Oil Market Weekly Update

DOE and Global Supply / Demand Analysis **December 15, 2021**

Data

- **Positive data. Record high product demand!! Crude inventories fell by 4.6mmb (excluding the SPR sale of 2.0mmb) and remain at multi- year lows for this time of year, as exports (of SPR oil?) surged. Product inventories also fell sharply and the comparison with normal seasonal patterns is striking – product inventories normally rise into year-end. Levels remain at the bottom of the 5 year range, and the gap with the 5 year average is widening. The complex saw a huge fall, down by 15.9mmb excluding the spr. Production was steady at 11.7mmbpd. Total product demand surged to 23.2mmbpd, anew all time high and way above 2019 levels!! Gasoline demand remains strong. Distillate demand was also strong. Cushing rose by 1.3mmb to 32.2mmb. Net imports fell on very strong exports. Imports from Ecuador, Colombia and Saudi Arabia rose. Imports from Iraq and Brazil fell. Refining runs fell slightly to 15.7mmbpd. Large global inventories draws continue!**

- **This week we have adjusted lower global demand in Q4 slightly on closures in China. We believe switching to oil from gas will show up in higher demand in Q1, and Europe is running cold so far versus the US. It is not just Europe and Asia that will see switching, but South America and Africa as well, with the potential higher than the market expects. We have cumulatively raised Q4/Q1 by 500kbpd since the rally in European gas started, and still think that the risk is that it will be higher, but we took down demand again on China closures due to COVID. On the supply side we lowered production for Q4 on Ecuador's force majeure. Our forecast continues to look for a large draw in Q4, although now slightly smaller, and inventories drawing through the end of 2022. Initially we saw the market shifting to a surplus in 2022, but that has been pushed back to a surplus in 2023. Globally less flying is translating into more gasoline demand as travellers decide to stay closer to home and drive. But air travel is recovering steadily. This is keeping gasoline demand high counter-seasonally and inventories very low and the real divergence in gasoline inventories is showing up now.**

- **Supply restraint by OPEC and US producers continues to push OECD inventories below their 5 year averages, and there are more draws coming. The IEA's most recent estimate puts October inventories 207mmb below their 2015-2019 average (see below). The largest draw in oil inventories will occur this quarter, and 2021 as a whole looks to draw by 1.6mmbpd. OPEC will continue to add supply gradually and outside of OPEC there are only a few other sources of oil production growth. OPEC+ production is failing to rise as quickly as the revised quotas, with a handful of countries facing difficulties in raising production, including Nigeria and Angola, although estimates of production in November are mixed (see below). A return of Iranian production has been pushed into 2023. Demand should continue to grow more quickly than supply into 2022, which leads to inventory draws. This will put inventory levels at very low levels in the first half of 2022, before they begin to rebuild in the 2023. However, spare capacity levels will be much lower, providing a floor for prices. Overall we expect inventories to draw around 475kbpd next year.**

- **To reiterate, while we expect higher oil prices we do not think that a commodity super-cycle is underway. The demand curve would have to shift right for this to happen and currently demand is actually falling in many commodities as high prices cure high prices. Additionally, China has been effective in encouraging more production in markets such as coal. Outside of energy we expect commodity producers to lift production while consumers look for less expensive substitutes**

Data

With gas and power prices rising energy costs will trickle down to support other commodity prices, resulting in a higher overall commodity price index, but other sectors such as metals are seeing supply increases at the same time that demand is slowing.

- **Our global demand forecast looks for a rise of 5.2mmbpd in 2021, ending the year at 99.4mmbpd. We expect demand to continue to be strong in 2022, rising by 3.5 mmbpd and peaking in Q5 2022 at 100.5mmbpd. Our longer term forecast sees demand returning to long-term average levels in 2023/24 at 1.35mmbpd. Agency demand forecasts range from 5.1mmbpd-5.6mmbpd in 2021, with OPEC at the high end. For 2022 the range is for demand growth of 3.3mmbpd to 4.2mmbpd, with OPEC again the most optimistic.**

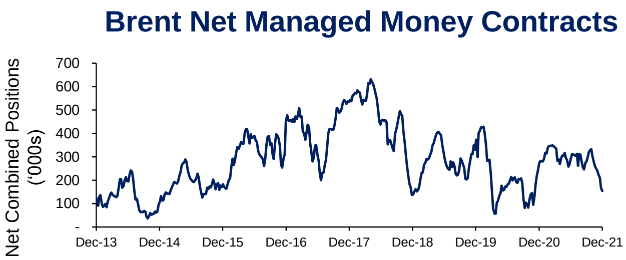
- **In the US, we expect oil production to fall slightly to 11.16mmbpd this year, with increased rigs not quite enough to offset natural declines. The EIA PSM reported oil production for September at 10.8mmbpd. We expect to end the year at 11.6mmbpd. We expect 2022 US production to average 11.6mmbpd, exiting the year at 12.0mmbpd on the back of higher rigs. Talk from producers at the World Petroleum Congress suggest we might be too optimistic on 2022. The EIA in its STEO sees US production in 2021 at 11.18mmbpd and expects annual production of 11.85mmbpd in 2022.**

- **Non-OPEC non-US production is likely higher by 750kbpd in 2021, with increases in Canada, South America and the North Sea. Total supply will rise by less than 1.0mmbpd in 2021. OPEC will re-gain market share over the forecast period, and this trend is likely to persist over the long run. For 2022, we expect total supply rises by almost 5mmbpd led by OPEC+, with small gains coming from South America and Canada, but strong demand results in a small draw in our forecast.**

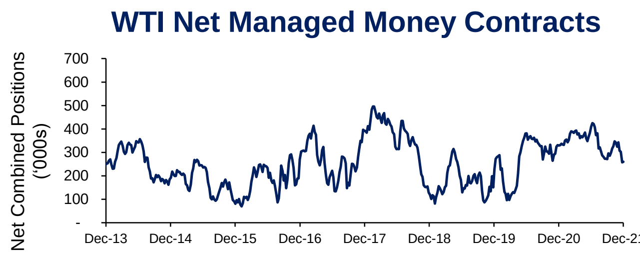
- **Gasoline demand in the US continues to be near all time highs on a seasonal basis and demand growth in gasoline can offset weaker jet fuel demand, leading to strong total product demand. High energy prices in Europe and Asia are also resulting in switching to fossil fuels (mostly distillate) for power generation. We do not see high price levels curbing demand yet outside of Brazil. Demand levels should return to 100mmbpd in 2022 which will keep the level of inventories below the 5 year average (2015-2019), and will set the stage for additional price rallies again in early 2022.**

Data

Positioning



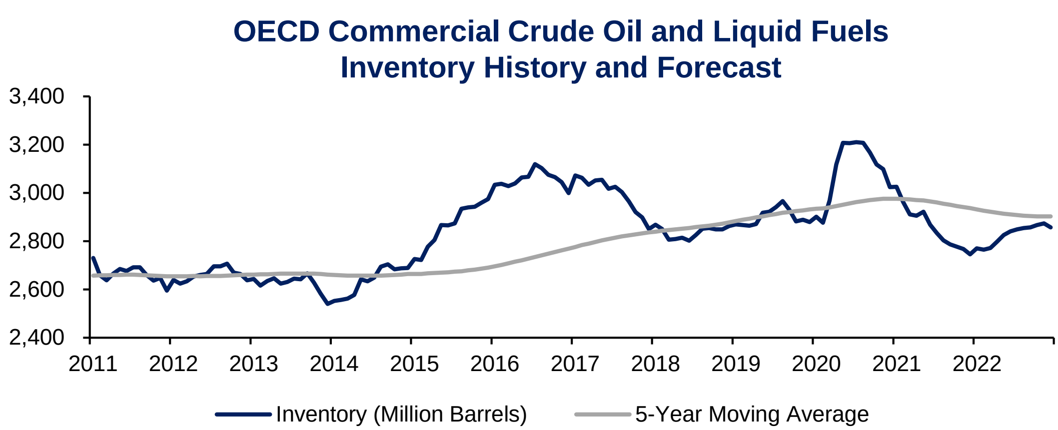
Source: Bloomberg



Source: Bloomberg

Physical Markets

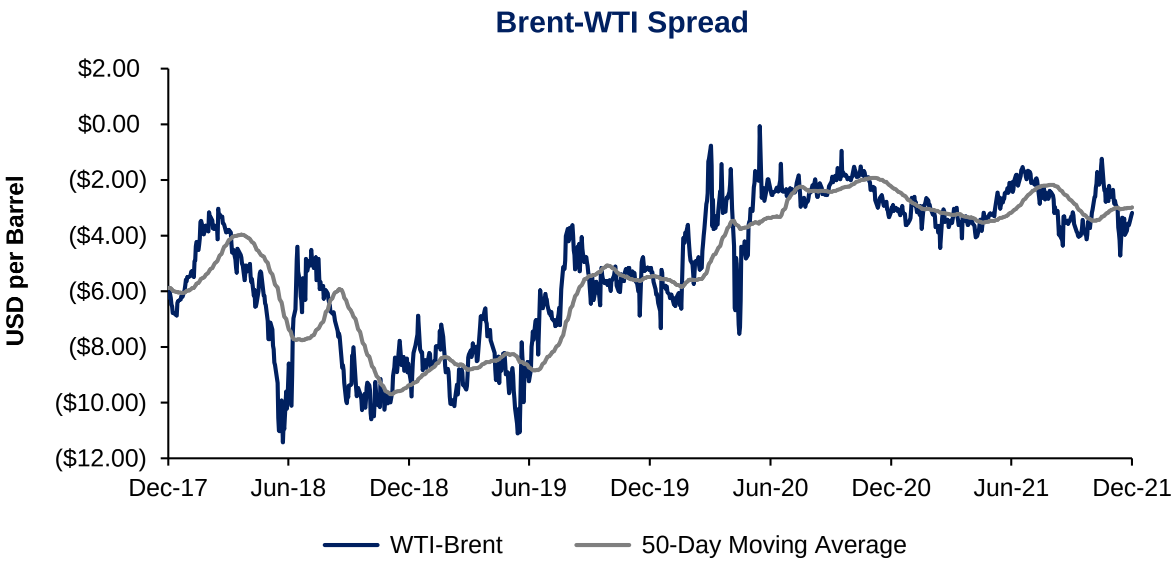
- Physical talk is on weaker Asian demand on lockdowns but better global jet fuel demand.



Source: Bloomberg

Forward Curves

- Front spreads in WTI and Brent continue to weaken. Brent spreads fell to $0.10 back, and WTI is $0.20 back. The February arb has narrowed to $3.35.



Source: Bloomberg

Balances

- **Demand adjusted lower in Q42021**

OPEC																
2021= 26.41			avg=	93.95			avg=	94.90			avg=	99.325			avg=	102.4
	2020				2021				2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Global Supply	100.2	91.3	91.8	92.5	92.4	94.1	95.7	97.4	98.1	98.7	100	100.5	101	101.9	102.8	103.9
Global Demand	94.5	83.9	92.1	93.9	93.3	94.7	97.9	99.2	98.8	99.2	100.4	100.5	100.4	100.9	101.4	101.8
				91.10				96.28				99.73				101.13
Inventory Build/Draw	5.7	7.4	-0.3	-1.4	-0.9	-0.6	-2.2	-1.8	-0.7	-0.5	-0.4	0	0.6	1.0	1.4	2.1

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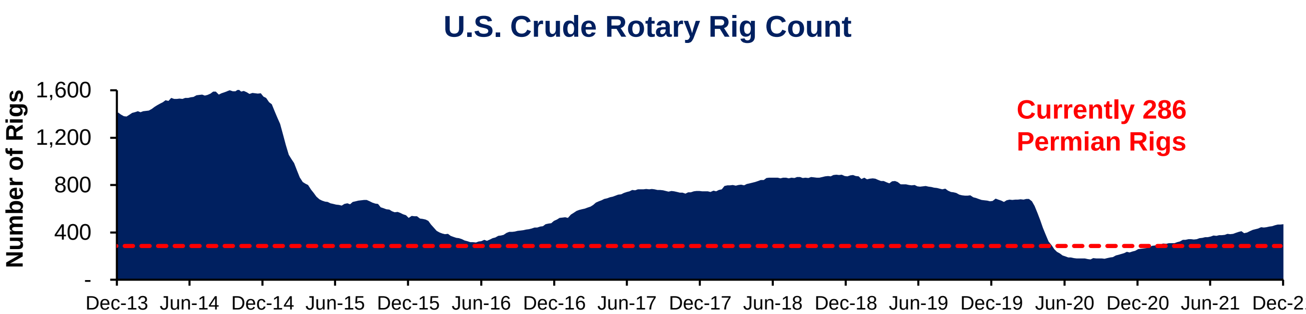
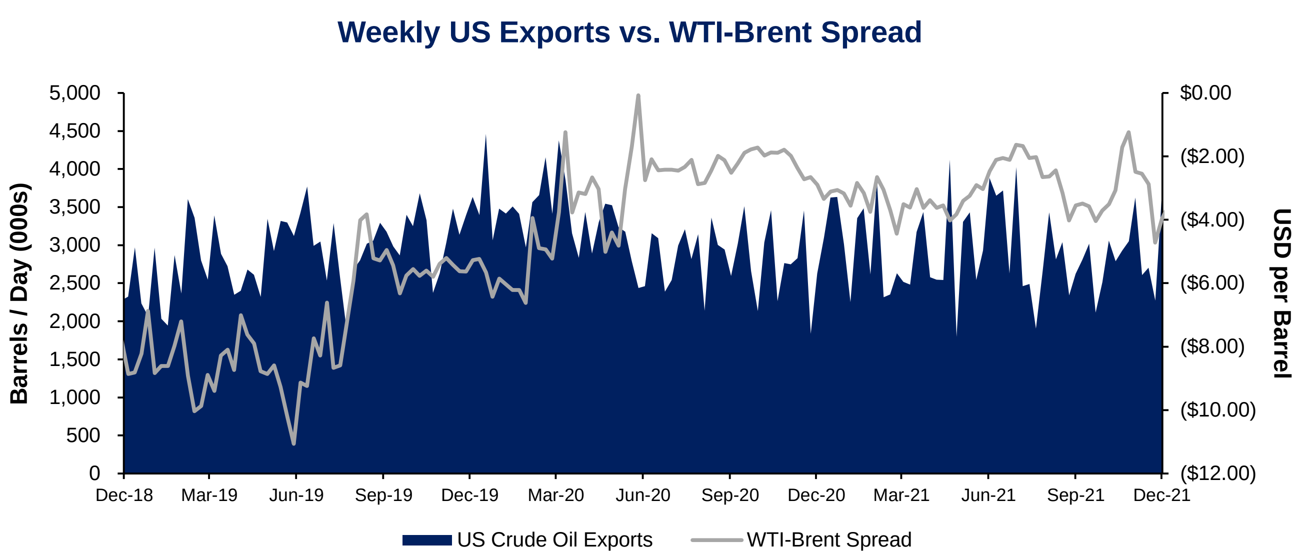
U.S. Supply

- Rigs rose 4 to 471. Permian rigs rose by 3. Private rigs have surpassed public rigs, leading some to downgrade US production due to their relative inefficiencies.



Source: Bloomberg, Baker Hughes U.S. Crude Rotary Rig Count Index

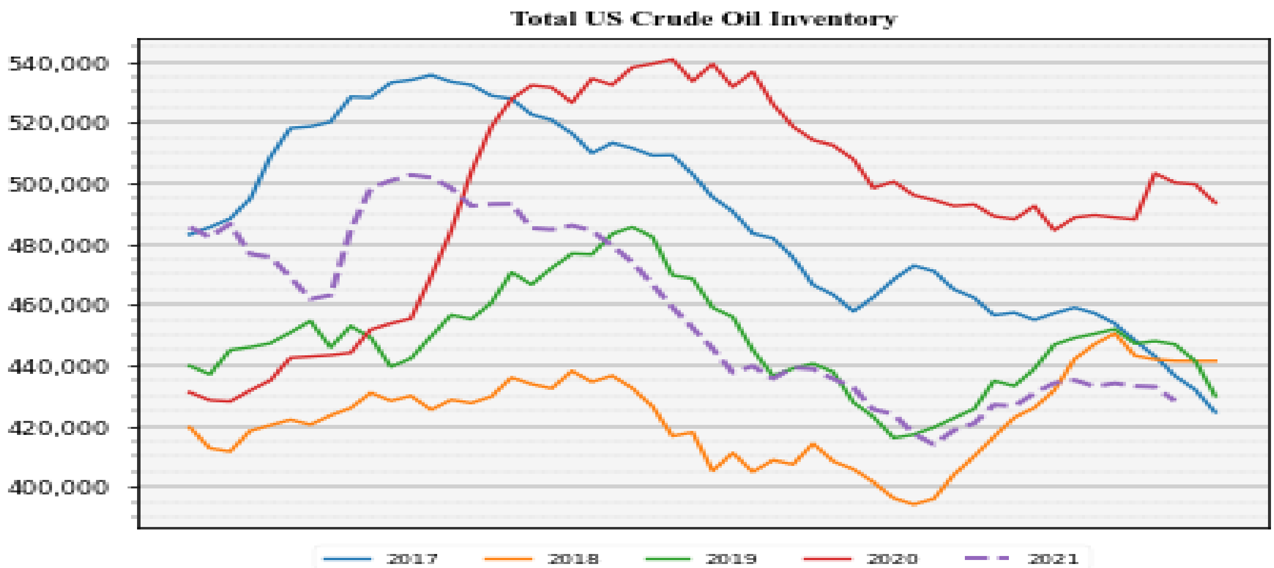
- Exports rose by 1.4mmbpd to 3.6mmbod. Recent moves in the arb will see exports stay strong into year-end.



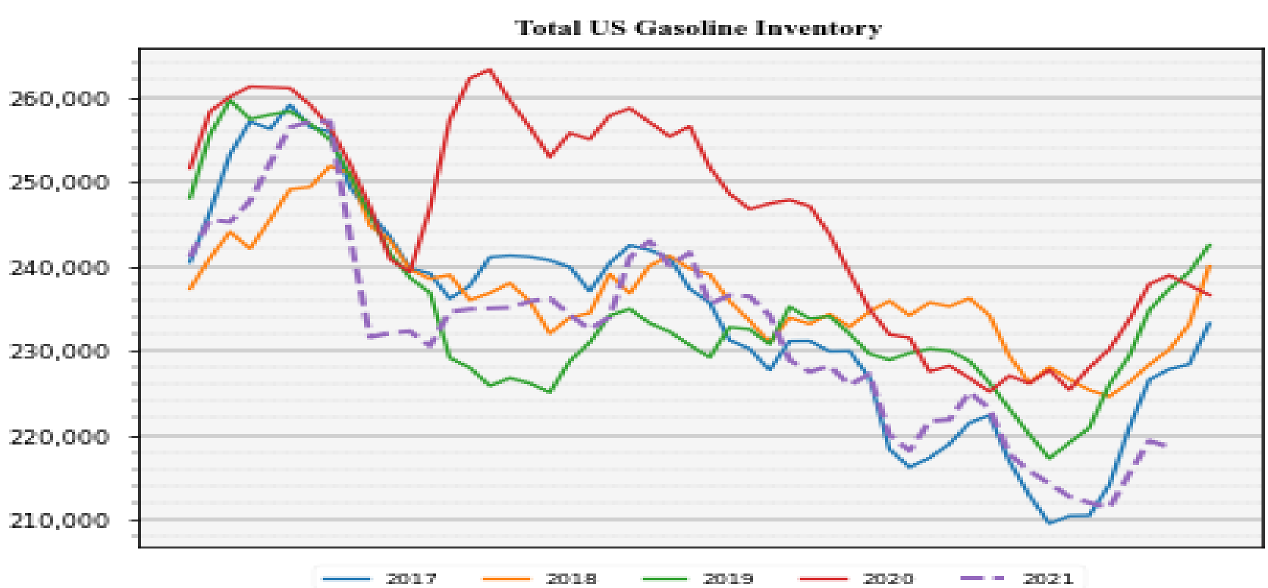
Source: Bloomberg, Department of Energy

US Supply (Continued)

- Crude oil inventories fell by 4.6mmb to 428.3mmb, despite a fall in refining runs. Crude oil exports were very strong, and there were stories of SPR oil being exported abroad. Distillate inventories fell by 2.9mmb, and gasoline inventories fell by 0.7mmb. Jet fuel inventories fell 1.1mmb while other oils inventories fell by 4.5mmb. Crude oil inventories should continue to fall through year-end, and remain very low for this time of year already.

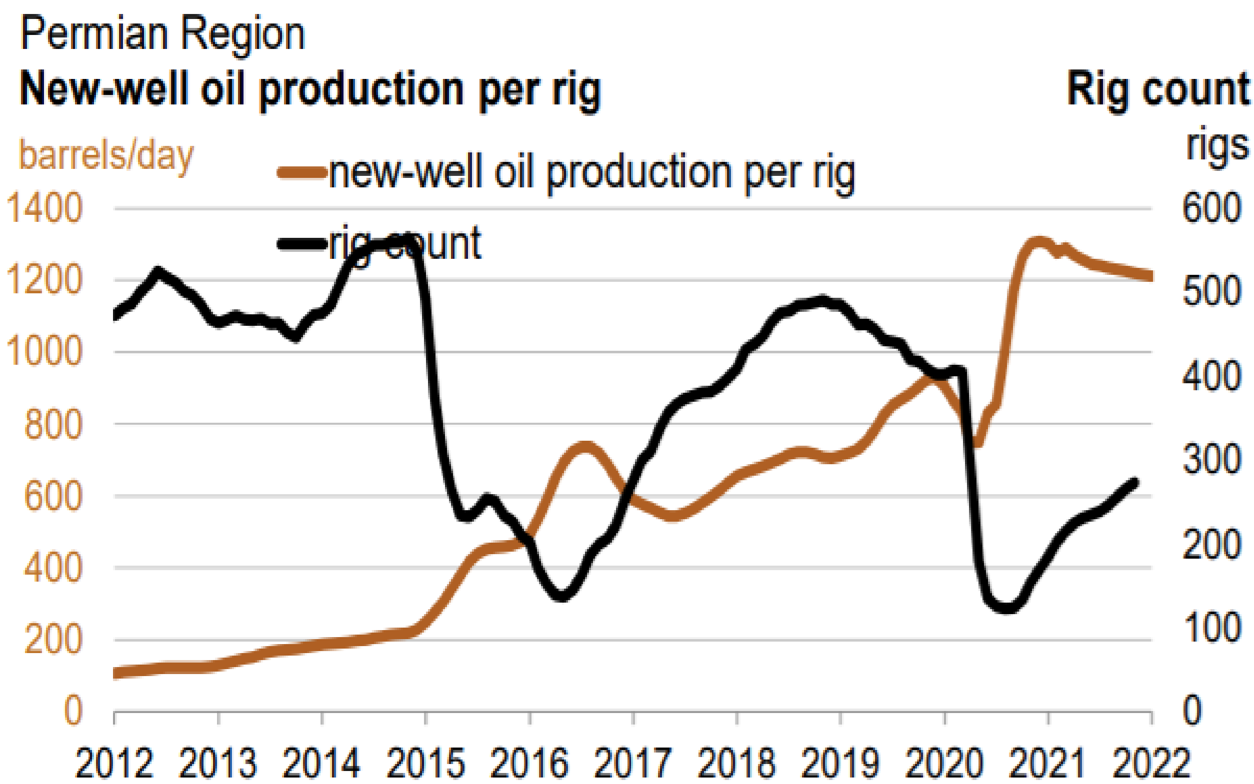


- Gasoline inventories fell by 700kb to 218.6mmb, and are also at the lowest levels for this time of year since December 2015. As we have cautioned, strong demand will keep inventories low into year-end, continuing to support higher gasoline prices.



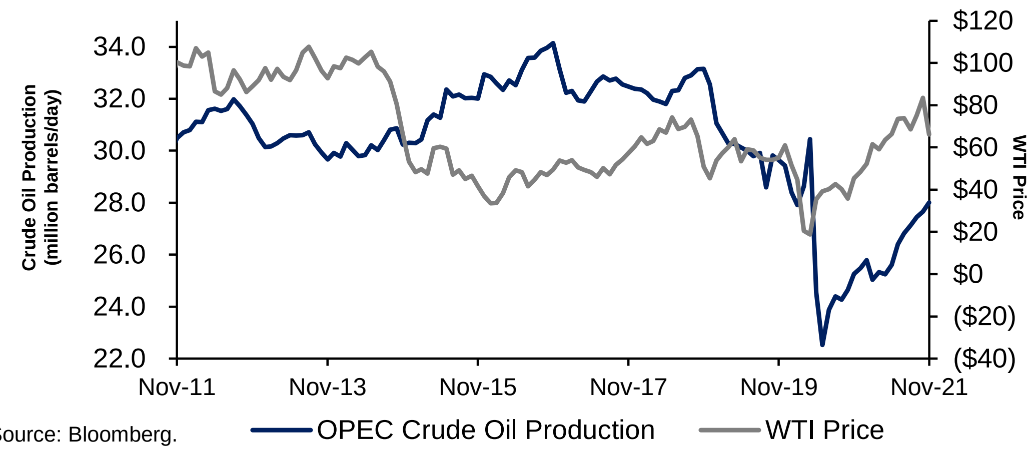
US Supply (Continued)

- The EIA's DPR was released this week and the EIA expects US shale production to continue to expand quickly, led by the Permian. The EIA sees tight oil production rising by 96kbpd to 8.44mmbpd in January 2022, from 8.34mmbpd in December. They expect Permian production to reach a new record this month at 4.96mmbpd, before rising 71kbpd to 5.03mmbpd in January. The DPR sees production growth in the Eagle Ford and Bakken in January also, but little growth from any other basins. DUCs continued to fall in November by 226 to 4855.



Global Supply

OPEC Production and Crude Oil Price



Source: Bloomberg.

- The IEA released its OMR and sees global oil supply growth up 6.4mmbpd in 2022, resulting in a large surplus. This is a slight downward revision in non-OPEC supply from last month of 120kbpd. Non-OPEC production is expected to rise 1.8mmbpd in 2022, with over half of that coming from the US. The downward revision of 120kbpd from last months report is due to lower Brazilian output and lower FSU output. The IEA is very optimistic on production, expecting the US, Brazil and Canada to all hit new all-time highs in oil production next year- a difficult goal for at least two of those countries. US liquids production is expected to hit 17.69mmbpd in 2022, up 1.0mmbpd yoy. The IEA has the highest forecast for Canadian oil production of all three agencies at 5.9mmbpd. OPEC output rose 310kbpd in November, and OPEC+ rose 400kbpd (Total oil production jumped by 970kbpd in November, with the biggest increase coming from the US. OECD inventory stocks fell in October by 21mmb (unlike OPEC which saw stocks rising slightly) to 2.737billion barrels, and this was revised from an expected build in the prior report. Preliminary data for November also shows a draw in inventories (despite the large jump in supply). The IEA now sees a surplus of 1.7mmbpd in Q1 2022 and 2.0mmbpd in Q2.

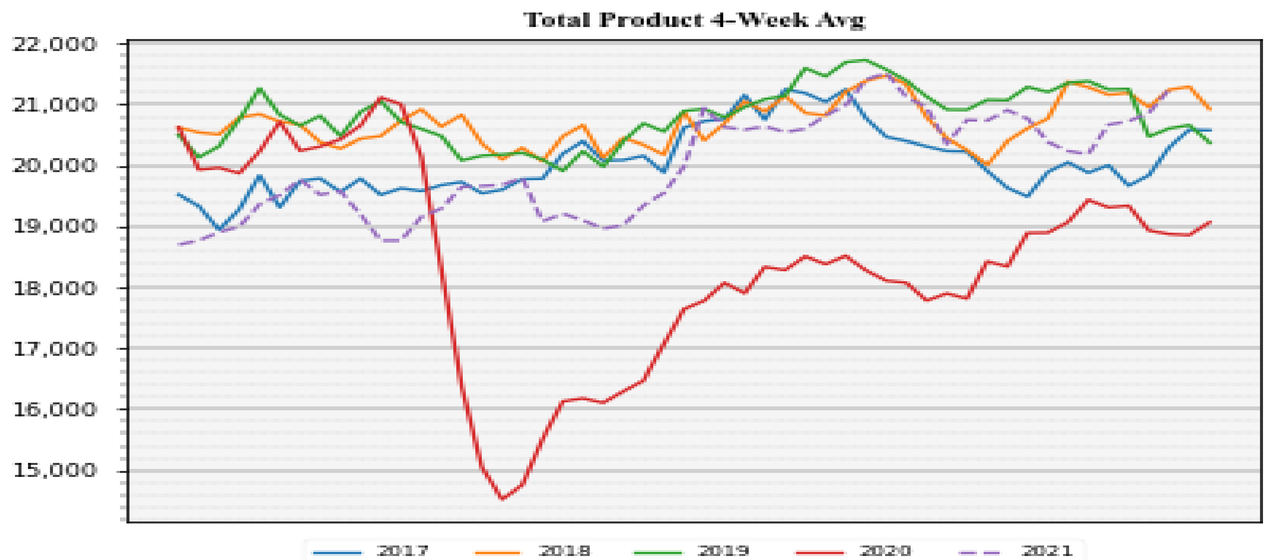
- The OPEC MOMR was also out this week, and they did not make any significant changes to supply. Non-OPEC supplies were left largely unchanged in both 2021 and 2022. US production was revised higher to 11.14mmbpd in 2021, and then will grow to 11.78mmbpd in 2022, ending the year at 12.3mmbpd. This is now above our forecast of 11.6mmbpd in 2022.Brazil supply was revised lower, alongside the UK and Colombia, largely offsetting upward revisions to the US.OPEC production was estimated at up 285kbpd in November, higher than their targeted increase. Production from Iraq and Saudi Arabia rose, as did Nigerian production which was estimated at up 85kbpd to 1.42mmbpd by secondary sources

- Preliminary data estimates that world oil supply rose by 880kbpd in November. OECD oil inventories rose slightly in October, but according to preliminary US data have fallen by more than that in November (see chart on p.2)

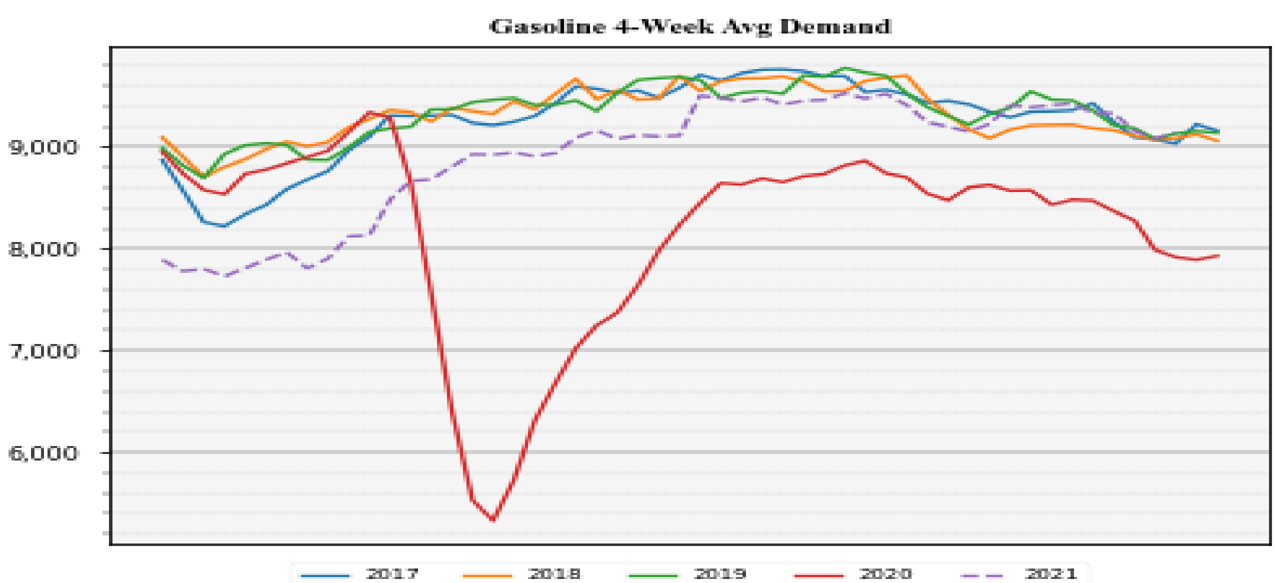
- Crude inventories in ARA region rose 2.1mmb to 50.8m bbl, Genscape data show.

U.S. Demand

- Total product demand surged to record highs!! Not even on a seasonal basis, ever!! Total product demand rose 3.4mmbpd to 23.2mmbpd. Distillate demand, gasoline demand and other oils demand were very strong. The four week average of total product demand hit a record for this time of year and will likely continue higher into year-end. Distillate demand rose 1.3mmbpd to 4.9mmbpd, and other oils demand rose to 4.9mmbpd from 4.0mmbpd. Jet fuel demand rose from 1.2mmbpd to 1.6mmbpd.

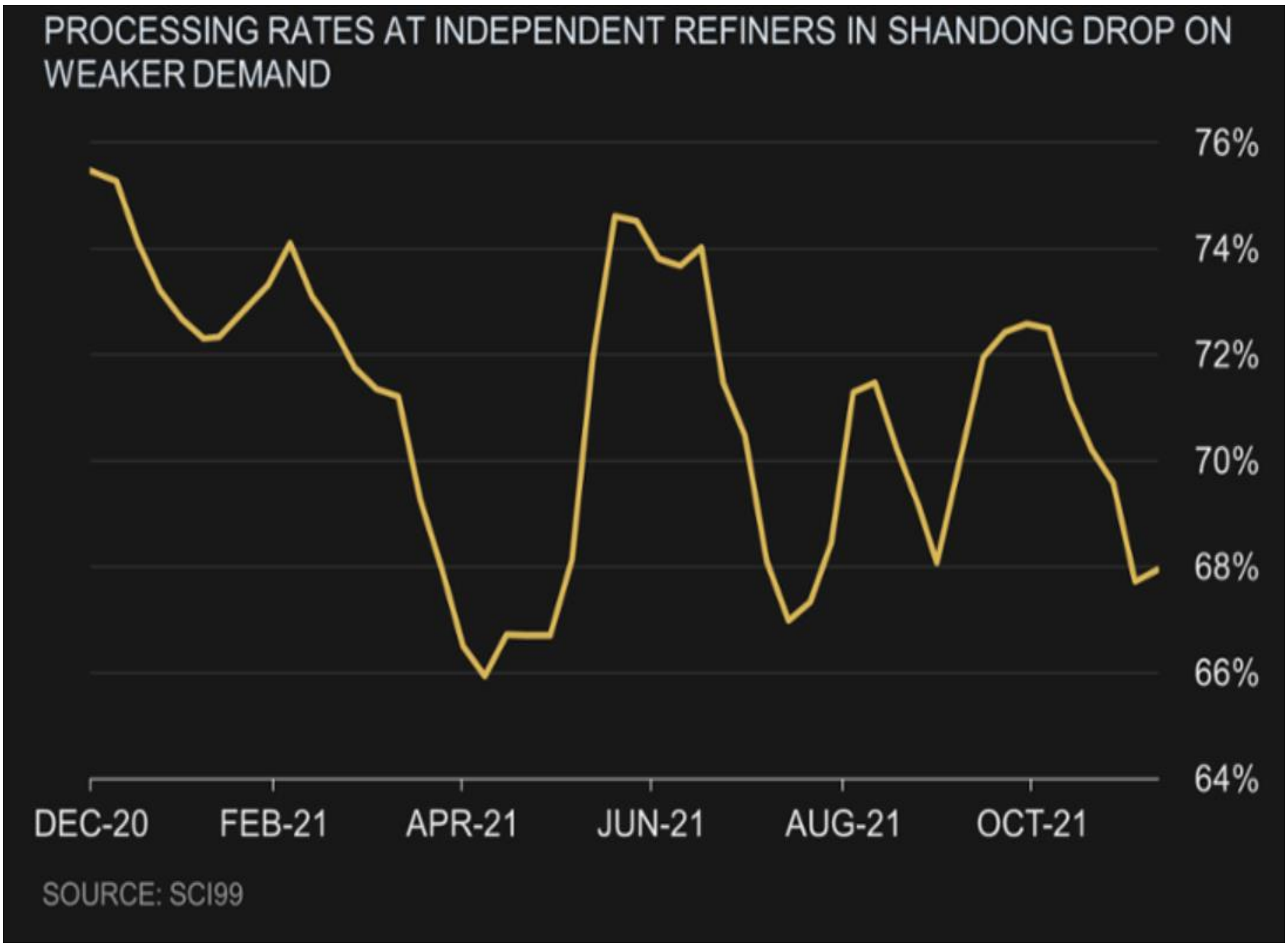


- Gasoline demand jumped to 9.47mmbpd, one of the highest ever demand levels seen at this time of year. Demand was higher in December 2017 and 2014, but only slightly.



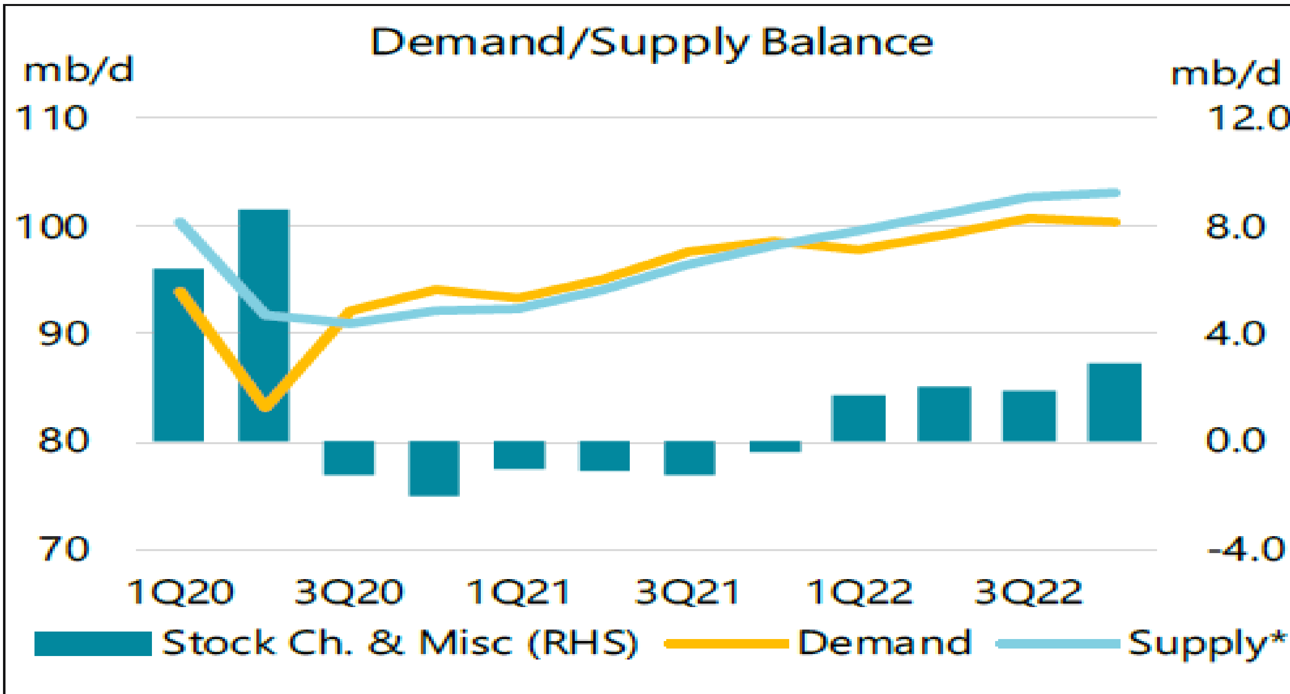
Global Demand

- Some signs that Chinese demand is weakening on the back of further COVId shutdowns. But the data is difficult to interpret as China has been cracking down on teapots for emissions and corruption, which has also lowered rates. However, Chinese imports of oil look to be down yoy this year, so demand growth has slowed from very high levels.



Global Demand

- The IEA's December OMR was released and took down oil demand growth slightly in both 2021 and 2022 to 5.4mmbpd and 3.3mmbpd respectively, lower by 110kbpd and 170kbpd. They revised down Q1 2022 demand by 600kbpd and revised later months higher. Q1 demand stands at 97.9mmbpd, down from 98.6mmbpd in Q4 2021. Demand growth is expected to primarily be hit in jet fuel due to the Omicron variant. The IEA has the lowest demand growth of the three agencies for 2022. Indian oil demand is taken down for both years, while Chinese demand is raised for 2021.



* Assumes OPEC+ unwinds cuts. Iran remains under sanctions.

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