consumption during the month of October is now calculated at around 0.83 mb/d, up by 26 tb/d, boosted by domestic air travel for the holiday season.

China is projected to complete 2018 with firm oil demand growth data driven mainly by LPG for the flourishing petrochemical sector as well as gasoline supported steady car sales at the beginning of the year. For 2019, the outlook is currently balanced. The firm petrochemical sector and expansion projects in the refinery sectors are the upside potential for China's oil demand growth, while possible fluctuations in economic environments as well as policies encouraging a reduction in transportation fuel consumption remain as the negative downside risks.

For 2018, China's oil demand is expected to rise by 0.39 mb/d, while, in 2019, it is projected to increase by 0.45 mb/d.

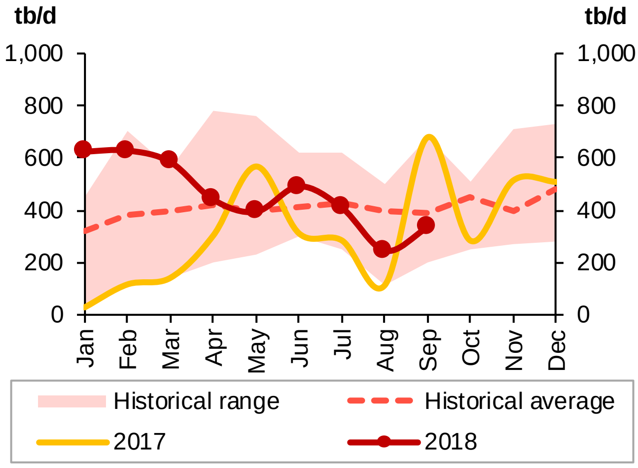
**Graph 4 - 8: China's diesel and gasoline demand growth y-o-y**




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

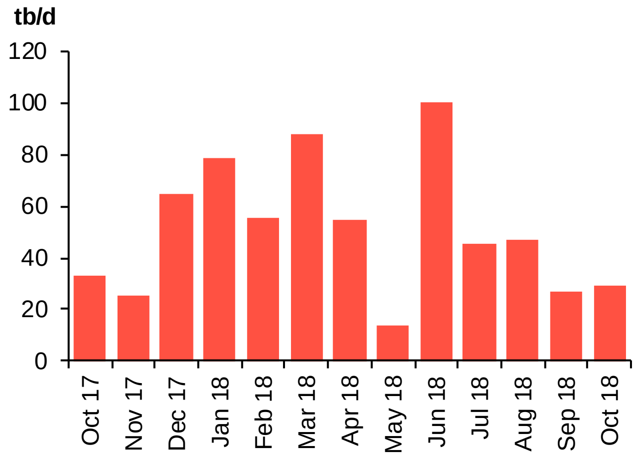
## Other Asia

**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** exhibited a rebound during the month of October 2018 as demand registered more than 0.17 mb/d of growth as compared to around 60 tb/d and 30 tb/d for the months of September and August, respectively. Demand for the main product categories remained strong, led by diesel fuel, which increased by almost 0.1 mb/d, or 7.0%, as compared to the same period in 2017.

In addition to the solid gains recorded by LPG and gasoline in line with expansion in the LPG supply network and steady car sales, diesel was encouraged by firm growth in commercial vehicles sales as growth in this segment continued it's positive momentum, adding more than 24% with the number of units exceeding 87 tb/d. Additionally, rising requirements in the construction sector, particularly road construction, boosted demand for diesel during the month of October 2018. LPG continued to grow at a steady pace, increasing by 38 tb/d, or around 4.8%, compared with the same period in 2017.

Total consumption reached 0.82 mb/d with support coming mainly from planned increases in the residential sector as expansions in the LPG supply network were being completed and commissioned. Furthermore, demand for gasoline edged higher, adding 29 tb/d, or 4.6%, y-o-y despite the steady increases seen in vehicle sales during the month of October.

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

| | | | *Change 2018/17* | |
|---|---|---|---|---|
| | Oct 18 | Oct 17 | tb/d | % |
| LPG | 821 | 784 | 38 | 4.8 |
| Naphtha | 318 | 304 | 14 | 4.6 |
| Gasoline | 662 | 633 | 29 | 4.6 |
| Jet/kerosene | 302 | 292 | 11 | 3.6 |
| Diesel oil | 1,513 | 1,414 | 99 | 7.0 |
| Fuel oil | 329 | 331 | -2 | -0.7 |
| Other products | 584 | 599 | -15 | -2.5 |
| **Total** | **4,530** | **4,357** | **173** | **4.0** |

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

The two-wheeler segment, which consumes gasoline as a fuel, registered an increase of more than 17% y-o-y, and motorcycle sales added more than 20% y-o-y. Looking forward, risks for 2018 and 2019 oil demand growth are currently expected to be balanced as the outlook of the Indian economy looks to be stable with an improvement in economic activity, which also accounts for additional government spending on infrastructure projects such as road construction and housing. LPG for residential use and gasoline for the transportation sector are expected to be the main providers of growth.

## Indonesia

In **Indonesia**, oil consumption inched up during the month of September 2018. Product demand also increased, registering a rise of 15 tb/d, which equates to around 1% y-o-y. Total consumption for the country stood at 1.65 mb/d. This growth can be attributed mainly to better-than-expected demand in the industrial and petrochemical sectors, which saw fuel oil, diesel and LPG demand increase by more the 5%, 2% and 1%, respectively.

## Thailand

In **Thailand**, oil demand declined in September 2018 for the first time since May 2017. Product demand decreased by 14 tb/d, or 1%, y-o-y as lower demand for diesel and gasoline outpaced increases elsewhere. The cumulative data up to September indicate that oil consumption was higher than 2017 levels by 24 tb/d, or more than 2%, y-o-y led by higher demand for jet/kerosene, LPG and gasoline.

Going forward, a steady level of growth is projected across the **Other Asia** with India, Indonesia, Thailand and Singapore contributing largely to oil demand growth in 2018 and 2019. Economic conditions should provide support to middle distillate demand, while positive expectations for plastics demand should, in turn, provide support to petrochemical feedstock requirements.

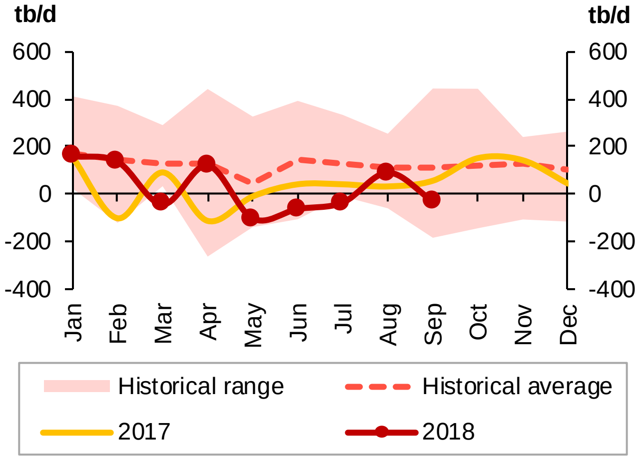
Other Asia's oil demand is projected to grow by 0.44 mb/d in 2018, while in 2019, it is forecast to increase at a slightly slower pace at around 0.37 mb/d.

# Latin America

## Brazil

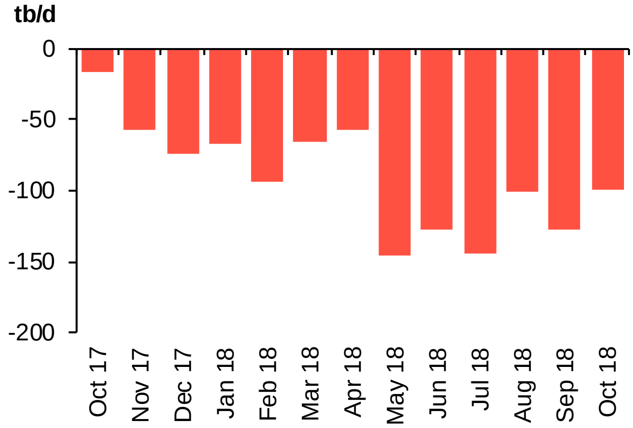
In **Brazil**, oil demand increased marginally in October 2018 y-o-y, edging up by around 22 tb/d, or around 1%, y-o-y.

**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.*

Total oil demand stood at 2.74 mb/d in October. Most products recorded positive increases, however those gains were counterbalanced by declines in gasoline and fuel oil, which declined sharply. Gasoline consumption decreased by nearly 0.1 mb/d, which equates to a strong 14% y-o-y, as gasoline continued to lose its advantage over ethanol as prices remained in favour of ethanol. Ethanol, in contrast, increased sharply by around 0.13 tb/d as drivers switched to ethanol, taking advantage of the price differential.

Diesel gained momentum during the month of October, increasing by around 30 tb/d, which equates to 3% y-o-y. This increase occurred in line with higher industrial output in various sectors, however, a higher baseline mitigated the increase. Similar to last month, 2018 oil demand in Brazil was balanced going into 4Q18 with economic activity in the country remaining steady.

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

| | | | *Change 2018/17* | |
|---|---|---|---|---|
| | Oct 18 | Oct 17 | tb/d | % |
| LPG | 229 | 223 | 6 | 2.6 |
| Naphtha | 146 | 145 | 1 | 0.7 |
| Gasoline | 620 | 719 | -99 | -13.8 |
| Jet/kerosene | 122 | 116 | 6 | 4.9 |
| Diesel oil | 1,027 | 997 | 30 | 3.0 |
| Fuel oil | 65 | 120 | -55 | -45.6 |
| Other products | 532 | 399 | 133 | 33.4 |
| **Total** | **2,742** | **2,720** | **22** | **0.8** |

*Note: * = Inland deliveries.*

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

## Argentina

In **Argentina**, demand declined for the fifth consecutive month with increasing trends in declines towards the recent months. October 2018 oil demand shed off around 80 tb/d compared to the same month in 2017 as economic momentum, particularly related to industrial activities, hurt oil demand growth. On a cumulative basis, 2018 oil demand growth levels were rather flat to slightly declining y-o-y. Product categories showing demand growth figures were light and middle distillates, while fuel oil incurred declines in requirements.

## Ecuador

**Ecuador's oil demand** increased during the ten months of 2018, rising by 24 tb/d, or 10%, y-o-y, led by solid increases in fuel oil for power generation and the industrial sectors, while moderate gains were observed with other fuels (e.g. light and middle distillates).

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

| | | | *Change 2018/17* | |
|---|---|---|---|---|
| | Oct 18 | Oct 17 | tb/d | % |
| LPG | 39 | 35 | 4 | 11.4 |
| Naphtha | 9 | 13 | -4 | -30.8 |
| Gasoline | 76 | 67 | 9 | 13.4 |
| Jet/kerosene | 8 | 7 | 1 | 14.3 |
| Diesel oil | 100 | 89 | 11 | 12.4 |
| Fuel oil | 39 | 32 | 7 | 21.9 |
| Other products | 21 | 22 | -1 | -4.5 |
| **Total** | **292** | **265** | **27** | **10.2** |

*Sources: JODI and OPEC Secretariat.*

Going forward, for the rest of 2018 and 2019, expectations for **oil demand growth in Latin America** are similar to last month's projection with a somewhat better outlook for the economy as compared to 2018, moreover, support should stem from an overall improvement in economic conditions in the region with Brazil expected to lead oil demand growth.

Oil demand growth in the region is projected to increase by 20 tb/d in 2018 and by 53 tb/d in 2019.

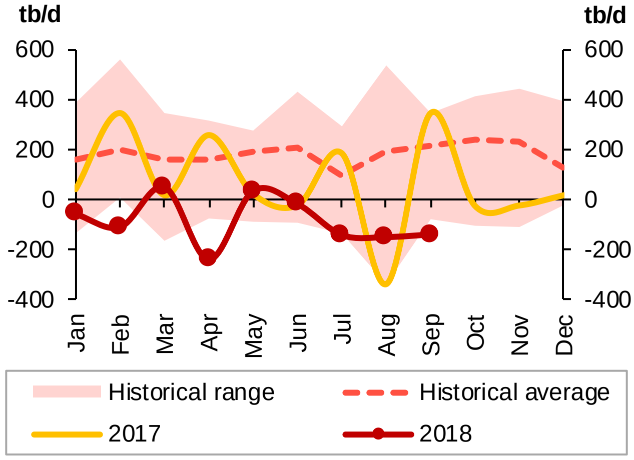
# Middle East

## Saudi Arabia

In the Middle East, oil demand continued to decline in **Saudi Arabia,** recording a drop in October. Oil demand declined by around 0.19 mb/d as compared to the same period in 2017, which equates to more than 8% y-o-y. In cumulative terms, data up to October suggest a decline of around 0.17 tb/d as compared to the same time last year, however, this indicates a steeper drop from the levels recorded last year during the same period when oil demand dipped by around 40 tb/d y-o-y. Direct crude burning has been one of the primary factors behind the general waning consumption as demand dropped by 75 tb/d, or 16%, y-o-y in October. Substitution policies remain a major factor in lower requirements for direct crude for the purpose of burning and to some extent diesel oil. This is part of the government's plans to move away from using oil and petroleum products in the power generation sector. Diesel also weakened, declining by 53 tb/d, or more than 9%, y-o-y due to less-than-expected consumption in the construction and transportation sectors. Transportation fuels also declined with both gasoline and jet fuel weakening during the month of October.

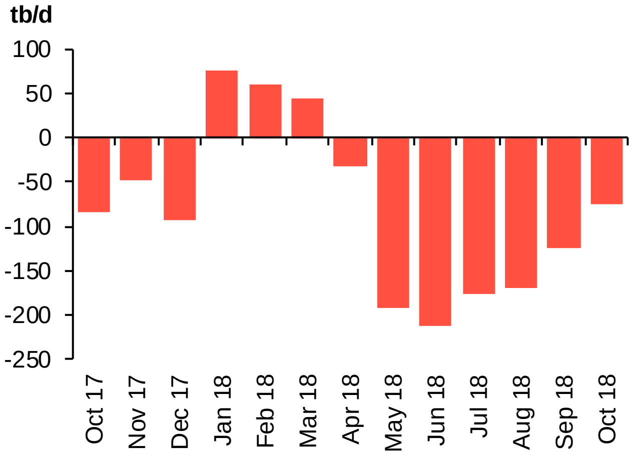
In October gasoline dropped by around 7% y-o-y and jet fuel by around 40% y-o-y. On the other hand, fuel oil increased by 37 mb/d, or around 7%, y-o-y in line with higher power generation requirements.

**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.*

## Iraq

In **Iraq**, October 2018 oil demand growth remained positive for the fourth consecutive month with data indicating a solid rise of around 0.14 mb/d from the levels seen in October 2017. Total product demand is now around 0.73 mb/d. Fuel oil led the gains with growth above 0.1 mb/d y-o-y supported by strong power generation demand.

For the rest of 2018 and 2019, **Middle East oil demand** growth may be challenged by various factors, mainly related to major economic transformation programmes, subsidy reduction policies and continuing geopolitical issues in some countries. Oil demand is, nevertheless, expected to grow in Saudi Arabia, I.R. Iran, UAE, Kuwait, Qatar and Jordan with transportation fuels, especially gasoline, and industrial fuels, particularly diesel and residual fuel oil, playing significant parts in the overall oil demand growth for another year. Oil demand growth in the region is projected to decline during the current year by 60 tb/d, while projections for 2019 indicate growth of around 60 tb/d.

# World Oil Supply

***Non-OPEC oil supply growth in 2018*** *was revised up by 0.19 mb/d from the previous MOMR, and is now estimated to grow by 2.50 mb/d to average 60.03 mb/d, mainly due to upward revisions in historical US and Canada production data, as well as a higher supply forecast for 4Q18 by 0.50 mb/d mainly for Russia. The expected y-o-y growth of 2.13 mb/d in the US with higher production from Canada, Russia, Kazakhstan, the UK and Ghana will support non-OPEC supply growth in 2018, while Mexico, Norway and Vietnam will show the largest declines.*

***Non-OPEC oil supply growth in 2019*** *revised down by 0.08 mb/d to average 2.16 mb/d, due to a mandatory production adjustment in Alberta, and Russia, as a result of the new decision made at the fifth Meeting of the OPEC and Non-OPEC Ministerial Conference in December. Absolute supply is now forecast to reach an average of 62.19 mb/d. The US, Brazil, Russia and the UK are the main drivers for next year's growth also supported by Canada, Ghana, Australia and Kazakhstan, while Mexico, Norway, Indonesia, Vietnam and Egypt are projected to see the largest declines. The 2019 non-OPEC supply forecast is faced with many challenges, including changes in the intensity of drilling and completion in the US shale industry, bottlenecks in the transportation of oil in the Permian Basin, Western Canada and even in the Williston Basin in North Dakota, as well as the realization of final investment decisions (FIDs) regarding projects in other non-OPEC countries.*

***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 November, OPEC crude oil production decreased by 11 tb/d to average 32.97 mb/d, according to secondary sources.*

***Non-OPEC supply preliminary data in November****, including OPEC NGLs, rose by 0.44 mb/d m-o-m to average 67.67 mb/d, higher by 2.88 mb/d y-o-y. As a result, preliminary data indicates that global oil supply increased in November by 0.50 mb/d m-o-m to average 100.64 mb/d.*

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

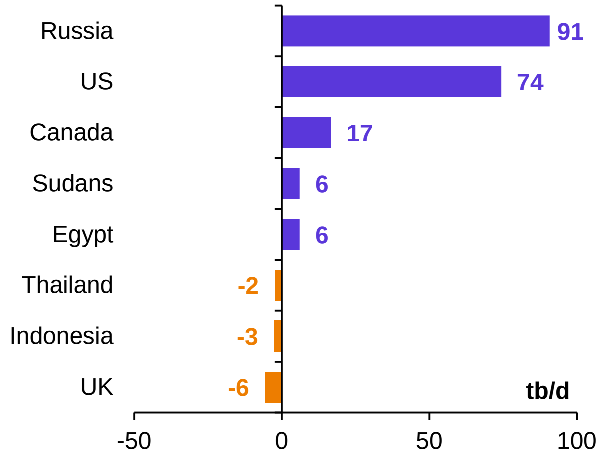
| Region | 2018 | Change 2018/17 | 2019 | Change 2019/18 |
|---|---|---|---|---|
| **OECD Americas** | 23.80 | 2.30 | 25.42 | 1.63 |
| **OECD Europe** | 3.79 | -0.04 | 3.84 | 0.04 |
| **OECD Asia Pacific** | 0.41 | 0.02 | 0.46 | 0.05 |
| **Total OECD** | **28.00** | **2.29** | **29.72** | **1.72** |
| **Other Asia** | 3.51 | -0.08 | 3.44 | -0.07 |
| **Latin America** | 5.16 | 0.01 | 5.49 | 0.33 |
| **Middle East** | 1.24 | 0.00 | 1.24 | 0.01 |
| **Africa** | 1.53 | 0.05 | 1.56 | 0.03 |
| **Total DCs** | **11.43** | **-0.02** | **11.74** | **0.30** |
| **FSU** | 14.28 | 0.23 | 14.40 | 0.12 |
| **Other Europe** | 0.12 | -0.01 | 0.12 | 0.00 |
| **China** | 3.95 | -0.02 | 3.93 | -0.02 |
| **Non-OPEC production** | 57.78 | 2.46 | 59.91 | 2.13 |
| **Processing gains** | 2.25 | 0.04 | 2.28 | 0.03 |
| **Non-OPEC supply** | **60.03** | **2.50** | **62.19** | **2.16** |

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

# Monthly revisions to non-OPEC supply growth forecast

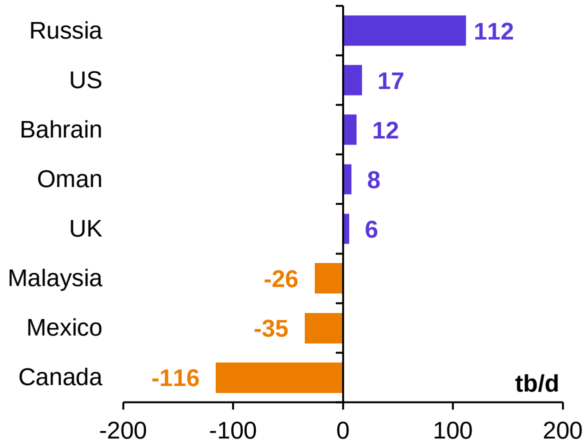
The **non-OPEC oil supply growth forecast for 2018** was revised up by 0.19 mb/d to average 2.50 mb/d. On a country-by-country basis, cumulative expected growth in the US, Canada, Australia, India, Argentina, Egypt, the Sudans, South Africa, Russia and Azerbaijan was revised up by 0.21 mb/d in 2018, mostly in 3Q18, while the oil supply growth forecast for the UK, Other OECD Europe, Indonesia, Thailand, Trinidad & Tobago and China was revised down by 16 tb/d (***Graph 5 - 1***).

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




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

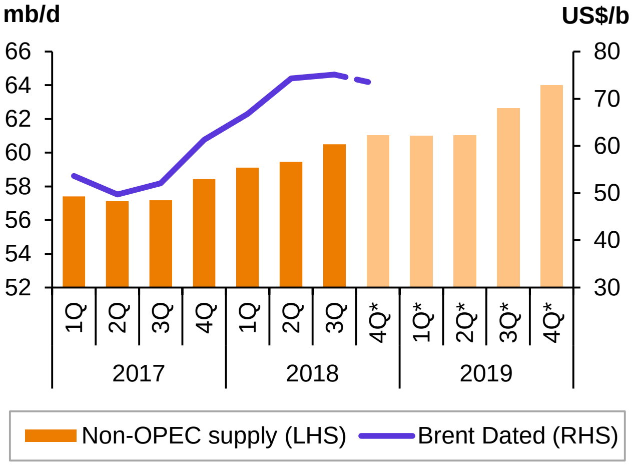
**Graph 5 - 2: MOMR Dec 18/Nov 18 revisions in 2019* annual supply changes**




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

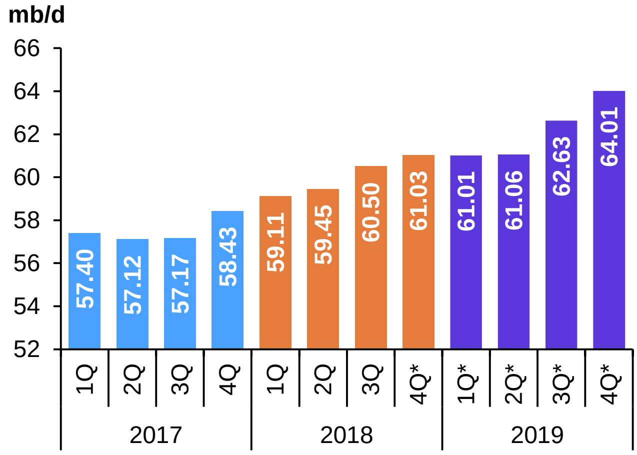
Monthly revisions to **non-OPEC oil supply growth for 2019**, as seen in ***Graph 5 - 2***, indicate upward revisions in the US, the UK and Russia totalling 0.14 mb/d, while oil supply forecasts for Canada, Egypt, Africa others and Azerbaijan were revised down cumulatively by 0.22 mb/d. As a result, y-o-y growth for non-OPEC supply in 2019 revised down by 76 tb/d to average 2.16 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 | 24.49 | 24.39 | 23.80 | 2.30 | 10.72 |
| *of which US* | *14.40* | *15.53* | *16.22* | *17.17* | *17.20* | *16.54* | *2.13* | *14.81* |
| Europe | 3.83 | 3.92 | 3.73 | 3.63 | 3.90 | 3.79 | -0.04 | -0.94 |
| Asia Pacific | 0.39 | 0.40 | 0.38 | 0.42 | 0.45 | 0.41 | 0.02 | 5.20 |
| **Total OECD** | **25.71** | **27.25** | **27.46** | **28.54** | **28.74** | **28.00** | **2.29** | **8.90** |
| Other Asia | 3.59 | 3.58 | 3.53 | 3.43 | 3.51 | 3.51 | -0.08 | -2.16 |
| Latin America | 5.15 | 5.15 | 5.20 | 5.10 | 5.19 | 5.16 | 0.01 | 0.14 |
| Middle East | 1.24 | 1.21 | 1.25 | 1.26 | 1.22 | 1.24 | 0.00 | -0.08 |
| Africa | 1.48 | 1.51 | 1.52 | 1.55 | 1.53 | 1.53 | 0.05 | 3.16 |
| **Total DCs** | **11.46** | **11.45** | **11.50** | **11.34** | **11.45** | **11.43** | **-0.02** | **-0.21** |
| FSU | 14.05 | 14.10 | 14.14 | 14.33 | 14.54 | 14.28 | 0.23 | 1.61 |
| *of which Russia* | *11.17* | *11.14* | *11.18* | *11.44* | *11.55* | *11.33* | *0.16* | *1.43* |
| 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 | -0.55 |
| **Total "Other regions"** | **18.15** | **18.17** | **18.25** | **18.38** | **18.60** | **18.35** | **0.20** | **1.10** |
| **Total non-OPEC production** | **55.32** | **56.86** | **57.21** | **58.25** | **58.78** | **57.78** | **2.46** | **4.45** |
| Processing gains | 2.21 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 0.04 | 1.67 |
| **Total non-OPEC supply** | **57.53** | **59.11** | **59.45** | **60.50** | **61.03** | **60.03** | **2.50** | **4.34** |
| Previous estimate | 57.55 | 59.12 | 59.46 | 60.31 | 60.53 | 59.86 | 2.31 | 4.01 |
| Revision | -0.02 | -0.01 | -0.01 | 0.19 | 0.50 | 0.17 | 0.19 | 0.34 |

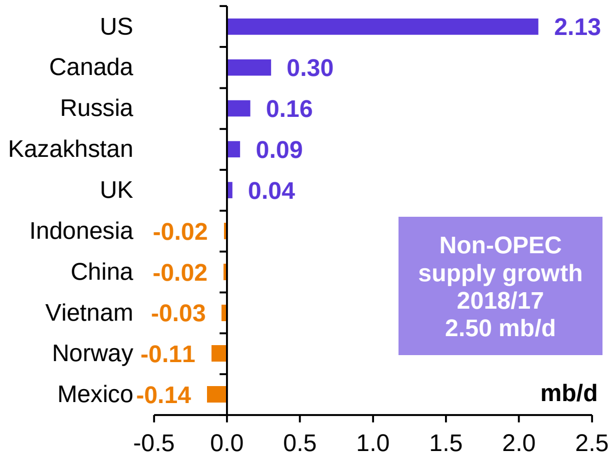
*Note: * 2018 = Forecast.*
*Source: OPEC Secretariat.*

# OECD

Total **OECD oil supply** in 2018 is expected to grow by 2.29 mb/d to average 28.00 mb/d. This has been revised up by 84 tb/d since the last *MOMR*, representing an upward revision in supply growth of 91 tb/d. OECD Americas is forecast to see an increase of 2.30 mb/d y-o-y to average 23.80 mb/d, while oil supply in OECD Europe will show a contraction of 0.04 mb/d to average 3.79 mb/d (of which 3.05 mb/d is from the North Sea) after a downward revision by 9 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.

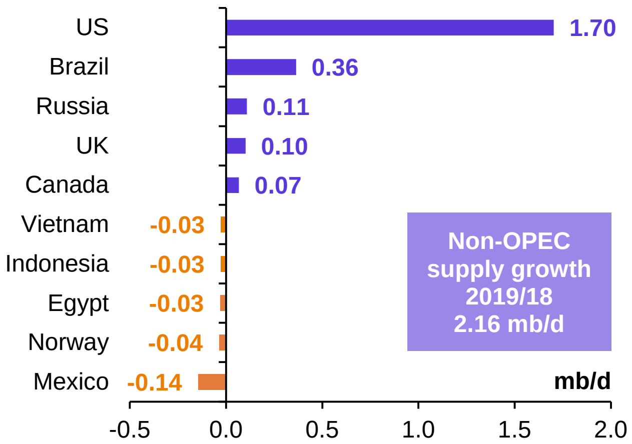
Yearly growth of 1.76 mb/d is forecast for OECD oil supply in 2019 to average 29.76 mb/d. OECD Americas, OECD Europe and OECD Asia Pacific all are expected to grow next year by 1.66 mb/d, 0.04 mb/d and 0.05 mb/d to average 25.46 mb/d, 3.84 mb/d and 0.46 mb/d, respectively.

**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.*

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

| | | | | | | | *Change 2019/18* | |
|---|---|---|---|---|---|---|---|---|
| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Growth | % |
| Americas | 23.80 | 24.37 | 24.75 | 25.87 | 26.66 | 25.42 | 1.63 | 6.83 |
| *of which US* | *16.54* | *17.40* | *17.84* | *18.50* | *19.20* | *18.24* | *1.70* | *10.30* |
| Europe | 3.79 | 3.94 | 3.63 | 3.79 | 4.00 | 3.84 | 0.04 | 1.18 |
| Asia Pacific | 0.41 | 0.44 | 0.45 | 0.47 | 0.49 | 0.46 | 0.05 | 12.52 |
| **Total OECD** | **28.00** | **28.75** | **28.84** | **30.13** | **31.15** | **29.72** | **1.72** | **6.15** |
| Other Asia | 3.51 | 3.43 | 3.41 | 3.47 | 3.46 | 3.44 | -0.07 | -1.99 |
| Latin America | 5.16 | 5.38 | 5.41 | 5.47 | 5.72 | 5.49 | 0.33 | 6.45 |
| Middle East | 1.24 | 1.27 | 1.26 | 1.22 | 1.22 | 1.24 | 0.01 | 0.60 |
| Africa | 1.53 | 1.50 | 1.51 | 1.60 | 1.63 | 1.56 | 0.03 | 2.17 |
| **Total DCs** | **11.43** | **11.57** | **11.59** | **11.76** | **12.02** | **11.74** | **0.30** | **2.66** |
| FSU | 14.28 | 14.32 | 14.32 | 14.44 | 14.50 | 14.40 | 0.12 | 0.84 |
| *of which Russia* | *11.33* | *11.38* | *11.38* | *11.50* | *11.50* | *11.44* | *0.11* | *0.96* |
| 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"** | **18.35** | **18.42** | **18.36** | **18.47** | **18.56** | **18.45** | **0.10** | **0.56** |
| **Total non-OPEC production** | **57.78** | **58.73** | **58.78** | **60.36** | **61.74** | **59.91** | **2.13** | **3.68** |
| Processing gains | 2.25 | 2.28 | 2.28 | 2.28 | 2.28 | 2.28 | 0.03 | 1.25 |
| **Total non-OPEC supply** | **60.03** | **61.01** | **61.06** | **62.63** | **64.01** | **62.19** | **2.16** | **3.59** |
| Previous estimate | 59.86 | 61.45 | 61.23 | 62.35 | 63.32 | 62.09 | 2.23 | 3.73 |
| Revision | 0.17 | -0.44 | -0.17 | 0.28 | 0.69 | 0.09 | -0.08 | -0.14 |

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

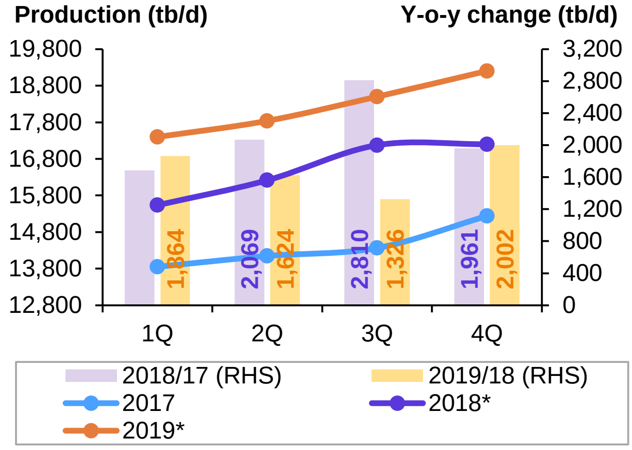
# OECD Americas

## US

**US crude oil output** (including lease condensate) in September showed a mild increase of 0.13 mb/d to average 11.47 mb/d compared with robust growth in August by 0.42 mb/d. US crude oil output in September was higher by 1.98 mb/d, or ~21%, y-o-y.

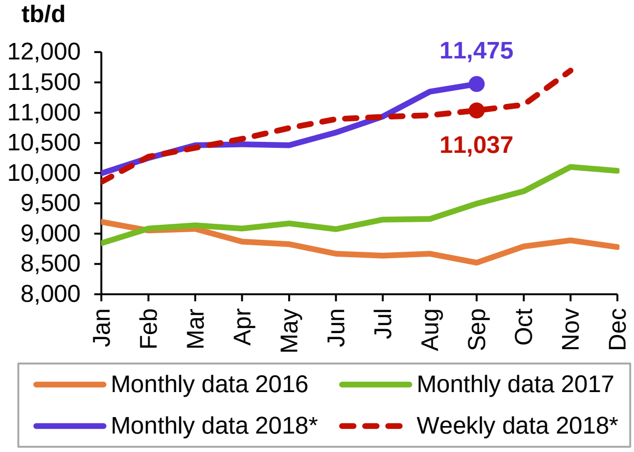
The main m-o-m increase came from Texas (PADD 3) at 106 tb/d to average 4,692 tb/d, mainly from the prolific Permian Basin, while oil output from the Gulf of Mexico (GoM) declined by 147 tb/d from its peak in August to average 1.78 mb/d. Continued growth in New Mexico production added 24 tb/d to average 0.74 mb/d, mainly from the Eagle Ford shale. The next largest growth increment was in PADD 2, where an increase of 64 tb/d was seen in North Dakota's oil output to average 1.34 mb/d, mainly from the Bakken shale play in Williston Basin. On the West Coast, Alaska's production increased m-o-m in September by 43 tb/d to average 0.47 mb/d.

**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.*

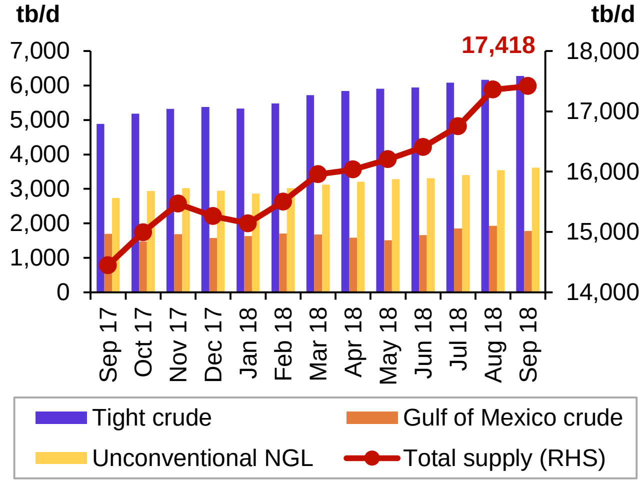
Federal offshore GoM production of crude oil declined to average 1.78 mb/d in September, following a m-o-m increase of 76 tb/d in August. Oil production in GoM dropped by 147 tb/d m-o-m as the region was affected mainly by shut-in production due to tropical storm Gordon. Oil production from GoM in 1H18 declined by 0.08 mb/d compared with the same period a year ago to average 1.63 mb/d. Assuming actual averaged output of 1.85 mb/d in 3Q18 and a forecast of output at the same level 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 106 tb/d compared to 126 tb/d in August, with production at 4.69 mb/d in September, an increase of 1.16 mb/d y-o-y and higher by ~33% compared with September 2017. Oil production in September increased m-o-m in New Mexico by 24 tb/d to average 0.74 mb/d, in North Dakota by 64 tb/d to average 1.34 mb/d and in Alaska by 43 tb/d to average 0.46 mb/d.

US crude oil production increased by 1.52 mb/d in in the first three quarters of 2018 to average 10.67 mb/d y-o-y. In the first nine months of 2018, more than 55% of total crude oil output in the US, at an average of 5.9 mb/d, came from shale plays, mainly from the Permian Basin in Texas, which amounted to approximately 2.7 mb/d. Total output at the Permian Basin including conventional oil reached 3.7 mb/d in the middle of 4Q18, exceeding pipeline capacity in the region.

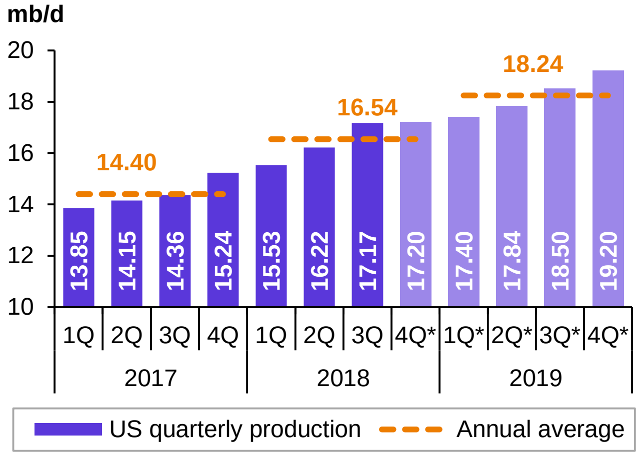
US liquids output in September (excluding processing gains) showed an increase of 0.06 mb/d m-o-m to average 17.42 mb/d, up by 2.97 mb/d y-o-y. According to the EIA, m-o-m US liquids supply growth in September was supported by growth in crude oil production of 0.13 mb/d, while NGL output showed growth of 61 tb/d m-o-m to 4.63 mb/d. The output of other non-conventional liquids, mainly biofuels, is estimated to have decreased m-o-m by 133 tb/d to 1.31 mb/d.

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




Source: US EIA and OPEC Secretariat.

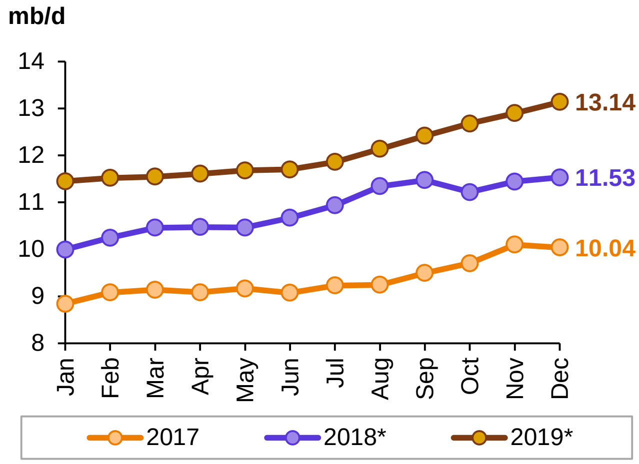
**Graph 5 - 10: US total liquids supply quarterly**




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

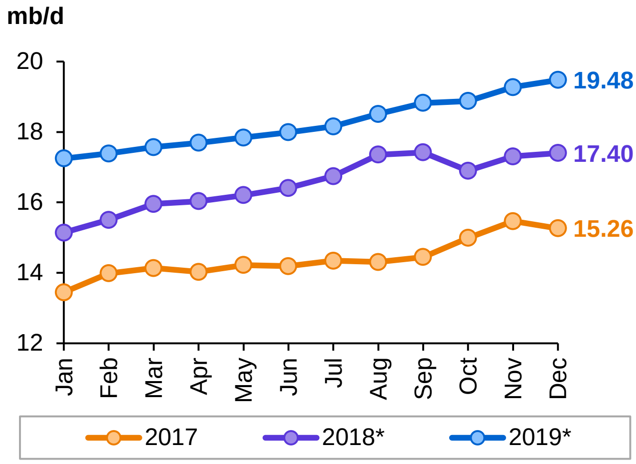
**US liquids supply in 2018** is expected to grow by 2.13 mb/d to average 16.54 mb/d, revised up by 74 tb/d from the previous MOMR, following a robust q-o-q increase in 3Q18 of 107 tb/d as well as a reassessment of the supply forecast for 4Q18 by 188 tb/d.

**Graph 5 - 11: US monthly crude oil supply**




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

**Graph 5 - 12: US monthly total liquids supply**




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

Consequently, **US liquids supply in 2019** is now forecast to reach an average of 18.24 mb/d, representing y-o-y growth of 1.70 mb/d with a minor upward revision of 0.01 mb/d compared with last month's MOMR.

**US tight crude output in September 2018** is estimated to have grown by 0.18 mb/d m-o-m to average 6.56 mb/d, an increase of 1.67 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 0.06 mb/d in September m-o-m to average 2.98 mb/d, followed by an increase of 15 tb/d m-o-m at Eagle Ford to average 1.28 mb/d. Oil output in the Niobrara play declined by 24 tb/d to average 0.46 mb/d, while m-o-m growth of 17 tb/d was seen in the Bakken play to average 1.29 mb/d. Tight crude output in other shale plays increased by a total of 50 tb/d m-o-m in September to average 0.49 mb/d.

**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* | 3.27 | *0.50* | 3.70 | *0.43* |
| **Conventional NGLs** | 0.93 | 1.01 | *0.08* | 1.10 | *0.09* | 1.15 | *0.05* |
| **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*** | **16.54** | ***2.13*** | **18.24** | ***1.70*** |

*Note: * 2018 and 2019 = Forecast.*

*Sources: US EIA, Rystad Energy and OPEC Secretariat.*

On a yearly basis, **US tight crude for 2018** is forecast to grow by 1.48 mb/d to average 6.19 mb/d, remaining unchanged from last month's assessment. Tight crude production from the Permian Basin is expected to grow by 0.90 mb/d y-o-y to 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 y-t-d (January-September) tight crude production from the Bakken shale play in North Dakota increased by 0.18 mb/d y-o-y to average 1.21 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 2.67 mb/d, by 0.15 mb/d to average 1.21 mb/d and by 0.12 mb/d to average 0.43 mb/d. (More details on tight crude historical output as well as the forecasts for 2018 and 2019 are shown in ***Table 5 - 5*** below).

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

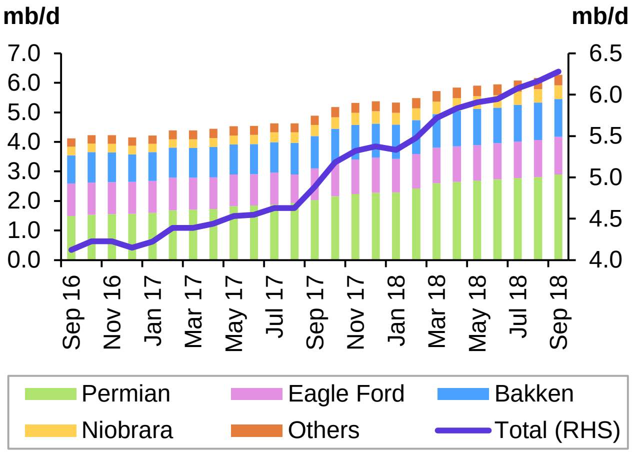
| Shale play | 2017 | | 2018* | | 2019* | |
|---|---|---|---|---|---|---|
| *tb/d* | Production | *Y-o-y change* | Production | *Y-o-y change* | Production | *Y-o-y change* |
| **Permian tight** | 1.91 | *0.45* | 2.81 | *0.90* | 3.41 | *0.60* |
| **Bakken shale** | 1.06 | *0.03* | 1.26 | *0.20* | 1.44 | *0.18* |
| **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* | 0.39 | *0.08* | 0.51 | *0.12* |
| **Total** | **4.71** | ***0.47*** | **6.19** | ***1.48*** | **7.36** | ***1.17*** |

*Note: * 2018 and 2019 = Forecast.*

*Source: OPEC Secretariat.*

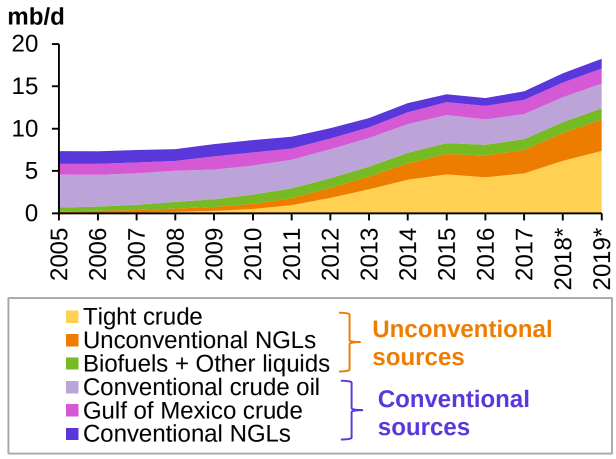
Y-o-y growth in **US tight crude for 2019** will occur at a slower pace of 1.17 mb/d to average 7.36 mb/d, which is 310 tb/d less than expected for 2018, due to fundamental constraints, mainly limited pipeline capacity to transfer Permian oil to the USGC. Tight crude production from the Permian Basin is likely to grow by 0.60 mb/d to average 3.41 mb/d, which is 50%, or 0.30 mb/d, less than expected for the current year. In North Dakota, production growth from the Bakken shale is expected to expand by 0.18 mb/d to average 1.44 mb/d, while 0.20 mb/d from the Eagle Ford shale is also anticipated to reach an average 1.47 mb/d. For the Niobrara and other shale regions, y-o-y growth of 0.07 mb/d to average 0.53 mb/d and 0.12 mb/d to average 0.51 mb/d is forecast, respectively.

**Graph 5 - 13: US tight crude breakdown**




*Souces: US EIA and OPEC Secretariat.*

**Graph 5 - 14: US liquids production breakdown**



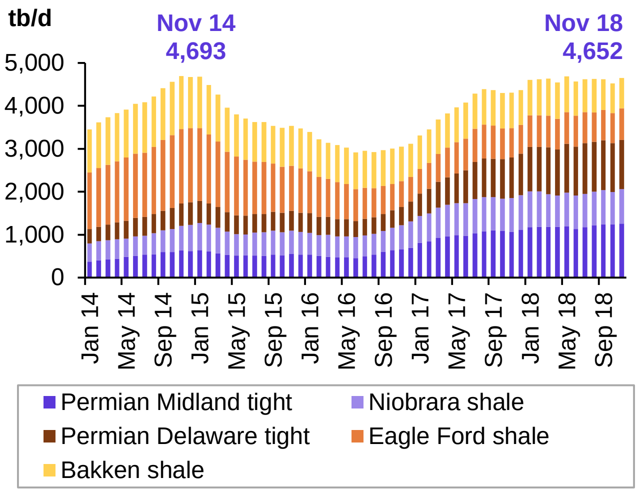

*Note: * 2018 and 2019 = Forecast.*
*Sources: EIA, Rystad Energy and OPEC Secretariat.*

## US horizontal drilled but uncompleted wells (DUC)

From January to October 2018, overall **DUCs** in the five key regions of Permian Delaware, Permian Midland, Eagle Ford, Bakken and Niobrara remained unchanged at ~ 4,600 DUCs. While the DUC count from the beginning of the year increased in the Permian Basin due to constraints in pipeline capacity, it decreased in Niobrara, Bakken as well as in Eagle Ford.

A decreasing trend in DUCs is seen in line with price declines, as was the case in 2015-2016.

**Graph 5 - 15: US DUCs by main shale play**




*Sources: Rystad Energy and OPEC Secretariat.*

## US oil rig count

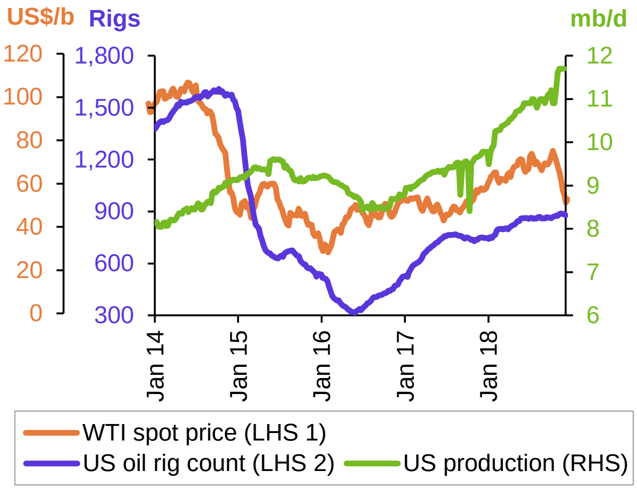
The **total US oil and gas rig count** was up by 8 units m-o-m to 1,076 rigs in the week ending 30 November 2018.

Concerning on **oil and gas split**, 12 rigs were added in oil fields to reach 887 rigs, while gas rigs decreased by only 5 units m-o-m to reach 189 rigs. The corresponding y-o-y increase for oil rigs was 138 units or 18%.

Regarding the **drilling trajectory**, the number of horizontal rigs (active in oil and gas fields) was up by 7 units m-o-m to reach 934 rigs.

**By basin**, the oil rig count in the Permian Basin rose by 4 units m-o-m to average 493 rigs while in Eagle Ford region and Williston Basin oil rig count remained unchanged from 26 October – 30 November at 70 and 56 rigs, consequently.

**Graph 5 - 16: The comparison between WTI price, US oil rig count and US crude oil production**



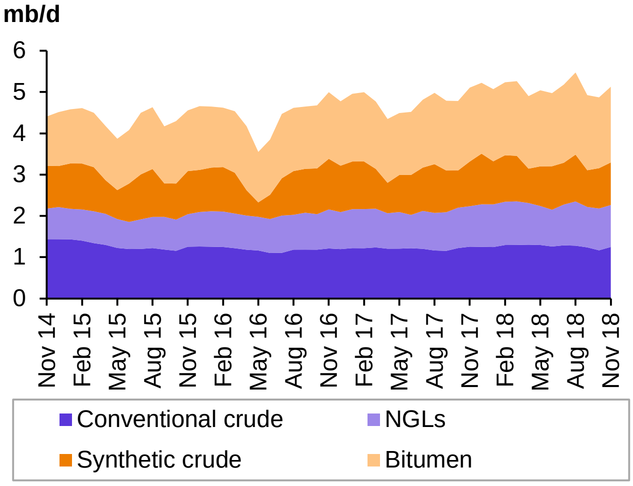

*Sources: Baker Hughes, EIA and OPEC Secretariat.*

The greatest number of added oil rigs was seen in the Permian Basin, up y-o-y by 100 rigs (+25%).

## Canada

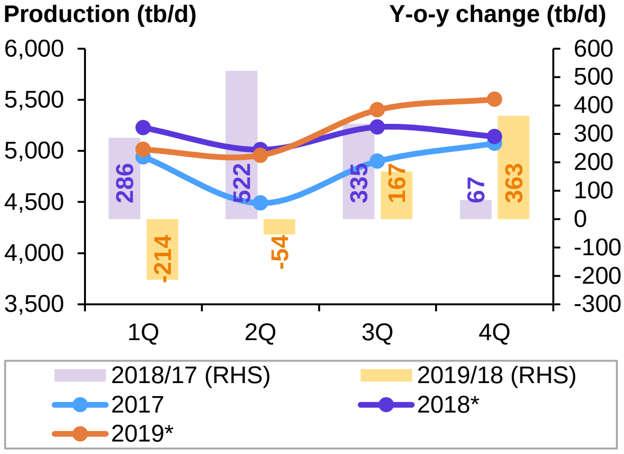
**Canada's liquids supply** rose by 0.29 mb/d in August m-o-m to average 5.51 mb/d, following a m-o-m increase of 0.21 mb/d in July. This is higher by 0.49 mb/d y-o-y based on official data, mainly due to an increase in oil sands – mainly crude bitumen – output of 218 tb/d y-o-y to average 3.16 mb/d. In second place, Canadian NGLs rose by 161 tb/d in August y-o-y to average 1.07 mb/d, and, finally, conventional crude oil production also increased by 116 tb/d y-o-y to average 1.28 mb/d.

**Graph 5 - 17: Canada's production by product type**




*Source: OPEC Secretariat.*

**Graph 5 - 18: Canada's quarterly liquids supply**




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

Preliminary indications for September show a production decline of 0.55 mb/d compared with August. Oil sands, conventional crude as well as NGL output are likely to decline by 415 tb/d, 41 tb/d and 92 tb/d, respectively.

Canada's liquids supply in 2018, following an upward revision of 106 tb/d in 3Q18, is now expected to increase by 0.30 mb/d y-o-y to average 5.15 mb/d, revised up by 17 tb/d compared with the previous month's assessment. Canada has been the fourth-largest oil producer in the world since 2015.

WTI crude futures increased sharply on 3 December amid signs of upcoming production cuts in western Canada. The government of Alberta has mandated a cut in WCS crude production to address a storage shortage. They are planning to reduce the state's oil production by an initial 325 tb/d, or nearly 9%, of overall output that was achieved in August 2018, starting in January 2019. Analysts believe that companies with dedicated space on existing pipelines get much better netbacks, especially if they can move crude to the USGC. The production pipeline capacity imbalance is projected to hit some 500 tb/d this year, which means Alberta's government-imposed cuts will not be enough to resolve the issue.

Alberta is currently producing 190 tb/d of raw crude oil and bitumen, which is more than can be shipped by pipelines, rail or other means. The amount of oil that is being diverted to storage is at record highs, and storage is nearing capacity.

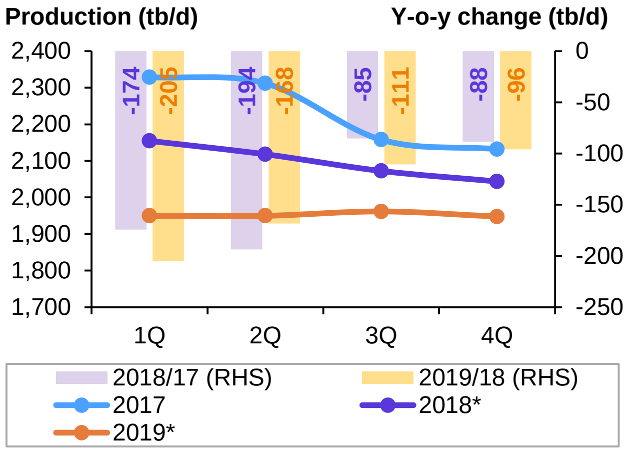
Data from Energy Intelligence and the Canadian Association of Petroleum Producers (CAPP) indicates crude output exceeded pipeline takeaway capacity in 2017. Between November 2017 and November 2018, WCS' discount widened to more than $12 and was more than $30 in recent weeks. The main driver of the current price differential is a lack of takeaway capacity.

## Mexico

**Mexico's liquids supply** in 2018 is expected to decline by 0.14 mb/d to average 2.10 mb/d, remaining unchanged compared to last month's assessment. Nevertheless, owing to the preliminary weak production data in October and November, the average liquids output in 4Q18 might be deeper than expected at 2.04 mb/d. Average liquids output in October was down by 0.08 mb/d m-o-m to average 1.99 mb/d, the first-ever level below 2.0 mb/d in Mexico since 1995, and lower by 0.18 mb/d y-o-y. Crude oil production dropped by 61 tb/d m-o-m to average 1.76 mb/d, mainly super light, while NGL output also declined, dropping by 16 tb/d m-o-m to average 0.22 mb/d. All types of light crude in Mexico have declined since the beginning of the year to October by 0.14 mb/d while heavy crude rose by 0.02 mb/d, y-o-y. The only Mexican oil field to see an increase was the offshore complex of Ku-Maloob-Zaap, while all of the others were in decline.

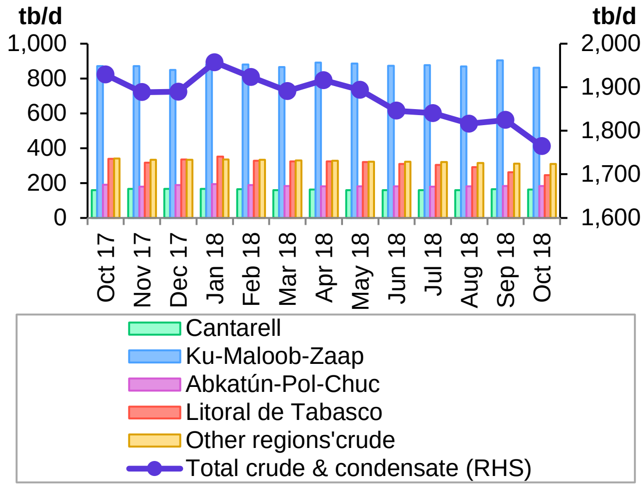
It is estimated that Mexico's oil supply in 2019 in continuation of annual natural decline as well as the outages during maintenance will decline by 0.11 mb/d to average 1.99 mb/d.

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




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

**Graph 5 - 20: Mexico's crude and condensate monthly output by region**




*Sources: Pemex and OPEC Secretariat.*

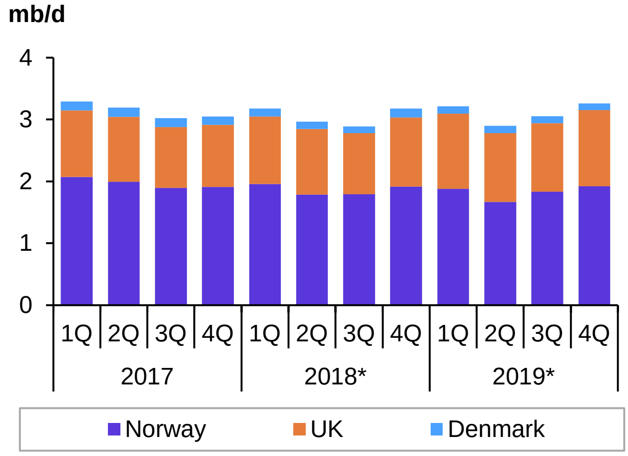
## OECD Europe

**OECD Europe's preliminary oil supply** was up by 0.37 mb/d m-o-m in October to reach 3.79 mb/d, while this was lower by 0.08 mb/d y-o-y.

The region's oil supply in 2018 is expected to reach 3.79 mb/d, indicating a y-o-y contraction of 0.04 mb/d. While production in Norway and Denmark is expected to decline to average 1.86 mb/d and 0.13 mb/d, respectively, oil supply in the UK and Other OECD Europe is likely to grow to average 1.06 mb/d and 0.74 mb/d, respectively.

For 2019, oil supply is expected to see a growth of 0.04 mb/d, forecasting an increase of 0.10 mb/d for the UK, while production is likely to be declined in other countries of the region.

**Graph 5 - 21: North Sea quarterly liquids supply**



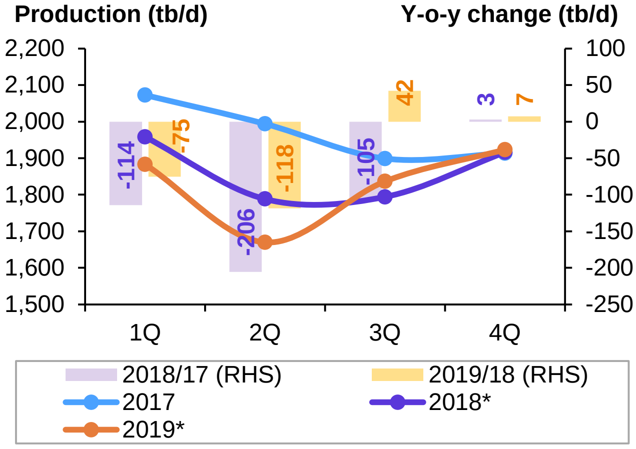

*Note: * 2018 and 2019 = Forecast.*
*Source: OPEC Secretariat.*

## 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, remaining unchanged from the previous MOMR. Preliminary production figures for October 2018 show average daily production of 1.87 mb/d of crude, NGLs and condensate, contrary to a higher forecast, indicating recovery of 0.27 mb/d m-o-m following the return of production from maintenance. Liquids production in October declined by 0.07 mb/d y-o-y, and total liquids output for the first ten months in 2018 was at 1.85 mb/d, showing a decline of 0.13 mb/d or ~7%, y-o-y.

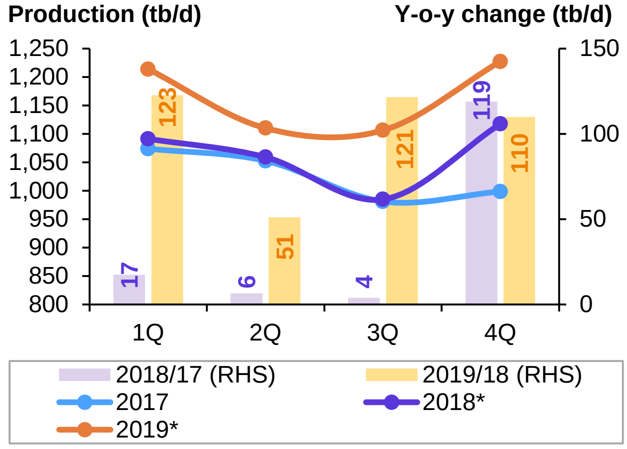
In October, crude oil output was up by 199 tb/d m-o-m to average 1.50 mb/d, yet lower by 51 tb/d y-o-y. NGL output in October declined by 71 tb/d to average 0.38 mb/d, which is 17 tb/d less than October 2017 output.

**Graph 5 - 22: Norway's quarterly liquids supply**




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

**Graph 5 - 23: UK quarterly liquids supply**




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

## UK

**UK oil supply** is projected to rise by 0.04 mb/d y-o-y to average 1.06 mb/d in 2018. UK liquids production in October 2018 was up by 0.10 mb/d m-o-m to average 1.05 mb/d, 0.02 mb/d lower than in October 2017, following more output recovery due to less maintenance. Nevertheless, preliminary production data indicates a m-o-m decline of 0.03 mb/d, perhaps due to the shutdown of the Buzzard field since the third week of November due to pipeline failure. The supply growth forecast in 2018 was thus revised down by 6 tb/d following weaker-than-expected output for 3Q18.

On 23 November, BP, on behalf of co-venturers Shell, Chevron and ConocoPhillips, announced first oil production from the giant **Clair Ridge project** in the West of Shetland region offshore UK. Clair Ridge is the second phase of development of the Clair field, 75 kilometres west of Shetland.

The field, which was discovered in 1977, has an estimated seven billion barrels of hydrocarbons, according to BP. The new facilities, which required capital investment in excess of £4.5 billion, are designed for 40 years of production. The project has been designed to recover an estimated 640 mb of oil with production expected to ramp up to a peak at a plateau level of 120 tb/d of oil.

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, remaining unchanged from last month's assessment.

# Developing Countries (DCs)

**Total developing countries' (DCs) oil supply** for 2018 is expected to reach an average of 11.43 mb/d, revised down by 0.01 mb/d, while the y-o-y growth was revised up by 17 tb/d to show a contraction of 0.02 mb/d. Indeed, oil supply growth in Africa was revised up by 19 tb/d to show y-o-y growth of 0.05 mb/d coming from Egypt, Ghana and the Sudans.

For 2019, growth of 0.34 mb/d is anticipated for DCs due to ongoing field development in Latin America, particularly Brazil, to average 11.77 mb/d. Next year's forecast for DC oil supply shows an increase in Latin America and Africa, while Other Asia and the Middle East will decline.

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

| | 1Q | 2Q | 3Q | 4Q | Yearly | *Change Y-o-y* |
|---|---|---|---|---|---|---|
| **2017** | 11.49 | 11.43 | 11.43 | 11.48 | 11.46 | *-0.06* |
| **2018*** | 11.45 | 11.50 | 11.34 | 11.45 | 11.43 | *-0.02* |
| **2019*** | 11.57 | 11.59 | 11.76 | 12.02 | 11.74 | *0.30* |

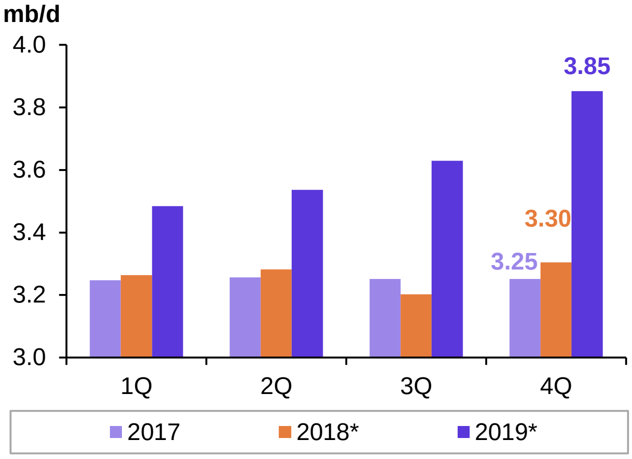
*Note: * 2018 and 2019 = Forecast.*
*Source: OPEC Secretariat.*

## Latin America

### Brazil

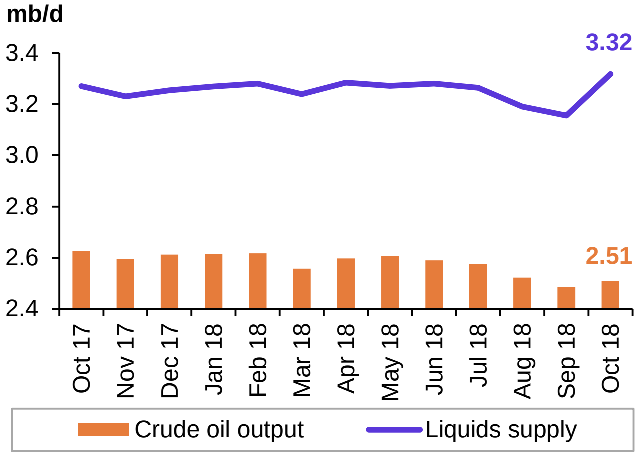
**Brazil's crude oil output** fell by 36 tb/d to average 2.49 mb/d in September, which is 167 tb/d lower y-o-y. Nevertheless, preliminary crude oil production data given by Petrobras represents a further jump of 163 tb/d in October to average 2.65 mb/d, the highest figure since October 2017. The main reason for this incremental output was due to the return of production after maintenance and partially owing to the start-up production through P-69 FPSO in the Santos Basin's Lula field in late October. P-69 is the second of seven planned production facilities at the Lula field, which will enable it to potentially produce 1 mb/d by 2020. Heavy maintenance last summer and sharp decline rates at mature fields in the Campos Basin, coupled with the delayed start-up of several pre-salt projects in the Santos Basin, have weighed on output. Brazilian output has failed to increase at the pace anticipated at the beginning of this year, but new output is finally coming on line.

**Graph 5 - 24: Brazil's quarterly liquids supply**




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

**Graph 5 - 25: Brazil's monthly liquids supply**




*Source: OPEC Secretariat.*

Brazil's liquids output in September declined by 0.03 mb/d to average 3.16 mb/d. As a result, liquids supply in 2018 is forecast to grow by only 0.01 mb/d y-o-y to average 3.26 mb/d, remaining unchanged compared to the previous *MOMR*. Oil production could rise substantially next year if the delayed floating production storage and offloading (FPSO) vessels and other scheduled facilities come on line on time in 2019. Liquids supply is expected to rise by 0.36 mb/d to average 3.63 mb/d in 2019. Petrobras was due to begin production from the P-68 platform in the **Berbigao** field by the end of this year, but this has been delayed to 1Q19. The firm began producing from the 150 tb/d P-75 FPSO at the **Buzios** pre-salt field — in the Transfer of Rights region of the Santos basin — in early November. Petrobras expects Buzios to reach 360 tb/d by the end of 2019. The Transfer of Rights regime gives Petrobras the exclusive rights to explore and produce up to five billion barrels of oil equivalent in the Santos Basin.

According to Petrobras, P-75 is the fourth platform to start production in 2018 after the FPSO Cidade Campos dos Goytacazes in the Tartaruga Verde field, the P-69 in the Lula field and the P-74 in the Búzios field. These platforms, together with P-67, which is already located in the Lula field, and P-76, which should go to the Búzios field in December, will conclude the six systems planned for this year in Brazil, contributing to the increase of Petrobras' production in line with the 2018-2022 Business and Management Plan.

# FSU

**FSU oil production** for 2018 is expected to grow by 0.23 mb/d to average 14.28 mb/d, revised up by 93 tb/d from the previous forecast. Oil production in Russia and Kazakhstan is estimated to grow by 0.16 mb/d and 0.09 mb/d to average 11.33 mb/d and 1.82 mb/d, respectively. Azeri oil production is expected to remain stagnant y-o-y at 0.80 mb/d, while oil supply from FSU others will decline by 0.02 mb/d to average 0.32 mb/d.

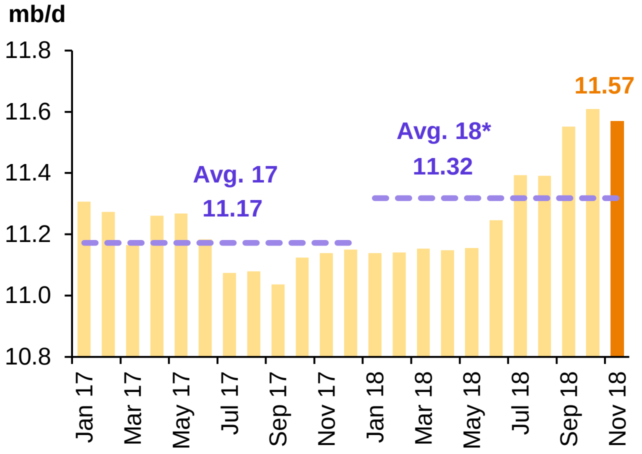
For 2019, FSU oil supply will depend on how countries participating in the DoC reach their commitments in conformity with their voluntary production adjustments in line with the recent OPEC and non-OPEC decisions for 1H19. Assuming the region's participants commit to the new decisions related to the DoC, FSU oil supply in 2019 is forecast to increase by 0.12 mb/d to average 14.40 mb/d. Oil supply in Russia and Kazakhstan, based on running projects' ramp ups and assuming annual natural declines and voluntary downward adjustments to the agreed-upon production levels, is expected to increase by 0.11 mb/d and 0.05 mb/d, while Azeri supply will decline by 0.02 mb/d y-o-y.

## Russia

**Russia's preliminary liquids supply** stood at 11.57 mb/d in November, lower by 0.04 mb/d m-o-m, yet up by 0.43 mb/d y-o-y. Oil supply hit a new post-Soviet record at 11.61 mb/d in October, according to secondary sources. Consequently, Russia's oil supply for 4Q18 has been revised up by 360 tb/d to average 11.55 mb/d, and is thus expected to average 11.33 mb/d for 2018, representing y-o-y growth of 0.16 mb/d.

For 2019, based on project ramp ups in Russia, Russian oil companies are expected to potentially further increase production 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.

**Graph 5 - 26: Russia's monthly liquids supply**




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

However, according to the new decisions that were made at the recent OPEC and non-OPEC ministerial meetings in early December, Russian oil supply in 1H19 should be adjusted down by 230 tb/d below the production level of October 2018. As a result, next year's Russian oil supply is likely to grow by 0.11 mb/d to average 11.44 mb/d.

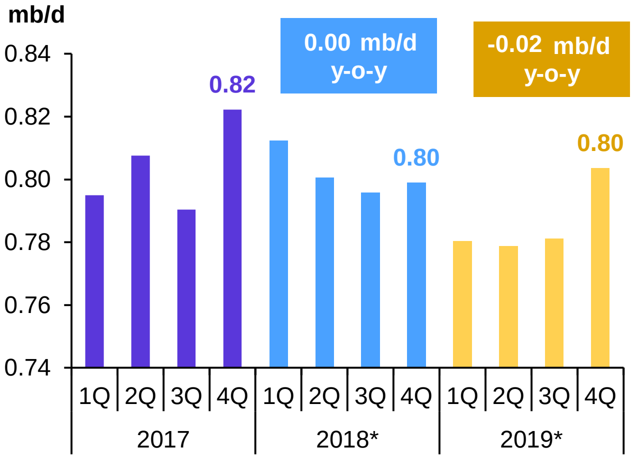
# Caspian

## Azerbaijan

**Azerbaijan's liquids output** decreased by 0.01 mb/d m-o-m to average 0.80 mb/d in October, following a decrease of 8 tb/d in crude oil production and a 5 tb/d decline in condensate production. Preliminary crude oil production data indicates a drop of 14 tb/d in November to 0.69 mb/d due to production being temporarily offline at the ACG complex. However, crude supply is likely to recover in December. Azerbaijan oil supply in the first ten months of the year was stagnant at 0.80 mb/d compared to the same period in 2017.

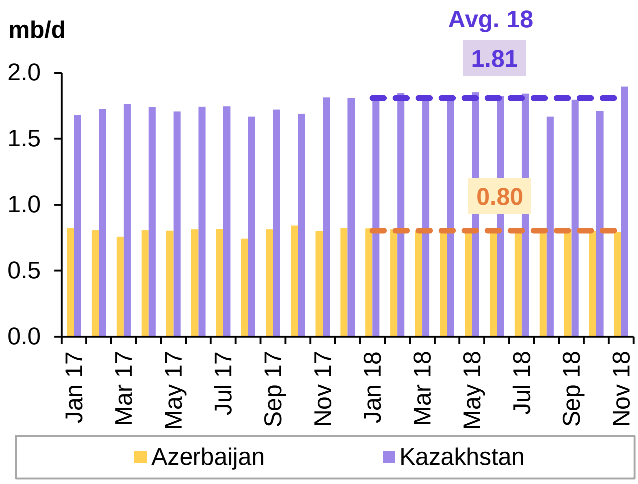
The country's liquids supply for 2018 is expected to remain unchanged at 0.80 mb/d. For 2019, liquids production in Azerbaijan is forecast to decrease further by 0.01 mb/d to average 0.79 mb/d, while the share of Azerbaijan, as one of the non-OPEC participating producers of the DoC, is to be adjusted down by 20 tb/d lower than production in October for 1H19, as per the recent decisions made at the OPEC and non-OPEC ministerial meetings in December. As a result, Azeri oil supply will decline by 0.02 mb/d to average 0.78 mb/d next year.

**Graph 5 - 27: Azerbaijan's quarterly liquids supply**




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

**Graph 5 - 28: Azerbaijan's and Kazakhstan's monthly liquids outputs**




*Source: OPEC Secretariat.*

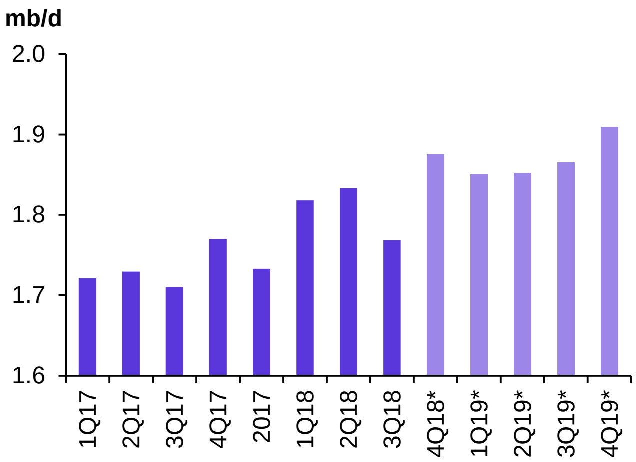
## Kazakhstan

In **Kazakhstan**, the October liquids output declined by 0.09 mb/d to average 1.71 mb/d due to seasonal maintenance at Tengiz. Nevertheless, oil production was higher y-o-y by 0.02 mb/d. Crude oil output in October was down by 87 tb/d to average 1.44 mb/d, mainly in the Tengiz field.

According to officials of the North Caspian Operating Co (NCOC), oil output at the giant Kashagan field in the Caspian is set to exceed the target level of 370 tb/d after an equipment upgrade next year, while Kazakhstan recently agreed to adjust down their production and keep the level at approximately 1.85 mb/d in 1H19.

Kazakhstan's oil supply, following the start-up of production in late 2016, grew by 0.17 mb/d y-o-y in 2017 and now, y-o-y average growth is estimated at 0.08 mb/d to average 1.81 mb/d during the first eleven months of the year compared to the same period in 2017.

**Graph 5 - 29: Kazakhstan's quarterly liquids output**



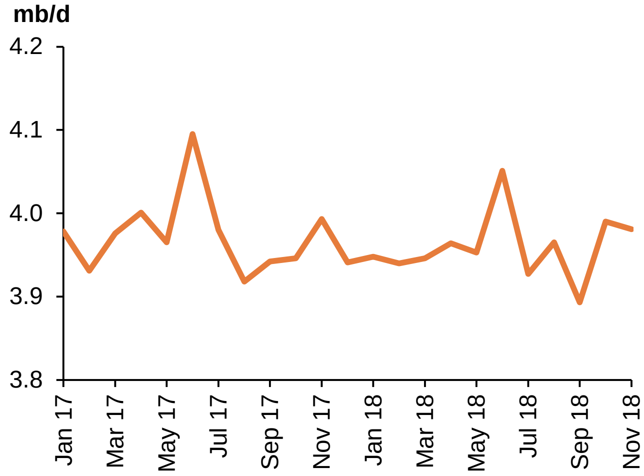

*Note: * 4Q18 - 4Q19 = Forecast.*
*Source: OPEC Secretariat.*

Oil output from the Kashagan field reached 350 tb/d in November, however production will briefly shut down for maintenance in the spring of 2019.

## China

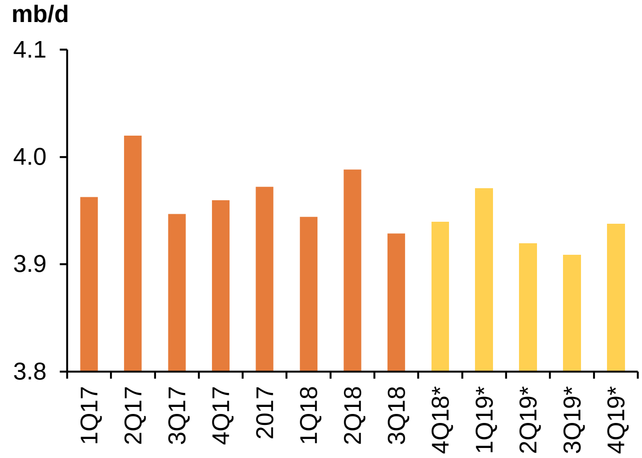
**China's liquids production** in October recovered by 100 tb/d m-o-m to average 3.99 mb/d, higher by 0.04 mb/d y-o-y. With regard to crude oil output in October, it rose by 95 tb/d to average 3.79 mb/d, mainly due to the recovery of production after typhoon Mangkhut in September. As it was mentioned in the previous MOMR, the annual decline in mature oil fields is deeper than expected, therefore Chinese oil companies by increasing drilling activity are trying to slow the declines as for example PetroChina has done in Xinjiang field,  in order to boost oil production.Year to October,China's liquids output declined by 10 tb/d y-o-y. Production of non-conventionals, mainly CTL could compensate for the 63 tb/d decline of crude oil production during the same period. Crude imports by China have been increasing y-o-y: 7.6 mb/d in 2016, 8.4 mb/d in 2017 and now they are expected to reach 9.2 mb/d in 2018, according to secondary sources. This is mainly due to the Chinese government's mandate for the national companies to increase domestic production through higher investments and more exploration activities, particularly in unconventional sources.

**Graph 5 - 30: China's monthly liquids output**




*Source: OPEC Secretariat.*

**Graph 5 - 31: China's quarterly liquids output**




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

Oil supply in the current year is estimated to see a mild contraction of 0.02 mb/d to average 3.95 mb/d compared to last year's decline of 0.12 mb/d, owing to more investments and drilling activities. Next year, oil supply is expected to experience similar declines.

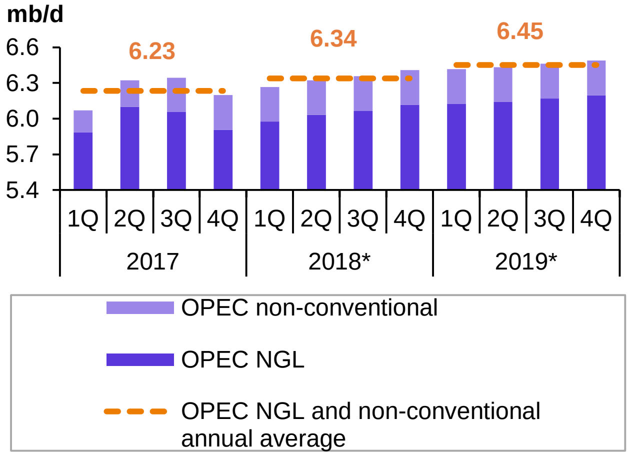
## OPEC NGLs and non-conventional oils

**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 October and November 2018 shows output at 6.44 mb/d, higher by 0.22 mb/d y-o-y, and 6.43 mb/d, higher by 0.23 mb/d, y-o-y, respectively.

**Graph 5 - 32: OPEC NGL and non-conventional liquids output**




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

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

| | 2016 | 2017 | Change 17/16 | 1Q18 | 2Q18 | 3Q18 | 4Q18 | 2018* | Change 18/17 | 2019* | Change 19/18 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 32.97 mb/d in November, a decrease of 11 tb/d over the previous month. Crude oil output increased mostly in Saudi Arabia, UAE and Kuwait, while production declined in I.R. Iran, Venezuela, Nigeria and Iraq.

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

| | 2016 | 2017 | 1Q18 | 2Q18 | 3Q18 | Sep 18 | Oct 18 | Nov 18 | *Nov/Oct* |
|---|---|---|---|---|---|---|---|---|---|
| **Algeria** | 1,090 | 1,043 | 1,014 | 1,026 | 1,059 | 1,057 | 1,057 | 1,052 | *-5* |
| **Angola** | 1,718 | 1,634 | 1,562 | 1,493 | 1,472 | 1,512 | 1,518 | 1,521 | *3* |
| **Congo** | 216 | 252 | 306 | 324 | 320 | 322 | 322 | 320 | *-2* |
| **Ecuador** | 545 | 530 | 515 | 519 | 528 | 528 | 523 | 525 | *1* |
| **Equatorial Guinea** | 160 | 133 | 134 | 127 | 124 | 123 | 124 | 125 | *2* |
| **Gabon** | 221 | 200 | 194 | 182 | 184 | 184 | 187 | 176 | *-11* |
| **Iran, I.R.** | 3,515 | 3,813 | 3,817 | 3,818 | 3,603 | 3,451 | 3,333 | 2,954 | *-380* |
| **Iraq** | 4,392 | 4,446 | 4,441 | 4,480 | 4,631 | 4,657 | 4,654 | 4,631 | *-23* |
| **Kuwait** | 2,853 | 2,708 | 2,704 | 2,707 | 2,797 | 2,795 | 2,764 | 2,809 | *45* |
| **Libya** | 390 | 817 | 991 | 889 | 892 | 1,054 | 1,115 | 1,104 | *-11* |
| **Nigeria** | 1,556 | 1,658 | 1,780 | 1,653 | 1,705 | 1,746 | 1,765 | 1,736 | *-30* |
| **Qatar** | 656 | 607 | 593 | 602 | 609 | 595 | 612 | 615 | *3* |
| **Saudi Arabia** | 10,406 | 9,954 | 9,949 | 10,114 | 10,422 | 10,502 | 10,639 | 11,016 | *377* |
| **UAE** | 2,979 | 2,915 | 2,850 | 2,873 | 2,982 | 3,018 | 3,175 | 3,246 | *71* |
| **Venezuela** | 2,154 | 1,911 | 1,545 | 1,388 | 1,249 | 1,218 | 1,189 | 1,137 | *-52* |
| **Total OPEC** | **32,851** | **32,623** | **32,393** | **32,195** | **32,576** | **32,761** | **32,976** | **32,965** | ***-11*** |

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

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

| | 2016 | 2017 | 1Q18 | 2Q18 | 3Q18 | Sep 18 | Oct 18 | Nov 18 | *Nov/Oct* |
|---|---|---|---|---|---|---|---|---|---|
| **Algeria** | 1,146 | 1,059 | 1,004 | 1,025 | 1,066 | 1,072 | 1,070 | 1,068 | *-2* |
| **Angola** | 1,722 | 1,632 | 1,519 | 1,477 | 1,475 | 1,489 | 1,457 | 1,417 | *-40* |
| **Congo** | 225 | 263 | 320 | 328 | 330 | 340 | .. | .. | *..* |
| **Ecuador** | 549 | 531 | 512 | 516 | 524 | 519 | 514 | 515 | *2* |
| **Equatorial Guinea** | .. | 129 | 127 | 124 | 118 | 123 | 108 | 119 | *11* |
| **Gabon** | 229 | 210 | 192 | 185 | 192 | 199 | 209 | .. | *..* |
| **Iran, I.R.** | 3,651 | 3,867 | 3,811 | 3,804 | 3,789 | 3,755 | .. | .. | *..* |
| **Iraq** | 4,648 | 4,469 | 4,360 | 4,360 | 4,460 | 4,460 | 4,460 | 4,455 | *-5* |
| **Kuwait** | 2,954 | 2,704 | 2,702 | 2,704 | 2,784 | 2,752 | 2,733 | 2,730 | *-3* |
| **Libya** | .. | .. | .. | .. | .. | .. | .. | .. | *..* |
| **Nigeria** | 1,427 | 1,536 | 1,611 | 1,526 | 1,611 | 1,634 | 1,635 | 1,938 | *303* |
| **Qatar** | 652 | 600 | 594 | 600 | 601 | 570 | 609 | .. | *..* |
| **Saudi Arabia** | 10,460 | 9,959 | 9,942 | 10,128 | 10,399 | 10,502 | 10,642 | 11,093 | *451* |
| **UAE** | 3,088 | 2,967 | 2,841 | 2,876 | 2,998 | 3,050 | 3,270 | 3,336 | *66* |
| **Venezuela** | 2,373 | 2,035 | 1,623 | 1,523 | 1,451 | 1,434 | 1,433 | 1,464 | *31* |
| **Total OPEC** | **..** | **..** | **..** | **..** | **..** | **..** | **..** | **..** | ***..*** |

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

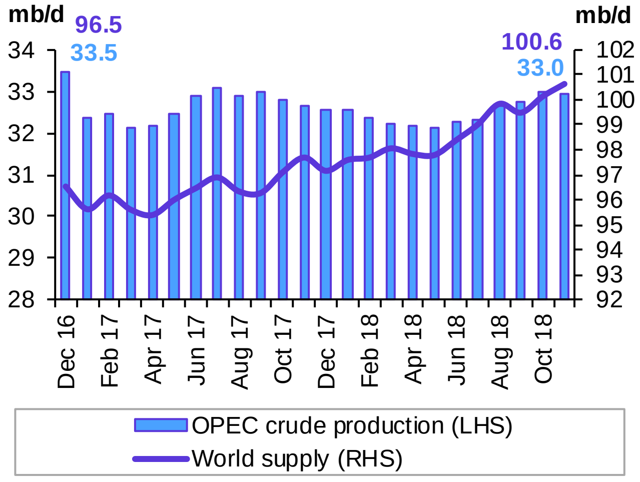
# World oil supply

Preliminary data indicates that **global oil supply** increased by 0.50 mb/d to average 100.64 mb/d in November 2018, compared with the previous month.

An increase in non-OPEC supply (including OPEC NGLs) of 0.44 mb/d compared with the previous month was mainly driven by OECD Americas. Along with a minor decline in OPEC crude oil production of 11 tb/d in November, this equates to a total increase in global oil output of 2.95 mb/d y-o-y.

The **share of OPEC crude oil in total global production** declined by 0.2% to 32.8% in November 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 - 33: OPEC and world oil supply**




*Source: OPEC Secretariat.*

# Product Markets and Refinery Operations

***Product markets** had a mixed performance during November, as they were sustained by a strong performance at the middle of the barrel and robust fuel oil cracks but suffered severe gasoline weakening due to supply side pressure amid seasonally slower demand.*

*In the **US**, product markets weakened slightly despite positive performance at the middle of the barrel due to considerable gasoil and jet/kerosene inventory drawdowns.*

*In **Europe**, product markets had a strong recovery from the slump witnessed in the previous month. Middle distillate cracks soared as a result of support provided from the decline in inventory levels attributed to delays in refinery restarts after maintenance, and by concerns of shortages as refineries in France went on strike. Declining product prices and firm gasoline exports recorded during the month further contributed to the positive performance.*

*In **Asia**, product markets continued to weaken, exhibiting slight losses as gasoline cracks deteriorated to record- lows and outweighed the positive performance in the jet fuel/kerosene complex, thereby keeping margins slightly depressed.*

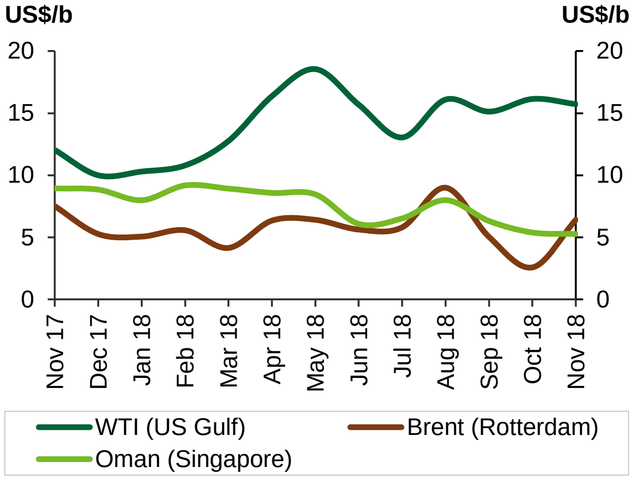
## Refinery margins

**US** refinery margins witnessed moderate losses despite of strong jet fuel/kerosene drawdowns amid solid exports to South America. Another supporting factor was healthy domestic gasoil demand as low stock levels and higher heating oil demand due to cold weather in the US East Coast provided support. US refinery margins for WTI averaged $15.75 /b in November, down by 41¢ m-o-m but up by $3.70 y-o-y.

Refinery margins in **Europe** strengthened, supported by firm gasoline exports to Nigeria and continued product supply limitations due to slower-than-expected refinery return from turnarounds.

Furthermore, concerns of refinery strikes in France during the month fuelled bullish sentiment in an already tight diesel market, providing a boost on diesel cracks. Refinery margins for Brent in Europe averaged $6.42/b in November, up by $3.83 compared to a month earlier but down by $1.10 y-o-y.

**Graph 6 - 1: Refining margins**




*Sources: Argus Media and OPEC Secretariat.*

The **Asian** refinery margins dipped slightly. Gasoline cracks collapsed and exhibited the second weakest m-o-m performance followed by naphtha compared to all other main products. Gasoline cracks in Singapore plummeted to $1.13/b, a record breaking low due to prevailing oversupply amid slower gasoline demand growth. As a result, gasoline prices in Singapore fell, positioned at a $1.36 discount versus fuel oil. The severe gasoline and naphtha weakening offset support on the back of strong regional jet fuel/kerosene drawdowns. Refinery margins for Oman in Asia lost 93¢ m-o-m to average $5.39/b in October, which was lower by $3.98 y-o-y.

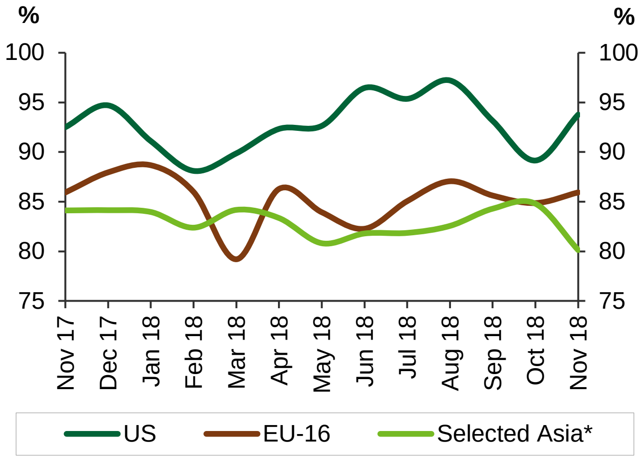
# Refinery operations

In the **US**, refinery utilization rates increased in November to average 93.77%, which corresponds to a throughput of 17.45 mb/d. This represented a rise of 4.6 pp and 870 tb/ respectively, compared with the previous month. Y-o-y, the October refinery utilization rate was up by 1.3 pp, with throughputs showing a rise of 846 tb/d.

**European** refinery utilization averaged 85.94%, corresponding to a throughput of 10.69 mb/d. This is a m-o-m rise of 1.1 pp and 130 tb/d, respectively. On a y-o-y basis, utilization rates were flat and throughputs were up by 11 tb/d.

In **selected Asia** - comprising of Japan, China, India and Singapore - refinery utilization rates declined, averaging 80.13% in November, corresponding to a throughput of 20.75 mb/d. Compared to the previous month, throughputs were down by 4.7 pp and by 1.2 mb/d. Concurrently, compared with the previous year, refinery utilization rates and throughputs were down by 4.0 pp and by 903 tb/d, respectively.

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




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

# Product markets

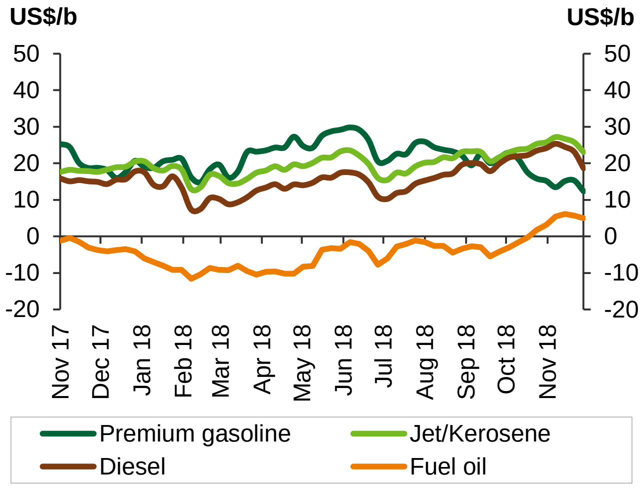
## US market

The US **gasoline** market weakened as gasoline demand remained somewhat subdued, pressured by the supply side, with refineries back from maintenance.

Additional pressure came from the bearish sentiment in the market as gasoline exports during November declined and dropped by 794 tb/d compared with the previous month.

During the month, gasoline prices dropped further by $18.67 compared with the previous month, shadowing the fall in WTI crude prices, to average $70.95. Furthermore, USGC gasoline price spread against gasoil widened from $3.68 in October to $9.01 in November. This development led to declines in gasoline gross product worth, keeping gasoline margins under pressure.

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




*Sources: Argus Media and OPEC Secretariat.*

On the other hand, this should in theory encourage gasoline consumption, however, if demand remains lacklustre, we may expect refiners to reduce gasoline yields and maximize middle distillate output instead, in the near term to avoid losses. In November, the US gasoline crack spread against WTI averaged $14.20/b, down by $4.67 m-o-m and $7.30/b y-o-y.

The US Gulf Coast (USGC) **jet/kerosene** market strengthened as inventory drawdowns remained strong, fuelling bullish market sentiment in the market. In addition, firm exports from the USGC to South America added to the jet/kerosene market tightness. The US jet/kerosene crack spread against WTI averaged $25.88/b, up by $1.62 m-o-m and by $8.10 y-o-y.

US **gasoil crack spreads** rose slightly and continued to receive support from healthy domestic demand, firm export opportunities. Low gasoil stock levels in the US East Coast along with higher heating oil demand due to cold weather contributed to the positive outcome. The US gasoil crack spread against WTI averaged $23.21/b, up by 66 ¢ m-o-m and higher by $8.06 y-o-y.

US **fuel oil crack spreads** against WTI in November continued to trend upwards showing a considerable rise. The fuel oil market continued to benefit from the reduced supplies due to refinery turnarounds during peak autumn maintenance season ending last month. In the near term, a downward correction on cracks could be expected as stocks recover from higher refinery outputs. In November, the US fuel oil crack spread against WTI averaged $5.44/b, up by $5.65 m-o-m and $7.25 y-o-y.

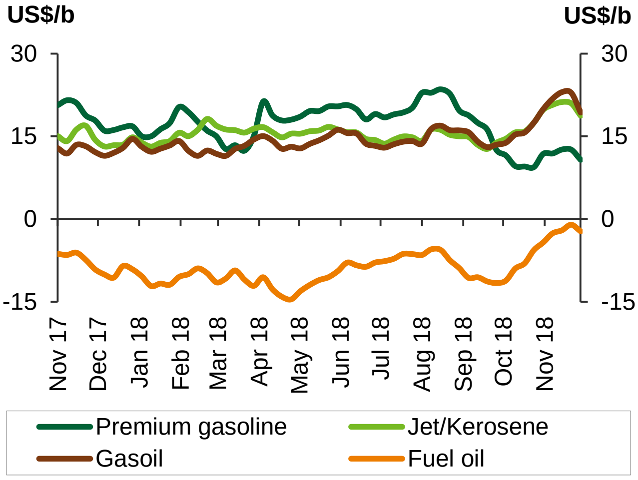
## European market

The **gasoline crack spreads** in Rotterdam performed positively as firm exports to Nigeria supported the gasoline market. The drop in crude prices and subsequently gasoline prices witnessed during the month boosted gasoline buying interest. Refinery strikes affected six refineries in France, halting operations in some while others simply reduced throughputs. This may have fuelled bullish sentiment temporarily supporting gasoline markets.

The low Rhine river water levels have restricted gasoline flows from inland refiners to coastal export hubs. This coupled with sustained exports may lend further support to gasoline markets in the near term.

The gasoline crack spread against Brent averaged $12.12/b in November, up by $2.04 m-o-m but down by $8.13 y-o-y.

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




*Sources: Argus Media and OPEC Secretariat.*

The **jet/kerosene crack spreads** against Brent strengthened over the month with considerable gains m-o-m and y-o-y as it reached $20.44/b in November, reaching a multi-year record level supported by market tightness, coupled with lower crude prices over the month. The Rotterdam jet/kerosene crack spread against Brent averaged $20.44/b, up by $4.11 m-o-m and by $4.95 y-o-y.

The European **gasoil crack spreads** against Brent exhibited the strongest positive performance across the barrel during November. Gasoil cracks averaged $21.69/b, a level not reached since at least 2015. Support emerged from lower crude prices and concerns over supply reductions caused by the strikes in French refineries. The gasoil crack spreads against Brent averaged $21.69/b, which was higher by $5.63 m-o-m and by $8.97 y-o-y.

At the bottom of the barrel, the **fuel oil 3.5%** continued to rise as a combination of low stock levels and lower deliveries from Russia due to higher domestic demand in November provided support. In Europe, fuel oil cracks averaged minus $5.95/b in November, gaining $5.50 m-o-m, and $5.00 y-o-y.

## Asian market

The Asian **gasoline 92 crack spreads** against Dubai deteriorated reaching alarmingly low levels becoming the weakest performing product all across the barrel. The severe weakening is attributed to higher gasoline outputs from China amid slowing demand growth caused by weaker gasoline fuelled car sales. In China, for the first ten months of the year gasoline exports to Singapore jumped by 48% y-o-y largely contributing to the regional oversupply. This was further exacerbated by new gasoline supply growth from the new Nghi Son refinery in Vietnam and the global lengthening balance.

This development led to a drop in gasoline prices in China, which declined by $18.74/b m-o-m, averaging $66.92, priced at a $1.36 discount versus fuel oil, a rare event.

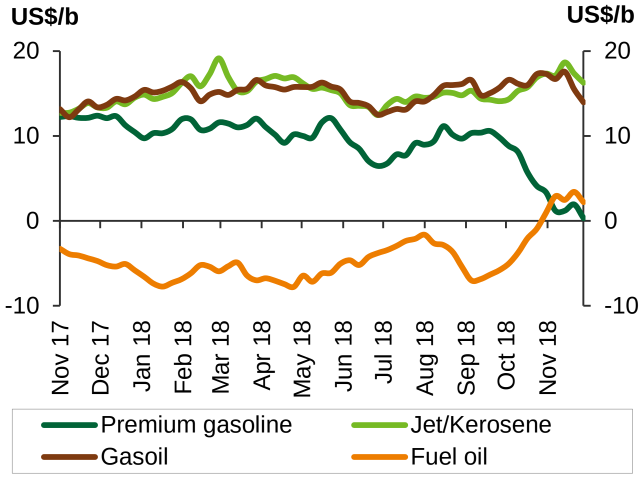
Furthermore, the release of additional export quotas by the Chinese government in November, is set to boost 4Q18 gasoline exports fuelling bearish sentiment into the regional market resulting in additional pressure on gasoline cracks in the near term. The Singapore gasoline crack spread against Oman averaged $1.13/b, down by a hefty $5.13 m-o-m and by $11.13 y-o-y.

The Singapore **light distillate naphtha crack spreads** continued to drop for the fourth consecutive month. This reflected gasoline weakening. In addition, lower LPG prices and weaker petrochemical margins combined with the global oversupply contributed to the negative performance.

The Singapore naphtha crack spread against Oman averaged minus $8.78/b, having declined by $4.28 m-o-m and by $12.64 y-o-y.

At the middle of the barrel, the **jet/kerosene crack spreads** in Asia continued to trend upwards, performing well, after the recovery seen in the previous month, reaching the second highest mark of the year in November, and the highest level since February 2018.

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




*Sources: Argus Media and OPEC Secretariat.*

This upside development was driven by strong inventory drawdowns in Japan and firm demand from India. Relatively weaker fundamentals for this time of year amid unfavourable economics due to higher transportation costs for vessels headed to Northwest Europe from Singapore, have exerted pressure on arbitrage flows keeping the jet fuel/kerosene market gains capped.

The Indian Oil Corporation's decision to cut jet fuel prices for December, in line with the drop in crude prices, could unlock higher buying interest. Moreover, some consumption for home heating in Japan during winter amid higher global aviation demand around the holiday season set stage for positive jet fuel/kerosene performance in the near term. The Singapore jet/kerosene crack spread against Oman averaged $17.18/b, up by $1.42 m-o-m and by $3.97 y-o-y.

The Singapore **gasoil crack spreads** declined in November, pressured by slower buying interest and increased Chinese Export quotas, and a lengthening regional balance. Moreover, a 25% drop in low sulphur marine gasoil prices attributed to ample supply amid moderate demand fuelled further bearishness in the regional gasoil market. The Singapore gasoil crack spread against Oman averaged $16.26/b, down by $1.25 m-o-m but up by $3.11 y-o-y.

The Singapore **fuel oil crack spreads** continued to strengthen, further extending the sharp rise in fuel oil cracks witnessed since September. They broke into positive territory for the first time in at least the last 3 years. A decline in fuel oil supply in line with a 20% drop in fuel oil stocks y-o-y in Singapore, recorded on 28 November, contributed to market tightness. Additional bullishness could also be expected as refineries continue to resort to upgrades, further diminishing fuel oil output in light of the IMO 2020 regulations. The Singapore fuel oil cracks against Oman, averaged $2.49/b, up by $5.07 m-o-m and by $6.63 y-o-y.

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

| Event | Time frame | Asia | Europe | US | Observations |
|---|---|---|---|---|---|
| **Indian Oil Corporation jet fuel price cut** | 1 Dec 18 | ↑ Some positive impact on product markets | - | - | A 10% reduction in aviation fuel prices could unlock additional buying interest and support jet fuel crack spreads in the near term. |
| **Declining gasoline cracks** | Dec 18 | ↓ High negative impact on product markets | ↓ Some negative impact on product markets | ↓ Some negative impact on product markets | Prevailing downside risks could be expected in the coming months, despite some anticipated support during the holiday season. Refineries, particularly in Asia, may resort to reducing gasoline output, or reduce intakes to minimize losses. |
| **Middle distillates market strength** | Dec 18 | ↑ Some positive impact on product markets | ↑ Some positive impact on product markets | ↑ Some positive impact on product markets | Upside potential for firm aviation fuel, kerosene and heating oil demand will most likely provide support for product markets in the near term. |
| **Issuance of additional China's export quotas** | Dec 18 | ↓ Some negative impact on product markets | ↓ Some negative impact on product markets | ↓ Some negative impact on product markets | Refineries will most likely increase intakes to capitalise on middle distillates shortage. Higher gasoline exports could worsen the oversupply environment. |

*Source: OPEC Secretariat.*

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

| | *Refinery throughput, mb/d* | | | | *Refinery utilization, %* | | | |
|---|---|---|---|---|---|---|---|---|
| | Sep 18 | Oct 18 | Nov 18 | Change Nov/Oct | Sep 18 | Oct 18 | Nov 18 | Change Nov/Oct |
| **US** | **17.32** | **16.58** | **17.45** | **0.87** | **93.14** | **89.14** | **93.77** | **4.6 pp** |
| **Euro-16*** | **10.65** | **10.56** | **10.69** | **0.13** | **85.62** | **84.86** | **85.94** | **1.1 pp** |
| **France*** | 1.24 | 1.18 | 1.19 | 0.01 | 98.81 | 94.02 | 95.09 | 1.1 pp |
| **Germany*** | 1.56 | 1.74 | 2.04 | 0.30 | 71.07 | 79.66 | 93.16 | 13.5 pp |
| **Italy*** | 1.35 | 1.28 | 1.40 | 0.12 | 65.93 | 62.71 | 68.45 | 5.7 pp |
| **UK*** | 1.15 | 1.10 | 0.96 | -0.13 | 87.59 | 83.40 | 73.24 | -10.2 pp |
| **Selected Asia**** | **21.71** | **21.93** | **20.75** | **-1.18** | **84.29** | **84.80** | **80.13** | **-4.7 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** | **39.05** | **38.32** |
| **OECD Americas** | **19.00** | **18.78** | **19.09** | **18.99** | **18.79** | **19.50** | **19.83** | **19.37** |
| of which US | 16.43 | 16.51 | 16.88 | 17.01 | 16.75 | 17.50 | 17.66 | 17.33 |
| **OECD Europe** | **12.11** | **11.94** | **12.27** | **12.40** | **11.93** | **11.73** | **12.55** | **12.25** |
| *of which:* | | | | | | | | |
| France | 1.17 | 1.14 | 1.17 | 1.23 | 1.12 | 0.94 | 1.21 | 1.17 |
| Germany | 1.91 | 1.93 | 1.91 | 1.97 | 1.89 | 1.86 | 1.78 | 1.91 |
| Italy | 1.35 | 1.30 | 1.40 | 1.45 | 1.35 | 1.33 | 1.37 | 1.36 |
| UK | 1.14 | 1.09 | 1.10 | 1.09 | 0.93 | 1.04 | 1.13 | 1.03 |
| **OECD Asia Pacific** | **6.60** | **6.78** | **6.82** | **6.95** | **6.97** | **6.43** | **6.67** | **6.70** |
| *of which Japan* | 3.26 | 3.28 | 3.23 | 3.19 | 3.33 | 2.85 | 3.07 | 3.16 |
| **Total Non-OECD** | **40.59** | **41.26** | **42.01** | **42.98** | **42.44** | **42.73** | **43.22** | **43.52** |
| *of which:* | | | | | | | | |
| China | 10.44 | 10.77 | 11.35 | 11.92 | 11.75 | 12.04 | 12.10 | 12.27 |
| Middle East | 6.69 | 6.91 | 7.04 | 7.20 | 6.99 | 7.07 | 7.48 | 7.51 |
| 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 | 3.70 | 3.56 |
| India | 4.56 | 4.93 | 4.98 | 5.21 | 5.19 | 5.05 | 5.03 | 5.28 |
| Africa | 2.14 | 2.19 | 2.16 | 2.09 | 2.11 | 2.19 | 1.83 | 1.92 |
| **Total world** | **78.30** | **78.75** | **80.19** | **81.32** | **80.12** | **80.38** | **82.27** | **81.84** |

*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

| | | Oct 18 | Nov 18 | Change Nov/Oct | Year-to-date 2017 | Year-to-date 2018 |
|---|---|---|---|---|---|---|
| **US Gulf (Cargoes FOB):** | | | | | | |
| Naphtha* | | 74.78 | 56.56 | -18.22 | 55.09 | 70.23 |
| Premium gasoline | *(unleaded 93)* | 89.62 | 70.95 | -18.67 | 74.42 | 87.92 |
| Regular gasoline | *(unleaded 87)* | 83.28 | 65.49 | -17.79 | 68.57 | 82.21 |
| Jet/Kerosene | | 95.01 | 82.63 | -12.38 | 66.07 | 86.53 |
| Gasoil | *(0.2% S)* | 93.30 | 79.96 | -13.34 | 62.31 | 82.22 |
| Fuel oil | *(3.0% S)* | 69.22 | 59.49 | -9.73 | 47.05 | 60.96 |
| **Rotterdam (Barges FoB):** | | | | | | |
| Naphtha | | 73.15 | 55.86 | -17.29 | 53.66 | 67.88 |
| Premium gasoline | *(unleaded 98)* | 91.20 | 76.78 | -14.42 | 75.13 | 89.14 |
| Jet/Kerosene | | 97.45 | 85.10 | -12.35 | 66.84 | 88.03 |
| Gasoil/Diesel | *(10 ppm)* | 97.18 | 86.35 | -10.83 | 66.35 | 86.97 |
| Fuel oil | *(1.0% S)* | 73.08 | 62.61 | -10.47 | 48.71 | 63.17 |
| Fuel oil | *(3.5% S)* | 69.67 | 58.71 | -10.96 | 44.31 | 59.96 |
| **Mediterranean (Cargoes FOB):** | | | | | | |
| Naphtha | | 72.58 | 54.99 | -17.59 | 52.81 | 67.29 |
| Premium gasoline** | | 82.54 | 67.52 | -15.02 | 66.56 | 80.96 |
| Jet/Kerosene | | 95.67 | 83.22 | -12.45 | 65.12 | 86.24 |
| Diesel | | 96.77 | 85.10 | -11.67 | 66.92 | 86.79 |
| Fuel oil | *(1.0% S)* | 74.28 | 64.51 | -9.77 | 49.55 | 64.35 |
| Fuel oil | *(3.5% S)* | 70.81 | 60.01 | -10.80 | 46.18 | 61.33 |
| **Singapore (Cargoes FOB):** | | | | | | |
| Naphtha | | 74.90 | 57.01 | -17.89 | 54.04 | 68.61 |
| Premium gasoline | *(unleaded 95)* | 87.64 | 68.65 | -18.99 | 68.01 | 81.74 |
| Regular gasoline | *(unleaded 92)* | 85.66 | 66.92 | -18.74 | 65.43 | 79.45 |
| Jet/Kerosene | | 95.16 | 82.97 | -12.19 | 65.32 | 86.05 |
| Gasoil/Diesel | *(50 ppm)* | 96.91 | 82.05 | -14.86 | 66.33 | 86.01 |
| Fuel oil | *(180 cst)* | 76.82 | 68.28 | -8.54 | 49.67 | 66.04 |
| Fuel oil | *(380 cst 3.5% S)* | 76.59 | 68.25 | -8.34 | 49.24 | 65.48 |

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

# Tanker Market

*In November, tanker spot freight rates for **dirty vessels** showed a significant increase as rates continued to rise from the previous month. Average spot freight rates increased for the third month in a row, showing a gain of 21% on average from the previous month.*

*Freight rates for all classes in the dirty segment of the market increased on all reported routes. VLCC spot freight rates went up from the previous month, supported by increases in tonnage demand in major trading areas. The Suezmax class also benefited from a firming market, showing higher levels of increases in spot freight rates supported by a tightening tonnage list and increased transit delays in the Turkish Straits. Similarly, Aframax freight rates edged up in November, mainly as demand and rates in the Mediterranean and US Gulf Coast (USGC) surged. Additionally, delays in the Turkish Straits reduced the supply of vessels and raised freight rates significantly on a monthly and annual basis.*

***Clean tanker spot freight rates** also showed gains in November, benefiting from seasonal demand and higher chartering activities in both the eastern and western directions of Suez. Tanker market earnings in both the dirty and clean sectors were enhanced in November on the back of lower bunker prices, thus reducing operational costs.*

## Spot fixtures

In November, **OPEC spot fixtures** were up by 1.3% from the previous month to average 14.51 mb/d, according to preliminary data. The increase came at the same time as fixtures from the **Middle East-to-East** increased by 8% from one month earlier, while fixtures from both **Middle East-to-West** and **outside Middle East** declined by 2.3% and 7.8%, respectively, from a month before.

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

| | Sep 18 | Oct 18 | Nov 18 | *Change* Nov 18/Oct 18 |
|---|---|---|---|---|
| **All areas** | **21.71** | **21.56** | **22.07** | **0.51** |
| OPEC | 14.92 | 14.31 | 14.51 | 0.19 |
| Middle East/East | 8.15 | 7.77 | 8.39 | 0.62 |
| Middle East/West | 1.98 | 1.62 | 1.58 | -0.04 |
| Outside Middle East | 4.79 | 4.93 | 4.54 | -0.39 |

*Sources: Oil Movements and OPEC Secretariat.*

## Sailings and arrivals

**OPEC sailings** increased by 0.55 mb/d, or 2.2%, m-o-m in November to stand at 25.26 mb/d. This was supported by an increase in Middle East sailings, which rose by 0.55 mb/d, or 3.0%, over the previous month to average 18.51 mb/d.

**Crude oil arrivals** were higher in Far Eastern and West Asian ports, rising m-o-m by 0.09 mb/d and 0.03 mb/d, respectively, while arrivals at North American and European ports dropped m-o-m by 0.44 mb/d and 0.24 mb/d, respectively, in November.

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

| | Sep 18 | Oct 18 | Nov 18 | Change Nov 18/Oct 18 |
|---|---|---|---|---|
| **Sailings** | | | | |
| OPEC | 24.93 | 24.71 | 25.26 | 0.55 |
| Middle East | 18.23 | 17.96 | 18.51 | 0.55 |
| **Arrivals** | | | | |
| North America | 10.31 | 9.86 | 9.42 | -0.44 |
| Europe | 11.70 | 12.00 | 11.76 | -0.24 |
| Far East | 9.04 | 9.04 | 9.13 | 0.09 |
| West Asia | 4.36 | 4.49 | 4.52 | 0.03 |

*Sources: Oil Movements and OPEC Secretariat.*

# Dirty tanker freight rates

## Very large crude carriers (VLCCs)

In the dirty tanker market, **VLCC spot freight rates** continued to strengthen, showing further gains from one month earlier. The VLCC market showed obvious signs of recovery starting in mid-November.

VLCC average spot freight rates increased by 14% from one month before. On average, VLCC spot freight rates stood at WS75 points, up by 37% from those registered in the same month a year earlier.

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

| | Size *1,000 DWT* | Sep 18 | Oct 18 | Nov 18 | Change Nov 18/Oct 18 |
|---|---|---|---|---|---|
| Middle East/East | 230-280 | 55 | 83 | 93 | 10 |
| Middle East/West | 270-285 | 22 | 33 | 41 | 8 |
| West Africa/East | 260 | 56 | 81 | 91 | 10 |

*Sources: Argus Media and OPEC Secretariat.*

VLCC Middle East-to-East spot freight rates went up by 12% m-o-m in November to stand at WS93 points, followed by freight rates registered for tankers trading on the West Africa-to-East route, which rose by 13% to average WS91 points.

The VLCC spot freight rates on the Middle East-to-West route showed similar gains, rising by 24%, or WS8 points, m-o-m to average WS41 points.

## Suezmax

**Suezmax freight rates** have shown increases for three months in row with remarkable gains recorded in November across all reported routes.

Rates surged on all major trading routes from a month before, remaining well above those of the previous year. November tonnage availability tightened and market activities experienced their usual seasonal uptick. The Suezmax market saw further gains from the previous month as the market kept strengthening in several areas, including the Black Sea, West Africa and the Mediterranean. Furthermore, November freight rates were strengthened by increased delays in the Turkish Straits.

Average Suezmax freight rates remained healthy, supported by higher rates registered for tankers trading on the Northwest Europe (NWE)-to-USGC, which gained 50% m-o-m to stand at WS101 points in November.

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

| | Size *1,000 DWT* | Sep 18 | Oct 18 | Nov 18 | *Change* Nov 18/Oct 18 |
|---|---|---|---|---|---|
| West Africa/US Gulf Coast | 130-135 | 68 | 94 | 120 | 27 |
| Northwest Europe/US Gulf Coast | 130-135 | 56 | 67 | 101 | 34 |

*Sources: Argus Media and OPEC Secretariat.*

Similarly, an increase of 63% was seen over rates for the same month in 2017. Moreover, Suezmax spot freight rates for tankers operating on the West Africa to-USGC rose by WS27 points from a month before to stand at WS120 points, higher than those of the same month a year before by 52%.

# Aframax

Average **Aframax spot freight rates** showed gains as seen in larger vessels in the dirty tanker sector. Increases were seen on all reported routes. And average Aframax spot freight rates showed worthy gains in November by WS160 points.

Spot freight rates on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes were the main contributors to the average rate increases. Both routes reflected higher rates, by 20% each, respectively, from the previous month to stand at WS155 points and WS144 points. This reflects an increase of 51% and 46%, respectively, from the same month in 2017.

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

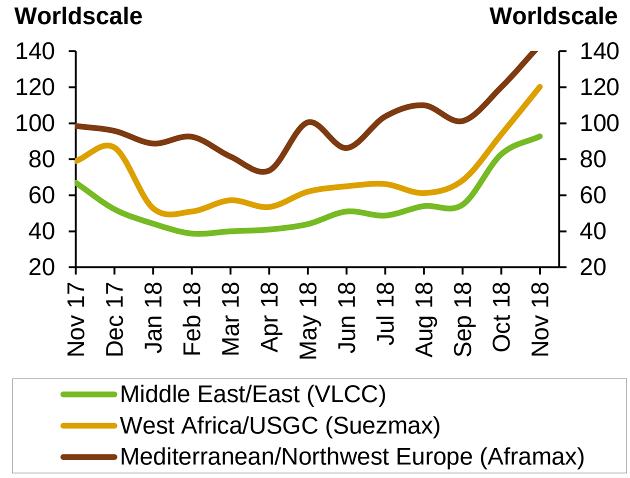
| | Size *1,000 DWT* | Sep 18 | Oct 18 | Nov 18 | *Change* Nov 18/Oct 18 |
|---|---|---|---|---|---|
| Indonesia/East | 80-85 | 103 | 123 | 133 | 10 |
| Caribbean/US East Coast | 80-85 | 152 | 189 | 210 | 20 |
| Mediterranean/Mediterranean | 80-85 | 107 | 129 | 155 | 25 |
| Mediterranean/Northwest Europe | 80-85 | 101 | 120 | 144 | 24 |

*Sources: Argus Media and OPEC Secretariat.*

Spot freight rates for Aframax operating on the Caribbean-to-US East Coast (USEC) increased by 11% from last month to recover to WS210 points.

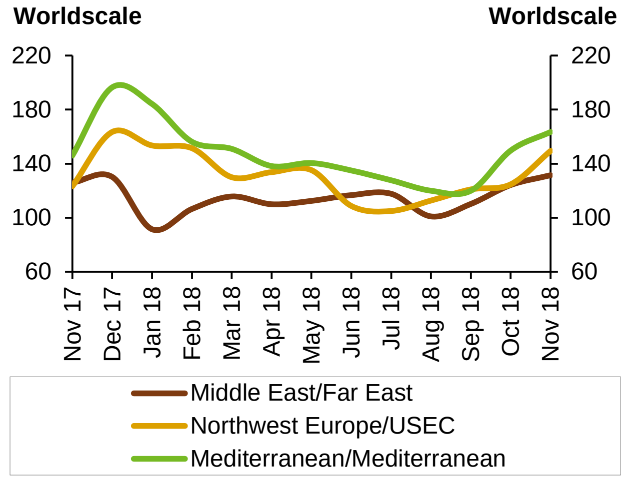
Meanwhile, spot freight rates for tankers trading on the Indonesia-to-East route showed relatively lower gains, rising by 8% m-o-m to stand at WS133 points in November.

**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

Within the **clean tanker market**, spot freight rates showed increases in November. On average, clean freight rates went up by 12% compared with the previous month. The higher average freight rates were driven by higher rates achieved in both eastern and western markets. Generally, market activity was enhanced in November, supported by seasonal demand.

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

| | Size<br>*1,000 DWT* | Sep 18 | Oct 18 | Nov 18 | *Change*<br>Nov 18/Oct 18 |
|---|---|---|---|---|---|
| ***East of Suez*** | | | | | |
| Middle East/East | 30-35 | 110 | 124 | 132 | 7 |
| Singapore/East | 30-35 | 123 | 123 | 147 | 24 |
| ***West of Suez*** | | | | | |
| Northwest Europe/US East Coast | 33-37 | 121 | 125 | 150 | 25 |
| Mediterranean/Mediterranean | 30-35 | 120 | 150 | 164 | 14 |
| Mediterranean/Northwest Europe | 30-35 | 130 | 162 | 172 | 9 |

*Sources: Argus Media and OPEC Secretariat.*

On the **East of Suez**, spot freight rates for tankers operating on the Middle East-to-East route went up by WS7 points from the previous month. Similarly, freight rates on the Singapore-to-East route rose, but by higher amounts, increasing by WS24 points from one month earlier to average WS147 points in November.

On the **West of Suez**, rates experienced similar gains as tonnage demand in different markets strengthened. An occasional tightening of ships balanced the tonnage market, thereby improving freight rates. Clean spot freight rates on the Mediterranean-to-Mediterranean and Mediterranean-to-NWE routes went up by 9% and 6%, respectively, m-o-m in November. Rates for tankers trading on NWE-to-USEC averaged WS150 points in November, rising by 20% from a month before.

# Oil Trade

*Preliminary data for November shows that **US** crude oil import volumes remained almost stable, averaging 7.6 mb/d. On an annual basis, this reflects a loss of 81 tb/d, 1% less than a year earlier. US products imports saw a drop of 436 tb/d from the previous month to average 1.8 mb/d, less by 9% m-o-m and 20% on a y-o-y basis.*

***Japan**'s crude oil imports increased in October by 170 tb/d, or 6%, m-o-m to average 3.1 mb/d. On a y-o-y comparison the crude imports were higher in October by 6%. In October, Japan's products imports increased by 68 tb/d m-o-m to average 676 tb/d, showing a gain of 11% m-o-m and 21% y-o-y.*

***China**'s crude oil imports increased by 101 tb/d, or 1.1%, from the previous month to average 9.18 mb/d. That is the highest level seen since May 2018. On an annual comparison, China's crude imports increased by a significant 1.85 mb/d, or 25%, compared to levels seen last year. With regard to China's product imports, they increased by 80 tb/d, or 6%, from the previous month to average 1.5 tb/d.*

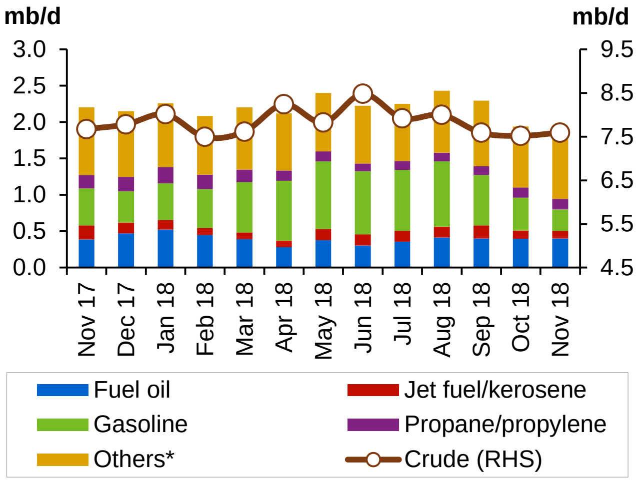
*In October, **India's** crude imports averaged 5 mb/d, that is 591 tb/d, or 14%, higher than levels seen last month. Similarly, the figures reflected a gain of 11% from the same month a year earlier. Product imports saw an inverse pattern, decreasing on a m-o-m basis by 10% and y-o-y by 19% to stand at 752 tb/d. Lower monthly products imports came mainly as a result of LPG imports dropping by 57 tb/d.*

## US

Preliminary data for November shows that **US crude oil imports** remained almost stable, averaging 7.6 mb/d. On an annual basis, this reflects a loss of 81 tb/d, or 1%, from a year earlier.

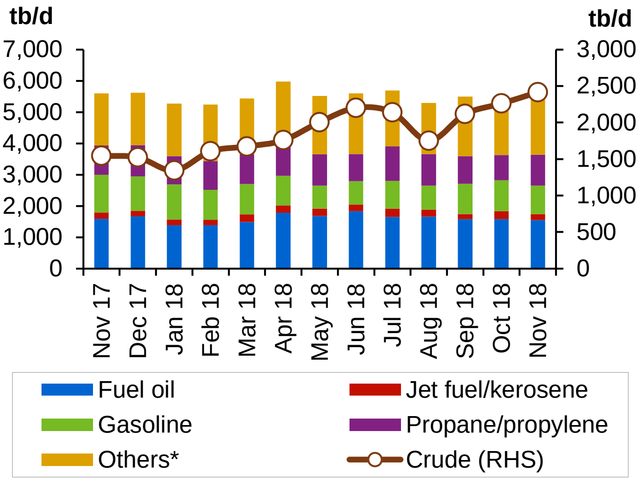
**US product imports** saw a drop from the previous month to average 1.8 mb/d, less by 9% on m-o-m and by 20% on a y-o-y basis as they dropped by 436 tb/d.

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




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

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




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

**US product exports** in November registered a gain of 92 tb/d, or 2%, m-o-m to average 5.4 mb/d. On an annual basis the figures reflected a drop of 202 tb/d, or 4%.

Consequentially, **US total net imports dropped m-o-m in November to average 1.5 mb/d**, reflecting a decline of 18% from last month and 43% from a year earlier.

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

| | Sep 18 | Oct 18 | Nov 18 | Change Nov 18/Oct 18 |
|---|---|---|---|---|
| Crude oil | 5,473 | 5,261 | 5,178 | -84 |
| Total products | -3,199 | -3,365 | -3,632 | -266 |
| **Total crude and products** | **2,274** | **1,896** | **1,546** | **-350** |

*Sources: US EIA and OPEC Secretariat.*

In September, the **top crude suppliers to the US** were the same as in the previous month. Canada remained the premier crude supplier to the US accounting for a 46% share of total US crude imports. Saudi Arabia's exports were down by 24 tb/d m-o-m, although it retained its position as the second largest supplier to the US. Mexico came third, accounting for 10% of US crude imports. On an annual comparison, the top three suppliers saw an increase in their exported volumes to the US by 82 tb/d, 315 tb/d and 345 tb/d, respectively.

**Crude imports from OPEC Member Countries** (MCs) were up by 122 tb/d from the previous month, amounting to 35% of total US crude imports.

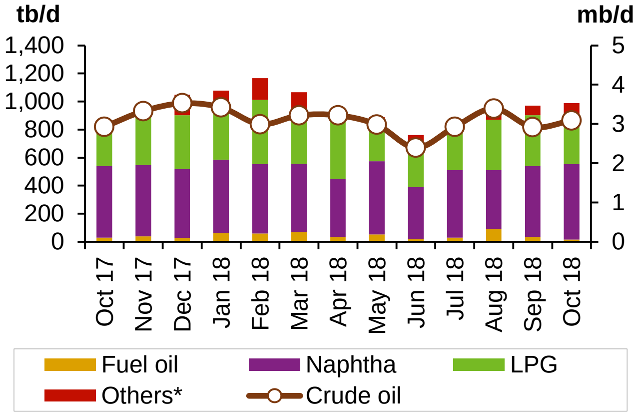
**US product imports from OPEC MCs** went up by 5% from last month to hold a share of 14% of total US product imports.

As to the **product supplier share**, Canada and Russia maintained their positions as first and second supplier to the US, accounting for 24% and 17% of total product imports. South Korea came as the third top supplier to the US as it exported 147 tb/d in September.

# Japan

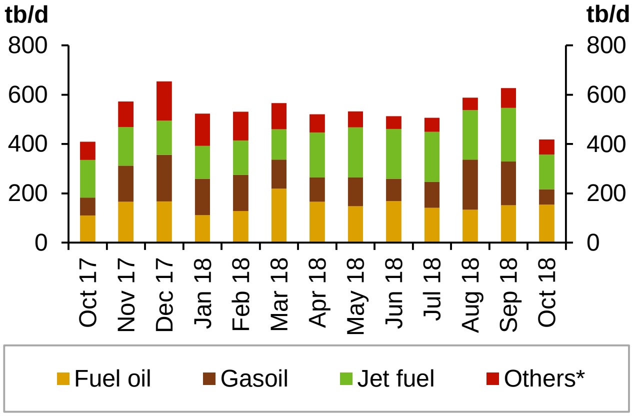
**Japan's crude oil imports** increased in October by 170 tb/d, or 6%, m-o-m to average 3.1 mb/d. On a y-o-y comparison, the crude imports were higher by 6%.

**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 **Japan's crude suppliers' share,** Saudi Arabia retained its position as the largest crude supplier to Japan, holding a share of 41% of total crude exports to Japan. The UAE was the second largest supplier to Japan, with a share of 25% of total crude exports. Both the Saudi Arabia and the UAE had an increase in their exported crude volumes to Japan from the previous month by 233 tb/d and 63 tb/d, respectively. Kuwait was the third largest supplier to Japan in October, with a share of 7%, stable volumes from one month before.

In October, **Japan's products imports**, excluding LPG, increased by 68 tb/d, or 11%, m-o-m to average 676 tb/d, showing a gain of 21% y-o-y. The increase in product imports came on the back of a rise in imported volumes of all products with the exception fuel oil, which dropped by 52% from a month ago. LPG meantime also decreased by 51 tb/d, or 14%, m-o-m to stand at 312 tb/d in October.

**Japan's product exports** dropped by 209 tb/d, or 33%, m-o-m to average 418 tb/d in October. This is the lowest level since October 2017, while compared with the same period last year it was higher by 8 tb/d only.

As a result, **Japan's net imports rose by 446 tb/d m-o-m to average 3.3 mb/d in October**, reflecting a monthly gain by 15% and an annual gain of 9%.

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

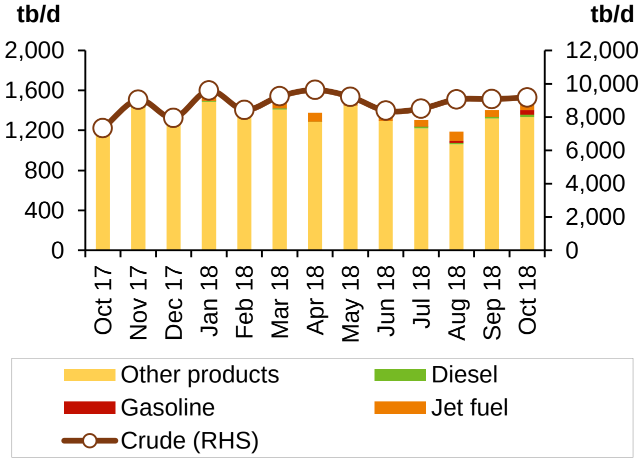
| | Aug 18 | Sep 18 | Oct 18 | Change Oct 18/Sep 18 |
|---|---|---|---|---|
| Crude oil | 3,392 | 2,918 | 3,088 | 170 |
| Total products | -5 | -18 | 258 | 276 |
| **Total crude and products** | **3,388** | **2,900** | **3,347** | **446** |

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

# China

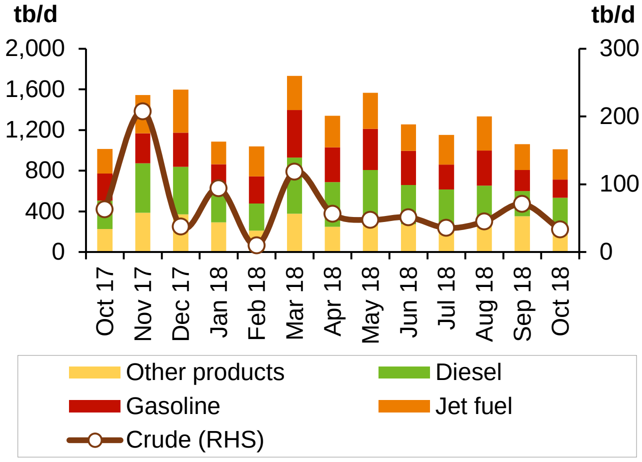
**Crude oil imports to China** increased in October by 101 tb/d, or 1.1%, from the previous month to average 9.18 mb/d. That is the highest level since May 2018. Concurrently, China's crude refining intake was higher in October from the previous month. On an annual comparison, China's crude imports increased by a significant 1.85 mb/d, or 25%, from levels seen last year.

**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** increased by 80 tb/d, or 6%, from previous month to average 1.5 mb/d.

Russia, Saudi Arabia, and Iraq, the **top crude suppliers to China** in October, saw their suppler shares increase m-o-m in October by 7%, 26% and 5%, respectively.

**China's product exports** declined by 51 tb/d, or 5%, m-o-m to average 1 mb/d.

As a result, **China's net oil imports increased from the previous month by 270 tb/d to reach 9.6 mb/d**, the highest level since January 2018.

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

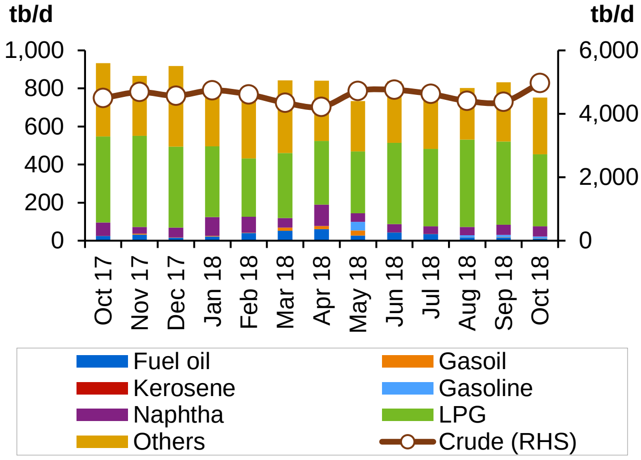
| | Aug 18 | Sep 18 | Oct 18 | *Change* Oct 18/Sep 18 |
|---|---|---|---|---|
| Crude oil | 9,018 | 9,008 | 9,148 | 139 |
| Total products | -145 | 341 | 472 | 131 |
| **Total crude and products** | **8,873** | **9,350** | **9,620** | **270** |

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

# India

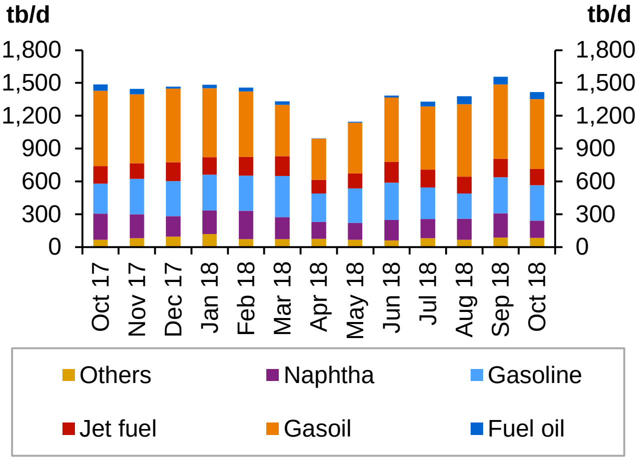
In October, **India's crude imports** averaged 5 mb/d, that is 591 tb/d, or 14%, higher than the level seen last month. India's crude oil imports went up, reflecting a gain of 11% from the same month a year earlier.

**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** went down on a m-o-m basis by 10% and 19% y-o-y to stand at 752 tb/d. Lower monthly product imports came mainly as a result of lower LPG imports in October, which dropped by 57 tb/d.

**India's product exports** dropped in October by 140 tb/d, or 9%, m-o-m to average 1.4 mb/d. This drop came as a result of a decline in most exports in November.

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

| | Aug 18 | Sep 18 | Oct 18 | *Change* Oct 18/Sep 18 |
|---|---|---|---|---|
| Crude oil | 4,401 | 4,374 | 4,964 | 591 |
| Total products | -577 | -725 | -666 | 59 |
| **Total crude and products** | **3,824** | **3,648** | **4,298** | **650** |

*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.*

Consequentially, **India's net imports rose by 650 tb/d to average 4.3 mb/d**, 18% higher than level seen in September and 9% higher than previous year's level.

## Former Soviet Union (FSU)

In October, **total crude oil exports from the FSU** increased by 789 tb/d, or 12%, m-o-m to average 7.7 mb/d.

Crude exports through Russian pipelines rose by 251 tb/d, or 6%, m-o-m to average 4.3 mb/d.

Shipments from the Druzhba pipeline dropped by 52 tb/d or 5% to average 1mb/d. **Black Sea** exports saw a decline in exports by 36 tb/d or 6% to average 560 tb/d. Exports from Baltics went up by 286 tb/d, or 24%, to average 1.5 mb/d in October.

In the **Lukoil system**, October exhibited lower exports in the Barents Sea where it went down by 73 tb/d to average 114 tb/d, while exports in the Baltic Sea from the Kalinigrad ports terminal remained stable.

In the **Black Sea**, loadings from CPC blend increased by 77 tb/d, or 6%, from a month earlier to average 1.2 mb/d.

As to product exports, FSU total products exports dropped by 175 tb/d, or 6%, from previous month to average 2.8 mb/d. This decline in **product exports** was driven by a decline in all products with the exception of jet fuel.

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

| | | | 2017 | 2Q18 | 3Q18 | Sep 18 | Oct 18 |
|---|---|---|---|---|---|---|---|
| **Transneft system** | | | | | | | |
| | **Europe** | **Black Sea total** | **605** | **536** | **568** | **596** | **560** |
| | | Novorossiysk port terminal - total | 605 | 536 | 568 | 596 | 560 |
| | | *of which: Russian oil* | 424 | 375 | 402 | 411 | 402 |
| | | Others | 181 | 162 | 167 | 185 | 158 |
| | | **Baltic Sea total** | **1,516** | **1,297** | **1,227** | **1,199** | **1,485** |
| | | Primorsk port terminal - total | 871 | 783 | 719 | 695 | 835 |
| | | *of which: Russian oil* | 871 | 783 | 719 | 695 | 835 |
| | | Others | 0 | 0 | 0 | 0 | 0 |
| | | Ust-Luga port terminal - total | 645 | 514 | 508 | 503 | 649 |
| | | *of which: Russian oil* | 470 | 316 | 352 | 360 | 487 |
| | | Others | 175 | 198 | 156 | 144 | 162 |
| | | **Druzhba pipeline total** | **1,009** | **987** | **1,006** | **1,048** | **995** |
| | | *of which: Russian oil* | 977 | 955 | 973 | 1,015 | 963 |
| | | Others | 32 | 32 | 32 | 33 | 33 |
| | **Asia** | **Pacific ocean total** | **645** | **623** | **632** | **598** | **648** |
| | | Kozmino port terminal - total | 645 | 623 | 632 | 598 | 648 |
| | | **China (via ESPO pipeline) total** | **336** | **554** | **600** | **598** | **601** |
| | | China Amur | 336 | 554 | 600 | 598 | 601 |
| | **Total Russia's crude exports** | | **4,111** | **3,997** | **4,032** | **4,038** | **4,289** |
| **Lukoil system** | | | | | | | |
| | **Europe &** | **Barents Sea total** | **170** | **125** | **152** | **186** | **114** |
| | **North America** | Varandey offshore platform | 170 | 125 | 152 | 186 | 114 |
| | **Europe** | **Baltic Sea total** | **13** | **7** | **7** | **6** | **7** |
| | | Kalinigrad port terminal | 13 | 7 | 7 | 6 | 7 |
| **Other routes** | | | | | | | |
| | **Asia** | **Russian Far East total** | **343** | **372** | **353** | **383** | **393** |
| | | Aniva Bay port terminal | 127 | 137 | 89 | 97 | 119 |
| | | De Kastri port terminal | 216 | 235 | 264 | 286 | 274 |
| | | **Central Asia total** | **262** | **225** | **247** | **269** | **723** |
| | | Kenkiyak-Alashankou | 262 | 225 | 247 | 269 | 723 |
| | **Europe** | **Black Sea total** | **1,277** | **1,393** | **1,299** | **1,268** | **1,363** |
| | | Novorossiysk port terminal (CPC) | 1,194 | 1,337 | 1,251 | 1,228 | 1,305 |
| | | Supsa port terminal | 72 | 53 | 45 | 40 | 58 |
| | | Batumi port terminal | 11 | 3 | 3 | 0 | 0 |
| | | Kulevi port terminal | 0 | 0 | 0 | 0 | 0 |
| | | **Mediterranean Sea total** | **707** | **693** | **696** | **684** | **723** |
| | | Baku–Tbilisi–Ceyhan (BTC) | 707 | 693 | 696 | 684 | 723 |
| **Russian rail** | | | | | | | |
| | | **Russian rail** | **40** | **32** | **30** | **28** | **39** |
| | | *of which: Russian oil* | 40 | 32 | 30 | 28 | 39 |
| | | Others | 0 | 0 | 0 | 0 | 0 |
| | **Total FSU crude exports** | | **6,923** | **6,844** | **6,816** | **6,863** | **7,652** |
| **Products** | | | | | | | |
| | | Gasoline | 193 | 169 | 211 | 172 | 227 |
| | | Naphtha | 549 | 544 | 502 | 562 | 522 |
| | | Jet | 35 | 36 | 42 | 33 | 42 |
| | | Gasoil | 980 | 1,010 | 961 | 993 | 881 |
| | | Fuel oil | 1,025 | 932 | 931 | 923 | 871 |
| | | VGO | 308 | 275 | 266 | 283 | 248 |
| | **Total FSU product exports** | | **3,089** | **2,967** | **2,913** | **2,966** | **2,791** |
| **Total FSU oil exports** | | | **10,012** | **9,811** | **9,730** | **9,829** | **10,443** |

*Sources: Argus Nefte Transport and Argus Global Markets.*

# Stock Movements

*Preliminary data for October shows that **total OECD commercial oil stocks** rose by 7.6 mb m-o-m to stand at 2,883 mb. This was 41 mb lower than the same time one year ago, but 22 mb above the latest five-year average. Compared with the seasonal norm, crude and product stocks indicated a surplus of 4.0 mb and 18 mb, respectively. In terms of number of days of forward cover, OECD commercial stocks rose by 0.5 days m-o-m in October to stand at 60.0 days. This was 1.0 days below the same period in 2017 and 1.2 days lower than the latest five-year average.*

*Preliminary data for November showed that **US total commercial oil stocks** fell by 7.5 mb m-o-m to stand at 1,245.9 mb. At this level, total US commercial stocks stood at 15.3 mb, lower than the same period a year ago, but 26.5 mb higher than the latest five-year average. Within components, crude stocks rose by 11.4 mb, while product stocks fell by 18.9 mb, m-o-m.*

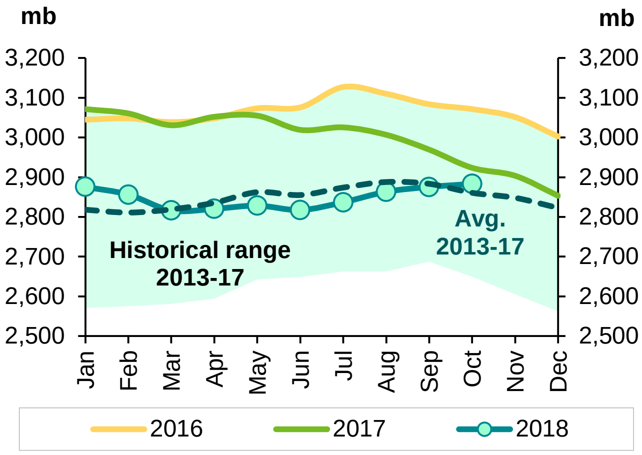
## OECD

Preliminary data for October showed that **total OECD commercial oil stocks** rose by 7.6 mb m-o-m for the fourth consecutive month. At 2,883 mb, total OECD commercial oil stocks were 41 mb lower than the same time one year ago but 22 mb above the latest five-year average.

Within components, crude stocks indicated a surplus of 4.0 mb, while product stocks are 18 mb below the latest five-year average. It should be noted that the overhang has been reduced by around 315 mb since January 2017. In October, crude stocks rose 32 mb m-o-m while product stocks fell by 25 mb, m-o-m.

Within the regions, in October OECD Americas and OECD Europe stocks rose by 1.4 mb and 2.5 mb, while OECD Pacific stocks increased by 3.7 mb m-o-m.

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




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

OECD commercial **crude stocks** rose by 32 mb m-o-m in October, ending the month at 1,430 mb. This was 48 mb lower than the same time a year ago, but 4.0 mb higher than the latest five-year average. Compared with the previous month, the three OECD regions experienced stock builds.

In contrast, OECD **product inventories** fell by 25 mb m-o-m in October to stand at 1,455 mb. This was 8.0 mb above the same time a year ago and 18 mb higher than the seasonal norm. Within the OECD regions, all product stocks experienced builds m-o-m.

In terms of **days of forward cover**, OECD commercial stocks rose by 0.5 days m-o-m in October to stand at 60.0 days. This was 1.0 days below the same period in 2017 and 1.2 days below the latest five-year average.

Within the regions, OECD Americas had 0.3 days of forward cover less than the historical average to stand at 60.1 days in October. OECD Europe's stocks stood at 1.9 days below the latest five-year average to finish the month at 67.6 days. OECD Asia Pacific indicated a deficit of 3.3 days below the seasonal norm to stand at 47.1 days.

## OECD Americas

**OECD Americas total commercial stocks** rose by 1.4 mb m-o-m in October for the fourth consecutive month. At 1,532 mb, they stood at 8.0 mb below a year ago, but 44 mb above the latest five-year average. Within components, crude stocks rose by 24 mb, while product stocks fell by 23 mb, m-o-m.

Commercial **crude oil stocks** in OECD Americas rose by 24 mb m-o-m in October to stand at 800 mb. This was 17 mb lower than the same period a year ago, but 36 mb lower than the latest five-year average. The drop came mainly from lower US crude throughput, which declined by more than 700 tb/d to stand at 16.58 mb/d.

In contrast, **product stocks** in OECD Americas fell by 23 mb m-o-m in October to stand at 732 mb. This was 9.7 mb above the same time one year ago, and 8.6 mb above the seasonal norm. Lower refinery output combined with relatively higher consumption was behind the product stock draw.

## OECD Europe

**OECD Europe's total commercial stocks** rose by 2.5 mb m-o-m in October, ending the month at 949 mb. This was 1.3 mb higher than the same time a year ago, and 9.8 mb higher than the latest five-year average. Crude rose by 3.0 mb, while product stocks fell slightly by 0.5 mb m-o-m.

OECD Europe's commercial **crude stocks** rose by 3.0 mb m-o-m in October, ending the month at 412 mb. This was 4.2 mb higher than a year earlier and 5.3 mb higher than the latest five-year average. The build in crude oil stocks could be attributed to lower refinery throughput in EU countries, where it declined by 100 tb/d to stand at 10.56 mb/d.

In contrast, OECD Europe's commercial **product stocks** fell slightly by 0.5 mb m-o-m to end October at 537 mb. This was 2.9 mb below the same time a year ago, but 4.5 mb higher than the seasonal norm. The fall in product stocks came on the back of lower refinery output.

## OECD Asia Pacific

**OECD Asia Pacific's total commercial oil stocks** rose by 3.7 mb in October to stand at 401 mb. At this level, they were 34 mb lower than a year ago and 32 mb below the latest five-year average. Within components, crude stocks rose by 4.8 mb, while product inventories fell by 1.1 mb in October m-o-m.

OECD Asia Pacific's **crude inventories** rose by 4.8 mb m-o-m to end the month of October at 217 mb, which was 35 mb below one year ago and 37 mb below the seasonal norm.

By contrast, OECD Asia Pacific's **total product inventories** also fell by 1.1 mb m-o-m to end October at 184 mb, standing 1.0 mb above the same time a year ago, and 5.4 mb higher than the seasonal norm.

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

| | Aug 18 | Sep 18 | Oct 18 | *Change* Oct 18/Sep 18 | Oct 17 |
|---|---|---|---|---|---|
| **Crude oil** | 1,407 | 1,398 | 1,430 | 32.3 | 1,478 |
| **Products** | 1,456 | 1,478 | 1,453 | -24.7 | 1,445 |
| **Total** | **2,863** | **2,875** | **2,883** | **7.6** | **2,924** |
| **Days of forward cover** | **59.9** | **59.4** | **60.0** | **0.5** | **60.9** |

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

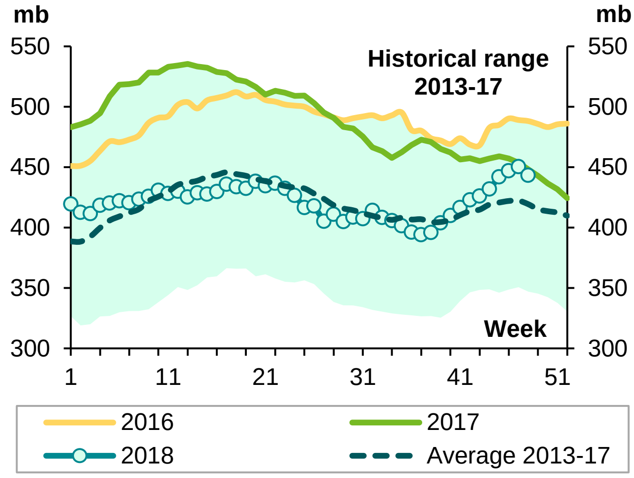
## US

Preliminary data for November showed that **US total commercial oil stocks** fell by 7.5 mb m-o-m to stand at 1,245.9 mb. At this level, total US commercial stocks stood at 15.3 mb, or 1.2%, below the same period a year ago, but 26.5 mb, or 2.2%, higher than the latest five-year average. Within components, crude stocks rose by 11.4 mb, while product stocks fell by 18.9 mb, m-o-m.

US commercial **crude stocks** rose in November to stand at 443.2 mb, which was 9.2 mb, or 2.0%, below last year at the same time, but 23.2 mb, or 5.5%, above the latest five-year average. This build came from higher crude imports, which increased by 72 tb/d to stand at 7.6 mb/d. Higher crude throughput, which increased by more than 800 tb/d to average 17.4 mb/d, limited a further build in stocks. In November, crude inventories in Cushing, Oklahoma, rose by nearly 4 mb to end the month at 38.3 mb.

By contrast, **total product stocks** fell by 18.9 mb m-o-m in November to stand at 802.7 mb, which is 6.2 mb, or 0.8%, below than the level seen at the same time in 2017, but 3.3 mb, or 0.4%, above the seasonal average. With the exception of distillates, all products experienced stock draws.

**Graph 9 - 2: US weekly commercial crude oil inventories**

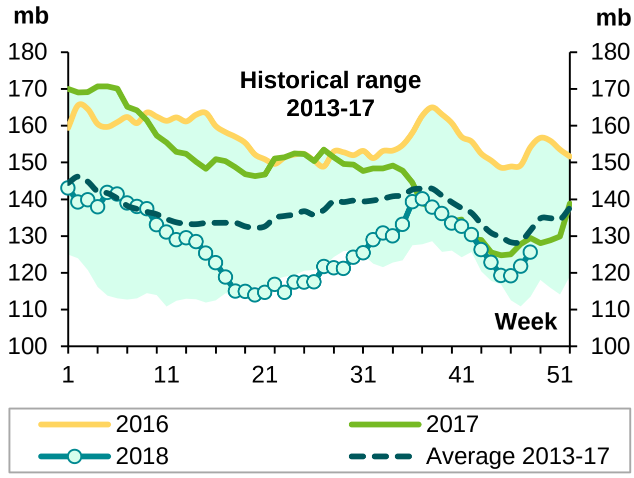



*Sources: US EIA and OPEC Secretariat.*

**Distillate stocks** rose by 2.8 mb m-o-m in November, reversing the drop of the previous month. At 125.6 mb, distillate stocks stood at 7.1 mb, or 5.3%, below the same period a year ago, and 14.1 mb, or 10.1%, below the latest five-year average. The stock build could be attributed to higher output as demand remained at nearly the same level.

By contrast, **gasoline stocks** fell by 1.8 mb m-o-m in November to stand at 226.3 mb. At this level, they were 1.7 mb, or 0.7%, above levels at the same time last year, and 2.7 mb, or 1.2%, higher than the seasonal norm. This monthly drop came despite lower gasoline demand, which decreased by more than 100 tb/d m-o-m.

**Graph 9 - 3: US weekly distillate inventories**




*Sources: US EIA and OPEC Secretariat.*

**Jet fuel stocks** and **residual fuel** declined by 4.2 mb and 1.1 mb m-o-m in October, respectively. At 38.1 mb, jet fuel stocks are 3.0 mb, or 7.2%, lower than the level of a year ago at the same time and 1.3 mb, or 3.3%, less than the latest five-year average. Residual fuel stocks ended November at 28.6 mb. At this level, they stand at 3.1 mb, or 9.8%, below the same time a year ago and 9.0 mb, or 23.9%, below the latest five-year average.

**Table 9 - 2: US onland commercial petroleum stocks, mb**

| | Sep 18 | Oct 18 | Nov 18 | Change Nov 18/Oct 18 | Nov 17 |
|---|---|---|---|---|---|
| **Crude oil** | **416.1** | **431.8** | **443.2** | **11.4** | **453.1** |
| **Gasoline** | 239.7 | 228.0 | 226.3 | -1.8 | 224.9 |
| **Distillate fuel** | 137.1 | 122.9 | 125.6 | 2.8 | 133.4 |
| **Residual fuel oil** | 28.6 | 29.7 | 28.6 | -1.1 | 29.8 |
| **Jet fuel** | 46.9 | 42.3 | 38.1 | -4.2 | 41.2 |
| **Total products** | **855.5** | **821.6** | **802.7** | **-18.9** | **809.0** |
| **Total** | **1,271.6** | **1,253.4** | **1,245.9** | **-7.5** | **1,262.0** |
| **SPR** | **660.0** | **654.7** | **649.6** | **-5.1** | **661.3** |

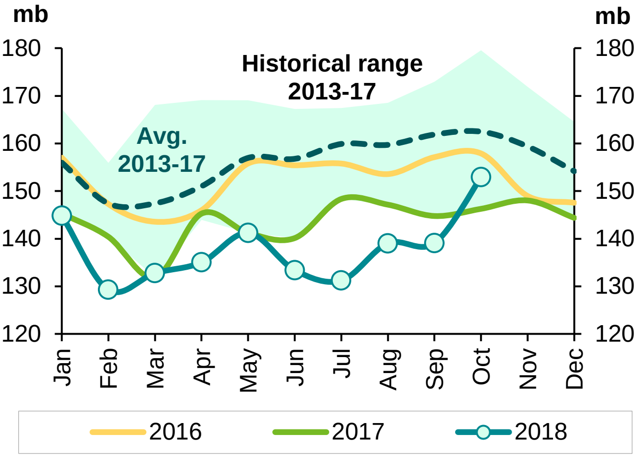
*Sources: US EIA and OPEC Secretariat.*

# Japan

In Japan, **total commercial oil stocks** rose by 13.8 mb in October to stand at 152.9 mb. At this level, they were 6.6 mb, or 4.5%, above the level of a year ago, but 9.6 mb, or 5.9%, below the latest five-year average. Within components, crude stocks rose by 14.4 mb, while product inventories fell by 0.6 mb m-o-m.

Japanese commercial **crude oil stocks** rose in October to stand at 88.6 mb. This was 7.2 mb, or 8.8%, above the same period a year ago, but 5.1 mb, or 5.5%, below the seasonal norm. The build was driven by higher crude imports, which increased by more than 170 tb/d, or 5.8%, to average 3.1 mb/d. Lower refinery throughput, which declined by around 440 tb/d, or 14.3%, to average 2.6 mb/d, contributed to the build.

**Graph 9 - 4: Japan's commercial oil stocks**




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

By contrast, Japan's **total product inventories** fell m-o-m by 0.6 mb to end October at 64.3 mb. This was 0.6 mb, or 0.9%, lower than the same month last year, and 4.4 mb, or 6.4%, lower than the seasonal norm. Within products, the picture was mixed. Gasoline and residual fuel stocks rose, while distillates witnessed a stock draw.

**Gasoline stocks** rose by 0.1 mb m-o-m to stand at 10.5 mb in October. At this level, they were 0.5 higher than a year ago, but they are in line with latest five-year average. The build was mainly driven by lower gasoline consumption, which fell by 1.6% from the previous month. However, lower domestic gasoline production limited any further build in gasoline stocks.

**Total residual fuel oil stocks** also rose by 0.4 mb to stand at 13.3 mb in October. This was in line with the same period a year ago, and 1.3 mb, or 8.7%, less than the latest five-year average. Within fuel oil components, fuel oil A and B.C stocks rose by 6.6% and 0.7%, respectively, on the back of lower consumption combined with higher output, which increased by more than 10% y-o-y.

By contrast, **distillate stocks** fell by 0.3 mb m-o-m to stand at 31.2 mb in October. This was 1.7 mb, or 5.1%, below the same time a year ago, and 2.5 mb, or 7.5%, below the seasonal average. Within distillate components, jet fuel and gasoil stocks fell m-o-m by 12.1% and 8.7%, respectively. Lower output was behind the drop in these two products. In contrast, kerosene inventories rose by 8.4% m-o-m, driven by higher domestic production, which increased by more than 5%.

**Table 9 - 3: Japan's commercial oil stocks*, mb**

| | Aug 18 | Sep 18 | Oct 18 | Change Oct 18/Sep 18 | Oct 17 |
|---|---|---|---|---|---|
| **Crude oil** | **78.2** | **74.2** | **88.6** | **14.4** | **81.4** |
| Gasoline | 10.0 | 10.3 | 10.5 | 0.1 | 10.0 |
| Naphtha | 8.3 | 10.2 | 9.4 | -0.8 | 8.8 |
| Middle distillates | 29.5 | 31.5 | 31.2 | -0.3 | 32.8 |
| Residual fuel oil | 12.9 | 12.9 | 13.3 | 0.4 | 13.3 |
| **Total products** | **60.8** | **64.9** | **64.3** | **-0.6** | **64.9** |
| **Total**** | **139.0** | **139.1** | **152.9** | **13.8** | **146.3** |

*Note: * At the end of the month.*

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

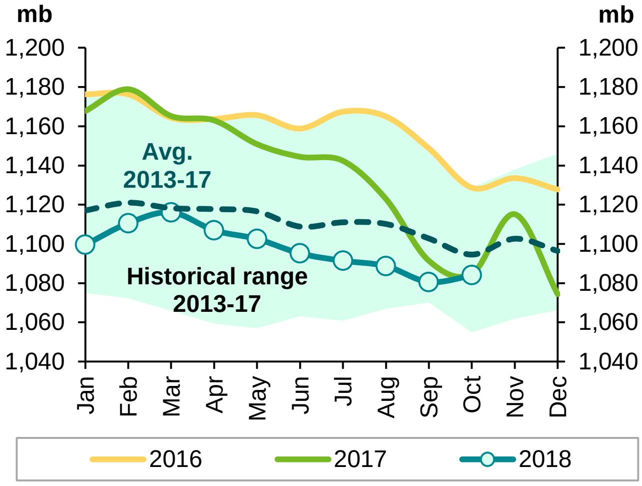
*Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.*

# EU plus Norway

Preliminary data for October showed that **total European commercial oil stocks** rose by 3.5 mb m-o-m to stand at 1,084 mb. This was 0.7 mb, or 0.1% lower than the same time a year ago, and 10.5 mb, or 1.0%, lower than the latest five-year average. Within components, crude rose by 3.9 mb, while product stocks fell slightly by 0.5 mb m-o-m.

European **crude inventories** rose in October to stand at 474.4 mb. This was 3.7 mb, or 0.8%, higher than the same period a year ago, but they are 8.0 mb or 1.3% below the latest five-year average. The build in crude oil stocks could be attributed to lower refinery throughput in EU countries, where it declined by 100 tb/d to stand at 10.56 mb/d.

**Graph 9 - 5: EU-15 plus Norway's total oil stocks**




*Sources: Argus, Euroilstock and OPEC Secretariat.*

In contrast, European **total product stocks** fell by 0.5 mb m-o-m, ending October at 610 mb. This was 4.3 mb, or 0.7%, lower than the same time a year ago, and 8.0 mb, or 1.3%, lower than the seasonal norm. Within products, gasoline, naphtha and residual fuel stocks witnessed a stock build, while distillates experienced a stock draw.

**Gasoline and residual fuel stocks** rose by 1.4 mb and 1.5 mb m-o-m, to end October at 109.6 mb and 64.8 mb, respectively. Gasoline stocks stood at 1.8 mb, or 1.6%, lower than last year's level at the same time, and are about 0.3 mb, or 0.2%, below the latest five-year average. Residual fuel stocks were 1.1 mb, or 1.7%, lower than the same time one year ago, and 7.3 mb, or 10.2%, lower the seasonal norm. Lower demand for both products was behind the build in inventories.

In contrast, **distillates stocks** in October fell by 4.6 mb to stand at 405.3 mb. At this level, they are 3.7 mb, or 0.9%, lower than the same time a year ago and 5.6 mb, or 1.4%, below the latest five-year average. The fall in distillate stocks was driven by higher demand combined with lower output.

**Table 9 - 4: EU-15 plus Norway's total oil stocks, mb**

| | Aug 18 | Sep 18 | Oct 18 | *Change* Oct 18/Sep 18 | Oct 17 |
|---|---|---|---|---|---|
| **Crude oil** | **480.8** | **470.5** | **474.4** | **3.9** | **470.8** |
| **Gasoline** | 109.8 | 108.2 | 109.6 | 1.4 | 111.3 |
| **Naphtha** | 28.6 | 28.6 | 29.9 | 1.3 | 27.7 |
| **Middle distillates** | 405.3 | 410.0 | 405.3 | -4.6 | 409.0 |
| **Fuel oils** | 64.2 | 63.3 | 64.8 | 1.5 | 65.9 |
| **Total products** | **607.9** | **610.1** | **609.6** | **-0.5** | **613.9** |
| **Total** | **1,088.7** | **1,080.6** | **1,084.0** | **3.5** | **1,084.7** |

*Sources: Argus, Euroilstock and OPEC Secretariat.*

# Singapore and Amsterdam-Rotterdam-Antwerp (ARA)

## Singapore

At the end of October, **total product stocks in Singapore** fell by 2.5 mb m-o-m to stand at 37.1 mb. This was 11.5 mb, or 24.1%, below the same period a year ago. Refined product stocks showed a mixed picture, with light distillates showing a m-o-m build, while middle distillates and fuel oil experienced a stock draw.

**Light distillate stocks** rose by 0.7 mb m-o-m, reversing the stock build of the last two months to stand at 12.2 mb in October. This was 0.9 mb, or 8.0%, above the same time a year ago.

By contrast, **middle distillate and residual fuel stocks** fell by 1.0 mb and 2.1 mb m-o-m, ending the month of October at 9.5 mb and 15.5 mb, respectively. They were 2.4 mb below the same period a year ago, while residual fuel stocks stood at a higher deficit of 10.2 mb compared with the same period last year.

## ARA

**Total product stocks in ARA** fell by 6.8 mb m-o-m in October, reversing the build of last month. At 40.5 mb, they were 1.1 mb, or 2.8%, above the same time a year ago. All products witnessed a stock draw.

**Gasoline and gasoil stocks** fell by 0.4 mb and 3.0 mb m-o-m in October to stand at 8.4 mb and 18.8 mb, respectively. At this level, they remained above last year's level at the same time. This drop was mainly driven by higher exports from the ARA hub.

**Residual fuel stocks** and **jet fuel stocks** also fell by 2.4 mb and 0.4 mb m-o-m in October to stand at 6.1 mb and 4.9 mb, respectively, remaining below last year's level at the same time.

# Balance of Supply and Demand

***Demand for OPEC crude in 2018*** *stood at 32.4 mb/d, 0.2 mb lower than the last MOMR report and 1.1 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. OPEC crude production stood at 32.6 mb/d in the 3Q18, around 0.1 mb/d higher than demand for OPEC crude.*

***Demand for OPEC crude in 2019*** *is forecast to decline by 1.0 mb/d next year to average 31.4 mb/d, around 0.1 mb/d lower than last month's assessment.*

## Balance of supply and demand in 2018

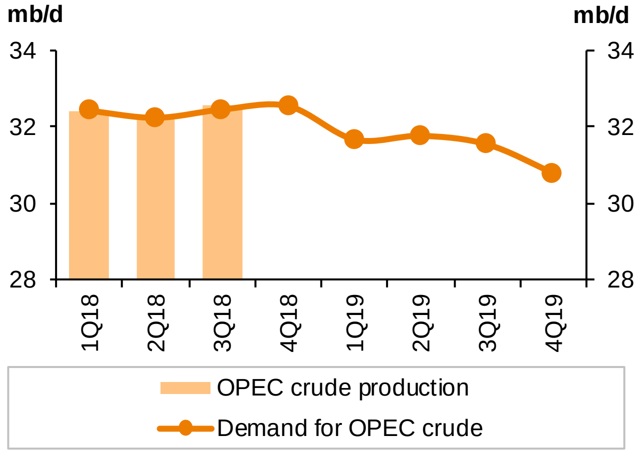
**Demand for OPEC crude in 2018** was revised down by 0.2 mb/d from the previous report to stand at 32.4 mb/d, 1.1 mb/d below the 2017 level.

Compared with the last MOMR, 1Q18 and 2Q18 were unchanged, while 3Q18 and 4Q18 were revised down by 0.2 mb/d and 0.5 mb/d, respectively.

When compared to the same quarters in 2017, 1Q18 was 0.2 mb/d higher, while the second and third quarters were 1.1 mb/d and 2.0 mb/d lower. The fourth quarter is expected to see a drop of 1.5 mb/d.

According to secondary sources, OPEC crude production averaged 32.4 mb/d in 1Q18 and 32.2 mb/d in 2Q18, which is in line with demand for OPEC crude. OPEC crude production stood at 32.6 mb/d in the third quarter, around 0.1 mb/d higher 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 | 57.53 | 59.11 | 59.45 | 60.50 | 61.03 | 60.03 | 2.50 |
| 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** | **63.77** | **65.38** | **65.78** | **66.86** | **67.44** | **66.37** | **2.60** |
| **Difference (a-b)** | **33.52** | **32.42** | **32.24** | **32.46** | **32.55** | **32.42** | **-1.10** |
| **OPEC crude oil production** | **32.62** | **32.39** | **32.20** | **32.58** | | | |
| **Balance** | **-0.90** | **0.0** | **0.0** | **0.1** | | | |

*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 crude in 2019** was revised down by 0.1 mb/d compared to the previous report to stand at 31.4 mb/d, which is 1.0 mb/d lower than the 2018 level.

Compared with the last MOMR, 1Q19 and 2Q19 were revised up by 0.4 mb/d and 0.2 mb/d, respectively, while 3Q19 and 4Q19 were revised down by 0.3 mb/d and 0.7 mb/d, respectively.

When compared to the same quarter in 2018, the first and second quarters are forecast to fall by 0.8 mb/d and 0.5 mb/d, respectively, while the third and fourth quarters are expected to fall by 0.9 mb/d and 1.8 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 | 60.03 | 61.01 | 61.06 | 62.63 | 64.01 | 62.19 | 2.16 |
| 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** | **66.37** | **67.43** | **67.49** | **69.10** | **70.50** | **68.64** | **2.27** |
| **Difference (a-b)** | **32.42** | **31.67** | **31.77** | **31.54** | **30.79** | **31.44** | **-0.98** |

*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 | 28.54 | 28.74 | 28.00 | 28.75 | 28.84 | 30.13 | 31.15 | 29.72 |
| Americas | 21.08 | 20.57 | 21.49 | 22.93 | 23.35 | 24.49 | 24.39 | 23.80 | 24.37 | 24.75 | 25.87 | 26.66 | 25.42 |
| Europe | 3.82 | 3.86 | 3.83 | 3.92 | 3.73 | 3.63 | 3.90 | 3.79 | 3.94 | 3.63 | 3.79 | 4.00 | 3.84 |
| Asia Pacific | 0.46 | 0.42 | 0.39 | 0.40 | 0.38 | 0.42 | 0.45 | 0.41 | 0.44 | 0.45 | 0.47 | 0.49 | 0.46 |
| **DCs** | 11.75 | 11.52 | 11.46 | 11.45 | 11.50 | 11.34 | 11.45 | 11.43 | 11.57 | 11.59 | 11.76 | 12.02 | 11.74 |
| **FSU** | 13.69 | 13.85 | 14.05 | 14.10 | 14.14 | 14.33 | 14.54 | 14.28 | 14.32 | 14.32 | 14.44 | 14.50 | 14.40 |
| **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** | **57.53** | **59.11** | **59.45** | **60.50** | **61.03** | **60.03** | **61.01** | **61.06** | **62.63** | **64.01** | **62.19** |
| **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** | **63.77** | **65.38** | **65.78** | **66.86** | **67.44** | **66.37** | **67.43** | **67.49** | **69.10** | **70.50** | **68.64** |
| **OPEC crude oil production (secondary sources)** | 31.90 | 32.85 | 32.62 | 32.39 | 32.20 | 32.58 | | | | | | | |
| **Total supply** | 95.46 | 95.65 | 96.39 | 97.77 | 97.97 | 99.44 | | | | | | | |
| **Balance (stock change and miscellaneous)** | 1.30 | 0.04 | -0.90 | -0.03 | -0.05 | 0.12 | | | | | | | |
| **OECD closing stock levels, *mb*** | | | | | | | | | | | | | |
| Commercial | 2,989 | 3,002 | 2,853 | 2,816 | 2,817 | 2,875 | | | | | | | |
| SPR | 1,588 | 1,600 | 1,568 | 1,575 | 1,570 | 1,565 | | | | | | | |
| **Total** | **4,577** | **4,602** | **4,421** | **4,391** | **4,387** | **4,441** | | | | | | | |
| **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** | **33.52** | **32.42** | **32.24** | **32.46** | **32.55** | **32.42** | **31.67** | **31.77** | **31.54** | **30.79** | **31.44** |

*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** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Americas | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Europe | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Asia Pacific | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **DCs** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **FSU** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Other Europe** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **China** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **(a) Total world demand** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **Non-OPEC supply** | | | | | | | | | | | | | |
| **OECD** | - | - | - | - | - | 0.19 | 0.15 | 0.08 | -0.48 | -0.21 | 0.05 | 0.46 | -0.04 |
| Americas | - | - | - | - | - | 0.21 | 0.15 | 0.09 | -0.48 | -0.21 | 0.05 | 0.46 | -0.04 |
| Europe | - | - | - | - | - | -0.04 | - | -0.01 | - | - | - | - | - |
| Asia Pacific | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - |
| **DCs** | - | - | -0.02 | -0.01 | -0.01 | - | -0.01 | -0.01 | -0.08 | -0.11 | -0.02 | -0.02 | -0.06 |
| **FSU** | - | - | - | - | - | - | 0.36 | 0.09 | 0.11 | 0.14 | 0.26 | 0.26 | 0.19 |
| **Other Europe** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **China** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Processing gains** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total non-OPEC supply** | - | - | -0.02 | -0.01 | -0.01 | 0.19 | 0.50 | 0.17 | -0.44 | -0.17 | 0.28 | 0.69 | 0.09 |
| **OPEC NGLs + non-conventionals** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **(b) Total non-OPEC supply and OPEC NGLs** | **-** | **-** | **-0.02** | **-0.01** | **-0.01** | **0.19** | **0.50** | **0.17** | **-0.44** | **-0.17** | **0.28** | **0.69** | **0.09** |
| ***OPEC crude oil production (secondary sources)*** | **-** | **-** | **-** | **-** | **-** | **-** | | | | | | | |
| **Total supply** | - | - | -0.02 | -0.01 | - | 0.19 | | | | | | | |
| **Balance (stock change and miscellaneous)** | - | - | -0.02 | -0.01 | - | 0.19 | | | | | | | |
| **OECD closing stock levels (mb)** | | | | | | | | | | | | | |
| Commercial | - | - | - | - | | 17 | | | | | | | |
| SPR | - | - | - | - | - | -3 | | | | | | | |
| **Total** | - | - | - | - | | 14 | | | | | | | |
| **Oil-on-water** | - | - | - | - | - | - | | | | | | | |
| **Days of forward consumption in OECD** | | | | | | | | | | | | | |
| Commercial onland stocks | - | - | - | - | - | | | | | | | | |
| SPR | - | - | - | - | - | - | | | | | | | |
| **Total** | **-** | **-** | **-** | **-** | **-** | | | | | | | | |
| **Memo items** | | | | | | | | | | | | | |
| **(a) - (b)** | **-** | **-** | **0.02** | **0.01** | **0.01** | **-0.19** | **-0.50** | **-0.17** | **0.44** | **0.17** | **-0.28** | **-0.69** | **-0.09** |

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the November 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** | **2,875** |
| Americas | 1,561 | 1,598 | 1,498 | 1,621 | 1,598 | 1,606 | 1,596 | 1,571 | 1,498 | 1,468 | 1,471 | 1,531 |
| Europe | 993 | 989 | 943 | 1,013 | 989 | 1,022 | 999 | 965 | 943 | 970 | 958 | 947 |
| Asia Pacific | 435 | 414 | 412 | 450 | 414 | 404 | 424 | 433 | 412 | 378 | 388 | 398 |
| **OECD SPR** | **1,588** | **1,600** | **1,568** | **1,596** | **1,600** | **1,600** | **1,588** | **1,578** | **1,568** | **1,575** | **1,570** | **1,565** |
| Americas | 697 | 697 | 665 | 697 | 697 | 694 | 681 | 676 | 665 | 667 | 662 | 661 |
| Europe | 475 | 481 | 480 | 477 | 481 | 484 | 484 | 479 | 480 | 485 | 486 | 482 |
| 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** | **4,441** |
| **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 | 60 |
| Europe | 73 | 72 | 67 | 72 | 72 | 72 | 68 | 67 | 67 | 69 | 65 | 66 |
| Asia Pacific | 51 | 49 | 48 | 54 | 49 | 53 | 54 | 52 | 48 | 50 | 51 | 48 |
| **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** | **91** | **92** |

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

## 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 | 17.2 | 17.2 | 16.5 | 2.1 | 17.4 | 17.8 | 18.5 | 19.2 | 18.2 | 1.7 |
| Canada | 4.4 | 4.5 | 4.9 | 5.2 | 5.1 | 5.2 | 0.3 | 5.0 | 5.0 | 5.4 | 5.5 | 5.2 | 0.1 |
| Mexico | 2.6 | 2.5 | 2.2 | 2.1 | 2.0 | 2.1 | -0.1 | 1.9 | 1.9 | 2.0 | 1.9 | 2.0 | -0.1 |
| **OECD Americas** | **21.1** | **20.6** | **21.5** | **24.5** | **24.4** | **23.8** | **2.3** | **24.4** | **24.8** | **25.9** | **26.7** | **25.4** | **1.6** |
| 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 | 0.7 | 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** | **3.6** | **3.9** | **3.8** | **0.0** | **3.9** | **3.6** | **3.8** | **4.0** | **3.8** | **0.0** |
| Australia | 0.4 | 0.3 | 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** | **28.5** | **28.7** | **28.0** | **2.3** | **28.7** | **28.8** | **30.1** | **31.2** | **29.7** | **1.7** |
| 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 | 0.8 | 0.9 | 0.0 | 0.8 | 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** | **3.4** | **3.4** | **3.5** | **3.5** | **3.4** | **-0.1** |
| 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** | **1.3** | **1.3** | **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 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 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** | **1.5** | **1.5** | **1.6** | **1.6** | **1.6** | **0.0** |
| **Total DCs** | **11.8** | **11.5** | **11.5** | **11.3** | **11.4** | **11.4** | **0.0** | **11.6** | **11.6** | **11.8** | **12.0** | **11.7** | **0.3** |
| **FSU** | **13.7** | **13.9** | **14.1** | **14.3** | **14.5** | **14.3** | **0.2** | **14.3** | **14.3** | **14.4** | **14.5** | **14.4** | **0.1** |
| Russia | 10.8 | 11.1 | 11.2 | 11.4 | 11.5 | 11.3 | 0.160 | 11.4 | 11.4 | 11.5 | 11.5 | 11.4 | 0.1 |
| 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 | 0.0 |
| 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** | **58.3** | **58.8** | **57.8** | **2.5** | **58.7** | **58.8** | **60.4** | **61.7** | **59.9** | **2.1** |
| Processing gains | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 0.0 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 0.0 |
| **Non-OPEC supply** | **57.5** | **56.6** | **57.5** | **60.5** | **61.0** | **60.0** | **2.5** | **61.0** | **61.1** | **62.6** | **64.0** | **62.2** | **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** | **66.9** | **67.4** | **66.4** | **2.6** | **67.4** | **67.5** | **69.1** | **70.5** | **68.6** | **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 | Oct 18 | Nov 18 | Change Oct/Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|
| US | 977 | 509 | 875 | *366* | 921 | 964 | 1,037 | 1,051 | 1,063 | 1,077 | *14* |
| Canada | 192 | 131 | 207 | *76* | 204 | 273 | 106 | 208 | 192 | 199 | *7* |
| Mexico | 52 | 26 | 17 | *-8* | 12 | 19 | 25 | 30 | 35 | 31 | *-4* |
| OECD Americas | 1,221 | 665 | 1,099 | *434* | 1,137 | 1,257 | 1,168 | 1,289 | 1,290 | 1,307 | *17* |
| Norway | 17 | 17 | 15 | *-2* | 15 | 15 | 14 | 14 | 18 | 15 | *-3* |
| UK | 14 | 9 | 9 | *0* | 6 | 6 | 6 | 8 | 7 | 7 | *0* |
| OECD Europe | 117 | 96 | 92 | *-4* | 88 | 86 | 82 | 84 | 92 | 83 | *-9* |
| OECD Asia Pacific | 17 | 7 | 15 | *9* | 16 | 16 | 21 | 22 | 24 | 22 | *-2* |
| **Total OECD** | **1,355** | **768** | **1,206** | ***438*** | **1,240** | **1,359** | **1,271** | **1,395** | **1,406** | **1,412** | ***6*** |
| Other Asia* | 202 | 180 | 186 | *6* | 199 | 196 | 193 | 204 | 197 | 200 | *3* |
| Latin America | 145 | 68 | 70 | *2* | 82 | 80 | 77 | 83 | 80 | 77 | *-3* |
| Middle East | 102 | 88 | 74 | *-14* | 70 | 73 | 75 | 76 | 72 | 71 | *-1* |
| Africa | 29 | 17 | 16 | *-1* | 15 | 16 | 24 | 29 | 32 | 33 | *1* |
| **Total DCs** | **478** | **353** | **346** | ***-7*** | **365** | **365** | **368** | **392** | **381** | **381** | ***0*** |
| **Non-OPEC rig count** | **1,833** | **1,121** | **1,552** | ***431*** | **1,606** | **1,724** | **1,639** | **1,786** | **1,787** | **1,793** | ***6*** |
| Algeria | 51 | 54 | 54 | *0* | 53 | 53 | 52 | 48 | 46 | 46 | *0* |
| Angola | 11 | 6 | 3 | *-4* | 2 | 3 | 3 | 4 | 4 | 5 | *1* |
| Ecuador | 12 | 4 | 6 | *2* | 6 | 6 | 6 | 9 | 8 | 13 | *5* |
| Equatorial Guinea** | 1 | 1 | 1 | *0* | 1 | 1 | 1 | 1 | 1 | 1 | *0* |
| Gabon | 4 | 1 | 1 | *0* | 2 | 3 | 4 | 3 | 4 | 4 | *0* |
| Iran** | 54 | 59 | 61 | *2* | 61 | 61 | 61 | 61 | 61 | 61 | *0* |
| Iraq** | 52 | 43 | 49 | *6* | 52 | 58 | 60 | 58 | 60 | 61 | *1* |
| Kuwait** | 47 | 44 | 54 | *9* | 52 | 54 | 54 | 50 | 50 | 44 | *-6* |
| Libya** | 3 | 1 | 1 | *0* | 1 | 1 | 1 | 7 | 9 | 9 | *0* |
| Nigeria | 30 | 25 | 28 | *3* | 28 | 32 | 32 | 34 | 34 | 28 | *-6* |
| Qatar | 8 | 8 | 10 | *2* | 7 | 8 | 11 | 9 | 9 | 9 | *0* |
| Saudi Arabia | 155 | 156 | 149 | *-7* | 147 | 145 | 143 | 150 | 155 | 152 | *-3* |
| UAE | 42 | 51 | 52 | *1* | 53 | 53 | 54 | 56 | 58 | 57 | *-1* |
| Venezuela | 110 | 100 | 91 | *-9* | 85 | 88 | 72 | 69 | 69 | 67 | *-2* |
| **OPEC rig count** | **579** | **552** | **558** | ***6*** | **550** | **566** | **554** | **558** | **568** | **557** | ***-11*** |
| **World rig count*** ** | **2,412** | **1,673** | **2,110** | ***437*** | **2,156** | **2,289** | **2,193** | **2,345** | **2,355** | **2,350** | ***-5*** |
| *of which:* | | | | | | | | | | | |
| Oil | 1,750 | 1,189 | 1,541 | *352* | 1,591 | 1,727 | 1,667 | 1,809 | 1,813 | 1,809 | *-4* |
| Gas | 563 | 370 | 466 | *96* | 466 | 468 | 432 | 440 | 448 | 451 | *3* |
| Others | 100 | 113 | 103 | *-10* | 98 | 94 | 95 | 95 | 94 | 90 | *-4* |

*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*

**down 14.06 in November**

| | |
|---|---|
| November 2018 | 65.33 |
| October 2018 | 79.39 |
| **Year-to-date** | **70.75** |

## November OPEC crude production

*mb/d, according to secondary sources*

**down 0.01 in November**

| | |
|---|---|
| November 2018 | 32.97 |
| October 2018 | 32.98 |

## Economic growth rate

*per cent*

| | World | OECD | US | Japan | Euro-zone | China | India |
|---|---|---|---|---|---|---|---|
| **2018** | 3.7 | 2.4 | 2.9 | 1.0 | 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 | 60.0 | 2.5 | Non-OPEC supply | 62.2 | 2.2 |
| OPEC NGLs | 6.3 | 0.1 | OPEC NGLs | 6.5 | 0.1 |
| **Difference** | **32.4** | **–1.1** | **Difference** | **31.4** | **–1.0** |

## OECD commercial stocks

*mb*

| | Aug 18 | Sep 18 | Oct 18 | Oct 18/Sep 18 | Oct 17 |
|---|---|---|---|---|---|
| Crude oil | 1,407 | 1,398 | 1,430 | 32.3 | 1,478 |
| Products | 1,456 | 1,478 | 1,453 | –24.7 | 1,445 |
| **Total** | **2,863** | **2,875** | **2,883** | **7.6** | **2,924** |
| Days of forward cover | 59.9 | 59.4 | 60.0 | 0.5 | 60.9 |

**Next report to be issued on 17 January 2019.**