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MUFG Bank, Ltd.
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14 October 2021

Energy crunch is carving out an USD80/b oil floor

Oil market focus: The oil market is poised for continued tightening through year-end, buoyed by a combination of recovering demand and acutely constrained supply, biting at a time when the velocity of oil inventory declines is accelerating. Brent crude has consecutively closed above USD80/b for the last nine trading days, and looks set to sustain near-term momentum on increasing international air travel, gas-to-oil switching for power generation in response to record high gas prices (see here), alongside fading prospects of a revival in Iranian barrels and subdued US shale rig counts thus far. We continue to believe that the setup for oil could not be more favourable throughout this quarter with the global energy crisis increasingly beginning to carve out an USD80/b floor, which plays into our bullish conviction of Brent ending the year at USD85/b, with asymmetric price risks to the upside.

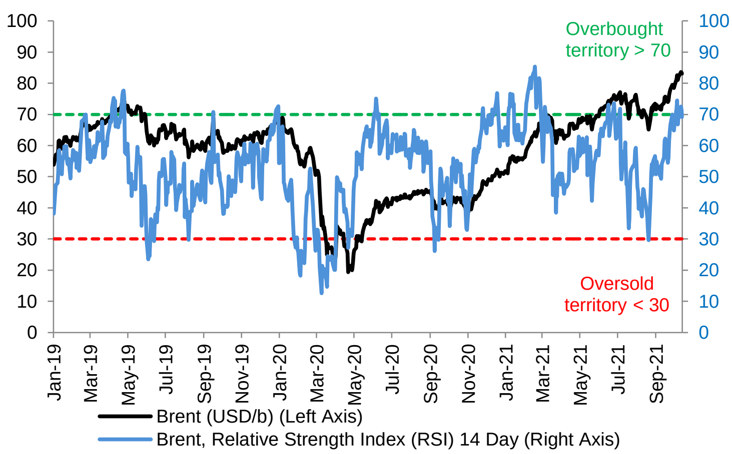
Week in review and week ahead: Oil markets remain buffeted by the widening energy crisis that has hit major Asian and European economies. We continues to remain tactically bullish for the week ahead, with positive catalysts moving at pace stemming from the lingering knock-on effect of the gas supply crunch leading to an even tighter physical oil market, the continuing draws in stockpiles and mobility easings continuing swiftly.

Oil price forecast: We have recently marked-to-market our quarterly profile higher wherein our modelling estimates now signal that the prevailing market deficit which started in June 2020, will not pivot into oversupply until Q2 2022 (see here). Given the tight oil market, we forecast Brent ending Q4 2021 and Q1 2022 at USD85/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.

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

CHART OF THE WEEK: OIL PRICES ENTER OVERBOUGHT TERRITORY

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



Brent crude's 14 day relative strength index (RSI) has risen north of the 70 threshold signalling overbought territory – whilst the risks are skewed to higher oil prices near-term, technical indicators offer investors guidance on near-term positioning

Source: Bloomberg, MUFG Research

Oil market focus

Energy crunch is carving out an USD80/b oil floor

Relentless oil rally continues

Brent crude has held above USD80/b consistently for the last nine trading days as a winter of discontent stemming from the global energy crisis exacerbates the strained market deficit reflecting surging demand, constrained supply and depleting inventories. We believe that the sustained rally is poised for further near-term momentum on increasing international air travel, fading prospects of a near-term US-Iran rapprochement keeping between 1-1.5m b/d of Iranian barrels off the table, whilst non-OPEC+ supply growth looks weak with a subdued US shale rig count response thus far. Critically, spare capacity within OPEC+ could signal a price ceiling, with the group potentially yielding to pressure from the US, China and India to raise production at a faster rate than its current 0.4m b/d monthly hikes.

Gas-to-oil substitution a key factor over the autumn and winter period

Of particular concern is the acute crunch in gas markets which is spurring gas-to-oil switching which remains a fundamental known unknown. Theoretically, whilst there are large oil-fired power generation, practically there are likely logistical constraints to full use. Our examination suggests that as a base case 0.6m b/d of gas-to-oil substitution, to offset in part by an economic hit due to high natural gas and power prices (see here).

Firm backwardation will continue

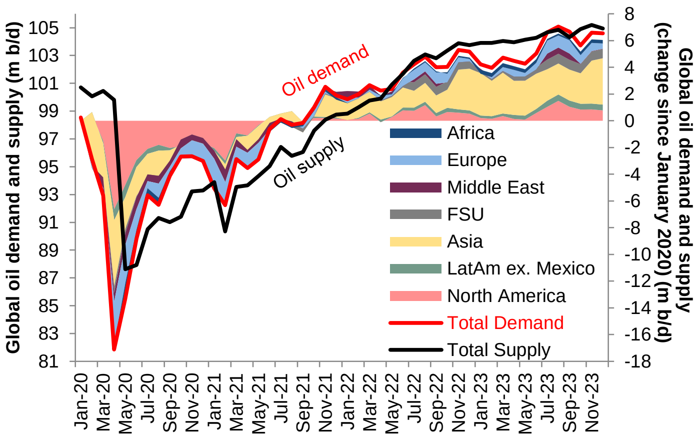
All signs point to the current physical supply constraints increasingly garnering traction over the winter and presenting a tightening influence on the oil (and broader energy) market. This is increasingly being shown up in futures markets wherein prompt timespreads, which are one of the best indicators 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).

US prospects of SPR releases and banning oil exports to have negligible benefits in lowering gasoline prices

The US energy secretary, Jennifer Granholm, raised the prospect of releasing crude from the US Strategic Petroleum Reserve (SPR) on 6 October, as well as potentially banning US crude oil exports, in a bid to stymie the recent surge in US retail gasoline

OIL MARKET TO REMAIN IN DEFICITAND PIVOT INTO SURPLUS FROM Q3 2022

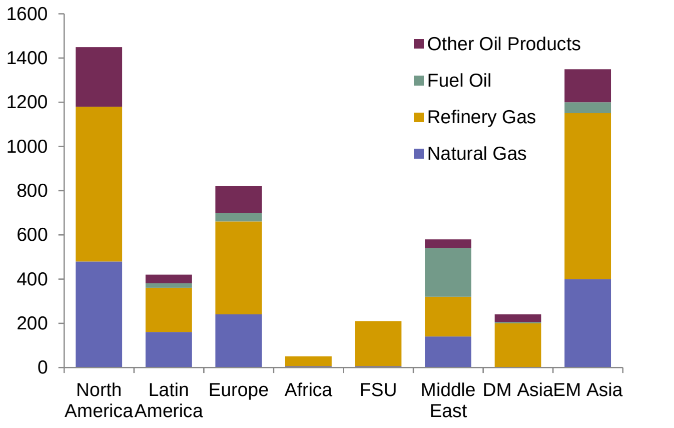
GLOBAL OIL DEMAND AND SUPPLY, CHANGE VS. JANUARY 2020 (M B/D)



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

MAGNITUDE OF GAS-TO-OIL SWITCHING REMAINS A KEY KNOWN UNKNOWN – WE BASE CASE 0.6M B/D IN Q4

CHANGE IN OIL USE WITHIN POWER AND INDUSTRIAL SECTORS (M B/D)



Source: Bloomberg, FGE, OPEC, MUFG Research prices (currently at the highest level since September 2014). It is unclear as to the magnitude of the release and in what timeframe, but even if we envisage a ~10% release of the current 637m barrels available, we believe this will prove transient due to the sheer velocity of the oil market deficit which we believe is at -1.8m b/d this quarter. Indeed, even factoring a higher level than a 10% release of the SPR will only slow the US shale revival. A potential ban on US crude oil exports will strengthen the US administration's leverage ahead of conversations on the carbon border tax adjustment proposed by the EU but this will in fact likely lead to price distortions in the US. Indeed, whilst, US export restrictions depress WTI crude relative to Brent in order to balance the domestic market, it would in fact be net bullish US gasoline given that US gasoline prices are linked to Brent not WTI.

We remain resolute in our bullish oil conviction over the autumn and winter months

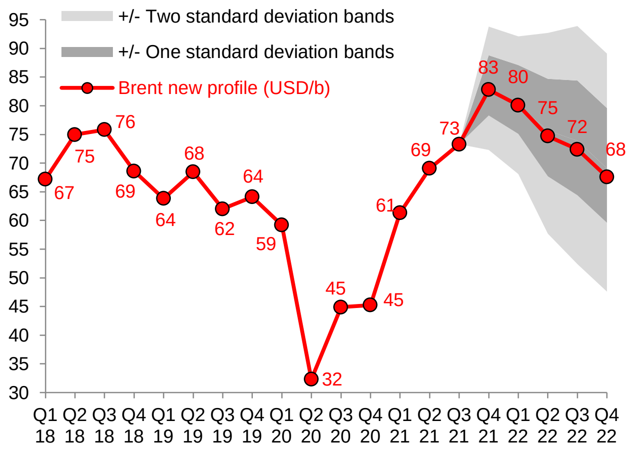
Looking ahead, we do not envisage the current acute oil market deficit to dissipate any time soon. We recently marked-to-market our quarterly profile higher wherein our modelling estimates now signal that the prevailing market deficit which started in June 2020 (see here), will not pivot into oversupply 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 forecast Brent ending Q4 2021 and Q1 2022 at USD85/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 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'S OIL PROFILE SIGNALS A PEAK IN Q4 2021 WITH A BEARISH 2022 BIAS GIVEN THE LIKELY SURPLUS

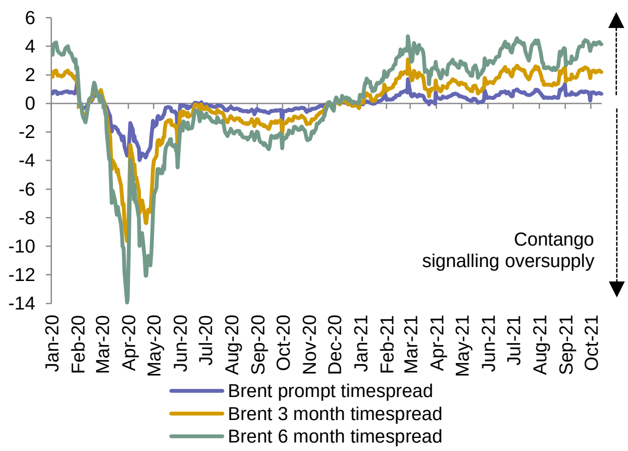
AVERAGE BRENT (USD/B) WITH ONE AND TWO STANDARD DEV. BANDS



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, FGE, OPEC, MUFG Research

Week in review and week ahead

Oil prices continue to march higher and we remain tactically bullish for the week ahead

Oil markets remain buffeted by the widening energy crisis that has hit major Asian and European economies. We remain tactically bullish for the week ahead, with positive catalysts moving at pace stemming from the lingering knock-on effect of the gas supply crunch leading to an even tighter physical oil market, the continuing draws in stockpiles and mobility easings continuing swiftly. The blowout in Brent crude timespreads in recent trading days signals that the pathway even higher oil prices remains firm.

Markets are being drawn into how much gas/LNG can be imported into Europe and how much oil can replace gas in the months ahead

With Europe heading into winter with well-below gas inventory levels, markets are progressively fixated on both the magnitude of imported gas/LNG to the continent and how much oil can replace gas in the months ahead. For an oil markets perspective, oil can assist the gas market better manage a potential colder average winter, but this would require even larger gas price rallies and the process will be fraught with complexities.

We estimate gas-to-oil switching at 1.9m b/d across Europe, Asia and the Middle East

The core question is if there is adequate substitution from gas to oil to help prevent a gas shortage through winter, and if so, can the oil market accommodate such a demand shock. From a bottom up perspective, our estimates point that the conceivable capacity for gas-to-oil switching at 1.9m b/d (1.3m b/d in power generation and 0.6m b/d in industrial usage) across Europe, Asia and the Middle East. This is a function of the available capacity, potential load factors, plants level stocks, regional price incentives, LNG trade access, the degree of LNG long-term contracting, and historical trends. Should only a fraction of this potential switching occur this winter – in tandem with rising demand for heating oil – then this could result in a global oil demand surge of between 0.5-1.5m b/d (conditional on how cold the winter months transpire). This could potentially require a faster ramp-up that the pledged 0.4m b/d of monthly hikes in OPEC+ production when it next meets on 4 November.

We do not rule out an unique and acute bullish impulse for oil and we do not rule out a transitory oil price spike north of USD85/b in Q4 2021

The ongoing widening gas-oil price spread – which has risen markedly since early August – will provide a test of our estimated gas-to-oil substitution sensitivities. The usage of oil to ease the gas constraints faces the obstacle of the price incentive needs to clear its higher CO_2 emissions in Europe, which remains highly uncertain. Key from a gas market perspective will be the price incentive necessary to achieve such a substitution from gas-to-oil. Based on our estimate, the current risk premium in gas prices is already offering the space for switching to become viable, with current levels incentivising oil cargoes, in our view. In extremis, a severe tightening in global gas supplies presents an unique and acute bullish impulse for oil as a widening deficit depletes inventories with markets struggling to find a balance.

Oil price forecasts and ranges

MUFG AVERAGE OIL PRICE FORECASTS (USD PER BARREL), AS OF 06 OCTOBER 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	83.2	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	---	---

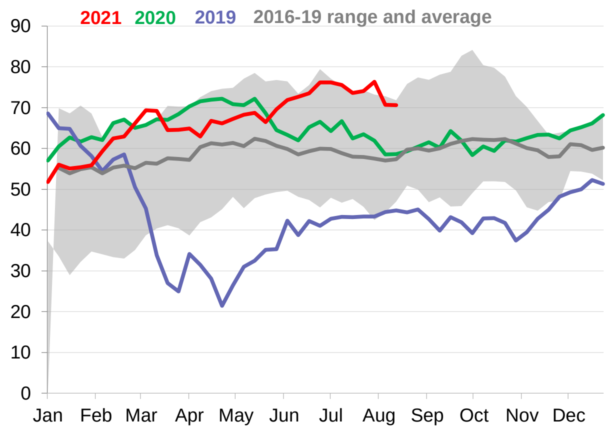
Source: MUFG Research

MUFG QUARTER-END OIL PRICE FORECASTS (USD PER BARREL), AS OF 06 OCTOBER 2021

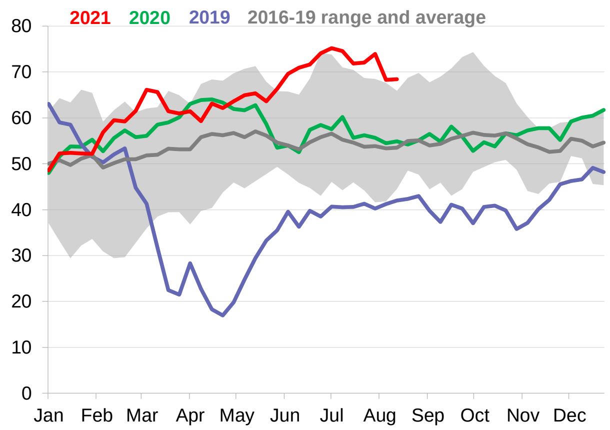
USD/b			Quarter end forecasts					Average annual forecasts	
	Spot	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2021	2022
Brent	83.2	78.4	85.2	82.4	74.3	71.9	65.6	71.6	73.7
NYMEX WTI	80.4	74.7	81.9	79.2	70.8	68.2	61.8	68.7	70.2
Brent ranges	---	---	71.6 – 98.5	67.8 – 95.3	56.2 – 85.4	53.5 – 81.3	47.8– 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

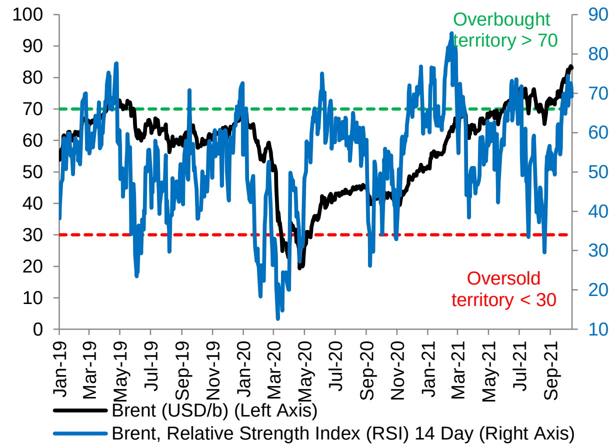
BRENT SPOT
USD/B



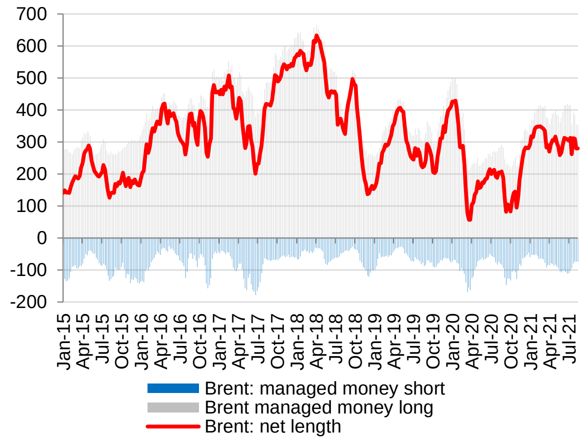
NYMEX WTI SPOT
USD/B



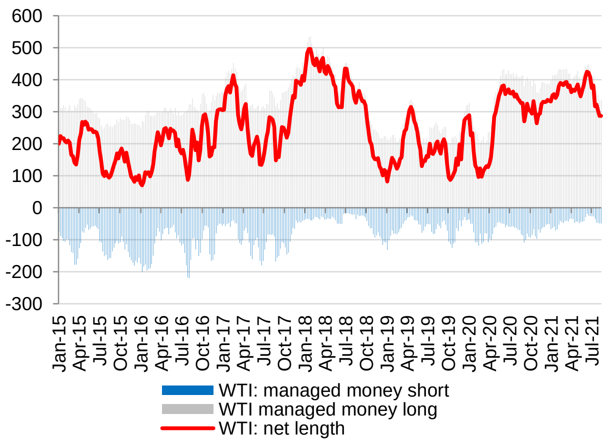
14 DAY RELATIVE STRENGTH INDEX (RSI) AND WTI
USD/B AND 0-100 INDEX (<30 = OVERSOLD; >70 = OVERBOUGHT)



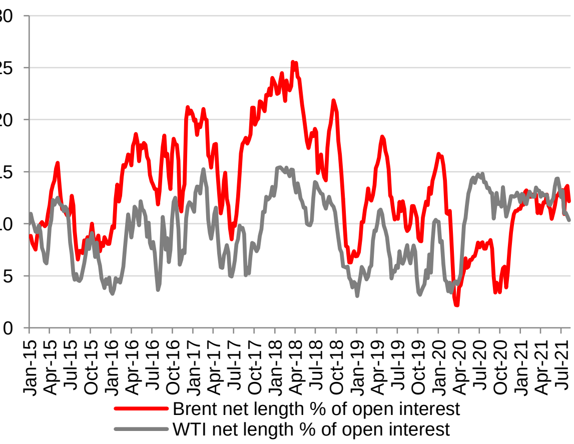
BRENT NET LENGTH MANAGED MONEY
CONTRACTS (THOUSANDS)



WTI NET LENGTH MANAGED MONEY
CONTRACTS (THOUSANDS)



NET LENGTH MANAGED MONEY / OPEN INTEREST
%

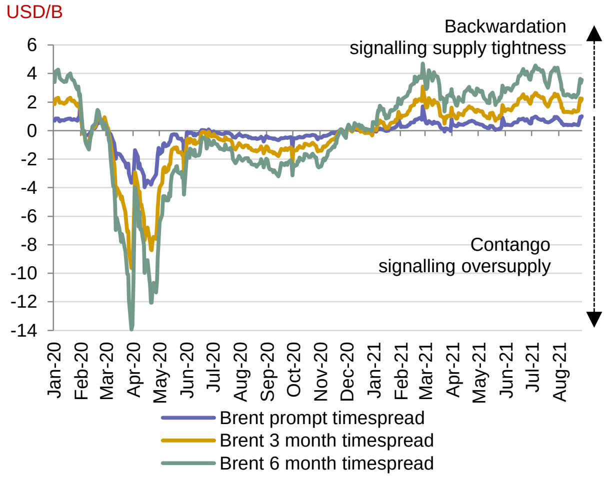


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – timespreads and futures

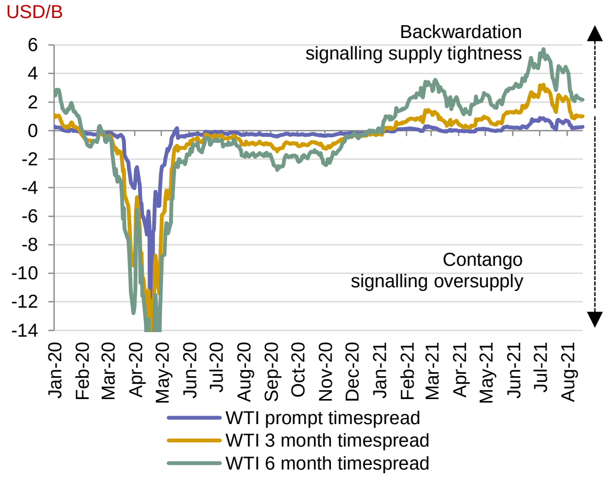
BRENT TIMESPREADS – FRONT, 3 A ND 6 MONTHS

USD/B



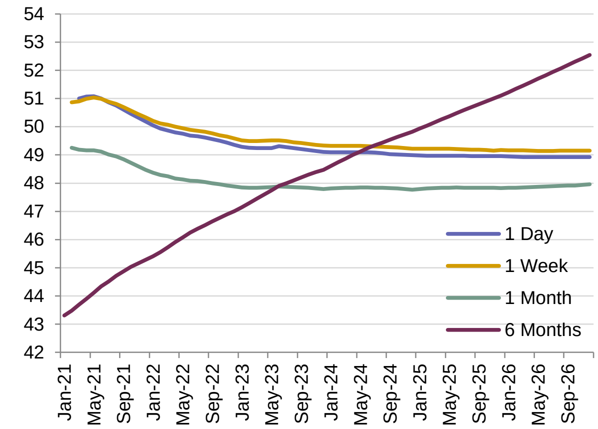
WTI TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



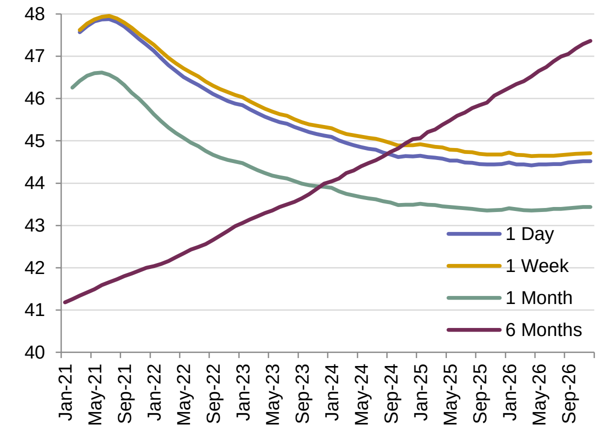
BRENT FUTURES CURVE

USD/B



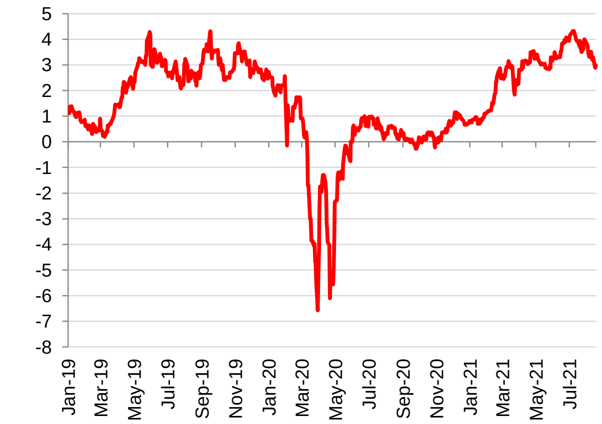
WTI FUTURES CURVE

USD/B



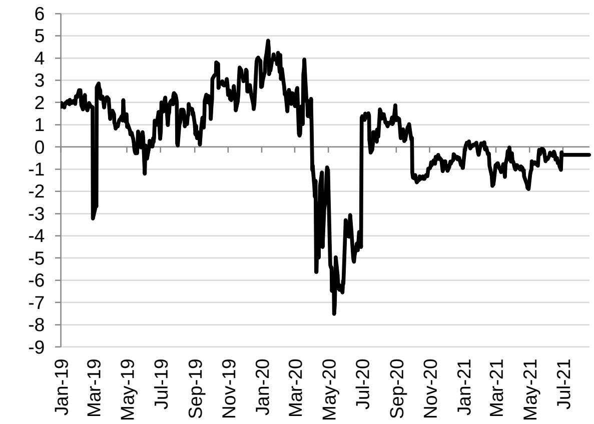
BRENT-DUBAI SPREAD

USD/B



BRENT-MURBAN SPREAD

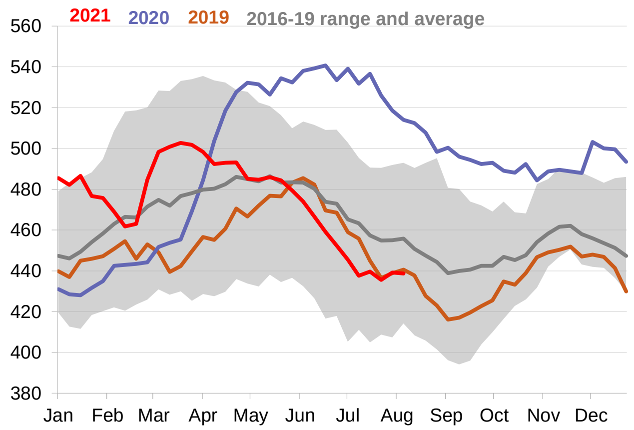
USD/B



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

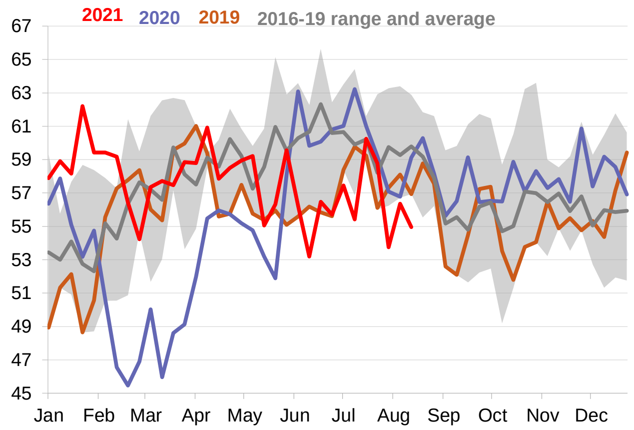
US CRUDE INVENTORIES

MILLION BARRELS



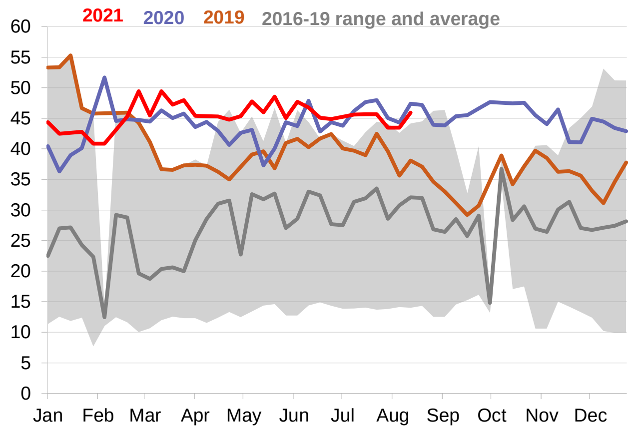
ARA CRUDE INVENTORIES

MILLION BARRELS



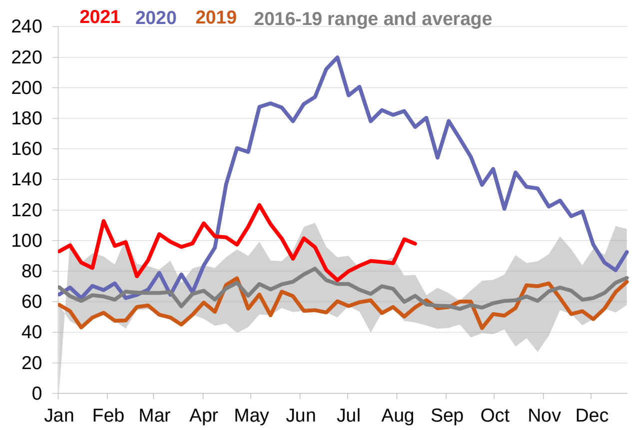
CHINA SHANDONG CRUDE INVENTORIES

MILLION BARRELS



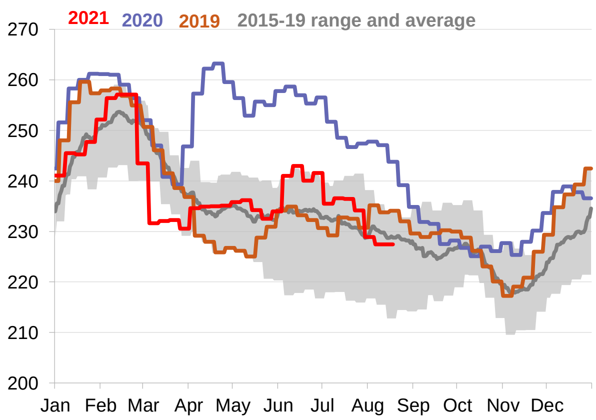
GLOBAL CRUDE FLOATING STORAGE

MILLION BARRELS



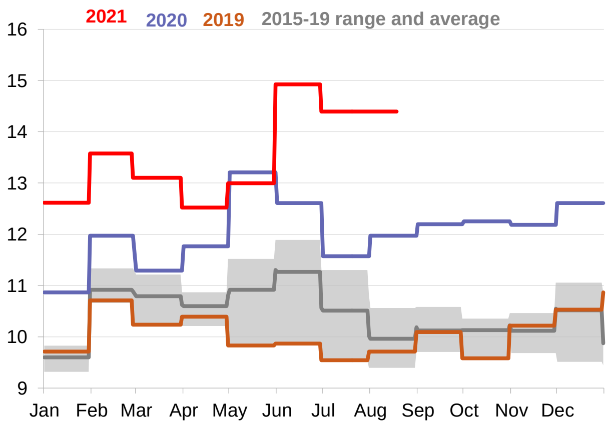
US GASOLINE INVENTORIES

MILLION BARRELS



JAPAN GASOLINE INVENTORIES

MILLION BARRELS



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

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