# OPEC

## Monthly Oil Market Report

*10 October 2019*

## *Feature article:*

*Winter oil market outlook*

Organization of the Petroleum Exporting Countries

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# Oil Market Highlights

## Crude Oil Price Movements

The OPEC Reference Basket (ORB) rose $2.74, or 4.6%, month-on-month (m-o-m) in September to settle at $62.36/b, supported by concerns about supply disruptions and geopolitical risks. In September, ICE Brent averaged $2.79, or 4.7%, m-o-m higher at $62.29/b, while NYMEX WTI rose m-o-m by $2.12, or 3.9%, to average $56.97/b. Year-to-date (y-t-d), ICE Brent was $7.98, or 11.0%, y-o-y lower at $64.75/b, while NYMEX WTI declined by $9.69, or 14.5%, y-o-y to $57.10/b. Brent and Dubai crude oil forward price structures were in steep backwardation in September, while the WTI backwardation curve flattened slightly in the front end. Hedge funds and other money managers turned slightly positive on the outlook for crude oil prices compared to a month earlier.

## World Economy

The global economic growth forecast remains at 3.0% for 2019. All regions remain unchanged in terms of growth estimates for the year, with the exception of Russia, which was revised down by 0.1 pp to 1.0%, following low 1H19 growth. For 2020, the global GDP forecast was revised down to 3.0% from 3.1%. Among other issues, it seems increasingly likely that the slowing growth momentum in the US will carry over into 2020, while ongoing uncertainties surrounding the EU, including Brexit, will remain. Moreover, rising US tariffs on EU imports and ongoing US-China trade issues are dampening growth momentum. US growth was revised down by 0.1 pp to 1.8% for 2020, while Euro-zone growth remains at 1.1% and Japan at 0.3%. China's and India's growth forecast for next year is also unchanged at 5.9%, and 6.7%, respectively. Similarly, Brazil's 2020 growth forecast remains unchanged at 1.4%, while Russia remains at 1.2%.

## World Oil Demand

In 2019, world oil demand growth was revised down marginally by 0.04 mb/d to 0.98 mb/d, reflecting the latest available data in OECD Americas and Asia Pacific which necessitated the downward adjustment. In 2020, world oil demand is forecast to grow by 1.08 mb/d, in line with last month's projections. OECD countries are anticipated to add 0.07 mb/d to global oil requirements in 2020, while non-OECD countries are projected to be the largest contributor to world oil demand growth by adding an estimated 1.01 mb/d, both unchanged from the last month's projections. As a result, total world oil demand is anticipated to average 99.8 mb/d in 2019 and 100.88 mb/d in 2020.

## World Oil Supply

The non-OPEC oil supply growth forecast for 2019 was revised down by 0.16 mb/d from the previous assessment to a level of 1.82 mb/d. This is due to downward revisions mainly in the US, as well as in Norway and the UK, which outpaced upward revisions in Kazakhstan and China, among others. US oil supply growth has now been revised down to 1.67 mb/d y-o-y. The non-OPEC oil supply growth forecast for 2020 was revised down by 0.05 mb/d from last month's assessment to 2.20 mb/d y-o-y due to downward revisions to Kazakhstan and Russia, which outpaced upward revisions, mainly to China. The 2020 non-OPEC supply forecast remains subject to many uncertainties including oil price levels, capital spending, infrastructure constraints, as well as drilling and completion activities, particularly in the US. OPEC NGLs were revised down by 0.02 mb/d and are now expected to grow by 0.05 mb/d to average 4.81 mb/d in 2019, while growth will slow to 0.03 mb/d in 2020, reaching 4.84 mb/d. In September, OPEC crude oil production decreased by 1,318 tb/d to average 28.49 mb/d, according to secondary sources.

## Product Markets and Refining Operations

Globally, product markets saw mixed performances last month. In the US, product markets saw gains mainly supported by positive developments at the middle and bottom of the barrel, as refinery intake cuts from both scheduled maintenance and unplanned weather-related outages affected product prices, providing a lift in cracks. In Europe, the top of the barrel weakened, mainly due to lacklustre regional demand amid slower gasoline exports to the US. Asian product markets showed the strongest positive performance compared with the other main regions, benefiting from solid gains recorded across the barrel. Strong gasoline spot deliveries to India as well as lower naphtha availability in the region, which led to higher prices for the same product, were the main contributors to the upside momentum.

## Tanker Market

Average dirty tanker spot freight rates rose 25% m-o-m in September, with gains experienced across all classes. The seasonal upward trend was amplified by unplanned disruptions, allowing rates to recover from the relatively sluggish performance seen for most of this year, which has been due in part to a high level of new deliveries in the first half of 2019. Compared to a year ago, only VLCCs exhibited positive performances, which were offset by the cumulative declines in Suezmax and Aframax. In the clean tanker market, spot freight rates remained at low levels in September, weighed down by ample availability lists, particularly West of Suez.

## Stock Movements

Preliminary data for August showed that total OECD commercial oil stocks rose by 10.0 mb m-o-m to stand at 2,937 mb, which is 85 mb higher than the same time one year ago, and 11 mb above the latest five-year average. Within the components, crude stocks fell by 21.9 mb m-o-m to stand at 28 mb below the latest five-year average, while product stocks rose by 32 mb m-o-m to remain 39 mb above the latest five-year average. In terms of days of forward cover, OECD commercial stocks rose by 0.4 days m-o-m in August to stand at 60.9 days, which is 1.6 days above the same period in 2018, but 1.2 days below the latest five-year average.

## Balance of Supply and Demand

Demand for OPEC crude in 2019 was revised up by 0.1 mb/d from the previous report to stand at 30.7 mb/d, which is 0.9 mb/d lower than the 2018 level. Demand for OPEC crude in 2020 was also revised up by 0.2 mb/d from the previous report to stand at 29.6 mb/d, which is around 1.2 mb/d lower than the 2019 level.

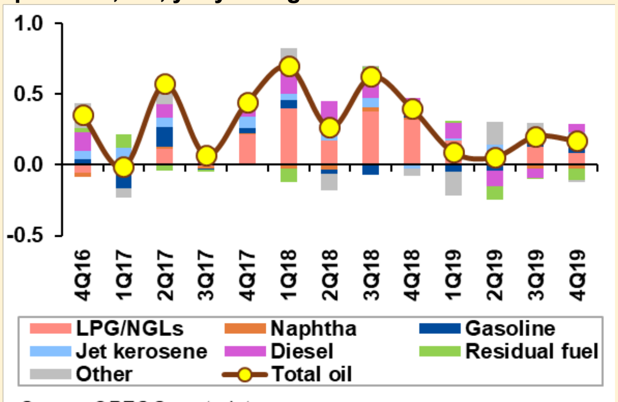
# Feature Article

## Winter oil market outlook

Product markets in the last two months have benefitted from seasonal maintenance which have led to a tighter product market environment, providing some support to product crack spreads and refining margins. With most refineries now back online in all main regions, refinery intakes have risen steadily, to stand some 1.0 mb/d higher in September compared to the same month last year. As a result of new refining capacity over the last year, refinery runs during winter are likely to reach new record highs, leading to potentially higher supply in the product markets. At the same time, economic headwinds pointing to a slowdown in manufacturing in the OECD may result in a possible decline in consumption of heavier fuels, weighing on the outlook for product markets over the winter season, while increased competition from ethane and LPG may also bite into demand for products including naphtha and transport fuels.

In the US, gasoil consumption is expected to receive support from the manufacturing, construction and freight sectors. Moreover, a seasonal pick up in heating oil demand this winter is expected, despite increasing substitution by natural gas. Jet fuel markets should also remain supported by an uptick in travel activities, particularly in the holiday season. In contrast, the seasonal decline in gasoline demand in the winter months will once again weigh on prices and ultimately refining economics (***Graph 1***). This may result in higher gasoline exports in 4Q19 to prevent strong inventory builds and to keep gasoline prices stable. Naphtha crack spreads will also come under pressure and suffer losses as strong LPG output, and lower LPG prices in the US continues to compete with naphtha.

**Graph 1: US oil demand growth by main petroleum products, mb, y-o-y change**



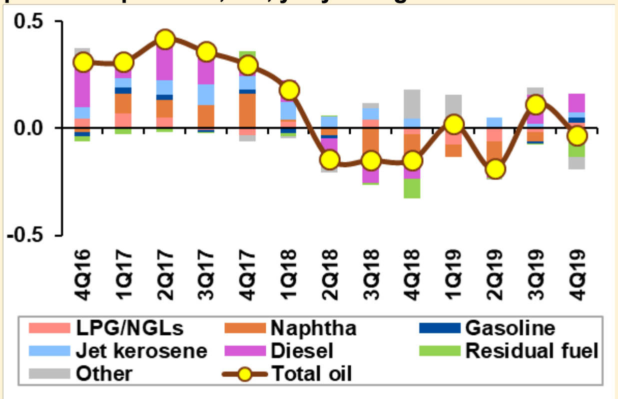

*Source: OPEC Secretariat.*

In Europe, the slowdown in transportation fuel demand will continue representing a challenge to product markets. Despite a slight pick-up in gasoline consumption in 1H19, mainly in France, unfavourable economic fundamentals have dampened demand in Germany. Moreover, a mild pick up in gasoline powered vehicle sales observed in France, Italy and Spain has been offset by a decline in overall car sales. The pressure in Europe's product markets could be further exacerbated by new cracking and other upgrading projects in Russia and Belarus, which is projected to increase regional transport fuel production by the end of 2019. Furthermore, data reflects a declining trend in product demand in the fourth quarter, particularly for naphtha and residual fuel (***Graph 2***).

In Asia, gasoil markets will remain supported by industrial and transportation demand. However, product balances will most likely soften compared with the previous year, once all refineries restore their operation activities in 4Q19, resulting in excess product supply, particularly for gasoline.

Concerning the IMO 2020, a combination of declining heavy crude availability, increased refinery conversion capacity, growing appetite for heavy crude, and stricter sulphur limits on marine bunker fuel are likely to lead to rising prices for low sulphur fuel oil (LSFO). At the same time, the declining availability of high sulphur fuel oil (HSFO) could also hold up prices for that product to some degree. Together with a mismatch in terms of quality between available and required crude slates for refinery intake, this could provide limited support to processing rates as refineries will have to resort to higher intakes to boost fuel oil or compliant marine fuel production.

**Graph 2: OECD Europe oil demand growth by main petroleum products, mb, y-o-y change**




*Source: OPEC Secretariat.*

Looking ahead, factors such as the onset of the winter season, healthy demand for middle distillates in Asia, and preparations for IMO should support middle-to-heavy product markets in the coming months. At the same time, uncertainties regarding the global economic outlook, declining car sales and fuel substitution programmes in Europe, and higher products supply from Asia could limit the upward trend in the product markets this winter.

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# Crude Oil Price Movements

*The **OPEC Reference Basket (ORB)** rebounded in September from the low level registered last month, mainly supported by supply disruptions and heightened geopolitical tensions in the Middle East. The ORB value rose by $2.74, or 4.6% in September to settle at $62.36/b.*

***Crude oil futures prices** recovered in September with **ICE Brent** on average $2.79, or 4.7%, m-o-m higher at $62.29/b, and **NYMEX WTI** up m-o-m by $2.12, or 3.9%, to average $56.97/b. However, y-t-d, ICE Brent was $7.98, or 11.0%, lower at $64.75/b, while NYMEX WTI declined by $9.69, or 14.5%, to $57.10/b, compared with the same period a year earlier. **DME Oman** crude oil futures also increased m-o-m by $2.58 in September, or 4.4%, to settle at $61.86/b. Y-t-d, DME Oman was down by $6.13, or 8.7%, at $64.35/b, compared with the same period a year earlier.*

***Hedge funds and other money managers** turned slightly positive on crude oil price outlooks compared with the end of last month, raising their net long positions in both Brent and WTI. High uncertainty about the global economy and the ongoing trade disputes limited the increase.*

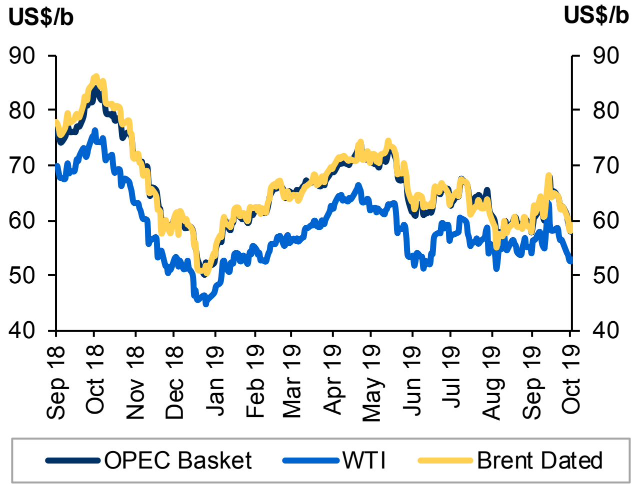
*ICE Brent and DME Oman crude oil forward **price structures** were in steep backwardation in September. Prompt month contracts rose the most, as concerns about a supply shortage raised demand for prompt cargoes. However, the backwardation curve structure of NYMEX WTI flattened slightly in the front end.*

***Sweet/sour differentials** widened in all markets, particularly in Europe and Asia, as international benchmark Brent was supported by geopolitical tensions and growing demand for sweeter crudes ahead of the International Maritime Organization's (IMO) 2020 low sulphur fuel oil requirements.*

# OPEC Reference Basket

The **OPEC Reference Basket** rebounded in September from low levels registered last month, mainly supported by supply disruptions and heightened geopolitical tensions in the Middle East, which helped to push all crude oil benchmarks higher. The ORB value rose by $2.74, or 4.6% in September to settle at $62.36/b. All basket component values increased following the attacks on Saudi Arabia's oil processing facilities at Abqaiq and Khurais, which caused a supply disruption of about 5.7 mb/d, raising concerns on the tightening physical crude market. However, oil prices came down and the risk premium faded after Saudi Arabia restored production and fulfilled all scheduled shipments to customers.

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




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

Physical crude prices were also supported by healthy demand and robust refining margins, which pushed some crude differentials to multi-year highs. The strength of the physical market was reflected in widening Brent and Dubai backwardation structures, with the first-to-third month spread reaching its highest point for months.

Oil prices also found support from declining US crude oil stocks, which continued to fall for four consecutive weeks to the week of 6 September, declining by about 24 mb. US crude oil stocks were about 66 mb lower, in the week to 20 September, compared with early June levels, according to US Energy Information Administration (EIA) weekly data.

However, the ORB value declined in late September on the faster-than-expected recovery of Saudi Arabian production and concerns about the slowing global economy and oil demand growth, amid the ongoing trade dispute between the US and China.

M-o-m, the ORB value rose by $2.74, or 4.6%, to settle at $62.36/b on a monthly average. Y-t-d, the ORB value was $5.96, or 8.5%, lower at $64.38/b.

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

| | | | Change | | Year-to-date | |
|---|---|---|---|---|---|---|
| | Aug 19 | Sep 19 | Sep/Aug | % | 2018 | 2019 |
| **Basket** | **59.62** | **62.36** | **2.74** | **4.6** | **70.34** | **64.38** |
| Arab Light | 60.84 | 62.74 | 1.90 | 3.1 | 71.10 | 65.26 |
| Basrah Light | 59.20 | 61.85 | 2.65 | 4.5 | 69.14 | 64.01 |
| Bonny Light | 60.46 | 64.02 | 3.56 | 5.9 | 72.96 | 66.07 |
| Djeno | 56.23 | 59.97 | 3.74 | 6.7 | 69.48 | 61.94 |
| Es Sider | 58.38 | 62.32 | 3.94 | 6.7 | 70.68 | 63.91 |
| Girassol | 61.64 | 65.36 | 3.72 | 6.0 | 72.48 | 66.34 |
| Iran Heavy | 57.77 | 60.32 | 2.55 | 4.4 | 68.70 | 62.23 |
| Kuwait Export | 60.35 | 62.16 | 1.81 | 3.0 | 69.28 | 64.54 |
| Merey | 49.17 | 61.79 | 12.62 | 25.7 | 64.38 | 56.63 |
| Murban | 60.19 | 62.39 | 2.20 | 3.7 | 72.79 | 65.10 |
| Oriente | 56.09 | 57.47 | 1.38 | 2.5 | 67.09 | 60.68 |
| Rabi Light | 58.08 | 61.82 | 3.74 | 6.4 | 71.15 | 63.79 |
| Sahara Blend | 58.23 | 62.47 | 4.24 | 7.3 | 72.43 | 64.64 |
| Zafiro | 60.81 | 64.47 | 3.66 | 6.0 | 72.07 | 65.93 |
| **Other Crudes** | | | | | | |
| Dated Brent | 58.83 | 62.57 | 3.74 | 6.4 | 72.11 | 64.54 |
| Dubai | 58.88 | 61.11 | 2.23 | 3.8 | 70.12 | 63.98 |
| Isthmus | 58.71 | 62.07 | 3.36 | 5.7 | 69.01 | 63.90 |
| LLS | 58.61 | 60.39 | 1.78 | 3.0 | 71.09 | 63.35 |
| Mars | 57.10 | 58.37 | 1.27 | 2.2 | 67.61 | 61.82 |
| Minas | 57.40 | 60.18 | 2.78 | 4.8 | 66.59 | 60.32 |
| Urals | 59.95 | 61.65 | 1.70 | 2.8 | 70.79 | 64.69 |
| WTI | 54.84 | 56.86 | 2.02 | 3.7 | 66.92 | 57.06 |
| **Differentials** | | | | | | |
| Brent/WTI | 3.99 | 5.71 | 1.72 | - | 5.20 | 7.49 |
| Brent/LLS | 0.22 | 2.18 | 1.96 | - | 1.02 | 1.19 |
| Brent/Dubai | -0.05 | 1.46 | 1.51 | - | 2.00 | 0.56 |

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

All **ORB component values** increased in September, along with their respective crude benchmarks, particularly lighter and sweeter components linked to the Brent benchmark. Heavier components also increased but at a slower pace, except for Venezuela's Merey, which jumped by about 26% m-o-m. Crude oil physical benchmarks also increased m-o-m. North Sea Dated was up by $3.74 to $62.57/b, while Dubai and WTI values rose respectively, by $2.23 and $2.02 to settle at $61.11/b and $56.86/b.

Light sweet crude **ORB components from West and North Africa** – including Bonny Light, Djeno, Es Sider, Girassol, Rabi Light, Sahara Blend and Zafiro – rose firmly in September, growing by $3.80 on average, or 6.4%, m-o-m to $62.92/b, supported by robust demand and strong refining margins. Light and medium sweet crude differentials rose further last month, supported by strong Asian demand as some refiners preemptively increased their purchases to secure alternatives to Middle East light crude. The premium of some West African crude differentials to North Sea Dated reached their highest point in years.

Nonetheless, the steep backwardation in Brent and the significant increase in freight rates in the second part of the month weighed on crude values in the Atlantic Basin.

**Latin American ORB component** Venezuela's Merey jumped by $12.62, or 25.7% m-o-m, to $61.79/b on demand recovery from China and the higher value of high sulphur fuel oil (HSFO) in September. Ecuador's Oriente also rose in September to $57.47/b, an increase of $1.38, or 2.5%.

The value of **multiple-region destination grades**, including Arab Light, Basrah Light, Iran Heavy and Kuwait Export, rose by $2.23, or 3.7%, for the month to $61.77/b, supported by supply disruptions and fears about lower supply from the Middle East, as well as healthy demand from Asian refiners and some recovery in HSFO values in September. The higher official selling price of most Middle East crudes for October loading to Asian markets also contributed to the increase in heavy component values.

**Middle Eastern spot component** Murban settled higher in September, rising by $2.20 m-o-m, or 3.7%, to $62.39/b, supported by robust refining margins for light and middle distillates in Asia, as well as a higher front-month Brent/Dubai Exchange for Swaps (EFS Dubai) which made Dubai-linked crudes more attractive to Asian refiners, compared with Brent-linked crudes from the Atlantic Basin. Murban spot values traded in September at high premium levels to the official selling price.

On 9 October, the ORB stood at $58.65/b, $3.71 below the September average.

# The oil futures market

**Crude oil futures prices** recovered in September following a large disruption in two key oil facilities in Saudi Arabia which caused a temporary outage of about 5.7 mb/d of the country's oil production. ICE Brent prices jumped by $8.8, or about 15% in one session on 16 September as traders tried to assess the impact of the disruption on the global oil supply and balance, amid risks of heightening tension in the Middle East. Nonetheless, concerns about a slowdown in the global economy – fueled by weak macroeconomic data and an ongoing trade dispute between the US and China – dampened the global demand outlook and put downward pressure on oil prices.

Oil prices rose slightly in the first part of September, underpinned by supportive signals from OPEC+ Ministers during the 24th World Energy Congress and the JMMC in Abu Dhabi, on the need for continued commitment to the Declaration of Cooperation in support of oil market stability on a sustainable basis. Oil prices were also supported by positive economic data from China showing that the services sector expanded in August, and comments by the head of the US Federal Reserve saying that the central bank would act appropriately to support continuing growth in the US economy. An ongoing decline in US crude oil stocks for four consecutive weeks – which fell by about 24 mb – further added support.

During the first week after attacks on oil facilities in Saudi Arabia, oil prices rose significantly, as the market was mainly driven by concerns about a supply shortage and the risk of escalating tensions in the region. However, oil prices softened in the days following, after Saudi Arabia has successfully restored production to normal levels by the end of September, while all scheduled shipments to customers were fulfilled.

Oil prices declined further in late September on a fading risk premium and a faster-than-expected recovery in Saudi Arabia's oil production, as well as signs of easing geopolitical tensions in the Middle East, while investors turned their focus to a weakening global economy and wavering oil demand amid the unsolved trade dispute between the US and China.

On a quarterly basis, ICE Brent recorded its biggest decline this year to reach its lowest quarterly average since 4Q17.

In September, **ICE Brent** was on average $2.79, or 4.7%, m-o-m higher at $62.29/b, while the **NYMEX WTI** rose m-o-m by $2.12, or 3.9%, to average $56.97/b. Y-t-d, ICE Brent was $7.98, or 11.0%, lower at $64.75/b, while NYMEX WTI declined by $9.69, or 14.5%, to $57.10/b, compared with the same period a year earlier.

**DME Oman** crude oil futures also increased m-o-m by $2.58 in September, or 4.4%, to settle at $61.86/b. Y-t-d, DME Oman was down by $6.13, or 8.7%, at $64.35/b, compared with the same period a year earlier.

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

| | Aug 19 | Sep 19 | Change Sep/Aug | % | Year-to-date 2018 | 2019 |
|---|---|---|---|---|---|---|
| **NYMEX WTI** | 54.84 | 56.97 | 2.12 | 3.9 | 66.79 | 57.10 |
| **ICE Brent** | 59.50 | 62.29 | 2.79 | 4.7 | 72.74 | 64.75 |
| **DME Oman** | 59.28 | 61.86 | 2.58 | 4.4 | 70.48 | 64.35 |
| **Transatlantic spread (ICE Brent-NYMEX WTI)** | *4.66* | *5.32* | *0.66* | *14.2* | *5.94* | *7.65* |

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

On 9 October, ICE Brent stood at $58.32/b and NYMEX WTI at $52.59/b.

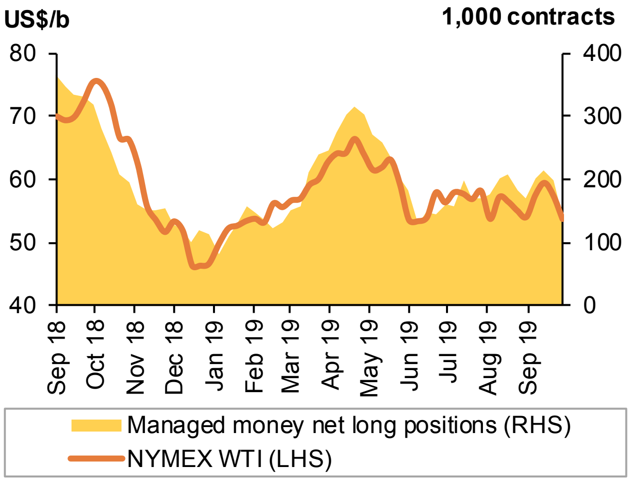
**Hedge funds and other money managers** turned slightly positive on the outlook for crude oil prices, compared with the end of last month, raising their net long positions in both Brent and WTI, according to data from the US Commodity Futures Trading Commission (CFTC) and the ICE. Hedge funds reduced their aggregate short positions in Brent and WTI crude futures and options contracts by a total of 15 mb, while increasing their aggregate long positions in Brent and WTI crude futures and options contracts by a total 47 mb to the week of 24 September, compared with late August, which suggests that speculators were less bearish than bullish about prices.

Hedge funds and other money managers marginally raised their bullish positions in WTI crude futures and options positions, remaining less bullish about the outlook for NYMEX WTI prices compared with ICE Brent. Speculators started to increase their long positions in the first part of September, before the attack on oil facilities in Saudi Arabia, on positive expectations about developments in US-China trade negotiations after China announced tariff exemptions on some US goods, and the US administration announced a delay in scheduling tariff hikes on Chinese goods. Between the week of 17 September and 27 August, speculators increased their net long positions by 30,960 contracts, or 17.0%, to 213,140 contracts, according to CFTC.

During the same period, gross short positions fell by 24,901 contracts or 30.3%, to 57,416 contracts.

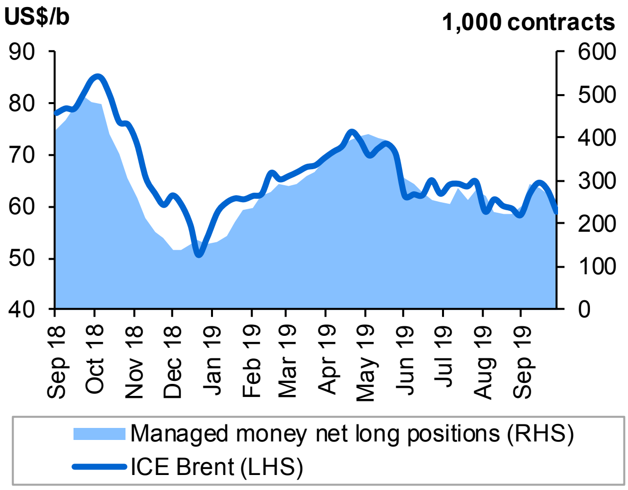
Despite the significant, but rather short-lived, supply disruption in Saudi Arabia, hedge funds and other money managers did not react much, and even reduced their net long positions in **Brent crude futures and options** in the week ending 24 September by 14,750 contracts, or by 5.1%, to 269,903 contracts, according to the ICE Exchange. The limited move in positions despite the significant supply disruption, indicates that money managers were more cautious amid high uncertainty regarding the global economy, oil demand and the ongoing trade dispute between the US and China.

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




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

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




*Sources: Intercontinental Exchange and OPEC Secretariat.*

The **long-to-short ratio** in ICE Brent speculative positions remained almost unchanged between late August and the end of the week of 24 September at 4:1. The NYMEX WTI long-to-short ratio rose slightly to 5:1 for the week ending 24 September from around 4:1 at the beginning of the month.

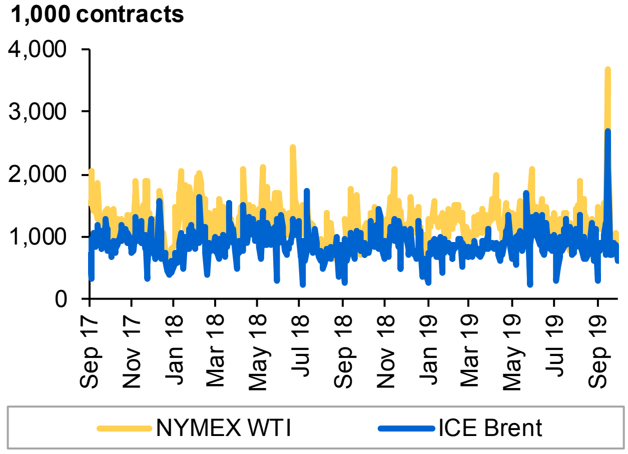
**Total futures and options open interest volume** in the two exchanges rose by 320,617 contracts from the beginning of the month to stand at 5.8 million contracts in the week ending 24 September.

The **daily average traded volume** for NYMEX WTI contracts rose again in September by 77,959 lots, or 6.1%, to 1,346,214 contracts. Daily average traded volume for ICE Brent also increased by 86,825 contracts, or 9.6%, to 990,874 lots.

The **daily aggregate traded volume** for both crude oil futures markets rose by 164,785 contracts m-o-m to stand at 2.3 million futures contracts, or about 2.3 billion b/d of crude oil.

The **total traded volume** for NYMEX WTI was lower in September at 26.9 million contracts, or 3.5%, while that of ICE Brent was 4.6% higher at 20.8 million contracts. Total traded volume was lower in NYMEX WTI in September, mainly due to fewer trading days compared with August.

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




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

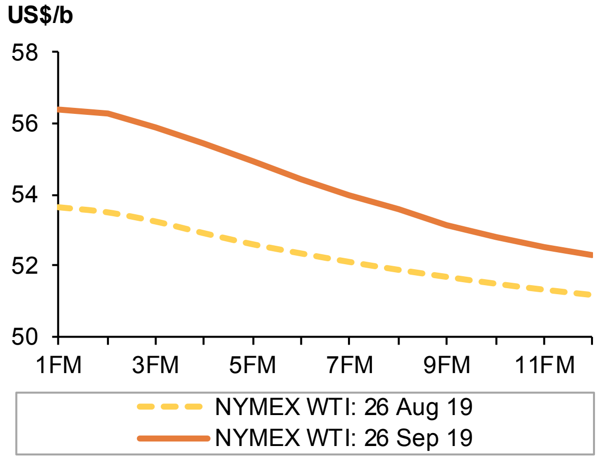
# The futures market structure

**ICE Brent** and **DME Oman** crude oil forward price structures were in steep backwardation in September, widening sharply after the attack on Saudi Arabia's oil facilities. Prompt month contracts rose the most, as concerns about a supply shortage raised demand for prompt cargoes. However, the **NYMEX WTI** backwardation curve structure flattened slightly in the front.

The **NYMEX WTI** forward structure remained in backwardation in September on easing congestion at the Cushing, Oklahoma, delivery point for the US oil futures contract, after an increase in crude oil transportation takeaway capacity from the Permian region to the US Gulf Coast. Nonetheless, WTI backwardation structure flattened slightly on lower US refinery runs due to seasonal maintenance and a disruption in crude transportation and refinery infrastructure in Texas due to Tropical Storm Imelda. Meanwhile, lower demand for US crude oil from China due to a 5% tariff on US crude imports from 1 September also weighed.

NYMEX WTI first-to-third month spread was at a backwardation of 51¢/b on 26 September, compared to a backwardation of 88¢/b on 16 September.

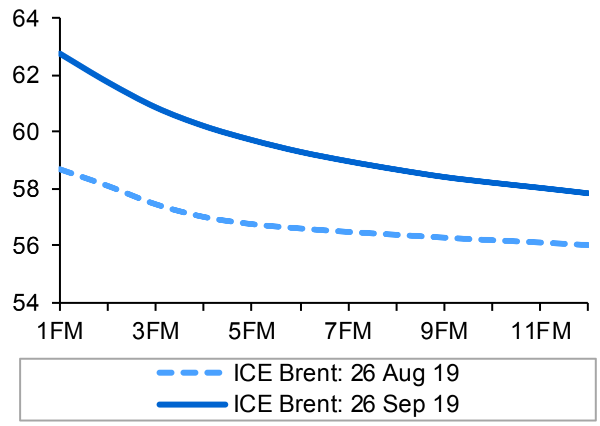
**Graph 1 - 5: NYMEX WTI forward curves**




*Note: FM = future month.*
*Sources: CME Group and OPEC Secretariat.*

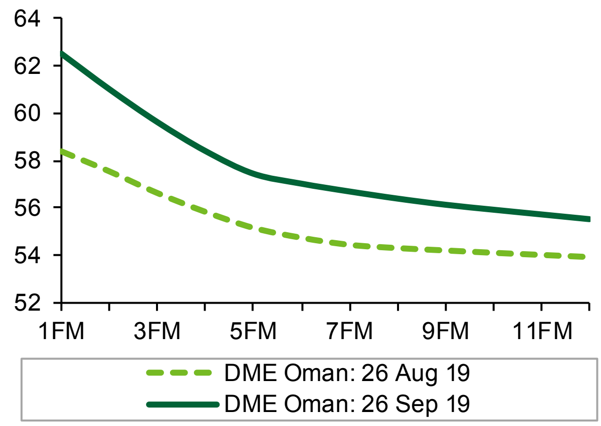
Backwardation in the **Brent** market structure remained elevated in September and steepened further on 16 September following the attack on Saudi Arabia's oil facilities, raising concerns about a shortage in oil supply. ICE Brent's first-to-third month spread rose to a backwardation of $2.47/b and ICE Brent's first-to-six month spread surged to a backwardation of $4.95/b on 16 September. Prompt Brent prices were supported by a more balanced crude market and strong demand for Brent-like cargoes in the Atlantic Basin, particularly from Asia.

**Graph 1 - 6: ICE Brent forward curves**




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

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




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

The backwardation structure of **DME Oman** steepened further, particularly in the front, on strong demand for prompt cargoes amid concerns about supply from Middle East following the attack on Saudi Arabia's oil facilities. Prices were also supported by strong refining margins and favorable arbitrage for Middle East crude compared with Brent-linked crude for Asian refiners.

Regarding the **M1/M3 structure**, North Sea Dated M1/M3 backwardation widened to $2.05/b in September, a rise of $1.13/b. The Dubai M1 premium to M3 also increased to $2.33/b, up by 59¢ on a monthly average. In the US, the WTI M1-M3 backwardation spread widened slightly in September by 7¢, to 38¢/b.

The **spread between the ICE Brent and NYMEX WTI** benchmarks widened slightly in September after narrowing for three consecutive months, as Brent's value was underpinned by strong demand for Brent-linked crude amid rising concerns over supply disruptions and geopolitical risks in the Middle East. Brent was also supported by strong demand for light and medium sweet crudes in the Atlantic Basin as refiners are switching their runs in order to comply with the International Marine Organization (IMO) 2020 regulatory changes regarding marine fuel sulphur. Brent's value rose the most among other benchmarks after the attacks on Saudi Arabia's oil facilities. A rise in NYMEX WTI value was dampened by lower US refinery runs due to seasonal maintenance and disruptions in crude transportation and refinery infrastructure in Texas due to Tropical Storm Imelda, as well as lower demand for US crude oil from China due to a 5% tariff on US crude imports. The first month ICE Brent/NYMEX WTI spread narrowed by 66¢ to $5.32/b.

**Table 1 - 3: Crude oil futures forward curves, US$/b**

| | | 1FM | 2FM | 3FM | 6FM | 12FM | 12FM-1FM |
|---|---|---|---|---|---|---|---|
| **NYMEX WTI** | 26 Aug 19 | 53.64 | 53.50 | 53.24 | 52.34 | 51.17 | -2.47 |
| | 26 Sep 19 | 56.41 | 56.28 | 55.90 | 54.45 | 52.30 | -4.11 |
| | ***Change*** | **2.77** | **2.78** | **2.66** | **2.11** | **1.13** | **-1.64** |
| **ICE Brent** | 26 Aug 19 | 58.70 | 58.12 | 57.48 | 56.64 | 56.06 | -2.64 |
| | 26 Sep 19 | 62.74 | 61.74 | 60.86 | 59.31 | 57.86 | -4.88 |
| | ***Change*** | **4.04** | **3.62** | **3.38** | **2.67** | **1.80** | **-2.24** |
| **DME Oman** | 26 Aug 19 | 58.42 | 57.57 | 56.65 | 54.75 | 53.93 | -4.49 |
| | 26 Sep 19 | 62.54 | 61.04 | 59.65 | 57.05 | 55.55 | -6.99 |
| | ***Change*** | **4.12** | **3.47** | **3.00** | **2.30** | **1.62** | **-2.50** |

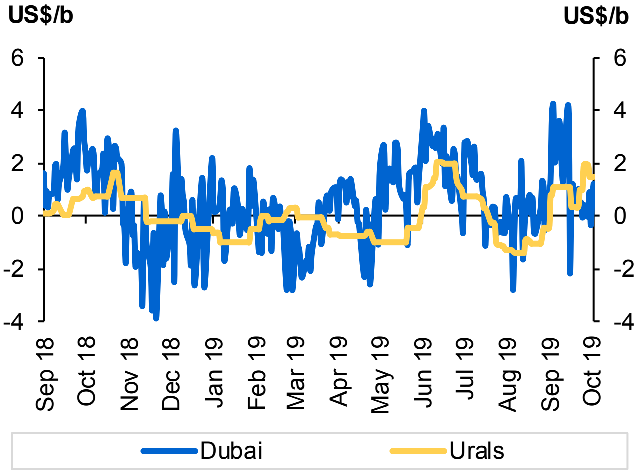
*Note: FM = future month.*
*Sources: CME Group, Dubai Mercantile Exchange, Intercontinental Exchange and OPEC Secretariat.*

# The light sweet/medium sour crude spread

**Differentials between light sweet and heavy sour crudes** widened in all markets, particularly in Europe and Asia, as Brent was supported by geopolitical tensions and growing demand for sweeter crudes ahead of IMO 2020 low sulphur requirements.

In **Europe**, the light-sweet North Sea Brent premium to Urals medium-sour crude widened to its second-highest level this year for the September monthly average, growing by $2.04 to 92¢/b due to strengthening international benchmark Brent on growing geopolitical tensions and risks of a supply shortage. Light and medium sour crudes linked to Brent were supported by strong demand after the supply disruption in Saudi Arabia and as refiners raise their demand for lower sulphur grades to meet the coming IMO 2020 sulphur regulations. Furthermore, Urals crude differentials to North Sea Dated weakened in September to the deepest discount in several months due to higher loading programmes and subdued demand. Some Urals cargoes for October-loading in Northwest Europe were traded below minus $2.50/b to Dated Brent.

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




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

In **Asia**, the Tapis premium over Dubai widened the most in September on average since January 2018 as domestic light sweet crudes were supported by strong regional demand and became more competitive with similar crudes in the Atlantic Basin due to a widening Brent-Dubai spread. EFS Dubai reached $4.26/b on 16 September after the attack on Saudi Arabia's oil facilities, and remained high most of the month. The Tapis premium over Dubai rose by $2.04 to $6.68/b.

On the **US Gulf Coast (USGC)**, the premium of Light Louisiana Sweet (LLS) over medium sour Mars also widened but at a slower pace, as lower imports of sour crudes from Latin America and the Middle East to the USGC supported the value of Mars. Lower US crude exports to China, due to a 5% tariff on US crude imports, weighed on light sweet values in the USGC. The LLS premium over medium-sour Mars increased by 51¢ to $2.02/b.

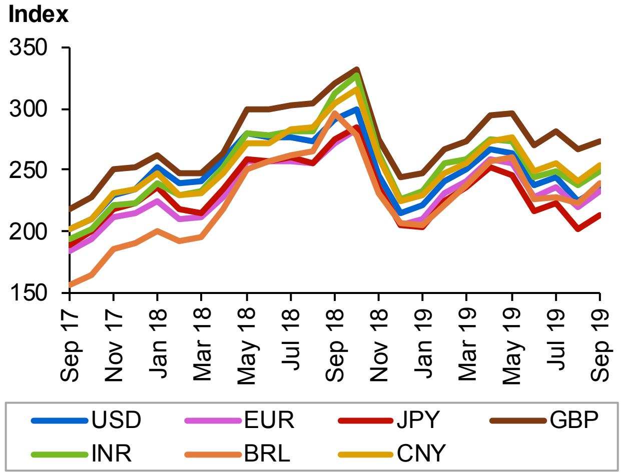
# The impact of the US dollar (USD) and inflation on oil prices

The **USD** advanced again in September against most major and emerging market currencies. In spite of a looser monetary policy by the US Federal Reserve (Fed) — after an interest rate cut at the beginning of the month — the relative outperformance of the US economy compared with its main developed-economy peers kept the dollar well supported.

Against **major currencies**, the USD advanced against the Euro on average by 1.1% m-o-m. The European Central Bank (ECB) cut interest rates in its deposit facility and announced the re-start of its quantitative easing programme to stem the current declining inflation trend amid an economic slowdown. The dollar advanced against the Swiss franc by 1.2% m-o-m, against the Japanese yen by 1.1% m-o-m, mainly due to reduced safe haven demand after some de-escalation in the trade dispute between China and the US. It declined by 1.7% against the pound sterling following political developments in the UK that increased the odds of securing an extension of the Brexit negotiation period past the end of October.

The dollar advanced against **emerging market currencies**, albeit at a lesser rate than the previous month, following the perceived de-escalation of the trade dispute between China and the US after the US delayed implementation of additional tariffs to Chinese imports. Indeed, the People's Bank of China generally strengthened the currency during the first half of the month, but it weakened subsequently. The dollar advanced on average by 0.8% against the yuan m-o-m, increasing slightly by 0.3% against the Indian rupee. The Reserve Bank of India continues to loosen its monetary policy — including a cut in interest rates for the fifth time this year at the beginning of October. However, improving emerging market sentiment during the month, and the announcement of government stimulus measures and a looser monetary policy by the US Fed, contributed to keeping the rupee in a tight range. The USD rose by 2.5% against the Brazilian real, with Brazil's central bank reducing its main policy rate by 0.5% and signalling potential further rate cuts to stimulate the economy, while at the same time the reform agenda by the government continues to face delays in the country's Congress. The dollar was down by 0.8% against the Russian ruble, following an oil price recovery during the month, in spite of the Central Bank reducing interest rates by 0.25%. The USD advanced by 1.6% against the Turkish lira, with the Central Bank of Turkey reducing its policy rate by 3.25%.The dollar increased by 7.1% against the Argentinian peso following a 23.9% increase the previous month amid a sharp fall in international reserves that led to the imposition of currency controls.

**Graph 1 - 9: ORB crude oil price index compared with different currencies (base January 2016 = 100)**



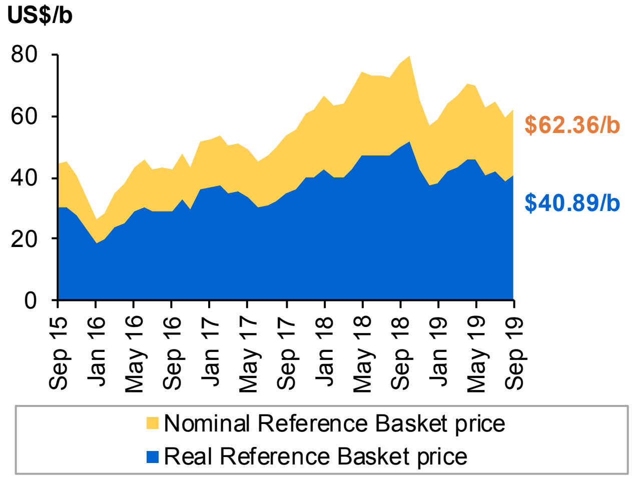

*Sources: IMF and OPEC Secretariat.*

In **nominal terms**, the price of the ORB increased by $2.74, or 4.6%, from $59.62/b in August to $62.36/b in September.

In **real terms**, after accounting for inflation and currency fluctuations, the ORB increased to $40.89/b in September from a revised $39.02/b (base June 2001=100) the previous month.

Over the same period, the **USD** advanced by 0.4% against the import-weighted modified Geneva I + USD basket, while inflation advanced by 0.2% m-o-m.

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




*Source: OPEC Secretariat.*

# Commodity Markets

***Energy commodities** prices rose during the month, supported by the short lived mid-month rally in oil prices following supply disruptions in the Middle-East. Natural gas increased in the USA, supported by warmer than average weather at the beginning of the month and some reversals in extreme investor positioning. In Europe, prices also jumped on restrictions imposed on Russian gas imports, the earlier than anticipated closure of the Groningen field in the Netherlands and concerns about security reviews at some power plants in France. However, comfortable inventory levels have limited further upside. Coal prices were relatively stable with moderate temperatures and rising Chinese production.*

*In the group of **non-energy commodities**, base metals improved, supported by the de-escalation of trade disputes and some declines in LME inventories. Concurrently, nickel continued to increase, jumping by around 14% on the prospect of an earlier-than-expected ban on Indonesian ore exports. However, the still weak picture of global manufacturing limited further gains. Among precious metals, gold prices rose the most since 2016 on increased safe haven demand while the US Federal Reserve (Fed) is expected to cut interest rates amid increasing challenges to global economic growth.*

## Trends in selected commodity markets

The **energy price index** increased by around 4.7% m-o-m in September and was down on average by 13.1% year-to-date (y-t-d) compared with the same period last year.

The **non-energy index** was up by 0.3% m-o-m, with increases in base metals, while agricultural prices were mixed. Y-t-d, the non-energy index declined 5.6% compared with the same period last year.

**Table 2 - 1: Commodity prices**

| Commodity | Unit | Monthly averages | | | % Change | Year-to-date | |
|---|---|---|---|---|---|---|---|
| | | Jul 19 | Aug 19 | Sep 19 | Sep 19/Aug 19 | 2018 | 2019 |
| **Energy*** | | **74.9** | **70.4** | **73.7** | **4.7** | **88.1** | **76.6** |
| Coal, Australia | US$/mt | 72.1 | 65.6 | 65.8 | 0.3 | 108.2 | 81.3 |
| Crude oil, average | US$/b | 61.5 | 57.7 | 60.0 | 4.1 | 69.7 | 61.8 |
| Natural gas, US | US$/mbtu | 2.4 | 2.2 | 2.6 | 16.0 | 2.9 | 2.6 |
| Natural gas, Europe | US$/mbtu | 3.6 | 3.7 | 4.2 | 14.4 | 7.5 | 4.8 |
| **Non-energy*** | | **82.6** | **79.5** | **79.8** | **0.3** | **86.5** | **81.6** |
| **Base metal*** | | **80.7** | **78.9** | **80.5** | **2.0** | **92.7** | **82.0** |
| **Precious metals*** | | **106.3** | **113.2** | **114.9** | **1.5** | **98.4** | **103.2** |

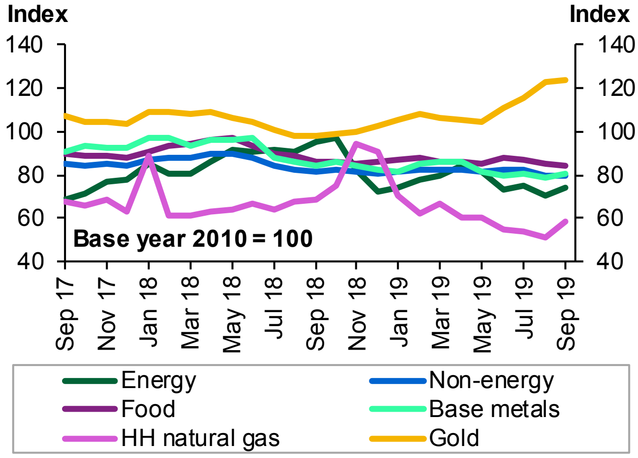
*Note: * World Bank commodity price indices (2010 = 100).*
*Sources: World Bank, Commodity price data; OPEC Secretariat.*

In September, the **Henry Hub natural gas index** increased on average by 16% to $2.58/mmbtu. Prices strengthened, as investors reversed an extreme bearish positioning, partly driven by the prospect of increased inflows to Mexico, after the country's Federal Electric Commission announced the renegotiation of contracts with three pipeline operators, warmer than average weather at the beginning of the month and the uncertainties surrounding the path of some tropical storms. However, the price spike faded in the second half of the month as the speed of replenishment of inventories accelerated, which according to the most recent data is close to eliminate the inventory deficit to the previous five-year average, which was as high as 31% at the end of March. According to the US Energy Information Administration (EIA), utilities added 112 bcf to working gas underground storage during the week ending 27 September. The build left total working gas in underground storage at 3,317 bcf, which was 0.5% lower than the previous five-year average. By the last week of August, inventories were 2.7% below the latest five-year average.

**Natural gas prices in Europe** also jumped with the **Title Transfer Facility price** increasing by 14.4% to $4.2/mmbtu in September. Prices jumped on the convergence of several events. First, the European Court of Justice re-established a limitation to Gazprom for its usage of the OPAL pipeline to just 50% of capacity, thereby limiting one of the routes for Russian gas exports to Europe. Secondly, French electricity company, EDF, announced reviews at some of its nuclear power facilities due to identified “deviation of technical standard” of some equipment. While the results of the review are still to be announced, any closure would potentially result in additional output requirements from natural gas powered plants. Third, the Netherlands announced an earlier-than-anticipated closure of the Groningen field in 2022, and a lower production limit for the next 12 months, due to seismic concerns. Additionally, the attack on Saudi Arabian oil facilities added some geopolitical premium, but this effect quickly receded as output was quickly restored. Any further upside has been limited as natural gas inventories are near full across EU Member States. At the end of September, inventories were around 97% of capacity compared to 82% at the same date last year, according to Gas Infrastructure Europe.

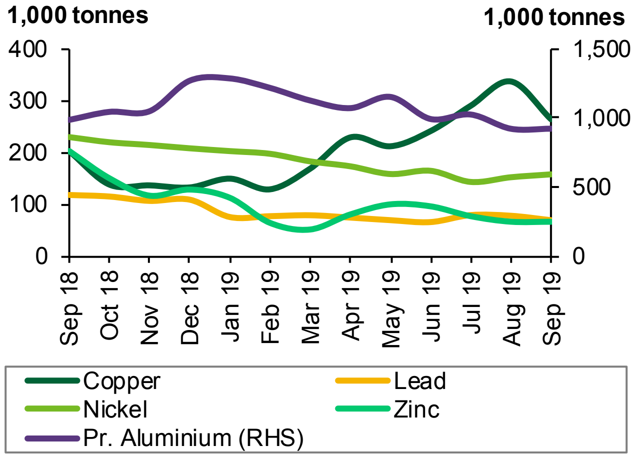
**Australian thermal coal prices** rose slightly in September by 0.3% m-o-m to average $65.6/mt amid continued muted thermal power demand and still rising Chinese coal output albeit at a lower rate. In August, thermal power generation was 0.1% lower compared to last year, according to data from the National Bureau of Statistics. Meanwhile, Chinese coal output rose by 5.0% y-o-y in August and by 4.5% y-o-y in the January–August period compared with the same period last year. At the same time imports have been robust. The August trade data has shown that Chinese coal imports rose up by 8.1% in the January–August period. With both production and imports outperforming last year’s figures, there may be some slowdown in imports in the months ahead.

**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: LME, Thomson Reuters and OPEC Secretariat.*

The **base metal price index** increased on average by 2.0% m-o-m in September, supported by the de-escalation of the trade dispute between China and the US, after the implementation of certain tariff was postponed by the US government and concerns about nickel supply disruption. However, manufacturing surveys continued to signal a contraction in activity for the fifth consecutive month, albeit some additional improvement was observed in the latest two surveys. Indeed, the JP Morgan global manufacturing PMI advanced slightly to 49.7 versus 49.5 in August.

**Copper prices** increased by 0.9% m-o-m in September, supported by the above mentioned de-escalation in the US-China trade dispute and declining LME rising inventories. The International Copper Study estimates that in 1H19 its world refined copper balance adjusted for unreported Chinese inventories showed a deficit of 195,000 tonnes, much higher than the deficit estimated for the January–May period of 95,000 tonnes. Inventories on the London Metal Exchange showed its first reversal in four months, declining to around 264,400 from around 337,000 tonnes in the previous month, which could support the idea of a minor uptick in demand. Nickel continued to outperform its base metal peers, supported by fears of supply disruption, as Indonesia announced a ban on nickel ore exports in 2020, and hopes of higher demand for the manufacturing of electric vehicles. Prices rose on average by 12.1% m-o-m and by around 48% since June.

**Iron ore prices** were relatively stable in September after steep falls in the previous two months following recovering in exports from Brazil in the third quarter. Chinese import data shows that iron ore imports remain down by 3.5% in the Jan-Aug period, despite a surge in imports in July and August.

In the group of **precious metals**, the index advanced by 1.5%, with gold, silver and platinum up by 0.7%, 10% and 5.4%, respectively. Gold prices were supported by the expectation of additional monetary policy accommodation by the US Federal Reserve.

# Investment flows into commodities

**Open interest (OI)** increased on average in September for selected US commodity futures such as crude oil and precious metals but decreased for crude oil and copper. On average, speculative net long positions increased for crude oil, precious metals, copper and natural gas.

**Table 2 - 2: CFTC data on non-commercial positions, 1,000 contracts**

| | *Open interest* | | *Net length* | | | |
|---|---|---|---|---|---|---|
| | Aug 19 | Sep 19 | Aug 19 | % OI | Sep 19 | % OI |
| **Crude oil** | 2,034 | 2,071 | 201 | 10 | 209 | 10 |
| **Natural gas** | 1,349 | 1,232 | -219 | -16 | -101 | -8 |
| **Precious metals** | 844 | 852 | 272 | 32 | 278 | 33 |
| **Copper** | 286 | 242 | -70 | -24 | -56 | -23 |
| **Total** | **4,513** | **4,397** | **-208** | **-1** | **-293** | **1** |

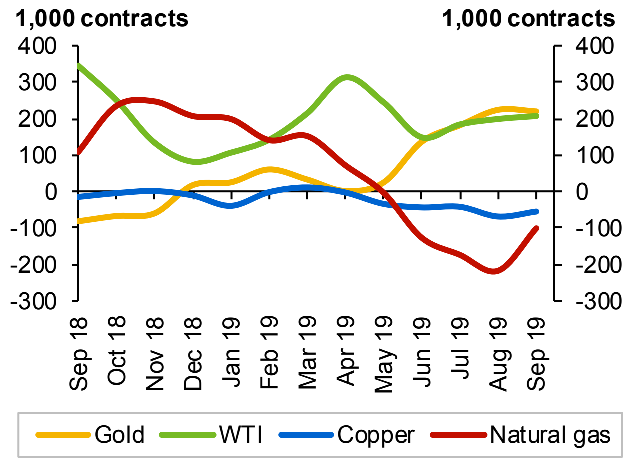
*Note: Data on this table is based on monthly average.*
*Sources: CFTC and OPEC Secretariat.*

**Henry Hub's natural gas OI** decreased by 8.7% m-o-m in September, while money managers cut their net short position by around half to reach an average of 101,225 from 218,803 contracts, spurring a short lived rally.

**Copper's OI** declined by 15.4% m-o-m in September. Money managers cut their net short position by around 20% to 56,171 from 69,746 contracts the previous month, amid some de-escalation in the US-China trade dispute.

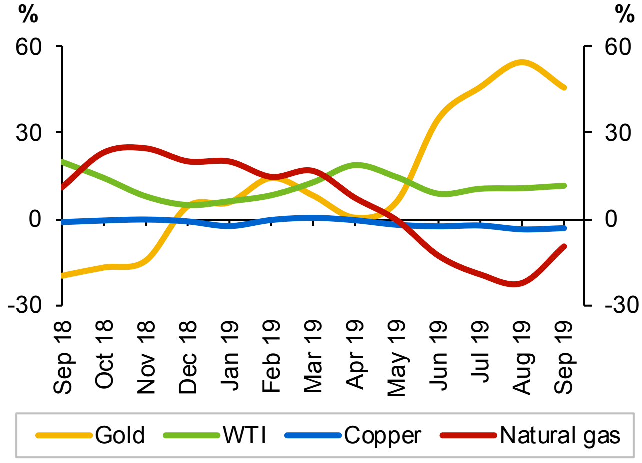
**Precious metals' OI** increased by 1.0% m-o-m in September. Money managers' net long position rose by 2.2% to 277,889 contracts from 271,878 contracts in the previous month, on expectations of lower interest rates in the US, amid signs of economic deceleration.

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




*Note: Data on this graph is based on monthly average.*
*Sources: CFTC 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: CFTC and OPEC Secretariat.*

# World Economy

*The **global economic growth forecast** remains unchanged at 3.0% for 2019, but was revised down for 2020 to stand at 3.0%, compared to 3.1% in the previous month's assessment. Slowing growth momentum in the US is likely to carry over into 2020, while ongoing uncertainties in the EU, including Brexit, remain. Trade-related issues, among them the recently implemented US tariffs on EU imports and ongoing US-China trade issues, are further dampening the growth momentum. Moreover, the ongoing slowdown in global manufacturing activity, continued challenges in Argentina and other emerging and developing economies, and high debt levels in important economies pose additional risks.*

*In consideration of the ongoing challenges in several **OECD economies**, including the deceleration in the US, OECD growth in 2020 was revised down to 1.4% from 1.5%, while the 2019 growth forecast remains unchanged at 1.6%. While the 2019 US economic growth forecast remains at 2.3%, the ongoing slowdown is forecast to continue into 2020. This factor, in combination with continued trade restrictions, has resulted in the 2020 US growth forecast being revised down to 1.8% from 1.9%. Euro-zone growth remains unchanged at 1.2% for 2019 and at 1.1% for 2020. Japan's 2019 growth forecast remains at 0.9% and at 0.3% for 2020. The UK's 2019 forecast remains at 1.1% for 2019. However, given the ongoing Brexit-related uncertainties in the UK, business activity is forecast to continue slowing, a trend that is expected to carry over into 2020. Consequently, the UK's 2020 GDP growth forecast was revised down to 1.0%, which compares to 1.2% in the previous month. Another important revision was made to Mexico's growth due to an ongoing weakening trend, now standing at 0.4% in 2019 and 1.1% in 2020 compared to last month's forecast of 0.5% and 1.2%, respectively.*

*In the **emerging economies**, China's 2019 growth forecast remains at 6.2%. 2020 growth remains at 5.9% with the economy expected to experience a further slowdown due predominantly to the ongoing US-China trade dispute. India's growth numbers were unchanged as well, showing an expansion of 6.1% for 2019 and 6.7% for 2020. Brazil's 2019 growth forecast remains at 0.8%, followed by 2020 growth of 1.4%. The future trend will depend on the outcome of the ongoing structural reforms agenda as well as near-term developments in Argentina, its largest Latin American trading partner. Russia's growth forecast for 2019 was revised down to 1.0% compared to 1.1% in the previous month, followed by growth of 1.2% in 2020.*

**Table 3 - 1: Economic growth rate and revision, 2019-2020*, %**

| | World | OECD | US | Japan | Euro-zone | UK | China | India | Brazil | Russia |
|---|---|---|---|---|---|---|---|---|---|---|
| **2019** | **3.0** | **1.6** | **2.3** | **0.9** | **1.2** | **1.1** | **6.2** | **6.1** | **0.8** | **1.0** |
| Change from previous month | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| **2020** | **3.0** | **1.4** | **1.8** | **0.3** | **1.1** | **1.0** | **5.9** | **6.7** | **1.4** | **1.2** |
| Change from previous month | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 |

*Note: * 2019-2020 = Forecast.*

*Source: OPEC Secretariat.*

# OECD

## OECD Americas

### US

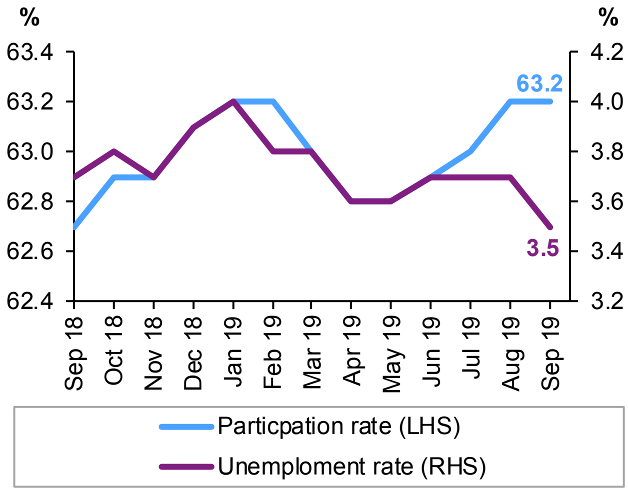
**US GDP growth** is forecast to slow down in 2H19, a trend that is expected to continue in 2020. After growth of 3.1% q-o-q SAAR in 1Q19, 2Q19 GDP growth was confirmed at 2.0% in the third and final release of the growth level. This slowing momentum is forecast to materialize in a growth level of below 2.0% in 2H19. While the more backward-looking indicators confirm ongoing solid growth in the past months, the more forward-looking measures indicate that the current slowdown in likely to continue. Not only are the ISM numbers indicating a slowdown in the services sector and an ongoing contraction in the manufacturing sector, but also manufacturing orders are hovering around the zero growth level and political uncertainties, both domestic and external, have increased in the past weeks. This also translates into falling consumer and business sentiment and declining investments. Already in 2Q19, gross private investment declined by 6.3% q-o-q SAAR. Ongoing support, albeit at a slowing pace, is coming from private consumption. Consumption grew by 4.6% q-o-q SAAR and is expected to sustain economic growth in the US. Monetary policies of the US Federal Reserve (Fed) are also expected to remain accommodative, as the Fed is expected to cut interest rates at least one more time in the current year, possibly at its upcoming October meeting. However, even with this support, there is limited capacity for improvement in the labour market, given a multi-decade low unemployment rate, which is also providing little room to the upside, particularly as productivity growth remains relatively low.

Trade negotiations between the US and China are ongoing, but the outcome remains relatively uncertain. **Trade-related issues** will continue to constitute a very important aspect of the US growth forecast going forward. The US recently introduced tariffs on products from the EU in the amount of $7.5 billion, following a ruling from the WTO. While these are relatively small, they affect important sectors, ranging from a 10% tariff on Airbus planes to 25% on olive oil, French cheese and wine, and Scotch whiskey, among other items. Moreover, there is still the possibility that the US continues to escalate trade-related issues with the EU and other economies by imposing further tariffs on cars and auto parts. This would drag down short-term economic growth in the US. The tariffs that have already been announced or implemented are expected to have a limited negative impact of around 0.1 pp on US GDP growth in 2019, however, in 2020, they are forecast to have a negative impact of up to 0.4 pp.

The **labour market** remained sound in September with the unemployment rate falling to 3.5%, compared to 3.7% in August.

**Non-farm payrolls** in September increased by 136,000 after job additions were revised upward by 168,000 in August. However, an important area to monitor will be growth in average hourly earnings for the private sector. This has remained at 3% or higher for about a year now, but has now decelerated to growth of 2.9% y-o-y. This is still a solid number, but it could indicate the start of an economy that, after the positive effects of major fiscal stimulus in 2018 and 2019, may begin to slow down. In this respect, long-term unemployment rose again for a second consecutive month to stand at 22.7%, which compares to 20.6% and 19.2% in August and July, respectively. The participation rate remained at a sound level of 63.2% in September.

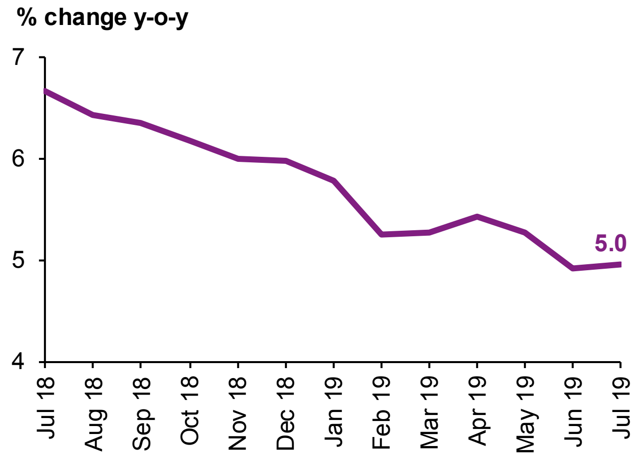
**Graph 3 - 1: US monthly labour market**




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

**Total inflation** remained almost unchanged in August, standing at 1.8% y-o-y. Core inflation – excluding volatile items such as food and energy – stood at 2.4% y-o-y in August, rising from 2.2% y-o-y in July and 2.1% in June. This also reflects the healthy trend in the labour market with solid wage growth. This trend, however, may soon be coming to an end. The Fed's favoured inflation index, the personal consumption expenditure price index (PCE index), stood at 1.4% in August for the third consecutive month. The critically important **housing sector** exhibited mixed developments in the sense that while price growth continued decelerating, home sales held up well. The yearly change in the **house pricing index** of the Federal Housing Finance Agency (FHFA) rose slightly to stand at 5% y-o-y in July, compared to 4.9% y-o-y in June.

**Graph 3 - 2: US house prices**

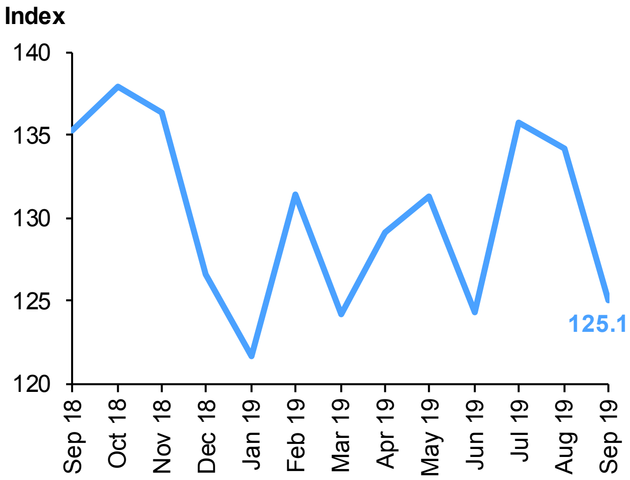



*Sources: Federal Housing Finance Agency and Haver Analytics.*

**Existing home sales** remained relatively strong in August, compared to an annualized level of 5.42 million in July. Also, new home sales increased to 713,000 in August, after 666,000 in July. The S&P CoreLogic Case-Shiller Home Price Index Composite 20 for metropolitan areas retracted again, now reaching 2.0% y-o-y in July, the lowest level since 2012.

After some ups and downs in the past months, **consumer sentiment** retracted again. The lead indicator, published by the Conference Board, fell to 125.1 in September, compared to 134.2 in August, 135.8 in July and 124.3 in June.

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

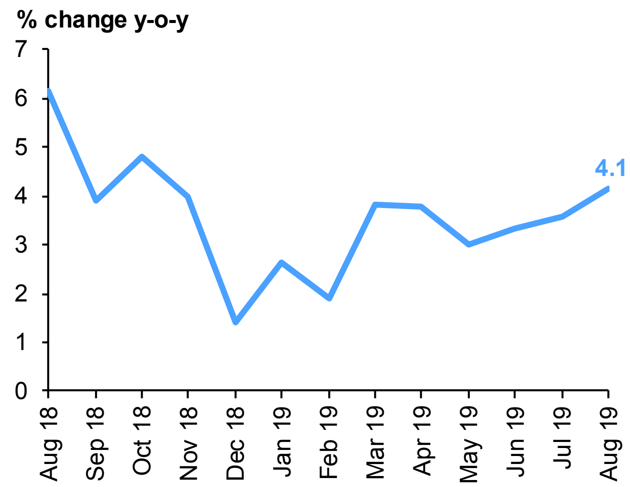



*Sources: The Conference Board and Haver Analytics.*

The trend in consumer sentiment was less positive than was visible in **retail sales** growth, which improved in August, rising by 4.1% y-o-y, compared to 3.6% y-o-y in July and 3.3% y-o-y in June. However, the 2019 levels are significantly lower than last year's high-growth environment, when annual growth of retail sales stood at 4.9% y-o-y.

**Industrial production** (IP) decelerated further, continuing a trend that started a year ago. IP rose by 0.4% y-o-y in August, compared to 0.5% y-o-y in July. This trend shows a clear deceleration from 1Q19 numbers, when quarterly average growth stood at 2.9%.

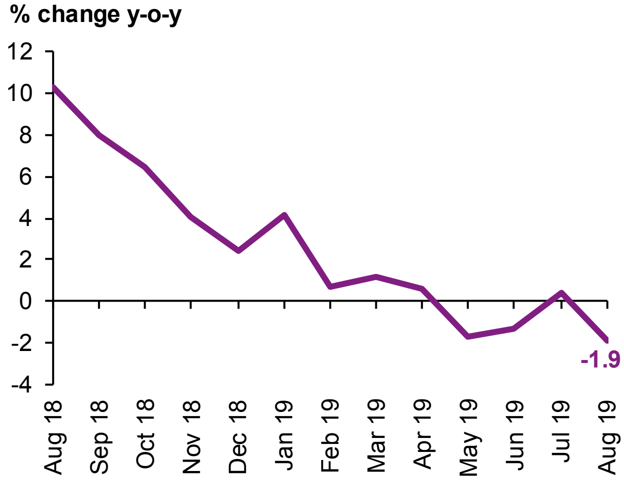
**Graph 3 - 4: US retail sales**




*Sources: Census Bureau and Haver Analytics.*

**Manufacturing orders**, a good lead indicator for future manufacturing activity, declined considerably in August, dropping by 1.9% y-o-y. This compared to already anaemic growth of 0.3% y-o-y in July after hefty declines of 1.3% y-o-y in June and -1.7% y-o-y in May.

**Graph 3 - 5: US manufacturing orders**

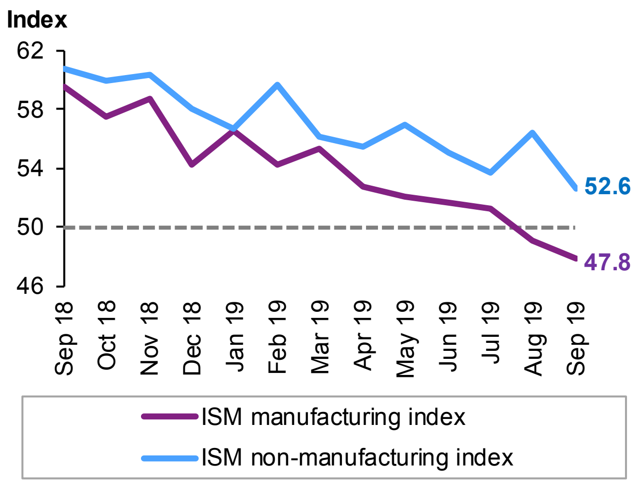



*Sources: Census Bureau and Haver Analytics.*

September's **Purchasing Managers' Index (PMI)**, as provided by the Institute of Supply Management (ISM), indicated a decline in the manufacturing sector, and while the services sector remained above the growth-indicating level of 50, it retracted as well.

The manufacturing PMI remained below the growth-indicating level of 50 to stand at 47.8 in September, compared to 49.1 in August. The services sector index fell to 52.6, compared to 56.4 in July. Considering that it accounts for around 70% of the US economy, support from the services sector is vital for growth going forward. However, it remains to be seen for how long services will outperform manufacturing at the current rate, given the sharp weakening in September.

**Graph 3 - 6: US-ISM manufacturing and non-manufacturing indices**




*Sources: Institute for Supply Management and Haver Analytics.*

The **GDP growth** forecast for 2019 is unchanged at 2.3%. Although, taking into account the ongoing trade issues and weakening growth trend in the US economy, the GDP growth forecast for 2020 was revised down as the deceleration is forecast to continue in 2020. The GDP growth forecast for 2020 was revised down to 1.8%, compared to 1.9% in the previous month. Monetary policies are expected to remain relatively accommodative. Domestic policy issues will continue and underlying domestic demand is expected to slow. Trade-related matters in particular will require further monitoring.

## Mexico

The **Mexican economy** continues to slow down. The combination of a challenging external trade environment, falling commodity prices and a **slowdown** in domestic activity has led to considerably lower growth in the current year. **Industrial production** fell again in July, declining by 2.8% y-o-y, compared to -2.2% y-o-y in June and -3.2% y-o-y in May, continuing the trend of monthly declines that started in October last year. With the exception of the manufacturing sector, which saw a rise of 1.2% y-o-y in July, all other industry sub-sectors − utilities, construction and mining − experienced declines. The latest **PMI** index for manufacturing also points to a sluggish trend in the sector. The September PMI level remained below the growth-indicating level of 50 for the fourth consecutive month, reaching 49.1, compared to 49.0 in August, 49.8 in July and 49.2 in June.

Taking into consideration the weak 1H19 GDP numbers and an ongoing challenging environment in 2019 for the Mexican economy, the **GDP growth** forecast for 2019 was revised down to 0.4%, compared to 0.5% in the previous month. The growth forecast for 2020 was revised down as well to 1.1% compared to 1.2% a month earlier.

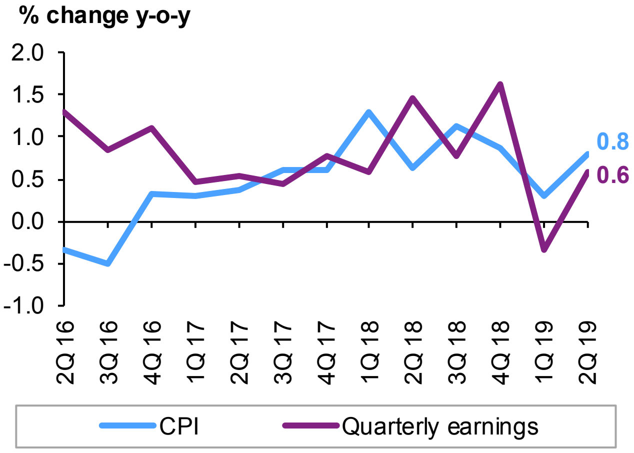
# OECD Asia Pacific

## Japan

After relatively strong growth numbers in 1H19, **economic activity seems to have slowed down** again. Growth in 1Q19 and 2Q19 was surprisingly good. Higher domestic consumption ahead of the anticipated sales tax increase combined with external trade-related distortions have led to very strong 1H19 GDP growth. However, more recent data highlights that the Japanese economy seems to be less buoyant than is reflected in the 1H19 GDP numbers. The sales tax has now increased from 8% to 10% in October. Past sales tax rises have had a significantly negative impact in the quarter of implementation and, to some extent, in the following quarters. Hence, GDP growth is forecast to move into negative territory in 4Q19. While it is too early to say for certain, the government may introduce a fiscal stimulus package to counterbalance the negative short-term effects of the sales tax increase, particularly as a variety of sentiment indices are pointing to a considerable slowdown, which is the result of the sales tax increase as well as slowing global trade and a general slowdown in activity.

Importantly, total **inflation** decelerated again considerably, standing at 0.2% y-o-y in August, which compares to already low levels of 0.6% y-o-y in July and 0.7% y-o-y in June. In the first half of the year, inflation seems to have been well supported by a rise in earnings. However, this trend turned negative in July and August, with earnings falling by 2.2% y-o-y and 0.1% y-o-y, respectively. Core inflation fell slightly to 0.5% y-o-y in August compared to 0.6% in July. The **labour market** remains tight as the unemployment rate continued at a rate of 2.2% in August, the lowest since the financial crisis in 2009. This should provide at least some support for wage growth and inflation. The Bank of Japan (BoJ) is expected to continue its accommodative monetary policies given the economic growth trend and low inflation. There is again some possibility that the BoJ will increase its monetary support.

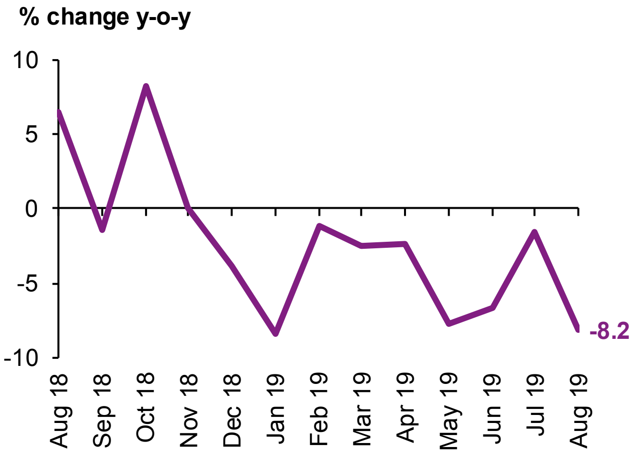
**Graph 3 - 7: Japan's CPI vs earnings**




*Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Haver Analytics.*

Given ongoing trade disputes and the rising fragility of the global economy, **export** growth slowed again in August, declining by 8.2% y-o-y. This compares to a decline of 1.6% y-o-y in July and -6.6% y-o-y in June. Correspondingly, **industrial production** declined as well in August, falling by 1.9% y-o-y compared to -1.5% y-o-y in July and -2.3% y-o-y in June. Manufacturing orders fell by 8.3% y-o-y in July, pointing at a further slowdown in the manufacturing sector, in line with declining business sentiment.

**Graph 3 - 8: Japan's exports**

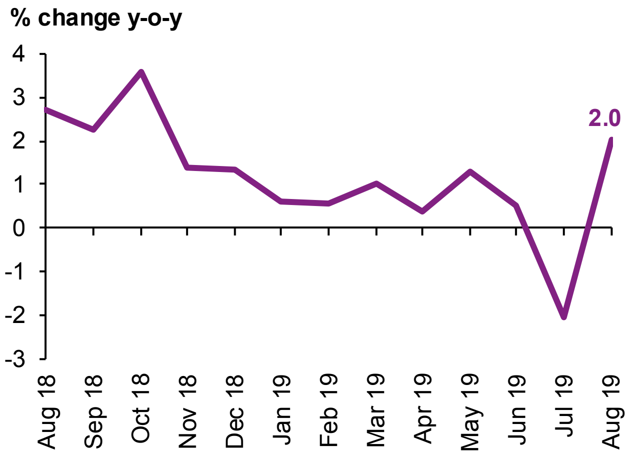



*Sources: Ministry of Finance, Japan Tariff Association and Haver Analytics.*

**Domestic retail demand** rebounded considerably in August, rising by 2.0% y-o-y, compared to a decline of 2.0% y-o-y in July. This strong growth was in anticipation of the sales tax increase. This is also reflected by the strong decline in consumer confidence, which shows that the underlying sentiment was not the reason for the recovery in retails sales, and it also shows that this strong trend is not likely to continue.

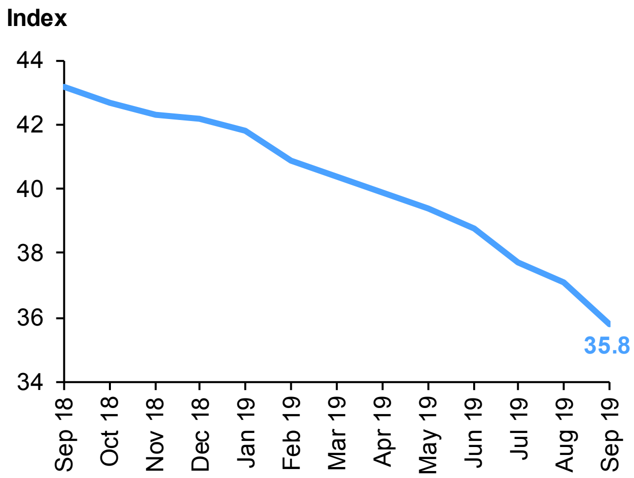
**Consumer confidence** fell further and now stands at 35.8 in September, compared to 37.1 in August. This is now the lowest level since 2011.

**Graph 3 - 9: Japan's retail trade**




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

**Graph 3 - 10: Japan's consumer confidence index**

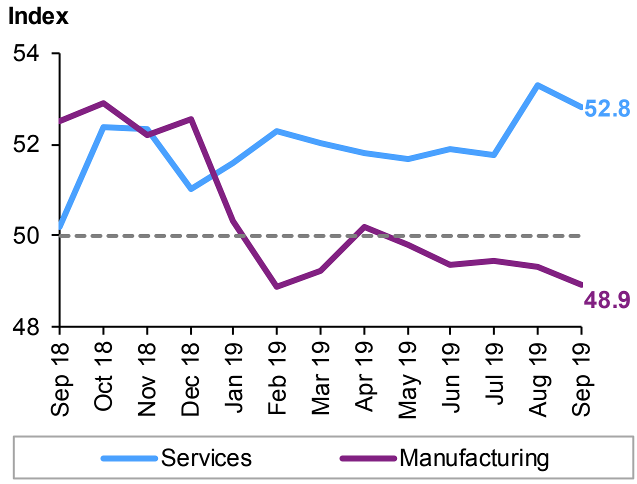



*Sources: Cabinet Office of Japan and Haver Analytics.*

The latest **September PMI numbers** confirm the low growth trend for manufacturing and while the non-manufacturing sector performed relatively better, it also retracted. The manufacturing PMI stood at 48.9 in September after reaching 49.3 in August. Hence, seven out of nine months of the year showed an index level of below 50, which amounts to a contraction in the sector. The services sector PMI – the sector that constitutes around two-thirds of the Japanese economy – declined to 52.8 in September, compared with 53.3 in August.

Japan's 2019 **GDP growth** forecast remains at 0.9%. The underlying sluggish growth trend is expected to continue. Given the sales tax increase, 4Q19 growth is forecast to be significantly negative. This low growth momentum is forecast to carry over into 2020. Consequently, GDP growth for 2020 is forecast at 0.3%, unchanged from the previous month.

**Graph 3 - 11: Japan's PMIs**




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

## South Korea

The **South Korean economy** continues to be impacted by a decline in external trade, while so far this trend was counterbalanced by solid domestic demand. Exports fell considerably again in September, down by 6.1% y-o-y, after declining by 7.5% y-o-y in August and 6.8% y-o-y in July. Consequently, industrial production (IP) remained sluggish, but increased slightly by 0.3% y-o-y. This compares to previous months of declines. The September **PMI number** for the manufacturing sector, 48.0, reflected the ongoing challenging environment. This compares to 49.0 in August and the July level of 47.3. The index was below 50 for eight out of nine months so far this year, indicating a contraction in the sector.

It remains to be seen how the ongoing trade challenges will affect the economy. For the time being, the 2019 **GDP growth** figure remains unchanged at 1.9%, while in 2020, GDP growth is forecast at 2.1%.

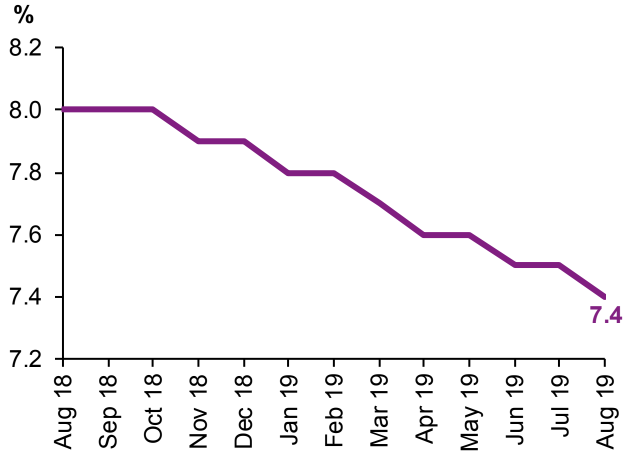
# OECD Europe

## Euro-zone

**The downward slope in the Euro-zone appears to have stabilised**. Lending activity to the non-banking private sector is rising and domestic demand remains solid, while international trade remains challenging, particularly for those economies that are export-oriented, namely Germany, and to some extent France. The support by the European Central Bank (ECB) with its ongoing accommodative monetary policy is one important factor to stabilise the current economic environment in the region. The German economy remains relatively soft, according to the latest data releases, however, it may recover from the currently low growth levels supported by ongoing solid domestic demand. Importantly, it remains to be seen how the global automotive sector will develop, as this is an important backbone for the German economy. At the same time, political developments in Italy have stabilised to some extent and Spain's growth is holding up well. France's economy has somewhat counterbalanced the downward slide in the Euro-zone economy.

In the **labour market**, the Euro-zone's unemployment rate fell slightly in August, as it stood at 7.4%, the lowest rate since 2008. Unemployment in Germany stood unchanged at 3.1% in August and France's unemployment rate stood at 8.5% for the fifth consecutive month. Spain's labour market improved further as its jobless rate declined to 13.8% in August, compared to 13.9% in July and 14.0% in June. Unemployment in Italy remained below 10% for a fourth consecutive month, declining to a level of 9.5%, compared to 9.8% in July and 9.7% in June. This also marks the lowest level since 2011.

**Graph 3 - 12: Euro-zone unemployment rate**

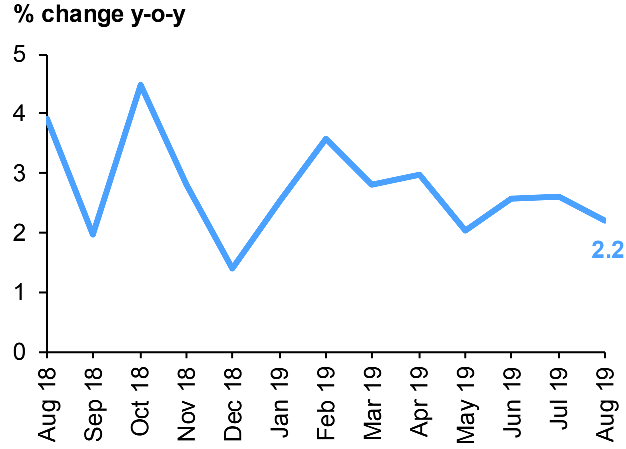



*Sources: Statistical Office of the European Communities and Haver Analytics.*

**Retail trade** held up relatively well with growth in the sector remaining an important support factor for the Euro-zone economy. In value terms it stood at 2.2% y-o-y in August, compared to 2.6% y-o-y in both July and June and 2.0% y-o-y in May.

**Industrial production (IP)** in the Euro-zone contracted again in July, the latest available month, when it fell by 1.8% y-o-y. This comes after a decline of 2.2% y-o-y in June. This is still very much influenced by the downward trend in Germany, where IP fell by a significant 5.1% y-o-y in July and 4.9% y-o-y in August. In Italy, IP declined by 0.5% y-o-y in July, after falling 1.3% in June. France performed relatively better with IP growth declining by 0.1% y-o-y in June and 0.2% y-o-y in July.

**Graph 3 - 13: Euro-zone retail sales**

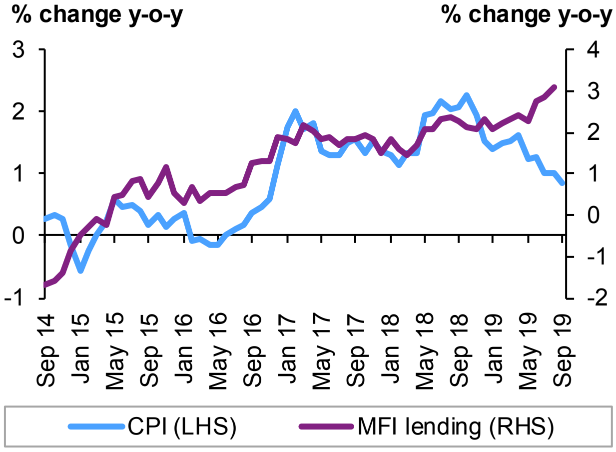



*Sources: Statistical Office of the European Communities and Haver Analytics.*

The most recent manufacturing orders for the Euro-zone point at a continuation of the downward trend. Manufacturing orders declined by 4.8% y-o-y in July and 3.5% y-o-y in June. That means that all available months in 2019 have seen negative or only flat growth in both IP and manufacturing orders in the Euro-zone.

**Inflation** declined again in September to 0.9% y-o-y. This compares to 1.0% y-o-y in August. This is still far from the ECB's aim to lift inflation up to around 2%. Less support is also coming from the labour market. Despite wages and salaries growing by 2.4% y-o-y in 2Q19, this is less than the 2.7% y-o-y that was recorded in 1Q19. The important core inflation rate – the core CPI, excluding energy and food – stood at 1.0% y-o-y in September, unchanged from August and a slight uptick from 0.9% y-o-y in July.

**Graph 3 - 14: Euro-zone CPI and lending activity**



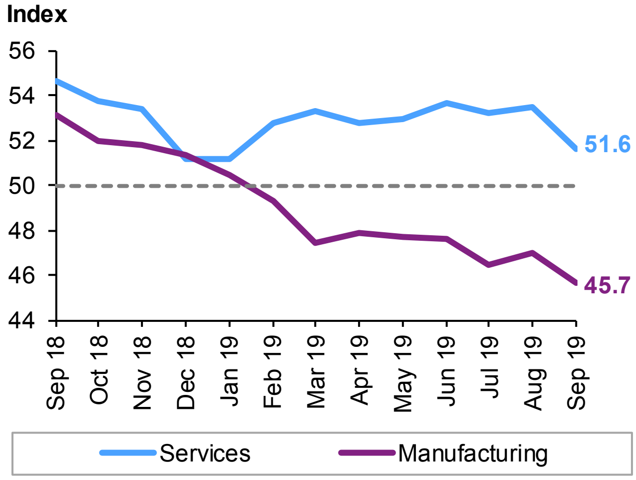

*Sources: Statistical Office of the European Communities, European Central Bank and Haver Analytics.*

Developments in **lending activity** –a motor for investment – have increased considerably in August, a positive trend. The latest growth numbers from August stood at 3.1% y-o-y, comparing to an already good number in July of 2.9% y-o-y and 2.8% y-o-y in June. While this is indeed a positive development it should also be noted that highest growth is coming from the real-estate sector. Mortgages are accounting for around 40% of these activities and grew by 3.6% y-o-y in August. While this is a positive development it is also an indication that the availability of cheap money is fuelling this not endlessly sustainable sector and it also indicates the danger of a housing sector that may deflate in the future.

The Euro-zone's latest September **PMI indicators** declined and the manufacturing sector remains in contraction territory. The manufacturing PMI stood at 45.7, comparing to 47.0 in August, clearly below the growth-indicating level of 50. The important PMI for services, the largest sector in the Euro-zone, dropped considerably to stand at 51.6 in September, comparing to 53.5 in August and 53.2 in July. This is also the lowest level since January this year.

Ongoing challenges in the Euro-zone are keeping growth at a low level. Considering the German slowdown, weaknesses in the banking sector, Brexit and high sovereign debt levels in some economies, the developments in the Euro-zone remain uncertain. The 2019 **GDP growth** forecast remains unchanged at 1.2%, followed by slower growth of 1.1% in 2020.

**Graph 3 - 15: Euro-zone PMIs**



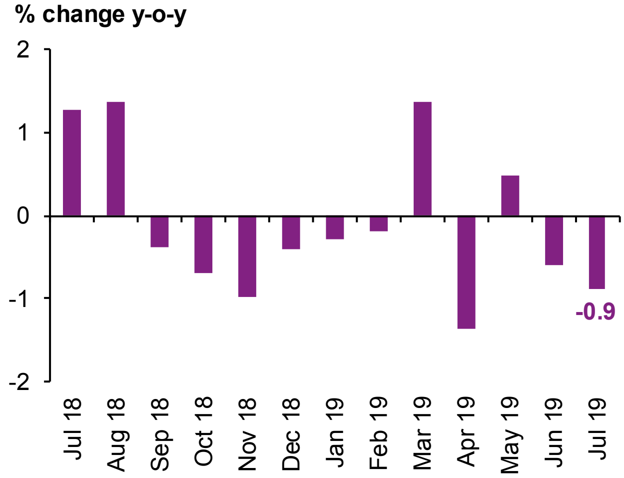

*Sources: IHS Markit and Haver Analytics.*

## UK

The UK is moving towards its **EU-exit** date on 31 October and it is still unclear how the two partners will proceed given the current gridlock in negotiations. However, parliament has asked the Prime Minister to request an extension of the exit date in the case that no agreement can be found by the end of October. In the meantime, the UK's economy continues to be affected by the impending Brexit. Additionally, the slowdown in the Euro-zone and global economic challenges, including those related to trade, dampen growth in the UK. GDP in 2Q19 declined by a seasonally adjusted 0.2% q-o-q and the latest indicators do not foresee a strong improvement. The very near-term developments mainly depend on what will happen with Brexit.

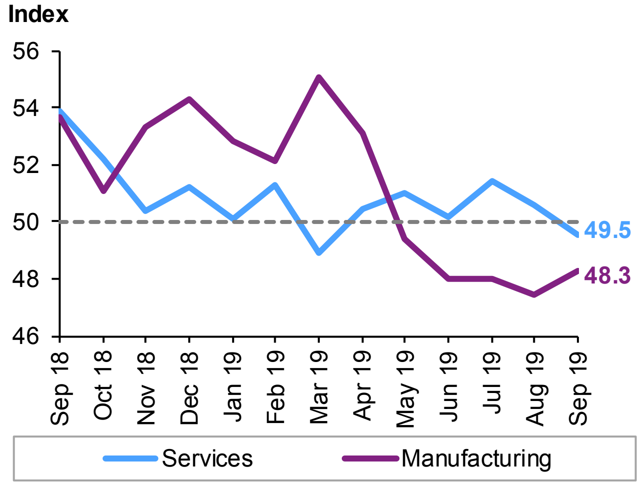
**Retail sales** in value terms held up well, up by 3.4% y-o-y in August, compared to 4.0% y-o-y in July. **Exports** picked up in July, with growth recorded at 4.5% y-o-y, compared to 0.2% y-o-y in June. **Industrial production** fell in July, declining by 0.9% y-o-y, after a decline of 0.6% y-o-y in June.

**Graph 3 - 16: UK industrial production**




*Sources: Office for National Statistics and Haver Analytics.*

**Graph 3 - 17: UK PMIs**




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

September **PMI lead indicators** showed a slightly improving trend in manufacturing. The PMI for manufacturing stood at 48.3, comparing to 47.4 in August and to 48.0 in July, indicating an ongoing contraction in the sector. However, the very important PMI of the services sector, which constitutes the majority of the UK's economy, fell below the growth-indicating level of 50. It declined to 49.5, comparing to 50.6 in August and 51.4 in July.

2019 **GDP growth** remains at 1.1%. Given the ongoing Brexit uncertainties and the slowdown in the economy, 2020 growth was revised down to 1.0% from 1.2% in the previous month's assessment. This 2020 forecast assumes a non-disruptive and soft Brexit, which given the ongoing uncertainties remains to be seen. Depending on Brexit developments, further downside risk remains considerable, but more so for 2020.

# Non-OECD

## BRICs

**Table 3 - 2: Summary of macroeconomic performance of BRIC countries, 2019-2020***

| | 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 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 |
| **Brazil** | 0.8 | 1.4 | 3.8 | 3.6 | -20.8 | -27.1 | -5.8 | -4.9 | 82.0 | 83.2 |
| **Russia** | 1.0 | 1.2 | 4.5 | 4.2 | 121.7 | 113.7 | 2.1 | 1.5 | 9.5 | 9.4 |
| **India** | 6.1 | 6.7 | 3.6 | 4.2 | -45.0 | -41.2 | -3.5 | -3.4 | 47.2 | 46.6 |
| **China** | 6.2 | 5.9 | 2.8 | 3.1 | 92.8 | 36.4 | -4.5 | -4.5 | 18.7 | 21.9 |

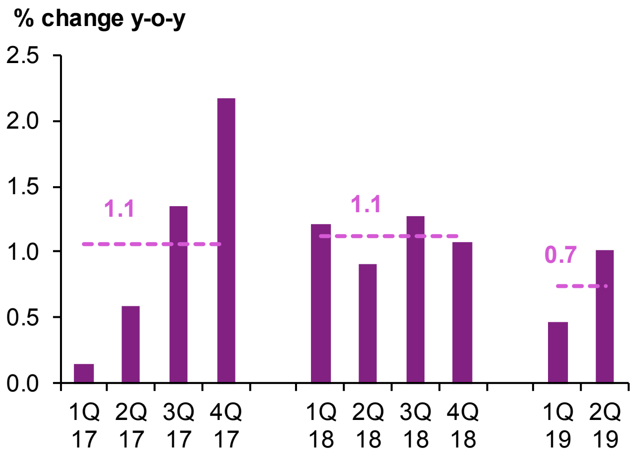
*Note: * 2019-2020 = Forecast.*

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

## Brazil

**Brazil's GDP** registered growth of 0.7% y-o-y in 1H2019, after the economy grew by 1.0% y-o-y in 2Q12, from a 0.5% growth in the previous quarter. Private consumption, GFCF, and exports contributed to the relatively faster pace of growth. It should be noted that despite 2Q19 growth being faster than in 1Q19, it was still anaemic when compared to the long-term growth average of 3.4% y-o-y. Private consumption growth stood at 1.6% y-o-y in 2Q19, from 1.4% in the previous quarter, while government consumption posted a decline of 0.7% y-o-y in 2Q19, from a 0.1% rise in 1Q19. GFCF grew by a faster rate in 2Q19 of 5.2% y-o-y, from 0.9% in 1Q19. Exports over 2Q19 increased by 1.8% y-o-y, from a 1.0% rise in 1Q19. Imports moved from a 2.5% y-o-y decline in 1Q19 to a 4.7% rise in the subsequent quarter.

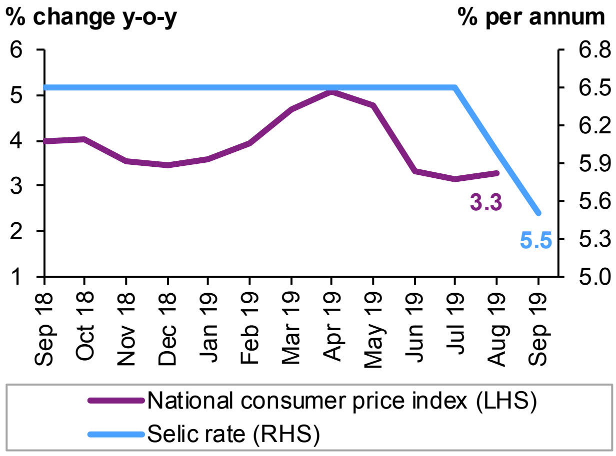
**Graph 3 - 18: Brazil's GDP growth**




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

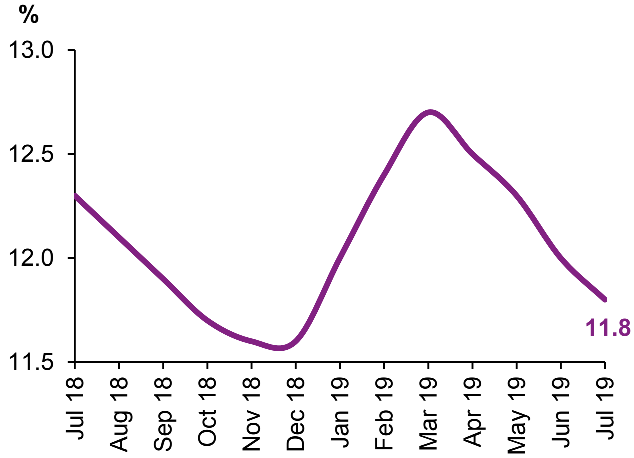
In September, the **real** depreciated by 2.5% m-o-m, after a 6.4% depreciation in August. On a y-o-y comparison, the real was lower by 0.1% versus the dollar in September 2019. The real depreciated by 18% in 2018. **Inflation** increased by 3.3% y-o-y in August, from 3.2% y-o-y in July and 3.3% in June. In 2018, inflation average stood at 2.9%. The central bank cut its benchmark **interest rate** in September from 6.0% to 5.5%, the lowest on record. The lower rate came amid an economic slowdown that has been more notable than expected, and a government attempt for social security reforms, which is currently due for Senate voting. The **unemployment rate** was unchanged at 11.8% in August. **Consumer confidence** index improved in September to 89.7, from August's 89.1.

**Graph 3 - 19: Brazil's inflation vs. interest rate**




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

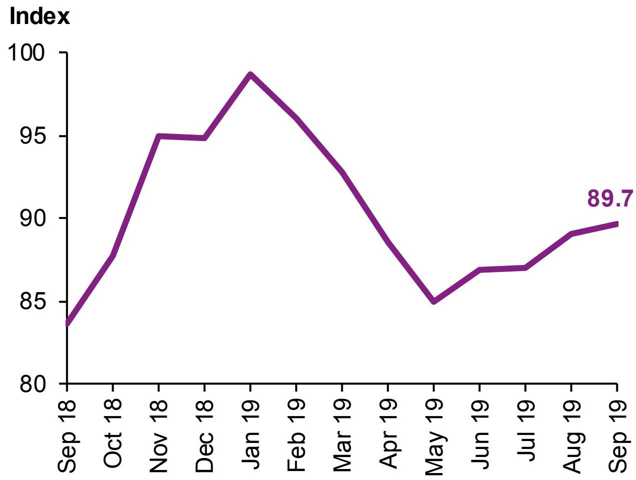
**Graph 3 - 20: Brazil's unemployment rate**




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

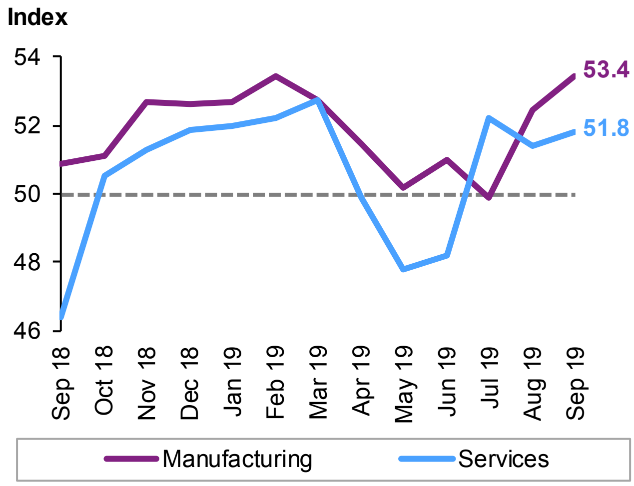
Operation conditions in the manufacturing sector continued to improve in September, according to the IHS Markit Brazil **manufacturing** PMI. The index went up from 52.5 in August to 53.4 in September because of a marked rise in new orders, quick increase in employment, and highest rise in production in 18 months. The index survey showed that "both new orders and production increased at the fastest rates in one-and-a-half years at the end of the third quarter, with expansions noted across all three broad areas of the manufacturing industry." The services sector gained momentum in September according to the IHS Markit Brazil **Services Business Activity Index**, which went up from 51.4 in August to 51.8 in September.

**Graph 3 - 21: Brazil's consumer confidence index**




*Sources: Fundação Getúlio Vargas and Haver Analytics.*

**Graph 3 - 22: Brazil's PMIs**




*Sources: IHS Markit and Haver Analytics.*

The 2Q19 GDP data showed that Brazil narrowly avoided recession after expanding by 0.4% q-o-q and 1.0% y-o-y. A breakdown of the 2Q GDP figure showed that both agriculture and industry recovered modestly from a year earlier, whereas growth in services remained steady. As for expenditures, the strong recovery in GFCF has helped lifting the overall GDP growth beyond most expectations. The ongoing financial meltdown in Argentina and the high likelihood of it falling into deeper recession in 2019 and 2020 are expected to cause a further hit to Brazilian exports to Argentina.

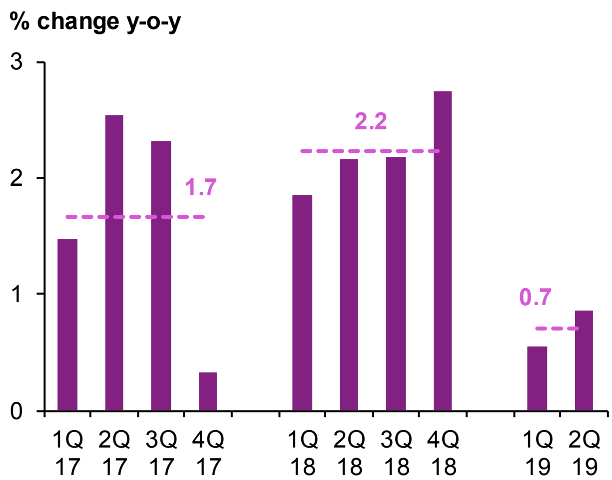
Brazil's **GDP** is forecast to grow by 0.8% in 2019, from the 1.1% growth achieved in 2018. For 2020, Brazil's GDP is expected to continue posting below potential growth at around 1.4%.

## Russia

**Russia's GDP** growth in 1H19 is now confirmed at 0.7% y-o-y, as 2Q19's GDP industrial components figures were published by the Federal State Statistics Service. GDP growth stood at 0.9% y-o-y in 2Q19, from 0.5% in 1Q19. Despite being higher than the previous quarter, GDP growth in 2Q19 remains way below the long-term average growth of 3.0% y-o-y.

Gross value added in the manufacturing sector increased by 0.6% y-o-y in 2Q19, unchanged from the previous quarter. Construction had no growth in added value in both 1Q and 2Q19. Electricity, gas, steam and air-conditioning supplies grew by 2.3% y-o-y during 2Q19, from a drop of 1.0% y-o-y in 1Q19. Mining and quarrying had a value-added rise of 4.5% and 3.0% y-o-y in 1Q and 2Q19, respectively. Net taxes experienced a 1.4% y-o-y decrease in 2Q19, as a result of a 1.3% y-o-y drop in taxes on products and a 2.7% y-o-y rise in subsidies on products.

**Graph 3 - 23: Russia's GDP growth**

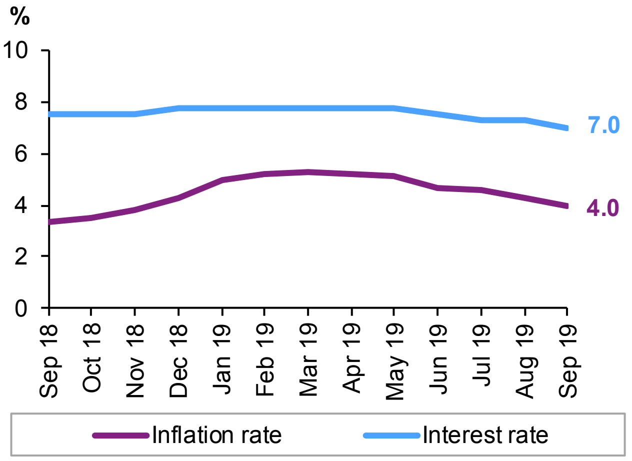



*Sources: Federal State Statistics Service and Haver Analytics.*

The **trade balance** in goods narrowed to $11.2 billion in July 2019, from $13.1 billion in July 2018. Exports of goods were 2.6% y-o-y lower in July 2019, while imports increased by 4.7% over the same period.

The **ruble** appreciated by 0.8% m-o-m in September 2019, after a 3.7% depreciation in August. On a y-o-y comparison, the ruble was 3.9% higher in September 2019 from its level a year earlier. Consumer price **inflation** eased in September to 4.0% y-o-y, from August's 4.3% and July's 4.6%. In January 2019, inflation stood at 5.0% y-o-y, as a result of the VAT increase. In March 2019, inflation rose by 5.3% y-o-y, which was the highest inflation rate since December 2016. The central bank lowered its benchmark **one-week repo rate** to 7.00% in September, from August's 7.25%. The repo rate was lowered by 25 basis points to 7.25% in July, following a similar reduction in June to 7.50%.

**Graph 3 - 24: Russia's inflation vs. interest rate**

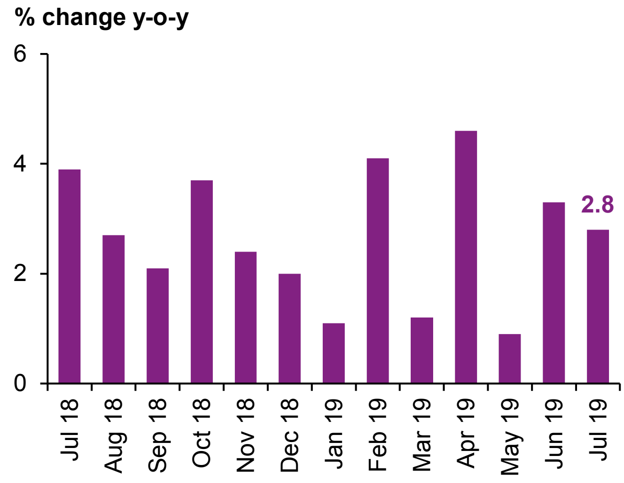



*Sources: Federal State Statistics Service, Central Bank of Russia and Haver Analytics.*

August data continued to signal a deepening deterioration in operating conditions across the manufacturing sector. The overall decline was driven by the fastest contraction in production and new orders. The seasonally adjusted IHS Markit Russia **manufacturing** PMI went down from 49.1 in August to 46.3 in September. The survey report said that "The decrease in output was largely linked to lower new order volumes and the loss of clients. The strong contraction was in contrast to the long-run series trend which points towards a solid expansion. Similarly, the decline in new business gained momentum in September, accelerating to the fastest since April 2009."

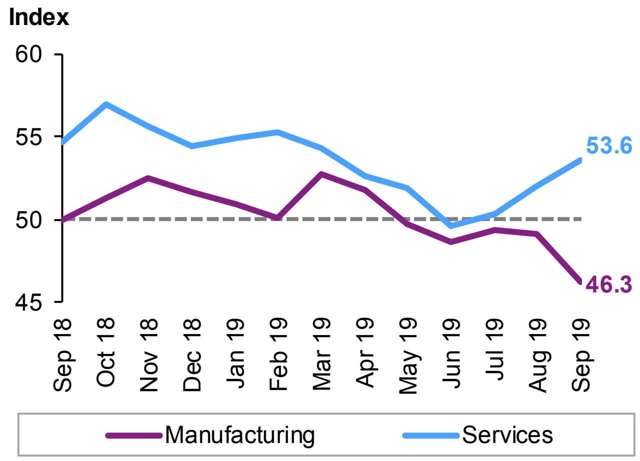
**Industrial production** increased by 2.9% y-o-y in August, from 2.8% y-o-y in July. Industrial production has been in the expansion territory since January 2018.

**Graph 3 - 25: Russia's industrial production**




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

**Graph 3 - 26: Russia's PMIs**

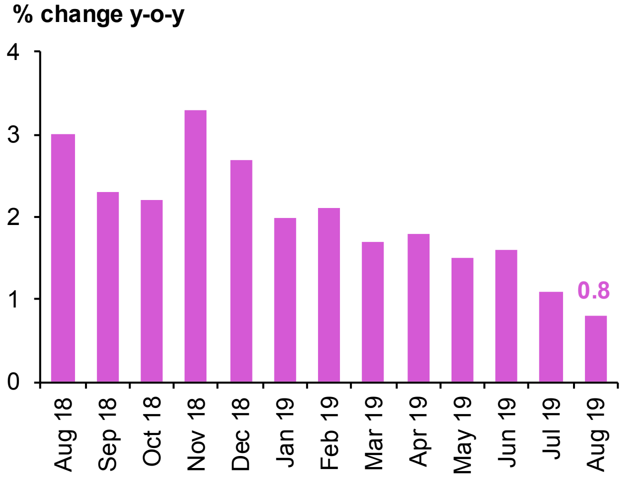



*Sources: IHS Markit and Haver Analytics.*

The **services** sector business activity growth expanded by highest rate in six months, according to the IHS Markit Russia Services Business Activity Index, which went up from 52.1 in August to 53.6 in September. The survey report highlighted the "stronger business activity expansion across the service sector, with growth accelerating to a solid rate that was the fastest since March. Supporting the upturn was a moderate, albeit relatively subdued, increase in new orders. Subsequently, firms expanded their workforce numbers for the first time since April. Nonetheless, business confidence remained muted and dipped to a six-month low".

**Retail trade** posted an expansion of only 0.8% y-o-y in August, from a 1.0% growth in July and 1.4% in June and May. Retail trade stood in the expansion territory since February 2017.

**Graph 3 - 27: Russia's retail sales**



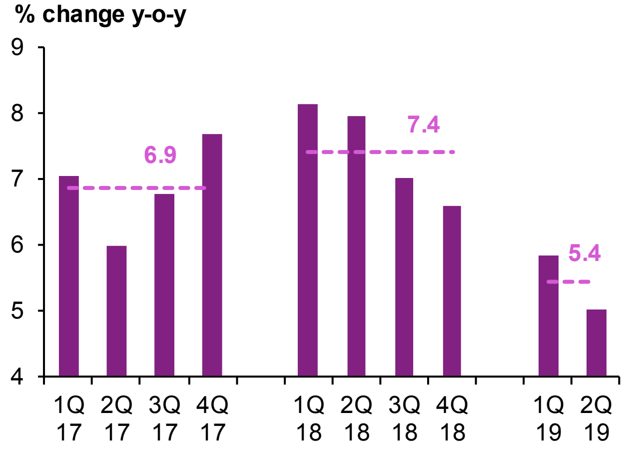

*Sources: Federal State Statistics Service and Haver Analytics.*

**GDP growth** inched higher in 2Q19 to 0.9% y-o-y, up from 0.5% in the previous quarter, easing the fears that the economy will slip into recession. However, industrial output contracted by 0.4% in 2Q19, its second consecutive quarterly decline, whilst construction stagnated. Household consumption has also been negatively affected by a VAT hike at the beginning of the year, which contributed to a rise in retail sales of only 0.8% y-o-y in August. The GDP growth forecast points to 1.0% y-o-y in 2019 and 1.2% in 2020.

## India

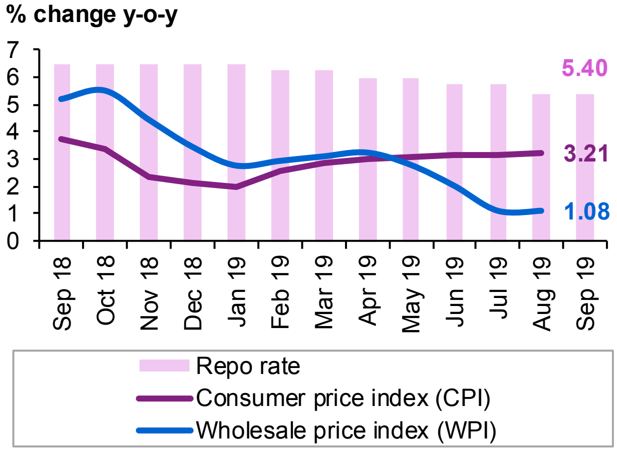
**India's GDP growth** has declined 3.0 pp in 2Q19 compared with 1Q18. Looking at the main drivers, a sharp drop in consumption growth and moreover sluggish investment trends seem to have caused this decline. Furthermore, despite the strong deceleration in growth and aggressive monetary policy easing, high frequency indicators show few convincing signs of a looming recovery; in particular, consumption indicators remain low. According to the official data from India's finance ministry, India's real GDP growth is likely to pick up in the October 2019–March 2020 (2H20) period as consumer demand is expected to improve.

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




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

**Graph 3 - 29: Repo rate and inflation in India**



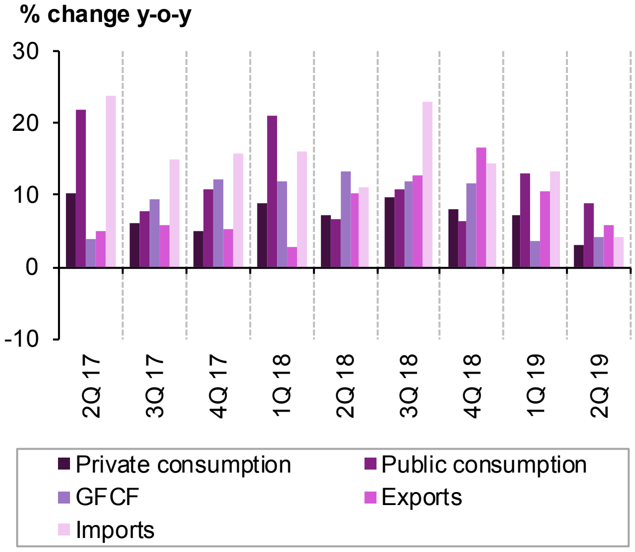

*Sources: Ministry of Commerce and Industry, Reserve Bank of India and Haver Analytics.*

Most Indian government policy measures announced officially aim to boost consumption. On the one hand, the Reserve Bank of India (RBI) announced that it would decrease the repo rate, new floating rate loans would be linked to external benchmarks and there would be easier credit risk management norms for local banks to non-banking financial companies (NBFC) and consumer credit. On the other hand, India's government tried to boost consumption through the following measures: releasing INR 700 billion for India's public sector banks recapitalization, banks launching more repo rates linked to housing and vehicle loans, hikes in vehicle registration fees delayed and a reduction in bureaucracy for government departments to purchase new vehicles. These policies may help to recover consumption growth from 1Q20 ahead. However, the nonexistence of a stronger policy push, which might include further tax relief for individuals or the auto sector, is likely to constrain the pace of recovery. Additionally India's government is looking to ease foreign investment limits in government bonds.

India's government announced its first major fiscal stimulus and lowered the effective tax rate for domestic firms to 25.2% from the previous approximate of 30%. However, the effective tax rate for new domestic companies investing in manufacturing was set at 17%.

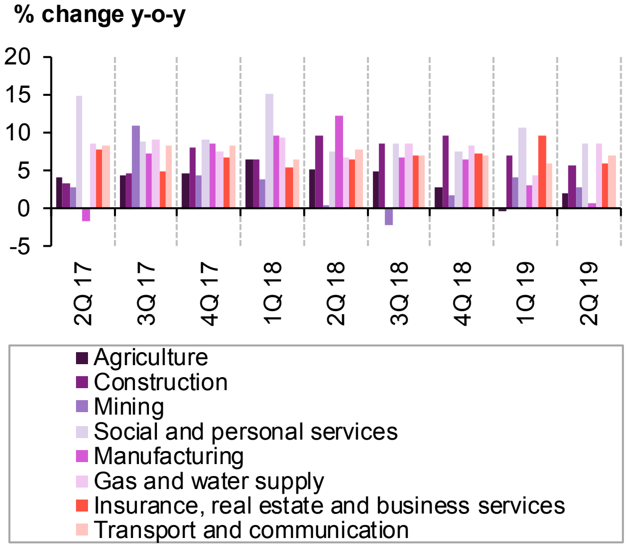
In terms of the impact of monsoon rains on India's economy, India's agriculture sector is the main driver for India's economy. The agriculture sector accounts for about 15.5% of India's economy, therefore, India's annual monsoon rains are fundamental to farm output and economic growth.

**Graph 3 - 30: India's GDP growth by demand side**




*Sources: Central Statistics Office and Haver Analytics.*

**Graph 3 - 31: India's GDP growth by supply side**

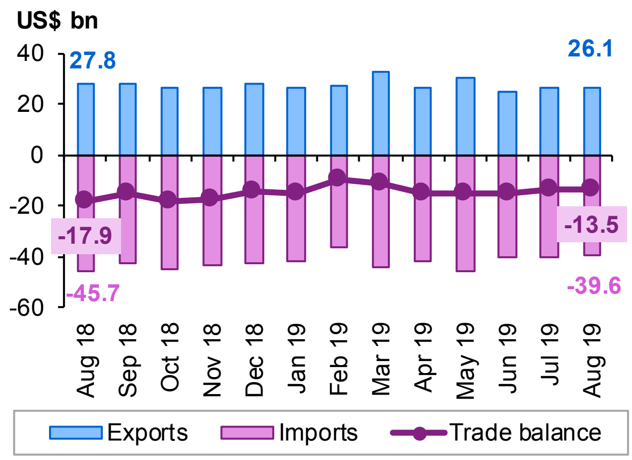



*Sources: Central Statistics Office and Haver Analytics.*

India's **CPI inflation** marginally stood at 3.2% y-o-y in August 2019 from 3.15% in July. India's **WPI** rose by 1.08 % y-o-y in August 2019, the same level as July. India's WPI still remained at its lowest rate since June and July 2017.

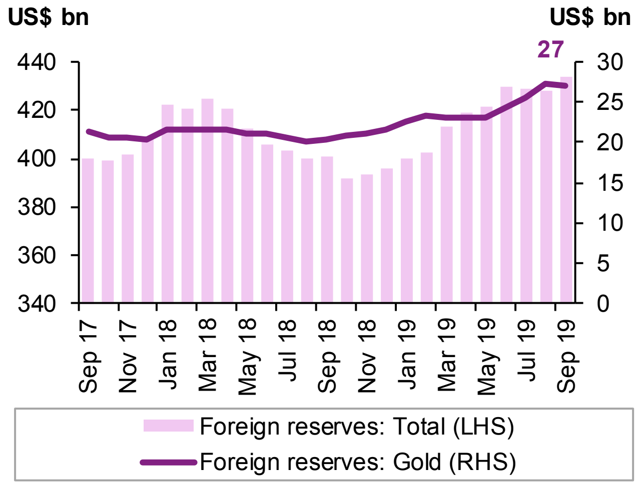
India's **trade deficit** narrowed to $13.5 billion in August 2019 from $17.9 billion in August 2018. **Exports** decrease to 6.0%, $26.1 billion, led by decline in sales of gems and jewellery. India's **imports** dropped 13.5% to $39.6 billion.

**Graph 3 - 32: India's trade balance**




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

**Graph 3 - 33: India's foreign reserves**



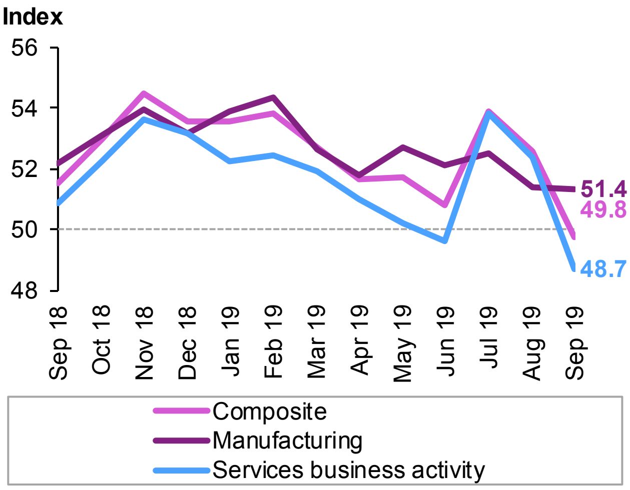

*Sources: Reserve Bank of India and Haver Analytics.*

According to RBI and Haver Analytics' latest information, India's **foreign direct investment (FDI) gross inflows** in July 2019 stood at $5.95 billion. India's FDI gross inflows in 1Q19 were $15.46 billion, improving in 2Q19 to $21.31 billion, India's net FDI stood at $7.0 billion in June 2019 and $3.81 billion in July 2019.

The IHS Markit India **Manufacturing PMI** has lost momentum since 1Q19 and unchanged in September 2019 from August 2019 at 51.4. The figure still showed an improvement in the health of the manufacturing sector, albeit one that was historically subdued. Indian manufacturers were again hit by a dampening of demand conditions domestically and externally, which led them to limit production, lower inventories and reduce input buying. At the same time, business confidence sank to one of the lowest levels seen in over two-and-a-half years.

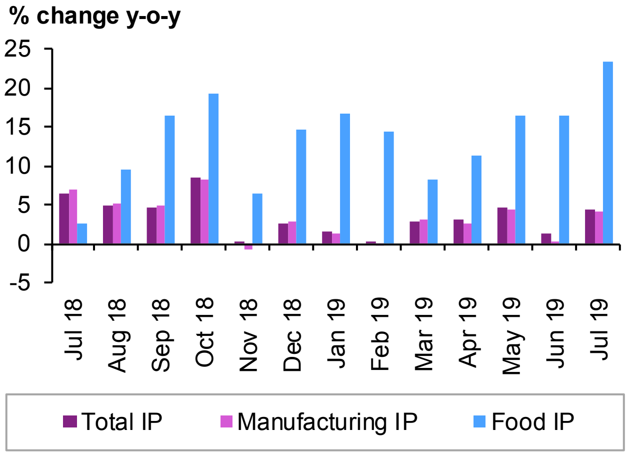
The IHS Markit India **Services PMI** decreased sharply to 48.7 in September 2019 form 52.4 in August.

**Graph 3 - 34: India's PMI**




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

**Graph 3 - 35: India's industrial production (IP) breakdown**



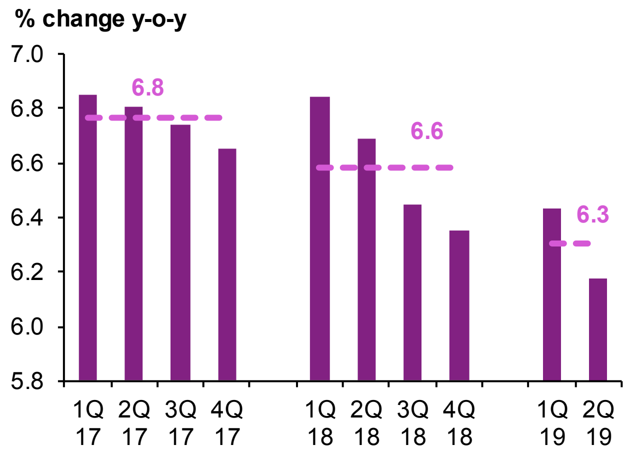

*Sources: Ministry of Statistics and Program Implementation of India and Haver Analytics.*

India's **GDP growth** was unchanged at 6.1% for 2019 and 6.7% for 2020.

## China

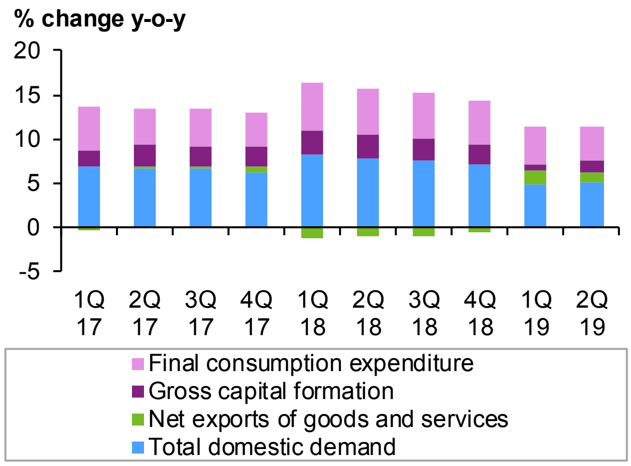
According to the latest data, in August, **China's GDP growth** continued to be sluggish, amid subdued investment activity and export declines. China's near-term economic outlook remains challenging amid weak global and domestic demand predictions. More significant policy easing is needed to stabilise growth.

**Graph 3 - 36: China's GDP growth**




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

**Graph 3 - 37: China's GDP breakdown**



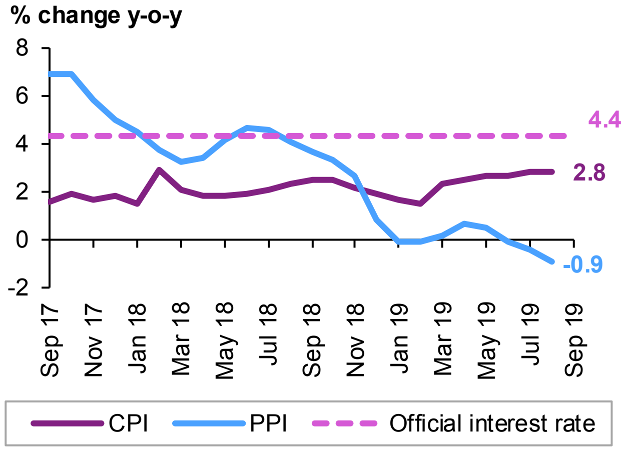

*Sources: China National Bureau of Statistics and Haver Analytics.*

China's government is exploring policies aimed at boosting the economy. Quicker infrastructure and construction projects, improving and upgrading the industrial sector, various financial policies (tax and fee cuts) and also various monetary policies, ( a required reserve ratio cut )are likely to offset the influence of the subdued overseas demand and make adjust the downward pressure on China's GDP growth in the short and midterm.

According to the latest report from the National Statistics Bureau (NSB), China's economy is being increasingly driven by domestic consumption, even as the trade dispute and softer global demand continues to weigh on merchandise exports. Based on clear facts; weakness of domestic consumption, US-Chana trade dispute escalation and quite labour market have a negative impact on the China's GDP growth in 3Q19. It seems decelerate 3Q19 GDP growth become lower than China's government target which is about 6.0%-6.5%.

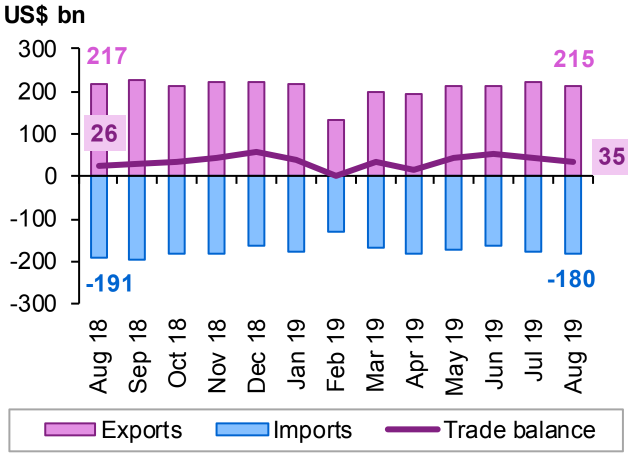
China's **CPI inflation** is unchanged from July and stood at 2.8% y-o-y in August, compared to 2.7% in June. Since February 2018 China's inflation remained at the highest rate. The **producer prices index (PPI)** decreased to 0.9% y-o-y in August in comparison to 0.4% y-o-y in July 2019. It is the sharpest fall in the PPI since August 2016, which is mainly due to prices falling for raw materials and processing.

**Graph 3 - 38: China's CPI and PPI**




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

**Graph 3 - 39: China's trade balance**



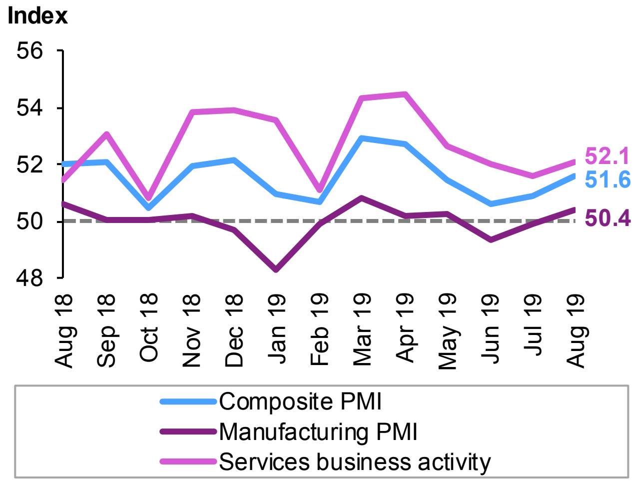

*Sources: General Administration of Customs of China and Haver Analytics.*

China's **trade surplus** in August 2019 widened to $34.8 billion, from $26.3 billion in August 2018. **Exports** decreased 1% surprisingly to $214.8 billion. **Imports** fell 5.6% to $180.0 billion. China's trade surplus narrowed with the US to $26.9 billion in August, from $28.0 billion in July.

The official **NBS Manufacturing PMI** stood at 51.4 in September, up from 50.4 in August. China's factory activity unexpectedly expanded at the fastest pace in nineteen months in September, to signal an improvement in the health of the sector for the second month running. The rebound was largely supported by domestic demand.

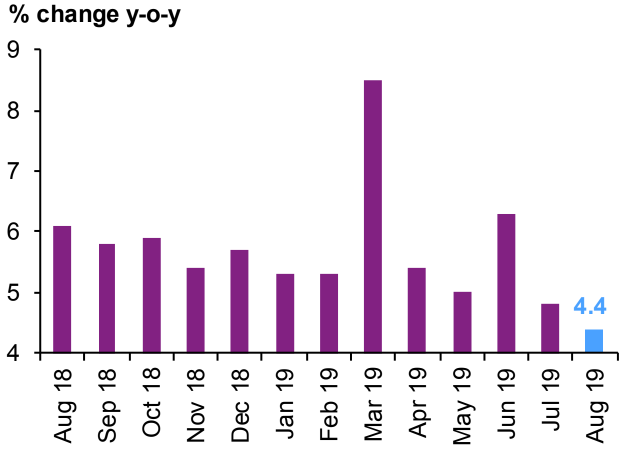
The **Caixin China General Manufacturing PMI** as reported by Markit rose to 51.4 in September 2019 from 50.4 in August 2019.

**Graph 3 - 40: China's PMI**




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

**Graph 3 - 41: China's industrial production**




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

China's **industrial production** improve to 4.4 % y-o-y in August 2019 from 4.8% in July 2019.

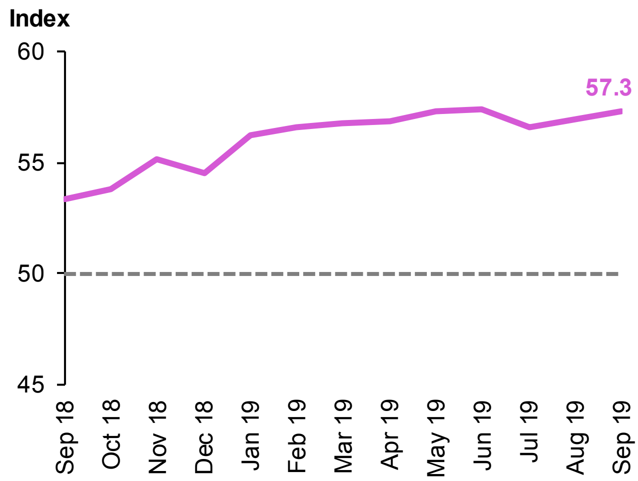
China's **GDP growth** was unchanged from last month's report, with expectations at 6.2% for 2019 and 6.0% in 2020.

# OPEC Member Countries

## Saudi Arabia

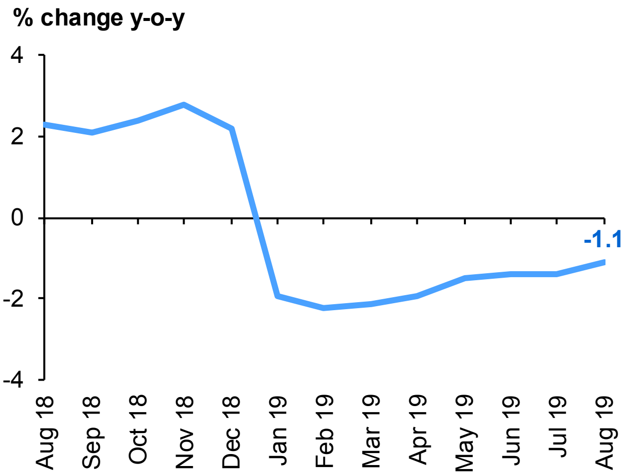
In **Saudi Arabia**, GDP registered growth of 1.1% y-o-y in 1H19. Growth slowed to 0.5% y-o-y in 2Q19 from 1.7% in the previous quarter, according to the General Authority for Statistics. In 2Q19, the government final consumption expenditure decelerated by 3.6% y-o-y, after a 1.5% expansion in the previous quarter. Private consumption posted growth of 4.1% y-o-y in 2Q19, from 4.8% in 1Q19. Gross capital formation rebounded in 2Q19 and grew by 12.4% y-o-y, following the decline by 7.1% in 1Q19. Exports of goods and services contracted in 2Q19 by 4.6% y-o-y, from a 5.1% increase in 1Q19. Imports of goods and services went up in 2Q19 by 3.5% y-o-y, up from 1.0% in the previous quarter. Business conditions in the non-oil private sector improved at fastest pace in three months during September, according to the IHS Markit Saudi Arabia PMI. The index rose to 57.3 in September, from 57.0 a month earlier. The survey report showed that "output among non-oil private sector firms in Saudi Arabia grew at a sharp pace in September, with the rate of expansion quickening to the fastest since December 2017".

**Graph 3 - 42: Saudi Arabia's composite PMI**




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

**Graph 3 - 43: Saudi Arabia's inflation**

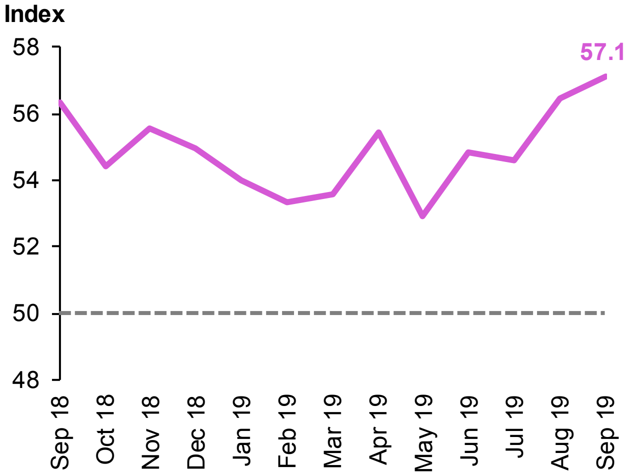



*Sources: General Authority for Statistics and Haver Analytics.*

## Nigeria

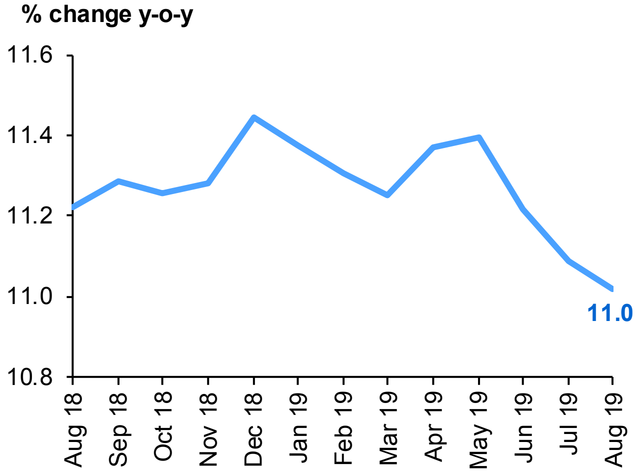
In **Nigeria**, the Stanbic IBTC Bank Nigeria PMI rose to 57.1 in September, from 56.4 in August, as a result of higher rates of expansion in the private sector output and new orders. The survey report highlighted that "companies responded to improving new business by expanding their output. Business activity has now increased in 33 successive months, with the latest rise the sharpest for a year". The central bank kept its benchmark monetary policy rate unchanged at 13.5% in September because inflation remains higher than the target rate range between 6% and 9%. In August, inflation eased to its lowest reading since January 2016 at 11.0% y-o-y, down from 11.1% in July. GDP grew 1.9% y-o-y in 2Q19, from an upwardly revised 2.1% expansion in 1Q19.

**Graph 3 - 44: Nigeria's composite PMI**




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

**Graph 3 - 45: Nigeria's inflation**

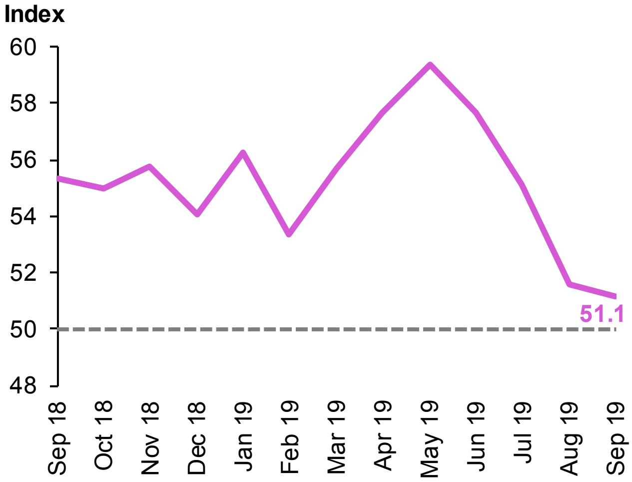



*Sources: National Bureau of Statistics and Haver Analytics.*

## The United Arab Emirates (UAE)

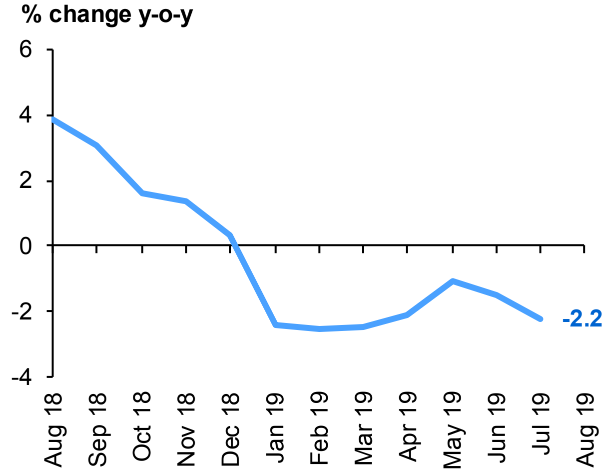
In the **UAE**, consumer price inflation has been easing since the beginning of the year. It dropped by 2.2% y-o-y in July, after falling by 1.5% in June. Prices of housing, water, electricity and gas declined by 4.9% y-o-y in July, while transportation prices fell by 5.8% y-o-y in the same month. Net international reserves went up by 11.5% y-o-y in July at 367.6 billion dirham. The industrial production index of Abu Dhabi rose from 100.1 in 4Q18 to 142.5 in 1Q19. The GDP of Abu Dhabi registered growth of 5.7% y-o-y in 1Q19, up from 3.7% in 4Q18. The non-oil private sector continued to grow during September, albeit at a softer pace.

**Graph 3 - 46: UAE's composite PMIs**




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

**Graph 3 - 47: UAE's inflation**




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

The IHS Markit UAE PMI plummeted from 51.6 in August to 51.1 in September. The survey report said that the “non-oil economy continued to lose steam at the end of the third quarter of 2019. After comparatively strong demand growth earlier this year, September data signalled the weakest monthly upturn in new orders in the survey history. Companies reported further competitive pressures, while also seeing a slowdown in customer movement despite sustained price discounting”.

# Other Asia

## Thailand

In **Thailand**, GDP registered growth of 2.6% y-o-y in 1H19, as 2Q19’s growth slowed to 2.3% y-o-y, from 2.8% in the previous quarter. All GDP components pointed to slower growth except for imports. Private consumption growth went from 4.9% y-o-y in 1Q19 to 4.4% in the subsequent quarter, while government consumption growth dropped from 3.4% y-o-y in 1Q19 to 1.1% in 2Q19. GFCF increased by a smaller rate of 2.0% y-o-y during 2Q19, down from 3.2% in 1Q19. Exports of goods and services declined by 6.1% y-o-y in both 1Q and 2Q19, whereas imports was the only factor supporting faster GDP growth, falling by 2.7% y-o-y in 2Q19, after decreasing by 0.2% in the previous quarter. The IHS Markit Thailand manufacturing PMI suggested improvements in the operational conditions of the manufacturing sector as a result of faster growth in production and new orders. The index registered 50.6 in September, up from 50.0 in August. The survey report highlighted that “other survey indicators hinted that the improvement could be short-lived in the coming months. Business confidence among Thai goods producers remained among the lowest for the past year while factory employment continued to fall and inventory levels were stagnant. All these suggest that Thai manufacturers will continue to face considerable headwinds amid a slowing global growth environment and deteriorating trade conditions.”

# Africa

## Egypt

In **Egypt**, GDP expanded by a strong 5.7% y-o-y in 1H19, as 2Q19’s GDP registered the fastest pace of growth since 1Q12. GDP grew by 5.7% y-o-y in 2Q19, up from 5.6% in the previous quarter. The increase in consumer price inflation was on a downward trend since February 2019. Inflation posted 6.8% y-o-y in August, from 7.8% a month earlier. The Egyptian pound appreciated for the ninth month in a row during September. It appreciated by 1.1% m-o-m in September, from 0.2% in August. The central bank’s policy rate was lowered in September to 13.25%, from 14.25%. The IHS Egypt PMI on September showed that the non-oil private sector remained slightly in the contraction territory. The index fractionally increased from 49.4 in August to 49.5 in September. The survey report said that “output and new orders were again reduced, although output fell at a weaker pace than in the previous month. The fall in new orders was mainly domestic, with panellists reporting a third consecutive increase in foreign sales, albeit one that was softer than in August”.

# Latin America

## Chile

In **Chile**, GDP growth accelerated from 1.6% y-o-y in 1Q19 to 1.9% in 2Q19, because of the sharp decline in imports, while other GDP components showed a slower pace of growth. Private consumption growth went from 3.2% y-o-y in 1Q19 to 2.3% in 2Q19, while growth of government consumption also fell from 2.6% y-o-y in 1Q19 to 2.2% in 2Q19. Gross capital formation increased by 0.3% y-o-y in 2Q19, down from 1.4% in the previous quarter. The decline in exports continued in 2Q19 by 4.4% y-o-y, after falling by 2.6% in 1Q19. Imports were the only element that supported the achieved faster GDP growth, falling by 3.5% y-o-y in 2Q19, from a 1.4% rise in 1Q19. The Chilean peso depreciated for the second consecutive month in September. The depreciation in September was minor at 0.7% m-o-m, compared to a 4.0% depreciation in August. Inflation registered 2.3% y-o-y in August, from 2.2% a month earlier. Inflation remains within the central bank’s target limit of between 2% and 4%. As such, the central bank lowered its monetary policy rate in September from 2.5% to 2.0%. Industrial production grew by 1.4% y-o-y in August, down from a 2.9% growth in July. Manufacturing output deteriorated from a 6.3% y-o-y growth in July to a 1.6% contraction in August, whereas mining production notably improved from merely a 0.5% y-o-y increase in July to a 5.3% rise in August.

# Transition region

## Poland

In **Poland**, GDP growth slowed to 4.2% y-o-y in 2Q19, down from 4.7% in the previous quarter, as a result of slower growth in exports and public expenditures. Household consumption and gross capital formation showed higher growth in 2Q19, while import growth declined. Public consumption growth went from a 6.4% y-o-y rise in 1Q19 to 2.9% in 2Q19. Exports increased by 3.9% y-o-y in 2Q19, down from 6.0% in the previous quarter. Household consumption accelerated by 4.1% y-o-y during 2Q19, up from a 3.7% rise in 1Q19. Likewise, gross capital formation went up by 7.2% y-o-y in 2Q19, from the 1Q19's 3.7%. The increase in imports went from 5.2% y-o-y in 1Q19 to a 4.4% in 2Q19. The contraction in the manufacturing sector continued during September, as suggested by the IHS Markit Poland manufacturing PMI. The index went form 48.8 in August to 47.8 in September.

# World Oil Demand

***World oil demand growth for 2019*** *was revised lower by 0.04 mb/d to 0.98 mb/d, with total oil demand standing at 99.80 mb/d. This despite an upwardly revised 3Q19 amid strong demand growth in Saudi Arabia, counterbalanced by a downward revision to oil demand data in 1H19 due to slower-than-expected oil requirements in OECD America, Asia Pacific and Other Asia.*

*In 2019, oil demand growth in the* ***OECD*** *was adjusted by 0.05 mb/d lower, due to lower-than-expected data in OECD Americas and Asia Pacific, particularly in 2Q19, as a result of weaker than expected gasoline and diesel demand in the US and slower-than-anticipated petrochemical feedstock requirements in Japan and South Korea.*

*In the* ***non-OECD*** *region, oil demand growth was revised marginally higher in 2019, mainly reflecting better-than-expected data from the Middle East. Demand in Saudi Arabia was robust due to an uptick in summer seasonal demand encouraging demand for transportation and industrial fuels. This was offset by some downward revisions to Other Asia region due slower-than-expected performance during the 2Q19.*

***World oil demand growth for 2020*** *is seen to be rising by 1.08 mb/d, similar to last month's report, to average total demand of 100.88 mb/d. In the* ***OECD*** *region, oil demand is estimated to increase by 0.07 mb/d over 2019, with OECD Americas growing the most on the back of firm light and middle distillate demand. In the* ***non-OECD*** *region, oil demand is projected to contribute 1.01 mb/d to global oil demand growth in 2020, with Chinese oil demand growth reduced compared with 2019. However, this is offset by healthy gains in oil requirements in Other Asia, Latin America and the Middle East compared with 2019 projections.*

# World oil demand in 2019 and 2020

**Table 4 - 1: World oil demand in 2019*, mb/d**

| | | | | | | | Change 2019/18 | |
|---|---|---|---|---|---|---|---|---|
| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Growth | % |
| Americas | 25.55 | 25.11 | 25.54 | 26.08 | 26.02 | 25.69 | 0.15 | 0.58 |
| *of which US* | *20.73* | *20.55* | *20.74* | *21.21* | *21.03* | *20.88* | *0.15* | *0.74* |
| Europe | 14.31 | 13.99 | 14.23 | 14.68 | 14.30 | 14.30 | 0.00 | -0.03 |
| Asia Pacific | 8.08 | 8.45 | 7.65 | 7.73 | 8.12 | 7.99 | -0.09 | -1.14 |
| **Total OECD** | **47.93** | **47.55** | **47.42** | **48.50** | **48.44** | **47.98** | **0.05** | **0.11** |
| Other Asia | 13.64 | 13.91 | 13.96 | 13.71 | 14.21 | 13.95 | 0.31 | 2.27 |
| *of which India* | *4.73* | *5.03* | *4.75* | *4.57* | *5.14* | *4.87* | *0.14* | *3.00* |
| Latin America | 6.53 | 6.36 | 6.58 | 6.83 | 6.49 | 6.57 | 0.04 | 0.62 |
| Middle East | 8.12 | 8.25 | 7.90 | 8.54 | 7.88 | 8.14 | 0.02 | 0.25 |
| Africa | 4.33 | 4.45 | 4.42 | 4.36 | 4.50 | 4.43 | 0.10 | 2.31 |
| **Total DCs** | **32.62** | **32.97** | **32.87** | **33.44** | **33.07** | **33.09** | **0.47** | **1.44** |
| FSU | 4.82 | 4.75 | 4.74 | 5.02 | 5.11 | 4.91 | 0.09 | 1.82 |
| Other Europe | 0.74 | 0.75 | 0.71 | 0.75 | 0.84 | 0.76 | 0.02 | 2.69 |
| China | 12.71 | 12.63 | 13.19 | 12.98 | 13.43 | 13.06 | 0.35 | 2.73 |
| **Total "Other regions"** | **18.27** | **18.13** | **18.64** | **18.75** | **19.38** | **18.73** | **0.45** | **2.49** |
| **Total world** | **98.82** | **98.65** | **98.93** | **100.70** | **100.89** | **99.80** | **0.98** | **0.99** |
| Previous estimate | 98.82 | 98.75 | 99.08 | 100.63 | 100.89 | 99.84 | 1.02 | 1.03 |
| Revision | 0.00 | -0.10 | -0.15 | 0.07 | 0.00 | -0.04 | -0.04 | -0.04 |

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

**Table 4 - 2: World oil demand in 2020*, mb/d**

| | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 2020/19 Growth | % |
|---|---|---|---|---|---|---|---|---|
| Americas | 25.69 | 25.33 | 25.72 | 26.24 | 26.19 | 25.87 | 0.18 | 0.69 |
| *of which US* | *20.88* | *20.73* | *20.88* | *21.33* | *21.18* | *21.03* | *0.15* | *0.71* |
| Europe | 14.30 | 13.94 | 14.20 | 14.66 | 14.28 | 14.27 | -0.03 | -0.21 |
| Asia Pacific | 7.99 | 8.37 | 7.56 | 7.66 | 8.05 | 7.91 | -0.08 | -0.99 |
| **Total OECD** | **47.98** | **47.63** | **47.48** | **48.56** | **48.52** | **48.05** | **0.07** | **0.14** |
| Other Asia | 13.95 | 14.27 | 14.32 | 14.09 | 14.60 | 14.32 | 0.37 | 2.66 |
| *of which India* | *4.87* | *5.20* | *4.90* | *4.73* | *5.32* | *5.04* | *0.16* | *3.37* |
| Latin America | 6.57 | 6.44 | 6.66 | 6.91 | 6.56 | 6.64 | 0.07 | 1.14 |
| Middle East | 8.14 | 8.30 | 7.95 | 8.62 | 7.97 | 8.21 | 0.07 | 0.86 |
| Africa | 4.43 | 4.53 | 4.52 | 4.46 | 4.59 | 4.52 | 0.09 | 2.00 |
| **Total DCs** | **33.09** | **33.54** | **33.44** | **34.07** | **33.72** | **33.70** | **0.60** | **1.83** |
| FSU | 4.91 | 4.83 | 4.81 | 5.11 | 5.19 | 4.99 | 0.08 | 1.65 |
| Other Europe | 0.76 | 0.76 | 0.72 | 0.76 | 0.85 | 0.77 | 0.01 | 1.54 |
| China | 13.06 | 12.91 | 13.50 | 13.28 | 13.77 | 13.37 | 0.31 | 2.37 |
| **Total "Other regions"** | **18.73** | **18.50** | **19.03** | **19.15** | **19.82** | **19.13** | **0.40** | **2.15** |
| **Total world** | **99.80** | **99.68** | **99.95** | **101.78** | **102.06** | **100.88** | **1.08** | **1.08** |
| Previous estimate | 99.84 | 99.78 | 100.10 | 101.71 | 102.06 | 100.92 | 1.08 | 1.08 |
| Revision | -0.04 | -0.10 | -0.15 | 0.07 | 0.00 | -0.04 | 0.00 | 0.00 |

*Note: * 2019-2020 = Forecast.*
*Totals may not add up due to independent rounding.*
*Source: OPEC Secretariat.*

# OECD

## OECD Americas

### US

The latest report from the **US** Energy Information Administration (EIA) came with historical data adjustments which increased the baseline for 2018 and consequently adjusted implied growth for 2019 to the downside. Following these adjustments, the latest available monthly data for July implies weak gains in US oil requirements y-o-y of about 0.06 mb/d or the equivalent of 0.3%.

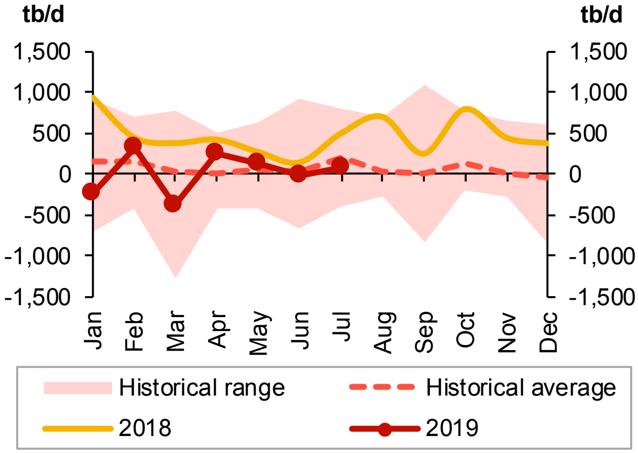
**Table 4 - 3: US oil demand, tb/d**

| | Jul 19 | Jul 18 | Change 2019/18 tb/d | % |
|---|---|---|---|---|
| LPG | 2,769 | 2,712 | 57 | 2.1 |
| Naphtha | 208 | 243 | -35 | -14.4 |
| Gasoline | 9,484 | 9,640 | -156 | -1.6 |
| Jet/kerosene | 1,841 | 1,775 | 66 | 3.7 |
| Diesel oil | 3,907 | 3,963 | -56 | -1.4 |
| Fuel oil | 341 | 346 | -5 | -1.4 |
| Other products | 2,483 | 2,294 | 189 | 8.2 |
| **Total** | **21,033** | **20,973** | **60** | **0.3** |

*Sources: US EIA and OPEC Secretariat.*

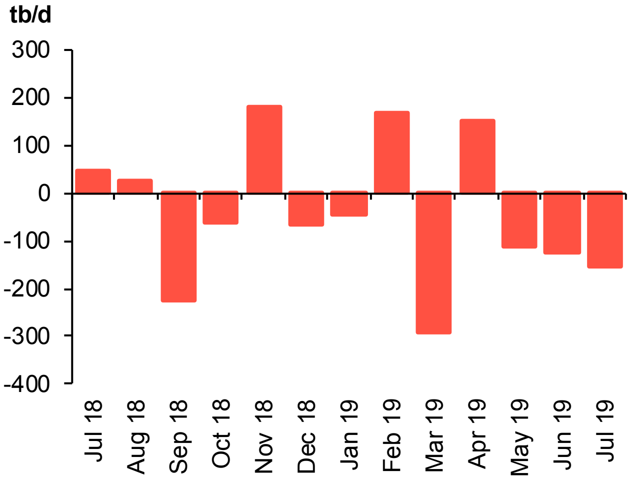
Demand for petroleum products showed mixed performance. Gasoline, diesel and residual fuel oil requirements were in negative territory, dropping by 0.16 mb/d and 0.01 mb/d, respectively. These declines are in line with weak industrial production growth with declining manufacturing activities, notably in the consumer and intermediate goods segments. Losses in gasoline, diesel and residual fuel oil demand have been more than offset by increasing NGLs/LPG and jet/kerosene requirements, which increased by 0.06 mb/d and 0.07 mb/d, respectively.

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




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

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




*Sources: US EIA and OPEC Secretariat.*

Gasoline demand fell by as much as 0.16 mb/d compared with the same month in 2018, amid falling light vehicle sales and fuel substitution. Hence, gasoline demand performance remained disappointing during the 2019 driving season and was once again not a main contributor to 2019 US oil demand growth.

The first nine months of 2019, including preliminary weekly data for August and September, show US oil demand higher by around 0.12 mb/d compared with the same period last year. The trend shows growing demand for NGLs/LPG, jet kerosene and diesel, which is partly offset by lower gasoline, naphtha and residual fuel oil requirements.

## Mexico

Based on preliminary data, August **Mexican oil demand** fell y-o-y. Requirements for the majority of main petroleum product categories declined, with the exception of naphtha and diesel, which saw marked increases y-o-y.

## Canada

**Canadian oil requirements** increased marginally y-o-y in July. LPG, gasoline, jet/kerosene and diesel requirements grew, while naphtha and residual fuel oil demand remained in negative territory.

Going forward, US oil demand is expected to continue to grow throughout the rest of 2019, while in Mexico demand is projected to decline. It will be muted in Canada. Industrial and transportation fuels, notably jet/kerosene are anticipated to account for the bulk of implied growth. The US is forecast to be the main contributor to OECD oil demand growth during 2020, while demand in Mexico and Canada is anticipated to slightly rise as a result of expected economic growth.

In 2019, **OECD Americas oil demand** is projected to grow by 0.15 mb/d compared with 2018. OECD Americas oil demand in 2020 is forecast to be 0.18 mb/d greater than in 2019.

## OECD Europe

Following negative performance during May and June, **European oil demand** returned to an increasing pattern in July 2019. Demand was higher in most counties within OECD Europe, with most gains appearing in the UK, Sweden, Spain, Portugal and France. This was slightly offset by declines in the Netherlands, Germany and Belgium.

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

| | | | Change 2019/18 | |
|---|---|---|---|---|
| | Aug 19 | Aug 18 | tb/d | % |
| LPG | 466 | 432 | 34 | 7.8 |
| Naphtha | 642 | 627 | 15 | 2.4 |
| Gasoline | 1,223 | 1,222 | 1 | 0.1 |
| Jet/kerosene | 905 | 908 | -3 | -0.3 |
| Diesel oil | 3,153 | 3,151 | 2 | 0.1 |
| Fuel oil | 206 | 221 | -15 | -6.7 |
| Other products | 635 | 679 | -44 | -6.5 |
| **Total** | **7,230** | **7,240** | **-10** | **-0.1** |

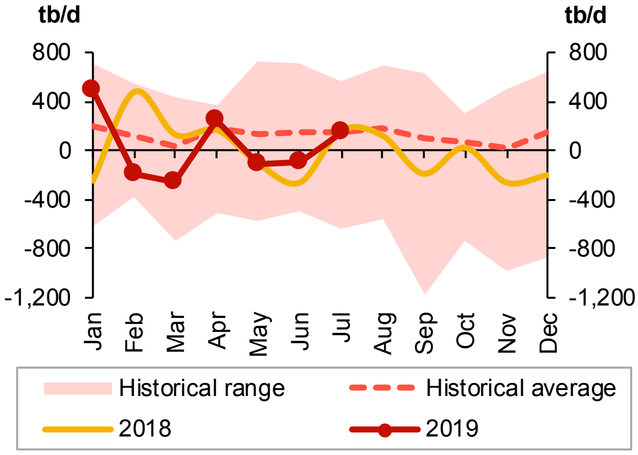
*Note: * Germany, France, Italy and the UK.*
*Sources: JODI, UK Department for Business, Energy & Industrial Strategy, Unione Petrolifera and OPEC Secretariat.*

In terms of products, diesel demand was a strong contributor to oil demand in July, while weak light distillate requirements remain impacted by soft petrochemical margins and planned/unplanned shutdowns. The main factors which continue to exhibit a positive effect on oil demand include a growing economy in the majority of countries in the region and among main oil consumers, in addition to the current oil price level.

At the same time, however, there are several challenges which may cap oil demand growth. High taxation schemes on oil usage, economic-related issues in a few countries as well as substantial fuel substitution across several sectors of the economy and an unusually high historical baseline are among these.

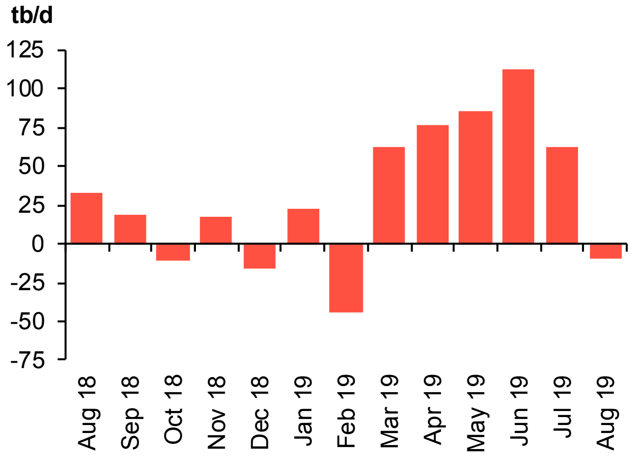
Consequently, expected oil demand in the region for 2019 and 2020 is dominated by positive factors which relate to road transportation and industrial fuels.

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




*Sources: 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.*

Including some preliminary information for August, data for the first eight months of 2019 showed gasoline and industrial diesel accounting for the bulk of increases, being partly offset by declining LPG, naphtha and residual fuel oil requirements. Following several years of expansion, momentum in auto sales seemed to decline for the first eight months of 2019. General expectations for the region's oil demand during 2019 and 2020 remain unchanged compared with last month's projections.

**OECD Europe oil demand** is projected to be flat in 2019, while 2020 demand will decline by 0.03 mb/d compared with 2019 levels.

# OECD Asia Pacific

## Japan

Early released preliminary data in August imply that **Japanese oil demand** decreased sharply by 0.24 mb/d y-o-y for the second consecutive and seventh month this year. Oil demand performance was mixed across main petroleum product categories. Trade concerns and substitution with natural gas has impacted demand for LPG and heavy fuels.

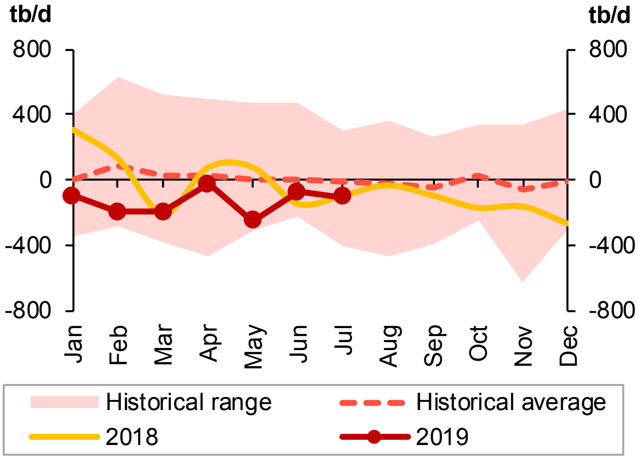
**Table 4 - 5: Japan's domestic sales, tb/d**

| | | | Change 2019/18 | |
|---|---|---|---|---|
| | Aug 19 | Aug 18 | tb/d | % |
| LPG | 257 | 327 | -70 | -21.4 |
| Naphtha | 737 | 731 | 6 | 0.8 |
| Gasoline | 973 | 983 | -10 | -1.0 |
| Jet/kerosene | 287 | 336 | -49 | -14.7 |
| Diesel oil | 738 | 722 | 16 | 2.2 |
| Fuel oil | 217 | 273 | -56 | -20.7 |
| Other products | 300 | 374 | -74 | -19.9 |
| **Total** | **3,508** | **3,746** | **-238** | **-6.4** |

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

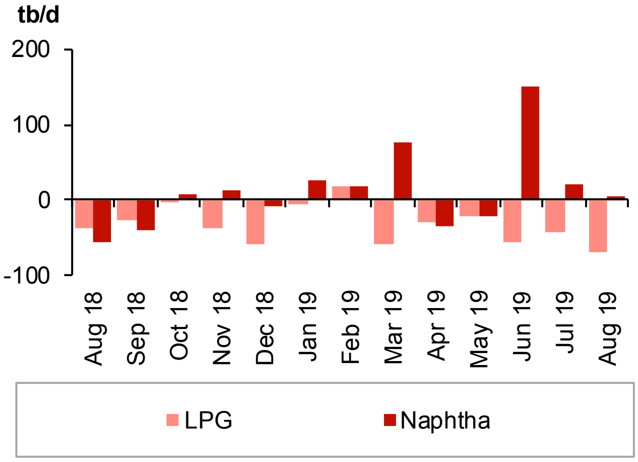
Regarding products, naphtha and diesel requirements grew y-o-y, but have been more than offset by sharp declines in requirements for LPG, gasoline, residual fuel oil and jet kerosene as well as crude for electricity generation.

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




*Sources: Joint Organisations Data Initiative 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.*

## South Korea

In **South Korea**, July data implied positive oil demand growth y-o-y for the first time since January 2019. Oil demand added 0.03 mb/d compared with the same period in 2018. Gains in the petrochemical industry called for increasing LPG and naphtha requirements as firm cracking margins supported demand. This increase in demand was partly offset by shrinking requirements in all other main petroleum categories, notably residual fuel oil and gasoline.

## Australia

In **Australia**, July oil demand was flat y-o-y; gains in LPG and diesel requirements were offset by declines in demand for other petroleum products.

The outlook for overall Japanese oil demand in 2019 remains bearish, with risks skewed to the downside. Oil demand projections for 2020 also foresee declines compared with 2019, with risks pointing to the downside. The outlook for South Korean oil demand during 2019 and 2020 remains in positive territory, with risks moving slightly upward compared with last month's projections.

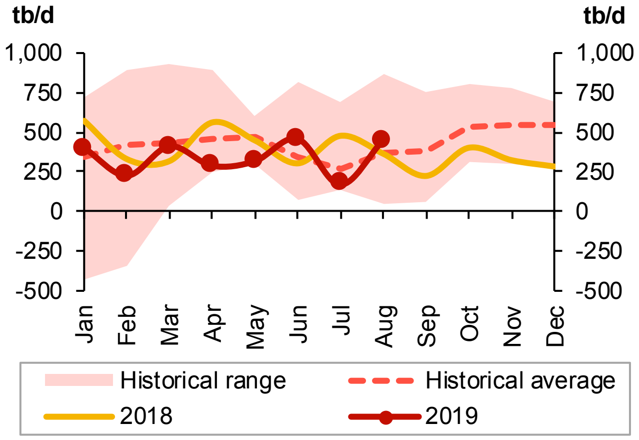
**OECD Asia Pacific oil demand** growth is projected to decline by 0.09 mb/d in 2019 compared with 2018. Oil demand in the region is projected to fall by 0.08 mb/d y-o-y in 2020.

# Non-OECD

## China

**Chinese oil demand** was stronger than initially expected in August with 0.59 mb/d of growth y-o-y, the highest level in 2019 so far. Total consumption reached 12.3 mb/d according to Secretariat calculations. Oil demand growth was characterized by rising LPG and naphtha consumption in the petrochemical industry and jet fuel in transportation sector, with the latter posting more than 20% in gains y-o-y. Jet/kero demand posted solid gains in August 2019, adding 0.17 mb/d y-o-y, with total demand at around 0.97 mb/d. This increase is in line with an uptick in travel activities during the summer travel season. LPG and naphtha demand recorded an increase of 0.16 mb/d and 0.21 mb/d y-o-y, respectively.

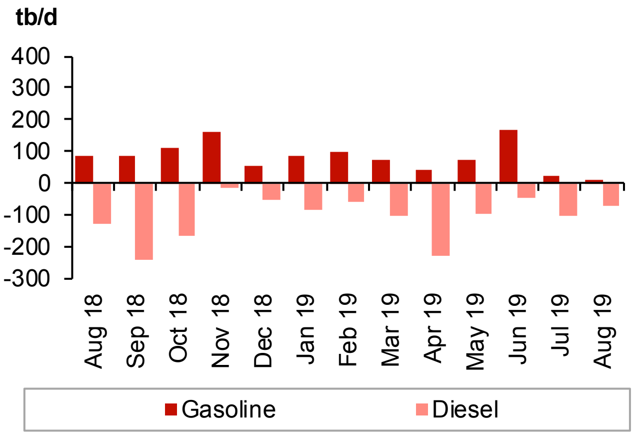
**Graph 4 - 7: Changes in China's apparent oil demand, y-o-y change**




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

Total consumption for LPG is now pegged at approximately 1.99 mb/d, while total demand for naphtha stood at 1.70 mb/d. Demand for light distillates was supported by the start-up of new naphtha crackers, in addition to healthy margins for propane dehydrogenation plants (PDH) around the country. Gasoline demand was marginally higher compared with last year, rising by 0.01 mb/d y-o-y. According to statistics and analysis from the China Association of Automobile Manufacturers (CAAM), passenger car sales remained declining for the 14th consecutive month, dropping by more than 8% y-o-y in August. Diesel demand dropped by around 0.07 mb/d, while industrial production growth softened to 4.4% y-o-y in August, marking the lowest reading since February 2002.

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




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

Going forward, the overall outlook for Chinese oil demand is mainly dependent on projected economic growth in combination with the outlook for the petrochemical industry and transportation sector. Downside risks relate to fuel substitution in the industrial sector in addition to efficiencies and alternative vehicle penetration, as well as electric cars and bicycles in the road transportation sector. For 2020, oil demand in the transportation and industrial sectors is projected to continue rising, though GDP growth will be slightly lower than in 2019. The continuation of fuel quality programmes targeting fewer emissions, as well as fuel substitution by natural gas and coal, are factors to be watched.

For 2019, **Chinese oil demand** is anticipated to grow by around 0.35 mb/d while expectations for 2020 are in the range of 0.31 mb/d.

# Other Asia

## India

**Indian oil demand** growth increased in August by more than 0.12 mb/d for the second month running, despite the late arrival of monsoon season, which brought heavy rains limiting oil demand.

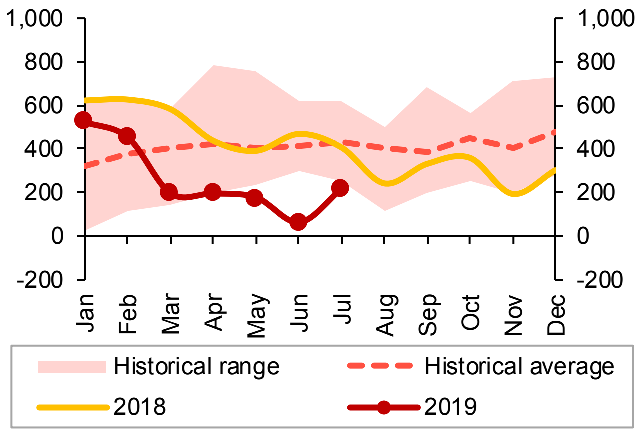
**Table 4 - 6: India's oil demand, tb/d**

| | | | Change 2019/18 | |
|---|---|---|---|---|
| | Aug 19 | Aug 18 | tb/d | % |
| LPG | 868 | 768 | 100 | 13.0 |
| Naphtha | 313 | 302 | 11 | 3.6 |
| Gasoline | 705 | 647 | 58 | 8.9 |
| Jet/kerosene | 277 | 301 | -24 | -7.8 |
| Diesel oil | 1,608 | 1,622 | -14 | -0.9 |
| Fuel oil | 232 | 276 | -44 | -16.0 |
| Other products | 609 | 571 | 38 | 6.7 |
| **Total** | **4,611** | **4,486** | **125** | **2.8** |

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

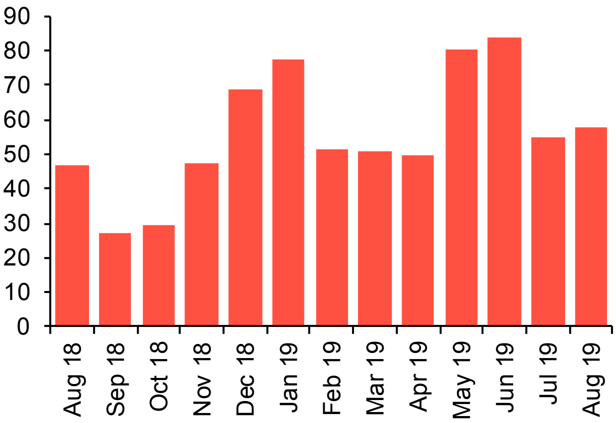
Looking at the product mix, demand was supported by LPG, gasoline and naphtha, while middle distillates and residual fuel oil demand offset some of these increases. LPG grew during the month of August, recording 0.10 mb/d of growth, the equivalent of 13% y-o-y. Expansion of the LPG distribution system for use in the residential sector provided strong support for LPG demand in India.

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




*Sources: Joint Organisations Data Initiative 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.*

Gasoline consumption increased by around 0.06 mb/d, which equates to 9% y-o-y, with total consumption remaining above 0.71 mb/d, despite a continuous decrease in auto sales, which fell by more than 20% y-o-y across all segments. Two-wheelers which consume gasoline as the primary source of energy declined by more than 22% y-o-y during the same period.

On the other hand, diesel demand softened by 0.01 mb/d, or around 1% y-o-y, as slower industrial activity due to heavy rains decreased product usage. August's composite Purchasing Manager Index (PMI) data underlined softening momentum m-o-m with 52.6 points, following 53.9 in July. The manufacturing PMI dropped by 1.1 points m-o-m to 51.4. Similarly, residual fuel oil demand flipped to the negative, shrinking by around 0.01 mb/d or around 1% y-o-y.

## Thailand

In **Thailand**, the latest July data shows a demand increase of around 0.06 mb/d, or 4%, y-o-y with mixed performance among products. Diesel led gains with growth of around 0.04 mb/d, supported by higher demand in the transportation and industrial sectors.

## Indonesia

In **Indonesia**, oil demand in July 2019 was flat y-o-y, despite increases in transportation fuel usage, which saw gasoline and diesel increasing. However, declines in jet/kerosene and residual fuel oil offset most of those increases.

Looking forward, oil demand should accelerate in 2H19 over 1H19 levels, when softer oil demand growth was noted in India, particularly in the construction sector. In 2020, assumptions hint at higher GDP growth than in the current year, as well as stable retail prices, hence further development in oil demand growth compared with the current year. India is anticipated to be the main contributor to growth in the Other Asian region. Middle distillates will be lead oil demand next year, followed by gasoline.

**Other Asia's oil demand** is anticipated to grow by 0.31 mb/d y-o-y in 2019. As for 2020, oil demand is forecast to increase by 0.37 mb/d.

# Latin America

## Brazil

Total oil demand for August in **Brazil** decreased slightly, in line with the economic downturn witnessed in the country. Oil demand fell by 0.01 mb/d, with mixed performance among product categories. While gasoline, diesel and ethanol posted growth, LPG, jet/kerosene and residual fuel oil offset most of these gains. Ethanol demand was stimulated by competitive pricing compared with gasoline, leading to a rise in ethanol consumption in August; it also rose by 0.01 mb/d y-o-y. Demand for gasoline increased similarly, mainly attributed to a low base line of comparison and despite higher retail prices.

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

| | Aug 19 | Aug 18 | Change 2019/18 tb/d | % |
|---|---|---|---|---|
| LPG | 240 | 246 | -6 | -2.4 |
| Naphtha | 147 | 146 | 1 | 0.7 |
| Gasoline | 661 | 650 | 12 | 1.8 |
| Jet/kerosene | 117 | 124 | -7 | -5.6 |
| Diesel oil | 1,072 | 1,055 | 17 | 1.6 |
| Fuel oil | 74 | 110 | -36 | -32.6 |
| Other products | 501 | 492 | 9 | 1.9 |
| **Total** | **2,812** | **2,821** | **-9** | **-0.3** |

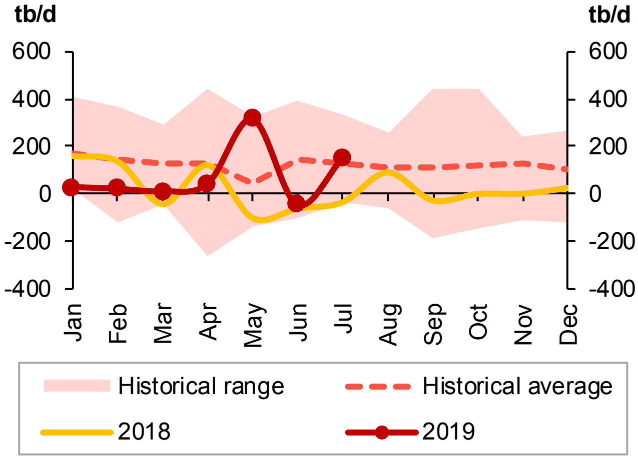
*Note: * = Inland deliveries.*

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

As reported by ANP and Haver analytics, gasoline retail prices averaged 4.32 reais per litre in August, while ethanol prices averaged 2.83 reais per litre. Diesel demand improved y-o-y in line with positive manufacturing activities.

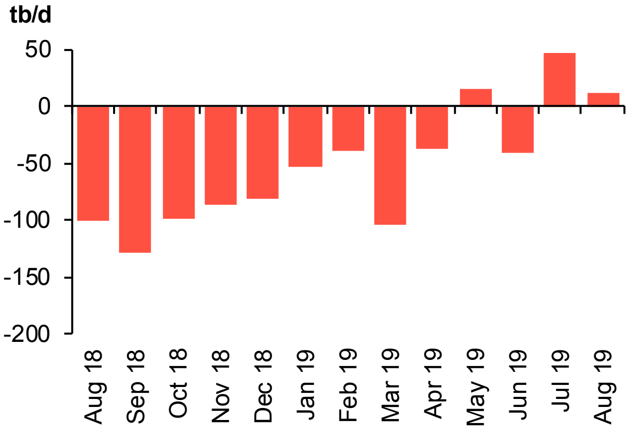
The Brazil PMI as reported by IHS Markit posted 52.5 points compared with 49.9 points in July. Diesel grew by around 0.02 mb/d as a result, with total consumption above 1.07 mb/d. Jet/kerosene dipped by around 6% y-o-y, as slower air travel activities suggested lower consumption compared with a year earlier.

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




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

**Graph 4 - 12: Brazil's gasoline demand, y-o-y change**




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

The risks for the 2019 oil demand in the region are titled to the down side and are very much dependent on the performance of major economies in Latin America, with special focus on the Brazilian economy.

Projections for 2020 oil demand growth in Latin America remained unchanged from last month's report, with anticipation of some improvement over 2019 growth levels. Brazil is projected to contribute the most to growth. Transportation fuels, construction and industrial fuels are the main industry growth contributors.

**Latin American oil demand** is expected to grow by 0.04 mb/d in 2019. During 2020, Latin American oil demand is projected to increase to 0.07 mb/d.

# Middle East

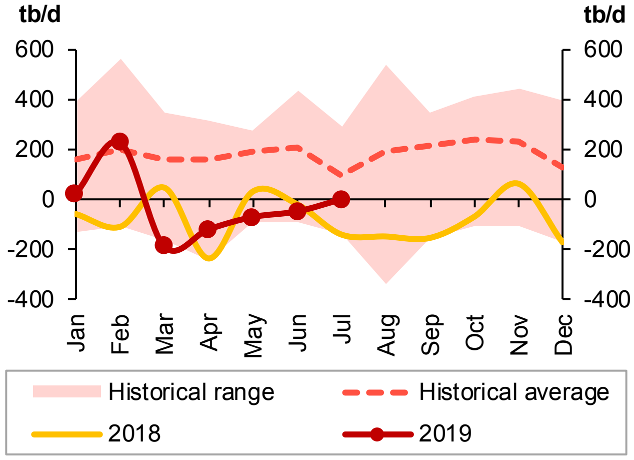
## Saudi Arabia

For August, the latest monthly data from **Saudi Arabia** suggests firm growth in total product demand by a solid 0.38 mb/d or 16% y-o-y, the highest monthly y-o-y increase in the past five years and the second consecutive month of increases.

The most notable development was in diesel, as demand flipped into positive territory in June and remained positive over subsequent months. This was supported by a pick-up in construction activity in line with rising cement sales in August for the third straight month and compared with the same month one year earlier, suggesting that diesel consumption is expected to continue growing.

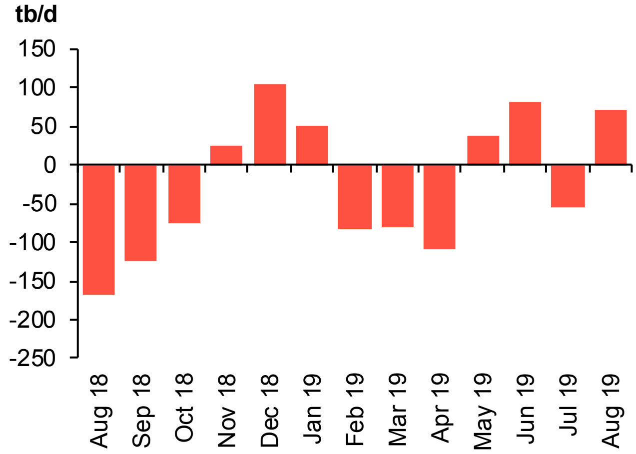
Moreover, oil demand in Saudi Arabia follows certain patterns, normally rising in the summer due to additional air conditioning usage. Demand for residual fuel oil increased by 11% y-o-y in August.

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




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

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




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

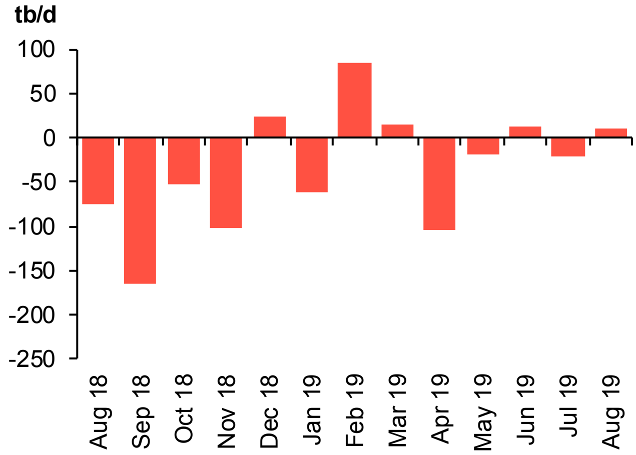
It is worth highlighting that demand in Saudi Arabia has been declining y-o-y since 2016 on the back of programmes geared towards displacing direct crude for burning with natural gas in the power generation sectors in addition to major economic reforms, which include subsidy reductions in household electricity tariffs and transportation fuel retail prices, which adversely affects diesel demand. As a result, total consumption of direct crude for burning shrunk by 25% in 2016, using data from January to August, versus the same period in 2019. The reduction was larger in diesel consumption, as demand for diesel dropped by 29% during the same period of comparison, with consecutive monthly y-o-y declines since April 2016.

Saudi Arabian oil demand is a vital component of Middle East oil demand growth. Receiving further positive data in the months to come will provide strong support to oil demand growth in the region.

## Iraq

In **Iraq**, oil demand requirements in August decreased for the fifth time in 2019. Total oil demand dropped by more 2% y-o-y with mixed performance among the product mix. While demand for LPG, gasoline and diesel increased, declines in fuel oil, jet/kerosene and naphtha outpaced increasing products. Oil demand decreased by 0.01 mb/d in August and total oil product consumption reached 0.70 mb/d.

**Graph 4 - 15: Iraq's crude direct use, y-o-y change**




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

Looking forward, oil demand for the Middle East region in 2H19 is anticipated to improve over 1H19 levels, driven by improvements in Saudi Arabian oil demand data in July and August.

Moreover, in 2020, assumptions are focused on healthier demand for transportation and industrial fuels, compared with 2019. In addition to continued substitution of crude and residual fuel oil for direct burning for electricity generation, emphasis will be placed on the petrochemical industry, additional refining capacities and geopolitical concerns in some countries of the region.

For 2019, **Middle East oil demand** is expected to grow by 0.02 mb/d, while oil demand in 2020 is projected to increase by 0.07 mb/d.

# World Oil Supply

*The **non-OPEC oil supply growth forecast for 2019** was revised down by 0.16 mb/d from the previous monthly report, to 1.82 mb/d. This is attributed to downward revisions mainly in the US as well as in Norway, the UK, Mexico, Malaysia and Ghana, which outpaced upward revisions for Kazakhstan, Russia, China, Brazil, Indonesia and Canada. US crude oil output fell for a third straight month in July as production in the federal offshore Gulf of Mexico (GoM) declined by 332 tb/d to average 1.58 mb/d following Hurricane Barry. US onshore crude output increased by only 50 tb/d compared to a month earlier on the back of strict capital discipline and lower rig counts, leading to a downward revision in this year's forecast by 138 tb/d to average 1.67 mb/d, y-o-y. The main drivers for growth in 2019 are Brazil, China, the UK, Australia and Canada, while Mexico and Norway are projected to see the largest declines.*

*The **non-OPEC oil supply growth forecast for 2020** was revised down by 0.05 mb/d from last month's assessment and is now projected to grow by 2.20 mb/d y-o-y. This change is due to the downward revisions in Kazakhstan and Russia, which outpaced an upward revision in China. The US will be the main driver for growth for next year along with Brazil, Norway, Canada, Russia and Australia. Mexico, Indonesia, Egypt, the UK and Colombia are forecast to see the largest declines. The 2020 non-OPEC supply forecast remains subject to many uncertainties, including oil prices, capital spending, infrastructure constraints, and drilling and completion activities, particularly in the US.*

***OPEC NGLs y-o-y growth** in 2019 is revised down by 0.02 mb/d and is now expected to grow by 0.05 mb/d to average 4.81 mb/d, while next year the growth will slow to 0.03 mb/d, reaching 4.84 mb/d.*

*In September, **OPEC crude oil production** decreased by 1,318 tb/d to average 28.49 mb/d, according to secondary sources. Preliminary **non-OPEC supply, including OPEC NGLs**, dropped by 0.45 mb/d m-o-m, to average 68.83 mb/d, up by 1.33 mb/d y-o-y.*

*As a result, preliminary data indicates that **global oil supply** decreased in September by 1.77 mb/d m-o-m to average 97.32 mb/d.*

**Table 5 - 1: Non-OPEC supply forecast comparison in 2019-2020*, mb/d**

| Region | 2019 | Change 2019/18 | 2020 | Change 2020/19 |
|---|---|---|---|---|
| OECD Americas | 25.64 | 1.61 | 27.16 | 1.51 |
| OECD Europe | 3.73 | -0.11 | 3.90 | 0.17 |
| OECD Asia Pacific | 0.48 | 0.07 | 0.55 | 0.07 |
| **Total OECD** | **29.85** | **1.56** | **31.60** | **1.75** |
| Other Asia | 3.45 | -0.11 | 3.42 | -0.03 |
| Latin America | 5.39 | 0.20 | 5.64 | 0.25 |
| Middle East | 3.21 | 0.00 | 3.25 | 0.04 |
| Africa | 1.54 | 0.04 | 1.57 | 0.03 |
| **Total DCs** | **13.60** | **0.13** | **13.88** | **0.28** |
| FSU | 14.30 | 0.01 | 14.41 | 0.10 |
| Other Europe | 0.12 | 0.00 | 0.12 | -0.01 |
| China | 4.11 | 0.09 | 4.13 | 0.02 |
| Non-OPEC production | 61.98 | 1.79 | 64.13 | 2.15 |
| Processing gains | 2.28 | 0.03 | 2.33 | 0.05 |
| **Non-OPEC supply** | **64.26** | **1.82** | **66.46** | **2.20** |

*Note: * 2019-2020 = Forecast.*

*Source: OPEC Secretariat.*

# Monthly revisions to non-OPEC supply growth forecast

Since the previous monthly assessment, non-OPEC supply growth in 2017 was revised down by 11 tb/d to stand at 0.79 mb/d y-o-y, mainly due to an upward revision to the historical oil supply of Africa Other. Furthermore, non-OPEC supply growth in 2018 was also revised up by 0.02 mb/d to 2.97 mb/d, mainly due to a revision to US oil supply.

Non-OPEC supply in September declined by 0.20 mb/d to average 64.23 mb/d, up by almost 1.53 mb/d y-o-y, based on preliminary data. At the same time, OPEC NGLs dropped by 0.25 mb/d to average 4.60 mb/d in September, mainly in Saudi Arabia. M-o-m increases from the US, UK, Malaysia and China offset lower output from Canada, Norway and Kazakhstan (the latter because of maintenance at the Tengiz and Karachaganak fields). Malaysia's output rebounded to average 0.70 mb/d following the return from maintenance at Shell's Gumusut-Kakap field. US liquids supply was estimated to grow by 0.12 mb/d in September to average 18.71 mb/d, while Canadian oil output in September fell by 0.20 mb/d to average 5.19 mb/d.

**Non-OPEC supply in 2019** is now estimated to grow y-o-y by 1.82 mb/d, revised down by 0.16 mb/d from the previous month's assessment, and is expected to average 64.26 mb/d for the year.

In OECD Americas, the US supply growth forecast was revised down by 138 tb/d compared to last month's assessment, due to downward revisions in most quarters - by 0.01 mb/d in 2Q19, by 248 tb/d in 3Q19 and 210 tb/d in 4Q19. On the other hand, Canada's oil production growth was revised up by a minor 9 tb/d on a yearly basis, as production levels in 2Q19 and 3Q19 exceeded the supply forecast, which had been based on the mandatory production cuts imposed by the Alberta provincial government. Mexico's oil supply forecast for 2019 was revised down by 11 tb/d following lower-than-expected output in 3Q19.

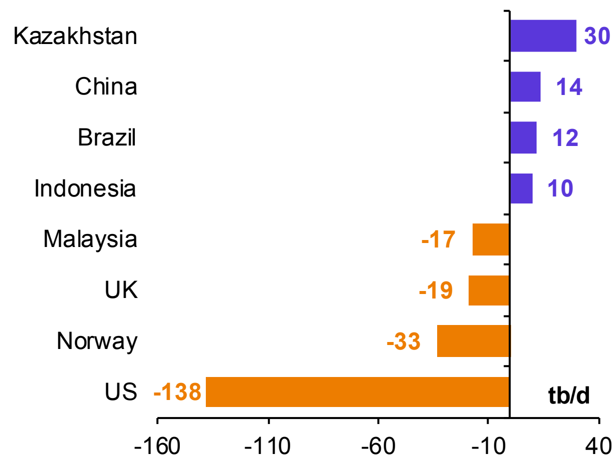
In OECD Europe, Norway's supply forecast was revised down by 33 tb/d, on the back of lower-than-expected production by 132 tb/d in 3Q19. The UK oil supply is also revised down by 19 tb/d following a revision to production data for 2Q19 and lower-than-expected output for 3Q19.

In the developing countries, the 2019 oil supply forecasts for Malaysia, Trinidad & Tobago and Ghana were revised down by 17 tb/d, 6 tb/d and 17 tb/d, respectively, while Indonesia, Brazil and Bahrain saw upward revisions by 10 tb/d, 12 tb/d and 9 tb/d, respectively.

In the FSU, higher-than-forecast oil output in Russia in 3Q19 led to an upward revision by 8 tb/d. In Kazakhstan, production did not contract as much as previously projected for August and September because of reduced maintenance outages, leading to an upward revision of the country's oil supply by 30 tb/d (***Graph 5 - 1***).

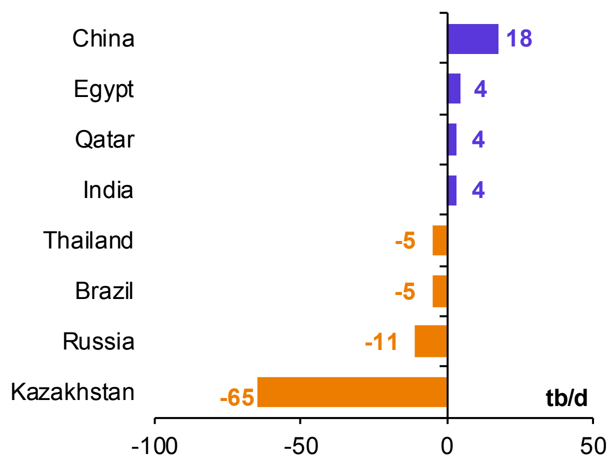
In China, the oil supply forecast for 2019 is also revised up by 14 tb/d due to good production performance in 3Q19.

**Graph 5 - 1: Monthly oil market report Oct 19/Sep 19 revisions in 2019* annual supply changes**




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

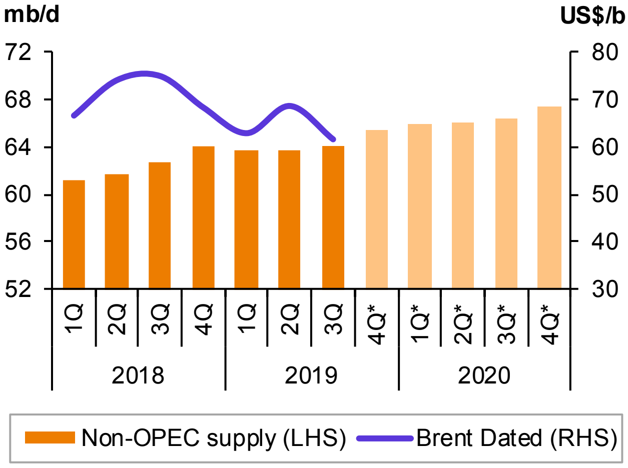
**Graph 5 - 2: Monthly oil market report Oct 19/Sep 19 revisions in 2020* annual supply changes**




*Note: * 2020 = Forecast.*
*Source: OPEC Secretariat.*

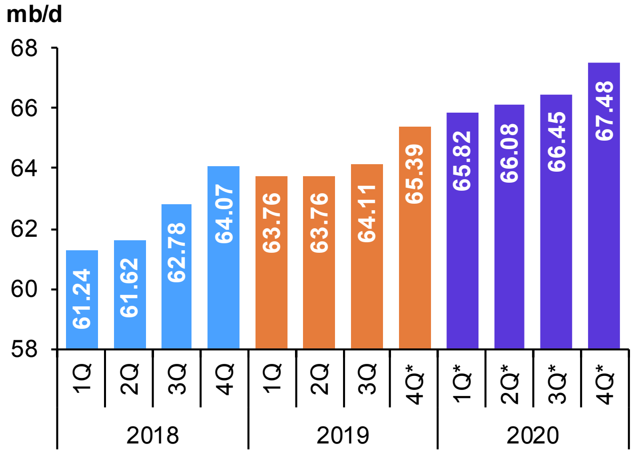
**Non-OPEC supply in 2020** is forecast to grow by 2.20 mb/d, revised down by 0.05 mb/d from the previous month's assessment, and is expected to average 66.46 mb/d for the year. The only revisions were in Russia, Kazakhstan and China. The downward revisions in the oil supply forecasts for Kazakhstan and Russia, by 65 tb/d and 11 tb/d, respectively, outpaced the upward revision in China by 18 tb/d (***Graph 5 – 2***).

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




*Note: * 4Q19-4Q20 = Forecast.*
*Source: OPEC Secretariat.*

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




*Note: * 4Q19-4Q20 = Forecast.*
*Source: OPEC Secretariat.*

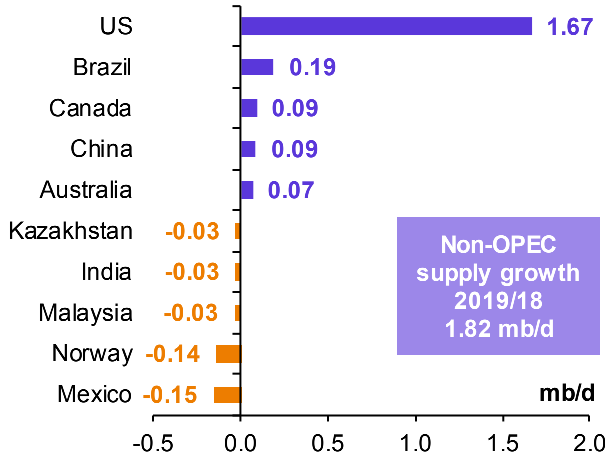
# Non-OPEC oil supply in 2019 and 2020

**Table 5 - 2: Non-OPEC oil supply in 2019*, mb/d**

| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Change 2019/18 Growth | % |
|---|---|---|---|---|---|---|---|---|
| Americas | 24.04 | 25.01 | 25.57 | 25.63 | 26.35 | 25.64 | 1.61 | 6.68 |
| *of which US* | *16.71* | *17.78* | *18.31* | *18.39* | *19.03* | *18.38* | *1.67* | *9.97* |
| Europe | 3.84 | 3.85 | 3.57 | 3.54 | 3.95 | 3.73 | -0.11 | -2.90 |
| Asia Pacific | 0.41 | 0.43 | 0.48 | 0.49 | 0.51 | 0.48 | 0.07 | 16.75 |
| **Total OECD** | **28.29** | **29.30** | **29.62** | **29.66** | **30.81** | **29.85** | **1.56** | **5.52** |
| Other Asia | 3.56 | 3.51 | 3.48 | 3.38 | 3.44 | 3.45 | -0.11 | -2.98 |
| Latin America | 5.19 | 5.17 | 5.25 | 5.54 | 5.60 | 5.39 | 0.20 | 3.81 |
| Middle East | 3.21 | 3.22 | 3.22 | 3.22 | 3.20 | 3.21 | 0.00 | 0.09 |
| Africa | 1.50 | 1.51 | 1.51 | 1.53 | 1.61 | 1.54 | 0.04 | 2.58 |
| **Total DCs** | **13.47** | **13.41** | **13.46** | **13.67** | **13.85** | **13.60** | **0.13** | **0.99** |
| FSU | 14.29 | 14.55 | 14.16 | 14.28 | 14.23 | 14.30 | 0.01 | 0.08 |
| *of which Russia* | *11.35* | *11.53* | *11.36* | *11.42* | *11.34* | *11.41* | *0.07* | *0.58* |
| Other Europe | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | -1.74 |
| China | 4.02 | 4.10 | 4.13 | 4.11 | 4.10 | 4.11 | 0.09 | 2.23 |
| **Total "Other regions"** | **18.43** | **18.77** | **18.41** | **18.51** | **18.45** | **18.53** | **0.10** | **0.54** |
| **Total non-OPEC production** | **60.19** | **61.48** | **61.48** | **61.84** | **63.11** | **61.98** | **1.79** | **2.98** |
| Processing gains | 2.25 | 2.28 | 2.28 | 2.28 | 2.28 | 2.28 | 0.03 | 1.24 |
| **Total non-OPEC supply** | **62.44** | **63.76** | **63.76** | **64.11** | **65.39** | **64.26** | **1.82** | **2.92** |
| Previous estimate | 62.41 | 63.77 | 63.79 | 64.37 | 65.65 | 64.40 | 1.99 | 3.18 |
| Revision | 0.02 | -0.01 | -0.03 | -0.25 | -0.26 | -0.14 | -0.16 | -0.26 |

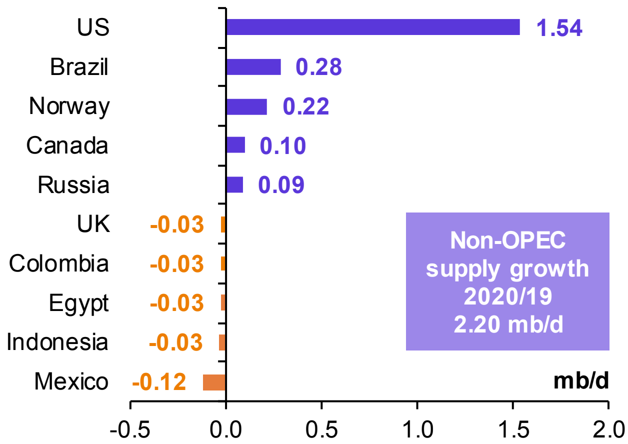
*Note: * 2019 = Forecast.*
*Totals may not add up due to independent rounding.*
*Source: OPEC Secretariat.*

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




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

**Graph 5 - 6: Annual supply changes for selected countries in 2020***




*Note: * 2020 = Forecast.*
*Source: OPEC Secretariat.*

**Table 5 - 3: Non-OPEC oil supply in 2020*, mb/d**

| | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 2020/19 Growth | % |
|---|---|---|---|---|---|---|---|---|
| Americas | 25.64 | 26.67 | 26.95 | 27.36 | 27.65 | 27.16 | 1.51 | 5.90 |
| *of which US* | *18.38* | *19.31* | *19.90* | *20.11* | *20.33* | *19.92* | *1.54* | *8.37* |
| Europe | 3.73 | 3.93 | 3.78 | 3.80 | 4.08 | 3.90 | 0.17 | 4.55 |
| Asia Pacific | 0.48 | 0.54 | 0.53 | 0.56 | 0.56 | 0.55 | 0.07 | 15.06 |
| **Total OECD** | **29.85** | **31.13** | **31.25** | **31.73** | **32.29** | **31.60** | **1.75** | **5.88** |
| Other Asia | 3.45 | 3.41 | 3.42 | 3.42 | 3.43 | 3.42 | -0.03 | -0.85 |
| Latin America | 5.39 | 5.62 | 5.59 | 5.60 | 5.74 | 5.64 | 0.25 | 4.55 |
| Middle East | 3.21 | 3.21 | 3.25 | 3.26 | 3.28 | 3.25 | 0.04 | 1.11 |
| Africa | 1.54 | 1.58 | 1.57 | 1.57 | 1.56 | 1.57 | 0.03 | 1.92 |
| **Total DCs** | **13.60** | **13.82** | **13.84** | **13.85** | **14.01** | **13.88** | **0.28** | **2.07** |
| FSU | 14.30 | 14.29 | 14.41 | 14.32 | 14.60 | 14.41 | 0.10 | 0.72 |
| *of which Russia* | *11.41* | *11.34* | *11.50* | *11.51* | *11.64* | *11.50* | *0.09* | *0.77* |
| Other Europe | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.12 | -0.01 | -4.92 |
| China | 4.11 | 4.13 | 4.14 | 4.11 | 4.13 | 4.13 | 0.02 | 0.39 |
| **Total "Other regions"** | **18.53** | **18.54** | **18.66** | **18.54** | **18.85** | **18.65** | **0.11** | **0.61** |
| **Total non-OPEC production** | **61.98** | **63.49** | **63.75** | **64.12** | **65.15** | **64.13** | **2.15** | **3.47** |
| Processing gains | 2.28 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 | 0.05 | 2.37 |
| **Total non-OPEC supply** | **64.26** | **65.82** | **66.08** | **66.45** | **67.48** | **66.46** | **2.20** | **3.43** |
| Previous estimate | 64.40 | 66.04 | 66.24 | 66.64 | 67.69 | 66.65 | 2.25 | 3.50 |
| Revision | -0.14 | -0.22 | -0.15 | -0.18 | -0.20 | -0.19 | -0.05 | -0.07 |

*Note: * 2019-2020 = Forecast.*
*Totals may not add up due to independent rounding.*
*Source: OPEC Secretariat.*

# OECD

Following robust growth of 2.59 mb/d in 2018, **OECD oil supply in 2019** is forecast to grow by 1.56 mb/d to average 29.85 mb/d, representing a downward revision of 199 tb/d compared to last month's assessment, with OECD Americas accounting for 140 tb/d.

For **2020**, yearly forecast growth for OECD oil supply remained unchanged at 1.75 mb/d to average 31.60 mb/d. OECD Americas, Europe and Asia Pacific are forecast to grow next year by 1.51 mb/d, 0.17 mb/d and 0.07 mb/d, respectively.

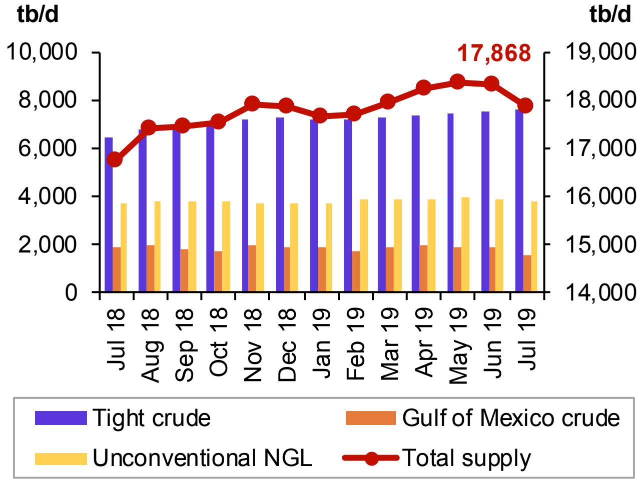
# OECD Americas

## US

**Upstream spending in the US shale sector** is expected to fall this year and next. Barclays Bank reported that although majors are expected to increase investments, however this would not be able to offset the pullback by independents seeking to balance their budgets. Barclays expects capital expenditure (capex) by operators in the region to fall by 2% this year compared to 2018, unchanged from its forecast in March, but far lower than the 9% increase it expected in January. This indicates spending will fall by about 15% in the second half of the year compared to the first half, when many companies spent more – 54% of the total budget by the top 35 producers – in an attempt to build momentum to sustain operations for the rest of the year, according to the bank.

**US liquids output in July (excluding processing gains)** fell m-o-m to average 17.87 mb/d, down by 0.46 mb/d compared to June, but higher by 1.12 mb/d y-o-y, while crude oil output dropped by 276 tb/d m-o-m to average 11.81 mb/d, but higher by 0.91 mb/d y-o-y. Production of NGLs in July was down by 114 tb/d m-o-m to average 4.68 mb/d, higher by 0.23 mb/d y-o-y. Preliminary data shows that the output of other non-conventional liquids, mainly ethanol, was down in July by 70 tb/d m-o-m to average 1.38 mb/d, higher by 21 tb/d compared to a year ago.

**Graph 5 - 7: US monthly liquids supply by key component**




*Source: US EIA and OPEC Secretariat.*

The EIA's latest US monthly production information showed a decrease of 276 tb/d for crude oil production (including lease condensate) to average 11.81 mb/d in July 2019 m-o-m, more than preliminary weekly data, which would have suggested a m-o-m decrease of only 178 tb/d. Production in the federal offshore GoM plunged by 332 tb/d to average 1.58 mb/d, a result of disruptions related to Hurricane Barry, while US onshore crude output increased by around 50 tb/d compared to a month earlier.

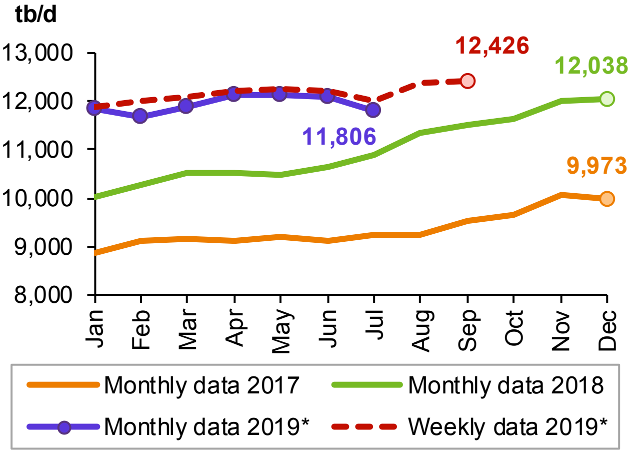
In July, crude production in Texas increased by 40 tb/d m-o-m to average 5.02 mb/d. In contrast, oil output in neighbouring New Mexico was almost flat to average 0.89 mb/d. Crude and condensate output in Colorado and Alaska fell by 10 tb/d and 7 tb/d, respectively, to average 0.51 mb/d and 0.45 mb/d. At the same time, oil output in North Dakota, Oklahoma and Wyoming grew by 14 tb/d, 18 tb/d and 14 tb/d m-o-m, respectively, to average 1.41 mb/d, 0.57 mb/d and 0.28 mb/d.

### Table 5 - 4: US crude oil production by state, tb/d

| State | Jun 19 | Jul 19 | Change Jul 19/Jun 19 |
|---|---|---|---|
| Alaska | 455 | 448 | -7 |
| Colorado | 517 | 507 | -10 |
| Oklahoma | 549 | 567 | 18 |
| New Mexico | 884 | 888 | 4 |
| North Dakota | 1,400 | 1,414 | 14 |
| Federal Offshore - Gulf of Mexico (GoM) | 1,912 | 1,580 | -332 |
| Texas | 4,981 | 5,021 | 40 |
| **Total US crude oil production** | **12,082** | **11,806** | **-276** |

*Sources: US EIA and OPEC Secretariat.*

### Graph 5 - 8: US monthly crude oil production in 2017-2019 vs. weekly forecast in 2019



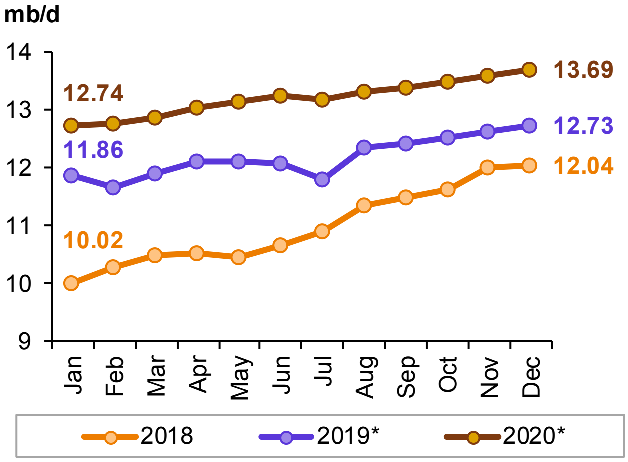

*Note: * 2019 = Forecast.*
*Sources: US EIA and OPEC Secretariat.*

**US crude oil production in 2019** is estimated to grow by 1.20 mb/d y-o-y to average 12.19 mb/d. The crude production forecast for 2019 is revised down by 0.02 mb/d due to GoM production outages following Hurricane Barry, lower-than-expected NGLs output in July, and lower-than-expected production of crude oil in the first seven months of the year. A further slowdown in US oil production is likely as shale producers, under pressure from their investors, continue to cut spending, in particular for exploration and production and seem to be pacing their drilling plans for the rest of the year. The share of tight crude out of the forecast growth of 1.20 mb/d in 2019, is projected at 1.19 mb/d, for an average of 7.69 mb/d. The GoM is projected to grow by 0.12 mb/d in 2019, averaging 1.88 mb/d and conventional crude (non-shale) output is projected to decline by 0.11 mb/d, to average 2.62 mb/d.

**US crude oil production** in 4Q19 is expected to recover from the low level of 3Q19, increasing by 0.43 mb/d to average 12.63 mb/d, higher by 0.74 mb/d y-o-y. Crude output by the end of the year is forecast at 12.73 mb/d and thus entry-to-exit growth for the year is likely to be only 0.87 mb/d, compared to 2.02 mb/d for entry-to-exit in 2018. US liquids supply is likely to stand at 19.20 mb/d in December 2019.

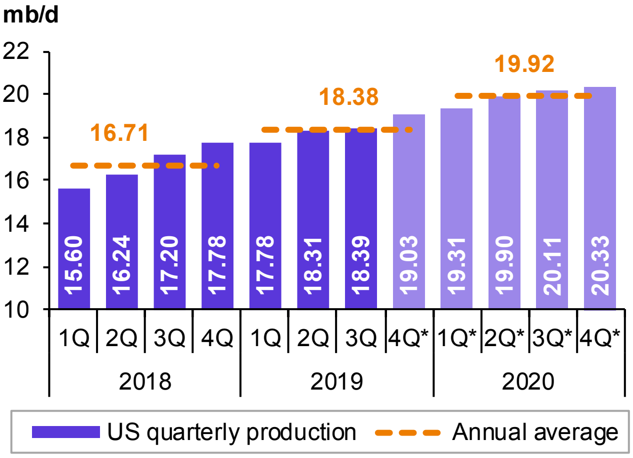
**US crude oil production in 2020** is likely to grow only by 1.01 mb/d y-o-y to average 13.20 mb/d, revised down by 0.08 mb/d in absolute supply. Despite the opening of new pipelines from the Permian Basin, overall tight crude growth is forecast at 1.03 mb/d y-o-y for next year to average 8.72 mb/d. Production in the GoM is likely to grow by 0.04 mb/d y-o-y to average 1.92 mb/d. Crude production from conventional reservoirs will decline by 0.06 mb/d y-o-y to average 2.56 mb/d.

### Graph 5 - 9: US monthly crude oil supply




*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

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




*Note: * 4Q19-4Q20 = Forecast.*
*Sources: US EIA and OPEC Secretariat.*

**US liquids supply in 2019** is forecast to average 18.38 mb/d, representing y-o-y growth of 1.67 mb/d. This is down 0.14 mb/d from the previous month's assessment due to lower-than-expected crude oil and NGLs output of 248 tb/d in 3Q19 following production disruptions in July caused by Hurricane Barry, which also prompted a downward revision of 219 tb/d to the 4Q19 supply forecast. These revisions led to a lower growth estimate for 2019. Crude oil, NGLs and other liquids are now expected to grow by 1.20 mb/d, 0.46 mb/d and 0.01 mb/d, respectively.

**US liquids supply in 2020** is forecast to average 19.92 mb/d, revised down by 117 tb/d due to in the downward revision to 4Q19, and remains forecast to grow by 1.54 mb/d for the year,. While NGLs output is expected to grow by 0.50 mb/d, to average 5.33 mb/d, crude oil production growth will slow to 1.01 mb/d to average 13.20 mb/d. Biofuels and other liquids are also expected to grow by 0.02 mb/d to 1.38 mb/d in 2020.

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

| | 2017 | 2018 | Change 2018/17 | 2019* | Change 2019/18 | 2020* | Change 2020/19 |
|---|---|---|---|---|---|---|---|
| **Tight crude** | 4.96 | 6.50 | *1.54* | 7.69 | *1.19* | 8.72 | *1.03* |
| **Gulf of Mexico crude** | 1.68 | 1.76 | *0.08* | 1.88 | *0.12* | 1.92 | *0.04* |
| **Conventional crude oil** | 2.71 | 2.73 | *0.02* | 2.62 | *-0.11* | 2.56 | *-0.06* |
| **Unconventional NGLs** | 3.02 | 3.60 | *0.57* | 4.03 | *0.45* | 4.50 | *0.47* |
| **Conventional NGLs** | 0.76 | 0.77 | *0.01* | 0.80 | *0.01* | 0.83 | *0.03* |
| **Biofuels + Other liquids** | 1.27 | 1.35 | *0.08* | 1.36 | *0.01* | 1.38 | *0.02* |
| **US total supply** | **14.40** | **16.71** | ***2.31*** | **18.38** | ***1.67*** | **19.92** | ***1.54*** |

*Note: * 2019-2020 = Forecast.*
*Sources: US EIA, Rystad Energy and OPEC Secretariat.*

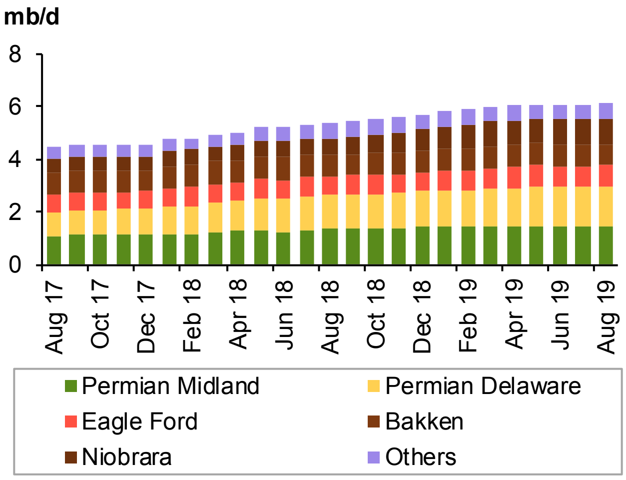
**US tight crude and unconventional NGLs in 2020** are forecast to continue to dominate non-OPEC supply growth. Production in the Permian Basin is expected to surge following infrastructure debottlenecking. However, drilling and completion (D&C) slowdowns in other regions due to capital discipline, combined with higher declines in all regions, will offset the anticipated sizable growth in the Permian Basin.

**Table 5 - 6: US tight oil production growth, mb/d**

| Shale play | 2018 | | 2019* | | 2020* | |
|---|---|---|---|---|---|---|
| *tb/d* | Production | *Y-o-y change* | Production | *Y-o-y change* | Production | *Y-o-y change* |
| **Permian tight** | 2.80 | *0.96* | 3.56 | *0.76* | 4.26 | *0.70* |
| **Bakken shale** | 1.25 | *0.20* | 1.45 | *0.20* | 1.57 | *0.12* |
| **Eagle Ford shale** | 1.18 | *0.09* | 1.25 | *0.07* | 1.30 | *0.05* |
| **Niobrara shale** | 0.46 | *0.12* | 0.54 | *0.08* | 0.60 | *0.06* |
| **Other tight plays** | 0.80 | *0.17* | 0.89 | *0.09* | 0.99 | *0.10* |
| **Total** | **6.50** | ***1.54*** | **7.69** | ***1.19*** | **8.72** | ***1.03*** |

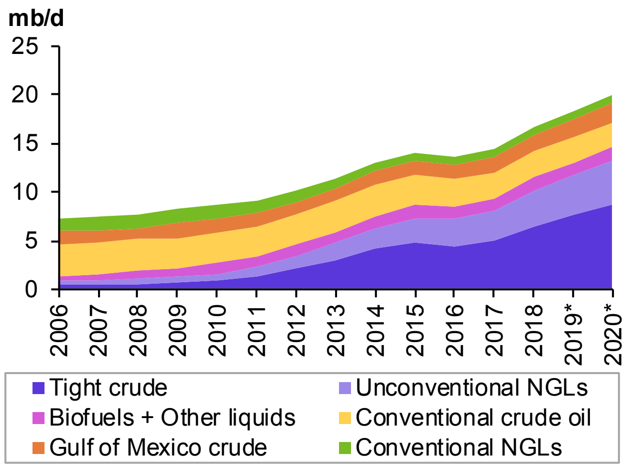
*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

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




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

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



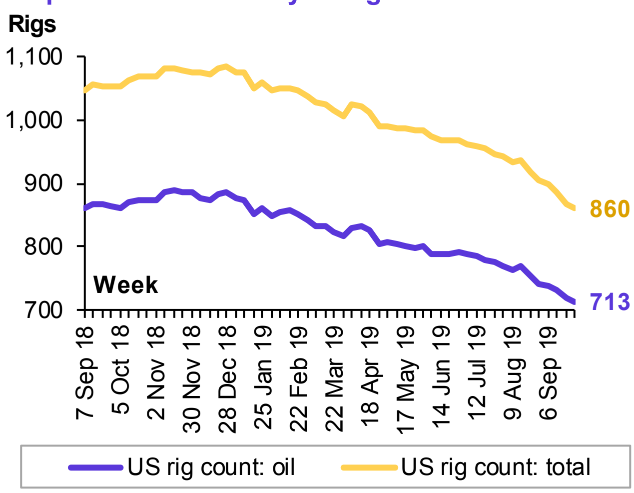

*Note: * 2019-2020 = Forecast.*
*Sources: US EIA, Rystad Energy and OPEC Secretariat.*

## US rigs, wells and drilled-but-uncompleted wells (DUCs)

The overall **US rig count** declined by 192 units, or 18.4%, y-o-y to 860 rigs in the week ending 27 September. Out of the active 860 rigs, 835 units were onshore and 24 units were offshore.

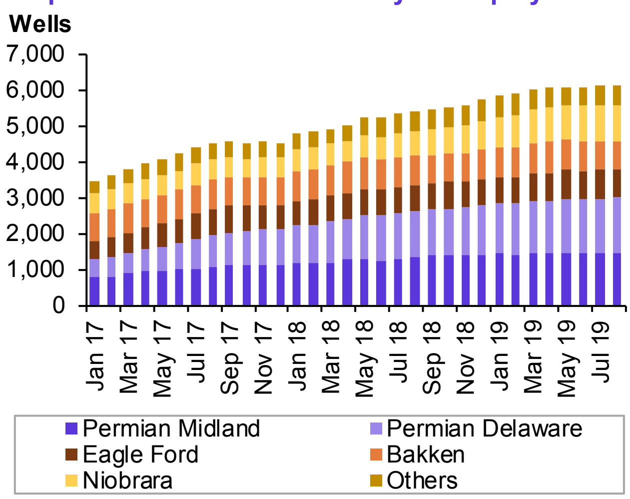
**US oil rigs** dropped for the sixth consecutive week by 6 units to 713 rigs, down 150 units y-o-y, or 17.4%.

**Graph 5 - 13: US weekly oil rig count**




*Sources: Baker Hughes and OPEC Secretariat.*

**Graph 5 - 14: US DUCs count by shale play**




*Sources: Rystad Energy and OPEC Secretariat.*

The oil rig count, an early indicator of future output, has declined over the past eight months as independent exploration and production companies cut spending on new drilling and reportedly focus more on earnings growth rather than on increased output. The oil rig count in the Permian Basin stood at 414 rigs in the week ending 27 September, down by 72 units, or 15%, y-o-y. In other major basins, the Eagle Ford count was steady at 56 oil rigs, down 13 units y-o-y, while in the Williston Basin the number of active oil rigs stood at 53 rigs, unchanged w-o-w. In the DJ-Niobrara Basin, the oil rig count declined by one unit to 22 oil rigs, according to Baker Hughes.

With regard to **D&C** horizontal wells in all US shale plays (preliminary), 1,072 wells were spudded in August, down by 184 units m-o-m, while 1,152 wells were completed in the same month, according to the ShaleWellCube analysis by Rystad Energy. **Hence, US oil producers completed more wells from their drilled but uncompleted horizontal wells (DUCs) inventories.**

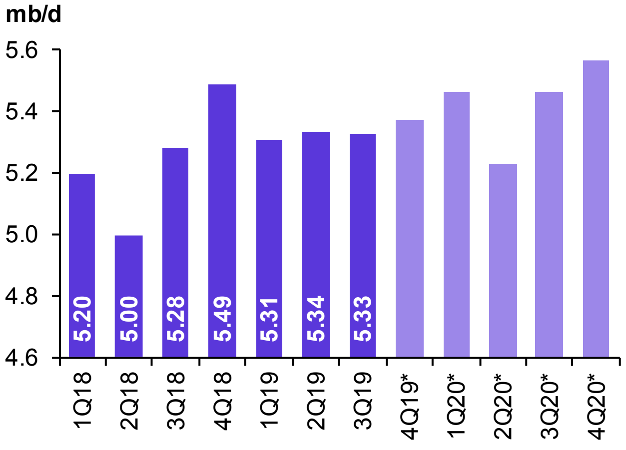
The number of DUCs in all US shale plays has been almost flat at around 6,000 from March 2019 to August (the latest reliable data). Indeed, the increasing trend in the past has slowed down and plateaued, similar as in 2015, when oil prices began to fall from 2H14. The largest number of completed wells from DUC inventories were reported mainly from shale plays outside of the key region of Permian, according to the latest Rystad Energy analysis (Graph 5 - 14).

## Canada

**Canada's liquids supply in June 2019** recovered by 0.14 mb/d m-o-m to average 5.37 mb/d, 0.34 mb/d higher than a year earlier. According to official data, non-conventional oil output recovered by 169 tb/d m-o-m to average 2.98 mb/d in June, higher by 0.15 mb/d y-o-y. Canadian heavy crude production has decreased since January 2019 under output constraints imposed by the Alberta provincial government to reduce stockpiles that had grown because of limited export capacity. The Alberta production cuts decreased from the originally announced 325 tb/d in January 2019 to 175 tb/d in August and will fall to 150 tb/d in September.

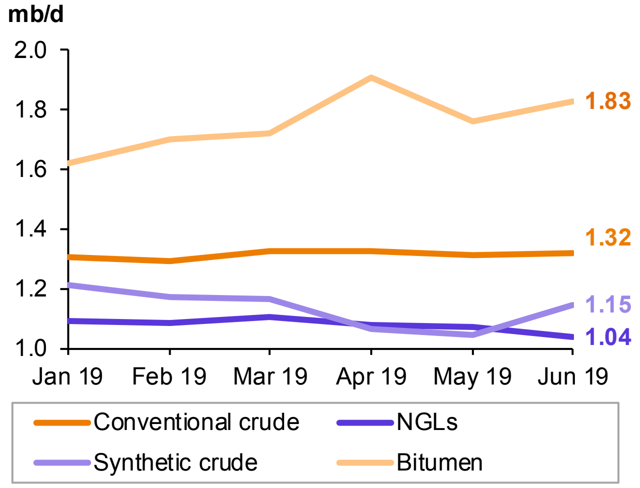
Preliminary oil sands output, including bitumen and synthetic crude, increased to 3.04 mb/d in July 2019. Conventional oil output was up by 9 tb/d to average 1.32 mb/d. In comparison, NGLs output in June was down by 31 tb/d to average 1.04 mb/d. Preliminary production data shows that Canadian liquids output increased further in July by 0.02 mb/d to average 5.39 mb/d. Canadian oil supply in 1H19 is estimated to have increased by 0.08 mb/d over the average of 2018, to reach 5.32 mb/d.

**Graph 5 - 15: Canada quarterly liquids supply**




*Note: 4Q19-4Q20 = Forecast.*
*Sources OPEC Secretariat.*

**Graph 5 - 16: Canada monthly liquids output by type after mandated production cut**




*Sources: National Energy Board and OPEC Secretariat.*

Following the higher-than-expected oil output in 2Q19, compared to the forecast based on Alberta's mandatory production cut, Canada's oil supply in **2019** was revised up by a slight 9 tb/d to an average of 5.33 mb/d, representing growth of 0.09 mb/d y-o-y.

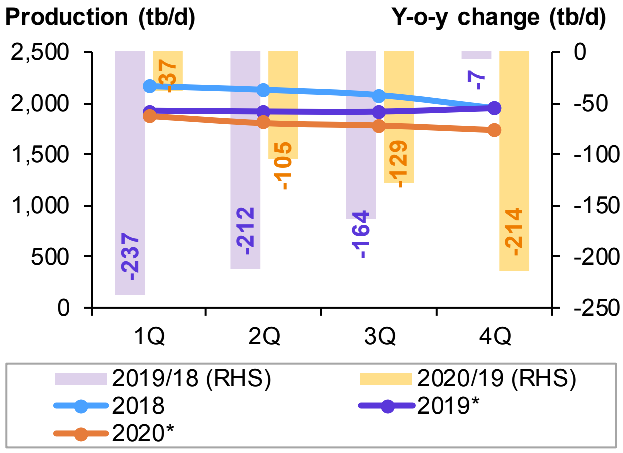
Canada's oil production in **2020** is forecast to grow by 0.1 mb/d to average 5.43 mb/d. Enbridge's Line 3 project has already been pushed to the second half of 2020, with Husky reportedly reducing spending in Western Canada until sufficient pipeline capacity becomes available. The conservative government of Alberta has stated that it may continue the curtailment policy into 2020.

## Mexico

**Mexico's preliminary average liquids output in August 2019** shows a minor increase of 10 tb/d m-o-m to average 1.92 mb/d, representing a drop of 0.14 mb/d y-o-y. Crude oil production was steady at an average 1.67 mb/d despite production recovery in the Zaap field as well as production ramp-up from Eni's Mitzon offshore field and the new heavy crude output from the Ek and Balam fields. Nevertheless, crude oil output was lower by 126 tb/d y-o-y, while NGLs output was up slightly, by 10 tb/d m-o-m, to 0.24 mb/d.

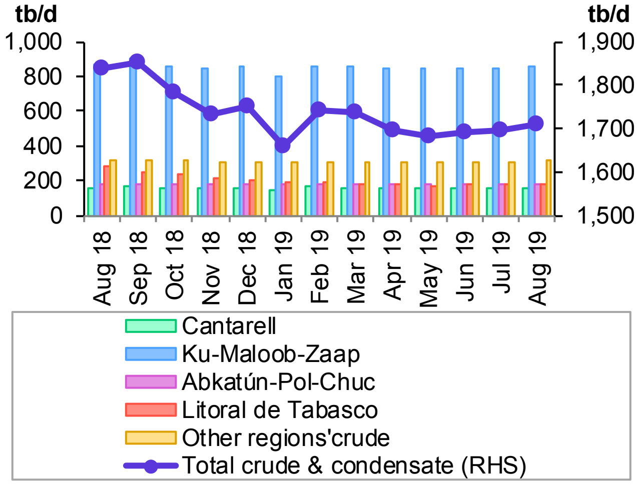
Following the first offshore drilling programme proposed by the new administration of PEMEX Exploration and Production, the National Hydrocarbons Commission recently approved the 16th of Pemex's 20 priority fields. Xikín is the first of 16 offshore fields where PEMEX plans to increase oil production.

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




*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

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




*Sources: Pemex and OPEC Secretariat.*

Despite the start of production in Mexico's new oil fields in 2H19, the preliminary oil supply forecast in 3Q19 was unexpectedly at the same level in 2Q19 at 1.91 mb/d, leading to a downward revision in **2019** Mexico oil supply by 11 tb/d. This represents a y-o-y contraction of 0.15 mb/d to average 1.92 mb/d. This forecast assumes output of 1.95 mb/d in 4Q19.

Mexico's oil supply growth forecast for **2020** is to decline by a further 0.12 mb/d to average 1.80 mb/d.

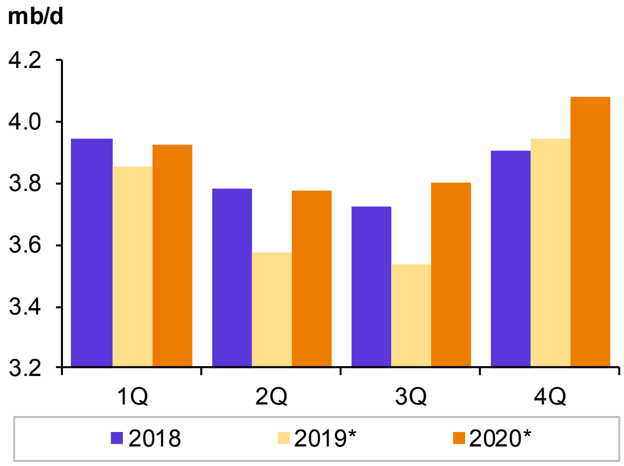
# OECD Europe

**OECD Europe's oil supply in August** fell by 0.22 mb/d m-o-m to average 3.47mb/d, lower by 0.25 mb/d y-o-y. The decline was due to lower m-o-m oil output in Norway (-0.06 mb/d), the UK (-0.15 mb/d) and Denmark (-0.01 mb/d) while production in other OECD Europe was stagnant at 0.73 mb/d.

For **2019**, OECD Europe's oil supply is forecast to contract by 0.11 mb/d to average 3.73 mb/d, following growth of 0.01 mb/d in 2018. The projected increase of 0.04 mb/d for the UK is expected to be offset by production declines in other countries, particularly Norway. North Sea oil production is forecast to see a gradual ramp-up from 4Q19 onward, owing to the start-up of the giant Norwegian Johan Sverdrup field.

The outlook for **2020** calls for total growth of 0.17 mb/d y-o-y and average oil supply of 3.90 mb/d. While Norway's output is forecast to grow by 0.22 mb/d, production in the UK and Denmark is projected to decline by 0.03 mb/d and 0.02 mb/d, respectively.

**Graph 5 - 19: OECD Europe quarterly liquids supply**



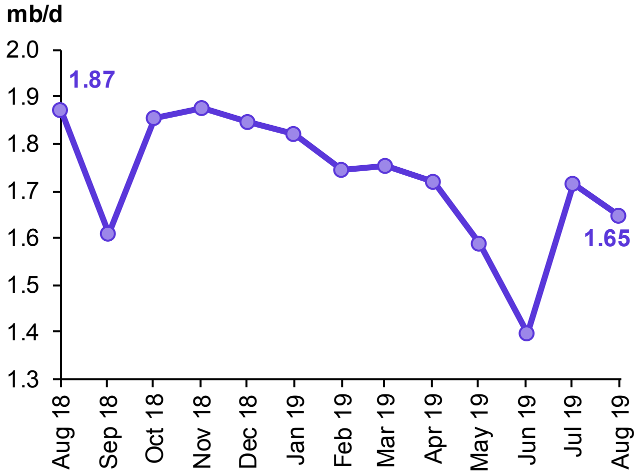

*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

## Norway

**Norwegian liquids supply in August** dropped by 67 tb/d to average 1.65 mb/d, mainly due to technical problems. This follows a recovery in production in July by 0.31 mb/d to average 1.71 mb/d. The August decline has led to a deeper annual contraction by 0.14 mb/d to average 1.71 mb/d for 2019. This forecast assumes that Norway's oil supply will reach 1.87 mb/d in 4Q19 due to production start-up of the giant Johan Sverdrup oil field in 4Q19. Output in September is likely to decline by around 100 tb/d to average 1.55 mb/d.

**Crude oil output in August** declined slightly by 8 tb/d m-o-m to average 1.35 mb/d, lower by 152 tb/d y-o-y, while reported NGLs (including condensate) output fell by 59 tb/d to average 294 tb/d.

**Graph 5 - 20: Norway monthly liquids output**

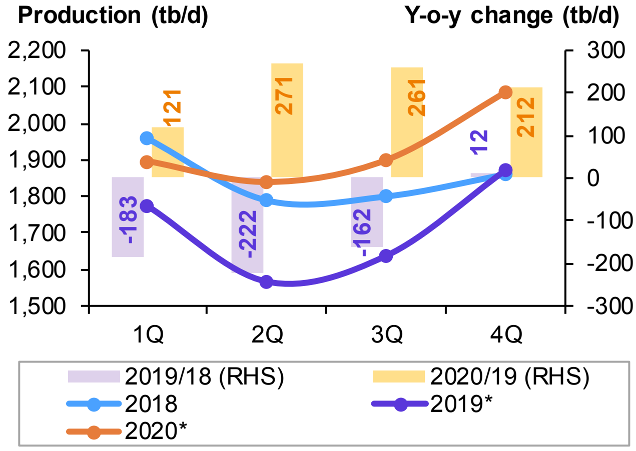



*Sources: Norwegian Petroleum DirectorateOPEC Secretariat.*

Oil production in 2H19 is forecast to grow by 0.08 mb/d compared to 1H19. Aker BP's Skogul field is ready to start up, while three Equinor fields are also scheduled for start-up before year's end. Oil production from Trestakk in the Norwegian Sea, with recoverable resources estimated at 76 mb of oil, started on 16 July after completion of testing through five tied-back wells to the Åsgard FPSO. Peak production is forecast to be about 44 tb/d of oil, and the field is expected to produce for 12 years, according to Equinor. The Utgard field is possibly expected to start production in September and the giant Johan Sverdrup is expected in October or November.

For **2020**, Norway's liquids supply forecast is to grow by 0.22 mb/d to average 1.93 mb/d. This is even lower than the level of average liquids output in 2017, despite the production ramp-up of Johan Sverdrup, which accounts for 50% of the new production. In addition, 20% of the new production will come from the ramp up of the Valhall and Oseberg projects and the start-up of Njord, Yme and Martin Linge. Maintenance is scheduled for 2Q20 and again for 4Q20.

**Graph 5 - 21: Norway's quarterly liquids supply**



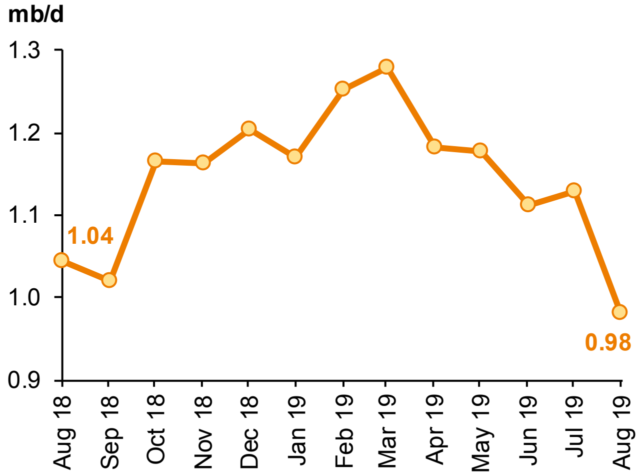

*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

## UK

**UK crude oil output in August 2019** was down by 0.12 mb/d to average 0.87 mb/d and was lower by 0.06 mb/d y-o-y, even though Equinor began oil production from the Mariner field in the East Shetland basin of the UK North Sea on 15 August 2019. However, UK oil output in August was affected by disruption on the Forties Pipeline System (FPS).

NGLs output also fell by 28 tb/d to average 73 tb/d. Consequently, liquids output in July fell by 0.15 mb/d m-o-m to average 0.98 mb/d and was lower by 0.06 mb/d y-o-y.

**Graph 5 - 22: UK monthly liquids output**

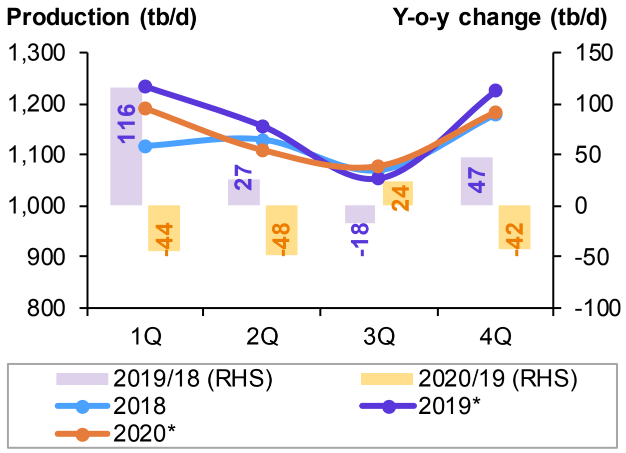



*Sources: Oil and Gas Authority and OPEC Secretariat.*

For **2019**, UK liquids supply growth is forecast at 0.04 mb/d to reach annual average production of 1.17 mb/d. Annual growth was revised down by 0.02 mb/d from the previous assessment and is lower than y-o-y growth of 0.1 mb/d seen in 2018.

For **2020**, taking into account the growth from new projects – Mariner, Clair, Lancaster and the start-up of Liberator – and expected declines at other fields, UK oil supply is forecast to see an overall contraction of 0.03 mb/d, to average 1.14 mb/d. The main projects in decline include Buzzard, Elgin/Franklin, Golden Eagle Area, Western Isles, Greater Catcher and ETAP. These will account for more than 40% of total UK decline in 2020. Maintenance is expected to occur in 2Q20 and 3Q20.

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




*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

# OECD Asia Pacific

**OECD Asia Pacific liquids supply** is expected to grow by 0.07 mb/d this year to average 0.48 mb/d, all coming from Australia. This compares to annual growth of 0.02 mb/d in 2018.

## Australia

**Australia's crude and condensate production** in 2Q19 grew by 0.04 mb/d, compared to 1Q19, to average 0.41 mb/d thanks to the start-up of the Ichthys and Prelude offshore projects. Condensate output is ramping up at Inpex's Ichthys and Shell's Prelude, which have nameplate condensate capacity of 100 tb/d and 30 tb/d, respectively. Australian oil production in 3Q19 and 4Q19 is expected to average 0.42 mb/d and 0.44 mb/d, respectively. In late August, the Greater Enfield expansion project began production with flows of 27 tb/d and a planned peak of 40 tb/d.

Oil production, mainly condensate, is forecast to increase in Australia by 0.07 mb/d y-o-y in both 2019 and 2020.

# Developing Countries (DCs)

**Total DCs oil supply for 2019** is expected to grow by 0.13 mb/d y-o-y to average 13.60 mb/d, revised down by 0.02 mb/d from the previous assessment. Latin America and Africa are forecast to see y-o-y growth of 0.20 mb/d and 0.04 mb/d, respectively, reaching averages of 5.39 mb/d and 1.54 mb/d. On the other hand, oil production in Other Asia will decline by 0.11 mb/d y-o-y to average 3.45 mb/d. Declines of between 0.02 mb/d and 0.03 mb/d will occur in all countries of the region except Brunei and Other Asia. Oil production in the Middle East is expected to remain unchanged y-o-y at 3.21 mb/d.

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

| | 1Q | 2Q | 3Q | 4Q | Yearly | *Change Y-o-y* |
|---|---|---|---|---|---|---|
| **2018** | 13.44 | 13.51 | 13.40 | 13.51 | 13.47 | *0.07* |
| **2019*** | 13.41 | 13.46 | 13.67 | 13.85 | 13.60 | *0.13* |
| **2020*** | 13.82 | 13.84 | 13.85 | 14.01 | 13.88 | *0.28* |

*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

For **2020**, oil supply in DCs is forecast to increase by 0.28 mb/d, unchanged from the previous assessment, while the absolute supply level was revised lower to average 13.88 mb/d, due to a change in the baseline. Annual growth will be driven by higher production in Brazil.

# Latin America

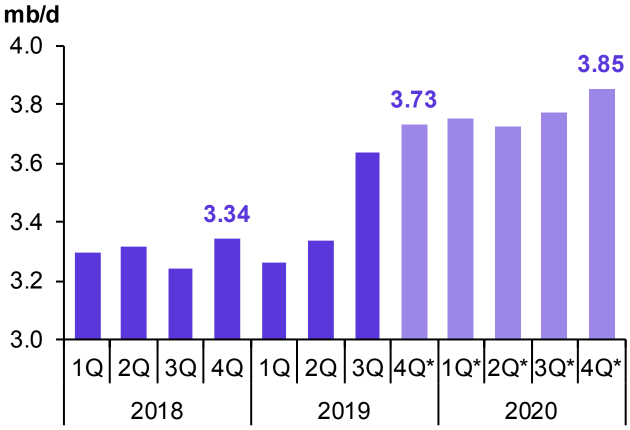
## Brazil

**Brazil's crude and condensate output** hit an all-time record high, rising by 214 tb/d compared to the previous month to average 2.99 mb/d in August. Oil output from the Lula and Búzios fields, both located in pre-salt horizon in Santos Basin, are expected reach a production level of 1.03 mb/d and 0.34 mb/d, respectively.

Based on the production programme of Petrobras, oil has started to flow from new FPSOs installed in the Búzios and Lula fields since March 2019, with August production rising to 0.12 mb/d in P-75. Oil output also increased in the post-salt horizon by 19 tb/d m-o-m in August. Previously, Petrobras had reported hitting a record of 3 mb/d of oil equivalent on 28 July.

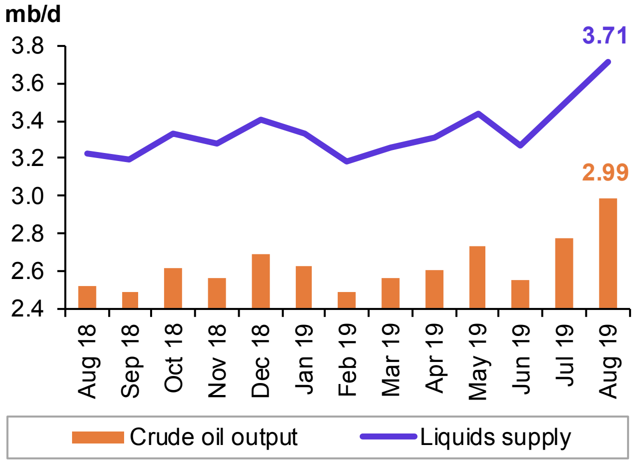
NGLs output in August was also up by a slight 6 tb/d to average 108 tb/d, while biofuels output was almost unchanged m-o-m at 614 tb/d. In terms of total liquids, oil supply in August averaged 3.71 mb/d, an increase of 0.22 mb/d m-o-m, higher by 0.48 mb/d y-o-y.

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




*Note: * 4Q19-4Q20 = Forecast.*
*Sources: National Agency of Petroleum, Natural Gas and Biofuels; and OPEC Secretariat.*

**Graph 5 - 25: Brazil's crude oil and liquids supply**




*Sources: National Agency of Petroleum, Natural Gas and Biofuels; and OPEC Secretariat.*

Brazil's liquids supply in **2019** is forecast to grow by 0.19 mb/d y-o-y to average 3.49 mb/d, revised up by 12 tb/d from the previous month's assessment. For 2020, y-o-y growth of 0.28 mb/d is forecast, for an average of 3.78 mb/d.

# FSU

**FSU oil supply in 2019** was revised up by 40 tb/d due to the upward revisions for Kazakhstan and Russia, with growth projected at 0.01 mb/d y-o-y to average 14.30 mb/d. Russia's oil supply is expected to increase by 0.07 mb/d y-o-y to average 11.41 mb/d, while oil output is likely to decline in Kazakhstan, Azerbaijan and FSU others by 0.03 mb/d, 0.02 mb/d and 0.01 mb/d, respectively.

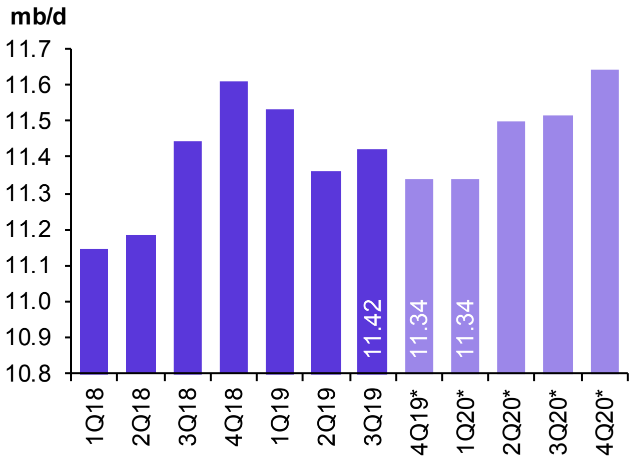
For **2020**, FSU oil supply is forecast to grow by 0.10 mb/d y-o-y and average 14.41 mb/d. Oil production in Russia is expected to rise by 0.09 mb/d to average 11.50 mb/d, assuming that production remains adjusted to 11.34 mb/d in 1Q20. Oil supply in Kazakhstan and Azerbaijan is likely to grow by 0.03 mb/d and 0.01 mb/d, respectively, while falling by 0.02 mb/d in FSU others.

## Russia

**Russian liquids supply in September 2019** fell by 0.04 mb/d m-o-m to average 11.44 mb/d, down by 0.11 mb/d y-o-y.

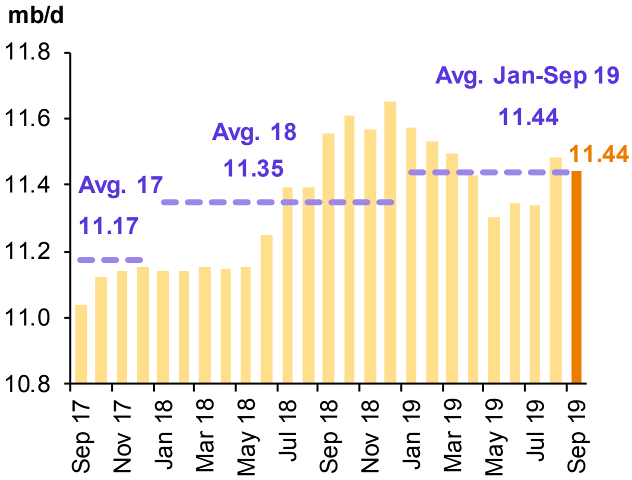
A month earlier, following the debottlenecking of production restrictions due to a contamination in the Druzhba pipeline, Russia's oil supply grew by 0.14 mb/d to average 11.48 mb/d. Consequently, average oil supply in 3Q19 was pegged at 11.42 mb/d.

**Graph 5 - 26: Russia's quarterly supply forecast**




*Note: * 4Q19-4Q20 = Forecast.*
*Sources: Nefte Compass and OPEC Secretariat.*

**Graph 5 - 27: Russia's monthly liquids supply**




*Sources: Nefte Compass and OPEC Secretariat.*

**Russia's oil supply in 2019** is forecast to grow by 0.07 mb/d to average 11.41 mb/d, representing an upward revision of 0.01 mb/d.

For **2020**, growth of 0.09 mb/d is anticipated to average 11.50 mb/d.

## Caspian

### Kazakhstan

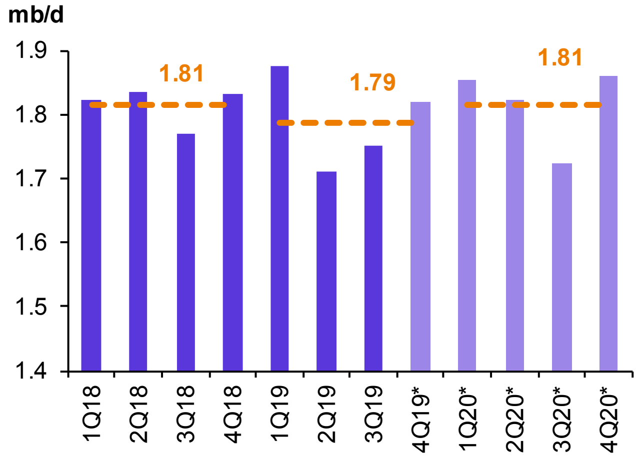
**Kazakhstan's liquids output** in **August** was down by 0.11 mb/d m-o-m to average 1.78 mb/d, mainly due to outages during maintenance in parts of the Tengiz field from 1 August to 12 September. Crude oil output fell by 112 tb/d to average 1.51 mb/d in August, according to Nefte Compass. The ongoing maintenance in Tengiz and beginning maintenance in the Karachaganak field from 15 September to 13 October, has caused a reduction in oil output not only for September but also in October. However, the outages during the maintenance in Tengiz did not impact production as much as seen earlier at Kashagan, where production had been completely shut in. Hence, the oil supply forecast for 2019 was revised up by 30 tb/d, now showing a lower contraction of 0.03 mb/d y-o-y to average 1.79 mb/d.

Average crude oil output from the Kashagan field produced by the North Caspian Operating Consortium (NCOC) fell by 17 tb/d m-o-m to average 0.34 mb/d in August, higher by 0.1 mb/d y-o-y. NCOC plans to boost production in the Kashagan through gas injection in order to ramp up production to as high as 470 tb/d.

Oil supply in Kazakhstan in **2019** is expected to decline by 0.03 mb/d to average 1.79 mb/d, revised up by 30 tb/d.

In **2020**, it is forecast to grow by 0.03 mb/d y-o-y to average 1.81 mb/d**,** mainly as a result of the Kashagan ramp-up.

**Graph 5 - 28: Kazakhstan's quarterly liquids output**




*Note: * 4Q19-4Q20 = Forecast.*
*Sources: Nefte Compass and OPEC Secretariat.*

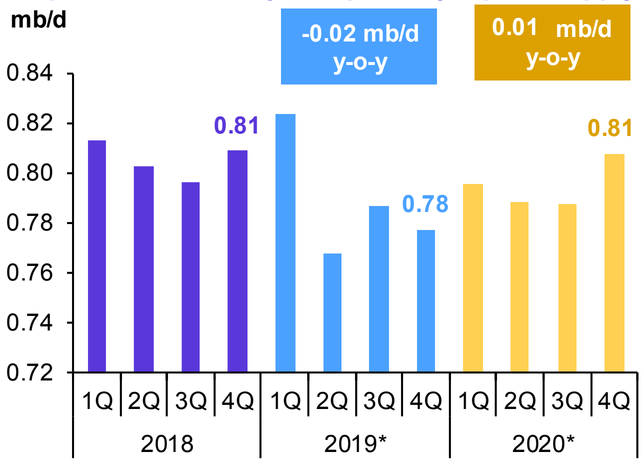
## Azerbaijan

**Azerbaijan's liquids output in August** fell by 0.03 mb/d m-o-m to average 0.77 mb/d. Crude oil output was down by 18 tb/d m-o-m to average 0.68 mb/d as production was affected by maintenance. Therefore, the oil production estimate for 3Q19 has been revised down by 12 tb/d to 0.79 mb/d, lower by 0.01 mb/d y-o-y.

For **2019**, oil supply in Azerbaijan, following a downward revision by 12 tb/d in 3Q19, is expected to average 0.79 mb/d, representing a contraction of 0.02 mb/d.

For **2020**, production is forecast to show minor growth of 0.01 mb/d, averaging 0.79 mb/d.

**Graph 5 - 29: Azerbaijan's quarterly liquids supply**




*Note: * 2019-2020 = Forecast.*
*Sources: JODI and OPEC Secretariat.*

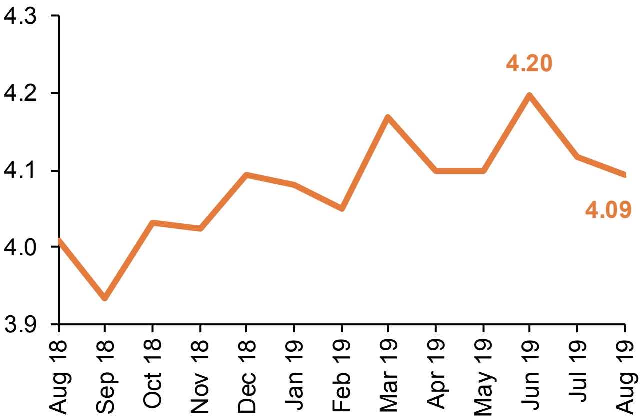
# China

**China's liquids production in August 2019,** following a m-o-m drop of 0.08 mb/d in July, continued to decline by 0.03 mb/d to average 4.09 mb/d, according to official data. Nevertheless, this was up by 0.08 mb/d y-o-y.

**Crude oil production in August** fell by 25 tb/d m-o-m to 3.81 mb/d as Typhoon Lekima disrupted production in Bohai Bay, but was up 38 tb/d y-o-y. Y-t-d, the production decline in mature fields was offset by incremental production in Xinjiang and Shaanxi provinces, where output has risen since the beginning of the year. Non-conventional liquids (mainly CTL & ethanol) grew by 45 tb/d y-o-y to average 272 tb/d in August.

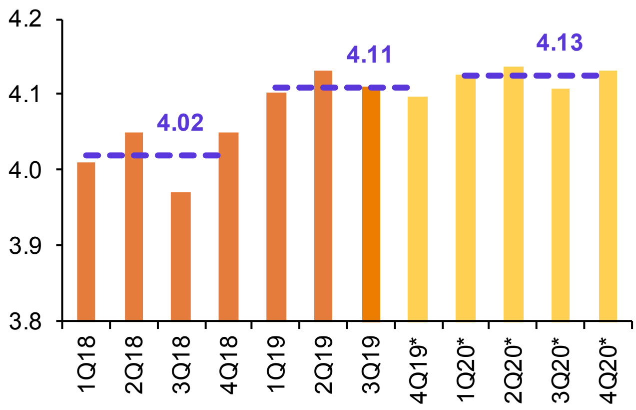
**Preliminary September** production data indicates a rebound of 0.03 mb/d, to average 4.12 mb/d, the same level as July.

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




*Sources: China National Petroleum Corporation and OPEC Secretariat.*

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




*Note: * 4Q19-4Q20 = Forecast.*
*Sources: China National Petroleum Corporation and OPEC Secretariat.*

China's liquids production in **2019** is expected to grow by 0.09 mb/d to average 4.11 mb/d, revised up by 14 tb/d from the previous month's assessment.

For **2020**, oil production in China is forecast to grow by 0.02 mb/d to average 4.13 mb/d, representing an upward revision of 0.02 mb/d in annual growth.

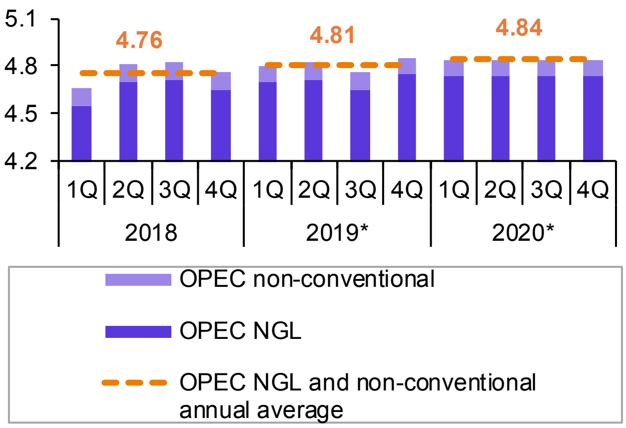
# OPEC NGLs and non-conventional oils

**OPEC NGLs and non-conventional liquids in 2019** are forecast to grow by 0.05 mb/d to average 4.81 mb/d, revised down by 27 tb/d from last month's assessment due to lower-than-expected output by 108 tb/d in 3Q19.

Preliminary production data in **September 2019** showed a substantial drop of 250 tb/d due to the partial production disruption in Saudi Arabia, averaging 4.60 mb/d compared to a month earlier, and a drop of 0.20 mb/d y-o-y.

For **2020**, the preliminary forecast indicates minor growth of 0.03 mb/d to average 4.84 mb/d, unchanged y-o-y.

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




*Note: * 2019-2020 = Forecast.*
*Sources: OPEC Secretariat.*

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

| | 2018 | 2019 | Change 19/18 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 20/19 |
|---|---|---|---|---|---|---|---|---|---|
| **Total OPEC** | **4.76** | **4.81** | 0.05 | 4.84 | 4.84 | 4.84 | 4.84 | **4.84** | 0.03 |

*Note: 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

# OPEC crude oil production

According to secondary sources, total **OPEC-14 preliminary crude oil production** averaged 28.49 mb/d in September, lower by 1,318 tb/d m-o-m. Crude oil output decreased mostly in Saudi Arabia, Venezuela, Iraq and IR Iran, while it increased mainly in Libya, Angola and Congo.

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

| | 2017 | 2018 | 1Q19 | 2Q19 | 3Q19 | Jul 19 | Aug 19 | Sep 19 | *Sep/Aug* |
|---|---|---|---|---|---|---|---|---|---|
| **Algeria** | 1,047 | 1,042 | 1,026 | 1,019 | 1,021 | 1,027 | 1,017 | 1,018 | *1* |
| **Angola** | 1,634 | 1,505 | 1,443 | 1,420 | 1,394 | 1,385 | 1,387 | 1,411 | *24* |
| **Congo** | 252 | 317 | 326 | 332 | 326 | 323 | 321 | 335 | *14* |
| **Ecuador** | 530 | 519 | 526 | 529 | 541 | 535 | 541 | 547 | *6* |
| **Equatorial Guinea** | 133 | 125 | 115 | 114 | 121 | 121 | 120 | 124 | *4* |
| **Gabon** | 200 | 187 | 209 | 212 | 205 | 208 | 209 | 199 | *-10* |
| **Iran, I.R.** | 3,813 | 3,553 | 2,725 | 2,407 | 2,191 | 2,218 | 2,193 | 2,159 | *-34* |
| **Iraq** | 4,446 | 4,550 | 4,635 | 4,705 | 4,749 | 4,736 | 4,785 | 4,724 | *-60* |
| **Kuwait** | 2,708 | 2,745 | 2,715 | 2,693 | 2,659 | 2,667 | 2,651 | 2,660 | *9* |
| **Libya** | 811 | 951 | 965 | 1,154 | 1,099 | 1,076 | 1,060 | 1,164 | *104* |
| **Nigeria** | 1,658 | 1,718 | 1,736 | 1,786 | 1,846 | 1,805 | 1,875 | 1,859 | *-16* |
| **Saudi Arabia** | 9,954 | 10,311 | 10,019 | 9,769 | 9,374 | 9,687 | 9,844 | 8,564 | *-1,280* |
| **UAE** | 2,916 | 2,986 | 3,066 | 3,063 | 3,079 | 3,074 | 3,081 | 3,082 | *1* |
| **Venezuela** | 1,911 | 1,354 | 975 | 776 | 710 | 755 | 727 | 644 | *-82* |
| **Total OPEC** | **32,014** | **31,864** | **30,481** | **29,978** | **29,314** | **29,616** | **29,809** | **28,491** | ***-1,318*** |

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

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

| | 2017 | 2018 | 1Q19 | 2Q19 | 3Q19 | Jul 19 | Aug 19 | Sep 19 | *Sep/Aug* |
|---|---|---|---|---|---|---|---|---|---|
| **Algeria** | 1,059 | 1,040 | 1,027 | 1,017 | 1,025 | 1,032 | 1,019 | 1,024 | *5* |
| **Angola** | 1,632 | 1,473 | 1,421 | 1,424 | 1,318 | 1,259 | 1,328 | 1,369 | *41* |
| **Congo** | 263 | 323 | 343 | 340 | 355 | 338 | 339 | 389 | *50* |
| **Ecuador** | 531 | 517 | 529 | 531 | .. | 541 | 550 | .. | *..* |
| **Equatorial Guinea** | 129 | 120 | 108 | 114 | 109 | 111 | 106 | 109 | *3* |
| **Gabon** | 210 | 193 | 214 | 225 | .. | 223 | 218 | .. | *..* |
| **Iran, I.R.** | 3,867 | .. | .. | .. | .. | .. | .. | .. | *..* |
| **Iraq** | 4,469 | 4,410 | 4,540 | 4,565 | 4,630 | 4,620 | 4,650 | 4,620 | *-30* |
| **Kuwait** | 2,704 | 2,737 | 2,712 | 2,681 | 2,636 | 2,652 | 2,605 | 2,650 | *45* |
| **Libya** | .. | .. | .. | .. | .. | .. | .. | .. | *..* |
| **Nigeria** | 1,536 | 1,602 | 1,689 | 1,721 | 1,819 | 1,827 | 1,760 | 1,870 | *110* |
| **Saudi Arabia** | 9,959 | 10,317 | 10,053 | 9,752 | 9,503 | 9,580 | 9,789 | 9,129 | *-660* |
| **UAE** | 2,967 | 3,008 | 3,055 | 3,050 | 3,068 | 3,068 | 3,065 | 3,070 | *5* |
| **Venezuela** | 2,035 | 1,510 | 1,289 | 1,045 | 864 | 906 | 933 | 749 | *-184* |
| **Total OPEC** | **..** | **..** | **..** | **..** | **..** | **..** | **..** | **..** | ***..*** |

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

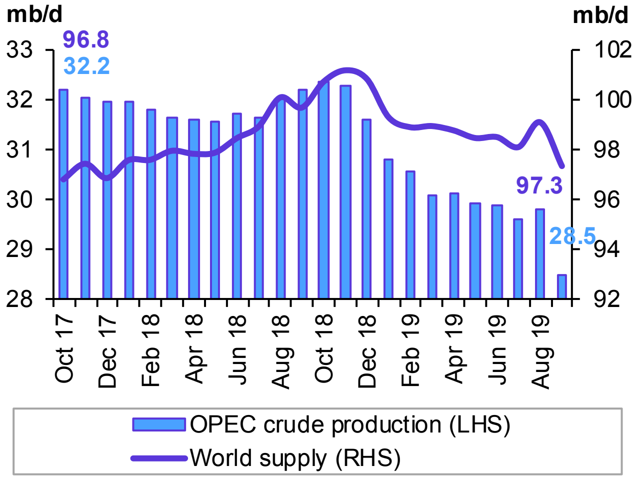
# World oil supply

Preliminary data indicates that **global oil supply in September** decreased by 1.77 mb/d m-o-m to average 97.32 mb/d, compared to the previous month.

**Non-OPEC supply (including OPEC NGLs)** decreased by 0.45 mb/d m-o-m to average 68.83 mb/d in September, higher by 1.33 mb/d y-o-y. September's preliminary decline was mainly driven by Canada, Norway, Kazakhstan, Russia and OPEC NGLs.

The **share of OPEC crude oil in total global production** declined by 0.8% to 29.3% in September 2019 compared to 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** globally exhibited mixed performances in September. Refinery intakes in the Atlantic Basin started to decline in line with seasonal trends as peak autumn maintenance began, restricting product output in the Atlantic Basin. Although product performances differed from region to region, fuel oil markets recovered from the slump witnessed in the previous month, supported by planned refinery outages amid an already tight market environment related to the new IMO regulations as well as a pick-up in demand from Saudi Arabia.*

*In the **US**, product markets saw gains mainly supported by positive developments at the middle and bottom of the barrel as refinery intake cuts from both scheduled maintenance and unplanned weather-related outages affected product prices, providing a lift to cracks.*

*In **Europe**, weakening at the top of the barrel**,** mainly from the gasoline segment, resulted from lacklustre regional demand amid slower gasoline exports to the US.*

***Asian** product markets showed the strongest positive performance compared to the other regions, benefiting from solid gains recorded all across the barrel. Strong gasoline spot deliveries to India as well as lower naphtha availability in the region, which led to higher prices for the product, were the main contributing factors to upside momentum.*

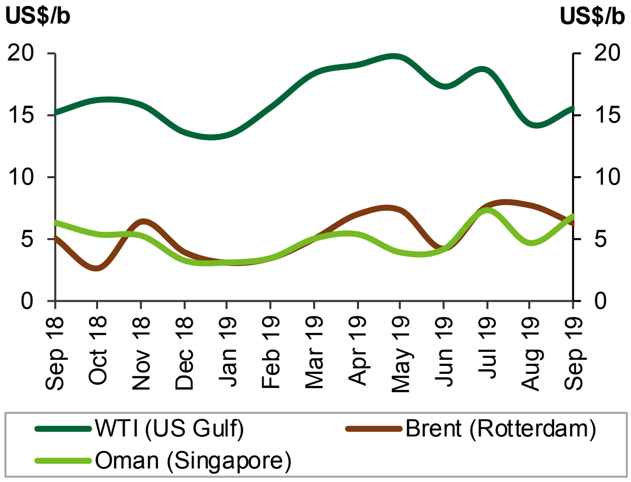
## Refinery margins

**US** refinery margins trended upwards in September, mostly underpinned by reductions in product outputs linked to planned refinery turnarounds amid the start of the peak autumn maintenance season and unplanned outages.

On the other hand, the end of the summer season and the resulting decline in transport fuel demand as well as the winter gasoline fuel specification switch exerted heavy pressure on gasoline cracks, weighing on product markets and preventing further gains in refining margins.

US refinery margins for WTI averaged $15.44/b in September, up by $1.25 m-o-m and by 31¢ y-o-y.

**Graph 6 - 1: Refining margins**




*Sources: Argus Media and OPEC Secretariat.*

Refinery margins in **Europe** weakened, caused by solid losses at the top of the barrel attributed to seasonally lower gasoline demand and slower exports to the US. Refinery intakes fell in line with the start of the peak autumn refinery maintenance season, however the effects of this development will most likely be felt in the coming month once inventory levels draw. Refinery margins for Brent in Europe averaged $6.29/b in September, down by $1.46 compared to a month earlier, but up by $1.25 y-o-y.

**Asian** refinery margins rose, recovering from the weak performance recorded in the previous month. Support came from across the barrel as all product markets showed gains, with higher product requirements in India, Indonesia, Vietnam and Saudi Arabia. Refinery margins for Oman in Asia gained $2.13 m-o-m to average $6.82/b in September, and were higher by 50¢ y-o-y.

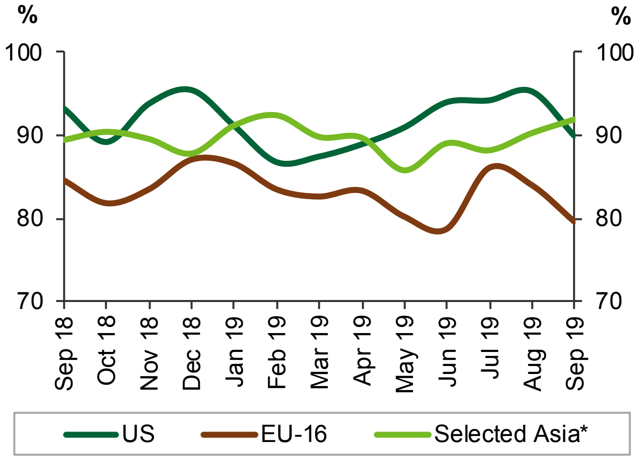
# Refinery operations

In the **US**, refinery utilization rates decreased in September to average 89.92%, which corresponds to a throughput of 16.91 mb/d. This represents a drop of 5.3 pp and 1.0 mb/d compared to the previous month. Y-o-y, the September refinery utilization rate was down by 3.22 pp, with throughputs down by 474 tb/d.

**European** refinery utilization averaged 79.58% in September, corresponding to a throughput of 9.86 mb/d. This constitutes a m-o-m drop of 4.4 pp or 550 tb/d. Y-o-y, utilization rates decreased by 4.94 pp and throughputs were down by 612 tb/d.

In **selected Asia** — comprising Japan, China, India and Singapore — refinery utilization rates rose, averaging 91.83% in September, corresponding to a throughput of 25.64 mb/d. Compared to the previous month, throughputs were up by 1.6 pp and 450 tb/d. Meanwhile, y-o-y, they were up by 2.4 pp and 1.12 mb/d.

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




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

# Product markets

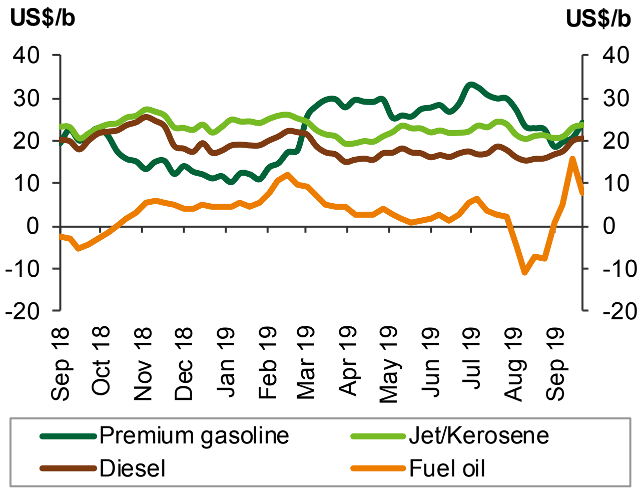
## US market

**US gasoline cracks** saw considerable losses in September as pressure from declining prices weighed on gasoline markets. The end of the driving season leading up to the switch to winter grade gasoline amid bearish market sentiment caused the drop in prices. This poor performance came despite a slight downward movement in US gasoline inventory levels during the month.

The increasingly lacklustre domestic consumption, typical for this time of year, would require a proportional lift in exports to keep inventory levels sustained and the market balanced.

In September, the gasoline crack spread lost $3.26 m-o-m to average $21.23/b, but was up slightly by 15¢ y-o-y.

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




*Sources: Argus Media and OPEC Secretariat.*

The USGC **jet/kerosene crack spread** gained some ground supported by maintenance-related reductions in refinery output amid an already tight market. Despite the end of the summer peak air travel season, lower jet fuel availability due to refinery turnarounds should keep jet fuel prices and cracks well sustained in the near term. Additional support could also be expected during the upcoming Thanksgiving and Christmas holiday seasons as air travel activities tend to pick up. The US jet/kerosene crack spread against WTI averaged $22.34/b, up by $1.09 m-o-m and by 16¢ y-o-y.

US **gasoil crack spreads** performed positively, showing solid gains underpinned by bullish sentiment linked to declines in inventory levels recorded in the month and concerns over a tightening market in response to refinery intake cuts in the US.

Despite growing interest in production and inventory builds of VLSFO as the IMO 2020 implementation date approaches and demand for compliant marine fuels rises, diesel markets in the US could provide some upside in the coming months. However, this positive effect is expected to be more pronounced once the VLSFO stocks are depleted well beyond 1 January 2020. The US gasoil crack spread averaged $18.87/b, up by $3.03 m-o-m but down by 56¢ y-o-y.

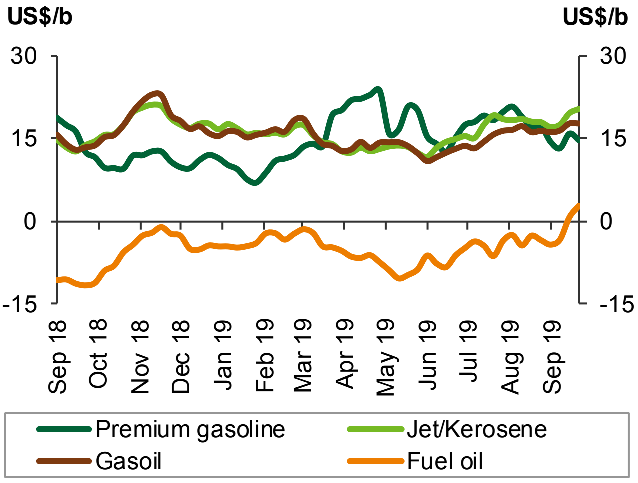
US **fuel oil crack spreads** reversed the declining trend to surge on the back of declining inventory levels over the month caused by a 410 tb/d stock draw in mid-September. In September, the US fuel oil crack spread averaged $7.59/b, up by $14.41 m-o-m and higher by $11.38 y-o-y.

# European market

The **gasoline crack spread** saw a negative performance in September, pressured by lower gasoline demand as consumption from the transportation sector began to fade with the end of the summer season. In addition, slower import requirements from the US added to the supply glut in the region.

The start of the autumn refinery maintenance season in September and the potential subsequent declines in gasoline output will most likely lead to declines in inventory levels and provide some support to European gasoline cracks in the near term. Furthermore, the rise in offline refining capacities globally could unlock additional export opportunities, supporting gasoline markets in the near term.

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




*Sources: Argus Media and OPEC Secretariat.*

The gasoline crack spread averaged $14.64/b in September, down by $4.17 m-o-m and by $1.59 y-o-y.

The **jet/kerosene** crack spread also performed positively, edging up slightly higher compared to the previous month despite the onset of the seasonal low-demand period typically registered this time of year. The declines in jet/kerosene production recorded during the month as refineries undergo turnarounds will most likely offer some short term support. The Rotterdam jet/kerosene crack spread averaged $18.85/b, up by 62 ¢ m-o-m and higher by $5.14 y-o-y.

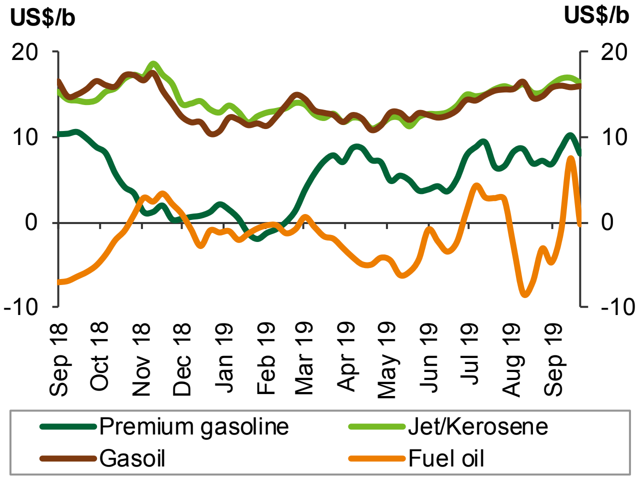
European **gasoil** crack spreads also strengthened slightly in September, supported by gasoil production cuts amid healthy, but relatively slower, regional demand. In addition, lower supplies from Russia out of Primorsk and Tuapse to Rotterdam contributed to a tighter gasoil balance, which helped sustain gasoil prices over the month and consequently provided some backing to gasoil cracks in Europe. The gasoil crack spread averaged $17.14/b, which was higher by 53¢ m-o-m and by $3.08 y-o-y.

At the bottom of the barrel, **fuel oil 3.5% crack spreads** in Rotterdam showed solid gains supported by supply shortages that led to lower high sulphur fuel oil (HSFO) availability. A pick-up in trade flows due to reduced refined product outputs linked to autumn peak refinery maintenance season as product markets seek to rebalance regionally could likely support fuel consumption for the bunker sector. This, along with ongoing preparations as the implementation date for IMO 2020 regulations draws closer, amid government incentives for higher conversion capacity, could keep HSFO well sustained in the near term. In Europe, fuel oil cracks averaged minus $13.76/b in September, gaining $1.65 m-o-m and 32¢ y-o-y.

## Asian market

The **Asian gasoline 92** crack spread against Dubai strengthened, supported by strong demand in India and as refinery maintenance in India, Vietnam and Indonesia continue to keep output under pressure. In addition, tighter MTBE (a gasoline blending component used to boost the octane number) supplies have further contributed to higher gasoline prices, lending support to Asian gasoline cracks.

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




*Sources: Argus Media and OPEC Secretariat.*

The Singapore gasoline crack spread against Oman averaged $8.44/b in September, up by 77¢ m-o-m but down by $1.85 y-o-y.

Singapore light distillate **naphtha crack spreads** rose, shadowing the positive performance in gasoline cracks affected by the oil production cuts at Saudi Arabia's facilities, leading to lower LPG availability locally. This boosted naphtha exports out of Asia. The Singapore naphtha crack spread against Oman averaged minus $6.90/b, an increase of $1.28 m-o-m, yet a decline of $5.07 y-o-y.

In the middle of the barrel, **jet/kerosene** crack spreads in Asia trended slightly upwards on the back of bullish sentiment in the market as kerosene demand for heating purposes started to pick up, while jet fuel demand for the aviation sector contracted. The Singapore jet/kerosene crack spread against Oman averaged $16.64/b, up by 95¢ m-o-m and by $2.11 y-o-y.

The Singapore **gasoil crack spread** in September moved slightly upwards on the back of sizeable refinery maintenance in Europe amid lower diesel output from Russia. The Singapore gasoil crack spread against Oman averaged $16.59/b, up by 39¢ m-o-m and by 43¢ y-o-y.

The Singapore **fuel oil crack spread** reversed trend and rebounded from the low recorded in the previous month supported by strong stock draws, which led to declines in inventory levels. The positive performance in fuel oil cracks was also a reflection of healthy demand from the bunker sector, as well as strong exports to Saudi Arabia following the attacks on oil facilities, as crude availability there became more limited, leading to higher fuel consumption for power generation.

Ongoing preparations for the marine fuel shift should continue to encourage further reductions in fuel oil supplies and a tightening market, possibly supporting prices. Singapore fuel oil cracks against Oman averaged 14¢/b, up by $4.58 m-o-m and by $6.64 y-o-y.

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

| Event | Time frame | Asia | Europe | US | Observations |
|---|---|---|---|---|---|
| **Peak autumn maintenance season** | Sep 19 – Oct 19 | ↑ Some positive impact on product markets | ↑ Some positive impact on product markets | ↑ Some positive impact on product markets | Declines in product outputs could slow down builds in product inventory levels, thus supporting prices as well as product cracks. |
| **Monsoon season** | Jun 19 – Oct 19 | ↓ Negative impact on gasoil markets | - | - | Gasoil markets in India could to come slightly under pressure as seasonal rains curtail agricultural activities |
| **Lower heavy crude availability** | Mid-term | ↑ Some positive impact on heavier product markets | ↑ Some positive impact on heavier product markets | ↑ Some positive impact on heavier product markets | May support prices of heavier products and cracks. |
| **Preparations for IMO 2020** | May 19 – Dec 19 | ↑ Some positive impact on product markets (short term) | ↑ Some positive impact on product markets (short term) | ↑ Some positive impact on product markets (short term) | Refineries are expected to include plant upgrades during this year's refinery maintenance season to accommodate upcoming IMO regulations. This could lead to pressure on crude intake and declines in product availability. |
| **CDU additions** | May 19 – Dec 19 | ↓ Negative impact on product markets | ↓ Negative impact on product markets | ↓ Negative impact on product markets | An overall increase in product output is to be expected and could further exacerbate the oversupply environment. |

*Source: OPEC Secretariat.*

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

| | *Refinery throughput, mb/d* | | | | *Refinery utilization, %* | | | |
|---|---|---|---|---|---|---|---|---|
| | Jul 19 | Aug 19 | Sep 19 | *Change* Sep/Aug | Jul 19 | Aug 19 | Sep 19 | *Change* Sep/Aug |
| **US** | **17.70** | **17.91** | **16.91** | **-1.00** | **94.16** | **95.25** | **89.92** | **-5.3 pp** |
| **Euro-16** | **10.66** | **10.41** | **9.86** | **-0.55** | **86.03** | **83.98** | **79.58** | **-4.4 pp** |
| **France** | 1.08 | 1.11 | 1.07 | -0.03 | 86.27 | 88.42 | 85.69 | -2.7 pp |
| **Germany** | 1.88 | 1.77 | 1.65 | -0.11 | 86.06 | 80.71 | 75.46 | -5.3 pp |
| **Italy** | 1.46 | 1.37 | 1.27 | -0.10 | 71.16 | 66.76 | 62.12 | -4.6 pp |
| **UK** | 1.07 | 1.06 | 1.02 | -0.04 | 81.11 | 80.73 | 77.52 | -3.2 pp |
| **Selected Asia*** | **24.63** | **25.19** | **25.64** | **0.45** | **88.21** | **90.22** | **91.83** | **1.6 pp** |

*Note: * Includes Japan, China, India and Singapore.*
*Sources: EIA, Euroilstock, Petroleum Association of Japan and OPEC Secretariat.*

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

| | 2016 | 2017 | 2018 | 3Q18 | 4Q18 | 1Q19 | 2Q19 | 3Q19 |
|---|---|---|---|---|---|---|---|---|
| **Total OECD** | **37.43** | **38.13** | **37.99** | **38.89** | **37.89** | **37.27** | **37.17** | **38.08** |
| **OECD Americas** | **18.78** | **19.09** | **19.30** | **19.79** | **19.14** | **18.36** | **19.07** | **19.53** |
| of which US | 16.51 | 16.88 | 17.32 | 17.68 | 17.33 | 16.46 | 17.14 | 17.51 |
| **OECD Europe** | **11.91** | **12.24** | **11.98** | **12.43** | **11.92** | **12.06** | **11.65** | **12.01** |
| *of which:* | | | | | | | | |
| France | 1.14 | 1.17 | 1.10 | 1.21 | 1.15 | 1.12 | 0.98 | 1.09 |
| Germany | 1.93 | 1.91 | 1.80 | 1.78 | 1.65 | 1.76 | 1.70 | 1.77 |
| Italy | 1.30 | 1.40 | 1.35 | 1.37 | 1.35 | 1.24 | 1.33 | 1.36 |
| UK | 1.09 | 1.10 | 1.06 | 1.14 | 1.14 | 1.08 | 1.03 | 1.05 |
| **OECD Asia Pacific** | **6.75** | **6.80** | **6.70** | **6.66** | **6.82** | **6.85** | **6.45** | **6.54** |
| *of which Japan* | 3.28 | 3.22 | 3.11 | 3.07 | 3.20 | 3.19 | 2.94 | 3.05 |
| **Total Non-OECD** | **41.41** | **42.23** | **43.45** | **43.56** | **43.83** | **44.04** | **43.71** | **44.93** |
| *of which:* | | | | | | | | |
| China | 10.77 | 11.35 | 12.03 | 12.10 | 12.25 | 12.63 | 12.66 | 12.75 |
| Middle East | 6.93 | 7.04 | 7.26 | 7.34 | 7.46 | 7.22 | 7.11 | 7.23 |
| Russia | 5.58 | 5.59 | 5.72 | 5.81 | 5.73 | 5.71 | 5.38 | 5.87 |
| Latin America | 4.66 | 4.52 | 4.22 | 4.18 | 4.08 | 4.03 | 4.16 | 4.06 |
| India | 4.68 | 4.73 | 4.83 | 4.78 | 4.83 | 5.23 | 5.02 | 5.05 |
| Africa | 2.20 | 2.21 | 2.22 | 2.24 | 2.18 | 2.16 | 2.22 | 2.28 |
| **Total world** | **78.84** | **80.36** | **81.43** | **82.44** | **81.71** | **81.31** | **80.88** | **83.01** |

*Note: Totals may not add up due to independent rounding.*
*Sources: OPEC Secretariat, JODI, AFREC, APEC, EIA, IEA, Euroilstock, Petroleum Association of Japan, Ministry data, including Ministry of Energy of the Russian Federation, Ministry of Petroleum and Natural Gas of India.*

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

| | | Aug 19 | Sep 19 | Change Sep/Aug | Average 2018 | Year-to-date 2019 |
|---|---|---|---|---|---|---|
| **US Gulf (Cargoes FOB):** | | | | | | |
| Naphtha* | | 50.02 | 52.86 | 2.84 | 68.51 | 56.78 |
| Premium gasoline | *(unleaded 93)* | 79.33 | 78.09 | -1.24 | 85.78 | 80.88 |
| Regular gasoline | *(unleaded 87)* | 72.56 | 70.54 | -2.02 | 80.17 | 73.97 |
| Jet/Kerosene | | 76.09 | 79.20 | 3.11 | 85.35 | 79.63 |
| Gasoil | *(0.2% S)* | 70.68 | 75.73 | 5.05 | 80.99 | 74.74 |
| Fuel oil | *(3.0% S)* | 45.04 | 48.62 | 3.58 | 60.17 | 57.04 |
| **Rotterdam (Barges FoB):** | | | | | | |
| Naphtha | | 49.20 | 52.82 | 3.62 | 66.47 | 55.14 |
| Premium gasoline | *(unleaded 98)* | 77.64 | 77.21 | -0.43 | 87.34 | 80.27 |
| Jet/Kerosene | | 77.06 | 81.42 | 4.36 | 86.93 | 80.36 |
| Gasoil/Diesel | *(10 ppm)* | 75.44 | 79.71 | 4.27 | 85.94 | 79.66 |
| Fuel oil | *(1.0% S)* | 55.69 | 61.57 | 5.88 | 62.33 | 59.92 |
| Fuel oil | *(3.5% S)* | 43.42 | 48.81 | 5.39 | 59.04 | 54.44 |
| **Mediterranean (Cargoes FOB):** | | | | | | |
| Naphtha | | 48.74 | 52.40 | 3.66 | 65.79 | 54.15 |
| Premium gasoline** | | 69.65 | 70.96 | 1.31 | 79.08 | 71.65 |
| Jet/Kerosene | | 75.41 | 79.45 | 4.04 | 85.10 | 78.21 |
| Diesel | | 75.32 | 79.51 | 4.19 | 85.66 | 79.31 |
| Fuel oil | *(1.0% S)* | 57.78 | 63.84 | 6.06 | 63.53 | 62.92 |
| Fuel oil | *(3.5% S)* | 44.98 | 51.05 | 6.07 | 60.36 | 55.93 |
| **Singapore (Cargoes FOB):** | | | | | | |
| Naphtha | | 50.70 | 54.21 | 3.51 | 67.24 | 56.08 |
| Premium gasoline | *(unleaded 95)* | 70.08 | 74.40 | 4.32 | 79.93 | 71.59 |
| Regular gasoline | *(unleaded 92)* | 66.55 | 69.55 | 3.00 | 77.66 | 69.18 |
| Jet/Kerosene | | 74.57 | 77.75 | 3.18 | 84.81 | 77.68 |
| Gasoil/Diesel | *(50 ppm)* | 75.08 | 77.70 | 2.62 | 84.67 | 78.08 |
| Fuel oil | *(180 cst)* | 54.44 | 61.25 | 6.81 | 65.24 | 62.25 |
| Fuel oil | *(380 cst 3.5% S)* | 53.70 | 61.34 | 7.64 | 64.74 | 61.64 |

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

# Tanker Market

*Average **dirty tanker spot freight** rates rose 25% m-o-m in September, with gains across all classes. The seasonal upward trend was amplified by unplanned disruptions, allowing rates to recover from the relatively sluggish performance seen for most of 2019 due in part to a high level of new deliveries in the first half of the year. Compared to a year-ago, only VLCCs exhibited a positive performance, which was offset by the cumulative declines in Suezmax and Aframax.*

***Clean spot tanker freight rates** remained at low levels in September, weighed down by ample tonnage supply, particularly West of Suez.*

## Spot fixtures

**Global spot fixtures** averaged 19.55 mb/d in September, an increase of 0.28 mb/d or 1.4% m-o-m but a decline compared with the same month last year of 1.95 mb/d or 9%. Relative to the previous year, global spot fixtures have been sluggish since the exceptional performances of February and March, when fixtures averaged in excess of 28 mb/d.

The increase was driven by seasonal factors as well as higher loadings in the US Gulf Coast, particularly from Corpus Christi, which has pulled in vessels, lightening availability elsewhere and increasing the average voyage length.

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

| | Jul 19 | Aug 19 | Sep 19 | Change Sep 19/Aug 19 |
|---|---|---|---|---|
| **All areas** | **19.79** | **19.28** | **19.55** | **0.28** |
| OPEC | 13.98 | 13.59 | 13.21 | -0.39 |
| Middle East/East | 7.59 | 8.05 | 8.25 | 0.20 |
| Middle East/West | 1.77 | 1.28 | 1.14 | -0.14 |
| Outside Middle East | 4.62 | 4.26 | 3.81 | -0.44 |

*Sources: Oil Movements and OPEC Secretariat.*

**OPEC spot fixtures** have followed a similar trend, remaining below 2018 levels since April 2019. In September, OPEC spot fixtures averaged 13.21 mb/d, a decline of 0.39 mb/d or some 1.4% compared to the previous month but about 1.71 mb/d or 11% lower y-o-y.

Fixtures from the **Middle East-to-West** averaged 1.14 mb/d in September, representing a drop of 0.14 mb/d or 11% m-o-m and 42% y-o-y. A key driver behind the decline has been the increasing competition from burgeoning US crude exports.

In contrast, fixtures on the **Middle East-to-East route** rose 0.20 mb/d or 2.4% in September to 8.25 mb/d, representing only a marginal gain compared to last year’s levels.

**Outside of the Middle East,** fixtures averaged 3.81 mb/d in September, a decline of 0.44 mb/d or 10.4% from the previous month but only a marginal increase compared to the same month last year.

## Sailings and arrivals

**OPEC sailings** rose 0.7% m-o-m in September, averaging 24.88 mb/d, but 0.2% lower y-o-y. Sailings from the **Middle East** edged up marginally in September, increasing 0.4% or 0.07 mb/d m-o-m.

**Crude arrivals** showed mixed movements in September. Arrivals in the Far East increased 0.15 mb/d or 1.6% m-o-m but were up just 50 tb/d or 1% y-o-y. Arrivals in Europe declined by 0.05 mb/d or around 0.4% m-o-m, but were 0.31 mb/d or 3% higher y-o-y. North American arrivals fell by 0.01 mb/d or 0.1% m-o-m and declined 0.57 mb/d or 6% y-o-y. Arrivals in West Asia rose 0.10 mb/d or 2.3% m-o-m in September but were some 0.21 mb/d or 5% lower y-o-y.

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

| | Jul 19 | Aug 19 | Sep 19 | Change Sep 19/Aug 19 |
|---|---|---|---|---|
| **Sailings** | | | | |
| OPEC | 24.60 | 24.71 | 24.88 | 0.17 |
| Middle East | 17.85 | 18.25 | 18.32 | 0.07 |
| **Arrivals** | | | | |
| North America | 9.81 | 9.75 | 9.74 | -0.01 |
| Europe | 12.21 | 12.15 | 12.11 | -0.05 |
| Far East | 9.20 | 8.94 | 9.09 | 0.15 |
| West Asia | 4.47 | 4.47 | 4.57 | 0.10 |

*Sources: Oil Movements and OPEC Secretariat.*

# Dirty tanker freight rates

## Very large crude carriers (VLCCs)

**VLCC spot freight rates** rose in September with gains across all routes. **Middle East-to-West** routes in September rose 11% m-o-m to stand at WS30 points.

Freight rates registered for tankers operating on the **Middle East-to-East** route rose 9% compared to the previous month, to stand at WS62 points in September.

**West Africa-to-East** routes in September also showed gains, increasing 10% from a month ago, to average WS64 points.

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

| | Size *1,000 DWT* | Jul 19 | Aug 19 | Sep 19 | Change Sep 19/Aug 19 |
|---|---|---|---|---|---|
| Middle East/East | 230-280 | 44 | 57 | 62 | 5 |
| Middle East/West | 270-285 | 20 | 27 | 30 | 3 |
| West Africa/East | 260 | 47 | 58 | 64 | 6 |

*Sources: Argus Media and OPEC Secretariat.*

A number of factors have contributed to the increase in VLCC spot freight rates, including a seasonal pick up in global trade, increased activity in preparation for the implementation of IMO 2020 and a general improvement in market sentiment over the month. A factor that caught the market by surprise – and appears to be the final trigger for the spike in freight rates – was the announcement on 25 September that the US was putting sanctions on two subsidiaries of China’s state-owned Cosco Shipping, one of the largest shipping companies in the world. This had the effect of reducing tonnage availability and suddenly forced charters to turn to the spot market for replacement vessels, with the obvious impact on rates.

The combination of these factors lifted rates and has created what one refiner called a “golden age” for shipping that is likely to persist into the coming year. The need to take ships out of the market to install scrubbers – for those that decide to go this route – and the increase cost of bunker fuel is also expected to further support freight rates in the coming months.

# Suezmax

**Suezmax average spot freight rates** saw a recovery in September. Rates for tankers operating on the West Africa-to-US Gulf Coast (USGC) route averaged WS68, a gain of 20%. Rates on the Northwest Europe-to-USGC route also rose, increasing 3% to average WS51 points.

As with VLCCs, seasonal factors, increased exports from the US Gulf Coast, and the impact of sanctions on availability, as well as increased voyage lengths, supported the Suezmax market in September.

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

| | Size *1,000 DWT* | Jul 19 | Aug 19 | Sep 19 | *Change* Sep 19/Aug 19 |
|---|---|---|---|---|---|
| West Africa/US Gulf Coast | 130-135 | 60 | 57 | 68 | 12 |
| Northwest Europe/US Gulf Coast | 130-135 | 46 | 47 | 51 | 3 |

*Sources: Argus Media and OPEC Secretariat.*

# Aframax

The **Aframax** sector in September also enjoyed across-the-board gains on all routes. The Caribbean to US East Coast led gains with an increase of 77% to average WS133 points. Meanwhile, the intra-Med route increased 45% to average 110 points, which was outpaced by a 49% gain on the Med-to-North West Europe route which averaged WS106 points. The Indonesia-to-East route edged up 4% to average WS91 points.

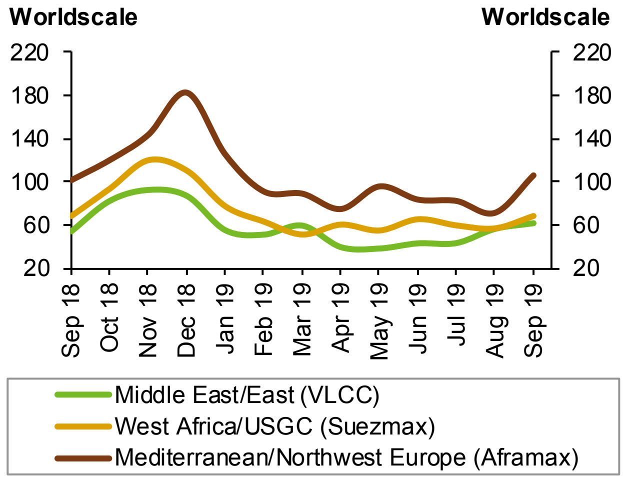
**Table 7 - 5: Dirty Aframax spot tanker freight rates, WS**

| | Size *1,000 DWT* | Jul 19 | Aug 19 | Sep 19 | *Change* Sep 19/Aug 19 |
|---|---|---|---|---|---|
| Indonesia/East | 80-85 | 93 | 88 | 91 | 3 |
| Caribbean/US East Coast | 80-85 | 75 | 75 | 133 | 58 |
| Mediterranean/Mediterranean | 80-85 | 88 | 76 | 110 | 34 |
| Mediterranean/Northwest Europe | 80-85 | 82 | 71 | 106 | 35 |

*Sources: Argus Media and OPEC Secretariat.*

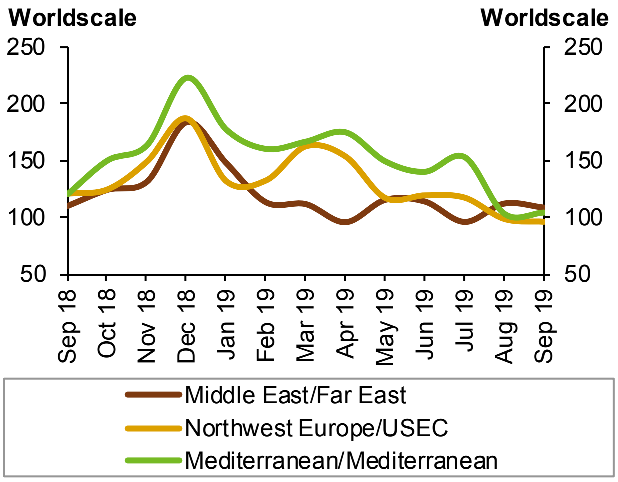
Ample availability have kept Aframax rates immune from some of the upward pressures facing other ship classes; however, tonnage lists tightened as the month progressed.

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




*Sources: Argus Media and Platts.*

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




*Sources: Argus Media and OPEC Secretariat.*

# Clean tanker freight rates

**Clean spot tanker freight rates** showed mixed movements in September, with East of Suez rates higher while West of Suez rates remained flat at relatively low levels.

Clean tanker spot freight rates **West of Suez** averaged WS104, unchanged from the previous month. The **Mediterranean-to-Mediterranean** and **Med-to-North West Europe** routes saw gains, increasing 1% to WS104 and WS112, respectively. Meanwhile, rates on the **NWE-to-USEC** route fell 3% to WS96.

To the **East of Suez**, clean tanker freight rates rose around 1.5% in September from the previous month to WS124, with the **Singapore-to-East** route increasing 6% to WS139, offsetting a 3% decline on the **Middle East-to-East** route which averaged WS109 points.

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

| | Size *1,000 DWT* | Jul 19 | Aug 19 | Sep 19 | *Change* Sep 19/Aug 19 |
|---|---|---|---|---|---|
| ***East of Suez*** | | | | | |
| Middle East/East | 30-35 | 96 | 112 | 109 | -4 |
| Singapore/East | 30-35 | 130 | 131 | 139 | 7 |
| ***West of Suez*** | | | | | |
| Northwest Europe/US East Coast | 33-37 | 118 | 99 | 96 | -3 |
| Mediterranean/Mediterranean | 30-35 | 153 | 103 | 104 | 1 |
| Mediterranean/Northwest Europe | 30-35 | 163 | 111 | 112 | 1 |

*Sources: Argus Media and OPEC Secretariat.*

# Oil Trade

*Preliminary data indicates that **US** crude oil imports declined by 5% m-o-m in September, averaging 6.6 mb/d. In annual terms, imports were 13% lower than the same period last year. US net product imports averaged 3.0 mb/d in September, almost 10% or 0.3 mb/d lower than in the same period in 2018. Combined, net crude and product imports averaged 0.5 mb/d in August, compared with 2.5 mb/d in August 2018 and 3.5 mb/d in the same month of 2017.*

*According to the most recent available data, **China**'s crude oil imports averaged just under 10 mb/d in August 2019, a gain of 3% m-o-m and more than 10% higher than the same month last year. With these increases, the country's crude imports returned back to the 10 mb/d mark first seen at the end of last year. So far this year, crude imports have averaged 9.9 mb/d, some 0.9 mb/d higher than the same period last year. Regarding products, the latest data leaves China's net product trade for the year at zero, as year-to-date total product imports and total product exports have averaged 1.38 mb/d, thus cancelling each other out.*

***India**'s crude imports were negligibly higher in August, averaging 4.6 mb/d, following a 2% increase m-o-m and a 6% rise compared with the same month last year. So far this year, India's crude oil imports have averaged 4.5 mb/d, also broadly in line with 2018 levels over the same period. India's net product exports have averaged 316 tb/d so far this year, some 38% lower than in the same period last year.*

***Japan**'s crude oil imports averaged 3.1 mb/d in August, representing a marginal 1% gain compared with the previous month but representing a loss of nearly 9% y-o-y. So far this year, Japan's crude imports have averaged 3.1 mb/d, broadly in line with the first eight months of 2018. As a consequence, Japan's net product imports have averaged 298 tb/d so far in 2019, representing a decline of 118 tb/d or 28% compared with the same period last year.*

*The latest available data shows **OECD Europe** crude imports averaged 10.9 mb/d in June, reflecting an increase of 142 tb/d m-o-m but indicating a 0.6 mb/d decline y-o-y. In the first half of this year, OECD Europe crude imports averaged 11.4 mb/d, representing an increase of 220 tb/d or 2% compared with the same period last year. OECD Europe net product imports averaged 626 tb/d in the first half of 2019, compared with 527 tb/d in the same period last year.*

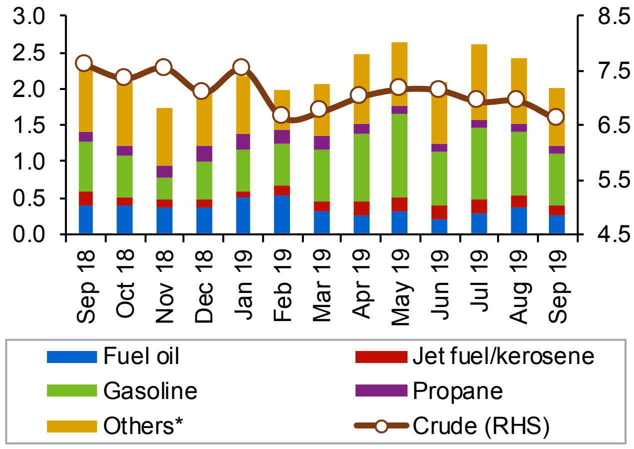
## US

Preliminary data indicates that **US crude oil imports** declined by 5% m-o-m in September, averaging 6.6 mb/d. In annual terms, crude imports were 13% lower compared to the same period last year. US crude imports in 3Q19 averaged 6.8 mb/d compared with 7.8 mb/d in the same period last year, representing a decline of 13%.

**US crude exports** in September averaged over 3.0 mb/d for the second time on record, with the first being the previous June. Crude exports rose by 8%, or 0.2 mb/d m-o-m, and over 50%, or 1.0 mb/d, y-o-y.

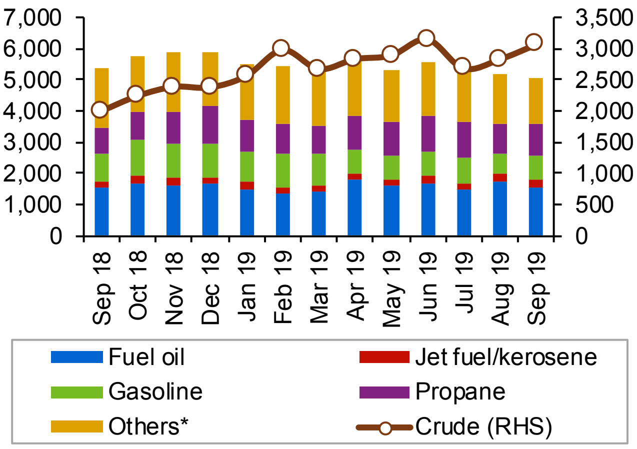
As a result, **US net crude imports** averaged 3.5 mb/d in September, a substantial decline of almost 0.6 mb/d m-o-m and a massive 2.0 mb/d lower than the same month last year. In 3Q19, US net crude imports averaged just under 4.0 mb/d, compared with 5.9 mb/d in the same period of 2018.

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




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

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




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

**US product imports** fell by 17% or 0.4 mb/d in September to average slightly above 2.0 mb/d. Product imports to the US in 3Q19 averaged 2.4 mb/d, representing a gain of 1% or just 31 tb/d compared with the same period last year.

**US product exports** stood at 5.0 mb/d in September, representing a decline of 3% or 143 tb/d m-o-m. In 3Q19, product exports from the US averaged 5.2 mb/d, some 4% or 0.2 mb/d lower than in the same period of 2018.

As a result, **US net product imports** averaged 3.0 mb/d in September, almost 10% or 0.3 mb/d lower than in the same period of 2018. Combined, **net crude and product imports** averaged 0.5 mb/d in September, compared with 2.5 mb/d in September 2018 and 3.5 mb/d in the same month of 2017.

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

| | Jul 19 | Aug 19 | Sep 19 | Change Sep 19/Aug 19 |
|---|---|---|---|---|
| Crude oil | 4,241 | 4,109 | 3,535 | -574 |
| Total products | -2,775 | -2,777 | -3,044 | -266 |
| **Total crude and products** | **1,466** | **1,332** | **491** | **-841** |

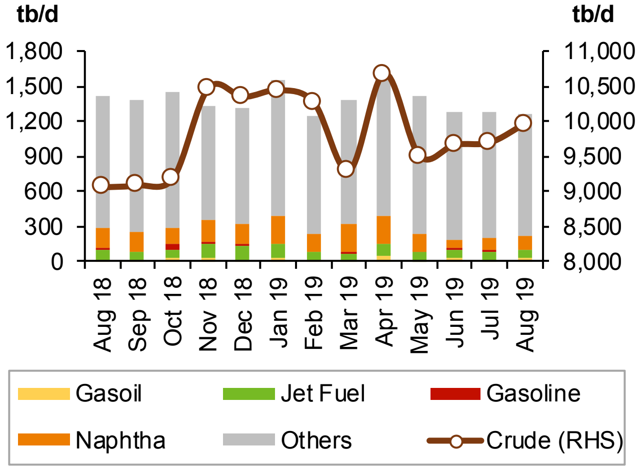
*Sources: US EIA and OPEC Secretariat.*

# China

The latest date for **China** shows the country's **crude oil imports** averaged just under 10 mb/d in August 2019, a gain of 3% m-o-m and more than 10% higher than the same month last year. With these increases, the country's crude imports returned back to the 10 mb/d mark first reached in November last year. Imports remained largely above 10 mb/d until May, but fell back as refineries went into maintenance. So far this year, crude imports have averaged 9.9 mb/d, some 0.9 mb/d higher than the same period last year.

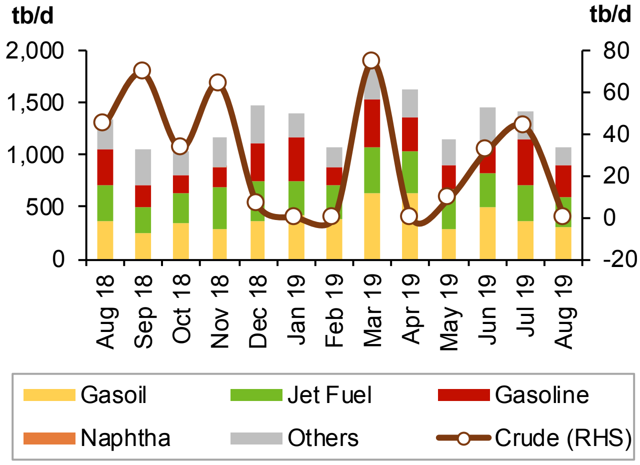
Saudi Arabia remained the top **crude supplier** to China with a share of 18.5% or 1.8 mb/d in imports, an increase of 11% over the previous month. Russia came in second with 14%, followed by Iraq with 11%, Angola with 9% and Oman with 6%.

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




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

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




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

On the products side, the latest data leaves China's **net product trade** balanced for the first eight months of the year, as year-to-date total product imports and total product both exports averaged 1.38 mb/d, leaving a net balance of zero. The composition of flows differed, however, with China's imports weighted toward naphtha, fuel oil and LPG, while its exports consist primarily of gasoline, jet fuel and diesel oil.

In August, **China's product imports** averaged 1.3 mb/d, broadly in line with import levels over the previous two months, following a two-year high of 1.6 mb/d reached in April. Naphtha and fuel oil imports experienced gains of 30% and 50% m-o-m, which helped to offset a 17% decline in LPG. Year-to-date, China's product imports declined by 2% compared with the same period last year.

**Product exports** from China were sharply lower in August, declining by 24% m-o-m to average 1.1 mb/d. Declines came in all major product categories, particularly gasoline, which was down by 32%, and fuel oil, which fell by 42% m-o-m. The only bright spot was LPG, which managed a 26% y-o-y gain. Year-to-date, China's product exports rose by 4% compared with the same period last year.

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 |
|---|---|---|---|---|
| Crude oil | 9,625 | 9,646 | 9,959 | 312 |
| Total products | -174 | -141 | 190 | 331 |
| **Total crude and products** | **9,451** | **9,505** | **10,148** | **643** |

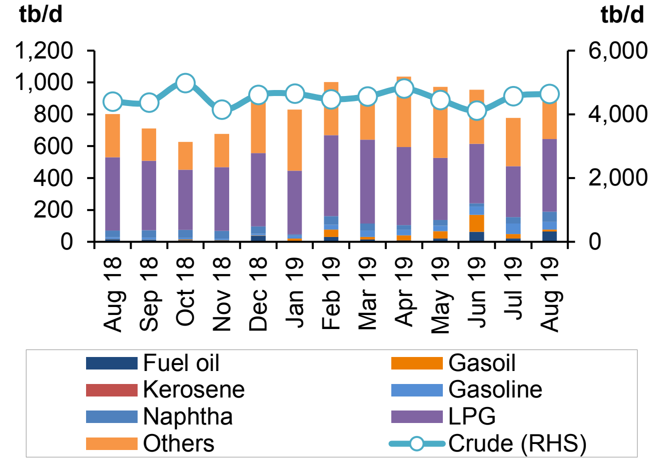
*Sources: Argus China Petroleum and China, Oil and Gas Petrochemicals and OPEC Secretariat.*

# India

**India's crude imports** were negligibly higher in August, averaging 4.6 mb/d, following a 2% increase m-o-m and a 6% rise compared with the same month last year. So far this year, India's crude oil imports have averaged 4.5 mb/d, broadly in line with 2018 levels over the same period.

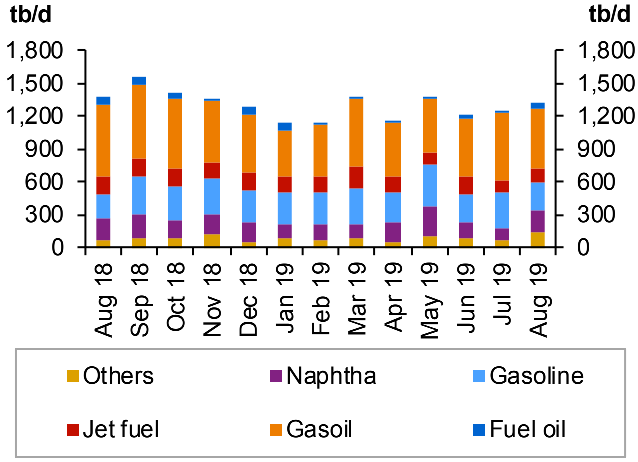
India's **product imports** averaged 948 tb/d in August, representing a gain of 22% m-o-m and 18% compared with the same month last year. Diesel and fuel oil imports saw strong declines of 55% and 28%, respectively. In contrast, fuel oil imports more than doubled, while naphtha rose 61% and LPG increased 42%. Y-o-y, total product imports have averaged 928 tb/d so far this year, some 16% higher than over the same period last year.

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




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

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




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

**India's product exports** in August were broadly unchanged from the previous month, edging up slightly to average 1.3 mb/d. The increase was mainly supported by naphtha, which rose by 70%, and to a lesser extent by kerosene and fuel oil. So far this year, India's product exports have averaged 1.2 mb/d in 2019, compared with 1.3 mb/d in the first eight months of last year, representing an increase of 6%.

As a result, **India's net product** exports have averaged 316 tb/d for the year up to August, some 38% lower than in the same period last year.

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 |
|---|---|---|---|---|
| Crude oil | 4,115 | 4,568 | 4,642 | 74 |
| Total products | -249 | -480 | -365 | 115 |
| **Total crude and products** | **3,867** | **4,088** | **4,277** | **189** |

*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.*

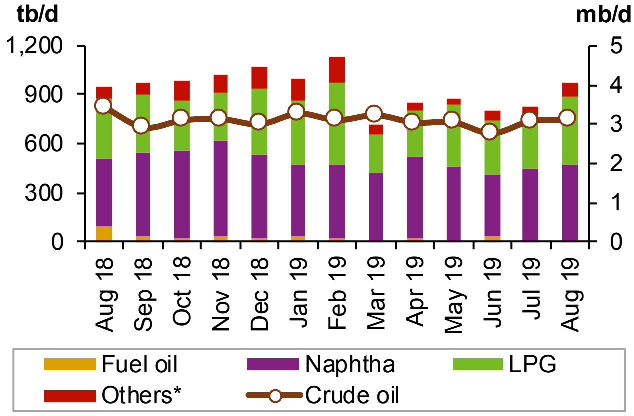
# Japan

**Japan's crude oil imports** averaged 3.1 mb/d in August, representing a marginal 1% gain compared with the previous month, but a y-o-y loss of almost 9%. So far this year, Japan's crude imports have averaged 3.1 mb/d, broadly in line with the first eight months of 2018.

The **UAE** was the top **supplier of crude** to Japan in August. Crude imports from the UAE averaged 1.1 mb/d in August, representing a 36% share of total imports, a 9% increase over the previous month. Saudi Arabia held the second spot with just under 30%, followed by Qatar with around 10%.

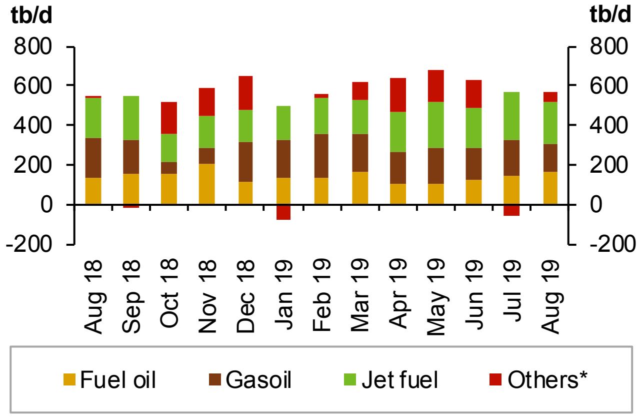
**Product imports**, including LPG, averaged 971 tb/d in August, representing a gain of 149 tb/d, or 18%, compared with the previous month. Among the major products, gasoline, naphtha, kerosene, LPG and gasoil contributed broadly to the m-o-m increase, with only fuel oil registering a decline. So far this year, total product imports have averaged 895 tb/d, representing a 64 tb/d, or 7%, decline compared with the same period last year.

**Graph 8 - 7: 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 - 8: 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.*

Meanwhile, **product exports**, including LPG, averaged 581 tb/d in August, representing a decline of 44 tb/d, or 7%, from the previous month. Gasoil and jet fuel were the main drivers behind the drop, while kerosene and fuel oil saw gains. So far this year, Japan's product exports have averaged 597 mb/d, a gain of almost 10% over the same period last year.

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 |
|---|---|---|---|---|
| Crude oil | 2,778 | 3,068 | 3,102 | 34 |
| Total products | 180 | 303 | 399 | 95 |
| **Total crude and products** | **2,957** | **3,371** | **3,501** | **129** |

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

As a consequence, Japan's **net product imports** have averaged 298 tb/d so far in 2019, representing a decline of 118 tb/d or 28% compared with the same period last year.

# OECD Europe

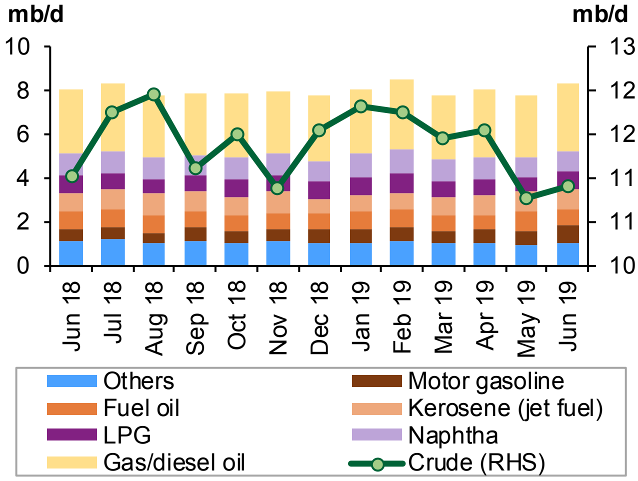
The latest available data shows **OECD Europe crude imports** averaged 10.9 mb/d in June, reflecting an increase of 142 tb/d m-o-m but a 0.6 mb/d decline y-o-y. In the first half of this year, OECD Europe crude imports have averaged 11.4 mb/d, representing a rise of 220 tb/d or 2% compared with the same period last year.

**Crude exports** averaged 1.9 mb/d in June, following a decline of 225 tb/d or 11% m-o-m and a sharper fall of 425 tb/d or 19% y-o-y. So far this year, OECD Europe crude exports have averaged just under 2.1 mb/d, slightly lower than average exports over the same period in 2018.

As a result, **OECD Europe net crude imports** averaged 9.3 mb/d in the second half of 2019, compared with 9.0 mb/d in the same period of 2018.

**Product imports** increased by 502 tb/d, or 6%, to average 8.3 mb/d in June. Among major products, LPG, gasoline and diesel oil were the major contributors to the m-o-m increase, with declines of between 9-20%. Declines were mainly registered in fuel oil, which fell by 10%. In the first half of 2019, product imports into OECD Europe have averaged just under 8.0 mb/d, representing a decline of 181 tb/d or 2% compared with the same period in 2018.

**Graph 8 - 9: OECD Europe imports of crude and petroleum products**

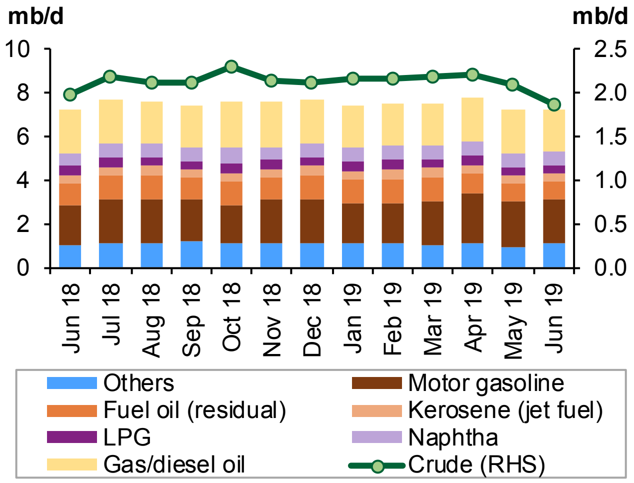



*Sources: IEA and OPEC Secretariat.*

OECD Europe **product exports** declined marginally m-o-m in June to average 7.2 mb/d. Naphtha, LPG, and fuel oil contributed minor losses. Gains came mainly from jet fuel, which rose 11%. In 2H19, OECD Europe product exports averaged 7.4 mb/d, representing a decline of 216 tb/d or 3% compared with the second half of 2018.

Consequently, **OECD Europe net product imports** averaged 626 tb/d in the first half of 2019, up from 527 tb/d in the same period last year.

**Graph 8 - 10: OECD Europe exports of crude and petroleum products**




*Sources: IEA and OPEC Secretariat.*

**Table 8 - 5: OECD Europe's crude and product net imports, tb/d**

| | Apr 19 | May 19 | Jun 19 | Change Jun 19/May 19 |
|---|---|---|---|---|
| Crude oil | 9,345 | 8,678 | 9,045 | 367 |
| Total products | 196 | 569 | 1,102 | 533 |
| **Total crude and products** | **9,541** | **9,247** | **10,147** | **900** |

*Sources: IEA and OPEC Secretariat.*

# FSU

**Total crude exports from the Former Soviet Union (FSU)** declined by 134 tb/d m-o-m, or around 2%, to average 7.2 mb/d in August 2019. Crude exports through Russian pipelines rose marginally compared with the previous month to remain at 4.4 mb/d in August 2019.

In the **Transneft** system, total shipments from the Black Sea fell by 82 tb/d m-o-m, or 11%, to average 677 tb/d in August. Total Baltic Sea exports fell by 92 tb/d m-o-m, with shipments from Ust-Luga down by 93 tb/d or 7%. Meanwhile, shipments via the Druzhba pipeline continued to recover from contamination disruptions that began in mid-April of this year, reaching over 1.0 mb/d, an increase of almost 60% or 0.6 mb/d from the average seen in 2Q19 and even slightly higher than last year's average. In Asia, Kozmino shipments rose by 52 tb/d m-o-m or 8% to average 731 tb/d. Exports to China via the ESPO pipeline averaged 637 tb/d, an increase of 10% or 58 tb/d m-o-m.

In the **Lukoil system**, exports via the Barents Sea rose by 28 tb/d to average 185 mb/d in August, while those from the Baltic Sea remained flat at 6 tb/d.

**Russia's Far East** total exports rose 24 tb/d from the previous month to average 347 tb/d.

**Central Asia's** total exports averaged 220 tb/d, a 2% decrease from the previous month.

**Black Sea** total exports declined by 59 tb/d m-o-m to average 1.4 mb/d, with the Novorossiyk port terminal (CPC) declining by 98 tb/d while the Supsa port terminal increased by 39 tb/d.

In the **Mediterranean**, BTC supplies decreased compared with the previous month, down by 135 tb/d m-o-m or 19% to average 579 tb/d.

**FSU total product exports** declined marginally in August, averaging just under 3.0 mb/d for the month. Movements were mixed, with naphtha, gasoil and VGO seeing losses, while gasoline, jet and fuel oil increased.

**Table 8 - 6: Recent FSU exports of crude and petroleum products by sources, tb/d**

| | | | 2018 | 1Q19 | 2Q19 | Jul 19 | Aug 19 |
|---|---|---|---|---|---|---|---|
| **Transneft system** | | | | | | | |
| | **Europe** | **Black Sea total** | **544** | **537** | **646** | **758** | **677** |
| | | Novorossiysk port terminal - total | 544 | 591 | 646 | 758 | 677 |
| | | *of which: Russian oil* | 383 | 402 | 459 | 554 | 494 |
| | | Others | 160 | 192 | 187 | 204 | 182 |
| | | **Baltic Sea total** | **1,306** | **1,381** | **1,721** | **1,391** | **1,299** |
| | | Primorsk port terminal - total | 758 | 891 | 1,010 | 1,136 | 1,137 |
| | | *of which: Russian oil* | 758 | 891 | 1,010 | 1,136 | 1,137 |
| | | Others | 0 | 0 | 0 | 0 | 0 |
| | | Ust-Luga port terminal - total | 549 | 660 | 711 | 255 | 162 |
| | | *of which: Russian oil* | 375 | 490 | 537 | 93 | 23 |
| | | Others | 173 | 167 | 174 | 162 | 139 |
| | | **Druzhba pipeline total** | **997** | **730** | **468** | **946** | **1,025** |
| | | *of which: Russian oil* | 965 | 959 | 448 | 908 | 976 |
| | | Others | 32 | 27 | 21 | 38 | 49 |
| | **Asia** | **Pacific ocean total** | **619** | **644** | **698** | **679** | **731** |
| | | Kozmino port terminal - total | 619 | 671 | 698 | 679 | 731 |
| | | **China (via ESPO pipeline) total** | **577** | **618** | **603** | **579** | **637** |
| | | China Amur | 577 | 611 | 603 | 579 | 637 |
| | **Total Russia's crude exports** | | **4,043** | **4,172** | **4,136** | **4,354** | **4,369** |
| **Lukoil system** | | | | | | | |
| | **Europe &** | **Barents Sea total** | **135** | **152** | **130** | **157** | **185** |
| | **North America** | Varandey offshore platform | 135 | 141 | 130 | 157 | 185 |
| | **Europe** | **Baltic Sea total** | **7** | **6** | **6** | **6** | **6** |
| | | Kalinigrad port terminal | 7 | 6 | 6 | 6 | 6 |
| **Other routes** | | | | | | | |
| | **Asia** | **Russian Far East total** | **371** | **407** | **388** | **323** | **347** |
| | | Aniva Bay port terminal | 119 | 112 | 114 | 92 | 70 |
| | | De Kastri port terminal | 252 | 285 | 274 | 231 | 277 |
| | | **Central Asia total** | **233** | **220** | **233** | **225** | **220** |
| | | Kenkiyak-Alashankou | 233 | 226 | 233 | 225 | 220 |
| | **Europe** | **Black Sea total** | **1,386** | **1,502** | **1,306** | **1,494** | **1,434** |
| | | Novorossiysk port terminal (CPC) | 1,323 | 1,334 | 1,247 | 1,455 | 1,357 |
| | | Supsa port terminal | 61 | 70 | 59 | 39 | 77 |
| | | Batumi port terminal | 2 | 0 | 0 | 0 | 0 |
| | | Kulevi port terminal | 0 | 0 | 0 | 0 | 0 |
| | | **Mediterranean Sea total** | **693** | **675** | **649** | **714** | **579** |
| | | Baku–Tbilisi–Ceyhan (BTC) | 693 | 662 | 649 | 714 | 579 |
| **Russian rail** | | | | | | | |
| | | **Russian rail** | **32** | **39** | **32** | **29** | **28** |
| | | *of which: Russian oil* | 32 | 36 | 32 | 29 | 28 |
| | | Others | 0 | 0 | 0 | 0 | 0 |
| | **Total FSU crude exports** | | **6,901** | **7,173** | **6,880** | **7,304** | **7,170** |
| **Products** | | | | | | | |
| | | Gasoline | 212 | 237 | 241 | 310 | 331 |
| | | Naphtha | 517 | 557 | 505 | 561 | 490 |
| | | Jet | 37 | 38 | 44 | 39 | 48 |
| | | Gasoil | 1,006 | 976 | 908 | 959 | 932 |
| | | Fuel oil | 930 | 943 | 913 | 943 | 1,002 |
| | | VGO | 277 | 252 | 236 | 173 | 172 |
| | **Total FSU product exports** | | **2,980** | **3,160** | **2,846** | **2,985** | **2,975** |
| **Total FSU oil exports** | | | **9,881** | **10,332** | **9,727** | **10,289** | **10,145** |

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

# Stock Movements

*Preliminary data for August showed that* ***total OECD commercial oil stocks*** *rose by 10 mb m-o-m, to stand at 2,937 mb, which was 85 mb higher than the same time one year ago, and 11 mb above the latest five-year average. Within the components, crude stocks fell by 21.9 mb m-o-m to stand at 28 mb below the latest five-year average, while product stocks rose by 32 mb m-o-m to remain 39 mb above the latest five-year average. In terms of* ***days of forward cover****, OECD commercial stocks rose by 0.4 days m-o-m in August to stand at 60.9 days, which was 1.6 days above the same period in 2018, but 1.2 days below the latest five-year average.*

*Preliminary data for September showed that* ***US total commercial oil stocks*** *fell by 2.4 mb m-o-m to stand at 1,296.7 mb, which was 23.5 mb above the same period a year ago, and 32 mb higher than the latest five-year average. Within the components, crude and product stocks fell by 0.3 mb and 2.1 mb m-o-m, respectively.*

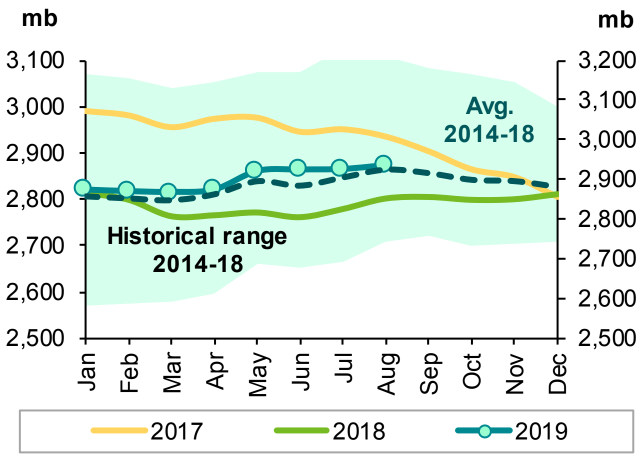
## OECD

Preliminary data for August showed that **total OECD commercial oil stocks** rose by 10 mb m-o-m for the fifth consecutive month, to stand at 2,937 mb, which was 85 mb higher than the same time one year ago, and 11 mb above the latest five-year average.

Within the components, crude stocks fell by 21.9 mb, while product stocks rose by 31.9 mb m-o-m. It should be noted that the overhang of total OECD commercial oil stocks has been reduced by around 290 mb since the 'Declaration of Cooperation' began at the beginning of 2017.

Within the regions, OECD America witnessed a stock draw, while OECD Asia Pacific and Europe registered a stock build.

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




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

OECD **commercial crude stocks** fell by 21.9 mb m-o-m in August, ending the month at 1,406 mb, which was 6 mb lower than the same time a year ago, and 28 mb below the latest five-year average. Compared to the previous month, OECD Americas and OECD Asia Pacific fell by 19.1 mb and 2.6 mb, respectively, while crude stocks in OECD Europe decreased slightly by 0.2 mb.

In contrast, OECD **total product inventories rose** by 31.9 mb m-o-m in August to stand at 1,530 mb, which was 91 mb above the same time a year ago, and around 39 mb above the latest five-year average. Within the OECD regions, product stocks in OECD America rose by 18.5 mb, while OECD Asia Pacific and Europe stocks rose by 5 mb and 8.4 mb, m-o-m, respectively.

In terms of **days of forward cover**, OECD commercial stocks rose by 0.4 days m-o-m in August to stand at 60.9 days, which was 1.6 days above the same period in 2018, but 1.2 days below the latest five-year average. Within the regions, OECD Americas was 1.2 days below the latest five-year average to stand at 60 days in August. OECD Europe's stocks in line with the latest five-year average to finish the month at 67.9 days. OECD Asia Pacific stocks were 4.0 days below the latest five-year average to stand at 50.6 days.

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 | Aug 18 |
|---|---|---|---|---|---|
| **Crude oil** | 1,465 | 1,428 | 1,406 | -21.9 | 1,412 |
| **Products** | 1,460 | 1,498 | 1,530 | 31.9 | 1,439 |
| **Total** | **2,925** | **2,927** | **2,937** | **10.0** | **2,852** |
| **Days of forward cover** | **60.3** | **60.5** | **60.9** | **0.4** | **59.3** |

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

# OECD Americas

**OECD Americas total commercial stocks** fell by 0.6 mb m-o-m in August to settle at 1,558 mb, which was 51 mb above a year ago, and 32 mb above the latest five-year average. Within the components, crude stocks fell by 19.1 mb, while products stocks rose by 18.5 mb m-o-m.

**Commercial crude oil stocks** in OECD Americas fell by 19.1 mb m-o-m in August to stand at 768 mb, which was 3.2 mb higher than the same time a year ago, but 2.8 mb below the latest five-year average. This drop could be attributed to higher US refinery runs, which rose by 210 tb/d to average 17.9 mb/d.

In contrast**, total product stocks** in OECD Americas rose by 18.5 mb m-o-m in August to stand at 790 mb, which was 48 mb above the same time one year ago, and 35 mb above the latest five-year average. Lower demand, combined with higher crude refinery output in the region, were behind the product stock build.

# OECD Europe

**OECD Europe's total commercial stocks** rose by 8.1 mb m-o-m in August, ending the month at 985 mb, which was 36.3 mb higher than the same time a year ago and 17.3 mb higher than the latest five-year average. Crude stocks fell by 0.2 mb, while products rose by 8.4 mb.

OECD Europe's **commercial crude stocks** fell by 0.2 mb m-o-m in August, ending the month at 429 mb, which was 5.2 mb above a year earlier, and 17 mb higher than the latest five-year average. The drop was driven by higher refinery throughput in the region.

In contrast, OECD Europe's **commercial product stocks** rose by 8.4 mb m-o-m to end August at 555 mb, which was 31 mb above the same time a year ago, and 0.3 mb above the latest five-year average. The build came on the back of lower consumption in the region.

# OECD Asia Pacific

**OECD Asia Pacific's total commercial oil stocks** rose by 2.4 mb m-o-m in August to stand at 394 mb, which was 2.5 mb lower than a year ago, and 38.1 mb below the latest five-year average. Within the components, crude fell m-o-m by 2.6 mb, while products stocks rose m-o-m by 5 mb.

OECD Asia Pacific's **crude inventories** fell by 2.6 mb m-o-m to end August at 209 mb, which was 14.4 mb lower than one year ago, and 42 mb below the latest five-year average.

In contrast, OECD Asia Pacific's **total product inventories** rose by 5 mb m-o-m to end August at 185 mb, which was 12 mb higher than the same time a year ago, and 3.8 mb above the latest five-year average.

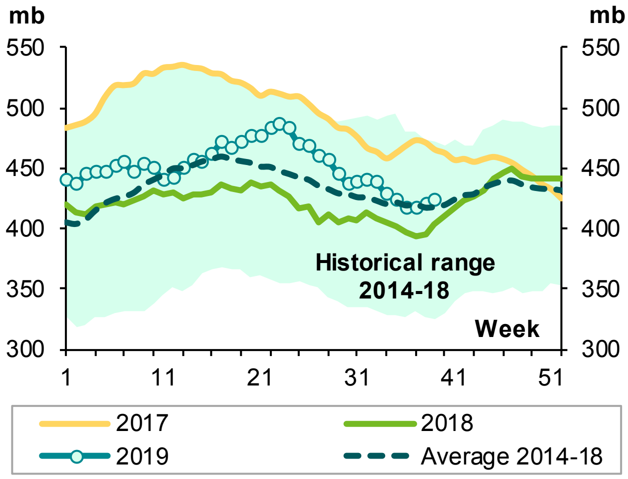
# US

Preliminary data for September showed that **US total commercial oil stocks** fell by 2.4 mb m-o-m to stand at 1,296.7 mb, which was 23.5 mb, or 1.8%, above the same period a year ago, and 32 mb, or 2.5%, higher than the latest five-year average. Within the components, crude and products stocks fell by 0.3 mb and 2.1 mb m-o-m respectively.

US **commercial crude stocks** fell in September to stand at 422.6. mb, which was 6 mb, or 1.4%, above the same time last year, but 1.2 mb, or 0.3%, below the latest five-year average. The drop resulted mainly from lower crude imports, while lower m-o-m refinery throughput limited a further decline in crude oil stocks. Inventories in Cushing, Oklahoma, rose by 0.6 mb to end September at 40.7 mb.

**Total product stocks** in September also fell by 2.1 mb m-o-m to stand at 874 mb, which was 17.5 mb, or 2%, above the level seen at the same time in 2018, and 33.2 mb, or 4.0%, above the latest five-year average. Within products, gasoline, jet fuel and propylene witnessed stock builds, while distillates, residual fuel and unfinished products saw stock draws.

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




*Sources: US EIA and OPEC Secretariat.*

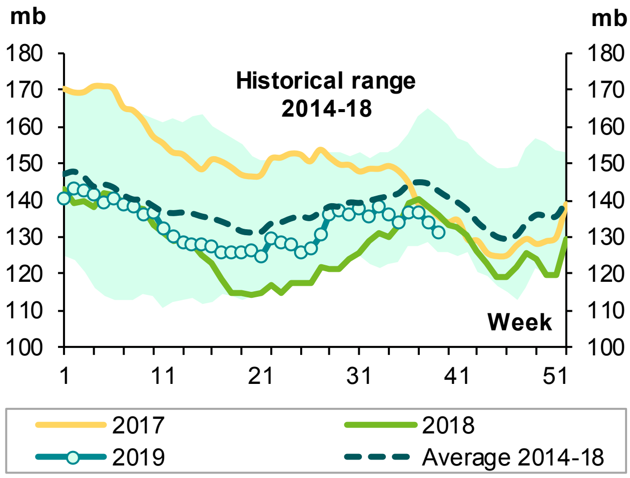
**Gasoline stocks** rose in September by 0.4 mb m-o-m, to settle at 230 mb, which was 10 mb, or 4.2%, lower than levels seen at the same time last year, but 4.3 mb, or 1.9%, above the latest five-year average. This monthly increase came on the back of lower demand, which dropped by around 400 tb/d to average 9.3 mb/d.

**Jet fuel stocks** were up by 1.8 mb m-o-m to stand at 44.4 mb in September, which was 2.4 mb, or 5.1%, less than the same time a year ago, but 1.3 mb, or 3%, above the latest five-year average.

In contrast, **distillate stocks** fell by 2.3 mb m-o-m in September to end the month at 131.3 mb, which was 6 mb, or 4.4%, lower than the same period a year ago, and 12 mb, or 8.4%, below the latest five-year average. The stock draw could be mainly attributed to lower distillate output as apparent demand saw a slight decrease.

**Residual fuel stocks** also decreased by 0.3 mb m-o-m to end September at 29.8 mb, which was 1.1 mb, or 3.9%, above the same time a year ago, but 6.1 mb, or 16.9%, lower than the latest five-year average.

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




*Sources: US EIA and OPEC Secretariat.*

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 | Aug 18 |
|---|---|---|---|---|---|
| **Crude oil** | **464.0** | **442.1** | **423.0** | **-19.1** | **407.6** |
| **Gasoline** | 229.7 | 235.2 | 229.6 | -5.7 | 236.3 |
| **Distillate fuel** | 130.8 | 137.8 | 133.5 | -4.3 | 132.3 |
| **Residual fuel oil** | 30.3 | 30.6 | 30.1 | -0.5 | 27.8 |
| **Jet fuel** | 40.6 | 43.3 | 42.6 | -0.6 | 41.8 |
| **Total products** | **846.2** | **872.6** | **876.1** | **3.5** | **826.2** |
| **Total** | **1,310.1** | **1,314.7** | **1,299.1** | **-15.6** | **1,233.8** |
| **SPR** | **644.8** | **644.8** | **644.8** | **0.0** | **660.0** |

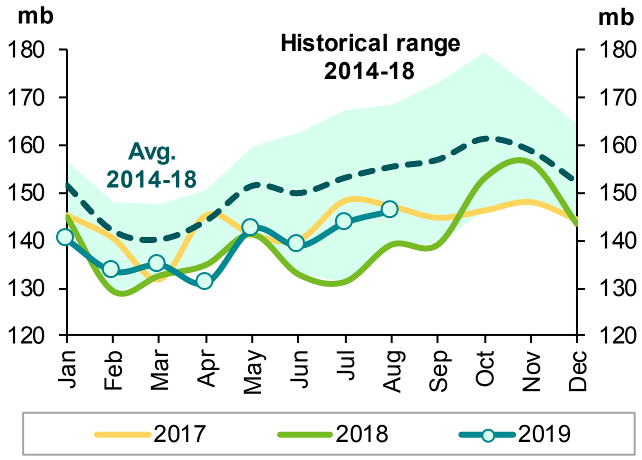
*Sources: US EIA and OPEC Secretariat.*

# Japan

In **Japan**, **total commercial oil stocks** rose by 2.4 mb m-o-m in August to settle at 146.1 mb. The level was 7.1 mb, or 5.1%, higher than one year ago, but 9.2 mb, or 5.9%, below the latest five-year average. Within the components, crude stocks fell m-o-m by 2.6 mb, while product inventories rose by 5.0 mb.

Japanese **commercial crude oil stocks** fell by 2.6 mb m-o-m in August to stand at 81 mb, which was 2.8 mb, or 3.5%, above the same period a year ago, but 7.6 mb, or 8.6%, below the latest five-year average. The drop was driven mainly by higher refinery throughput outpacing the m-o-m increase in crude oil imports.

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




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

In contrast, Japan's **total product inventories** rose by 5 mb m-o-m to end August at 65.1 mb, which was 4.3 mb, or 7.1%, higher than the same month last year, but 1.6 mb, or 2.4%, below the latest five-year average. Within the products, gasoline, distillates and naphtha stocks experienced stock builds, while residual fuel oil saw a stock draw.

**Gasoline stocks** rose by 0.4 mb m-o-m to stand at 10.1 mb in August, which was 0.1 mb, or 1.0 %, higher than a year ago, yet 0.1 mb, or 1.2 %, lower than the latest five-year average. The build was mainly driven by higher gasoline output, which increased by 12.7% from the previous month. Higher domestic sales, which increased by 11.9%, limited a further build in gasoline stocks.

**Distillate stocks** also rose by 4.7 mb m-o-m for the fourth consecutive month to stand at 31.4 mb in August. This was 1.8 mb, or 6.3% higher than the same time a year ago, but 0.4 mb, or 1.4%, lower than the latest five-year average. Within the distillate components, jet fuel and kerosene stocks rose by 14.8% and 26% m-o-m, respectively. Gasoil stocks also rose m-o-m in August by 8.5%. The build in all components was driven by higher output amid lower domestic sales.

In contrast, **total residual fuel oil stocks** fell by 0.1 mb m-o-m in August to stand at 12.3 mb, which was 0.6 mb, or 4.9%, below the same period a year ago, and 2.1 mb, or 14.7%, lower than the latest five-year average. Within the components, fuel oil A stocks rose by 3.1% on the back of lower domestic sales, while fuel B.C stocks fell m-o-m by 2.8%. The fall in fuel oil B.C stocks was driven by higher domestic sales.

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 | Aug 18 |
|---|---|---|---|---|---|
| **Crude oil** | **82.1** | **83.7** | **81.0** | **-2.6** | **78.3** |
| **Gasoline** | 9.5 | 9.7 | 10.1 | 0.4 | 10.0 |
| **Naphtha** | 10.7 | 11.3 | 11.4 | 0.1 | 8.3 |
| **Middle distillates** | 23.9 | 26.7 | 31.4 | 4.7 | 29.5 |
| **Residual fuel oil** | 12.6 | 12.4 | 12.3 | -0.1 | 12.9 |
| **Total products** | **56.7** | **60.1** | **65.1** | **5.0** | **60.8** |
| **Total**** | **138.9** | **143.7** | **146.1** | **2.4** | **139.0** |

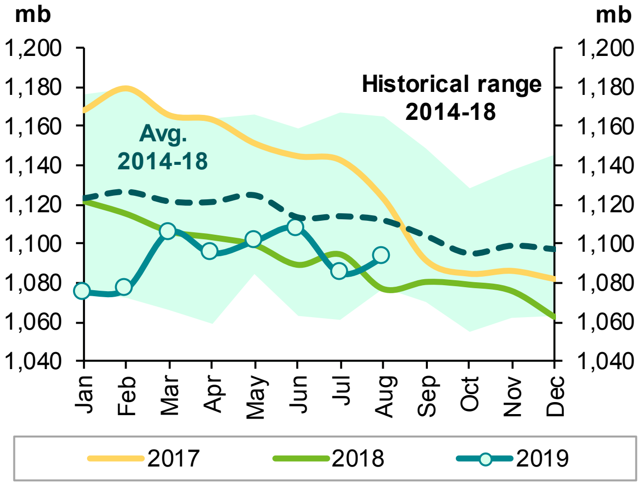
*Note: * At the end of the month.*
*** Includes crude oil and main products only.*
*Sources: Ministry of Economy, Trade and Industry of Japan and OPEC Secretariat.*

# EU plus Norway

Preliminary data for August showed that **total European commercial oil stocks** rose by 8.1 mb m-o-m to stand at 1,092.9 mb, which was 15.9 mb, or 1.5%, above the same time a year ago, yet 19.3 mb, or 1.7%, lower than the latest five-year average. Within the components, crude stocks fell slightly by 0.2 mb and product stocks rose by 8.4 mb.

European **crude inventories** fell in August to stand at 481 mb, which was 1.8 mb, or 0.4%, higher than the same period a year ago, and 0.9 mb, or 0.2%, higher than the latest five-year average. The drop came despite lower throughput which dropped by 250 tb/d to 10.4 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** rose by 8.4 mb m-o-m, ending August at 611.9 mb, which was 14.1 mb, or 2.4%, higher than the same time a year ago, but 20.2 mb, or 3.2%, lower than the latest five-year average. The build in products stocks could be attributed to lower demand in the region. Within products, all witnessed a stock build.

**Gasoline stocks** rose by 1.8 mb m-o-m in August reversing the drop of the last five months to stand at 109.9 mb, which was 6.5 mb, or 6.2%, higher than the same time a year ago, and 1.2 mb, or 1.1%, above the latest five-year average.

**Distillate stocks** rose by 4.8 mb m-o-m in August for the third consecutive month to stand at 413.4 mb, which was 7.4 mb, or 1.8%, higher than the same time last year, albeit 13.9 mb, or 3.2%, below the latest five-year average.

**Residual fuel and naphtha stocks** rose in August by 0.3 mb and 1.6 mb, m-o-m, respectively. At 60.4 mb, residual fuel stood at 1.2 mb, or 1.9%, lower than the same time one year ago, and 10.5 mb, or 14.8%, below the latest five-year average. Naphtha stocks ended August at 28.2 mb, which was 1.4 mb, or 5.3%, above than last year's August level and 3 mb, or 11.8%, higher than the latest five-year average.

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

| | Jun 19 | Jul 19 | Aug 19 | Change Aug 19/Jul 19 | Aug 18 |
|---|---|---|---|---|---|
| **Crude oil** | **494.2** | **481.2** | **481.0** | **-0.2** | **479.3** |
| **Gasoline** | 112.7 | 108.1 | 109.9 | 1.8 | 103.5 |
| **Naphtha** | 31.2 | 26.6 | 28.2 | 1.6 | 26.7 |
| **Middle distillates** | 405.8 | 408.7 | 413.4 | 4.8 | 406.0 |
| **Fuel oils** | 63.8 | 60.1 | 60.4 | 0.3 | 61.6 |
| **Total products** | **613.6** | **603.5** | **611.9** | **8.4** | **597.7** |
| **Total** | **1,107.8** | **1,084.7** | **1,092.9** | **8.1** | **1,077.0** |

*Sources: Argus, Euroilstock and OPEC Secretariat.*

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

## Singapore

At the end of August, **total product stocks in Singapore** rose by 4.5 mb m-o-m, reversing the drop of the last three months. The August level stood at 44 mb, which was 3.7 mb, or 9.1%, above the same period a year ago. Within products, all experienced a stock build, when compared to the previous month.

**Light distillate stocks** rose by 1.3 mb m-o-m to end August at 11.3 mb, which was 1.8 mb, or 14%, below the same period a year ago. This build may have been driven by higher imports to the hub.

**Middle distillate and fuel oil stocks** rose in August by 0.9 mb and 2.3 mb, m-o-m, respectively. At 11.2 mb, middle distillates stood at 0.6 mb, or 5.1%, higher than the same time one year ago. Fuel oil stocks ended August at 21.4 mb, which was 4.9 mb, or 30%, higher than last year's August level.

## ARA

**Total product stocks in ARA** fell by 3.4 mb m-o-m in August to settle at 45.2 mb, which was 5.8 mb, or 14.7%, above the same time a year ago. Within products, the picture was mixed: gasoline, jet fuel and gasoil experienced stock draws, while fuel oil and naphtha witnessed stock builds.

**Gasoline and gasoil stocks** fell by 1.9 mb and 1.6 mb m-o-m in August to stand at 8.7 mb and 20.8 mb, respectively. Gasoline stocks were 2.1 mb, or 31.8%, above last year's level. Gasoil stocks were also 2.5 mb, or 13.7%, higher than last year's level.

Both **fuel oil stocks and naphtha** rose in August by 0.3 mb and 0.2 mb, m-o-m, ending the month at 7.9 mb and 2 mb, respectively. Fuel oil stocks stood at 1.1 mb, or 16%, above the same month last year, while naphtha stocks remained at 0.3 mb, or 13%, lower when compared to the same time a year ago.

## Fujairah

During the week ending 30 September 2019, **total oil product stocks in Fujairah** rose by 1.35 mb w-o-w to stand at 20.11 mb, according to data from FEDCom and S&P Global Platts. At this level, total oil stocks were 0.84 mb higher than the same time a year ago. Within products, light and heavy distillates witnessed a stock build, while middle distillates registered a stock draw.

**Light distillate stocks** rose by 0.49 mb w-o-w to stand at 6.5 mb, which was 0.84 mb lower than a year ago at the same time. **Heavy distillate** stocks also rose by 1.03 mb to stand at 11.36 mb, which was 3.39 mb higher than the same level one a year ago. In contrast, **middle distillates** fell by 0.17 mb w-o-w to stand at 2.16 mb. At this level, they were 1.71 mb lower than the same week in 2018.

# Balance of Supply and Demand

***Demand for OPEC crude in 2019*** *was revised up by 0.1 mb/d from the previous report to stand at 30.7 mb/d, which is 0.9 mb/d lower than the 2018 level.*

***Demand for OPEC crude in 2020*** *was revised up by 0.2 mb/d from the previous report, to stand at 29.6 mb/d. This is 1.2 mb/d lower than the 2019 level.*

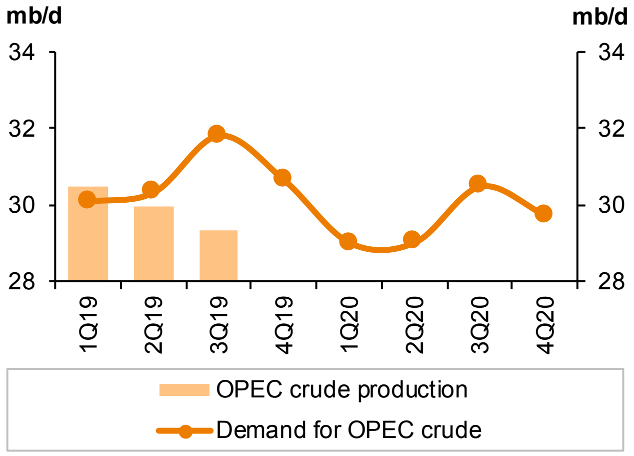
## Balance of supply and demand in 2019

**Demand for OPEC crude in 2019** was revised up by 0.1 mb/d from the previous report to stand at 30.7 mb/d, which is 0.9 mb/d lower than the 2018 level.

Compared with the previous monthly report, both 1Q19 and 2Q19 were revised down by 0.1 mb/d each, while 3Q19 and 4Q19 were revised up by 0.4 mb/d and 0.3 mb/d, respectively.

When compared to the same quarters in 2018, demand for OPEC crude in 1Q19 and 2Q19 were 1.9 mb/d and 1.4 mb/d lower. The 3Q19 remained at the same level as 3Q18, while 4Q19 is expected to show a drop of 0.2 mb/d.

**Graph 10 - 1: Balance of supply and demand, 2019-2020***




*Note: * 2019-2020 = Forecast.*
*Source: OPEC Secretariat.*

According to secondary sources, OPEC crude production averaged 30.5 mb/d in 1Q19, about 0.4 mb/d higher than the demand for OPEC crude in the same period, while in 2Q19 OPEC crude production averaged 30.0 mb/d, around 0.4 mb/d lower than the demand for OPEC crude. In 3Q19 OPEC crude production averaged 29.3 mb/d, around 2.5 mb/d lower than the “demand for OPEC crude”. This relatively high figure reflects preliminary data for world oil demand and non-OPEC supply for the first three quarters of 2019, as well as the available secondary sources for OPEC production. Going forward, this number will be adjusted further as more data becomes available.

**Table 10 - 1: Supply/demand balance for 2019, mb/d**

| | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | Change 2019/18 |
|---|---|---|---|---|---|---|---|
| **(a) World oil demand** | **98.82** | **98.65** | **98.93** | **100.70** | **100.89** | **99.80** | **0.98** |
| Non-OPEC supply | 62.44 | 63.76 | 63.76 | 64.11 | 65.39 | 64.26 | 1.82 |
| OPEC NGLs and non-conventionals | 4.76 | 4.80 | 4.82 | 4.76 | 4.86 | 4.81 | 0.05 |
| **(b) Total non-OPEC supply and OPEC NGLs** | **67.20** | **68.56** | **68.58** | **68.87** | **70.24** | **69.07** | **1.87** |
| **Difference (a-b)** | **31.62** | **30.09** | **30.34** | **31.82** | **30.65** | **30.73** | **-0.89** |
| **OPEC crude oil production** | **31.86** | **30.48** | **29.98** | **29.31** | | | |
| **Balance** | **0.24** | **0.39** | **-0.36** | **-2.51 *** | | | |

*Notes: * 3Q19 balance reflects preliminary data for world oil demand and non-OPEC supply for the first three quarters of 2019, as well as the available secondary sources for OPEC production.*
*Totals may not add up due to independent rounding.*
*Source: OPEC Secretariat.*

# Balance of supply and demand in 2020

**Demand for OPEC crude in 2020** was revised up by 0.2 mb/d from the previous report, to stand at 29.6 mb/d, around 1.2 mb/d lower than the 2019 level.

Compared with the last monthly report, 1Q20, 3Q20 and 4Q20 were revised up by 0.1 mb/d, 0.3 mb/d and 0.2 mb/d, respectively, while 2Q20 remained unchanged when compared to last month's assessment.

When compared to the same quarters in 2019, demand for OPEC crude in 1Q20 is forecast to be 1.1 mb/d lower, while both 2Q20 and 3Q20 are expected to show a drop of 1.3 mb/d each. The 4Q20 is projected to fall by 0.9 mb/d.

**Table 10 - 2: Supply/demand balance for 2020*, mb/d**

| | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 2020/19 |
|---|---|---|---|---|---|---|---|
| **(a) World oil demand** | **99.80** | **99.68** | **99.95** | **101.78** | **102.06** | **100.88** | **1.08** |
| Non-OPEC supply | 64.26 | 65.82 | 66.08 | 66.45 | 67.48 | 66.46 | 2.20 |
| OPEC NGLs and non-conventionals | 4.81 | 4.84 | 4.84 | 4.84 | 4.84 | 4.84 | 0.03 |
| **(b) Total non-OPEC supply and OPEC NGLs** | **69.07** | **70.66** | **70.92** | **71.29** | **72.32** | **71.30** | **2.23** |
| **Difference (a-b)** | **30.73** | **29.02** | **29.03** | **30.49** | **29.74** | **29.57** | **-1.16** |

*Notes: * 2019-2020 = 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

| | 2016 | 2017 | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **World demand** | | | | | | | | | | | | | |
| **OECD** | 47.00 | 47.54 | 47.93 | 47.55 | 47.42 | 48.50 | 48.44 | 47.98 | 47.63 | 47.48 | 48.56 | 48.52 | 48.05 |
| Americas | 24.89 | 25.07 | 25.55 | 25.11 | 25.54 | 26.08 | 26.02 | 25.69 | 25.33 | 25.72 | 26.24 | 26.19 | 25.87 |
| Europe | 13.98 | 14.32 | 14.31 | 13.99 | 14.23 | 14.68 | 14.30 | 14.30 | 13.94 | 14.20 | 14.66 | 14.28 | 14.27 |
| Asia Pacific | 8.14 | 8.15 | 8.08 | 8.45 | 7.65 | 7.73 | 8.12 | 7.99 | 8.37 | 7.56 | 7.66 | 8.05 | 7.91 |
| **DCs** | 31.56 | 32.13 | 32.62 | 32.97 | 32.87 | 33.44 | 33.07 | 33.09 | 33.54 | 33.44 | 34.07 | 33.72 | 33.70 |
| **FSU** | 4.63 | 4.70 | 4.82 | 4.75 | 4.74 | 5.02 | 5.11 | 4.91 | 4.83 | 4.81 | 5.11 | 5.19 | 4.99 |
| **Other Europe** | 0.70 | 0.72 | 0.74 | 0.75 | 0.71 | 0.75 | 0.84 | 0.76 | 0.76 | 0.72 | 0.76 | 0.85 | 0.77 |
| **China** | 11.80 | 12.32 | 12.71 | 12.63 | 13.19 | 12.98 | 13.43 | 13.06 | 12.91 | 13.50 | 13.28 | 13.77 | 13.37 |
| **(a) Total world demand** | **95.69** | **97.41** | **98.82** | **98.65** | **98.93** | **100.70** | **100.89** | **99.80** | **99.68** | **99.95** | **101.78** | **102.06** | **100.88** |
| **Non-OPEC supply** | | | | | | | | | | | | | |
| **OECD** | 24.86 | 25.69 | 28.29 | 29.30 | 29.62 | 29.66 | 30.81 | 29.85 | 31.13 | 31.25 | 31.73 | 32.29 | 31.60 |
| Americas | 20.59 | 21.48 | 24.04 | 25.01 | 25.57 | 25.63 | 26.35 | 25.64 | 26.67 | 26.95 | 27.36 | 27.65 | 27.16 |
| Europe | 3.85 | 3.82 | 3.84 | 3.85 | 3.57 | 3.54 | 3.95 | 3.73 | 3.93 | 3.78 | 3.80 | 4.08 | 3.90 |
| Asia Pacific | 0.42 | 0.39 | 0.41 | 0.43 | 0.48 | 0.49 | 0.51 | 0.48 | 0.54 | 0.53 | 0.56 | 0.56 | 0.55 |
| **DCs** | 13.54 | 13.40 | 13.47 | 13.41 | 13.46 | 13.67 | 13.85 | 13.60 | 13.82 | 13.84 | 13.85 | 14.01 | 13.88 |
| **FSU** | 13.85 | 14.05 | 14.29 | 14.55 | 14.16 | 14.28 | 14.23 | 14.30 | 14.29 | 14.41 | 14.32 | 14.60 | 14.41 |
| **Other Europe** | 0.13 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.12 |
| **China** | 4.09 | 3.98 | 4.02 | 4.10 | 4.13 | 4.11 | 4.10 | 4.11 | 4.13 | 4.14 | 4.11 | 4.13 | 4.13 |
| **Processing gains** | 2.19 | 2.22 | 2.25 | 2.28 | 2.28 | 2.28 | 2.28 | 2.28 | 2.33 | 2.33 | 2.33 | 2.33 | 2.33 |
| **Total non-OPEC supply** | **58.68** | **59.47** | **62.44** | **63.76** | **63.76** | **64.11** | **65.39** | **64.26** | **65.82** | **66.08** | **66.45** | **67.48** | **66.46** |
| **OPEC NGLs + non-conventional oils** | 4.58 | 4.64 | 4.76 | 4.80 | 4.82 | 4.76 | 4.86 | 4.81 | 4.84 | 4.84 | 4.84 | 4.84 | 4.84 |
| **(b) Total non-OPEC supply and OPEC NGLs** | **63.26** | **64.11** | **67.20** | **68.56** | **68.58** | **68.87** | **70.24** | **69.07** | **70.66** | **70.92** | **71.29** | **72.32** | **71.30** |
| **OPEC crude oil production (secondary sources)** | 32.21 | 32.01 | 31.86 | 30.48 | 29.98 | 29.31 | | | | | | | |
| **Total supply** | 95.47 | 96.12 | 99.06 | 99.04 | 98.56 | 98.19 | | | | | | | |
| **Balance (stock change and miscellaneous)** | -0.23 | -1.29 | 0.24 | 0.39 | -0.36 | -2.51 | | | | | | | |
| **OECD closing stock levels, *mb*** | | | | | | | | | | | | | |
| Commercial | 3,002 | 2,854 | 2,863 | 2,868 | 2,925 | | | | | | | | |
| SPR | 1,600 | 1,568 | 1,550 | 1,556 | 1,547 | | | | | | | | |
| **Total** | **4,602** | **4,421** | **4,413** | **4,424** | **4,472** | | | | | | | | |
| **Oil-on-water** | 1,102 | 1,025 | 1,058 | 1,013 | 995 | | | | | | | | |
| **Days of forward consumption in OECD, *days*** | | | | | | | | | | | | | |
| Commercial onland stocks | 63 | 60 | 60 | 60 | 60 | | | | | | | | |
| SPR | 34 | 33 | 32 | 33 | 32 | | | | | | | | |
| **Total** | **97** | **92** | **92** | **93** | **92** | | | | | | | | |
| **Memo items** | | | | | | | | | | | | | |
| **(a) - (b)** | **32.43** | **33.31** | **31.62** | **30.09** | **30.34** | **31.82** | **30.65** | **30.73** | **29.02** | **29.03** | **30.49** | **29.74** | **29.57** |

*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

| | 2016 | 2017 | 2018 | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 2019 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **World demand** | | | | | | | | | | | | | |
| **OECD** | - | - | - | -0.10 | -0.09 | - | - | -0.05 | -0.10 | -0.09 | - | - | -0.05 |
| Americas | - | - | - | -0.10 | -0.12 | - | - | -0.05 | -0.10 | -0.12 | - | - | -0.05 |
| Europe | - | - | - | 0.02 | 0.05 | - | - | 0.02 | 0.02 | 0.05 | - | - | 0.02 |
| Asia Pacific | - | - | - | -0.02 | -0.02 | - | - | -0.01 | -0.02 | -0.02 | - | - | -0.01 |
| **DCs** | - | - | - | - | -0.06 | 0.07 | - | - | - | -0.06 | 0.07 | - | - |
| **FSU** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Other Europe** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **China** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **(a) Total world demand** | **-** | **-** | **-** | **-0.10** | **-0.15** | **0.07** | **-** | **-0.04** | **-0.10** | **-0.15** | **0.07** | **-** | **-0.04** |
| **Non-OPEC supply** | | | | | | | | | | | | | |
| **OECD** | 0.01 | - | 0.03 | 0.01 | -0.02 | -0.47 | -0.21 | -0.17 | -0.17 | -0.17 | -0.17 | -0.17 | -0.17 |
| Americas | 0.01 | - | 0.02 | - | 0.01 | -0.27 | -0.21 | -0.12 | -0.12 | -0.12 | -0.12 | -0.12 | -0.12 |
| Europe | - | - | 0.01 | 0.01 | -0.03 | -0.19 | - | -0.05 | -0.05 | -0.05 | -0.05 | -0.05 | -0.05 |
| Asia Pacific | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **DCs** | 0.01 | 0.01 | -0.01 | -0.02 | -0.01 | -0.06 | - | -0.02 | -0.02 | -0.02 | -0.02 | -0.02 | -0.02 |
| **FSU** | - | - | - | - | - | 0.21 | -0.05 | 0.04 | -0.04 | -0.03 | -0.03 | -0.03 | -0.03 |
| **Other Europe** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **China** | - | - | - | - | - | 0.06 | - | 0.02 | 0.02 | 0.07 | 0.04 | 0.02 | 0.03 |
| **Processing gains** | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total non-OPEC supply** | 0.01 | 0.01 | 0.02 | -0.01 | -0.03 | -0.25 | -0.26 | -0.14 | -0.22 | -0.15 | -0.18 | -0.20 | -0.19 |
| **OPEC NGLs + non-conventionals** | - | - | - | - | - | -0.11 | - | -0.03 | -0.03 | -0.03 | -0.03 | -0.03 | -0.03 |
| **(b) Total non-OPEC supply and OPEC NGLs** | **0.01** | **0.01** | **0.02** | **-0.01** | **-0.03** | **-0.36** | **-0.26** | **-0.17** | **-0.24** | **-0.18** | **-0.21** | **-0.23** | **-0.22** |
| ***OPEC crude oil production (secondary sources)*** | **-** | **-** | **-** | **-** | **0.01** | | | | | | | | |
| **Total supply** | 0.01 | 0.01 | 0.02 | - | -0.02 | | | | | | | | |
| **Balance (stock change and miscellaneous)** | 0.01 | 0.01 | 0.02 | 0.10 | 0.13 | | | | | | | | |
| **OECD closing stock levels (mb)** | | | | | | | | | | | | | |
| Commercial | - | - | -9 | -5 | -30 | | | | | | | | |
| SPR | - | - | 3 | 4 | 7 | | | | | | | | |
| **Total** | - | - | -6 | -1 | -23 | | | | | | | | |
| **Oil-on-water** | - | - | - | - | - | | | | | | | | |
| **Days of forward consumption in OECD** | | | | | | | | | | | | | |
| Commercial onland stocks | - | - | - | - | -1 | | | | | | | | |
| SPR | - | - | - | - | - | | | | | | | | |
| **Total** | **-** | **-** | **-** | **-** | **-** | | | | | | | | |
| **Memo items** | | | | | | | | | | | | | |
| **(a) - (b)** | **-0.01** | **-0.01** | **-0.02** | **-0.09** | **-0.12** | **0.43** | **0.26** | **0.12** | **0.14** | **0.03** | **0.28** | **0.23** | **0.17** |

*Note: * This compares Table 11 - 1 in this issue of the MOMR with Table 11 - 1 in the September 2019 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

| | 2016 | 2017 | 2018 | 2Q17 | 3Q17 | 4Q17 | 1Q18 | 2Q18 | 3Q18 | 4Q18 | 1Q19 | 2Q19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Closing stock levels, mb** | | | | | | | | | | | | |
| **OECD onland commercial** | **3,002** | **2,854** | **2,863** | **3,019** | **2,969** | **2,854** | **2,805** | **2,803** | **2,856** | **2,863** | **2,868** | **2,925** |
| Americas | 1,598 | 1,498 | 1,542 | 1,596 | 1,571 | 1,498 | 1,468 | 1,471 | 1,541 | 1,542 | 1,508 | 1,561 |
| Europe | 989 | 943 | 922 | 999 | 965 | 943 | 959 | 944 | 925 | 922 | 980 | 976 |
| Asia Pacific | 415 | 412 | 399 | 424 | 433 | 412 | 378 | 388 | 390 | 399 | 380 | 388 |
| **OECD SPR** | **1,600** | **1,568** | **1,550** | **1,588** | **1,578** | **1,568** | **1,576** | **1,573** | **1,569** | **1,550** | **1,556** | **1,547** |
| Americas | 697 | 665 | 651 | 681 | 676 | 665 | 667 | 662 | 662 | 651 | 651 | 647 |
| Europe | 481 | 480 | 479 | 484 | 479 | 480 | 486 | 489 | 485 | 479 | 487 | 483 |
| Asia Pacific | 421 | 423 | 420 | 423 | 423 | 423 | 422 | 422 | 422 | 420 | 417 | 417 |
| **OECD total** | **4,602** | **4,421** | **4,413** | **4,608** | **4,547** | **4,421** | **4,381** | **4,376** | **4,424** | **4,413** | **4,424** | **4,472** |
| **Oil-on-water** | **1,102** | **1,025** | **1,058** | **1,052** | **998** | **1,025** | **1,036** | **1,014** | **1,041** | **1,058** | **1,013** | **995** |
| **Days of forward consumption in OECD, days** | | | | | | | | | | | | |
| **OECD onland commercial** | **63** | **60** | **60** | **63** | **62** | **60** | **59** | **58** | **59** | **60** | **60** | **60** |
| Americas | 64 | 59 | 60 | 63 | 62 | 59 | 58 | 57 | 60 | 61 | 59 | 60 |
| Europe | 69 | 66 | 65 | 68 | 67 | 67 | 67 | 64 | 65 | 66 | 69 | 66 |
| Asia Pacific | 51 | 51 | 50 | 54 | 52 | 48 | 49 | 50 | 48 | 47 | 50 | 50 |
| **OECD SPR** | **34** | **33** | **33** | **33** | **33** | **33** | **33** | **33** | **33** | **33** | **33** | **32** |
| Americas | 28 | 26 | 26 | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 25 | 25 |
| Europe | 34 | 34 | 34 | 33 | 33 | 34 | 34 | 33 | 34 | 34 | 34 | 33 |
| Asia Pacific | 52 | 52 | 53 | 54 | 50 | 49 | 54 | 54 | 52 | 50 | 54 | 54 |
| **OECD total** | **97** | **92** | **93** | **96** | **94** | **92** | **92** | **91** | **92** | **93** | **93** | **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

| | 2016 | 2017 | 2018 | 3Q19 | 4Q19 | 2019 | Change 19/18 | 1Q20 | 2Q20 | 3Q20 | 4Q20 | 2020 | Change 20/19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| US | 13.6 | 14.4 | 16.7 | 18.4 | 19.0 | 18.4 | 1.7 | 19.3 | 19.9 | 20.1 | 20.3 | 19.9 | 1.5 |
| Canada | 4.5 | 4.8 | 5.2 | 5.3 | 5.4 | 5.3 | 0.1 | 5.5 | 5.2 | 5.5 | 5.6 | 5.4 | 0.1 |
| Mexico | 2.5 | 2.2 | 2.1 | 1.9 | 1.9 | 1.9 | -0.2 | 1.9 | 1.8 | 1.8 | 1.7 | 1.8 | -0.1 |
| **OECD Americas** | **20.6** | **21.5** | **24.0** | **25.6** | **26.4** | **25.6** | **1.6** | **26.7** | **26.9** | **27.4** | **27.6** | **27.2** | **1.5** |
| Norway | 2.0 | 2.0 | 1.9 | 1.6 | 1.9 | 1.7 | -0.1 | 1.9 | 1.8 | 1.9 | 2.1 | 1.9 | 0.2 |
| UK | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 0.0 | 1.2 | 1.1 | 1.1 | 1.2 | 1.1 | 0.0 |
| Denmark | 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 |
| Other OECD Europe | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.0 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.0 |
| **OECD Europe** | **3.9** | **3.8** | **3.8** | **3.5** | **3.9** | **3.7** | **-0.1** | **3.9** | **3.8** | **3.8** | **4.1** | **3.9** | **0.2** |
| Australia | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 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** | **0.4** | **0.4** | **0.4** | **0.5** | **0.5** | **0.5** | **0.1** | **0.5** | **0.5** | **0.6** | **0.6** | **0.5** | **0.1** |
| **Total OECD** | **24.9** | **25.7** | **28.3** | **29.7** | **30.8** | **29.8** | **1.6** | **31.1** | **31.3** | **31.7** | **32.3** | **31.6** | **1.8** |
| Brunei | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| India | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.0 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 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 | 0.6 | 0.7 | 0.7 | 0.0 | 0.7 | 0.7 | 0.7 | 0.7 | 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 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 |
| Asia others | 0.3 | 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** | **3.6** | **3.6** | **3.4** | **3.4** | **3.4** | **-0.1** | **3.4** | **3.4** | **3.4** | **3.4** | **3.4** | **0.0** |
| Argentina | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 |
| Brazil | 3.1 | 3.3 | 3.3 | 3.6 | 3.7 | 3.5 | 0.2 | 3.8 | 3.7 | 3.8 | 3.9 | 3.8 | 0.3 |
| Colombia | 0.9 | 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 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.0 |
| **Latin America** | **5.1** | **5.2** | **5.2** | **5.5** | **5.6** | **5.4** | **0.2** | **5.6** | **5.6** | **5.6** | **5.7** | **5.6** | **0.2** |
| 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 |
| Qatar | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| **Middle East** | **3.3** | **3.1** | **3.2** | **3.2** | **3.2** | **3.2** | **0.0** | **3.2** | **3.2** | **3.3** | **3.3** | **3.3** | **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 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 |
| Ghana | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 |
| South Africa | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Sudans | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.0 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 |
| Africa other | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| **Africa** | **1.5** | **1.5** | **1.5** | **1.5** | **1.6** | **1.5** | **0.0** | **1.6** | **1.6** | **1.6** | **1.6** | **1.6** | **0.0** |
| **Total DCs** | **13.5** | **13.4** | **13.5** | **13.7** | **13.9** | **13.6** | **0.1** | **13.8** | **13.8** | **13.8** | **14.0** | **13.9** | **0.3** |
| **FSU** | **13.9** | **14.1** | **14.3** | **14.3** | **14.2** | **14.3** | **0.0** | **14.3** | **14.4** | **14.3** | **14.6** | **14.4** | **0.1** |
| Russia | 11.1 | 11.2 | 11.3 | 11.4 | 11.3 | 11.4 | 0.1 | 11.3 | 11.5 | 11.5 | 11.6 | 11.5 | 0.1 |
| Kazakhstan | 1.6 | 1.7 | 1.8 | 1.7 | 1.8 | 1.8 | 0.0 | 1.9 | 1.8 | 1.7 | 1.9 | 1.8 | 0.0 |
| Azerbaijan | 0.8 | 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 | 0.3 | 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** | **4.1** | **4.0** | **4.0** | **4.1** | **4.1** | **4.1** | **0.1** | **4.1** | **4.1** | **4.1** | **4.1** | **4.1** | **0.0** |
| **Non-OPEC production** | **56.5** | **57.3** | **60.2** | **61.8** | **63.1** | **62.0** | **1.8** | **63.5** | **63.8** | **64.1** | **65.2** | **64.1** | **2.1** |
| Processing gains | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 0.0 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 0.1 |
| **Non-OPEC supply** | **58.7** | **59.5** | **62.4** | **64.1** | **65.4** | **64.3** | **1.8** | **65.8** | **66.1** | **66.5** | **67.5** | **66.5** | **2.2** |
| OPEC NGL | 4.5 | 4.5 | 4.7 | 4.7 | 4.8 | 4.7 | 0.1 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 0.0 |
| OPEC Non-conventional | 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 |
| **OPEC (NGL+NCF)** | **4.6** | **4.6** | **4.8** | **4.8** | **4.9** | **4.8** | **0.0** | **4.8** | **4.8** | **4.8** | **4.8** | **4.8** | **0.0** |
| **Non-OPEC & OPEC (NGL+NCF)** | **63.3** | **64.1** | **67.2** | **68.9** | **70.2** | **69.1** | **1.9** | **70.7** | **70.9** | **71.3** | **72.3** | **71.3** | **2.2** |

*Note: OECD Americas includes Chile.*

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

*Source: OPEC Secretariat.*

## Table 11 - 5: World rig count, units

| | 2016 | 2017 | 2018 | Change 2018/17 | 4Q18 | 1Q19 | 2Q19 | 3Q19 | Aug 19 | Sep 19 | Change Sep/Aug |
|---|---|---|---|---|---|---|---|---|---|---|---|
| US | 509 | 875 | 1,031 | *157* | 1,073 | 1,045 | 990 | 920 | 926 | 879 | *-47* |
| Canada | 131 | 207 | 191 | *-15* | 177 | 185 | 83 | 131 | 141 | 132 | *-9* |
| Mexico | 26 | 17 | 27 | *9* | 32 | 26 | 34 | 38 | 33 | 44 | *11* |
| OECD Americas | 665 | 1,099 | 1,249 | *150* | 1,282 | 1,257 | 1,106 | 1,089 | 1,100 | 1,055 | *-45* |
| Norway | 17 | 15 | 15 | *0* | 17 | 15 | 17 | 18 | 19 | 17 | *-2* |
| UK | 9 | 9 | 7 | *-2* | 8 | 13 | 16 | 16 | 18 | 15 | *-3* |
| OECD Europe | 96 | 92 | 85 | *-7* | 90 | 92 | 159 | 190 | 193 | 176 | *-17* |
| OECD Asia Pacific | 7 | 15 | 21 | *5* | 23 | 24 | 29 | 31 | 30 | 31 | *1* |
| **Total OECD** | **768** | **1,206** | **1,355** | ***149*** | **1,396** | **1,372** | **1,295** | **1,310** | **1,323** | **1,262** | ***-61*** |
| Other Asia* | 204 | 208 | 222 | *14* | 224 | 232 | 225 | 217 | 216 | 217 | *1* |
| Latin America | 111 | 112 | 123 | *11* | 123 | 128 | 122 | 123 | 128 | 111 | *-17* |
| Middle East | 75 | 68 | 65 | *-4* | 62 | 66 | 69 | 67 | 67 | 68 | *1* |
| Africa | 43 | 38 | 45 | *7* | 50 | 54 | 52 | 50 | 48 | 56 | *8* |
| **Total DCs** | **432** | **426** | **454** | ***28*** | **460** | **481** | **468** | **457** | **459** | **452** | ***-7*** |
| **Non-OPEC rig count** | **1,200** | **1,632** | **1,809** | ***177*** | **1,855** | **1,853** | **1,763** | **1,767** | **1,782** | **1,714** | ***-68*** |
| Algeria | 54 | 54 | 50 | *-4* | 47 | 47 | 49 | 42 | 44 | 42 | *-2* |
| Angola | 6 | 3 | 4 | *1* | 5 | 5 | 5 | 4 | 4 | 4 | *0* |
| Congo | 2 | 2 | 3 | *1* | 4 | 4 | 4 | 3 | 3 | 2 | *-1* |
| Ecuador | 4 | 6 | 8 | *2* | 11 | 9 | 8 | 9 | 8 | 9 | *1* |
| Equatorial Guinea** | 1 | 1 | 1 | *0* | 1 | 1 | 1 | 1 | 1 | 1 | *0* |
| Gabon | 1 | 1 | 3 | *3* | 4 | 7 | 6 | 7 | 6 | 8 | *2* |
| Iran** | 143 | 156 | 157 | *2* | 157 | 157 | 157 | 157 | 157 | 157 | *0* |
| Iraq | 43 | 49 | 59 | *10* | 61 | 65 | 75 | 77 | 77 | 77 | *0* |
| Kuwait | 44 | 54 | 51 | *-3* | 45 | 44 | 44 | 46 | 47 | 46 | *-1* |
| Libya | 1 | 1 | 5 | *4* | 9 | 11 | 15 | 16 | 16 | 16 | *0* |
| Nigeria | 6 | 9 | 13 | *5* | 12 | 14 | 14 | 16 | 15 | 17 | *2* |
| Saudi Arabia | 125 | 118 | 117 | *-1* | 123 | 118 | 115 | 118 | 114 | 114 | *0* |
| UAE | 51 | 52 | 55 | *4* | 57 | 58 | 59 | 64 | 63 | 67 | *4* |
| Venezuela | 58 | 49 | 32 | *-17* | 26 | 25 | 23 | 25 | 25 | 25 | *0* |
| **OPEC rig count** | **537** | **553** | **558** | ***5*** | **563** | **565** | **576** | **585** | **580** | **585** | ***5*** |
| **World rig count***** | **1,737** | **2,185** | **2,368** | ***183*** | **2,418** | **2,418** | **2,338** | **2,352** | **2,362** | **2,299** | ***-63*** |
| *of which:* | | | | | | | | | | | |
| Oil | 1,313 | 1,678 | 1,886 | *209* | 1,934 | 1,936 | 1,827 | 1,833 | 1,841 | 1,804 | *-37* |
| Gas | 370 | 466 | 448 | *-17* | 453 | 455 | 482 | 486 | 490 | 460 | *-30* |
| Others | 54 | 42 | 33 | *-9* | 31 | 26 | 29 | 32 | 31 | 35 | *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*

| | | |
|---|---|---|
| up 2.74 in September | September 2019 | 62.36 |
| | August 2019 | 59.62 |
| | **Year-to-date** | **64.38** |

## September OPEC crude production

*mb/d, according to secondary sources*

| | | |
|---|---|---|
| down 1.32 in September | September 2019 | 28.49 |
| | August 2019 | 29.81 |

## Economic growth rate

*per cent*

| | World | OECD | US | Japan | Euro-zone | China | India |
|---|---|---|---|---|---|---|---|
| **2019** | 3.0 | 1.6 | 2.3 | 0.9 | 1.2 | 6.2 | 6.1 |
| **2020** | 3.0 | 1.4 | 1.8 | 0.3 | 1.1 | 5.9 | 6.7 |

## Supply and demand

*mb/d*

| **2019** | | **19/18** | **2020** | | **20/19** |
|---|---|---|---|---|---|
| World demand | 99.8 | 1.0 | World demand | 100.9 | 1.1 |
| Non-OPEC supply | 64.3 | 1.8 | Non-OPEC supply | 66.5 | 2.2 |
| OPEC NGLs | 4.8 | 0.0 | OPEC NGLs | 4.8 | 0.0 |
| **Difference** | **30.7** | **–0.9** | **Difference** | **29.6** | **–1.2** |

## OECD commercial stocks

*mb*

| | Jun 19 | Jul 19 | Aug 19 | Aug 19/Jul 19 | Aug 18 |
|---|---|---|---|---|---|
| Crude oil | 1,465 | 1,428 | 1,406 | –21.9 | 1,412 |
| Products | 1,460 | 1,498 | 1,530 | 31.9 | 1,439 |
| **Total** | **2,925** | **2,927** | **2,937** | **10.0** | **2,852** |
| Days of forward cover | 60.3 | 60.5 | 60.9 | 0.4 | 59.3 |

**Next report to be issued on 14 November 2019.**