EHSAN KHOMAN
Head of Emerging Markets Research – EMEA

DIFC Branch – Dubai
T: +971 (0)4 387 5033
E: ehsan.khoman@ae.mufg.jp

MUFG Bank, Ltd.
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SPR release will be counterproductive with OPEC+ holding all the cards

Oil market focus: The US will release 50m barrels of crude from its 613m Strategic Petroleum Reserve (SPR) in an effort to dampen energy price driven inflation. The release was coordinated with six other countries – China (7-15m barrels), India (5m barrels), Japan (<5m barrels), South Korea (3.5m barrels) and the UK (1.5m barrels) – taking the aggregate size of the global release to ~70-80m barrels (though the swap nature of these barrels implies a smaller immediate impact). As we have recently catalogued (see here), crude releases from SPRs are stocks whilst OPEC+ production policy affects a flow – the one time release of SPRs are equivalent to ~190-220k b/d of crude entering global markets on a full year basis – on par with around half a monthly 400k b/d OPEC+ hike. Thus, should OPEC+ be encouraged to pause when it meets on 2 December (justifying its action as prudent in the face of COVID-19 demand risks in Europe), then the net effect will be more oil off the market than the global SPR release is putting on the market. Succinctly put, using stocks to offset flows is counterproductive and are not a fix for global oil imbalances (market deficit is 1.8m b/d at present) caused by a lack of structural underinvestment due to the energy transition (see here). We continue to lean bullish oil near-term.

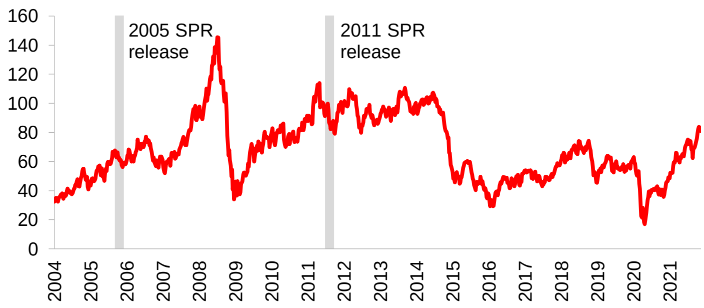
Week in review and week ahead: Oil prices have retraced their earlier weekly losses as the globally coordinated SPR announcement fell short of expectations. We remain tactically neutral-to-bullish for the week ahead given the counterbalancing forces of (i) OPEC+ remaining resolute and likely pausing on monthly hikes on 2 December; (ii) markets digesting the SPR release, and; (iii) the resumption of Iranian nuclear talks on 29 November. 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: LOOK TO HISTORY FOR COMFORT ON SPR RELEASES?

NYMEX WTI (USD/B)



In the previous SPR releases (2005 and 2011), US WTI crude prices declined by an average of 12% in the 90 days following the official announcements – we do not believe that these historical experiences will be repeated as the sheer velocity of the market deficit will be hardly dented by the negligible scale of the SPR levels

Source: Bloomberg, MUFG Research

Oil market focus

SPR release will be counterproductive with OPEC+ holding all the cards

Global coordinated attempt through the SPR release to address energy price driven inflation

The US administration announced on 23 November that the US will release 50m barrels of crude from its Strategic Petroleum Reserve (SPR), split between a 32m barrel exchange (where oil is loaned and then repaid to the SPR) and the acceleration of 18m barrels of previous planned sales. The move will be in concert with six other countries – China (7-15m barrels), India (5m barrels), Japan (<5m barrels), South Korea (3.5m barrels) and the UK (1.5m barrels). This takes the aggregate size of the global release to ~70-80m barrels, though the swap nature of these barrels implying an even smaller immediate impact. The motivation of the release reflects both the global intent to address energy price driven inflation and the US administration's interest in coordinating action with partner nations.

Timeline of deliveries will span months and years

Deliveries for the exchange will take place between 16 December 2021 and 30 April 2022. This crude oil will have to be returned in calendar years 2022, 2023 and 2024 at a premium. The longer the return period, the higher this premium will be. It appears as though the premium will be in terms of volume rather than USD. The notice for the 18m barrels SPR sale will only be released by 17 December at the earliest. The next steps with regard to these releases will be getting the official numbers and delivery periods from other countries taking part. We will also need to see what the uptake is like for this oil. If the supply situation does improve going into 2022 as expected, demand for this oil may be fairly low. In addition, given that oil will need to be returned with a premium, this may turn some off from participating in the exchange.

US administration's broader strategy in relation to the release

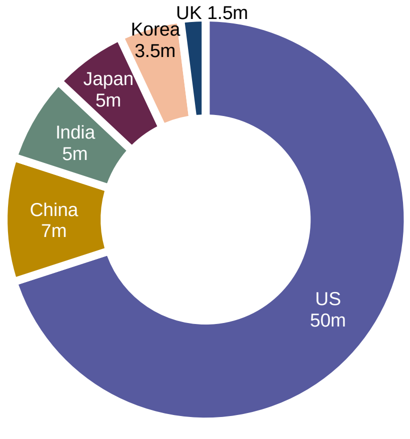
The US administration's most pressing concern is passing the Build Back Better (BBB) bill as early as possible and needs some action to demonstrate it is addressing inflation to counter moderate Democrats' opposition to passing a major spending package. The actual long-term impact on oil prices is limited but perhaps also less important politically than being seen to act.

Impact on market fundamentals will be negligble

The precise impact on oil market fundamentals will be conditional on the periods over which the amounts are released. On balance, we do not believe that the magnitude

THE US WILL COMPRISE THE OVERWHELMING SHARE OF THE GLOBALLY COORDINATED SPR RELEASE

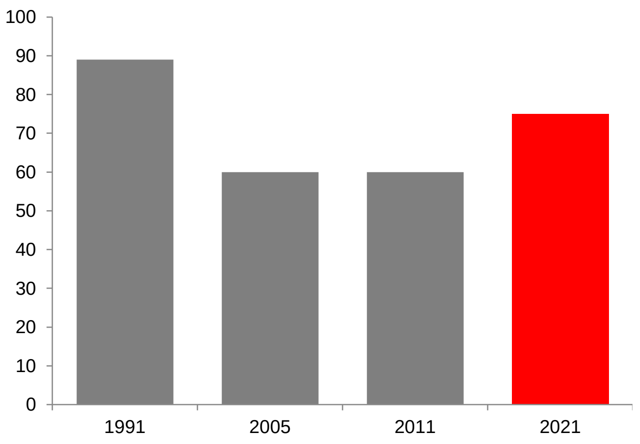
GLOBAL COORDINATED SPR RELEASE – NOVEMBER 2021 (M BARRELS)



Source: Bloomberg, EIA, IEA, MUFG Research

THE CURRENT SPR ANNOUNCED CONSTITUTES ONE OF THE LARGEST RELEASES ON RECORD

HISTORIC COORDINATED SPR RELEASES (M BARRELS)



Source: Bloomberg, EIA, IEA, MUFG Research

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of the SPR releases will upend to colossal market deficit currently being faced by global oil markets. The current acute physical supply constraints oil market backdrop is biting at a time that the velocity of inventory declines is accelerating and the winter period is creating asymmetric weather-driven price risks to the upside. This will leave oil markets even tighter for longer pushing oil inventories to lower levels – and the lower the inventory cover, the larger the scarcity premium in prices. To put this into context we model the oil market deficit in Q4 2021 at -1.8m b/d, narrowing to -1.0m b/d in Q1 2022 and only pivoting to oversupply from Q2 2022 onwards. Annually, we expect the overall balance to narrow from a deficit of -1.7m b/d in 2021 to near balance at 0.2m b/d in 2022. As such, the SPR move does not materially alter the oil equation on supply and demand for the immediate future.

Historically SPR releases are an attempt to manage imbalances not tackle elevated oil prices

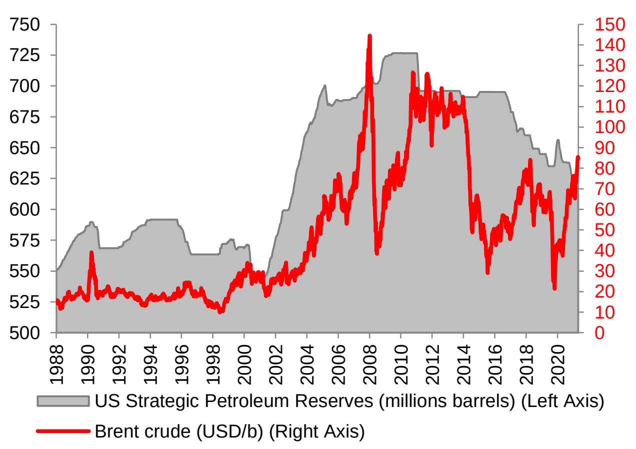
SPR releases are normally used in emergency situations (eg the 2011 Libyan civil war and Hurricane Katrina) and the evidence from previous occurrences suggests they only provide temporary relief for prices. This time, a possible SPR release has weighed on market sentiment since it was first muted in early November, with US WTI prices down 9% month-to-date and timespreads narrowing. A price rally immediately post the announcement seems to confirm the ~70-80m barrels were smaller than the market had been expecting of 100+m barrels.

US administration has been careful not to break the letter of IEA agreements

More broadly, despite the large headline figure of up to 50m barrels of US oil releases, there is some uncertainty around when and how much oil will hit the market and when. The 32m barrel exchange is aimed for release over a four-month period starting January, though the timing and volume of oil added to the market will depend on the bids received for the exchange offering. The 18m barrel sale was already approved for release and largely priced in by the market. It is also unclear how much of this oil will actually find bidders and when delivery would take place. Nevertheless, the US administration's decision to trigger all remaining mandated sales and add a 32m barrel exchange is a significant expansion of what we expected a non-emergency release could contain. This signals that the US administration will be more willing to utilise the SPR as a price control tool – rather than purely as a tool to address supply crises – going forward. Significantly, that the US administration was careful not to break with the letter of IEA agreements by using non-emergency measures (even as it broke with the spirit of those agreements by triggering a major release and encouraged others to do the same) reflects a greater willingness by the US administration to focus on domestic needs even at the risk of undermining historic agreements.

US SPR HAVE MATERIALLY DIMINISHED SINCE THE PEAK IN 2008 BUT REMAIN AT AMPLE LEVELS (613M BARRELS)

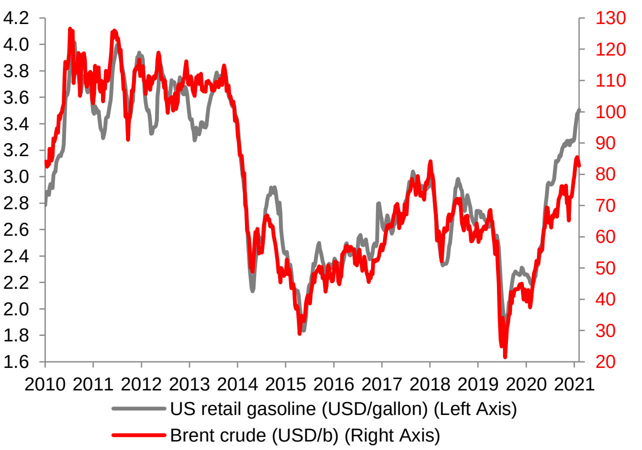
US STRATEGIC PETROLEUM RES. (SPR) (M BARRELS) VS BRENT (USD/B)



Source: Bloomberg, OPEC, MUFG Research

SPR RELEASE BRINGS FORWARD US EXPORTS CURBS - IRONICALLY BULLISH GASOLINE (PRICE OFF BRENT)

US RETAIL GASOLINE (USD/GALLON) VS BRENT CRUDE (USD/B)



Source: Bloomberg, EIA, MUFG Research

US crude oil export ban is on the table as well

Separately, the US has also signalled that a US crude export ban is a possibility to stymie higher US gasoline prices. As with SPR releases, we do not consider such a decision to ease energy prices and rather could prove disruptive for both US and global oil markets. To put this into context, the US exports 3m b/d of crude and domestic pipelines will find it challenging to reroute these volumes to US refiners, which further do not have the capacity to process much of this crude. The inevitable outcome would be excess US crude supply speedily reaching tank tops and forcing production shut-ins. In conjunction, the global oil market will be short of ~3m b/d of US supply. Such a strategy would therefore likely create large price distortions, with US export restrictions depressing WTI crude oil prices relative to Brent in order to balance the domestic market – note that US gasoline prices in fact price off Brent as US supply is a light sweet crude that is Brent like in quality. This would also have knock-on effects on the product markets. Paradoxically, it would be particularly bullish US gasoline and refined products more generally due to the fact the US will still be a net importer of gasoline, with the product needing to price off a much tighter Brent market to incentivise a continuation of such flows. Finally, halting US energy exports would further widen the US trade deficit, leading to a potentially weaker US dollar and higher domestic imported inflation.

Focus turns to OPEC+ and its 2 December meeting

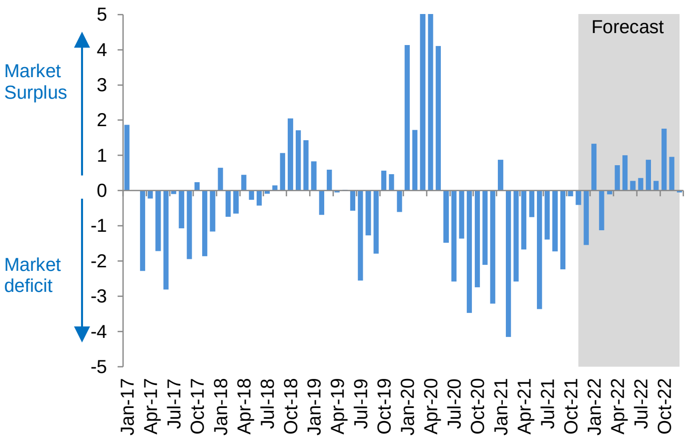
Attention now turns to the 2 December OPEC+ meeting in determining the efficacy of this global SPR release. OPEC+ remains resolute about medium-term balances, and already expects stock builds in Q1 2022. As such, it wants to avoid oversupply the market and exacerbating these surpluses. Thus, our base case going into the 2 December meeting is for the group to be encouraged to stay on hold and not increase production for January delivery to offset the detrimental SPR impact of lower oil prices on the needed recovery in global oil capex, likely justifying such action as prudent in the face of COVID-19 demand risks in Europe.

SPRs are not a solution to today's structurally underinvested oil market

Overall, we reiterate our previous held view that such global SPR releases is not the solution to higher oil prices, and with it higher energy price driven inflation. Elevated oil prices have been the force of the not a cyclically tight but structurally underinvested oil industry as energy transition and ESG considerations after oil's golden era between 2010-14 has capped capital expenditures with inadequate production capacity to meet today's vaccine-led demand recovery (see here, here and here). This is being compounded by the acute physical supply constraints – tepid OPEC+ production hikes, gas-to-oil substitution, China's power crunch and the

EIA'S STEO ESTIMATES POINTS TO STOCK BUILDS IN 2022 FOLLOWING A MARKET DEFICIT IN 2021

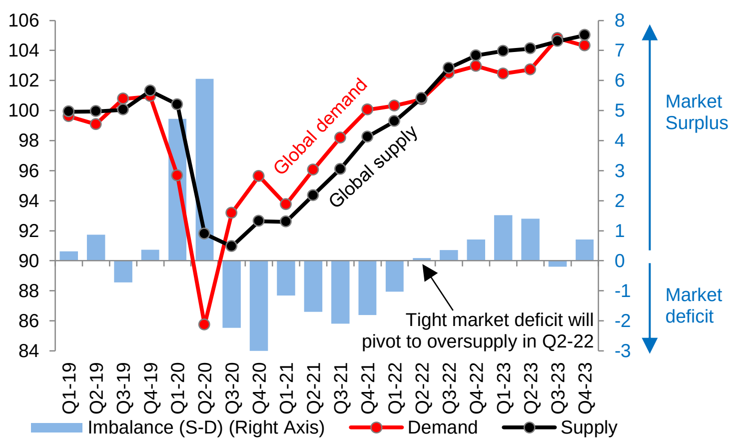
EIA GLOBAL OIL MARKET DEFICIT/SURPLUS (M B/D)



Source: Bloomberg, EIA, 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

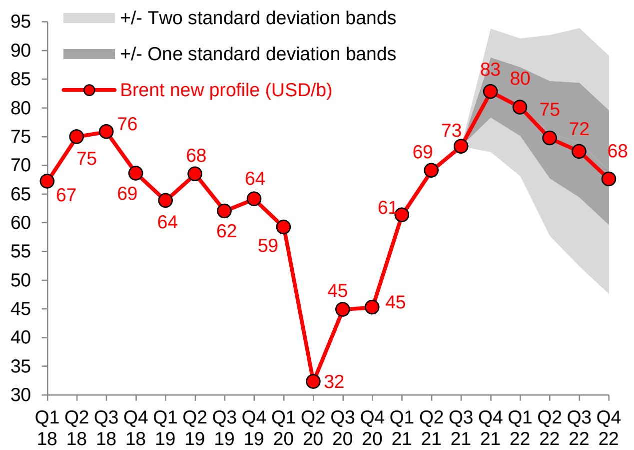
inability of producers outside OPEC+ to meet surging reopening-induced demand – which are biting at a time that the velocity of inventory declines are accelerating, creating asymmetric price risks to the upside. These factors will not be resolved byband-aid measures such as SPR stock releases, or by counterintuitive measures such as a US export ban. As such, we continue to lean bullish oil and maintain our Brent (USD85/b) and WTI (USD82/b) call for year-end. 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.

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.

MUFG'S OIL PROFILE SIGNALS A PEAK IN Q4 2021 WITH A BEARISH 2022 BIAS GIVEN THE EXPECTED SURPLUS

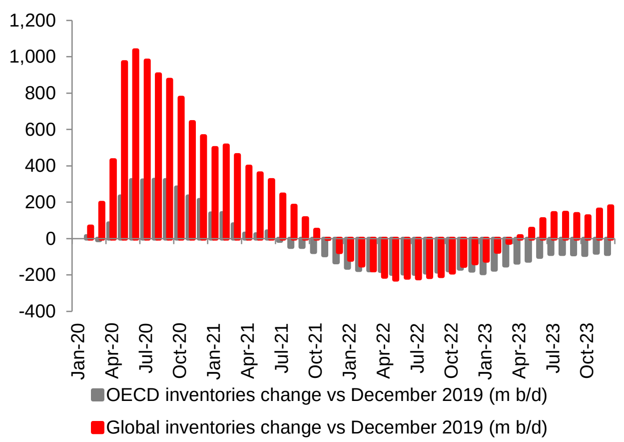
AVERAGE BRENT (USD/B) WITH ONE AND TWO STANDARD DEV. BANDS



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

OIL INVENTORY DRAWS HAVE ACCELERATED, WITH THE MARKET STILL IN A LARGE DEFICIT

GLOBAL AND OECD OIL INVENTORIES VS DECEMBER 2019 (M B/D)



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

Week in review and week ahead

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

Oil prices have retraced their earlier weekly losses as the globally coordinated SPR announcement fell short of expectations. We remain tactically neutral-to-bullish for the week ahead given the counterbalancing forces of (i) OPEC+ remaining resolute and likely pausing on monthly hikes on 2 December; (ii) markets digesting the SPR release, and; (iii) the resumption of Iranian nuclear talks on 29 November. 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 24 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	82.3	73.3	82.8	80.1	74.7	72.4	67.6	71.6	73.7
NYMEX WTI	78.4	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

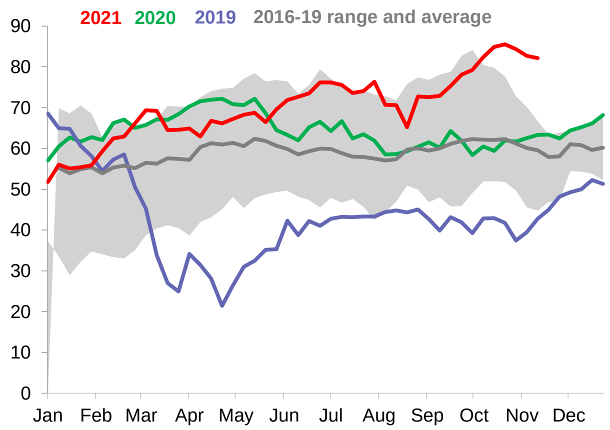
MUFG QUARTER-END OIL PRICE FORECASTS (USD PER BARREL), AS OF 24 NOVEMBER 2021

USD/b			Quarter end forecasts					Average annual forecasts	
	Spot	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2021	2022
Brent	82.3	78.4	85.2	82.4	74.3	71.9	65.6	71.6	73.7
NYMEX WTI	78.4	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	---	---

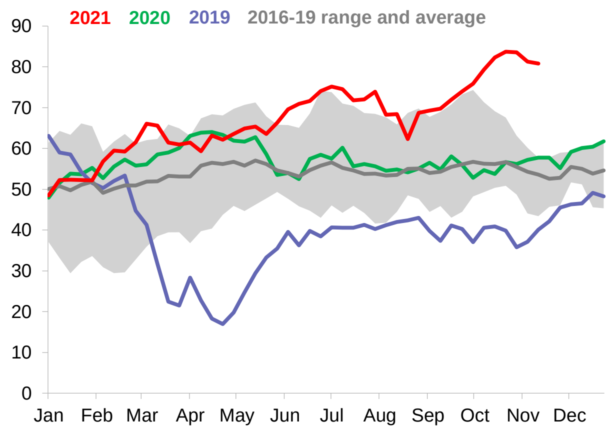
Source: MUFG Research

Core indicators – prices and market positioning

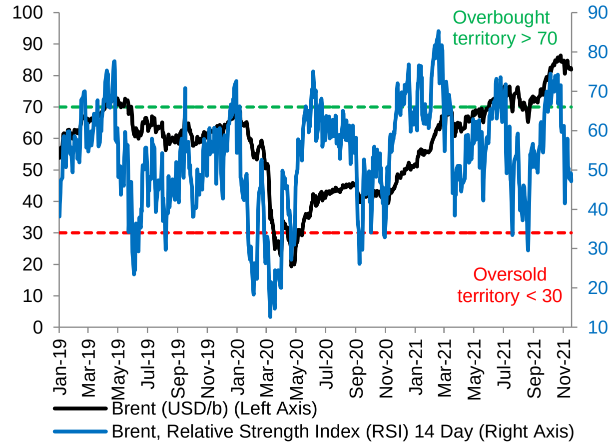
BRENT SPOT
USD/B



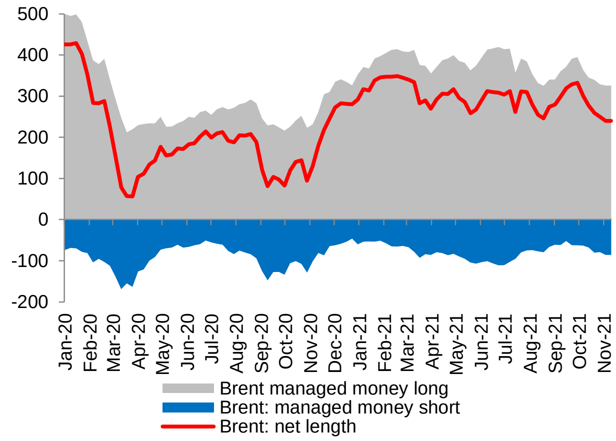
NYMEX WTI SPOT
USD/B



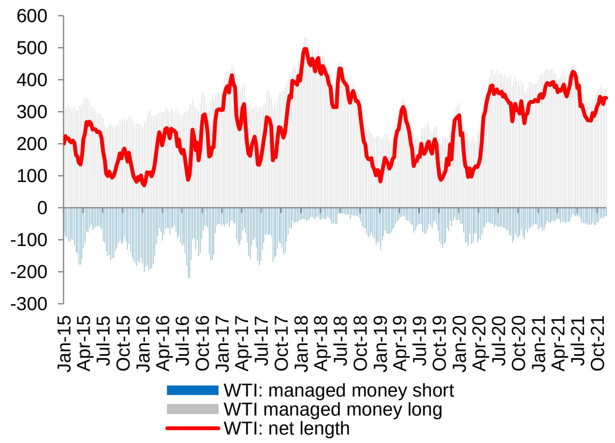
14 DAY RELATIVE STRENGTH INDEX (RSI) AND WTI
USD/B AND 0-100 INDEX (<30 = OVERSOLD; >70 = OVERBOUGHT)



BRENT NET LENGTH MANAGED MONEY
CONTRACTS (THOUSANDS)



WTI NET LENGTH MANAGED MONEY
CONTRACTS (THOUSANDS)



NET LENGTH MANAGED MONEY / OPEN INTEREST
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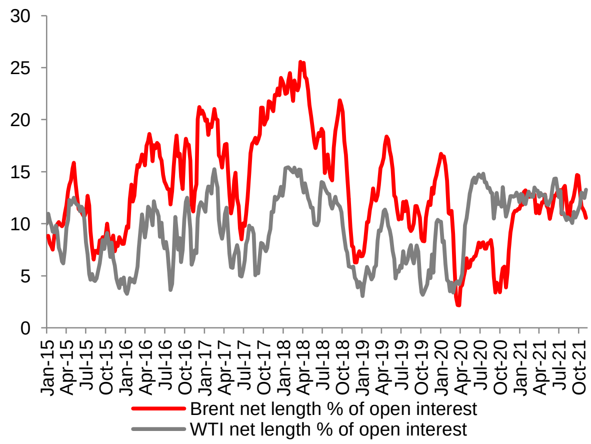
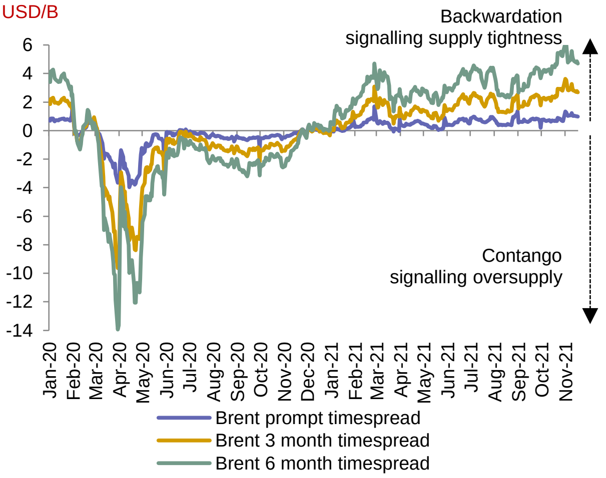


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – timespreads and futures

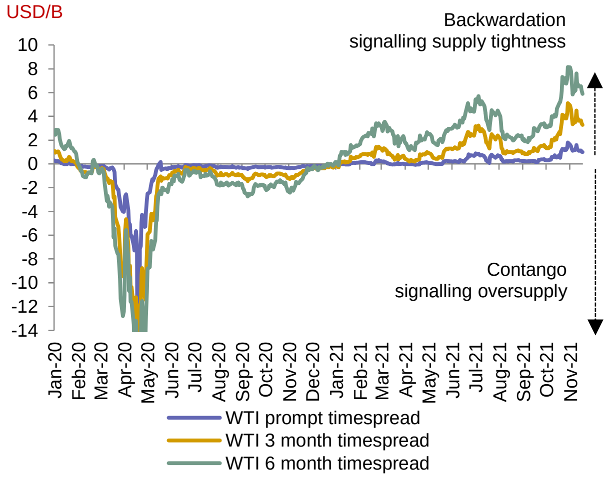
BRENT TIMESPREADS – FRONT, 3 A ND 6 MONTHS

USD/B



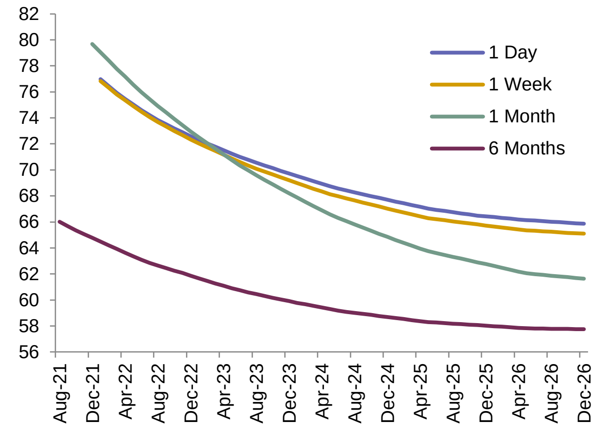
WTI TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



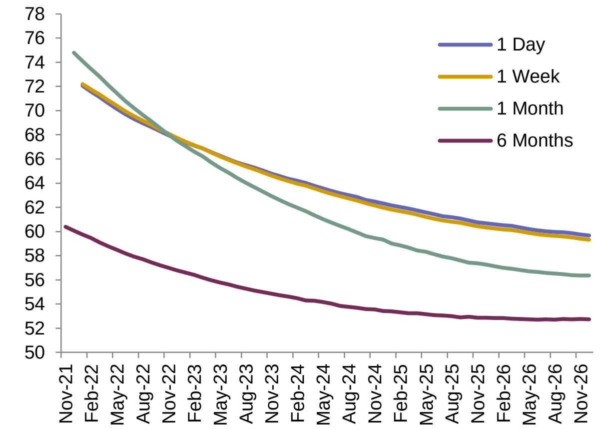
BRENT FUTURES CURVE

USD/B



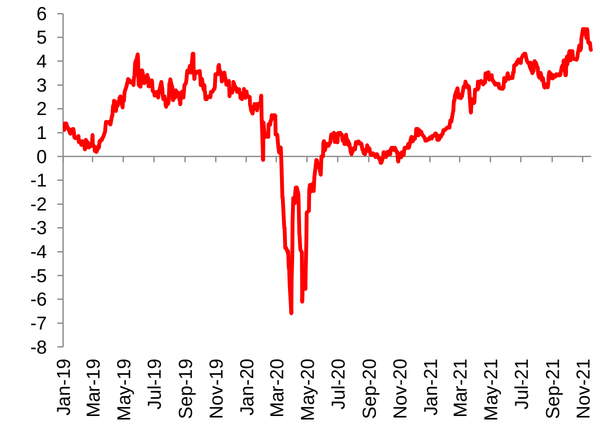
WTI FUTURES CURVE

USD/B



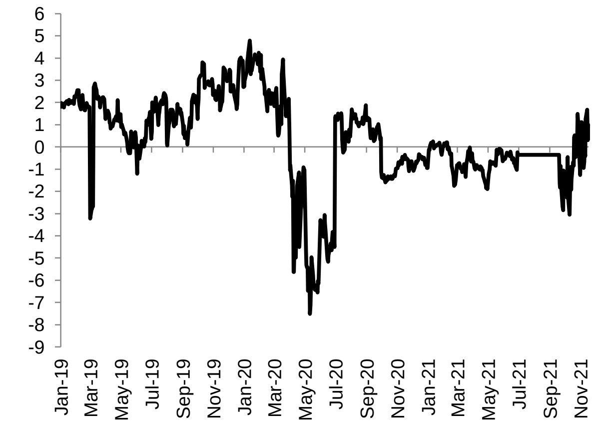
BRENT-DUBAI SPREAD

USD/B



BRENT-MURBAN SPREAD

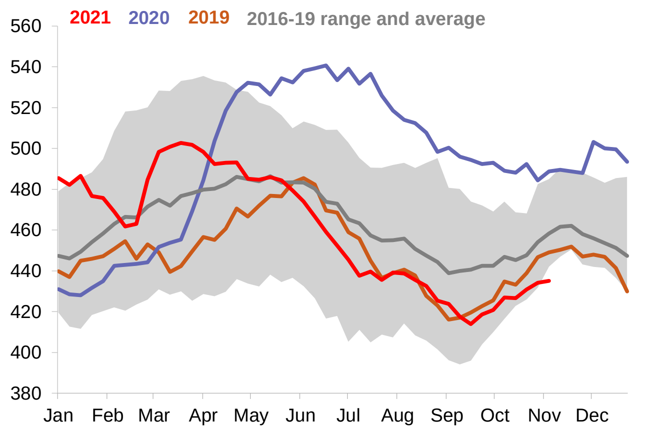
USD/B



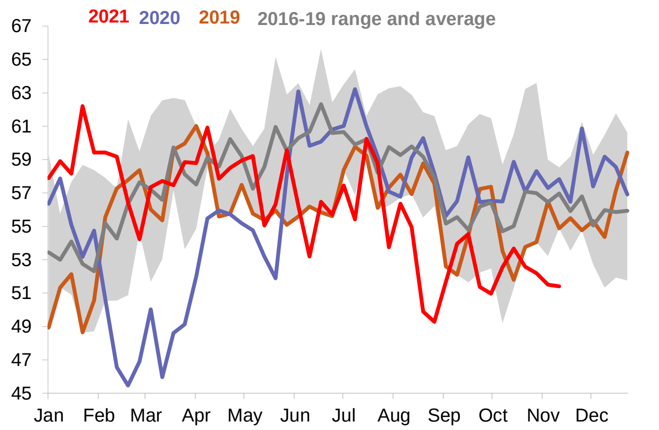
Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – inventories, storage and products

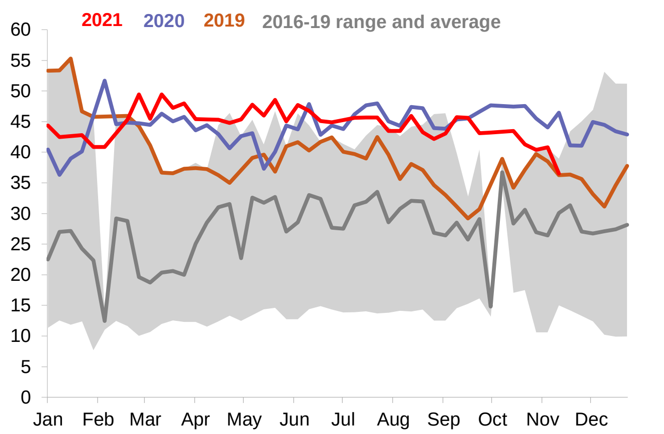
US CRUDE INVENTORIES
MILLION BARRELS



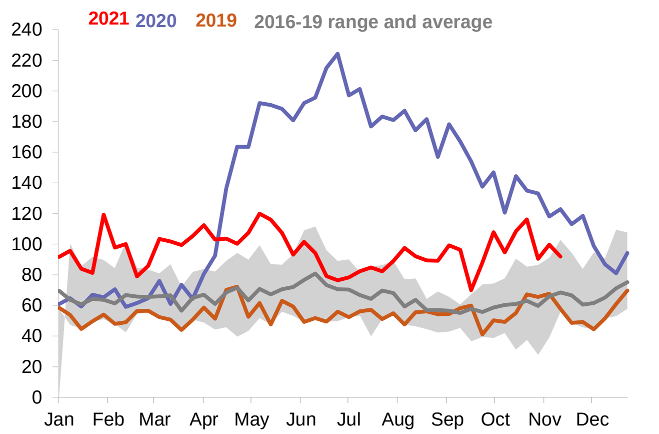
ARA CRUDE INVENTORIES
MILLION BARRELS



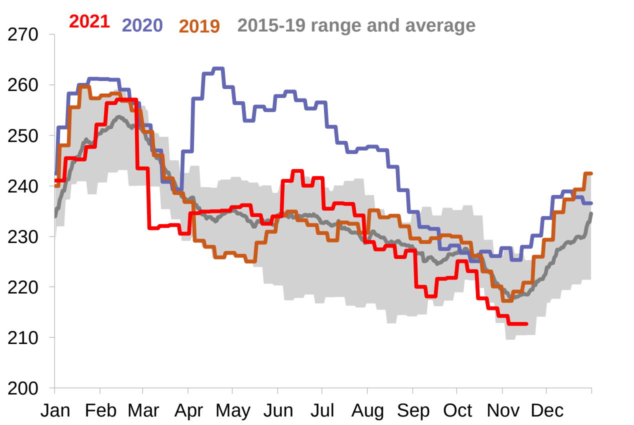
CHINA SHANDONG CRUDE INVENTORIES
MILLION BARRELS



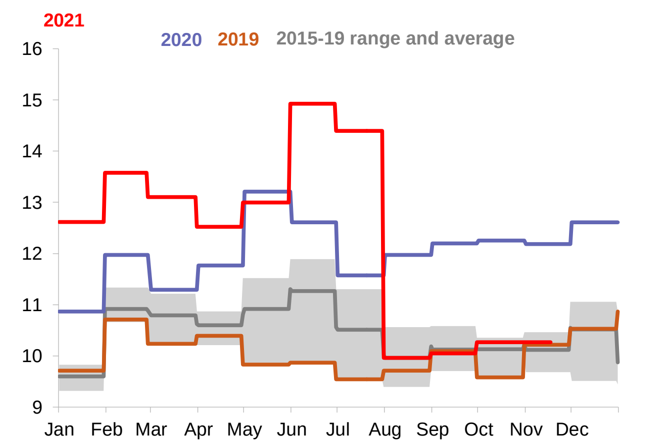
GLOBAL CRUDE FLOATING STORAGE
MILLION BARRELS



US GASOLINE INVENTORIES
MILLION BARRELS



JAPAN GASOLINE INVENTORIES
MILLION BARRELS



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

Research

London:

MR DEREK HALPENNY
Head of Research, Global Markets EMEA
& International Securities
E: derek.halpenny@uk.mufg.jp

MR LEE HARDMAN
Currency Analyst
E: lee.hardman@uk.mufg.jp

MS MOMOKO MIYACHI
Research Assistant
E: momoko.miyachi@uk.mufg.jp

Shanghai:

MR MARCO SUN
Chief Financial Markets Analyst
E: wu_wun@cn.mufg.jp

Hong Kong:

MS LIN LI
Head of Global Markets Research Asia
E: lin_li@hk.mufg.jp

Dubai:

MR EHSAN KHOMAN
Head of Emerging Markets Research – EMEA
E: ehsan.khoman@ae.mufg.jp

Tokyo

MR MINORI UCHIDA
Tokyo Head of Global Markets Research
E: minori_uchida@mufg.jp

MR TOSHIYUKI SUZUKI
Senior Market Economist
E: toshiyuki_4_suzuki@mufg.jp

MR TAKAHIRO SEKIDO
Chief Japan Strategist
E: takahiro_sekido@mufg.jp

MS SUMINO KAMEI
Senior Analyst
E: sumino_kamei@mufg.jp

MR TEPPEI INO
Senior Analyst
E: teppei_ino@mufg.jp

MR TOMOKI HIRAMATSU
Research Assistant
E: tomoki_hiramatsu@mufg.jp

Singapore:

MS SOOK MEI LEONG
Asean Head of Global Markets Research
E: leongsm@sg.mufg.jp

MS SOPHIA NG
Analyst
E: sophia_ng@sg.mufg.jp

Sao Paulo:

MR CARLOS PEDROSO
Senior Economist
E: cpedroso@br.mufg.jp

MR MAURICIO NAKAHODO
Economist
E: mnakahodo@br.mufg.jp

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