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**MUFG Bank, Ltd.**
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**30 September 2021**

# The cure for high prices is high prices – revising up our oil price call

**Oil market focus:** In this special Oil Market Weekly, we update our oil price call:

Thesis. The inexorable march higher in oil and the broader commodities complex is propelling us to re-examine our price forecasts. The vaccine-led recovery has driven physical goods demand to reach such high levels that the global system is becoming increasingly constrained in its ability to match the supply. Such supply constraints are biting at a time that the velocity of oil inventory declines is accelerating and the coming winter is creating asymmetric upside price risks. 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. However until then, we now believe that the setup for oil could not be more favourable throughout the autumn and winter months.

Profile. Based on these considerations, we mark-to-market our quarterly profile higher wherein our modelling estimates now signal that the prevailing market deficit which started in June 2020 (see here), will not pivot into oversupply until Q2 2022 (from our initial estimates of Q1 2022). This is driven by winter demand risks now squarely skewed to the upside as the global gas crunch will increase gas-to-oil substitution (see here), and thus lead to an even tighter for longer physical oil market pushing oil inventories to lower levels (and the lower the inventory cover the larger the scarcity premium). This will generate further price appreciation. We now forecast Brent averaging Q4 2021 and Q1 2022 at USD83/b and USD80/b, respectively – widening the strong backwardation embedded into the oil futures curves and generating positive carry for oil investors. Thereafter, with the market expected to return to a mild surplus in Q2 2022, leads us to be tactically bearish with a leg lower to USD75/b, USD72/b, and USD68/b in Q2, Q3 and Q4 2022, respectively.

Risks. Absent (i) the stagflationary winds blowing through the global economy taking a firmer hold; (ii) a potentially new COVID-19 variant that renders vaccines less effective; (iii) a swift return of Iranian barrels should a rapprochement with the US materialise; and/or (iv) a rapid pivot of US shale supply away from their current “value over volume” strategy, all the near-term risks have shifted to the upside. Moreover, diminishing OPEC spare capacity as well as oil service and carbon cost inflation skew risks upwards. Critically, our new bullish near-term call on oil would not be derailed by either a faster Fed taper nor the rising rates environment given that oil is a spot (anchored) asset which is not vulnerable to only depend on the prevailing “level” of demand and supply, and thus are not vulnerable to rising rates which only slow down the “growth” rate of demand (see here).

MUFG AVERAGE OIL PRICE FORECASTS (USD PER BARREL), AS OF 30 SEPTEMBER 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 | 78.4 | 73.3 | 82.8 | 80.1 | 74.7 | 72.4 | 67.6 | 71.6 | 73.7 |
| NYMEX WTI | 74.8 | 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*



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# Oil market focus

## The cure for high prices is high prices – revising up our oil price call

All the risks are increasingly being skewed to the upside in oil

Notwithstanding the stagflationary winds blowing through the global economy, the looming Fed taper and COVID-19 delta variant risks, oil markets, and broader commodities, have continued to march higher over recent weeks, with Brent oil prices reaching new three year highs just north of USD80/b. While we recently pivoted more bearish on oil (see here), we did catalogue last week than risks are increasingly skewed to the upside driven by winter demand risks stemming from the global gas crunch leading to an increase in gas-to-oil switching (see here).

Acute supply constraints and lower oil inventories is widening the market deficit

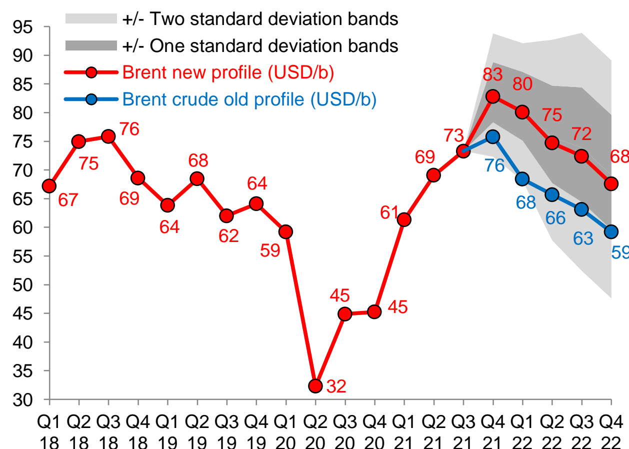
The acute physical supply constraints oil market backdrop is biting at a time that the velocity of inventory declines is accelerating and the coming winter is creating asymmetric weather-driven price risks to the upside. This will leave oil markets even tighter for longer pushing oil inventories to lower levels – and the lower the inventory cover, the larger the scarcity premium in prices. To put this into context we now expect the oil market deficit in Q4 2021 to widen to -1.8m b/d (previously -1.1m b/d), narrowing to -1.0m b/d in Q1 2022 (previously we had expected a surplus of 0.2m b/d). 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.

Better-than-expected demand juxtaposed against an inelastic supply curve

Breaking this down, on the demand-side, the recovery in global oil demand has been better than we expected with low hospitalisation rates confirming that vaccine efficacy remains effective against the delta variant, spurring reopenings at large, including to international travel with jet fuel demand now just 8% below pre-virus levels. In terms of levels, we expect global oil demand to rise from 98.2m b/d in Q3 2021 to 100.1m b/d in Q4 2022 (back to the pre-virus run rate levels), and to average 97.0m b/d and 101.7m b/d, in 2021 and 2022, respectively. Meanwhile, on the supply-side, the additional Iranian barrels and the revival in US shale supply that we expected in Q4 2021, alongside higher-than-articulated OPEC+ production, is unlikely to materialise and we believe this is now on pause until H1 2022. Moreover, Hurricane Ida has more than offset the ramp-up in OPEC+ production since July with non-OPEC+ non-US output – predominantly in Brazil, Canada, Norway and southeast Asia – continuing to face maintenance, project delays and higher decline rates. In terms of levels for supply, we expect global oil supply to rise from 96.1m b/d

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

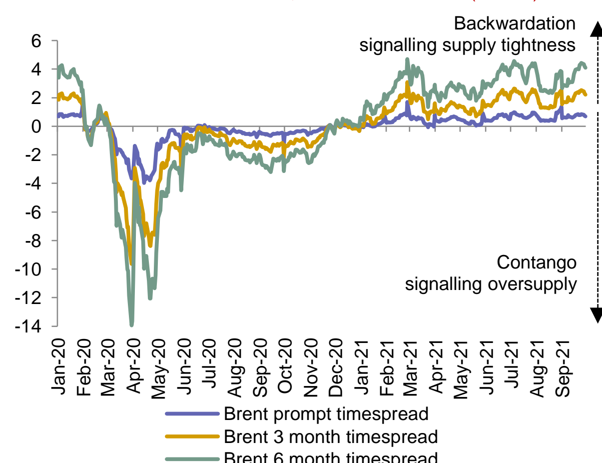
AVERAGE BRENT (USD/B) WITH ONE AND TWO STANDARD DEV. BANDS




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

WIDER MARKET DEFICIT IS PROPELLING BRENT TIMESPREADS INTO DEEPER BACKWARDATION LEVELS

BRENT TIMESPREADS – FRONT, 3 AND 6 MONTHS (USD/B)




*Source: Bloomberg, MUFG Research*



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in Q3 2021 to 98.2m b/d in Q4 2021, and to average 95.3m b/d and 101.7m b/d, in 2021 and 2022, respectively.

Firm backwardation will continue

All signs point to the current physical supply constraints increasingly garnering traction over the winter and presenting a tightening influence on the oil (and broader energy) market. This is increasingly being shown up in futures markets wherein prompt timespreads, which are one of the best indicators of market tightness given they price fundamentals and not expectations – corroborate with this market tightening, remaining in firm backwardation – which are bullish structures where near-dated contracts trade at a premium to later-dated ones. Indeed, in physical markets like oil (and other energy commodities), investors cannot borrow from the future like in financial markets such as equities and bonds, which forms the basis of backwardation (in effect, the technical term for a scarcity premium).

Oil is a spot, physical anchored asset that is not susceptible to Fed tapering or the rising rate environment

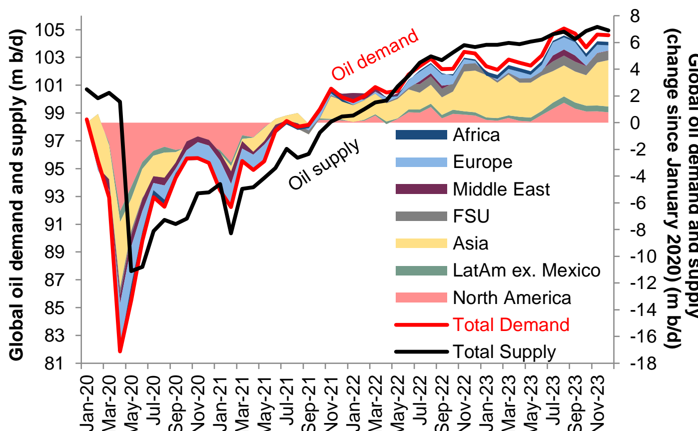
To build on this, throughout history, oil has proven to be much more correlated with inflation rates than financial assets (equities, bonds or credit). Due to financial assets anticipatory (unanchored) nature, they price in forward expectations of earnings and economic growth which makes them a good hedge against anticipated inflation. However, once inflationary expectations become distressing enough to create concerns of rate hikes, financial assets no longer act as a good inflation hedge. Contrarily, oil is a spot physical (anchored) asset which only depends on the prevailing level of demand and supply. Oil therefore is an attractive asset class to protect against short-term unanticipated inflation that is created in response to a rapidly expanding global economy, where the level of demand for key inputs (predominantly capital and labour), is exceeding the level of supply – which is what global markets are currently experiencing. Hence, as spot assets, oil is not vulnerable to either a faster Fed taper nor the rising rate environment being witnessed are both emerging and developed markets, conditional on demand remaining above supply (which we foresee until Q2 2022). Thus, while growth rates are expected to slow, demand levels will continue to rise at a time that inventories are declining towards critical operating levels. In such environments with low inventory cover, it does not take much demand growth to create price spikes.

Supply shortage that spur such high price shocks will be negated by demand elastic destruction proving market self-correcting

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

OIL MARKET TO REMAIN IN DEFICITAND PIVOT INTO SURPLUS FROM Q2 2022

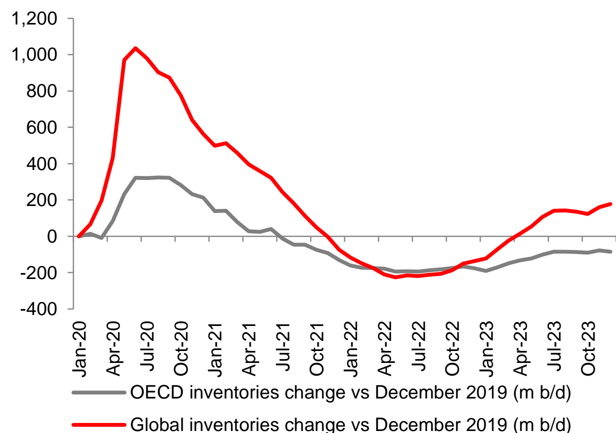
GLOBAL OIL DEMAND AND SUPPLY, CHANGE VS. JANUARY 2020 (M B/D)




*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*



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supply and a steady build-up of oil inventories) that we turn tactically bearish from Q2 2022. However until then, we now believe that the setup for oil could not be more favourable throughout the autumn and winter months.

Mark-to-market our quarterly oil profile upwards

Based on these considerations, we mark-to-market our quarterly profile higher wherein our modelling estimates now signal that the prevailing market deficit which started in June 2020 (see here), will not pivot into oversupply until Q2 2022 (from our initial estimates of Q1 2022). This is driven by winter demand risks which is now squarely skewed to the upside as the global gas crunch will increase gas-to-oil substitution (see here), and thus lead to an even tighter for longer physical oil market pushing oil inventories to lower levels. This will generate further price appreciation. We now forecast Brent ending Q4 2021 and Q1 2022 at USD87/b and USD82/b, respectively – widening the strong backwardation embedded into the oil 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.

Risks are skewed to the upside

Absent (i) the stagflationary winds blowing through the global economy taking a firmer hold; (ii) a potentially new COVID-19 variant that renders vaccines less effective; (iii) a swift return of Iranian barrels should a rapprochement with the US materialise; and/or (iv) a rapid pivot of US shale supply away from their current “value over volume” strategy, all the near-term risks have shifted to the upside. Moreover, diminishing OPEC spare capacity as well as oil service and carbon cost inflation skew risks upwards. Critically, our new bullish near-term call on oil would not be derailed by either a faster Fed taper nor the rising rates environment given that oil is a spot (anchored) asset which is not vulnerable to only depend on the prevailing “level” of demand and supply, and thus are not vulnerable to rising rates which only slow down the “growth” rate of demand (see here).

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*Source: MUFG Research*

MUFG QUARTER-END OIL PRICE FORECASTS (USD PER BARREL), AS OF 30 SEPTEMBER 2021

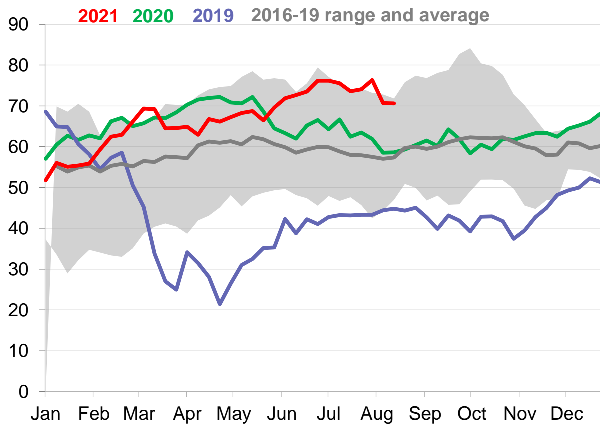
| USD/b | | | Quarter end forecasts | | | | | Average annual forecasts | |
|---|---|---|---|---|---|---|---|---|---|
| | Spot | Q3 2021 | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 | 2021 | 2022 |
| Brent | 78.4 | 78.4 | 85.2 | 82.4 | 74.3 | 71.9 | 65.6 | 71.6 | 73.7 |
| NYMEX WTI | 74.8 | 74.7 | 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 | 5109 – 76.0 | 44.5 – 70.5 | --- | --- |

*Source: MUFG Research*

# Core indicators – prices and market positioning

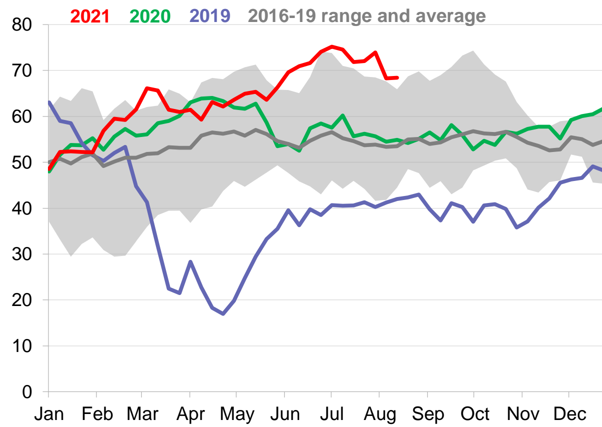
## BRENT SPOT

USD/B



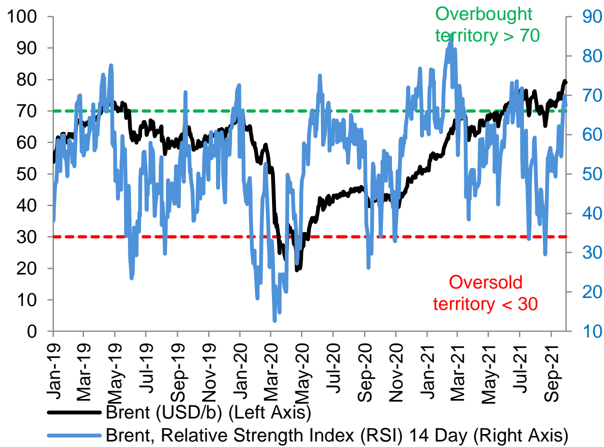

## NYMEX WTI SPOT

USD/B



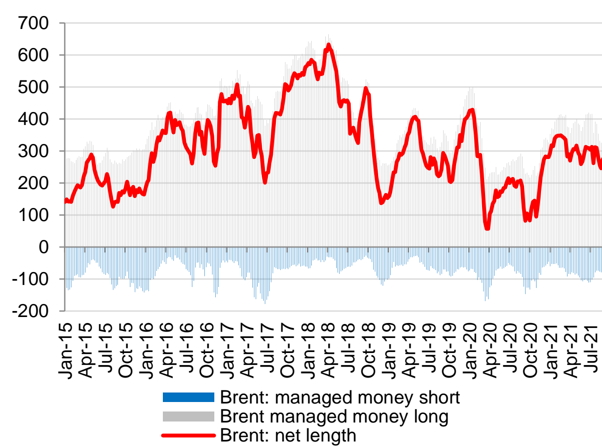

## 14 DAY RELATIVE STRENGTH INDEX (RSI) AND WTI

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



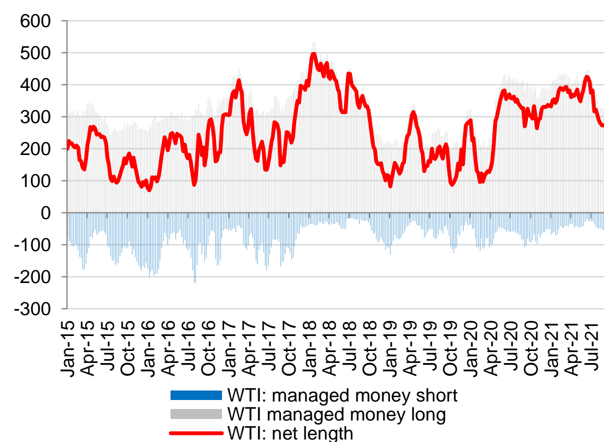

## BRENT NET LENGTH MANAGED MONEY

CONTRACTS (THOUSANDS)



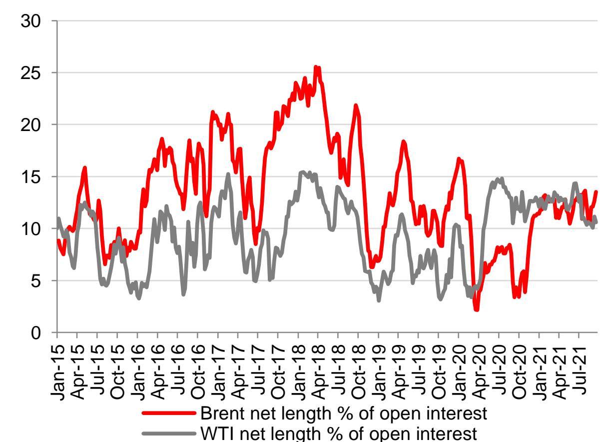

## WTI NET LENGTH MANAGED MONEY

CONTRACTS (THOUSANDS)




## NET LENGTH MANAGED MONEY / OPEN INTEREST

%




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



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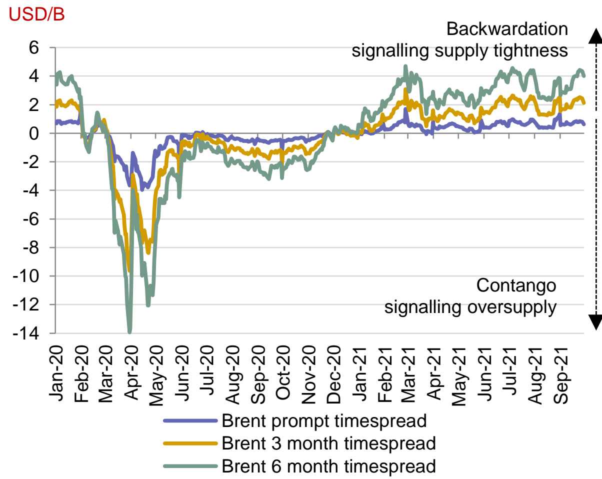
# Core indicators – timespreads and futures

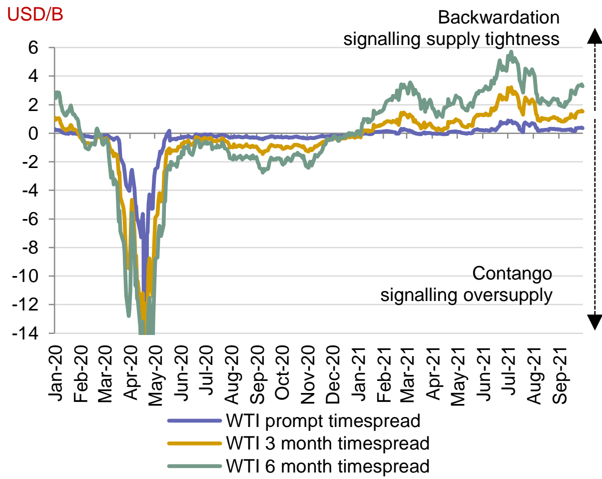
## BRENT TIMESPREADS – FRONT, 3 A ND 6 MONTHS

USD/B



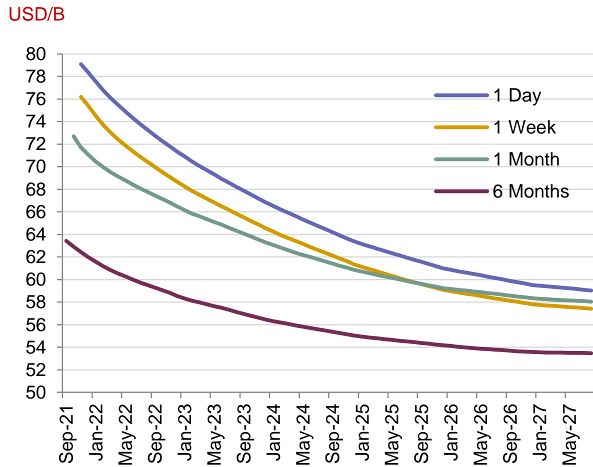

## WTI TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



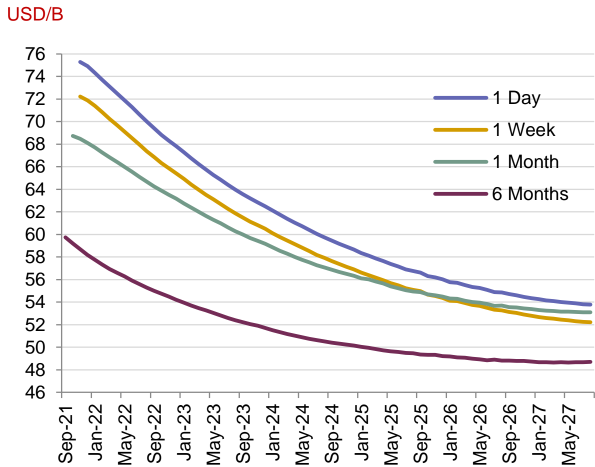

## BRENT FUTURES CURVE

USD/B



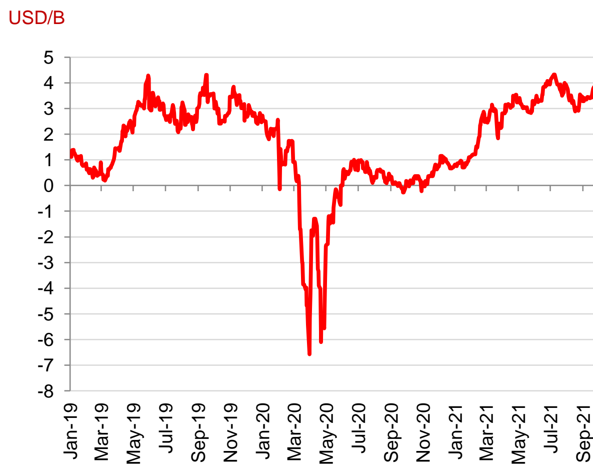

## WTI FUTURES CURVE

USD/B



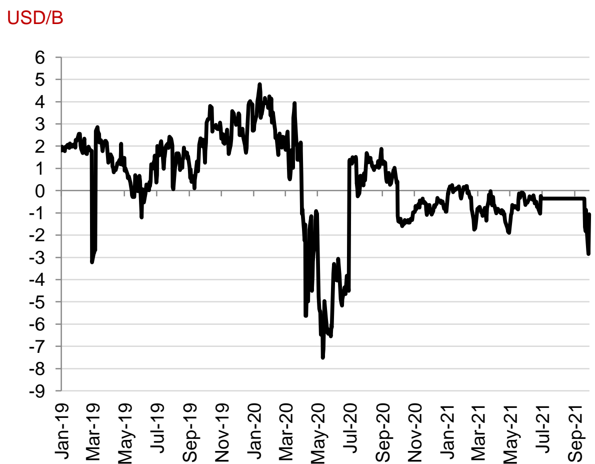

## BRENT-DUBAI SPREAD

USD/B



## BRENT-MURBAN SPREAD

USD/B



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



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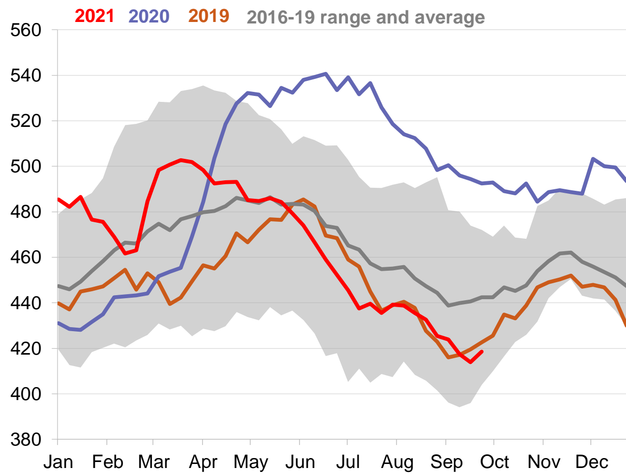
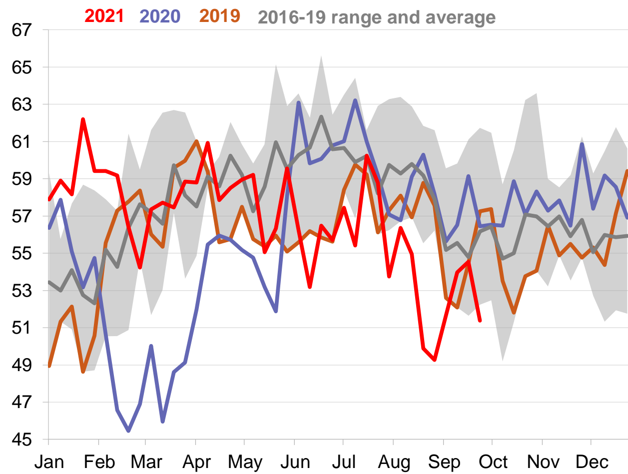
## Core indicators – inventories, storage and products

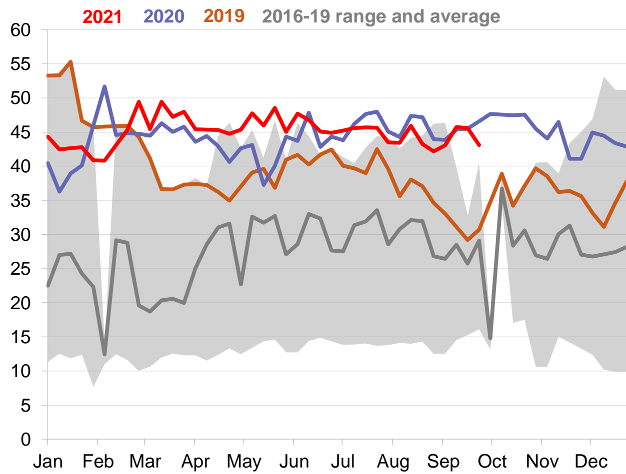
### US CRUDE INVENTORIES
MILLION BARRELS



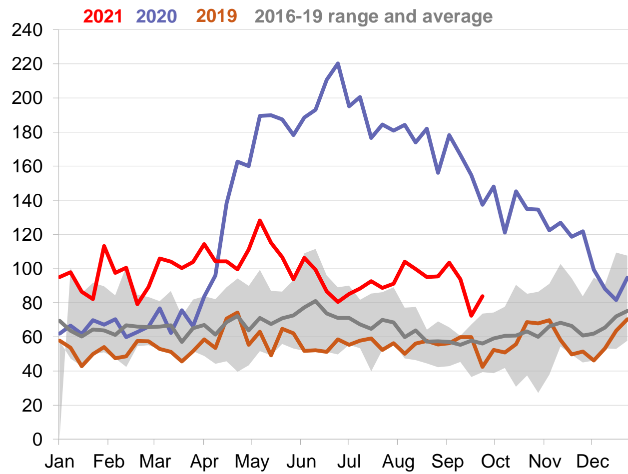

### ARA CRUDE INVENTORIES
MILLION BARRELS



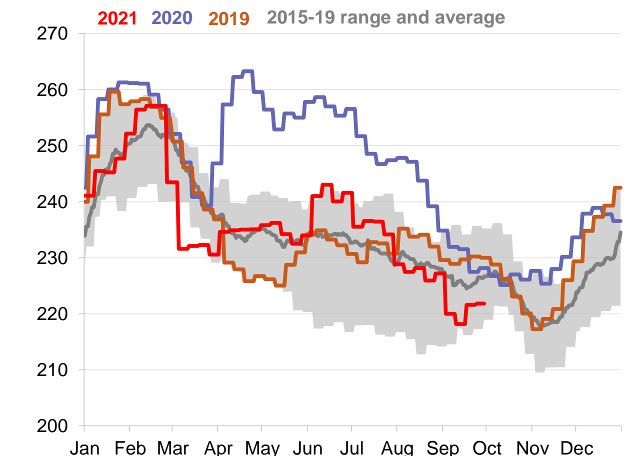

### CHINA SHANDONG CRUDE INVENTORIES
MILLION BARRELS



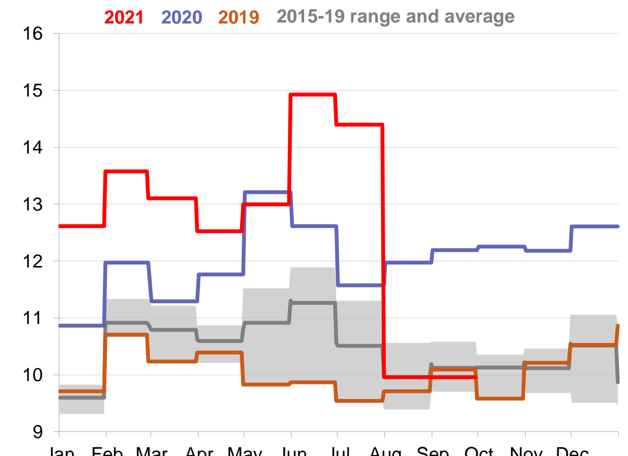

### GLOBAL CRUDE FLOATING STORAGE
MILLION BARRELS




### US GASOLINE INVENTORIES
MILLION BARRELS




### JAPAN GASOLINE INVENTORIES
MILLION BARRELS



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

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