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MUFG Bank, Ltd.
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OPEC+ capacity limitations to materialise in 2022

Oil market focus: The current OPEC+ supply strategy of incremental monthly hikes of 0.4m b/d will leave 3.8m b/d of supply curbs still in place by year-end. As these cuts are unwound, several OPEC+ producers have hit the limits of their spare capacity – Angola and Nigeria have notably suffered meaningful declines in capacity since the pandemic. Whilst the narrative offered by OPEC+ in its reluctance to accelerate the pace of its monthly production hikes was its apprehensions of rising COVID-19 cases in parts of the world denting oil demand growth, it is just as conceivable that the group's unwillingness to ramp-up output rests in its concern that its spare capacity is beginning to run increasingly thin. By the time curbs are eased to 2m b/d by July 2022, we estimate less than 3m b/d of spare capacity would remain. This would leave the global system become increasingly susceptible to any supply shocks next year and accentuates how structurally underinvested the oil market is given energy transition and ESG considerations after oil's golden era between 2010-14 capping capital expenditures (see here).

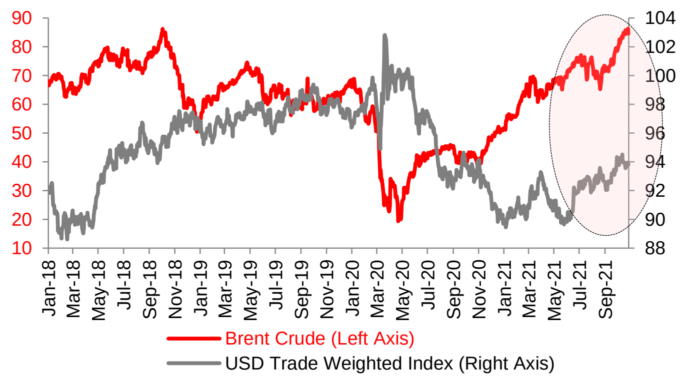
Week in review and week ahead: Oil prices have slipped to the lowest in nearly six weeks as traders weigh the odds of a joint stockpile release from the US and China following the Biden-Xi virtual summit earlier this week. Whilst a coordinated move would be price bearish, as we recently catalogued such a stockpile releases will only be a temporary and modest relief given SPRs are stocks not flows (see here). We remain tactically neutral for the week ahead given the counterbalancing forces of (i) OPEC+ remaining resolute to not hike more than its pledged levels; (ii) potential coordinated SPR releases, and; (iii) the return of Iranian barrels. We view these forces will increase oil price volatility as trading liquidity recedes into year-end.

Oil price forecast: Our near-term constructive oil price conviction remains intact given the acute market deficit (which we model at -1.8m b/d in Q4 2021), will not pivot into oversupply until Q2 2022 (see here). Our pricing models signal Brent ending Q4 2021 and Q1 2022 at USD85/b and USD82/b, respectively, given the cyclically tight market which is widening the strong backwardation embedded into the futures curves and generating positive carry for oil investors. Thereafter, with the market expected to return to a mild surplus, leads us to be tactically bearish with a leg lower to USD74/b, USD72/b, and USD66/b in Q2, Q3 and Q4 2022, respectively.

Core indicators: Prices, market positioning, timespreads, futures, inventories, storage and products performance over the previous week are covered below.

CHART OF THE WEEK: OIL-FX CORRELATION HAS (JUSTIFIABLY) COLLAPSED

BRENT CRUDE (USD/B) VS. USD TRADE WEIGHTED INDEX



The extent of the oil-USD divergence is remarkable … in the same way we believe oil's performance will not suffer from higher nominal or real rates (see here), we do not envisage a stronger USD as a risk for our bullish oil price conviction with the link driven by rising US inflation expectations, a diverging volatility profile between FX and oil, as well as oil's extreme idiosyncratic tightness

Source: Bloomberg, MUFG Research

Oil market focus

OPEC+ capacity limitations to materialise in 2022

OPEC+ strategy is working

The OPEC+ supply management continues to remain immensely successful because of its sheer unexpectedness and suddenness in communication. Year-to-date, oil prices are up ~65% and excess inventories continue to be drawn down. Meanwhile OPEC+ production is rising and the US oil rig count at 454 still remains ~40% below pre-virus levels. This stands in sharp contrast to the strategy prior to 2020, when OPEC+ viewed itself as the central bank of the oil market, reassuring too much with predictable but never large enough cuts.

Current OPEC+ production hikes will still leave 3.8m b/d of supply curbs in place by year-end

The differences between OPEC+ members over supply allocations were resolved in July, with a 1.63m b/d increase in the baseline from which cuts are allocated from May 2022 (see here). This is spread across five countries, Saudi Arabia and Russia (each 0.50m b/d), the UAE (0.33m b/d), Iraq (0.15m b/d) and Kuwait (0.15m b/d). This agreement paved the way for the easing of supply curbs currently underway, which aims to bring back 2.0m b/d of curtailed supply in five monthly increments of 0.4m b/d by December, which would leave 3.8m b/d of supply curbs still in place by year-end.

Not all OPEC+ countries are in a position to raise capacity given endogenous issues

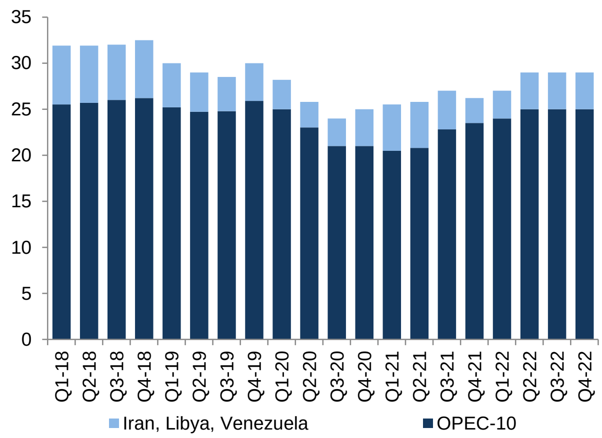
The latest monthly data signalled that August witnessed only a small increase in supply (~0.1m b/d), but the pace picked up in September, with closer to 0.5m b/d of additional volumes, primarily from Iraq, Russia and Saudi Arabia. Critically not all countries are in a position to raise capacity – notably Angola and Nigeria which have suffered meaningful declines in capacity since the pandemic.

OPEC+ prudence is a function of its apprehensions of oil demand growth but also of its concerns that its spare capacity could increasingly become thin

The planned supply increases are subject to a regular review of market conditions by the OPEC+ monitoring committee. Prior to both of the last two monitoring meetings, there was market expectation that a larger monthly increase than the planned 0.4m b/d could be agreed in light of the recent spike in crude prices, and ahead of the November monitoring meeting there was also political pressure from the US President to do so. However, in both meetings OPEC+ resisted and stuck to script of hiking 0.4m b/d for both November and December. This caution from the group is consistent with its actions of the past 18 months, and partly reflects the latest resurgence in COVID-19 cases in some parts of the world. What we believe it also

OPEC PRODUCTION WILL RISE IN 2022 BUT THE GROUP WILL EXERCISE CAUTION ON THE MAGNITUDE OF HIKES

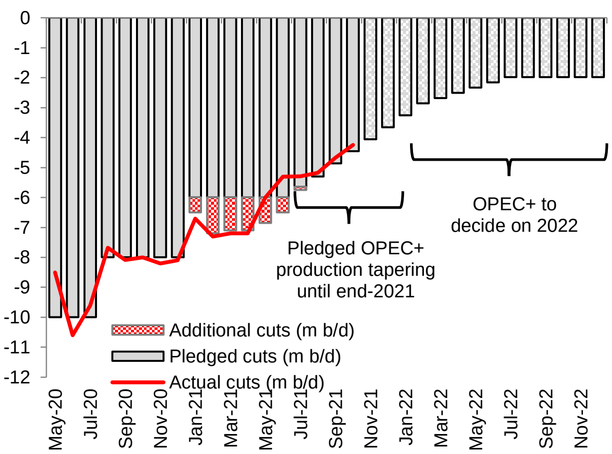
OPEC PRODUCTION, QUARTERLY (M B/D)



Source: Bloomberg, OPEC, MUFG Research

OPEC+ NEEDS DECIDES ON ITS 2022 STRATEGY – WE VIEW ~2M B/D OF CURBS STILL IN PLACE BY JULY 2022

OPEC+ PLEDGED AND ACTUAL OUTPUT CUTS SINCE MAY 2020 (M B/D)



Source: Bloomberg, OPEC, MUFG Research

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reflects is its reluctance to boost supply too much ahead of what is historically a seasonally weak first quarter.

OPEC's forecasts point a weak Q1 2022 for oil demand

OPEC's latest monthly market report signalled that its Q1 2022 demand outlook are more pessimistic than those of the IEA – it sees a 1.9m b/d q/q fall to 98.0m b/d, vs 98.6m b/d on the IEA's estimates. As a result, it sees a call on OPEC crude (the amount needed from OPEC to balance the market) of 26.6m b/d, which is 2.8m b/d lower than its forecast for Q4 2021 – with only approximately 0.6m b/d of this explained by higher supply from other OPEC+ members. For context, the IEA's Q1 2022 call on OPEC crude is 27.7m b/d, down 0.8m b/d q/q. As such, given its own internal projections for Q1 2022, it is not a surprise that OPEC is reluctant to push supply further now.

We do not envisage OPEC+ will have the space to unwind all of its cuts in 2022

Going into 2022, we do not envisage that OPEC+ has the space to unwind all of its cuts. First, the seasonally weak Q1 2022 period warrants a potential pause or at least a reassessment of ramp-up levels for the first quarter of next year when the group meets on 2 December. Second, discounting any Iranian barrels to market in 2022, a balanced market would require OPEC+ supply of ~40m b/d in H2 2022, leaving ~2m b/d of curbs relative to the original supply baseline (~3.5m b/d relative to the recently upwardly revised baseline). Third, our base case on the resumption of Iranian barrels to market is in Q3 2021, which we see could see Iranian supply recover towards ~3.8m b/d within a few months (compared to ~2.4m b/d today). In such a scenario, OPEC+ supply would have to stay reined in more tightly if the group were to prevent oversupply and in that event, we expect OPEC+ supply to be less than 1m b/d higher in H2 2022 than in Q4 2021.

OPEC+ spare capacity to become increasingly scarce

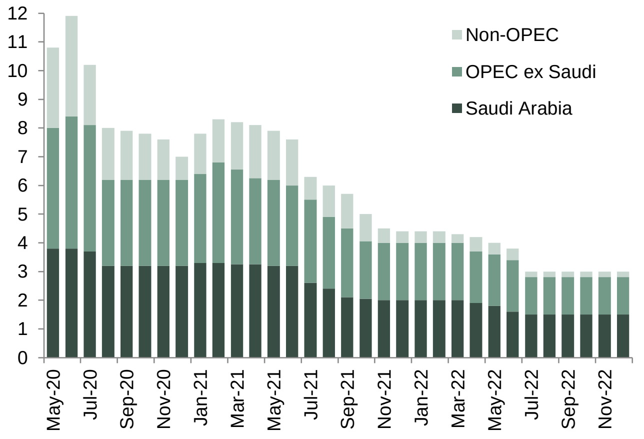
The recently baseline adjustments reflect an important phenomenon, that is, most OPEC+ members already have significant capacity constraints, and more are likely to become apparent through 2022. With the supply increases planned for the rest of 2021, we estimate OPEC+ spare capacity will fall to 4.0-4.5m b/d by the start of 2022. Without higher Iranian supply, this could fall to below 3m b/d by July 2022, with a rising proportion of OPEC+ members hitting full capacity. This level of spare capacity, which equates to ~3% of global demand, is one that historically made the market focus on the relative lack of flexibility in the global system, and the reliability of capacity estimates.

OPEC+ spare capacity to become increasingly scarce

This would leave the global system become increasingly susceptible to any supply shocks next year and accentuates how structurally underinvested the oil market is

OUR ESTIAMTES POINT TO ONLY ~3M B/D OF OPEC SPARE CAPACITY IN PLACE BY JULY 2022

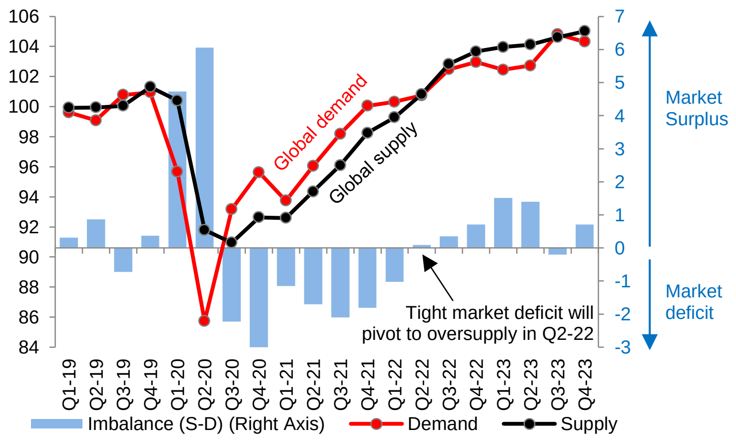
OPEC SPARE CAPACITY (M B/D)



Source: Bloomberg, OPEC, MUFG Research

MUFG'S MODELLING ESTIMATES SIGNAL A SIMILAR PROFILE WITH A PIVOT TO OVERSUPPLY FROM Q2 2022

MUFG'S GLOBAL OIL DEMAND, SUPPLY AND OVERALL BALANCE (M B/D)



Source: Bloomberg, EIA, IEA, OPEC, MUFG Research given energy transition and ESG considerations after oil's golden era between 2010-14 capping capital expenditures (see here). Indeed, the origin of today's supply constraints can be traced back to 2014-15 when oil prices had to go lower for a longer duration in order to limit oil production capacity through capital discipline after a decade of high investment (2005-14). With climate change, energy transition and ESG considerations climbing the investor agenda, oil (and broader energy commodities) capex restrictions has prevented capacity growth. This oil (and energy commodities) divestiture has led to a redirection of capital progressively towards renewables to fuel to energy transition.

Whilst oil prices may not follow a linear line up, we remain structurally bullish on oil over the long-term

Longer-term, we expect the market to return to a structural deficit by 2023 as the forces of ESG gain traction. Indeed, if policymakers' objectives of a large-scale buildout in green infrastructure are to be met, oil (and broader energy commodity) prices will need to significantly overshoot to the upside to provide the incentive for renewable investments to considerably rise. This is needed to compensate for the growing risks involved in long-cycle capex projects and the inherent complexities surrounding the energy transition. With this context in mind, our conviction is squarely centred on the premise that the less popular oil (and broader fossil fuels) become, the more they will cost, as crimping supply without tackling demand (which will unlikely peak until the 2030s) will only cause oil prices to rise. However, we do not believe that oil prices will follow a linear line up, but instead occur in a series of ever-increasing spikes in the coming decade, given the push-and-pull dynamics between demand and supply.

Week in review and week ahead

Oil prices are in a delicate balance and we are tactically neutral for the year ahead

Oil prices have slipped to the lowest in nearly six weeks as traders weigh the odds of a joint stockpile release from the US and China following the Biden-Xi virtual summit earlier this week. Whilst a coordinated move would be price bearish, as we recently catalogued such a stockpile releases will only be a temporary and modest relief given SPRs are stocks not flows (see here). We remain tactically neutral for the week ahead given the counterbalancing forces of (i) OPEC+ remaining resolute to not hike more than its pledged levels; (ii) potential coordinated SPR releases, and; (iii) the return of Iranian barrels. We view these forces will increase oil price volatility as trading liquidity recedes into year-end.

We turn tactically bearish in Q2 2022 but until then all the risks are skewed to the upside

With pandemic inventory buffers exhausted, supply shortages that spur such high price shocks will be negated by demand elastic destruction as the only option to rebalance markets (that is, the cure for high prices is high prices – a self-correcting mechanism). It is at this point, in conjunction with the looming constructive supply impulses (weaker OPEC+ compliance, more Iranian barrels, an increase in US shale supply and a steady build-up of oil inventories) that we turn tactically bearish from Q2 2022 until the end of 2022 given our expectations that oil markets will likely remain in surplus during this period. However until then, all the risks are skewed to the upside.

Oil price forecasts and ranges

MUFG AVERAGE OIL PRICE FORECASTS (USD PER BARREL), AS OF 17 NOVEMBER 2021

USD/b			Average quarterly forecasts					Average annual forecasts	
	Spot	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2021	2022
Brent	82.1	73.3	82.8	80.1	74.7	72.4	67.6	71.6	73.7
NYMEX WTI	80.4	70.7	79.8	76.8	71.0	68.9	64.2	68.7	70.2
Brent ranges	---	---	68.6 – 95.9	64.4 – 92.3	56.3 – 85.6	54.0 – 82.5	49.2 – 78.9	---	---
WTI ranges	---	---	65.6 – 88.3	60.3 – 87.7	53.0 – 79.5	51.9 – 76.8	46.7 – 72.4	---	---

Source: MUFG Research

MUFG QUARTER-END OIL PRICE FORECASTS (USD PER BARREL), AS OF 17 NOVEMBER 2021

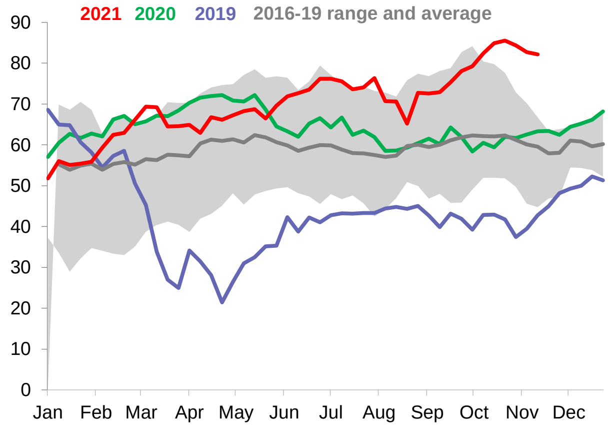
USD/b			Quarter end forecasts					Average annual forecasts	
	Spot	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2021	2022
Brent	82.1	78.4	85.2	82.4	74.3	71.9	65.6	71.6	73.7
NYMEX WTI	80.4	74.7	81.9	79.2	70.8	68.2	61.8	68.7	70.2
Brent ranges	---	---	71.6 – 98.5	67.8 – 95.3	56.2 – 85.4	53.5 – 81.3	47.8– 76.5	---	---
WTI ranges	---	---	68.5 – 90.3	61.5 – 88.7	52.4 – 79.0	50.9 – 76.0	44.5 – 70.5	---	---

Source: MUFG Research

Core indicators – prices and market positioning

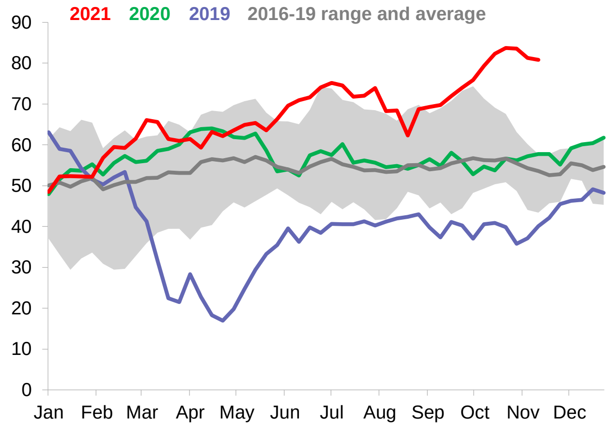
BRENT SPOT

USD/B



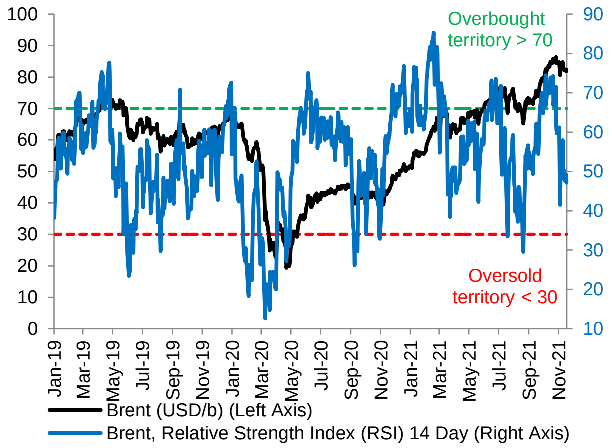
NYMEX WTI SPOT

USD/B



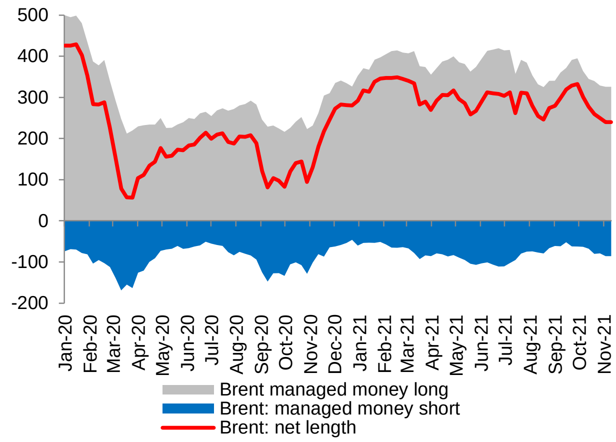
14 DAY RELATIVE STRENGTH INDEX (RSI) AND WTI

USD/B AND 0-100 INDEX (<30 = OVERSOLD; >70 = OVERBOUGHT)



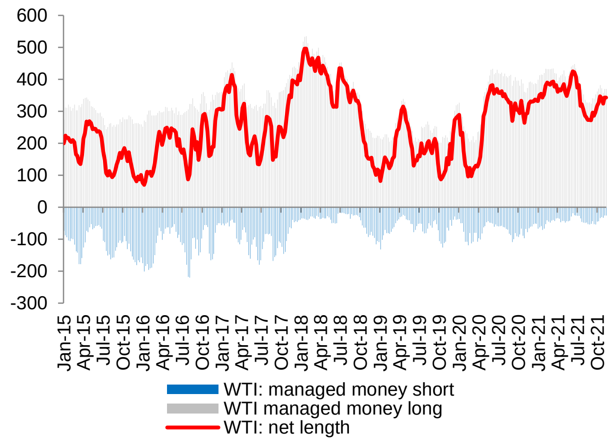
BRENT NET LENGTH MANAGED MONEY

CONTRACTS (THOUSANDS)



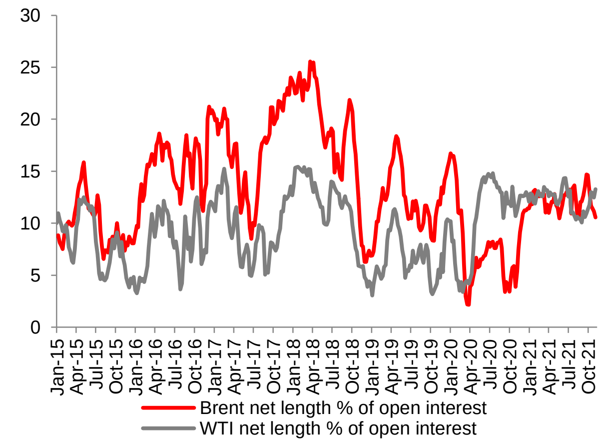
WTI NET LENGTH MANAGED MONEY

CONTRACTS (THOUSANDS)



NET LENGTH MANAGED MONEY / OPEN INTEREST

%

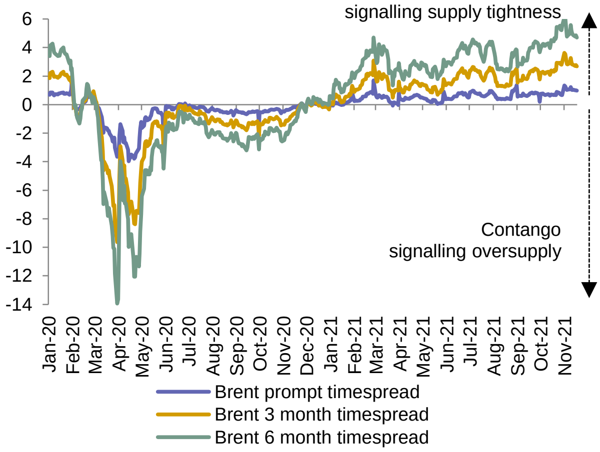


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – timespreads and futures

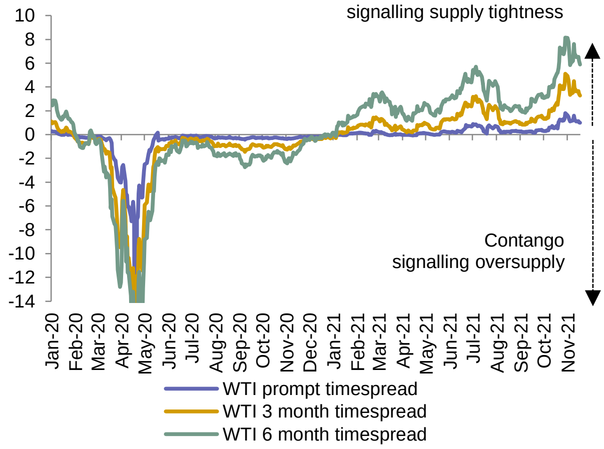
BRENT TIMESPREADS – FRONT, 3 A ND 6 MONTHS

USD/B



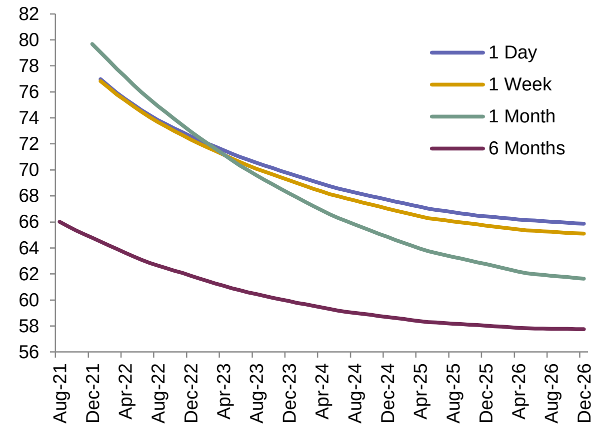
WTI TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



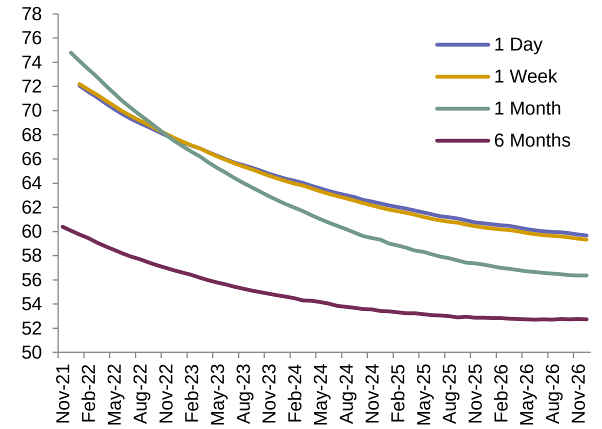
BRENT FUTURES CURVE

USD/B



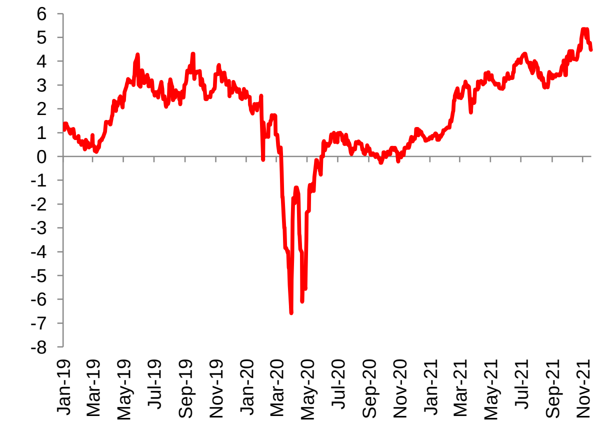
WTI FUTURES CURVE

USD/B



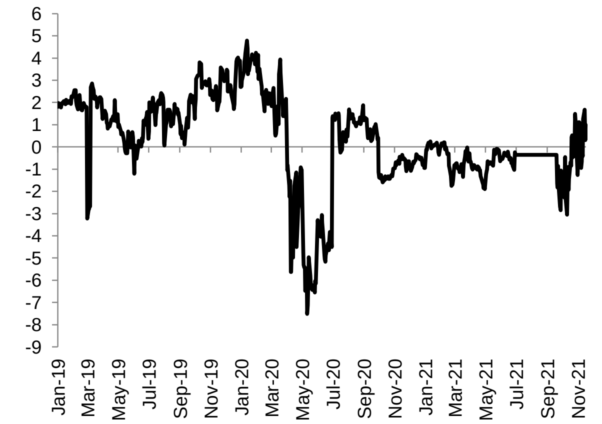
BRENT-DUBAI SPREAD

USD/B



BRENT-MURBAN SPREAD

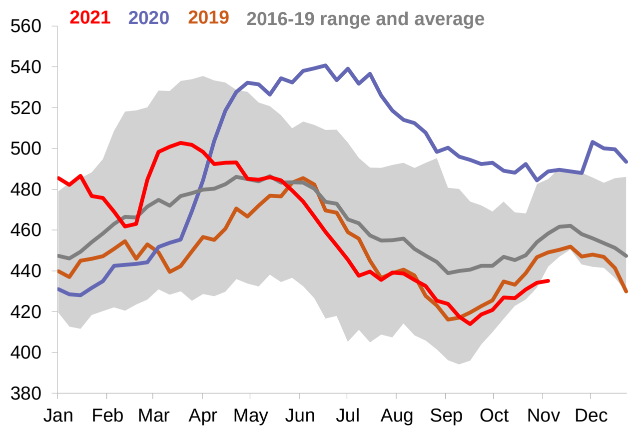
USD/B



Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

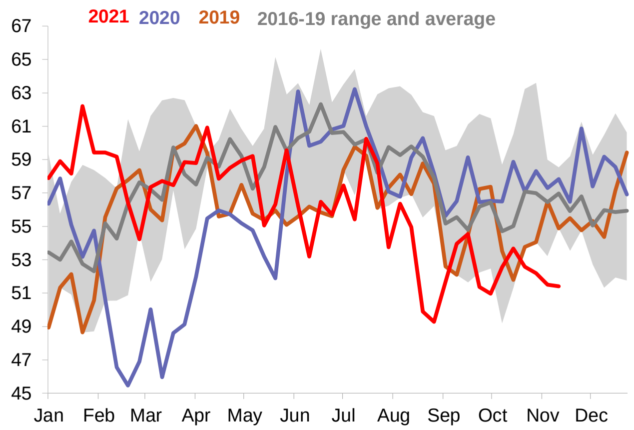
US CRUDE INVENTORIES

MILLION BARRELS



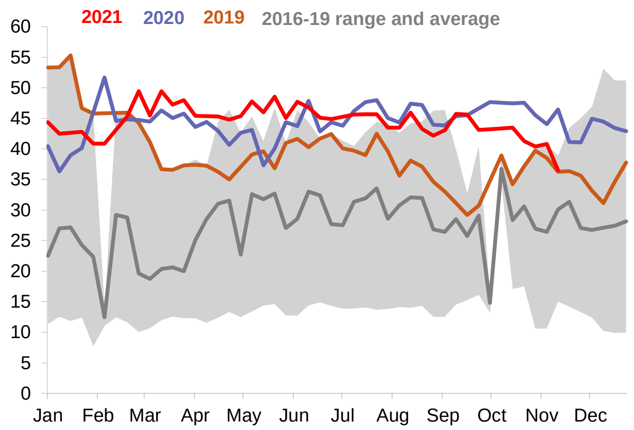
ARA CRUDE INVENTORIES

MILLION BARRELS



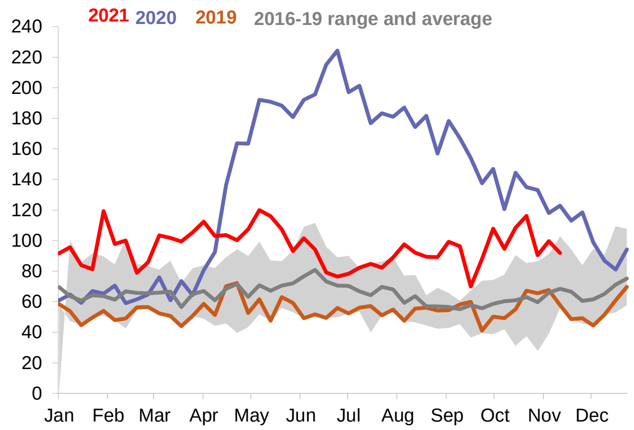
CHINA SHANDONG CRUDE INVENTORIES

MILLION BARRELS



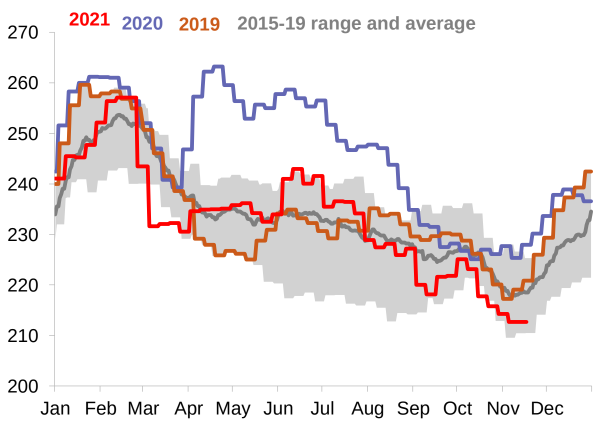
GLOBAL CRUDE FLOATING STORAGE

MILLION BARRELS



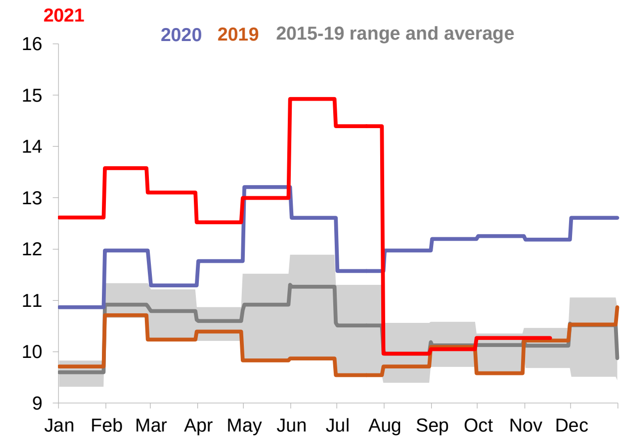
US GASOLINE INVENTORIES

MILLION BARRELS



JAPAN GASOLINE INVENTORIES

MILLION BARRELS



Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

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