



Oil Demand Growth Improving in 2020

Summary

- According to OPEC forecasts, an expected uptick in global trade, helped along by a recent improvement in US-Chinese trade relations, should see oil demand growth trend higher this year, at 1.2 percent, or 1.2 million barrels per day (mbpd), versus 930 thousand barrels per day (tbpd) in 2019.
- On the supply side, OPEC and partners (OPEC+) recently agreed to moderate oil production for the initial three months of 2020. Beyond then, based on OPEC's projections for demand of its own oil throughout 2020, we would expect an extension in OPEC+ production agreement (perhaps by piecemeal) beyond March 2020.
- Despite sizable yearly rises, the pace of US oil output growth trended downwards in 2019, in-line with a falling number of active oil rigs. In 2020, the Energy Information Administration (EIA) expects the number of rigs to continue declining as producers cut back on capital spending, but this will only translate to significantly slower annual oil output growth in 2021.
- Earlier this month, oil prices rose sharply after regional geo-political tensions flared up again. Although prices have retreated since then, the risk of a prolonged escalation in regional geo-politics could result in a more lasting risk premium for oil prices.
- At the same, whilst a recent de-escalation in trade tensions has contributed to improving the outlook for oil demand growth, the fundamental issues driving the initial dispute are still unresolved, meaning associated uncertainties linked to oil prices are also likely to continue.

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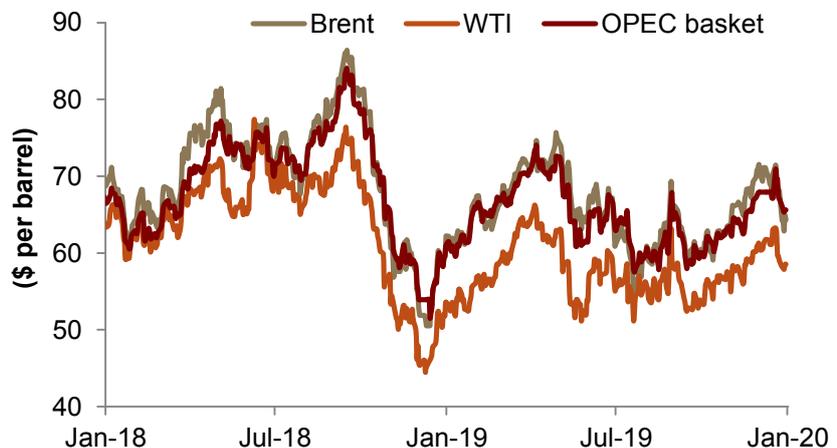
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Figure 1: Brent oil prices around \$65 per barrel





OPEC data showed global oil demand grew by 1 percent year-on-year, by an average of 930 thousand barrels per day (tbpd) in 2019...

...the lowest growth since 2012.

Looking ahead, oil demand is expected to trend only marginally higher this year, at 1.2 percent, or 1.2 million barrels per day (mbpd).

Latest data from the EIA shows that overall US energy consumption was flat year-on-year in 2019.

Looking ahead, the EIA expects energy consumption to rise by 1 percent year-on-year in 2020...

...although gasoline demand is expected to remain flat...

Oil demand growth improving marginally in 2020:

OPEC data showed global oil demand grew by 1 percent year-on-year, by an average of 930 thousand barrels per day (tbpd) in 2019, the lowest growth since 2012. One of the main reasons behind the subdued level of growth was a broad-based slowdown in manufacturing and global trade due to the US-Chinese trade dispute. Looking ahead, an expected uptick in global trade, helped along by a recent improvement in US-Chinese trade relations, should prevent any further slowdown in growth. Nevertheless, oil demand is expected to trend only marginally higher this year, at 1.2 percent, or 1.2 million barrels per day (mbpd), with China, Other Asia (including India) and Americas (including the US) making up 73 percent of the total growth in 2020 (Figure 2). More specifically, OPEC expects to see oil demand growth from US, China and India, to make up 57 percent of the total growth in 2020 (versus 68 percent in 2018 and 59 percent in 2019). At the same time, a recovery in demand from both Latin America and Middle East regions is expected to compensate for some of the lower growth from the three major consuming nations.

US, India & China demand:

Latest data from the Energy Information Administration (EIA) shows that overall US energy consumption was flat year-on-year in 2019. Within this, hydrocarbon gas liquids (primarily used for feedstock in petrochemicals) showed rises of 5 percent year-on-year, whilst jet fuel also recorded reasonable rises at 2.3 percent over the same period. Conversely, the largest declines were seen in fuel oil by 9.2 percent year-on-year. Additionally, gasoline consumption, which makes up 45 percent of total energy consumption in the US, was down 0.5 percent year-on-year, despite gasoline pump prices being 5 percent lower (\$2.69 per gallon in 2019 vs. \$2.82 in 2018) and total vehicle miles traveled rising by 1 percent (Figure 3). Part of the decline in gasoline consumption may reflect the rise in the number of electric vehicles (EV) sales in the US, which, according to EV Volumes data, rose by 276,000 in the year-to-Q3 2019. Currently, EV's make up around 1.8 percent of total US vehicles, but the International Energy Agency (IEA) sees this rising to 8 percent by 2030, under its 'New Policy Scenario'.

Looking ahead, the EIA expects energy consumption to rise by 1

Figure 2: Only a marginal pick-up in global oil demand growth in 2020

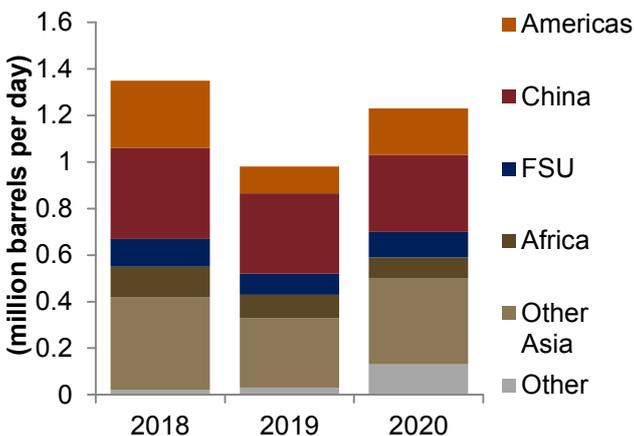
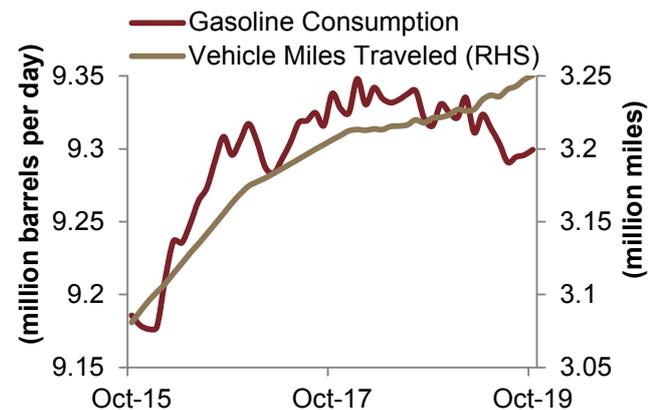


Figure 3: US gasoline consumption and vehicle miles travelled (moving 12 month average)





...with the petrochemical sector seen as the main driver of consumption growth (via hydrocarbon gas liquids).

Chinese crude oil imports grew by a sizable 9 percent year-on-year in 2019...

...driven mainly by the start-up of two new mega refineries...

...with oil imports continuing to rise in 2020 as the two mega refineries hit full capacity.

Indian crude oil imports were down 2.1 percent in 2019, due to a result of economic slowdown.

Looking into 2020, Indian oil imports may actually rise due to a lack of development in the country's upstream activity.

percent year-on-year in Q1 2020 although gasoline demand is expected to remain flat. In fact, over the course of the whole of 2020, gasoline demand is also expected to be flat year-on-year, with the petrochemical sector seen as the main driver of consumption growth (via hydrocarbon gas liquids) in 2020.

Whilst there may be concern over Chinese economic growth, with full year 2019 GDP growth the lowest in 29 years, this has not impacted the country's appetite for oil. In fact, crude oil imports grew by a sizable 9 percent year-on-year in 2019 (Figure 4). The rise in imports were driven mainly by the start-up of two new mega refineries, which resulted in a jump in crude oil imports from middle eastern supplier. In fact, Saudi Arabia was the largest supplier of crude oil to China, at an average of 1.7 mbpd, during 2019, with Oman and Iraq amongst the major suppliers as well (Figure 5). Looking ahead, Chinese yearly oil demand growth is expected to slow marginally, at around 2.5 percent in 2020 (compared to 2.8 percent in 2019). Nevertheless, crude oil imports will continue to rise as the two abovementioned mega refineries (which prefer using middle east crude oil grades) hit full capacity.

Indian crude oil imports were down 2.1 percent in 2019. The decline in oil imports is primarily a result of economic slowdown, with the impact felt in a number of sectors, including the automobile sector. According to Society of Indian Automobile Manufacturers (SIAM) data, sales of commercial vehicles fell by 15 percent year-on-year in the year-to-November. This decline had a visible impact on demand for diesel oil, which registered yearly growth of only 1 percent in the year-to-October 2019 versus 6 percent in 2018. Looking into 2020, Indian oil imports may actually rise due to a lack of development in the country's upstream activity. The current Indian administration had targeted to reduce both oil and gas imports by 2022, but the reverse has happened in the last five years. Currently, more than 84 percent of oil consumption came from imports, compared to circa 80 percent in 2014, whilst gas imports made up 43 percent of total consumption, up from 31 percent over the same period.

OPEC + still committed:

OPEC crude oil production averaged 29.9 mbpd in 2019, a sizable 3.1 mbpd (9 percent) lower than October 2018's output, which is used a benchmark. Looking ahead, OPEC and partners (OPEC+)

Figure 4: Chinese crude oil imports

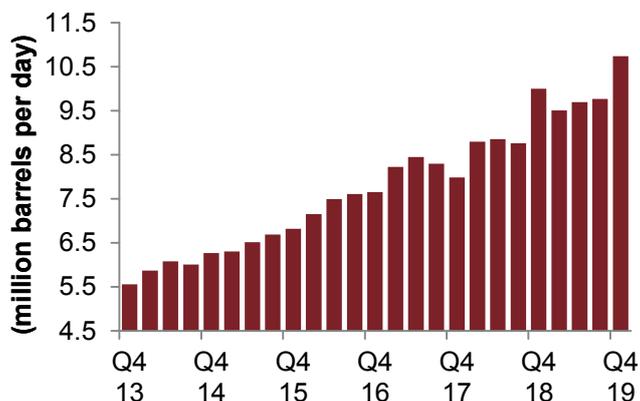
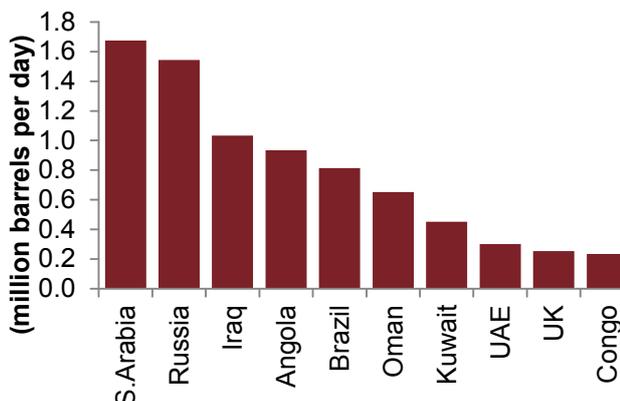


Figure 5: Largest suppliers of crude oil to China in 2019* (million barrels per day)



*Year-to-November average



OPEC+ recently agreed to moderate oil production by a further 500 tpd to a total of 1.7 mbpd less than October 2018 levels, for the initial three months of 2020...

...with Saudi Arabia also stated it would voluntarily moderate output by an additional 400 tpd during Q1 2020.

Beyond Q1, based on OPEC's projections for demand of its own oil throughout 2020...

...we would expect an extension in OPEC+ production agreement (perhaps by piecemeal) beyond March 2020.

Russian oil production averaged 11.25 mbpd in 2019 as a whole, slightly more than its committed 11.191 under the previous OPEC+ agreement...

recently agreed to moderate oil production by a further 500 tpd to a total of 1.7 mbpd less than October 2018 levels, for the initial three months of 2020. In addition, Saudi Arabia also stated it would voluntarily moderate output by an additional 400 tpd during Q1 2020 (Box 1), thus moving the OPEC+ total to 2.1 mbpd less than October 2018's baseline. Looking out into the remainder of 2020, considering that OPEC expects demand for its crude oil (the call on OPEC) to average 29.5 mbpd in 2020 (versus 30.6 mbpd in 2019) suggests that the current production moderation would have to be extended throughout the remainder of the year for oil markets to balance (Figure 6). As such, we would expect an extension in OPEC+ production agreement (perhaps by piecemeal) beyond the current March 2020 limit, starting with when the organization meets early in March.

Box 1. Saudi Crude Oil Production

Saudi crude oil production averaged 9.8 mbpd in 2019, a sizable 5 percent below the agreed 10.3 mbpd output with OPEC+ for the year. At the same time, latest available data suggests that Saudi domestic energy consumption is on course to register its first yearly rise in four years (Figure 7). Looking ahead, despite higher refinery intake associated with the start-up of the 400 tpd Jazan refinery, we do not expect this to add much upward pressure on Saudi crude oil production in 2020. This is because unassociated natural gas from the Fadhili gas complex, which includes a new gas power plant, should raise the level of gas usage in the Kingdom's energy mix. Additionally, a privately developed 300 mega watt (MW) solar power plant in the Al-Jawf region, which started operating late last year, will also contribute in keeping domestic energy consumption capped during the year.

All in all, the combination of OPEC+ developments and domestic energy trends means we expect Saudi crude oil production to remain unchanged on a year-on-year basis, at 9.8 mbpd, in 2020.

Meanwhile, Russian oil production averaged 11.25 mbpd in 2019 as a whole, slightly more than its committed 11.191 mbpd under the previous OPEC+ agreement, and around 1 percent higher than 2018. Looking ahead, Russia has committed to moderate an additional 70 tpd during Q1 2020, taking its output at 300 tpd less than October 2018's level. Of course, any extension to the OPEC+

Figure 6: Call on OPEC vs. OPEC output

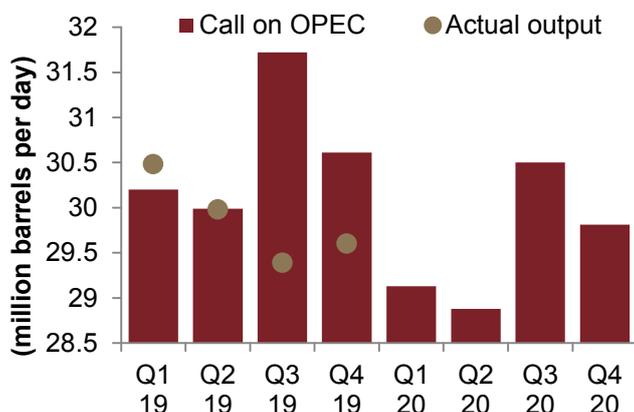
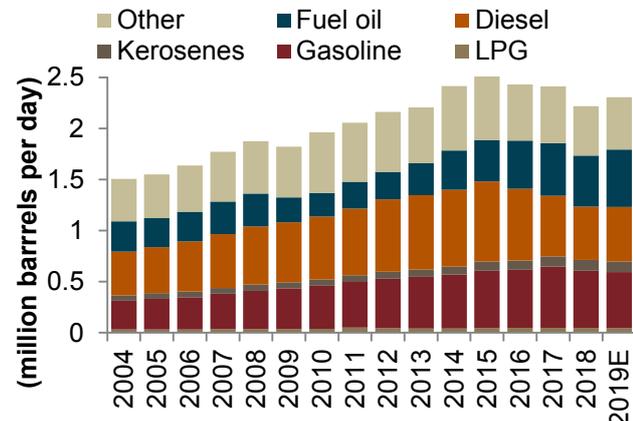


Figure 7: Saudi energy consumption





...although it has committed to moderate an additional 70 tbpd during Q1 2020, taking its output at 300 tbpd less than October 2018's level.

According to EIA data, US crude oil production averaged 12.3 mbpd in 2019, the highest ever on record...

....but is set to be surpassed with 13.3 mbpd in 2020.

Sustained rises in oil output from the Permian shale oil basin are the main reason for the forecasted rise in yearly oil production.

Despite sizable yearly rises, the pace of US oil output growth trended downwards in 2019, in-line with a falling number of active oil rig.

Brent oil prices rose by 4 percent quarter-on-quarter in Q4 2019 to an average of \$64 per barrel (pb).

agreement beyond Q1 will need Russia's collaboration, although this is not assured. More specifically, some large Russian oil producers have voiced concerns over the loss of market share, particularly to US shale oil producers, as a result of the OPEC+ agreement.

US oil output not slowing significantly this year:

According to EIA data, US crude oil production averaged 12.3 mbpd in 2019, the highest ever on record, but is set to be surpassed with 13.3 mbpd in 2020. Sustained rises in oil output from the Permian shale oil basin are the main reason for the forecasted rise in yearly oil production. In fact, the EIA expects Permian production to rise by an average of 810 tbpd in 2020 (versus 915 tbpd in 2019). Increases in Permian crude oil production have been made possible by a recent expansion of crude oil pipeline infrastructure, which, in turn, has helped ease supply bottlenecks.

Despite sizable growth, pace of US oil output growth trended downwards in 2019, in-line with a falling number of active oil rigs (by 208, or 23 percent year-on-year). In 2020, the EIA expects the number of rigs to continue declining as producers cut back on their capital spending, but since shale oil companies have developed techniques to temporarily avoid steep oil declines, sizable deceleration in overall oil growth rates are not expected immediately. In recent episodes where the number of oil rigs have declined sharply, US shale oil producers have reacted by drilling in the most economical oil rich basins as well as streamlining drilling and extraction operations. Such techniques have tended to improve overall oil well productivity by extracting larger quantities of oil more rapidly in the short-term. Thus, under the current EIA's WTI oil price assumption, US oil output growth will only significantly decelerate in 2021 (Figure 8).

Oil price outlook:

Brent oil prices rose by 4 percent quarter-on-quarter in Q4 2019 to an average of \$64 per barrel (pb). The sizable rise was mainly due to the US and China announcing a 'phase one' deal (which was formally signed last week), meaning that a planned set of US tariffs on \$156bn of Chinese consumer goods were suspended. Prices were also helped by an OPEC+ agreement on deeper moderations

Figure 8: US oil output growth is expected to decelerate significantly in 2021

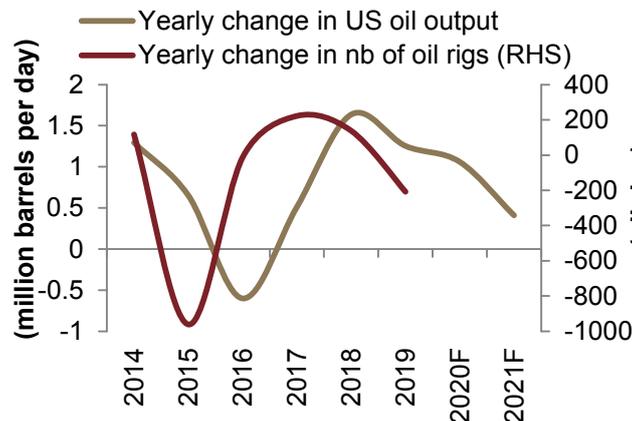
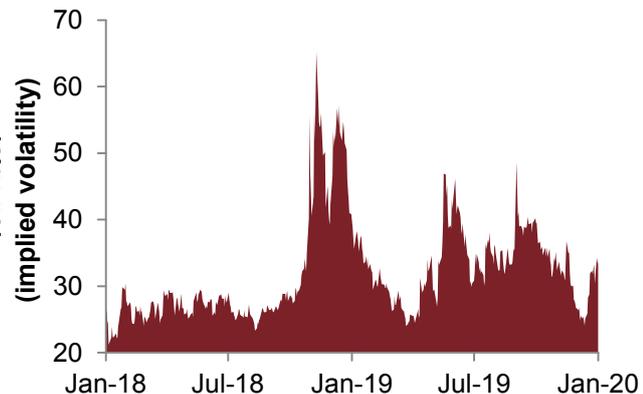


Figure 9: Measurable rise in oil price volatility since late 2018





The sizable rise was due to the US and China announcing a 'phase one' deal and OPEC+ agreement on deeper moderations.

Looking further ahead into 2020, we expect an extension in OPEC+ production placing a floor on prices at around \$65 pb.

That said, global trade tensions and regional geopolitics, which have raised the level of volatility around oil prices since late 2018, are likely to persist during 2020.

in output during Q1 2020. Overall, Brent oil prices averaged \$65 pb in 2019, down 9 percent year-on-year.

Looking ahead in Q1 2020, the recent signing of 'phase one' deal combined with continued OPEC+ output discipline should keep Brent oil around current levels. Looking further ahead into the remainder of 2020, we expect an extension in OPEC+ production agreement beyond the current March 2020 limit putting a floor under prices at around \$65 pb. That said, global trade tensions and regional geopolitics, which have raised the level of volatility around oil prices since late 2018 (Figure 9), are likely to persist during 2020 (Box 2).

Box 2. Volatility in oil prices

Earlier this month, Brent oil prices shot up after tensions between the US and Iran escalated in a short-lived military exchange. Although prices have retreated since then, the risk of a prolonged escalation in regional geo-politics could result in a more lasting risk premium for oil prices. At the same time, whilst a recent de-escalation in trade tensions has contributed to improving the outlook for oil demand growth, the fundamental issues driving the initial dispute are still unresolved. Indeed, the US's accusations that China is engaged in theft of intellectual property, and displeasure over the US having a sizable bilateral trade deficit with China, are yet to be addressed. Thus, although trade tensions have temporarily improved, they are likely to play out for a while yet, meaning associated uncertainties linked to oil prices are also likely to continue.

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