



Oil Market Update

January 2020

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Market Summary

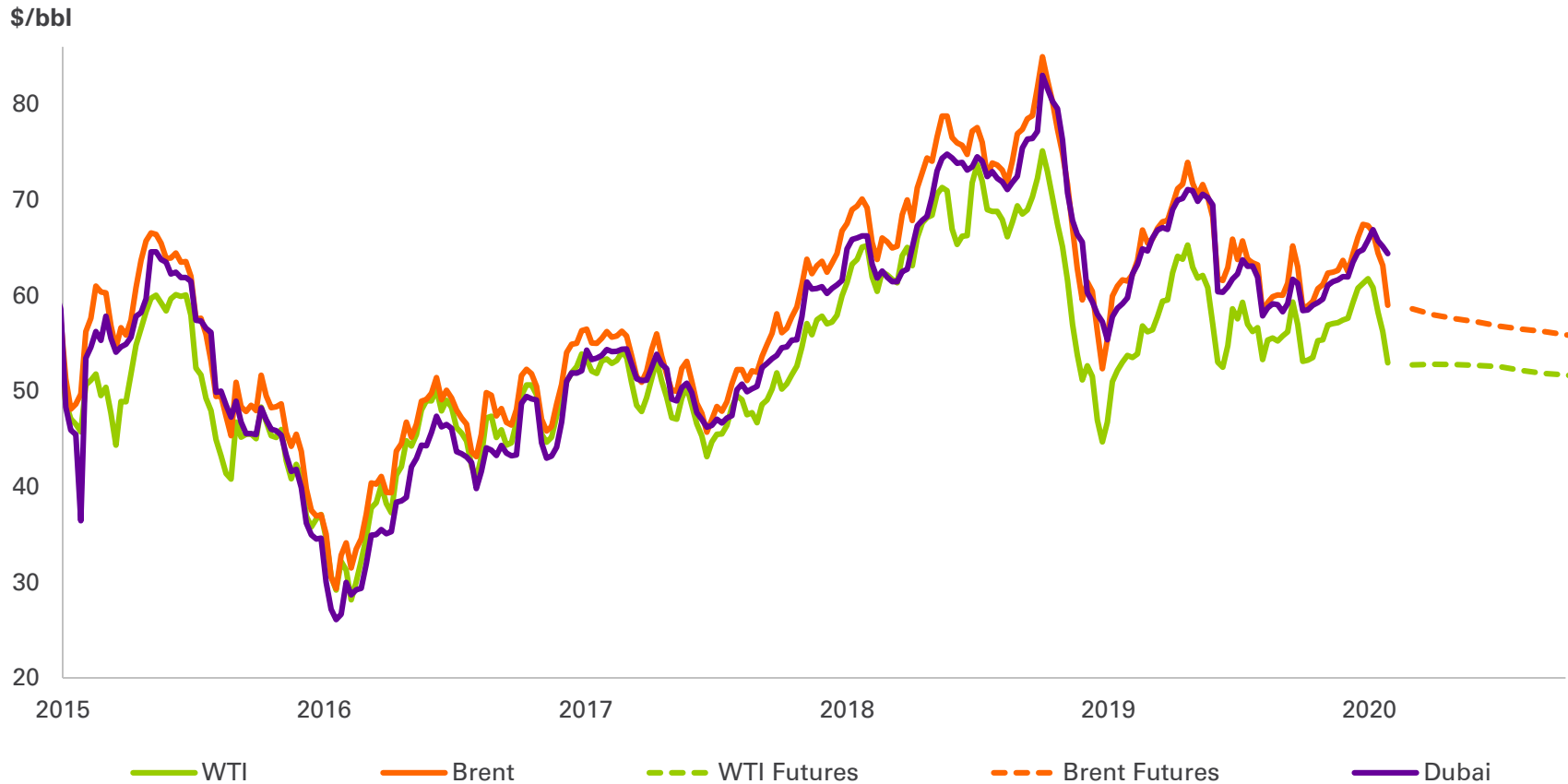


- **Brent** is currently trading around **\$59/bbl**, falling following the unfortunate outbreak of the Novel Coronavirus (2019-nCoV) in China.
- Brent hit highs of \$71/bbl in early January after an Iranian missile strike on Iraqi military bases hosting US troops. This followed a US airstrike in Iraq that killed a top Iranian military commander, Qassem Soleimani. Prices fell as the US and Iran attempted to de-escalate tension in the region.
- Phase 1 of the **US-China trade deal** was signed on 15th January. Uncertainty remains around the timeline of Phase 2, with talks yet to begin.
- The **Vienna Alliance** of OPEC and non-OPEC producers met in December and agreed to deepen existing output cuts by 500kbd to 1.7mbd, plus an additional voluntary cut of 400kbd by Saudi Arabia, to the end of March 2020. It was recently announced that the next meeting may be moved forward from 5th March 2020 if oil demand in China is significantly impacted by the spread of the Novel Coronavirus.
- **IMO 2020** has led to a volatile quarter for fuel oil pricing, as HSFO hit lows of -\$35/bbl against Brent and at the end of January is trading higher at -\$17/bbl due to reduced supply and increased coking demand. The HSFO/VLSFO price spread averaged \$36/bbl over 4Q19, with VLSFO cracks trading very strongly at +\$12/bbl. MGO uptake is slower than expected as shipowners have shown a preference for VLSFO so far
- **Refining margins (BP RMM)** fell from a high of \$19/bbl at the start of October to a low of \$7/bbl during December. The margin has since recovered to \$9/bbl, but is still significantly below the 2019 average of \$13/bbl.

Crude prices fall following the Novel Coronavirus outbreak

- Crude prices have recently fallen following the unfortunate outbreak of the Novel Coronavirus in China
- After relatively high crude prices in 2Q19, prices faced downward pressure in Q3 and Q4 following evidence of slower economic expansion and below expectation oil demand growth.
- The ongoing geopolitical tensions in the Middle East and US airstrikes in Iraq increased the risk premium on oil supply in mid-January.

Global Crude Prices



Brent-WTI differential traded within a narrow range in Q4 2019



- The Brent-WTI differential remained narrow at around \$6/bbl in 4Q19.
- WTI has strengthened from significant stock draws at Cushing as increased pipeline capacity has reduced the bottleneck of crude supply to US Gulf Coast refineries.

Brent-WTI spread



Futures as of 15/01/2020

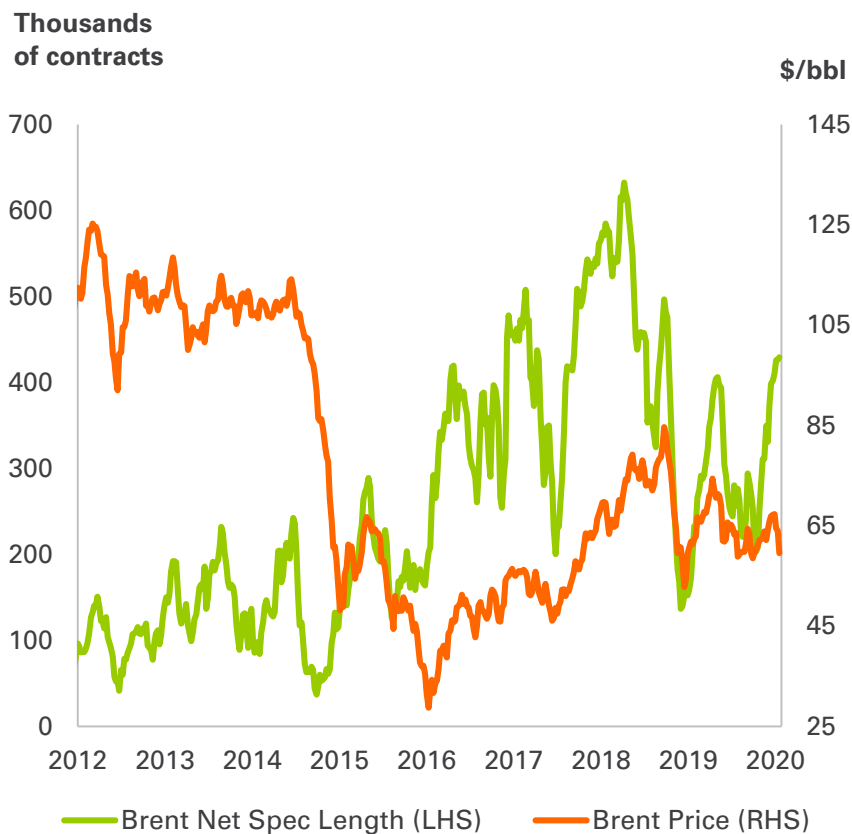
Source: NYMEX, ICE, S&P Global Platts®

Net speculative length increased in Q4 2019

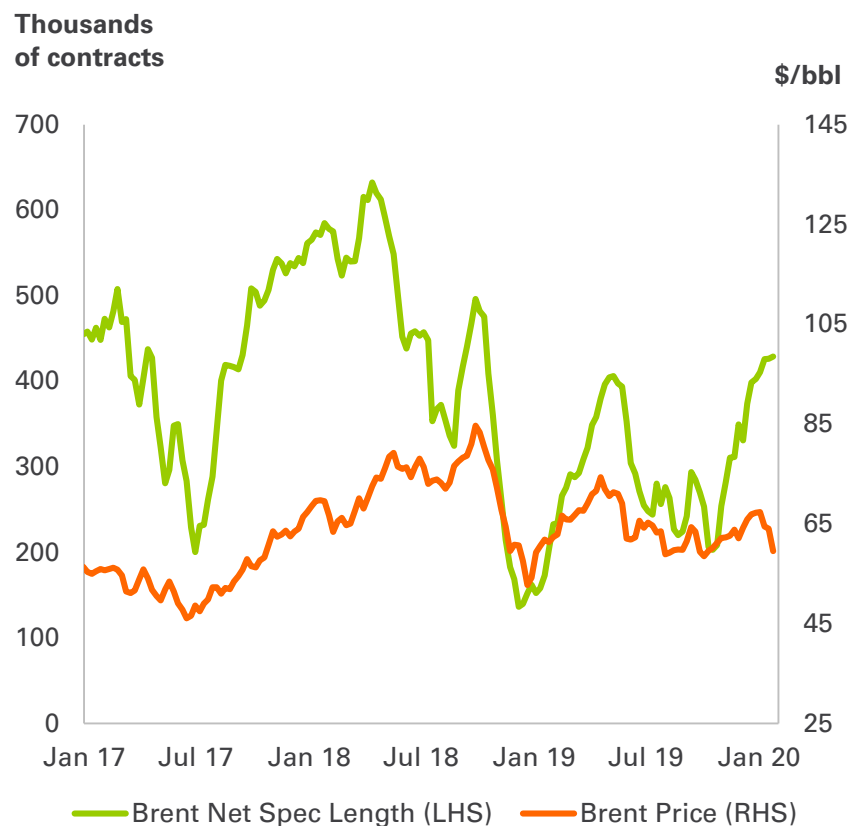


- NSL rose to the highest levels since May-19 at 400k contracts in Dec-19, a sharp rise of 200k since Oct-19.
- Contracts have risen further in early 2020 to 425k following the US airstrike killing a top Iranian military commander and the later retaliation strikes on a US base in Iraq.
- Contracts volume is now similar to the average levels observed in 2017 and 2018.
- The impact on NSL of the Novel Coronavirus outbreak is yet to be seen.

Net Speculative Length (2012-2019)



Net Speculative Length (2017-2019)

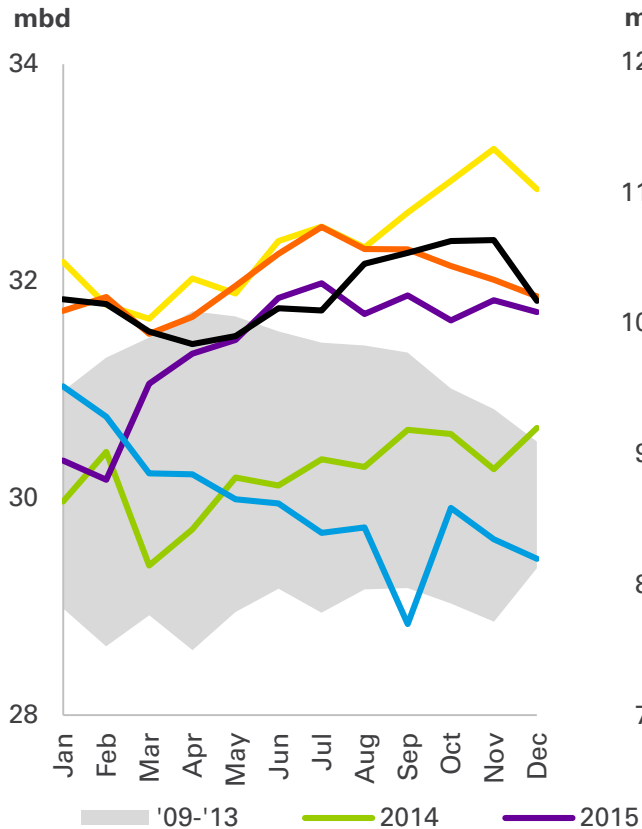


OPEC+ cut extra 500kbd of oil supply for 1Q 2020, taking the announced cut to 1.7mbd

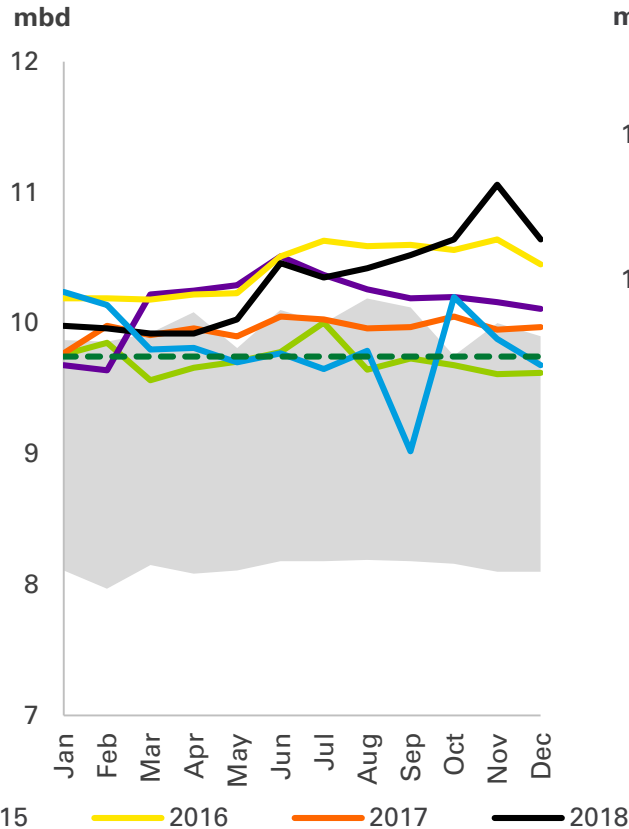


- The new 1.7mbd OPEC total cut, plus an additional voluntary 400kbd cut from Saudi Arabia, took effect on 1st Jan-20, and requires significant cuts from most member states. Reports suggest an extension past Mar-20 and deeper supply cuts are possible if oil price is significantly impacted by the spread of the Novel Coronavirus.
- Compliance in Dec-19 was 181%, an increase from Nov-19 at 154%, driven primarily by Saudi Arabia's overcompliance (296% and 228% in respectively).
- OPEC production was 2.4mbd lower in 2019 compared to 2018.

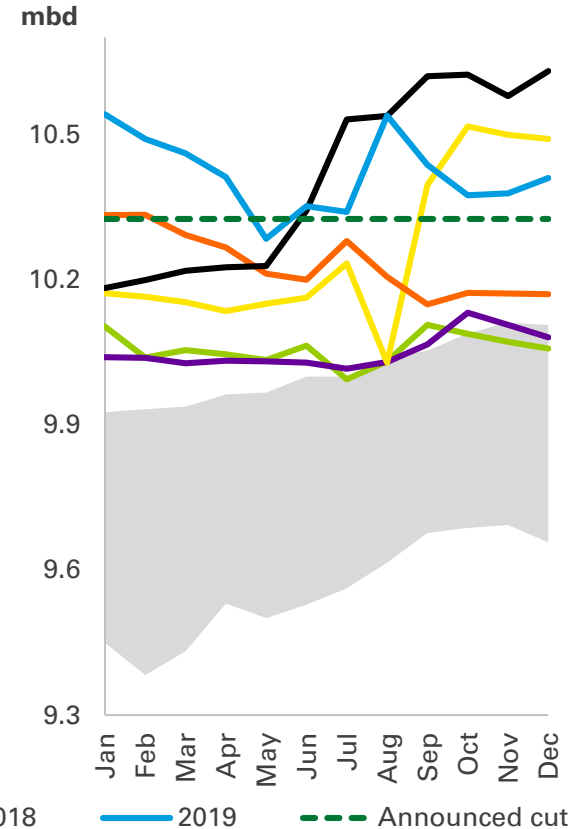
OPEC Crude Supply



Saudi Crude Supply



Russia Crude Supply

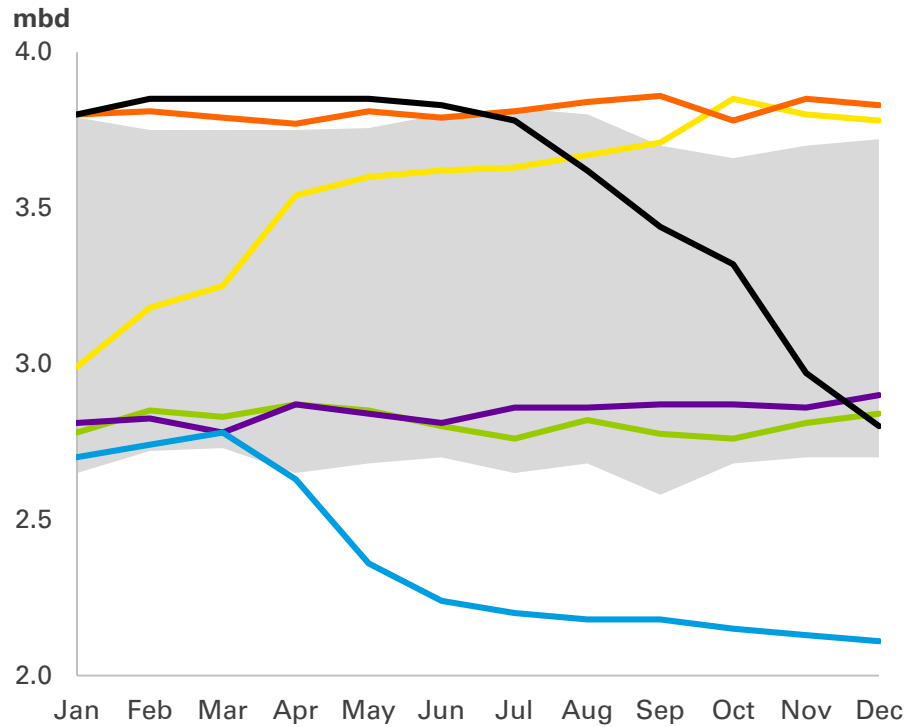


Iranian and Venezuelan output remains low



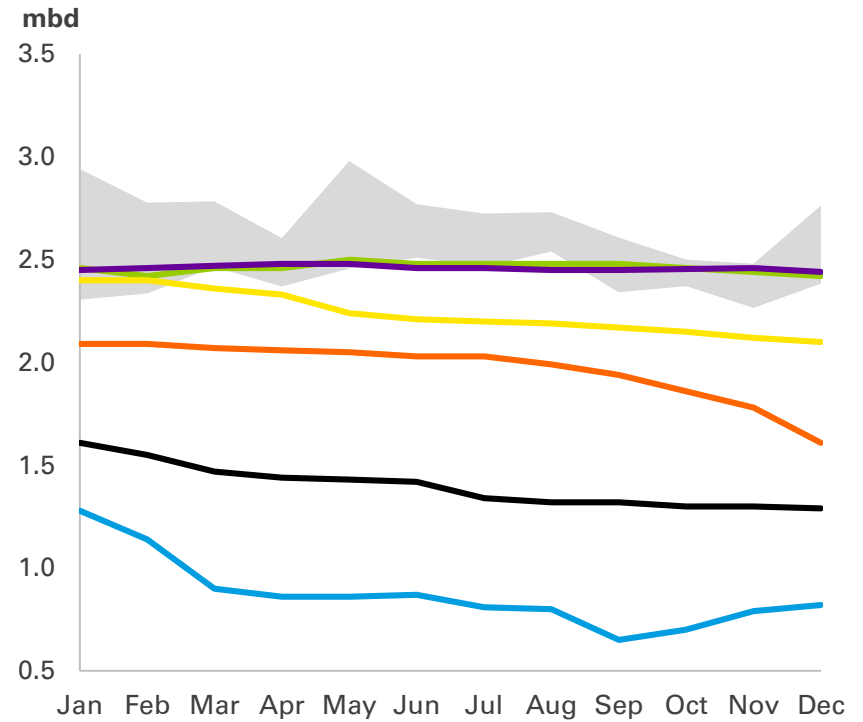
- Iranian crude supply remained low at 2mbd in Dec-19, as US sanctions suppressed the country's oil exports.
- Iranian production sunk to 2mbd in 2019, the lowest level since 1988, while Venezuela also fell to 870kbd.
- The IEA states that Iranian crude exports stood at 300kbd, around 2.5mbd lower than before Washington withdrew from the JCPOA.
- Venezuelan output reached 850kbd in Dec-19, due to ongoing operational difficulties and the pressure of international sanctions.

Iran Crude Supply



Min '09-'13 range 2014 2015

Venezuela Crude Supply



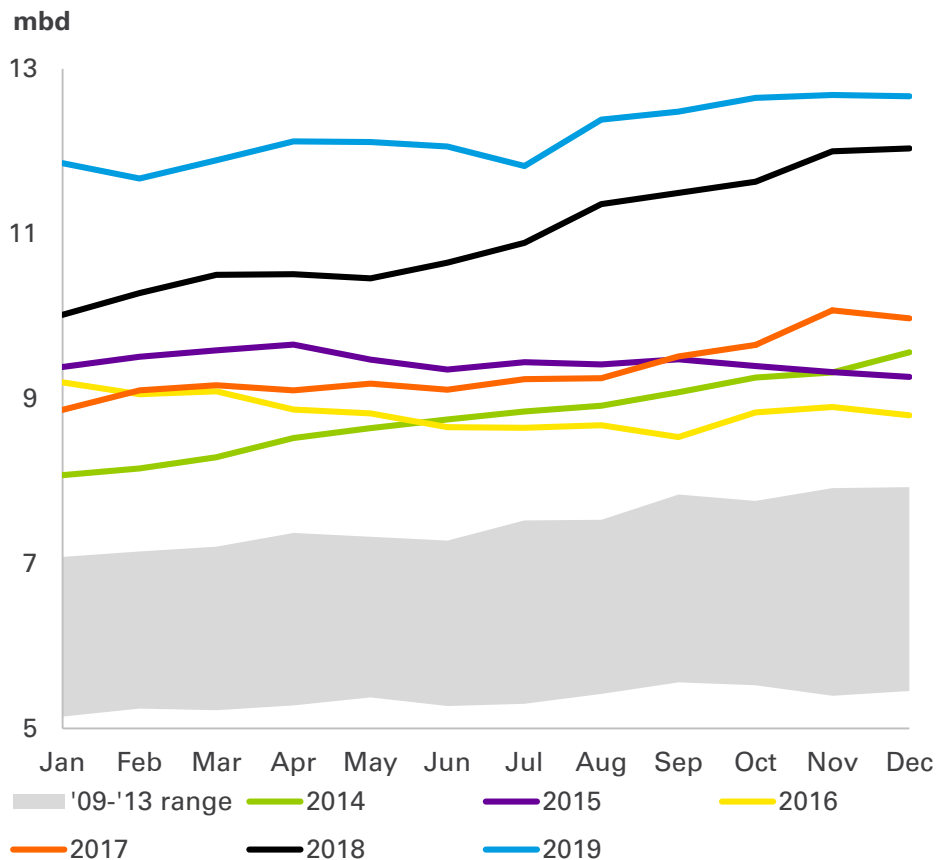
2016 2017 2018 2019

However, US production growth continues to offset losses elsewhere

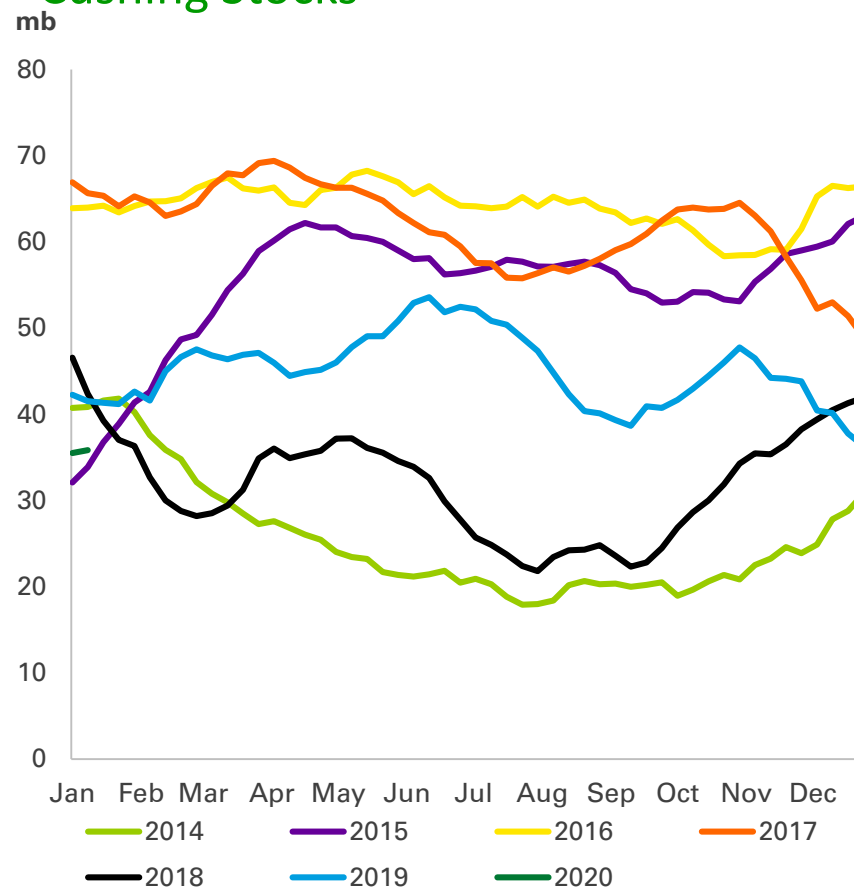


- US crude supply continues to reach new highs, hitting over 12.6mbd in Dec-19. The latest weekly DOE statistics report US crude supply at 13mbd.
- In Dec-19, the US produced 1mbd more crude than Russia and 3mbd more than Saudi Arabia, the two next largest oil producers.
- Cushing stocks fell in 4Q19 and remain significantly lower than 2016/2017 levels.

US Crude Supply



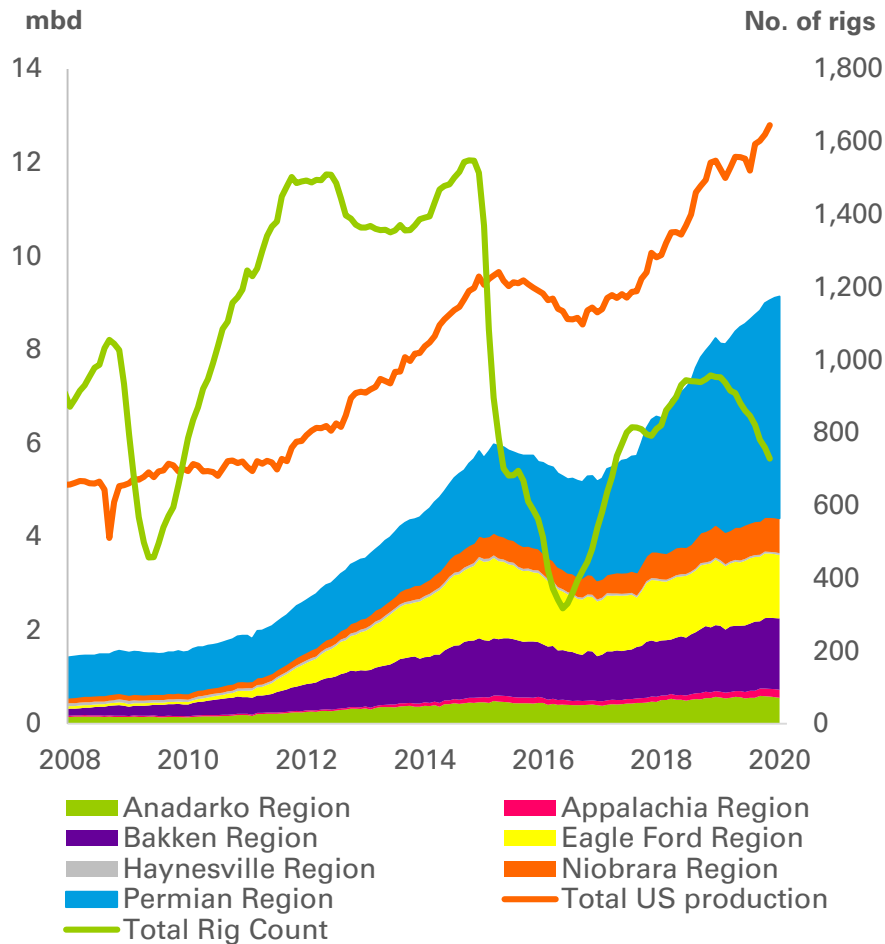
Cushing Stocks



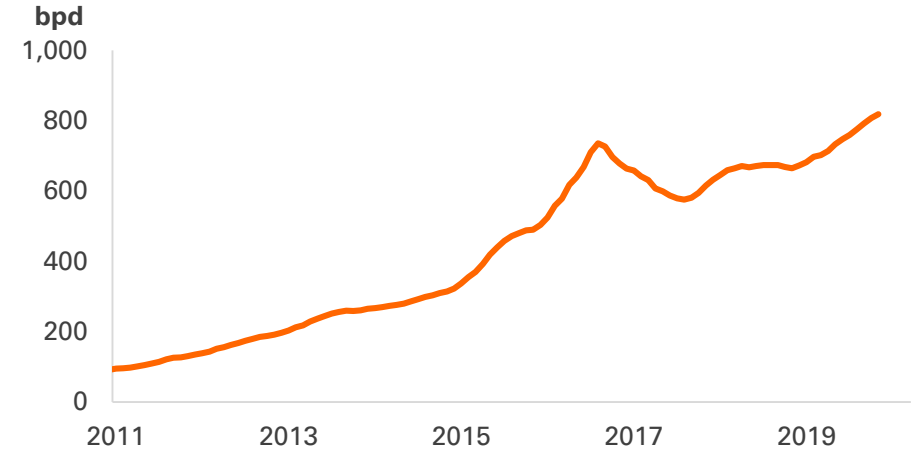
US rig count decreases whilst production continues to grow

- Significant productivity gains have allowed for an increase in US production despite the rig count decreasing.
- Despite the rig count falling by 23% between Jan-19 and Nov-19, production has increased 8% and average production per rig hit 819 bpd in Nov-19. Baker Hughes reports a slight increase in rig count during Jan-20.
- In the same period, total Drilled but Uncompleted (DUC) wells decreased by 9% in the major shale regions.

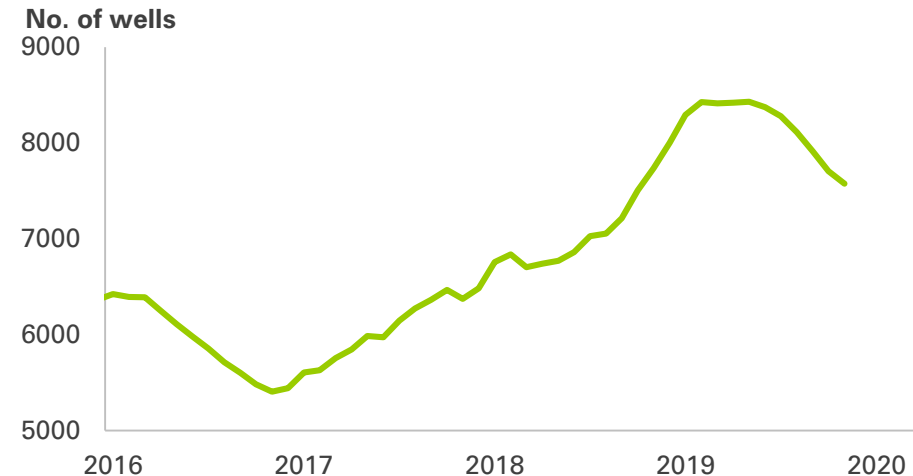
Rig count vs. crude production



Average production per rig



Total DUCs



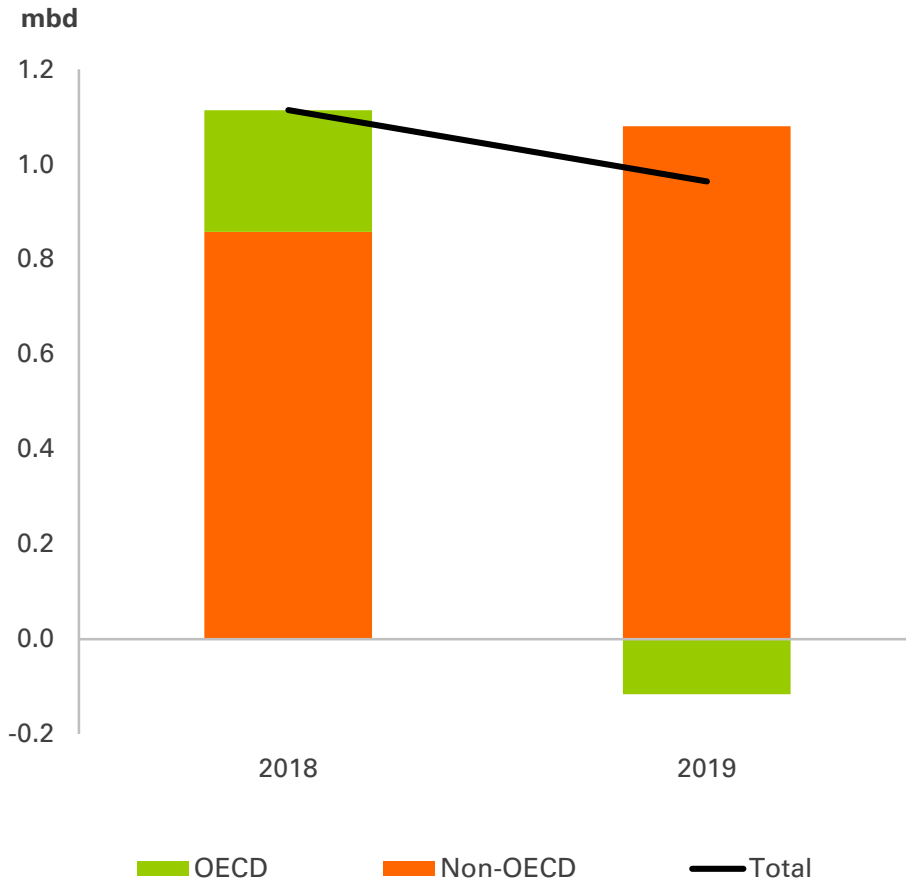
DPR Regions (Anadarko, Appalachia, Bakken, Eagle Ford, Haynesville, Niobrara & Permian) do not represent all hydrocarbon producing areas

Oil demand growth in 2019 was below 2018 levels

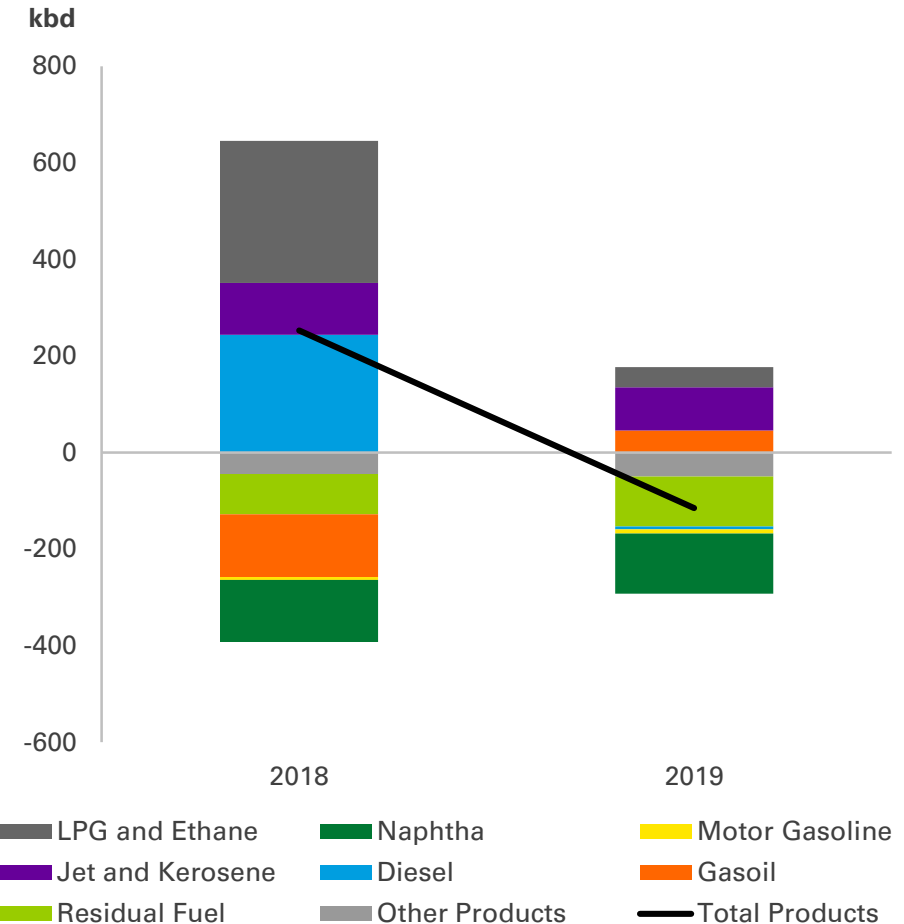


- Global total oil demand rose 955kbd y-o-y to 101mbd in Oct-19 (the latest month for which complete figures are available), confirming the acceleration in annual growth rate seen in 2H19.
- Despite falling demand in OECD, many non-OECD countries demand have grown strongly, including China (+720kbd in October), Saudi Arabia (+290kbd in October) and Russia (+215kbd in October) according to IEA data.

Y/Y total products demand growth



Y/Y OECD products demand growth

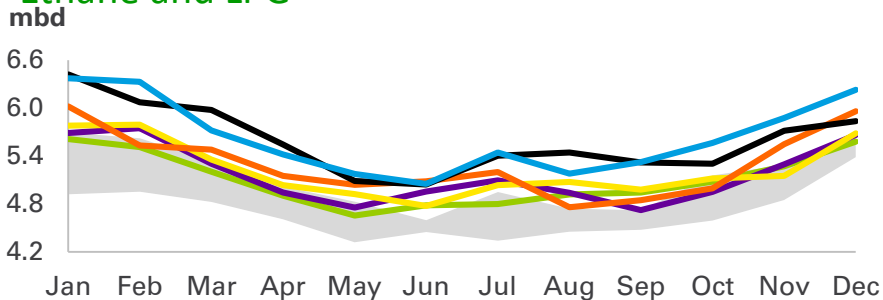


OECD product demand presents a mixed story

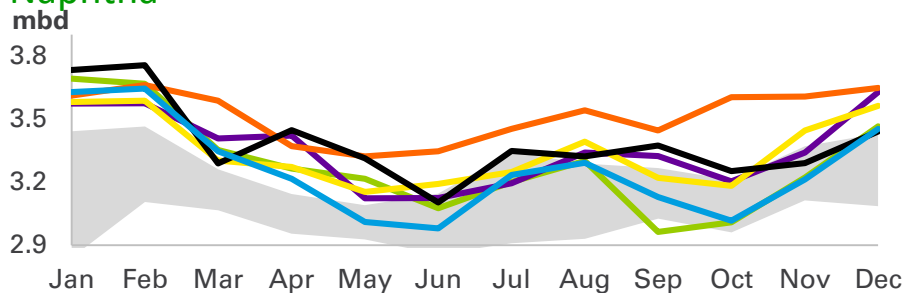


- OECD oil consumption fell in Oct-20 driven by mediocre economic growth, warm weather and weak petrochemical feedstock demand. Ethane/LPG, naphtha and jet demand recovered somewhat in Nov/Dec-19.
- Gasoline and diesel/gasoil demand remained approximately unchanged from 2018 levels in 2019, while residuals demand fell and ethane/LPG demand grew moderately year-on-year.

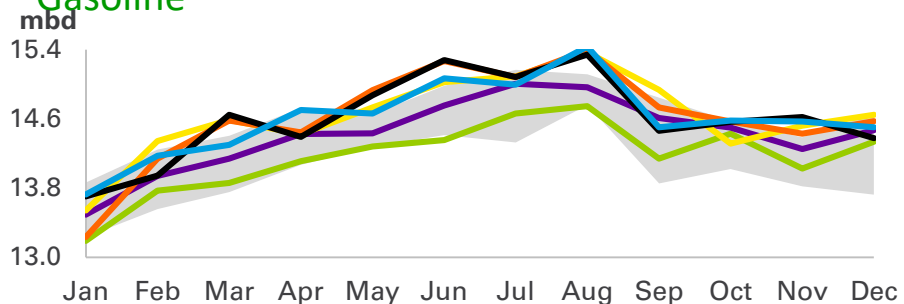
OECD Product Demand Ethane and LPG



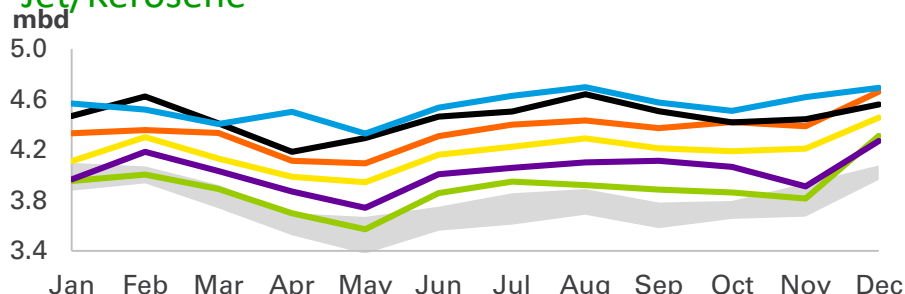
Naphtha



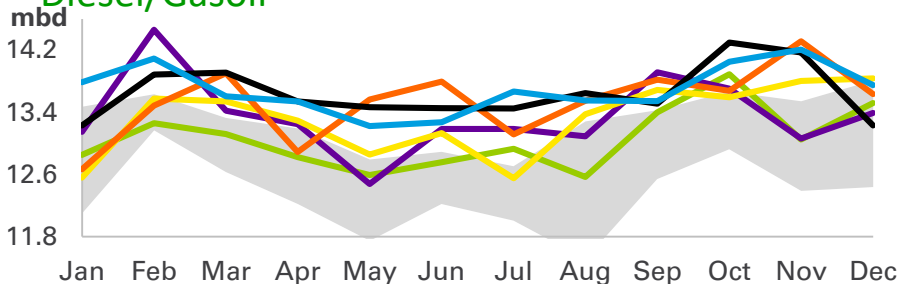
Gasoline



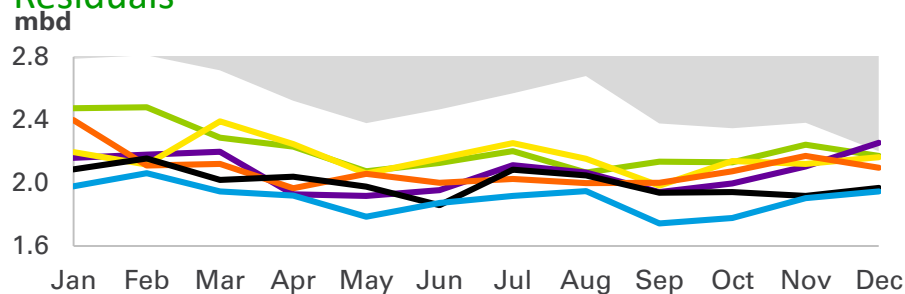
Jet/Kerosene



Diesel/Gasoil



Residuals



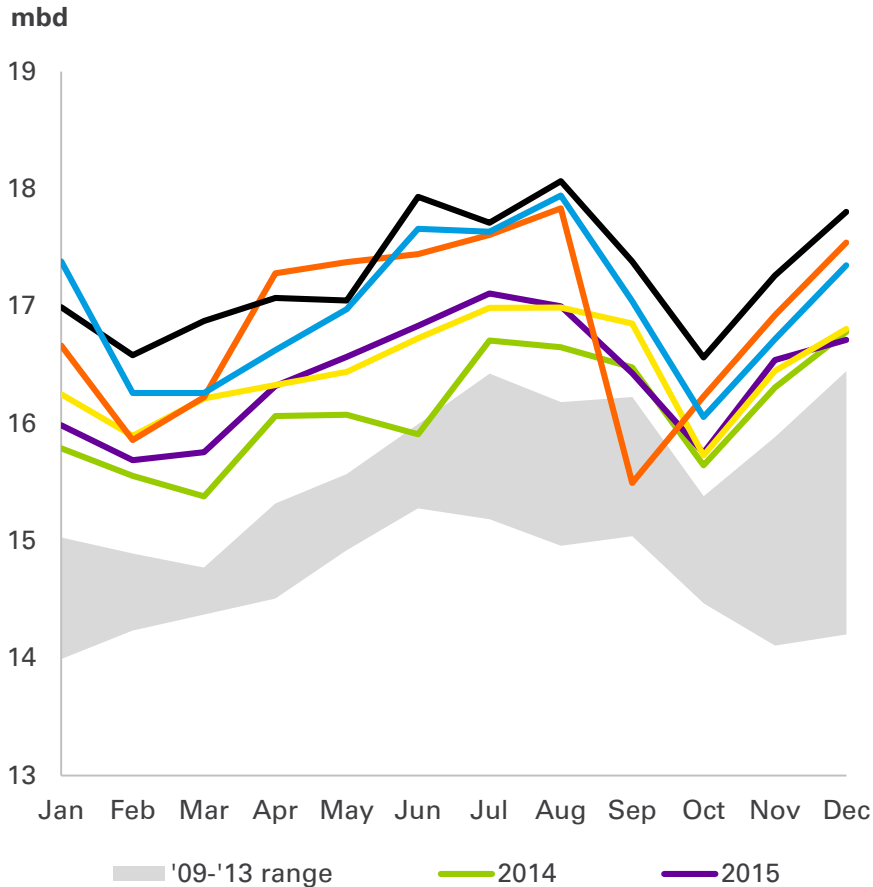
'09-'13 range
 2014
 2015
 2016
 2017
 2018
 2019

OECD refinery runs were impacted by higher than average TARs in 2019

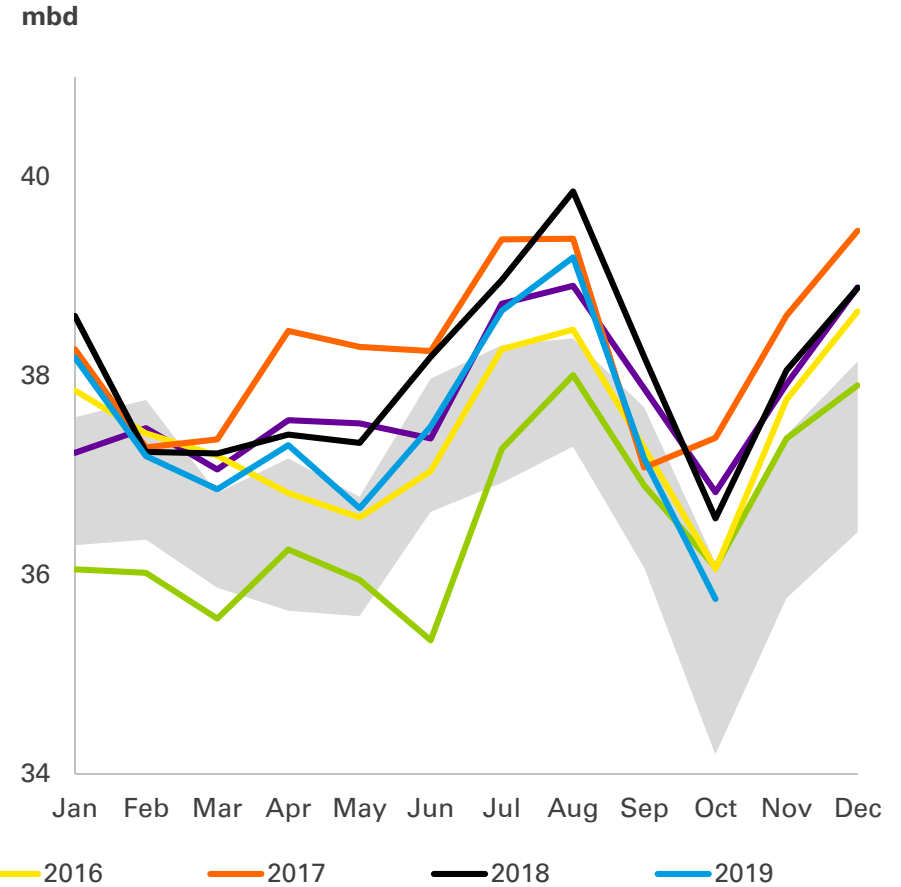


- US crude runs increased in 4Q19 in line with the 2017/2018 trend, yet have remained down year on year.
- Total OECD crude runs have also fallen year-on-year, down by over 800kbd in Oct-19.

US crude runs



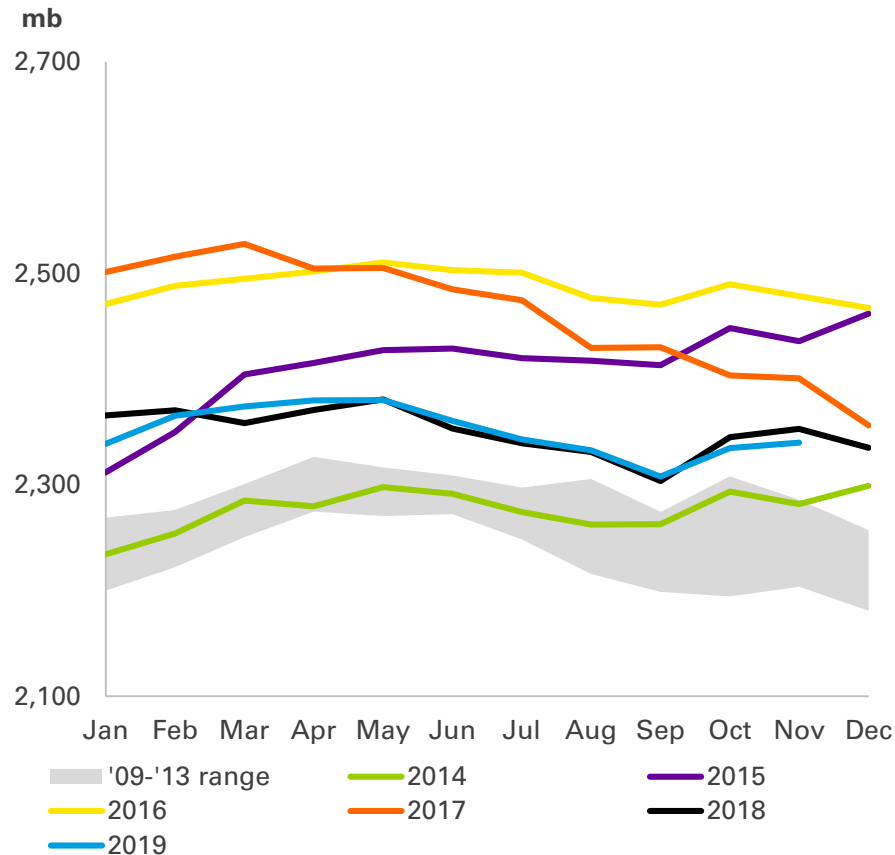
OECD crude runs



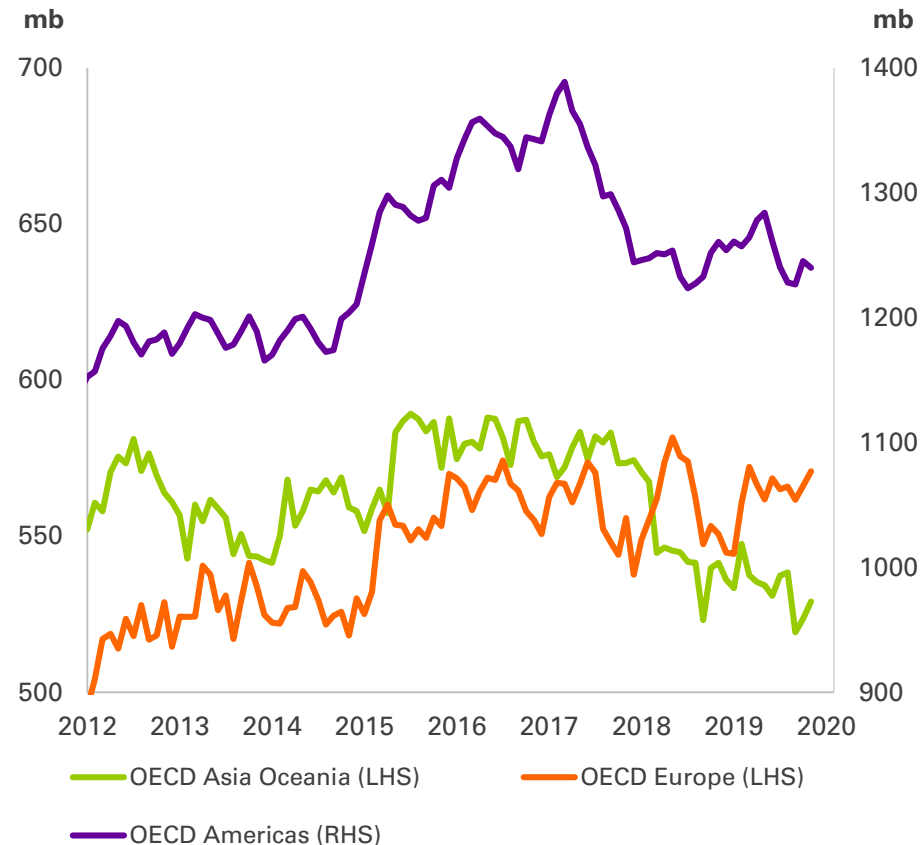
Total OECD crude stock levels remain similar to 2018 levels

- OECD crude stocks built by over 45mb from Jan-May 2019, returning to the level they were 12 months earlier.
- Stocks have since decreased over 3Q19 and built in 4Q19, in line with seasonal norms.
- OECD crude stocks trends are not uniform globally; stocks remain at higher than historical norms in Europe and lower than historical norms in Asia.

Total OECD Crude Stocks



Regional OECD Total Crude Stocks

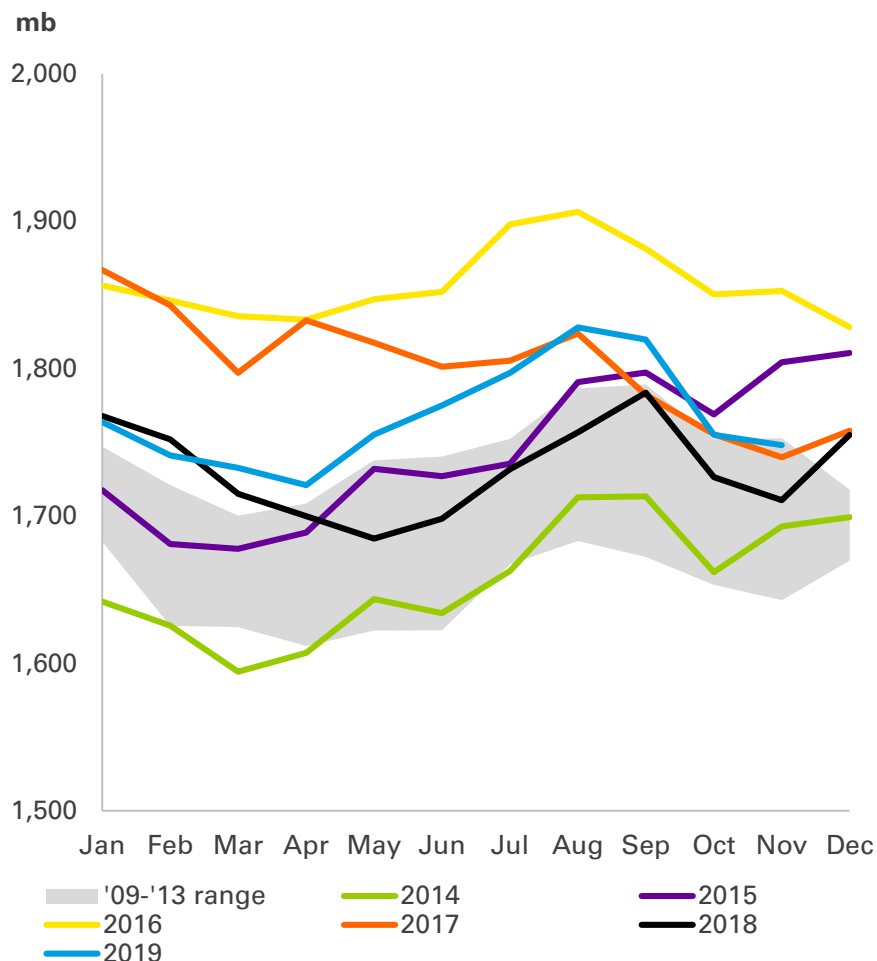


OECD product stocks fall in 4Q19 following seasonal trends

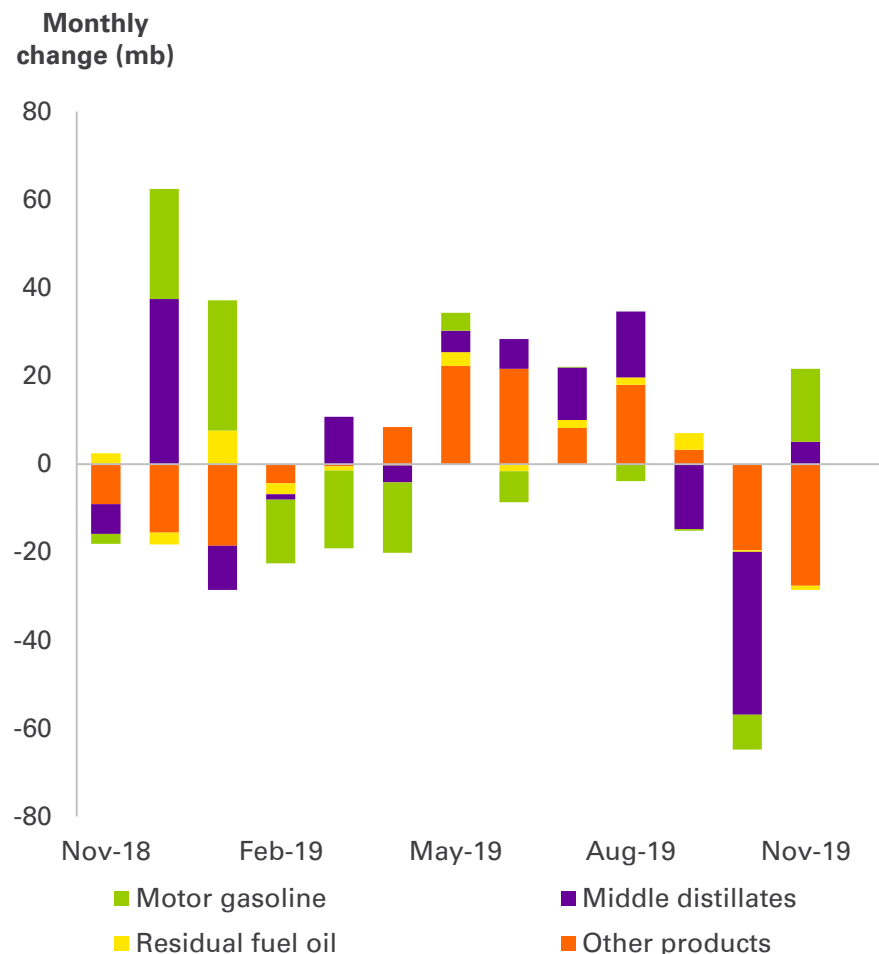


- OECD product stocks fell by 70mb between Sep-19 and Nov-19, reversing most the build that occurred earlier in the year.
- In Oct/Nov-19, middle distillates and other products contributed to most the stock fall, with a small increase in gasoline stocks, reversing the changes observed in 3Q19.

OECD Total Product Stocks



OECD Total Product Stock Change

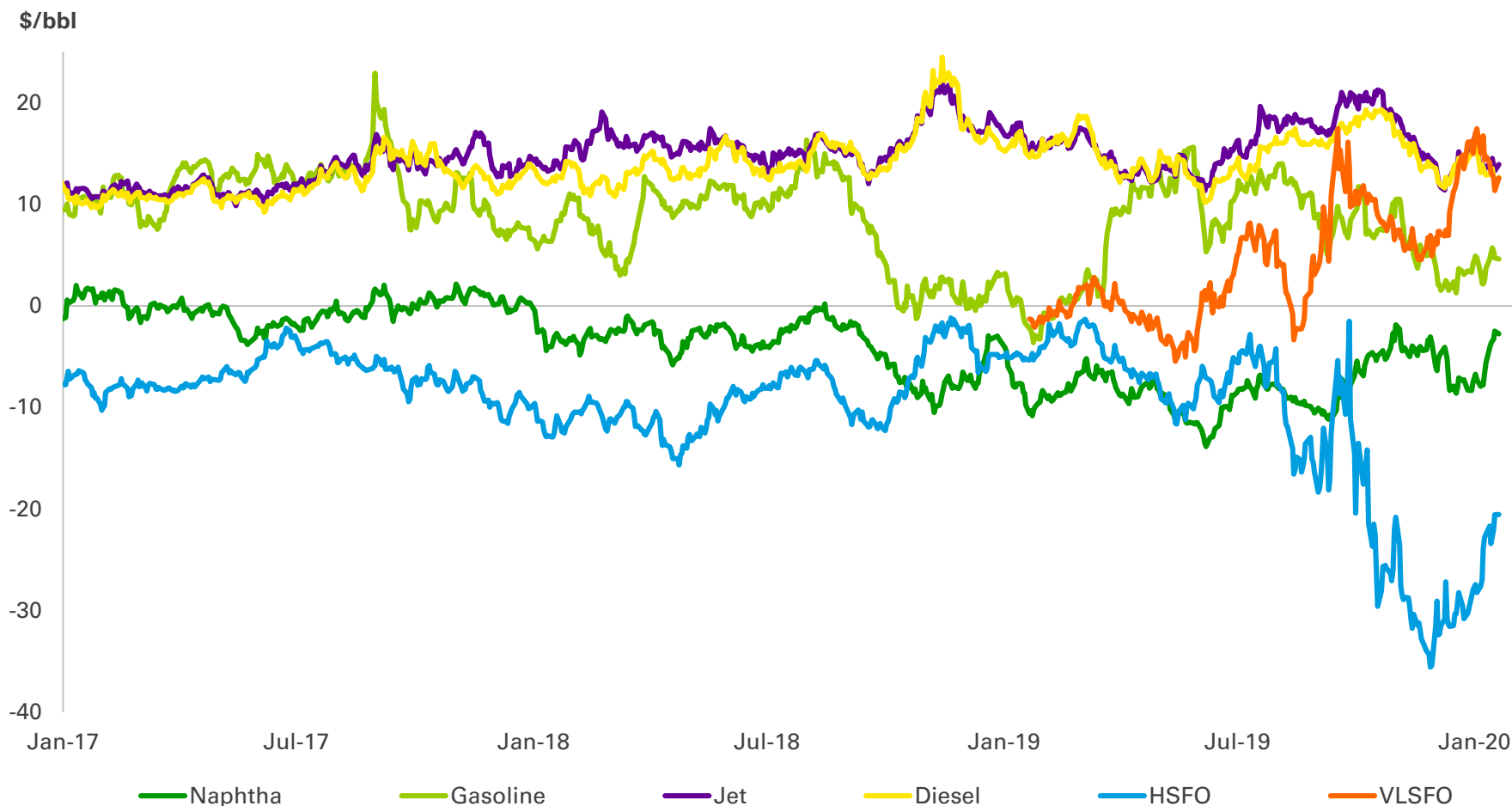


European products market volatile in run up to IMO 2020



- The price of HSFO fell to a low of -\$35/bbl at the end of Nov-19, as demand for HSFO fell as a result of the IMO 2020 regulations. HSFO has since recovered to -\$17/bbl following lower refinery supply and new demand from coking refineries.
- VLSFO demand and cracks have increased significantly since Sep-19, with cracks averaging +\$9/bbl in 4Q19
- Diesel and jet cracks fell during 4Q19 following low industrial demand and the weak macroeconomic environment, but recovered during Dec-19 to +\$15/bbl and +\$16/bbl respectively.

Product Cracks (NWE FOB)

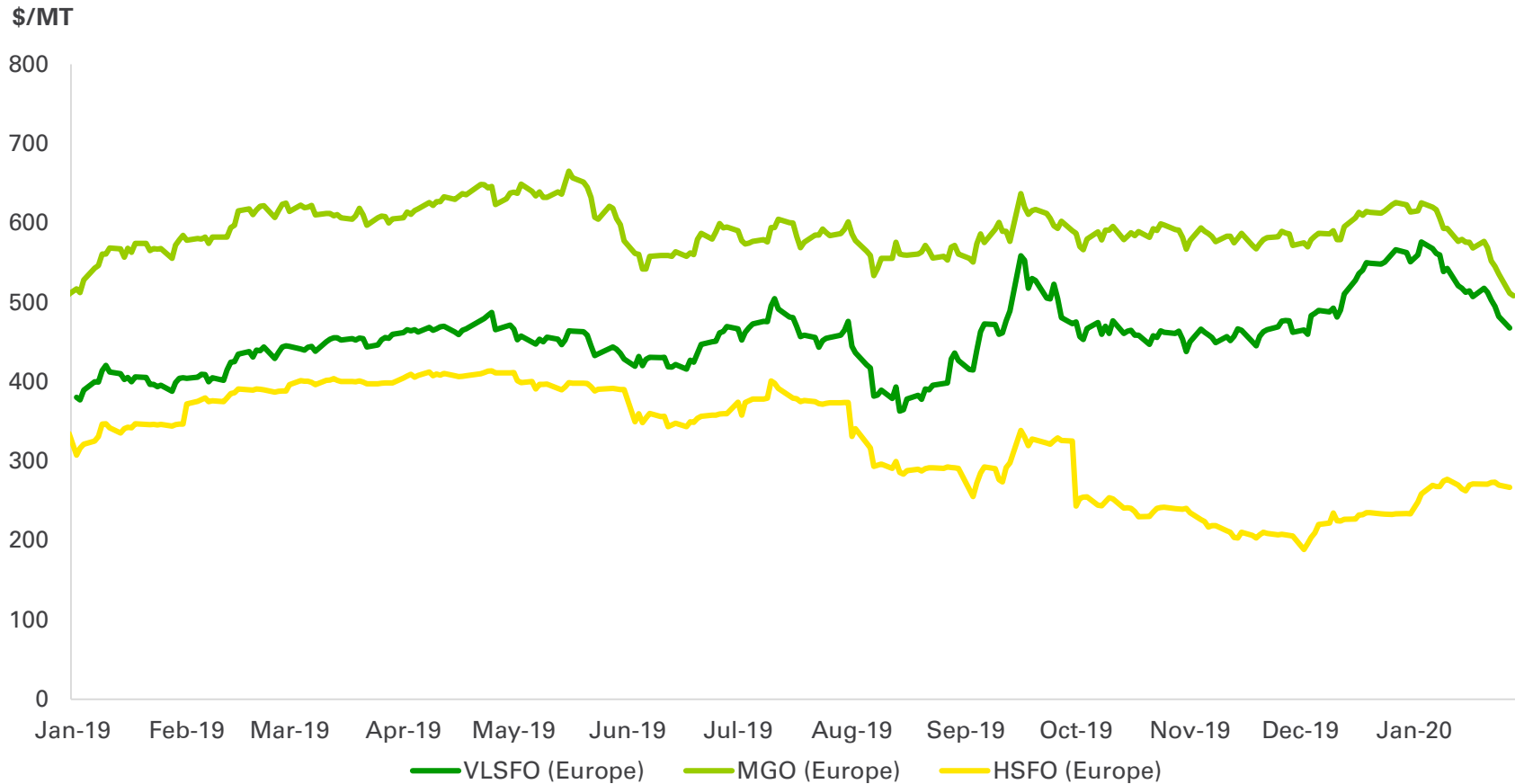


IMO 2020 has had a significant impact on the price of different shipping fuels



- VLSFO pricing has rallied relative to MGO since Dec-19, and has averaged only a \$50/ton discount since 1st Jan 2020.
- The price spread between VLSFO and HSFO widened from \$50/ton in 1Q19 to \$250/ton in 4Q19.

Product prices (NWE FOB)





Refinery margins fell in Q4 2019 on lower gasoline and diesel cracks

- Global Refinery Marker Margins (RMM) steadily fell from a high of \$20 in Oct-19 to \$7 during Dec-19
- During 4Q19, gasoline and diesel cracks fell \$7/bbl and \$5/bbl respectively following the weak macroeconomic environment and low industrial demand.

BP Global Refining Marker Margin (RMM)



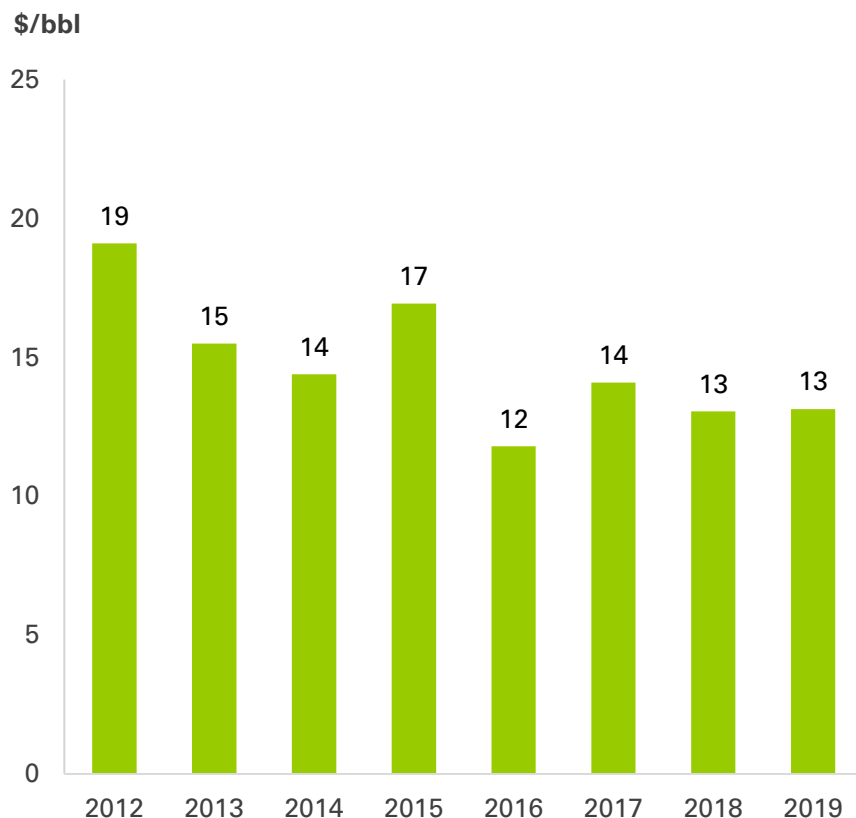
The BP Global Refining Marker Margin (RMM) is a simplified indicator that reflects the margins achieved on gasoline and diesel only. The RMM may not be representative of the margin achieved by BP in any period because of BP's particular refinery configurations and crude and product slates.

Global refinery margins were unchanged year on year

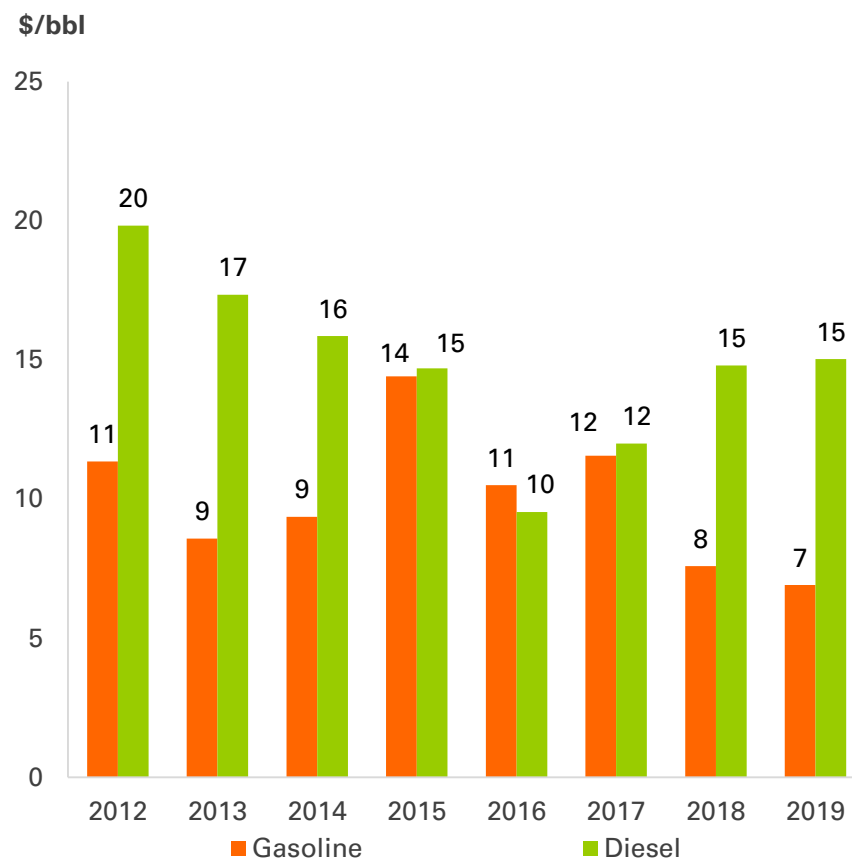


- Global Refinery Marker Margin (RMM) averaged \$13/bbl in both 2018 and 2019.
- Gasoline cracks fell slightly and diesel cracks increased marginally in Europe in 2019 compared to the previous year.
- RMM has been comparatively low in 2020 to date due to suppressed gasoline values.

Global annual average Refinery Margin Marker (RMM)



Annual average NWE Gasoline and Diesel cracks



Upcoming events



- OPEC are due to meet in Vienna on 5th March 2020, and will be joined by other members of OPEC+ on 6th March 2020.
 - The meeting will provide an opportunity to assess the extent to which their production cut has succeeded in rebalancing the market, and to discuss production plans for 2020.
- United States presidential election is scheduled for November 2020.