

January 14, 2020



Nigeria Strategy Report

H1 2020

Global Economy and Markets

Crude Oil: Tug of War; the Bears Win

Executive Summary

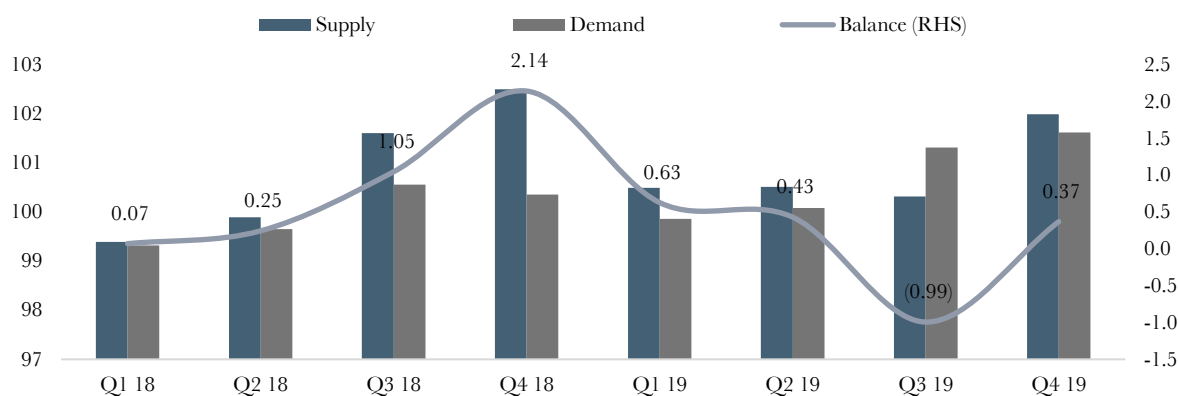
At the start of H2 2019, we had an average Brent crude oil price base-case forecast of \$59/bbl., which was lower than the H1 2019 average price of \$66/bbl. Our forecast was hinged on our expectation for an expansion in the markets surplus position of 63kbpd (H1 19: 19kbpd) as the US ramped up crude production and compliance levels by some members of the OPEC+ dwindled. Contrary to expectations, in H2 2019, the market swung into a deficit (0.31mbpd) on the back of a better than expected increase in demand (+1.50mbpd) which offset the rise in supply (+0.65mbpd). Interestingly, despite being in a deficit, Brent crude traded at an average price of \$62.3/bbl in H2 2019 compared to \$66/bbl in H1 2019 when the market was in a surplus.

In 2020, we forecast oil market will record a higher net surplus of 0.14mbpd compared to 0.11mbpd in 2019. The supply from the US and the other non-OPEC producers will likely outweigh the increased cuts from OPEC and the support lent from improved demand growth. We forecast supply growth of 1.45mbpd in 2020, in line with the EIA's forecast. Bulk of the supply growth is expected to stem from the US. This, together with increases from notable names like Brazil and Norway are expected to offset lower production from OPEC. On the demand leg, we forecast growth of 1.43mbpd to 102.15mbpd in 2020, in line with EIA's estimates. Both OECD and non-OECD regions are expected to drive the consumption growth, with the latter bearing bulk of it. Overall, our oil price forecast for 2020 prints at \$61.3/bbl (EIA: \$61/bbl) which we arrived at via interpolation of the market balance forecast. This prints mid-way of our bull and bear case scenarios of \$67.5 and \$57.5, respectively.

In this report, we review major drivers in Global oil markets in H2 2019 and convey our outlook for 2020.

Oil prices closed lower despite switch to deficit

At the start of H2 2019, we had an average Brent crude oil price base-case forecast of \$59/bbl., which was lower than the H1 2019 average price of \$66/bbl. Our forecast was hinged on our expectation for an expansion in the markets surplus position by 63kbpd (H1 19: 19kbpd) as the US ramped up crude production and compliance levels by some members of the OPEC+ dwindles. Contrary to expectations, in H2 2019, the market swung into a deficit (0.31mbpd) on the back of a better than expected increase in demand (+1.50mbpd QoQ) which offset the rise in supply (+0.65mbpd QoQ). Interestingly, despite being in a deficit, Brent crude traded at an average price of \$62.3/bbl in H2 2019 compared to \$66/bbl in H1 2019 when the market was in a surplus.

Figure 1: Global oil demand, supply and market balance (mbpd)

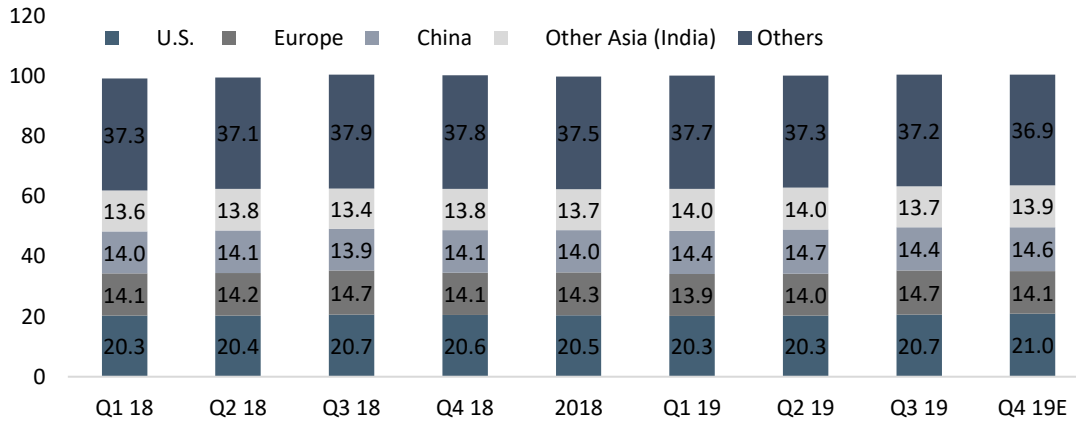
Source: Bloomberg, ARM Research

Broadly stable demand picture

While demand is typically stronger in the second half of the year than the first half, crude oil demand in H2 2019 was up 1% YoY (+1.01mbpd) to 101.47mbpd. The growth was supported by increased consumption in both OECD (+0.13mbpd YoY to 47.9mbpd) and non-OECD (+0.87mbpd YoY to 53.5mbpd) regions.

Bulk of OECD demand stemmed from the US which grew 0.20mbpd YoY over H2 20, according to EIA's data. The increased consumption in the US over the period was supported by the stable economic growth. The summer driving season which typically kicks in from April to September also lent some support to demand this year. However, we note that the US' consumption during the season was only a tad higher than in previous year (+0.03mbpd), as US vehicle sales thinned. Meanwhile, crude consumption was faint in Europe and Canada, while contraction in Japan persisted (-0.12mbpd YoY). The declines in Japan stemmed from the slowdown in industrial activities as well as increased fuel substitution programmes by both corporate and government consumers.

Figure 2: Crude oil demand (mbpd)



Source: EIA, ARM Research

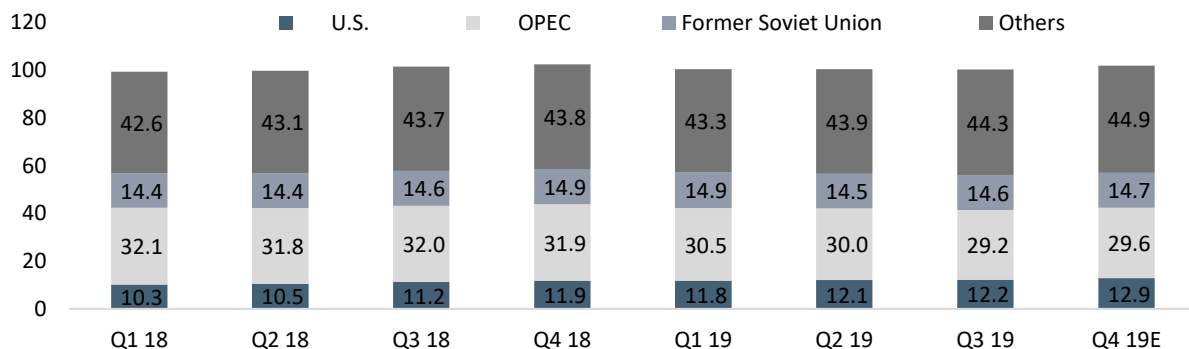
Meanwhile, among the non-OECD countries, demand grew by 0.87mbpd to 53.5mbpd. China and India – which account for over 30% of total non-OECD demand – accounted for bulk of the growth in the region. China’s demand was up 0.51mbpd YoY, largely due to the new capacities in Chinese private refiners (the teapots) which came on board during the period. Thus, total refinery runs in China increased, with a total of 537.1 million tons of crude oil processed over the first ten months of the year which was 6.4% higher YoY. This overshadowed the growing concerns of weak economic growth in the region which touched a 27-year low of 6% in Q3 19. The weaker growth was broad based, as growth across fixed asset investments, retail sales and industrial production have all printed weaker.

Over in India, while specific data on the country’s demand is not provided, the EIA estimates the ‘Other Asia’ region grew by 0.22mbpd to 13.8mbpd over the period. Meanwhile, OPEC estimates India’s consumption hovers around 5mbpd which constitutes a bulk of the other Asia consumption and, by extension, of the consumption growth. Thus, India’s growth in oil consumption comes despite the tepid economic growth which slowed to a 6-year low of 4.5% in Q3 19. This stemmed from slow industrial activities which has been weighed down by heavy monsoon rains.

US supply gave OPEC a run for their money

In H2 19, global supply grew 0.65mbpd compared to the decline of 1.55mbpd recorded in H1 19. The increase in supply over the period stemmed from rising production in the US and other non-OPEC producers. Nonetheless, improved compliance among OPEC members to stipulated quotas¹ and persisting supply disruptions in the US-sanctioned countries – Iran and Venezuela – supported the decline in OPEC production which helped soften the impact of the increased production.

¹This excludes exempted members – Iran, Libya and Venezuela

Figure 3: Crude oil supply (mbpd)

Source: EIA, ARM Research

Ease in pipeline bottlenecks propels US output

US crude oil production over H2 19 (+0.60mbpd to 12.55mbpd, on average) grew much faster than it did in H1 19 (+0.38mbpd to 11.95mbpd). The rise in production was largely supported by the new pipelines installed² during the period which eased the bottlenecks in the Permian region. The Permian region accounted for over half of the total production increases recorded during the period. Reflective of the rise in crude production, the US became a net exporter of 140kbpd of total petroleum and other liquids in September 2019 -- its first monthly net export on record since 1973. In addition, we note that the production increase in petroleum products outpaced domestic consumption and increased exports.

That said, it is worth stating that the rate of increase in US output slowed over FY 2019. Specifically, in FY 2019, production grew by 1.26mbpd to 12.25mbpd, lower than the increase of 1.64mbpd recorded over FY 2018. We believe the slower growth in production was due to pipeline bottlenecks in the Permian region (especially in H1 19) which left producers handicapped. However, as stated earlier, this was partly resolved as new pipelines came onstream in H2 19. Despite the ease in pipeline gridlocks, the steep declines in oil rig counts which started from the beginning of the year has also capped the pace of growth in US oil production. So far this year, rig counts have dropped by 208 in the US (compared to 138 rigs added in 2018). This also points to further slowed growths beyond 2019.

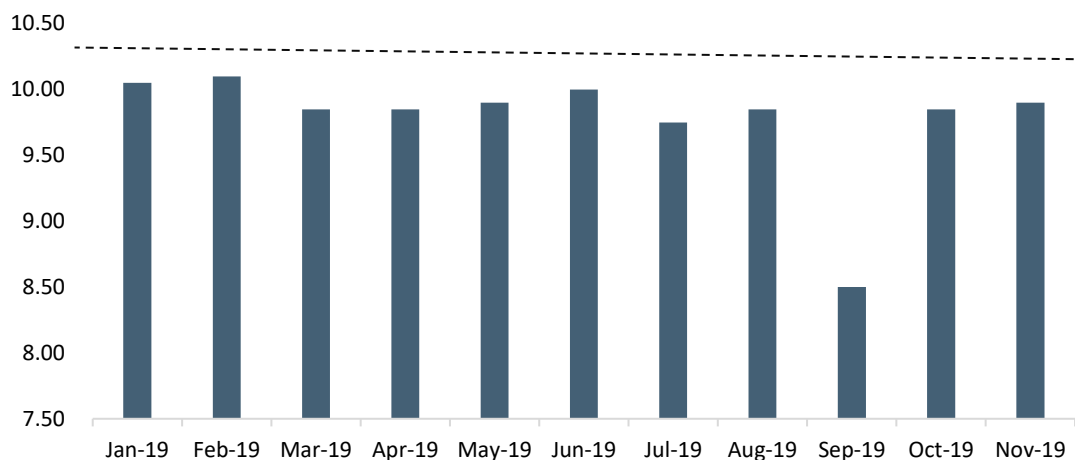
Thank you, Saudi Arabia. Love, OPEC.

OPEC's improved compliance to the production cut agreement helped cushion the impact of increased US production. Compliance level over H2 19 printed higher at an average 169% compared to 136% in the first half. However, this was borne largely by the cartel's de facto leader

² 400kbpd EPIC crude line, 670kbpd Cactus II line and the 900kbpd Gray Oak

– Saudi Arabia. For context, of the total 0.40mbpd decline posted by the members of the agreement in OPEC³, 0.39mbpd was borne by Saudi Arabia. The heavy compliance by the Saudis was also skewed by the missile attack on its processing facilities at the Abqaiq and Khurais oil fields in September. This shut off ~50% of Saudi’s production – an equivalent of 5% global supply -- for about two weeks. This drove September’s production down to 8.5mbpd compared to 9.9mbpd average in 2019 and its prescribed quota of 10.31mbpd. The attack sparked a huge rally in oil prices. However, the brouhaha was short-lived after the Saudis restored production faster than market had expected.

Figure 4: Saudi oil production 2019 vs stipulated quota (mbpd)

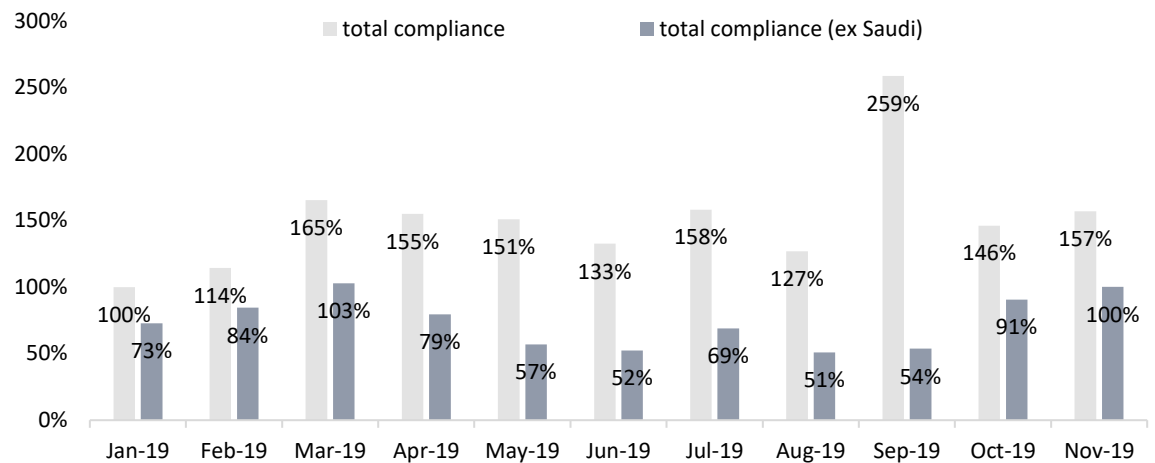


Source: EIA, ARM Research

Ex-Saudi Arabia, OPEC’s compliance would have printed at an average of 74% over H2 19. It is worth stating that besides Saudi Arabia, Angola and Kuwait have also over-complied to the stipulated production cuts assigned to them. Angola’s generosity has been involuntary, as the second-largest African producer continues to battle with dried up oil fields and scarce investments to explore its reserves. All other members of the cartel mostly defaulted with the stipulated cuts over the period. Nigeria, UAE and Iraq recorded the largest deviations, producing 0.076mbpd, 0.067mbpd and 0.276mbpd above their respective quotas, on average, over H2 19.

Meanwhile, compliance by Russia (the largest producer among in OPEC+) to cuts agreed with OPEC remained aloof from the stipulated quota. Russia’s production over H2 19 remained relatively flat at 11.49mbpd, according to EIA. Thus, Russia continued to produce 0.29mbpd higher than its 11. 19mbpd requirement.

³ Excludes exempted members – Iran, Libya and Venezuela

Figure 5: OPEC compliance levels (cum and ex-Saudi Arabia)

Source: Bloomberg, ARM Research

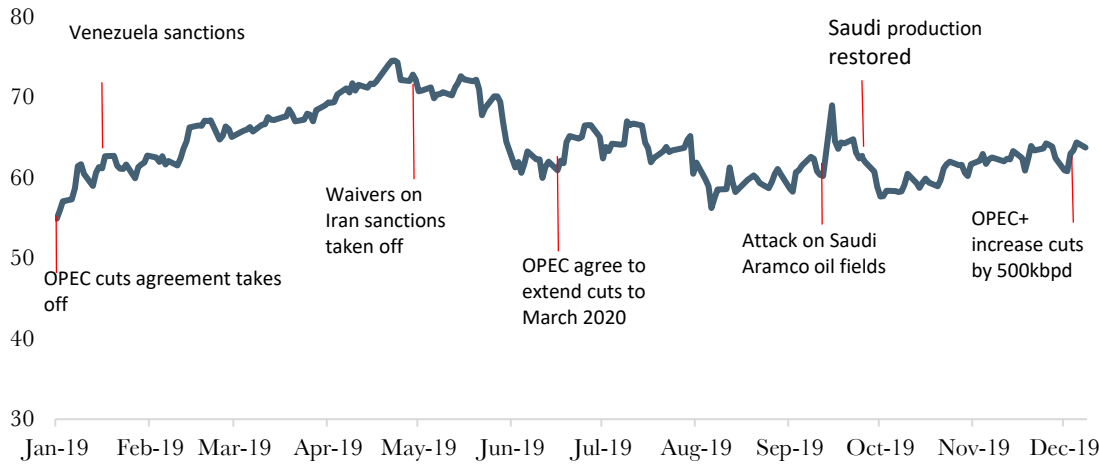
The US sanctions against Iran and Venezuela stood pat through H2 19. This continued to stifle supply from the two countries. We note that over H2 19, Iranian and Venezuelan production dipped 0.40mbpd and 0.21mbpd to 2.08mbpd and 0.71mbpd respectively. In all, supply disruptions and compliance to agreed cuts pushed OPECs average production lower by 0.90mbpd to 29.34mbpd over the period.

A toss in 2019 crude oil prices

Overall, crude oil price was quite volatile 2019. Away from market fundamentals, the oil price responded to the series of swings in the US-China trade talks that unfolded over H2 2019. The 18-month feud between the two countries raised concerns on global economic growth and oil demand -- keeping oil prices suppressed. However, fortunes turned after the two parties announced an agreement to terms of a phase one deal.

On the other hand, the oil bulls were soothed by the missile attack on facilities on the Saudi Arabia oil fields which pushed prices to the sharpest daily increase (+15% to \$69/bbl) in record history. Further supporting oil prices was OPEC's decision to increase output cuts by 500kbpd to 1.7mbpd in December. This will commence in January 2020 and will aid the cartel meet its objectives of a balanced market (more details in the outlook segment).

Figure 6: Major oil price triggers over 2019

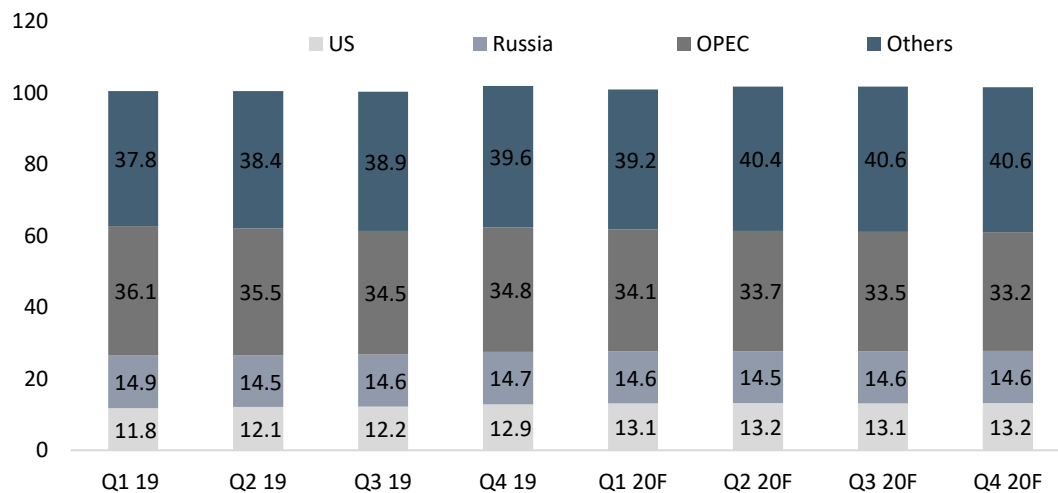


Source: EIA, ARM Research

US and other non-OPEC producers push 2020 supply levers

We forecast supply growth of 1.45mbpd in 2020, in line with the EIA’s forecast. Bulk of the supply growth is expected to stem from the US. That said, it is worth stating that the US is not the only threat to an over-supplied market in 2020. Norway and Brazil are some of the popular names expected to flood oil markets in 2020.

Figure 7: 2019E oil supply and 2020 forecast



Source: EIA, ARM Research

Brazil’s state oil company, Petrobras, installed four floating production storage and offloading units (FPSOs) in 2019 with around 150kbpd installed capacities each. While they are currently yet to run at full capacities, they are expected to pump more oil come 2020. There are also plans to increase FPSO installations going forward. Interestingly, despite the

aggressive production plans, Brazil has indicated interests in joining OPEC which could put its ambitious plans at risk. With production estimated at 3.1mbpd, according to IEA, this could make Brazil the third largest producer in the cartel alongside UAE, and after Saudi Arabia and Iraq. However, not much details have been stated in this regard and the probability of this panning out in 2020 is unlikely.

Gush in US production, but at a slower pace

US production is estimated to increase by 0.93mbpd to average 13.2mbpd in 2020. This should account for a bulk (65%) of estimated global supply growth in 2020. Higher output in US largely mirrors the improved production efficiency which has grown overtime. Production per rig by the major producing regions has grown from 4,833bpd in 2018 to 5,414bpd in 2019, according to latest EIA figures. That said, the pace of shale production in the US is expected to slow further in 2020 compared to the 1.26mbpd growth posted in 2019. Our expectation is hinged on the steep declines in oil rig counts as well as the cutback in capex plans by some US oil majors. Total US rigs dropped by 208 in 2019⁴ and this should cap the pace of growth of US output in 2020, in our view. Meanwhile, of the 21 US upstream companies that publish their capex guidance, 15 have announced downward revisions. Instead, these companies have begun to channel the free cash to investors amid fears of lower oil prices in 2020.

OPEC...The honeymoon is over

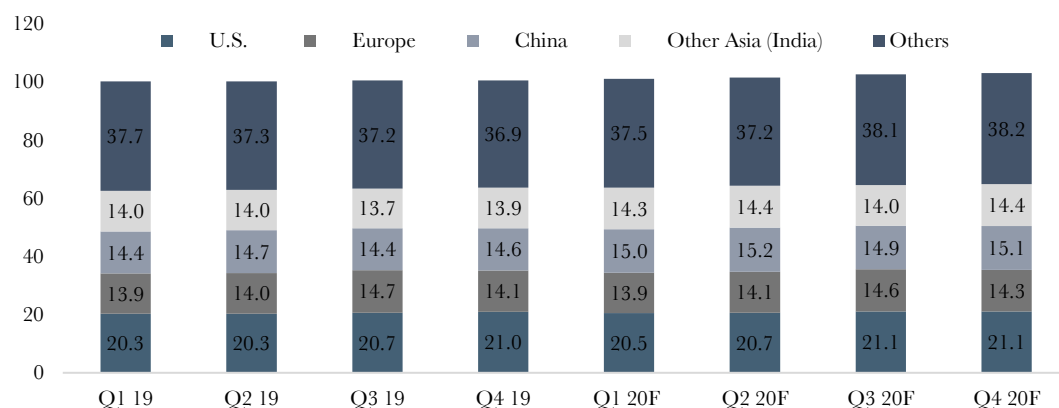
At the OPEC meeting in December, Saudi Arabia decried the upheld level of ‘cheating’ by the OPEC members. The crux of the meeting was the cartel’s decision to increase production cut by 500kbpd to 1.7mbpd (based on the October 2018 production reference level). There was also a resounding emphasis on the need for compliance by the ‘cheating’ members of the cartel, especially Iraq and Nigeria. Interestingly, the call for an increased supply cuts was instigated by Iraq’s Petroleum minister a week before the meeting. The leading defaulters renewed their commitments to ensure improved compliance to the stipulated quotas going forward. This was in response to Saudi Arabia’s quid pro quo. The Saudis stated that they would be willing to keep production at current levels (which is ~400kbpd lower than the stipulated quota) if the defaulting members improve on their compliance. Thus, we are optimistic of improved compliance going into 2020 and forecast a decline in OPEC supply by 510kbpd. This is based on our assumption and optimism of an extension of the OPEC cuts agreement beyond March 2020 till the end of the year. This comes as the cartel seeks to ensure a balanced market by offsetting increases from the other non-OPEC producers, especially the US.

⁴ As against addition of 138 rigs in 2018

Beams of economic growth support 2020 demand growth projections

On the demand leg, we forecast a growth in demand of 1.43mbpd to 102.15mbpd in 2020, in line with EIA’s estimates. Both OECD and non-OECD regions are expected to drive the consumption growth, with the latter bearing the bulk of it. The OECD region is forecast to grow consumption by 0.20mbpd, with the US contributing 0.17mbpd of that growth. Canada and Europe are expected to put up 0.01mbpd apiece while the trend is expected to remain negative in Japan (-0.04mbpd). For the non-OECD, anticipated recovery in China and India are expected to support demand in 2020 with 0.52mbpd and 0.37mbpd growth, respectively. A bulk of the demand growth is rooted in expectations of improved economic growth, especially where investments and industrial activities are concerned. The IMF projects the global economy will grow faster by 3.5% in 2020 from 3.2% in 2019. The series of expansionary policies by various governments and central banks is expected to boost the recovery. Also, while trade talk uncertainties between the US and China linger, both parties appear optimistic on reaching a trade deal soon.

Figure 8: Global oil demand (actual and forecast)



Source: EIA, ARM Research

IMO 2020 – only a drop in an ocean?

The International Maritime Organisation (IMO) 2020 regulation will require ocean-moving vessels use marine fuels with a limited Sulphur content of 0.5% from January 2020. This is a reduction from the previous 3.5% limit enforced in 2012. The regulation is set to kick off in January 2020 and will require refiners increase their runs and shift their fuel oil preference to those with low Sulphur contents (aka sweet oil). We believe this will drive demand for the sweet blends such as Nigeria’s bonny light, Algeria’s Saharan Blend, Azerbaijan’s Azeri Light, etc. The EIA estimates that this will drive US refinery runs higher by 3% to 17.5mbpd and increase utilization rate to 93% in 2020.

However, while the ramp up in refinery runs could increase demand for light sweet oil, we do not expect its implementation to have a significant impact on the overall demand picture in 2020. That said, the heightened demand for sweet oil is likely to widen the sweet-sour crude oil spread.

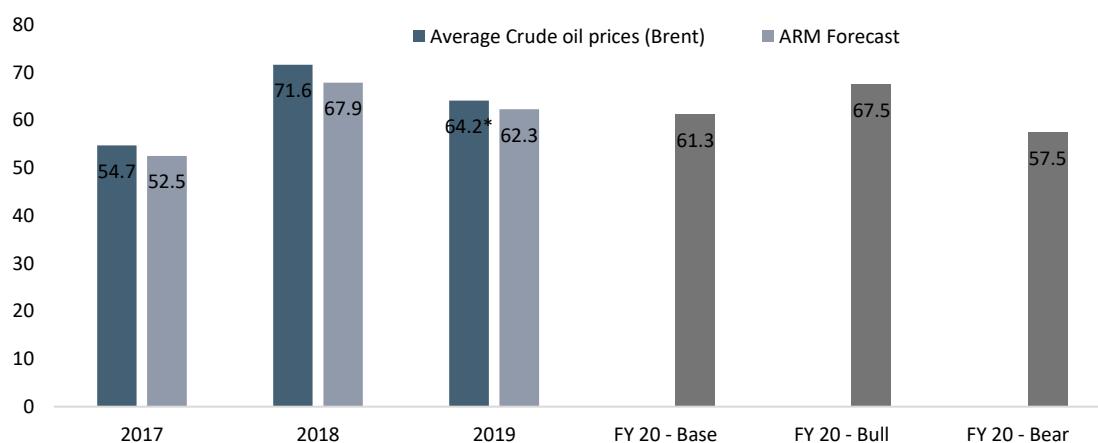
The base, bull and bear case for 2020

Overall, we forecast oil market will record a higher net surplus of 0.14mbpd in 2020, compared to 0.11mbpd in 2019. The supply from the US and the other non-OPEC producers will likely outweigh the increased cuts from OPEC and the support lent from improved demand growth. Our oil price forecast for 2020 prints at \$61.3/bbl (EIA: \$61/bbl) which we arrived at via interpolation of the market balance forecast.

That said, we see some upside risks to our forecasts. On the supply leg, the likelihood of a better than expected compliance by the OPEC cartel and its allies portends a possible upside to oil prices. In addition, brewing geopolitical tensions in the Middle East, could also push prices higher than forecast in 2020. Finally, a faster rate of decline in US' crude oil production growth than expected could also tilt oil market to our bull case scenario. The foregoing, together with stronger demand owing to a better than expected global economy recovery, could steer the oil market to a net deficit position and push oil prices to an average \$67.5/bbl. over 2020.

On the downside, should US pump more oil than expected and OPEC fail to comply to the stipulated cuts, the market could be flooded with excess oil and increase net surplus to 0.81mbpd by our estimate. At this level, we project oil prices could drop to as low as \$57.5/bbl.

Figure 9: Oil price forecast (Base, Bull and Bear)



Source: EIA, ARM Research

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