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The next phase of the commodity market syzygy

Global commodities: Improving fundamentals, surging inflation and ongoing signs of a pivot from supply scarcity to hoarding (see here), suggests that the stars are aligning for global commodities to move in a syzygy fashion even higher over the summer months. The tailwinds still far outweigh the headwinds with the commonality of Russian physical decoupling, China reopenings, depleted inventories and persistent deficits miring the complex. Whilst not uniform across countries with varying heterogeneity, we remain convicted that demand destruction – through still higher prices – is the only near-term balancing mechanism large enough available in a world devoid of inventory buffers to jolt corporate activity and squeeze private consumption to ease the extreme tightness (see here).

Energy: Oil is testing three month highs on both supply-side angst (lost Russian barrels and thinning OPEC+ spare capacity) as well as strong demand-side forces (China revival, US summer driving season and higher jet-fuel demand). Meanwhile, the US natural gas price continues to break new highs on tight inventories as exports are surging and warmer-than-usual weather prompting demand for power generation.

Base metals: The easing of Chinese lockdowns make base metals the catch up trade as their scarcity conditions have not softened as much as prices recently.

Precious metals: Gold and silver have edged higher amid a weaker USD, lower yields and geopolitics. PGMs have rebounded on Chinese optimism and geopolitics.

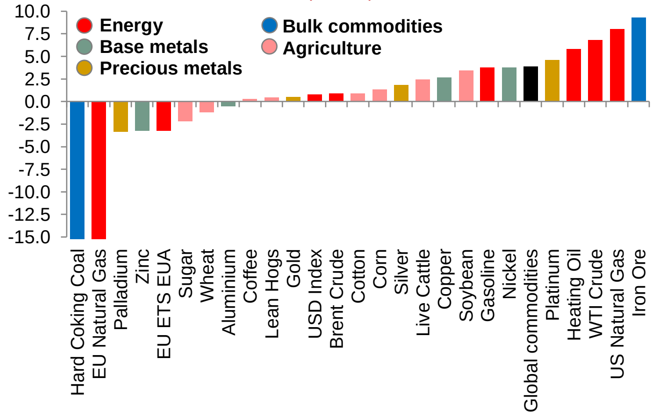
Bulk commodities: Coking coal prices are easing as we head into the dry season. Iron ore is wavering near its highest level in a month on stronger Chinese demand

Agriculture: Ukraine is working with partners to establish a humanitarian corridor for shipments of grains and warned that failure to open up exports to the country will lead to “catastrophic” global food price increases.

Core indicators: Price performance and forecasts, flows, market positioning, timespreads, futures, inventories, storage and products performance covered below.

COMMODITIES PERFORMANCE: GEOPOLITICAL RISK PREMIA IS PIVOTING

BLOOMBERG COMMODITY INDEX (BCOM) RETURNS, WEEK-ON-WEEK TO 08 JUNE 2022 (%)



At a time as Chinese lockdown risks ebb, so too are geopolitical risks pivoting from global commodity supply. Until last month, incremental policy tightened commodity markets, from increasing EU sanctions to hoarding behaviour . Currently, policy risks are now building in the opposite direction, with Russia recently announcing it would allow a humanitarian corridor for grains to leave Ukraine, in exchange for sanctions relief. These risks remain two-sided, however, with Russian cutting off gas supplies to 8 EU countries thus far.

Source: Bloomberg, MUFG Research

GLOBAL COMMODITIES (3.9% W/W; 35.9% YTD)

Stars are aligning for global commodities to move in a syzygy fashion even higher over the summer months

The incessantly runaway commodity outperformance thus far this year has defied GDP downgrades, a strengthening US dollar and broad cross-asset sell-offs. Improving fundamentals, surging inflation and ongoing signs of a pivot from supply scarcity to hoarding across energy and the agricultural complex (see here) suggests that the stars are aligning for global commodities to move in a syzygy fashion even higher over the summer months. The tailwinds still far outweigh the headwinds with the commonality of Russian physical decoupling, China reopenings, depleted inventories and persistent deficits miring the complex.

Marching towards demand destruction

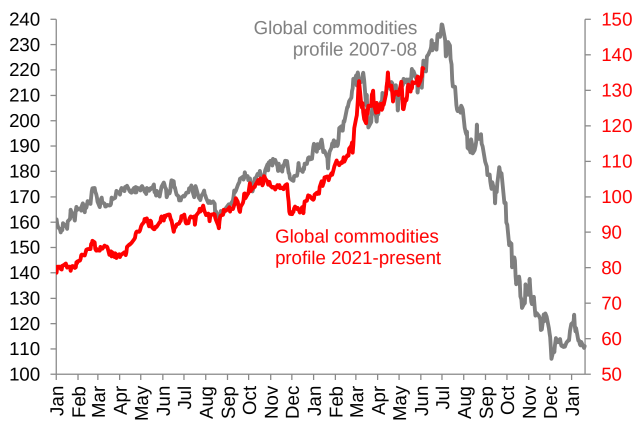
We remain convicted that demand destruction is the only near-term balancing mechanism large enough available in a world devoid of inventory buffers and supply elasticity. The demand adjustment will not be uniform across countries and will vary considerably, being conditional on the consumption basket, prospective price controls and exchange rate flexibility. With the sheer velocity of the supply shock coming after two years of steadily depleting inventories, we believe that markets are now marching towards a period of clear and persistent demand destruction. With negligible inventory buffers left, prices will have to keep rising until the shock is resolved or demand realigns itself with supply. Critically, once widespread, demand destruction is not a long-term solution with the permanent structural challenges facing commodities, namely, deglobalisation, decarbonisation and a reduction in capital availability given structural underinvestments over the years – central tenets of our commodities supercycle thesis (see here) – resurfacing as soon as demand recovers once again. Succinctly, we are only in the first innings.

From demand recovery to supply scarcity and now hoarding

In a world devoid of inventory buffers, commodity markets are beginning to experience severe distortions in conventional behaviour. Our central bullish narrative is premised on markets pivoting from demand recovery (surplus inventories driving up demand and supply down) to supply scarcity (depleted inventories and persistent deficits). Given the relentless market tightness, the next logical step is for countries to start hoarding commodities – securing tomorrow's supply themselves by precautionary inventory building today. In extremely dislocated raw material markets that are being turbo-charged by the Ukraine war, the build-up of commodity reserves takes precedence over the build-up of currency reserves. With the structural remapping of the global commodities trade – be it barrels, bushels or tonnage – only just starting out, hoarding reinforces our longer-term supercycle thesis.

COMMODITIES ARE FOLLOWING THE SAME 2007-08 PATH – MARCHING TOWARDS DEMAND DESTRUCTION?

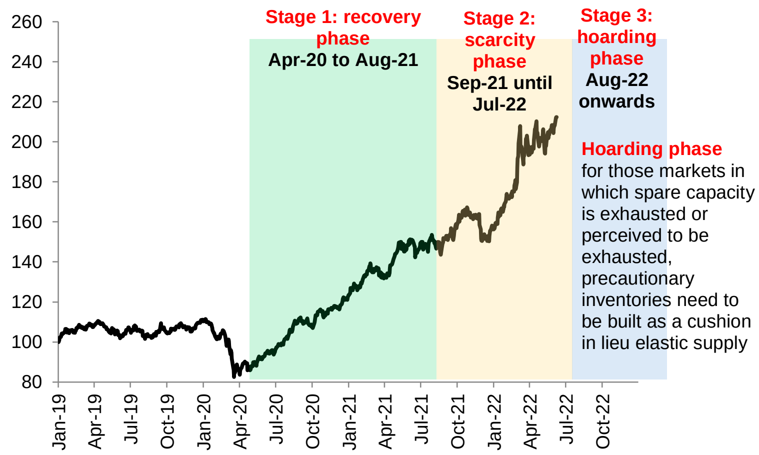
BLOOMBERG COMMODITY (BCOM) INDEX



Source: Bloomberg, MUFG Research

COMMODITY MARKETS MAY PIVOT FROM DEMAND RECOVERY TO SUPPLY SCARCITY AND NOW HOARDING

BLOOMBERG COMMODITY INDEX, REBASED JANUARY 2019 = 100



Source: Bloomberg, MUFG Research

ENERGY (8.5% W/W; 92.1% YTD)

Crude oil

Brent crude is trading north of USD120/b with supply angst and demand strength gaining traction

Oil is testing three month highs on both supply-side angst stemming from lost Russian barrels and thinning OPEC+ spare capacity, as well as strong demand-side forces as China emerges from draconian lockdowns, the US embarks on its summer driving season and increasing aviation activity points to higher jet-fuel consumption. Oil's relentless rally has life left in it yet and its advance looks supported.

Despite OPEC+ delivering more barrels to global markets than expected, the market remains unconvinced that the magnitude is enough to compensate for the severe market tightness

Despite OPEC+ members agreeing to a larger than expected supply increase (648k b/d against the anticipated 432k b/d) for July and August, market action since the meeting suggests that participants are unconvinced with the magnitude of the move. We catalogued last week that we are convicted that the additional barrels will not fully compensate the tightening market given the impact of intensifying sanctions on Russia as well as higher demand from China with COVID restrictions being eased (see here). In a sign of improving sentiment, Saudi Arabia raised its official selling prices (OSP) for Asia, northwest Europe and the Mediterranean regions earlier this week in a vote of confidence on the improving outlook for demand.

Net bullish positioning by money managers is recovering and at three month highs

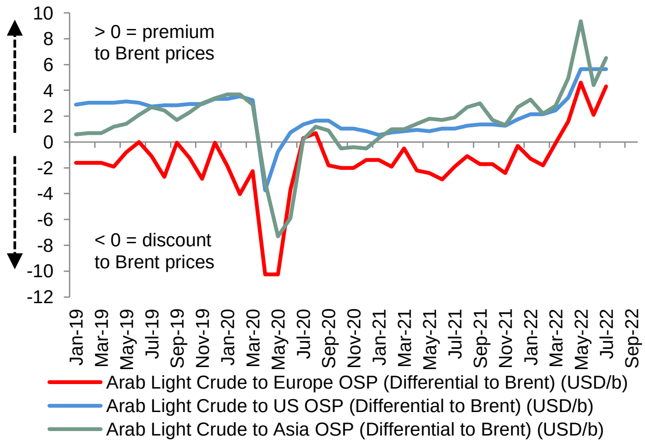
In another sign of improving sentiment towards oil, net-long bullish bets by money managers are recovering back near the levels witnessed before the war in Ukraine. Money managers have increased their bullish Brent and WTI crude bets by 21,608 combined net-long positions to 492,271 – largest net-long that speculators have held since March, though still significantly below the levels in 20221 and the record levels from 2018. This is despite, a significantly tighter market at the moment. This reflects a lack of interest in being overly exposed to the market, given the uncertainty and the potential for increased volatility. Aggregate open interest in Brent crude indicates a similar story, which is at its lowest level since 2015.

We maintain our maximum pain call for Brent to peak at USD141/b in Q3 2022 – height of demand destruction

Looking ahead, given the market tightness, oil prices are searching for the level where demand destruction kicks in. This level is not unambiguous. We reiterate our oil price call that the price-induced demand destruction necessary to reduce consumption is set to become widespread by the third quarter, with a corresponding Brent price above USD140/b (see here and here). We believe that this is the maximum pain thresholds that ultimately could jolt corporate activity, squeeze private consumption and begin to ease the market's severe tightness, with Brent falling to average USD112/b in the last quarter of 2022.

IN A VOTE OF CONFIDENCE ON DEMAND, SAUDI RAISED ITS SELLING PRICES FOR OIL TO ASIA AND EUROPE

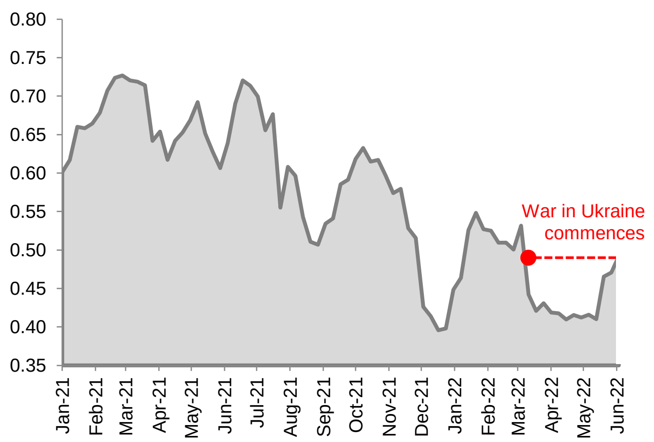
SAUDI ARABIA OFFICIAL SELLING PRICE (OSP) TO EU, ASIA AND US*



*Source: Bloomberg, MUFG Research; * Diff. to Brent spot (USD/b)*

MONEY MANAGER NET LONG POSITIONS FOR OIL HAVE CLIMBED TO A THREE MONTH HIGH – BULLISH

COMBINATION OF FOUR NET LONG CRUDE CONTRACTS (MILLIONS)



Source: Bloomberg, MUFG Research

Natural gas

US natural gas prices continues to break new highs on tightness in inventories as exports are rising as well as warmer-than-usual weather

The US natural gas (Henry Hub) price continues to break new highs (best performing commodity year-to-date, +149%), with a growing concern over the tightness of inventories as exports are surging as well as warmer-than-usual weather signalling stronger demand for power generation. US gas markets have entered a new normal in which price swings of a dollar or more on a single day are no longer an exceptional event. This follows a multi-year period that was characterised by low volatility, sub-USD3.5/MMBtu prices and strong production growth. At the beginning of 2022, US natural gas storage levels were in-line with the five year average. Since then, colder winter weather, lower supply, and resilient demand have drawn inventories to ~15% below normal currently. Prices have now more than doubled year-to-date, rallying in search of demand destruction – something that has remained elusive so far.

Notwithstanding asymmetric risks, US Henry Hub prices have likely overshot

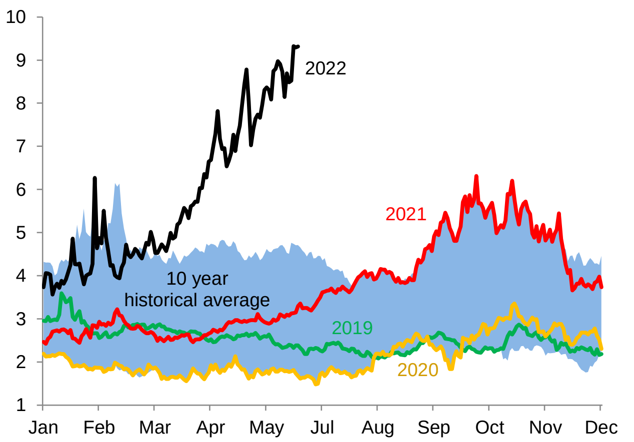
We believe that US gas prices have likely overshot and are having to look for fair value. First, front-month prices of ~USD9/MMBtu seem exaggerated and in deep oversold territory. Second, there is uncertainty on growth (stagflation/recession) and that high US gas prices will trigger a domestic backlash from consumers and industry (through demand destruction) given rising utility bills/pump prices. Third, growth in gas consumption for power generation seems ambiguous, given inflated prices. Moving more LNG cargoes into Europe is challenging, with export capacity (~4tn cubic feet) fairly static for 2022 as terminals are near maxed out.

Health European gas markets (for now)

Meanwhile, with only negligible supply losses from the Russian Rouble (RUB) payment requirement (see here and here), we view the recent increase in Asian LNG buying will be the bullish catalyst for European gas markets. The completion of this first payment cycle in RUB, at the same time that European storage has reached average levels, has driven European (TTF) ~EUR20/MWh lower to ~EUR80/MWh from a month ago. Although there were cuts to a few buyers – namely Netherlands, Denmark, Poland, Bulgaria, Finland, Lithuania, Latvia and Estonia – the largest European importers of Russian gas, Germany and Italy, have largely preserved their imports and now the issue of gas payment as a source of supply uncertainty appears resolved. The sell-off has taken TTF to levels we did not expect before Q3 2022, when storage levels will have recovered further. We believe this move is a bit too much too soon, incentivising a recovery in European gas demand and a lower flow of LNG to Europe, thereby slowing the pace of storage recovery. We still expect October European gas storage to reach just over 90% full but we maintain our Q4 2022 TTF levels of EUR144.6/MWh due to winter volatility amid shortage challenges.

US GAS PRICES ARE ON A TEAR WITH LEVELS AT 14 YEAR HIGHS BUT HAVE LIKELY OVERSHOT

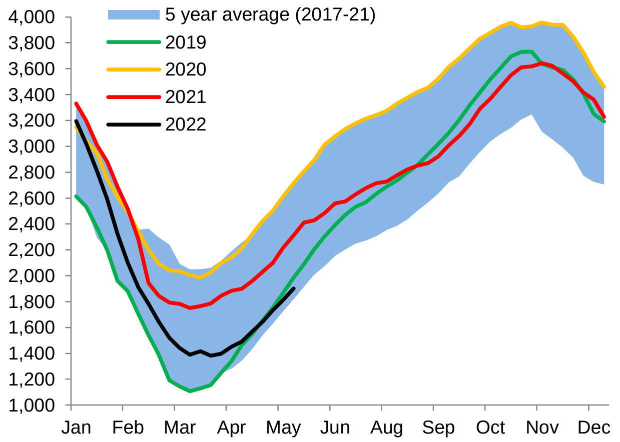
US HENRY HUB (USD/MMBTU), 10 YEAR AVG BAND & 2019-22 PROFILES



Source: Bloomberg, MUFG Research

US GAS INVENTORIES ARE WORRYINGLY THIN WITH AN URGENT NEED FOR SUPPLIES TO REBUILD STOCKS

US GASOLINE INVENTORIES (M BARRELS)



Source: Bloomberg, MUFG Research

Carbon markets

Europe's carbon market access curbs gets key endorsement

The European Parliament's largest political party – the European People's Party (EPP) – has thrown its support behind carbon market curbs proposed by the Socialists and Democrats group (second largest political party) that would restrict access to carbon permits solely to emitters and their intermediaries. The proposed changes to the EU Emissions Trading System (ETS) would represent the sternest reform of the programme currently under discussion by the parliament and member states. The EPP has also recommended endorsing two amendments of its own that would ban financial investors from holding EU carbon allowances, according to reports.

Proposals by the two largest political groups in the European Parliament are more stricter than the initial EU proposal put forward last month

To put this into context, the proposals put forward by the EPP and Socialists and Democrats group are stricter than a plan backed last month by the EU's Parliament committee, which proposed that by January 2025 only polluters in the system and their financial intermediaries can operate accounts in the carbon registry used to transfer allowances. The committee has given the European Commission the right to propose changes before the measures kicks in should the EU's executive arm conclude the limits would hamper the market. Meanwhile, the European Commission has warned against barring financial investors, stating that they offer much-needed liquidity.

The RePowerEU, whilst encouraging at face value, does add near-term negatives

As we documented last month, we believe that REPowerPlan put forward by the European Commission wherein allowances released from the Market Stability Reserve (MSR) would be a near-term negative for the EU emission trading market (see here). We envisage that the addition of allowances from the MSR would delay the tightness expected. Also, the additional renewable and energy efficiency targets are deflationary to the scheme abating the need for fossil fuel generation, as this reduces the deficit for CO_2 allowances.

BASE METALS (1.1% W/W; 8.4% YTD)

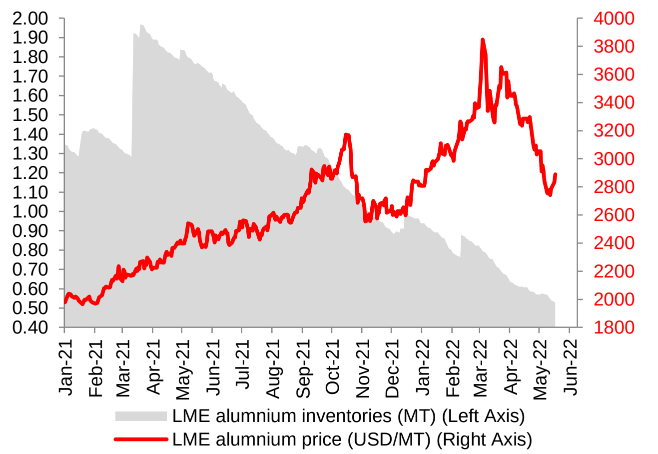
Aluminium

Aluminium continues to edge lower on a Chinese over-pledging incident

Aluminium prices have extended losses over the latest incident of over-pledging in China involving aluminium inventories (see here). For context, several traders claim

ALUMINIUM PRICES HAVE EASED BACK BUT THE DRAIN ON INVENTORIES IS SEVERE – PATH TO SCARCITY

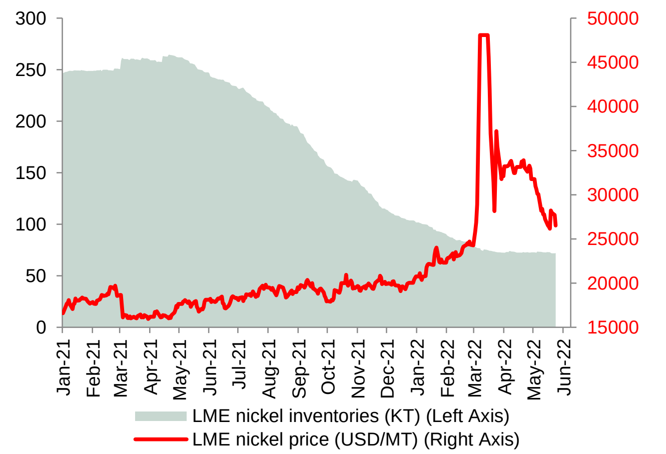
ALUMINIUM PRICE (USD/MT) AND INVENTORIES (MT, THOUSANDS)



Source: Bloomberg, LME, MUFG Research

NICKEL INVENTORIES HAVE SHARPLY FALLEN WITH PRICES FINDING A NEW NORMAL PATH POST-SQUEEZE

NICKEL PRICE (USD/MT) AND INVENTORIES (MT, THOUSANDS)



Source: Bloomberg, LME, MUFG Research

they were duped into providing credit against fictitious quantities of aluminium in the Chinese province of Guangdong, according to reports. More than CNY500m (USD75m) may have been loaned, backed by stockpiles of the metal stored in warehouses in Foshan that turned out to be worth considerably less than that. Granted, the amounts in question are relatively small in the context of the aluminium market in China, however, the apprehension is the similarity to a much larger scandal eight years ago in Qingdao that caused a crisis of confidence.

Aluminium prices continue to edge lower on the Chinese over-pledging incident

Notwithstanding this reported fraudulent incident, it is imperative to not lose sight of aluminium's decarbonisation paradox (see here). To reiterate, we believe we are only in the first innings of what is a much longer, structural bull market. At its heart lies the collide between meeting demand with a less carbon-intensive supply. This tensions needs aluminium prices need to remain higher for longer to incentivise the investment needed for this structural transformation in an expansionary environment. Yet decarbonising technologies for smelters remain several years away, pointing to an extended phase of supply growth restraint, reinforcing a path of sizable deficits and inventory scarcity this decade. In essence, aluminium's current cyclical headwinds do not change the structural story. That is, structural fundamentals remain intact – the underlying playbook for ongoing outperformance in aluminium is clear as their role in the decarbonisation process is central (and unprepared). Greening the economy will support a surge in aluminium (and broader base metals) demand but sticky inadequate supply widens deficits, inducing a multi-year supercycle (see here). For now, we maintain our forecasts for aluminium prices averaging USD3,633/MT this year.

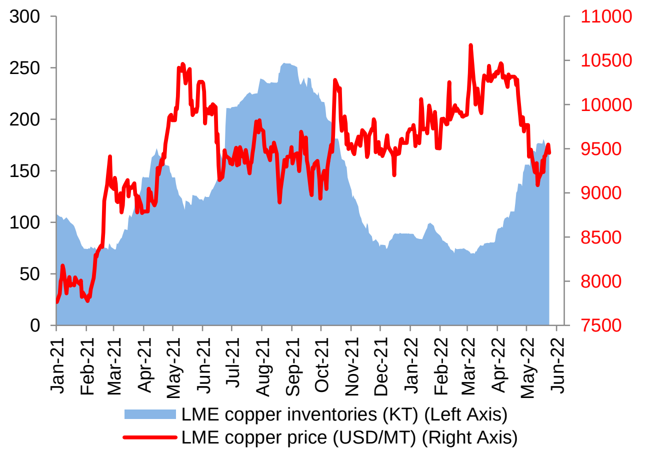
Nickel

Nickel has rebounded further amid very thin liquidity

Nickel has clawed back some of its recent losses, currently hovering ~USD30,000/MT amid a very thin market. Whilst nickel prices have whipsawed in recent months, the rollercoaster ride appears to be behind us for now, but the experience has markedly reduced liquidity on the LME. Importantly, Russia's Class 1 nickel is not sanctioned per se and thus still flowing to Europe – though self-sanctioning and shipping sanctions, is disrupting some flows. The recovery in nickel demand beyond China's period of lockdowns will mainly have to come from the EV sector, as China's stainless steel production is holding up well. On balance, we expect supply-growth to outstrip the demand recovery, with the overall nickel market likely returning to surplus through the back half of this year.

COPPER INVENTORIES ARE IN A STATE OF ACUTE DEPLETION WITH UPSIDE PRICE RISKS IMMENSE

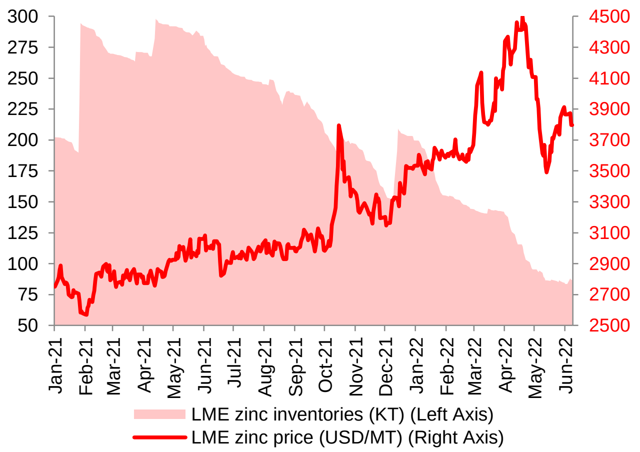
COPPER PRICE (USD/MT) AND INVENTORIES (MT, MILLIONS)



Source: Bloomberg, LME, MUFG Research

ZINC INVENTORIES HAVE BEEN LOW THROUGHOUT THE PANDEMIC WITH PRICES SIGNIFICANTLY RISING

ZINC PRICE (USD/MT) AND INVENTORIES (MT, MILLIONS)



Source: Bloomberg, LME, MUFG Research

Nickel's bull market is already here

At the beginning of the year, nickel's place within green metals was as a key competitor in the race for mineral dominance of energy storage. Now, it sits at the intersection of Europe's push for decarbonisation and energy independence. At the heart of Europe's strategy lies its desire to rapidly electrify its transportation sector – a source of ~20% of its emissions and ~2m b/d of Russian oil imports. With Europe's domestic EV sector already favouring nickel-based batteries, nickel is set to benefit the most from politically motivated demand accelerating already rapid growth in nickel battery use. Unlike copper and aluminium – both of which face green demand driven super cycles in coming years – extreme tightness and rapidly rising prices in the nickel market are already here. Even with the most pragmatic short cycle supply solution, the battery grade nickel market will continue to face extreme tightness this year. Turbo-charged by Russian physical decoupling supply risks and some positioning extremes, prices moved rapidly higher early in the year. However, with inventories already at low levels, the time frame for resolution signals that a near depletion in class 1 stock is likely to occur over the coming quarters before an eventual softening turn.

Copper

Easing Chinese lockdowns is offering support to copper prices

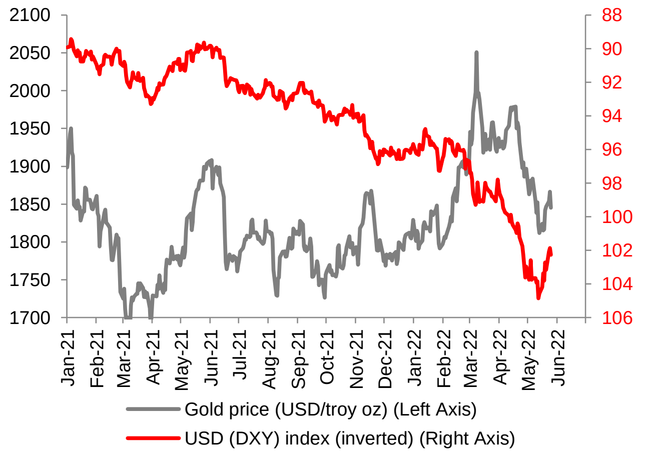
Copper prices are soaring on China optimism with the country easing stern lockdown restrictions. Back-to-back monthly declines have brought down prices to more attractive levels at a time when reopening in Shanghai should portend stronger industrial activity. Meanwhile, Chile, which accounts for more than a quarter of the world's mined copper, reported an ~10% y/y drop in production in April, with mines in the country hit by declining ore quality, and in some cases, water restrictions while output in neighbouring Peruvian has been disrupted by an uptick in community protests. Globally, mining companies have delivered underwhelming production reports of late amid operational challenges pertaining to COVID absenteeism and extreme weather, with costs rising sharply as the war in Ukraine and Chinese lockdowns exacerbate supply-chain disruptions. Underpinning the more immediate market gyrations is a looming shortfall of copper as demand linked to green the global economy gains momentum and deposits get costlier, and more challenging, to develop.

Supply scarcity continues to mire the complex

More broadly, while copper demand concerns remain overly tied to global growth reservations, copper supply concerns have waned with reports of the continued flow

GOLD HAS FALLEN TO A TWO MONTH LOW ON A SURGING USD ON THE FED'S HAWKISH STANCE

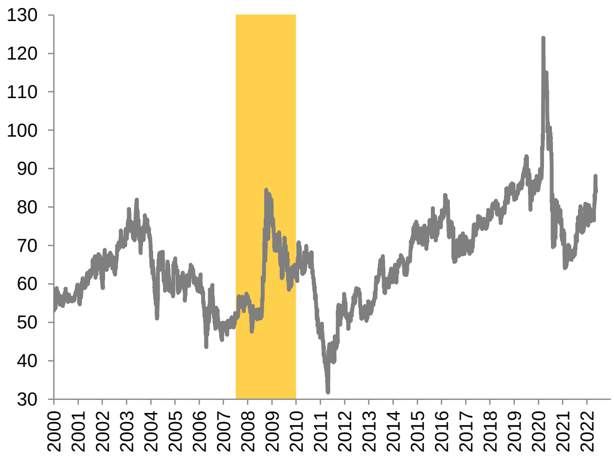
GOLD PRICE (USD/OZ) VS US USD BROAD (DXY) INDEX



Source: Bloomberg, MUFG Research

THE GOLD-TO-SILVER RATIO HAS BREACHED 2008-09 GFC LEVELS – TESTAMENT OF MARKET'S SKITTISHNESS

GOLD-TO-SILVER CROSS RATIO



Source: Bloomberg, MUFG Research

of Russian metal alongside a broader expectation for stronger global mine output over the next couple of years. We view this supply narrative is misguided. On Russia, we believe such a short-term continuation of flows – unlike those seen in grains or energy – hides a deeper contraction in potential Russian mine supply. With equipment and key personnel barred from the region, alongside more restrained capital, we believe that there will be considerable disruptions to Russia's mine supply from 2023 onwards. Such supply disruptions is the premise of our bullish conviction (MUFG average Q4 2022 forecast USD11,900/MT).

Zinc

Zinc prices have fallen on higher LME inventories

Zinc prices have fallen this week with LME inventories rising albeit still at depleted levels. High power prices in Europe have hurt smelter margins, driving curtailments, while LME inventories have been rapidly eroding too, leaving limited buffer in the market. Europe has 2150/KT of smelting capacity (~16% of global) and we estimate ~500/KT (~25%) has been curtailed thus far. A key driver has been the increase in power prices – using average front month power prices for Germany, Spain and France, a smelter would be paying between 3-4x more for electricity versus a year ago which raises questions about the impact on zinc smelting margins. On net, we maintain our bullish forecasts though expect a slight pullback given prices appear to have overshot fundamentals (MUFG average 2022 forecast USD3,853/MT).

PRECIOUS METALS (0.7% W/W; -0.2% YTD)

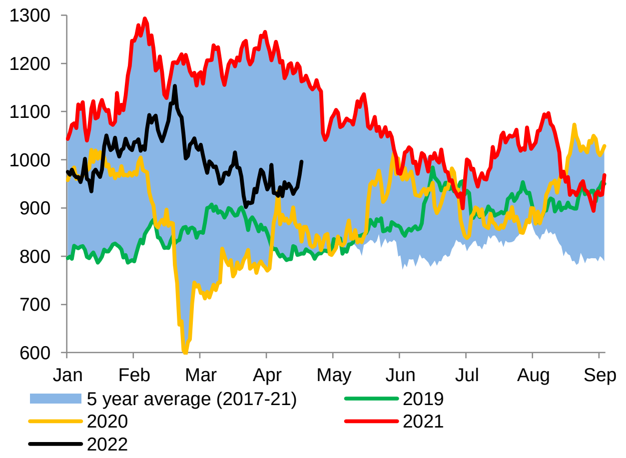
Gold

A weaker USD, lower yields, geopolitics and slowing global growth is offering support for gold

Gold has edged higher amid a weaker USD, lower yields, ongoing geopolitical angst and warnings of slowing global economic growth. As we catalogued last week, it is important to re-emphasise that while gold tends to disconnect from real rates during the Fed hiking periods, the relationship with the USD is more persistent (see here). Since the majority of gold is produced and consumed outside of the US, broad-based USD appreciation should lead to a similar depreciation in gold, holding other variables constant. Near term, the impact of the USD may be even larger due to repositioning of gold speculative positions which are very sensitive to USD momentum. This means that further USD upside could continue to put near-term

PLATINUM'S OUTLOOK REMAINS CONSTRUCTIVE ON A STEADY BALANCING PATH WITH UPSIDE SUPPLY RISKS

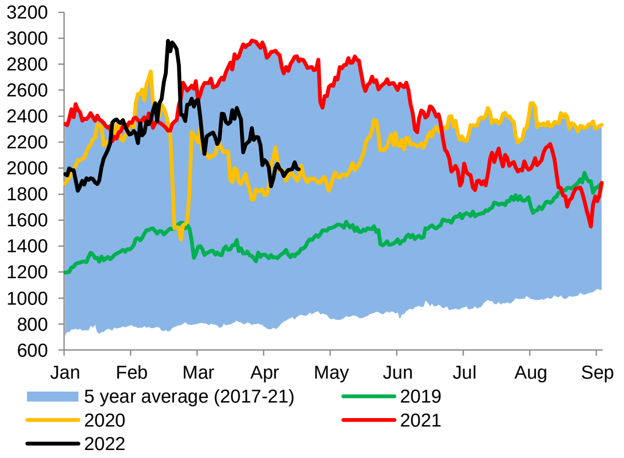
PLATINUM SPOT PRICE (USD/MT)



Source: Bloomberg, MUFG Research

PALLADIUM HAS LARGE UPSIDE RISKS – ULTIMATE GEOPOLITICAL HEDGE – RUSSIA IS THE TOP PRODUCER

PALLADIUM SPOT PRICE (USD/MT)



Source: Bloomberg, MUFG Research

pressure on gold. Having said that, our medium-term view has not changed and we view the current price weakness as an opportune entry point for investors' strategic investors.

The fundamental backdrop for gold cannot be more bullish as (i) investment; (ii) central bank and (iii) consumer demand appear set to simultaneously thrive

Looking ahead, we reiterate our call that gold is facing the most bullish backdrop in 10 years, as (i) investment; (ii) central bank and (iii) consumer demand appear set to simultaneously thrive – the last time these three forces came together in 2010-11, gold rallied ~70%. First, we are already seeing strong momentum in gold ETF demand, which should build further as US growth slows. Second, we also expect gold central bank demand to pick up in the second half of the year, after the RUB stabilises, as Russia should have meaningful liquidity to ramp up its gold purchases Third, Asian consumer demand was robust in H2 2021, and should only get stronger in our view, on greater wealth and a lack of investment option. We believe that gold prices will now accelerate from current levels (MUFG average Q4 2022 forecast USD2,250/oz).

Silver

Silver should benefit on a medium term view from energy transition related demand, particularly for its use in solar

Silver has followed gold higher for much the same macro themes of a weaker USD and lower yields. Silver should benefit on a medium term view from energy transition related demand, particularly for its use in solar. However, given the broader risks to global growth with a backdrop of rising rates, the near term outlook may be more challenged. Going forward, we believe silver is set to slightly outperform gold on stronger industrial demand and will gain more broadly on the rotation towards precious metals as a defensive asset during a stagflationary environment (MUFG average Q4 2022 forecast USD30/oz).

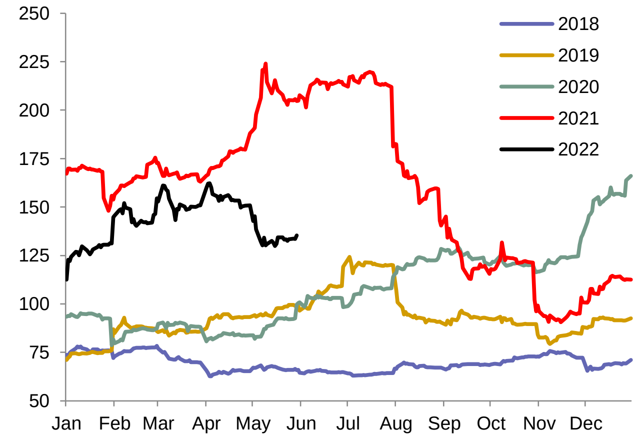
Platinum and palladium

Palladium and platinum have strengthened on Chinese optimism and geopolitics

Both core PGMs – platinum and palladium – have rebounded on Chinese optimism and ongoing geopolitical supply risk premium. In terms of palladium, whilst prices have eased from reaching a record ~USD3,000/oz in early March in the wake of the Russian invasion of Ukraine, there is still ample risk premium embedded into the market. The crucial role palladium plays in the global auto industry makes a prolonged supply disruption unlikely. Lower than anticipated auto output is paring demand growth from the key auto sector and palladium demand is also eroded by

IRON ORE PRICES HAVE STARED ROBUSTLY IN 2022 BUT NOW SUFFERING FROM IRRATIONAL EXUBERANCE

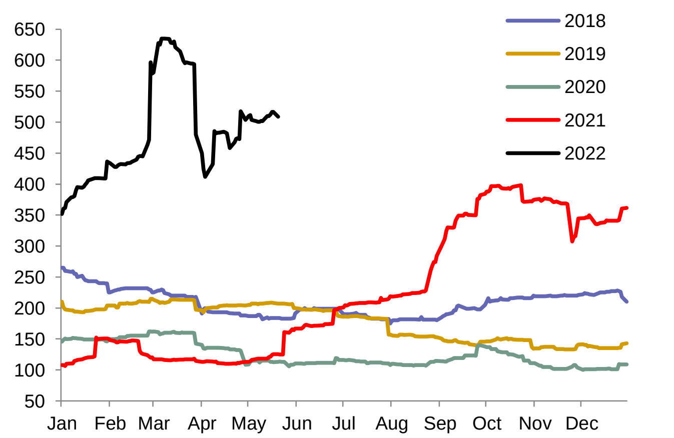
IRON ORE SPOT PRICE (USD/MT)



Source: Bloomberg, MUFG Research

COAL PRICES HAVE BOUNCED BACK AS RUSSIAN IMPORT BANS ARE EXACERBATING MARKET TIGHTNESS

HARD COKING COAL SPOT PRICE (USD/MT)



Source: Bloomberg, MUFG Research

substitution with platinum. Even with a healthy rebound, global auto output is unlikely to surpass 2019 pre-COVID levels until later in the decade. Switching gears, in terms of platinum, prices have fallen and are now hovering ~USD1,000/oz but we believe there is space for marked increased in the months ahead. Auto demand is likely to grow and gain on substitution with more expensive palladium. In addition, auto recycling supply should rise slightly, but be capped by the high prices of second-hand vehicles. Our forecasts point for palladium and platinum to average 2022 at USD2,931/oz and USD1,141/oz, respectively.

BULK COMMODITIES (-3.7% W/W; 24.5% YTD)

Iron ore

Iron ore prices are at one month highs as China begins to cautiously reopen

Iron ore is wavering near its highest level in a month as investors brace for strengthening Chinese demand for the steel-making material as lockdowns ebb. In a sign that demand recovery may be underway, China's steelmakers finally drew down stockpiles in late May, with levels plunging 10.2%, which comes after inventories rose to the highest level in two years. China's steel production seems to be running well ahead of demand, keeping the still supply-constrained seaborne market in deficit, also evidenced by China's eroding port inventories. Much has been said about China's stimulus measures such as the relaxing of infrastructure project approvals and property purchasing restrictions, but leading indicators for steel demand went from bad to worse in April. However, as lockdowns are easing and stimulus becomes more effective through the summer months, we still expect China's steel demand to recover.

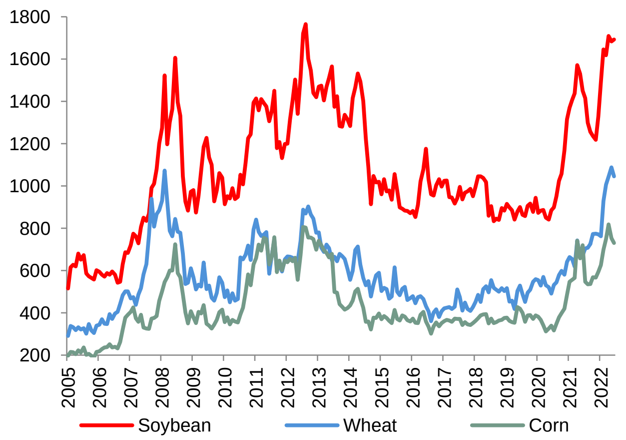
Coal

Coal prices have eased as trade flows slowly adjust

Australian coking coal prices have traded to record levels this year. Prices broke above USD600/MT at one stage in March, a period when there was plenty of uncertainty over Russian coal supply due to the war. Rainfall and floods in Australia also tightened up the supply side. The market has given back a lot of these gains as trade flows slowly adjust, and amid worries over Chinese demand and the expectation that Australian flows will recover as we head into the dry season. However, the market is still up more than 20% year-to-date.

RUSSIAN PHYSCIAL DECOUPLING, MOUNTING INPUT COSTS AND HOARDING IS SEEING GRAIN PRICES SOAR

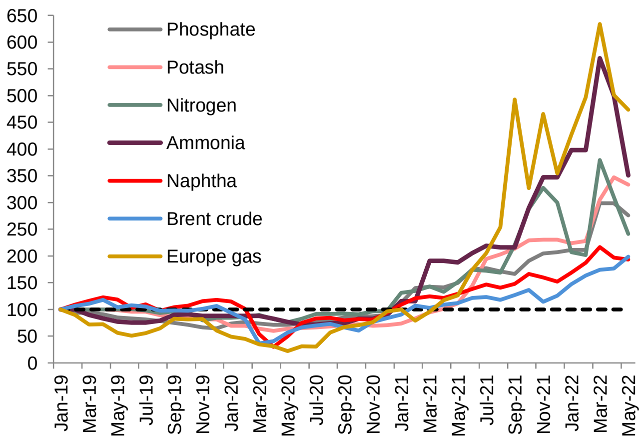
SOYBEAN, WHEAT AND CORN PRICES (USD/BUSHELS)



Source: Bloomberg, MUFG Research

FERTILISER SHORTAGES ON THE HORIZON DUE TO THE WAR, STOKING FURTHER INFLATIONARY PRESSURES

FERTILISER PRICES, OIL AND EUROPE GAS (REBASED 100 = JAN 2020)



Source: Bloomberg, MUFG Research

Coal prices have eased as trade flows slowly adjust

Australian coking coal prices have traded to record levels this year. Prices broke above USD600/MT at one stage in March, a period when there was plenty of uncertainty over Russian coal supply due to the war. Rainfall and floods in Australia also tightened up the supply side. The market has given back a lot of these gains as trade flows slowly adjust, and amid worries over Chinese demand and the expectation that Australian flows will recover as we head into the dry season. However, the market is still up more than 20% year-to-date.

Australia has had a challenge to meet demand amidst Russian sanctions

While Russian sanctions have raised supply concerns, Australia has struggled to help the market out with stronger export flows. Instead, exports have been under pressure for much of the year due to heavy rainfall in both Queensland and New South Wales. This follows weaker exports over 2021, with ~170/MT shipped last year – weakest volumes in a decade. The latest data suggests that exports over the first four months of the year totalled 52/MT, down 7% y/y – slowest pace of exports since 2017. However, given that Australia is moving further into the dry season, we should see a recovery in coking coal exports.

AGRICULTURE (1.4% W/W; 25.8% YTD)

The exports of Ukrainian grain shipments remain front and centre of attention

Ukraine is working with partners to establish a humanitarian corridor for shipments of grains – notably, wheat, corn and soybean – and warned that failure to open up exports to the country will lead to catastrophic global food price increases. The sideways price action suggests that the market is not overly confident that we will see these exports anytime soon, which is accentuated by Ukrainian apprehensions that such an arrangement would leave ports vulnerable to further attacks.

Turkey and the Netherlands have offered assistance but there is yet to be a breakthrough to secure safe passage of vital grain exports from Ukraine

Ukrainian agriculture minister, Mykola Solskyi, stated that 20m tons of grains and legumes as well as 5m tons of seed oils from the 2021 harvest cannot be exported due to the blockade and that the situation will become dire when the new harvest commences in July. “This domino effect will cause catastrophic price increases, acute famines and starvation in food insecure countries”, he declared. Turkey and the Netherlands have offered military assistance to clear mines off the coast of Odesa and escort grain vessels but Ukraine has yet to endorse the plan.

Laser focus on rice as a substitute for wheat

Yet while the release of Ukrainian grain would be material for easing global food inflation, it would not solve the current tightness across global agricultural markets. In recent weeks Ukraine has been supplying an increasing amount of grain (~1m/MT against 100/KT a month since the war began) out of the country on rail, and is continuing to expand that export capacity, enabling a partial rundown of old-crop stockpiles. In addition, Ukraine’s planting and growing season for both winter wheat and spring crops has been extremely disrupted across the board (Ukraine wheat production -33% y/y), with this loss irretrievable. As a result, should a corridor be created, it would likely soften spot fundamentals and present downside risk to our forecast, bringing forward a degree of trade activity that has been waiting for prices to ease, but crucially it will not improve overall fundamentals into 2023, in our view. Moreover, with crop conditions in the US as well as Canada continuing to decline, risks to global wheat markets remain firmly skewed to the upside. We acknowledge that price symmetry is prevalent at the current juncture – (i) upside price risks due to a lack of clarity around the timing and scope of any corridor; and (ii) downside price risks due to deal being reached and seaborne exports from Ukraine restart.

Commodity prices – performance

				2021	2022				Change %						
	Commodity	Ticker	Unit	31-Dec	18-May	25-May	01-Jun	08-Jun	Week	1 MTD	3 MTD	YTD	1 Year	3 Years	5 years
1	Bloomberg BCOM Total Returns	BCOMTR Index	Index	211.80	281.64	282.34	281.15	291.26	3.60	3.60	2.77	37.51	43.93	79.44	74.75
2	Bloomberg BCOM Spot Index	BCOMSP Index	Index	502.25	658.49	660.00	657.06	682.41	3.86	3.86	2.11	35.87	40.51	106.68	110.31
3	Energy	BCOMENSP Index	Index	368.86	637.13	648.79	653.18	708.40	8.45	8.45	23.29	92.05	109.48	168.44	196.16
4	US Natural Gas	NG1 Comdty	USD/MMBtu	3.73	8.30	8.80	8.15	8.80	8.02	7.81	93.97	135.42	180.72	275.74	189.99
5	EU Natural Gas	TZT1 Comdty	EUR/MMBtu	3.73	94.18	84.51	94.00	79.41	-15.53	-15.53	-62.99	12.89	185.62	589.30	419.51
6	WTI Crude	CL1 Comdty	USD/b	75.21	112.40	109.77	114.67	122.46	6.79	6.83	-0.97	62.88	74.88	126.89	168.40
7	Brent Crude	CO1 Comdty	USD/b	77.78	111.93	113.56	122.84	123.89	0.85	0.87	-3.18	59.31	71.57	95.78	158.90
8	Gasoline	HO1 Comdty	USD/lb	222.85	394.17	381.10	408.04	423.33	3.75	3.68	14.88	89.85	90.66	143.30	183.58
9	EU ETS EUA	MO1 Comdty	USD/gal	80.22	91.33	80.98	83.66	80.98	-3.20	-4.98	16.69	-0.91	52.60	225.25	1477.18
10	Metals	BCOMIN Index	Index	172.89	181.08	183.65	185.55	187.90	1.26	1.26	-20.01	8.68	18.69	72.01	71.10
11	Industrial Metals Index	BCOMINSP Index	Index	303.57	317.63	322.14	325.47	329.20	1.14	1.14	-20.00	8.44	18.51	78.78	83.16
12	Copper	HG1 Comdty	USD/lb	9,721	9,366	9,454	9,448	9,699	2.66	2.66	-5.67	-0.22	-2.04	67.25	72.55
13	Aluminium	LA1 Comdty	USD/MT	2,803	2,877	2,883	2,764	2,749	-0.53	-0.53	-26.36	-1.93	13.44	58.22	44.80
14	Zinc	ZNC1 Comdty	USD/MT	3,580	3,670	3,802	3,929	3,801	-3.26	-3.26	-8.01	6.17	27.59	47.61	56.37
15	Nickel	LN1 Comdty	USD/MT	20,874	26,352	26,514	28,348	29,413	3.76	3.76	-38.99	40.91	64.66	154.79	235.59
16	Precious Metals Index	BCOMPRSP Index	Index	530.97	521.85	533.69	526.55	530.10	0.67	0.67	-11.44	-0.16	-6.51	40.15	40.66
17	Gold	GC1 Comdty	USD/t oz	1,829	1,818.90	1,865.40	1,842.70	1,851.90	0.50	0.50	-9.37	1.27	-2.13	38.08	45.10
18	Silver	SI1 Comdty	USD/t oz	23.35	21.74	22.06	21.69	22.08	1.81	1.81	-17.88	-5.45	-20.38	46.90	26.79
19	Platinum	PL1 Comdty	USD/t oz	964.40	943.40	942.90	968.30	1,012.90	4.61	4.22	-12.49	4.65	-13.19	25.20	7.58
20	Palladium	PA1 Comdty	USD/t oz	1,912	2,032	1,987	1,995	1,929	-3.32	-3.32	-34.99	0.86	-31.19	42.91	125.59
21	Bulk Commodities	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	Hard Coking Coal	XW1 Comdty	USD/MT	341.76	501.50	516.33	501.82	418.00	-16.70	-19.23	-35.41	18.60	142.96	104.71	179.54
23	Iron Ore	SCO1 Comdty	USD/MT	112.50	131.58	133.10	133.51	145.88	9.27	9.88	-7.66	30.40	-30.24	50.51	170.86
24	Agriculture	BCOMAG Index	Index	60.79	79.63	76.92	75.39	76.45	1.41	1.41	-0.64	25.77	28.11	87.90	48.62
25	Agriculture Index	BCOMAGSP Index	Index	406.67	527.72	509.72	499.63	503.17	0.71	0.71	-1.99	23.73	24.82	103.33	93.88
26	Grain Index	BCOMGRSP Index	Index	293.87	414.44	396.64	385.04	387.37	0.60	0.60	-3.39	31.82	25.07	102.01	104.42
27	Soybean	S 1 Comdty	USD/bu	1,328.75	1,678	1,693	1,683	1,741	3.43	3.43	2.14	31.03	10.19	103.33	85.61
28	Wheat	W 1 Comdty	USD/bu	770.75	1,277.50	1,154.75	1,087.50	1,075.00	-1.15	-1.15	-15.55	39.47	56.93	113.08	139.29
29	Corn	C 1 Comdty	USD/bu	593.25	800.75	771.75	753.50	763.50	1.33	1.33	1.19	28.70	12.28	83.64	97.93
30	Soft Index	BCOMOSSP Index	Index	394.34	433.13	416.87	423.64	419.02	-1.09	-1.09	2.32	6.26	34.43	95.50	64.68
31	Cotton	CT1 Comdty	USD/lb	112.60	148.46	141.54	138.98	140.24	0.91	0.91	14.79	24.55	64.72	113.81	83.20
32	Coffee	KC1 Comdty	USD/lb	226.10	228.20	213.65	231.25	231.85	0.26	0.26	-0.94	2.54	47.02	129.67	83.50
33	Sugar	SB1 Comdty	USD/lb	18.88	20.00	19.75	19.40	18.98	-2.16	-2.16	-2.32	0.53	7.17	51.84	32.36
34	Livestock Index	BCOMLISP Index	Index	196.83	211.13	211.45	208.36	212.94	2.19	2.19	-0.43	8.18	4.15	29.12	16.70
35	Live Cattle	LC1 Comdty	USD/lb	138.90	133.00	132.73	130.53	133.73	2.45	4.69	-1.73	-1.62	17.07	27.80	4.02
36	Lean Hogs	LH1 Comdty	USD/lb	81.48	105.15	109.03	107.98	108.43	0.42	-0.49	4.40	31.88	-10.98	36.62	31.00
37	USD Index	DXY Index	Index	95.67	103.36	101.86	101.75	102.53	0.76	0.76	3.50	7.17	13.82	6.20	5.79

Source: Bloomberg, MUFG Research

MUFG

Commodity prices – quarterly and annual forecasts

	Commodity	Ticker	Unit	08-Jun	Quarter Averages							Annuals			
				Spot	Q1-22	Q2-22	Q3-22	Q4-22	Q1-23	Q2-23	Q3-23	2021	2022	2023	2024
1	Energy														
2	US Natural Gas	NGA Comdty	USD/MMBtu	8.80	4.58	7.10	4.50	5.10	5.30	4.00	4.10	3.72	5.32	4.62	3.96
3	EU Natural Gas	TZTA Comdty	EUR/MWh	79.41	96.50	96.00	104.00	88.00	117.00	76.00	72.00	29.13	119.74	71.80	60.00
4	EU ETS EUA	MOA Comdty	EUR/MT	80.98	95.93	135.91	102.50	144.60	138.00	95.00	89.00	53.46	80.97	91.00	98.00
5	WTI Crude	CLA Comdty	USD/b	122.46	94.77	119.60	136.00	108.00	106.00	95.00	98.00	68.00	114.59	102.25	95.20
6	Brent Crude	COA Comdty	USD/b	123.89	97.90	124.60	141.00	112.00	110.00	98.50	102.00	70.85	118.88	106.13	98.40
7															
8	Copper	LMCADS03 Comdty	USD/lb	9,699	9,974	10,780	11,360	11,900	12,150	12,250	12,400	9,292	11,003	12,310	11,500
9	Aluminium	LMAHDS03 Comdty	USD/MT	2,749	3,254	3,700	3,780	3,800	3,910	4,000	3,950	2,477	3,633	3,980	3,700
10	Zinc	LMZSDS03 Comdty	USD/MT	3,801	3,727	4,100	3,950	3,650	3,700	3,750	3,780	3,016	3,857	3,760	3,900
11	Nickel	LMNIDS03 Comdty	USD/MT	29,413	28,302	29,500	28,000	26,000	27,500	27,000	29,000	18,457	27,951	27,900	26,500
12	Precious Metals														
13	Gold	XAU Comdty	USD/t oz	1,852	1,879	2,030	2,115	2,250	2,280	2,060	2,030	1,799	2,068	2,090	1,900
14	Silver	XAG Comdty	USD/t oz	22.08	24.11	26.60	27.50	29.00	30.00	28.00	27.60	25.16	26.80	28.20	26.95
15	Platinum	XPT Comdty	USD/t oz	1,012.90	1,030.00	1,140	1,180	1,215	1,250	1,190	1,120	1,089	1,141	1,175	1,210
16	Palladium	XPD Comdty	USD/t oz	1,928.60	2,315	2,900	3,150	3,360	3,250	3,200	3,290	2,391	2,931	3,255	3,100
17															
18	Hard Coking Coal	IACA Comdty	USD/MT	418.00	433.98	506.00	470.00	410.00	405.00	380.00	390.00	188.50	455.00	380.00	350.00
19	Iron Ore	SCOA Comdty	USD/MT	145.88	141.15	158.00	140.00	115.00	95.00	90.00	80.00	159.83	138.54	86.50	97.00
20															
21	Soybean	BOA Comdty	USD/bu	1,741	1,559	1,740	1,590	1,550	1,520	1,500	1,475	1,375	1,610	1,505	1,460
22	Wheat	W A Comdty	USD/bu	1,075	913.80	1,240	1,215	1,195	980.00	920.00	850.00	683.47	1,141	910.00	880.00
23	Corn	C A Comdty	USD/bu	763.50	671.65	850.00	820.00	780.00	730.00	680.00	670.00	581.69	780.41	695.00	650.00
24	Cotton	CTA Comdty	USD/lb	140.24	123.43	129.00	124.00	118.00	102.00	98.00	104.00	93.43	123.61	104.00	98.00
25	Coffee	DFA Comdty	USD/lb	232.15	234.84	232.00	215.00	225.00	230.00	220.00	200.00	168.75	226.71	215.00	210.00
26	Sugar	SBA Comdty	USD/lb	18.97	18.61	19.20	18.60	18.50	18.30	19.00	18.40	17.86	18.73	18.50	17.80

Source: Bloomberg, MUFG Research

Commodity prices – 6-12 month forward outlook, vs. spot/nearby forwards

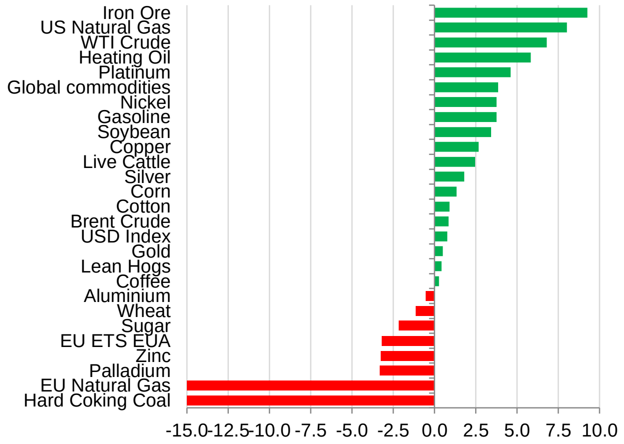
		Bullish	Neutral-to-bullish	Neutral	Neutral-to-bearish	Bearish
1	Energy	EU natural gas, Brent, WTI	US natural gas	---	---	
2	Base Metals	Aluminium, Copper, Nickel	Zinc	---	---	---
3	Precious Metals	Platinum, Palladium	Gold, Silver	---	---	---
4	Bulk Commodities	Hard Coking Coal	---	Iron ore		---
5	Agriculture	Soybean, Wheat, Corn	---	---	Cotton	Coffee, Sugar

Source: Bloomberg, MUFG Research

Core indicators – commodities flows and returns

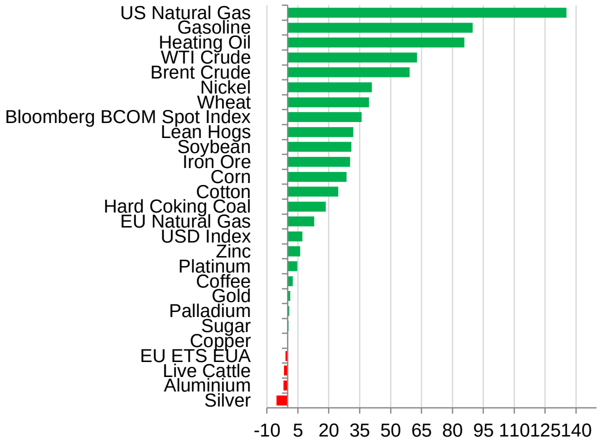
COMMODITIES MARKET PRICE RETURNS

WEEK ENDING 08 JUNE 2022 (% W/W)



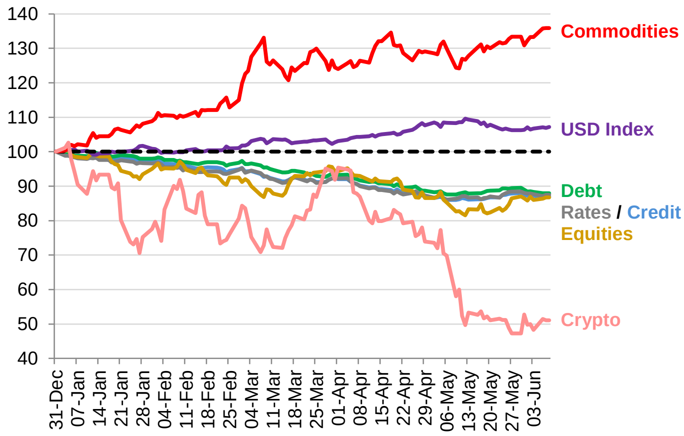
COMMODITIES MARKET PRICE RETURNS

YEAR-TO-DATE 2022 (%)



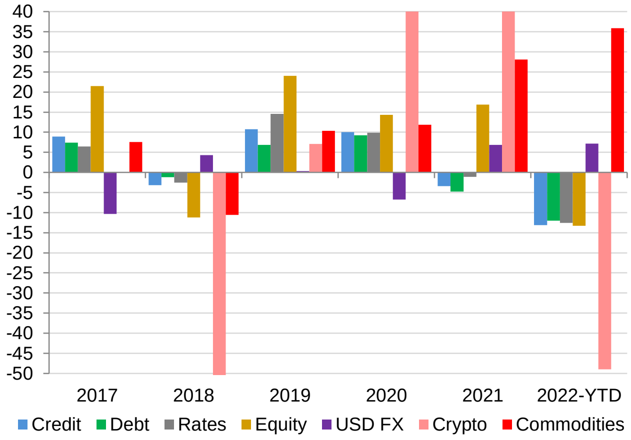
USD-DENOMINATED GLOBAL ASSET MARKET RETURNS

REBASED 1 JANUARY 2022 = 100



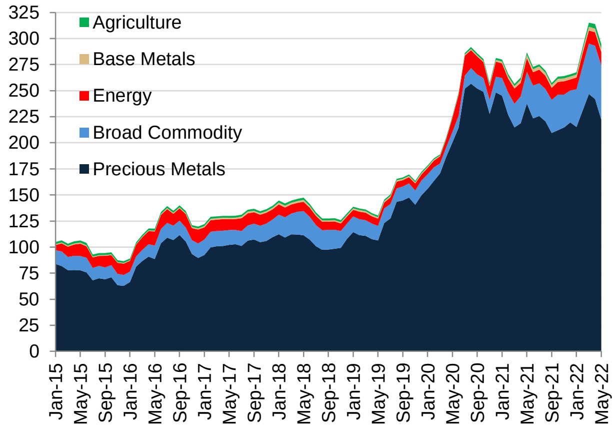
USD-DENOMINATED GLOBALL ASSET MARKET RETURNS

ANNUALISED PERFORMANCE (%)



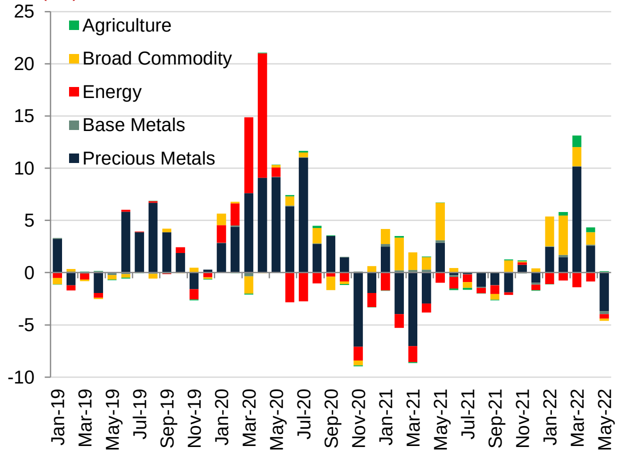
COMMODITIES ETF COMBINED CUMULATIVE AUM

USD (BN)



COMMODITIES ETF COMBINED CUMULATIVE FUND FLOWS

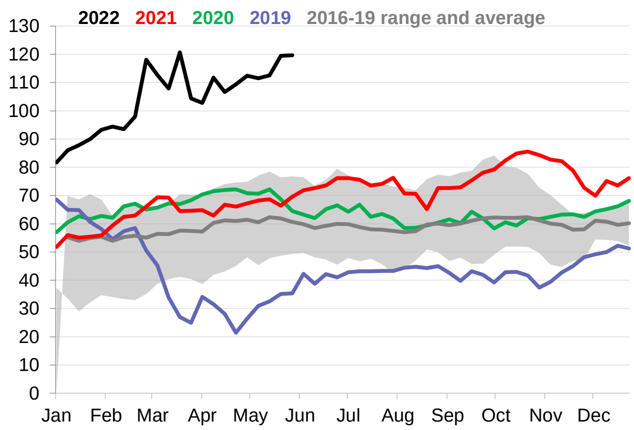
USD (BN)



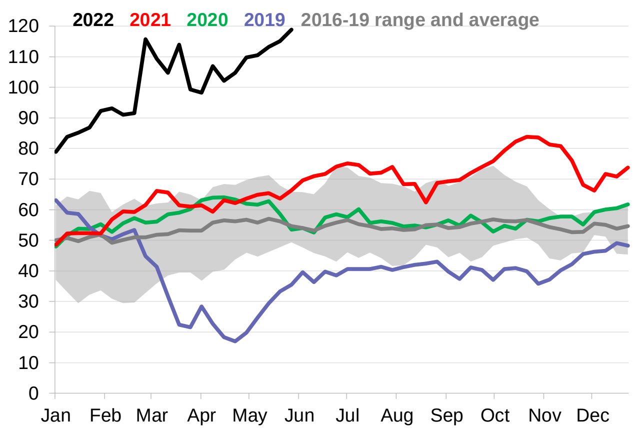
Source: Bloomberg, MUFG Research

Core indicators – prices

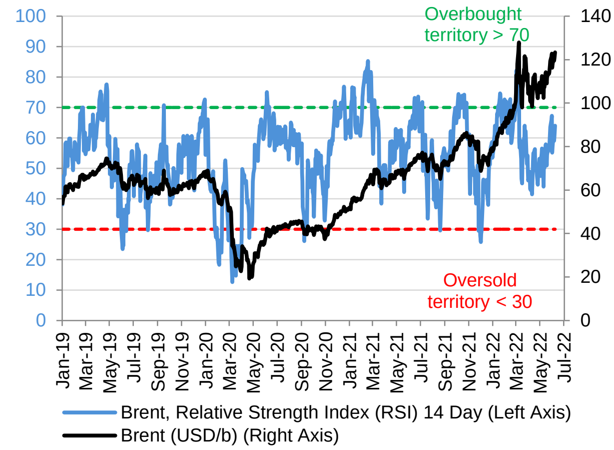
BRENT SPOT
USD/B



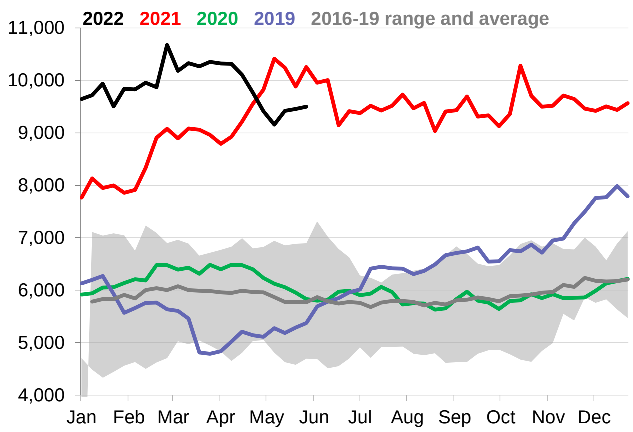
NYMEX WTI SPOT
USD/B



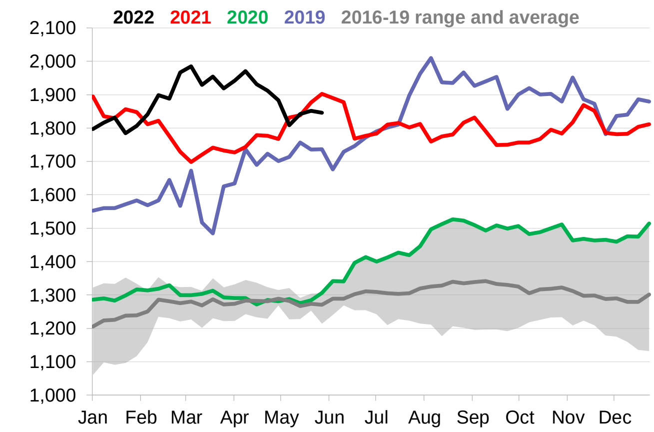
14 DAY RELATIVE STRENGTH INDEX (RSI) AND WTI
USD/B AND 0-100 INDEX (<30 = OVERSOLD; >70 = OVERBOUGHT)



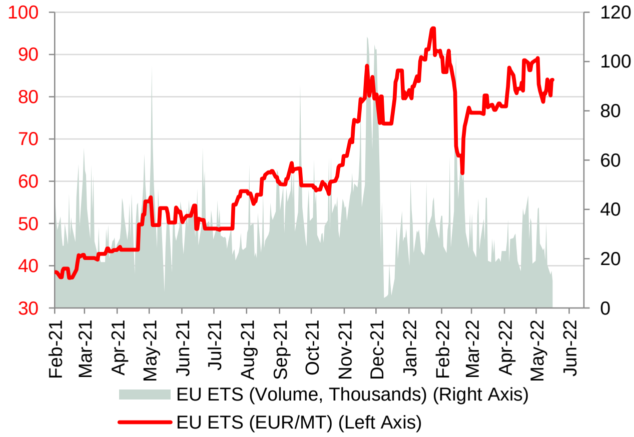
COPPER SPOT
USD/LB



GOLD SPOT
USD/T OZ



EU CARBON PRICE AND VOLUME
EUR/T AND EUA'S (THOUSAND VOLUME)

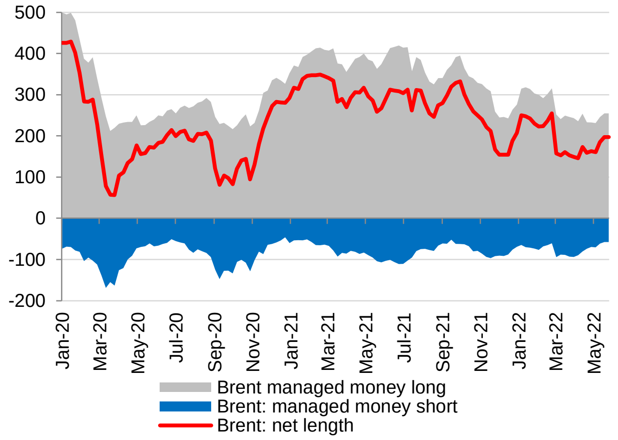


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – market positioning

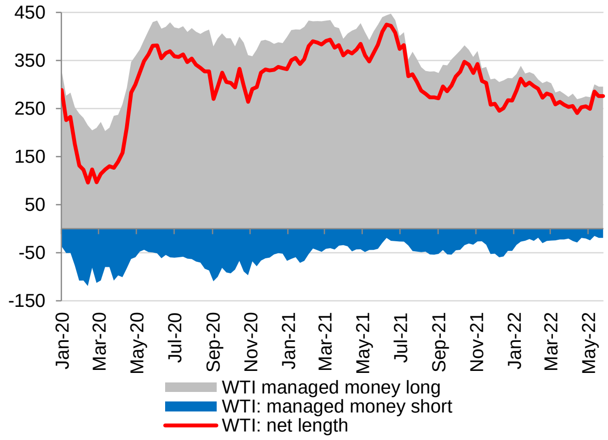
BRENT CRUDE MANAGED MONEY

CONTRACTS (THOUSANDS)



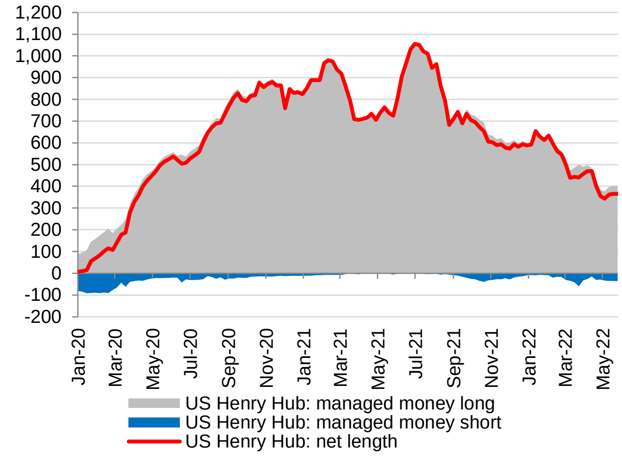
WTI CRUDE MANAGED MONEY

CONTRACTS (THOUSANDS)



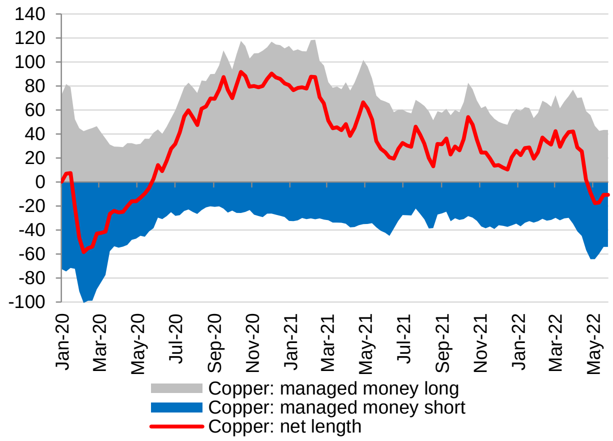
HENRY HUB NATURAL GAS MANAGED MONEY

CONTRACTS (THOUSANDS)



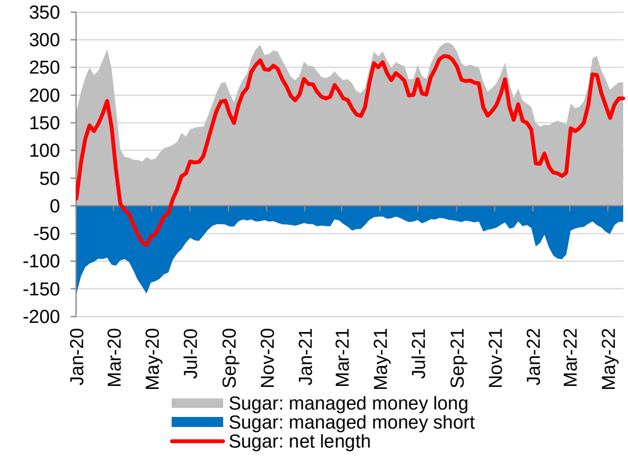
COPPER MANAGED MONEY

CONTRACTS (THOUSANDS)



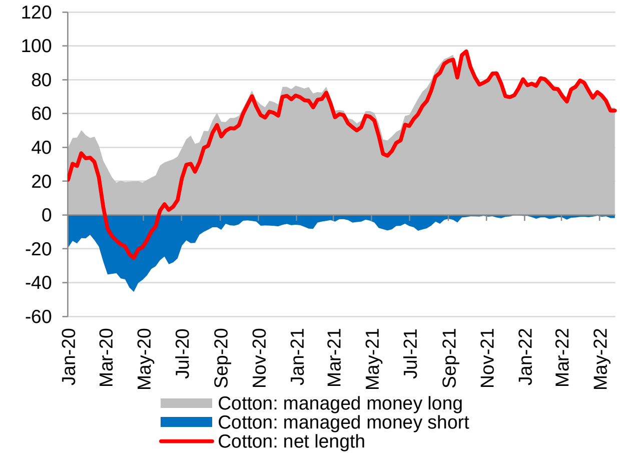
SUGAR MANAGED MONEY

CONTRACTS (THOUSANDS)



COTTON MANAGED MONEY

CONTRACTS (THOUSANDS)

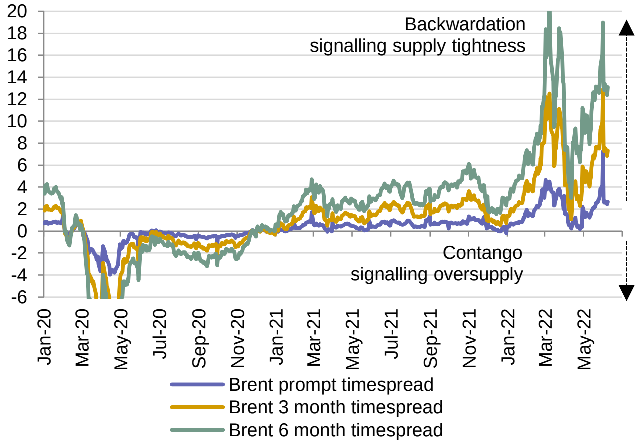


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – timespreads and futures

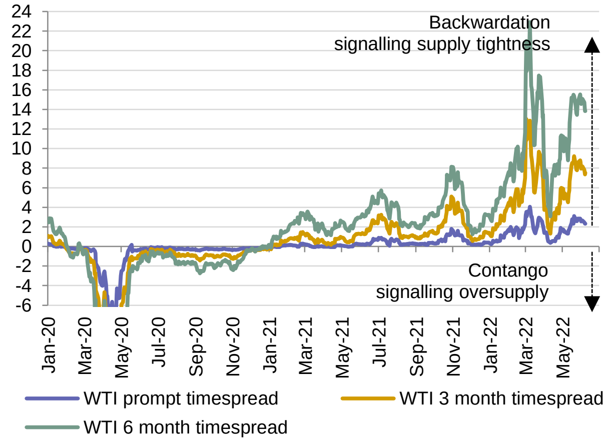
BRENT TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



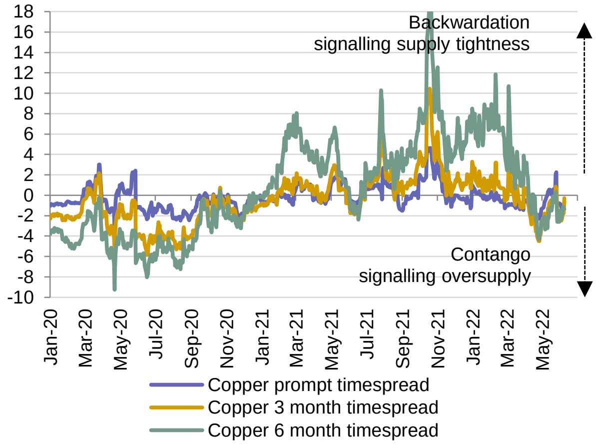
WTI TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



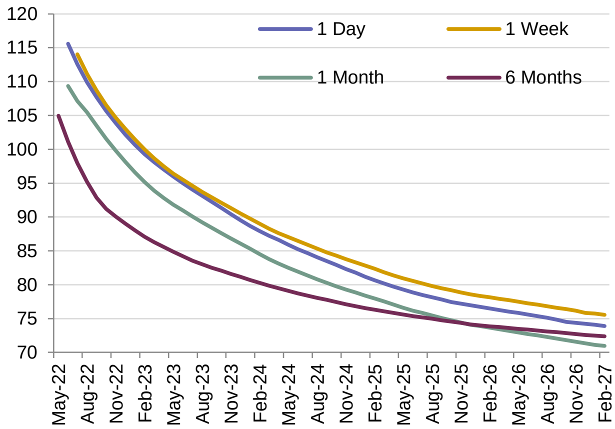
COPPER TIMESPREADS – FRONT, 3 AND 6 MONTHS

USD/B



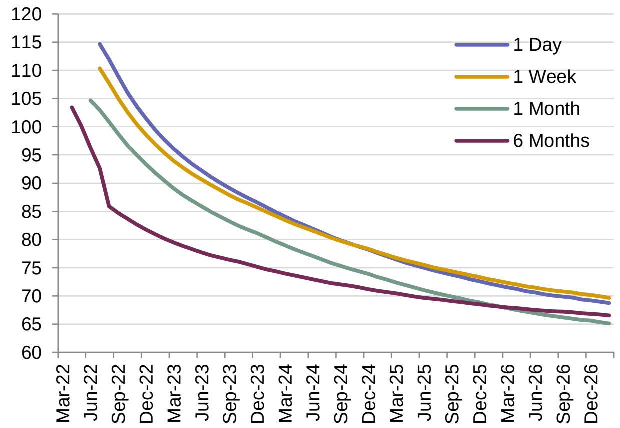
BRENT FUTURES CURVE

USD/B



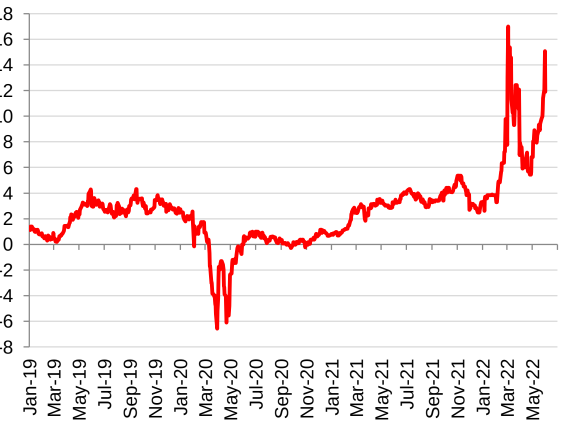
WTI FUTURES CURVE

USD/B



BRENT-DUBAI SPREAD

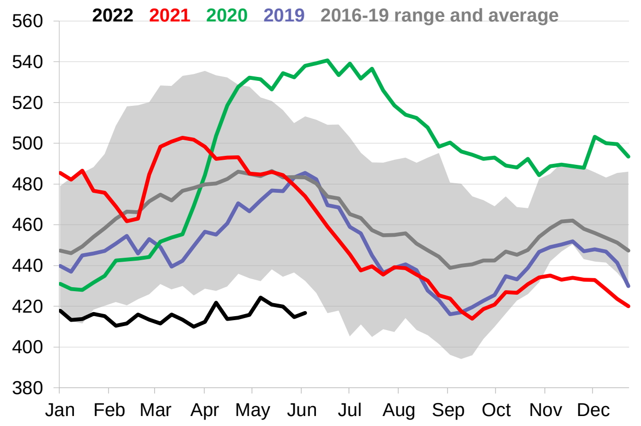
USD/B



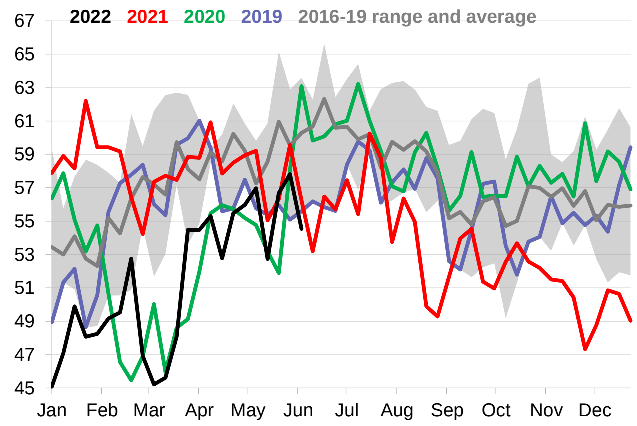
Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – inventories, storage and products

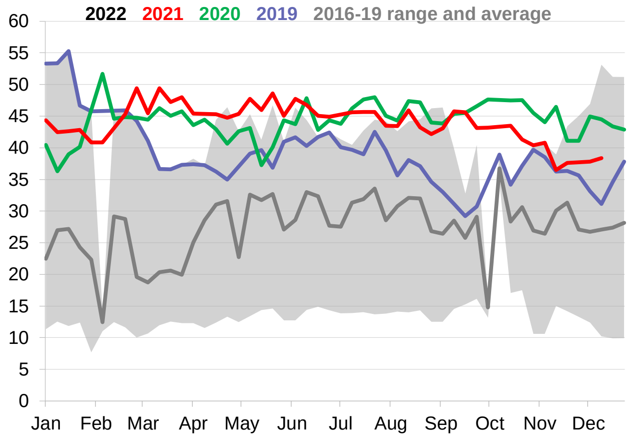
US CRUDE INVENTORIES
MILLION BARRELS



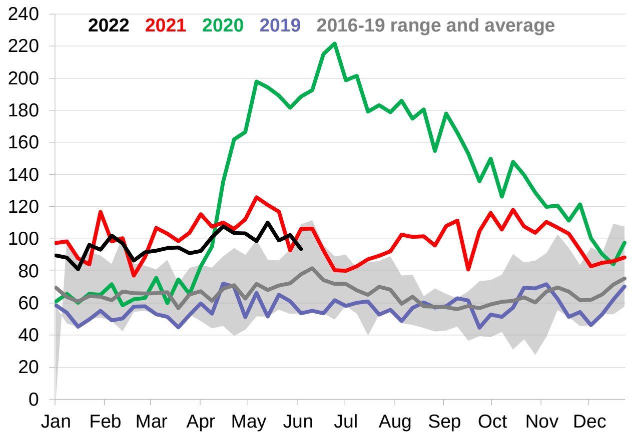
ARA CRUDE INVENTORIES
MILLION BARRELS



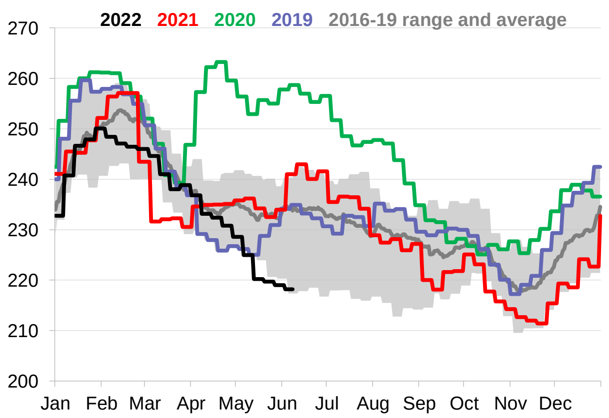
CHINA SHANDONG CRUDE INVENTORIES
MILLION BARRELS



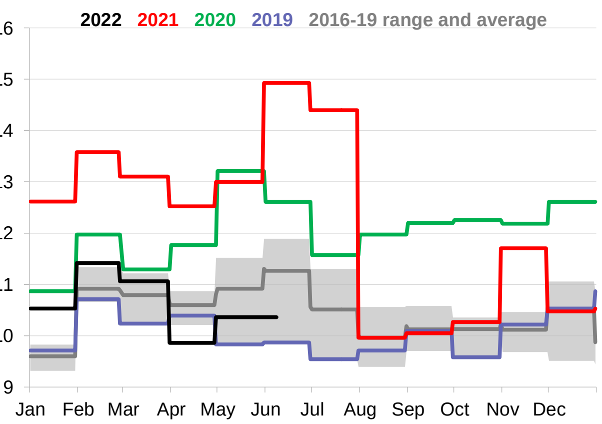
GLOBAL CRUDE FLOATING STORAGE
MILLION BARRELS



US GASOLINE INVENTORIES
MILLION BARRELS



JAPAN GASOLINE INVENTORIES
MILLION BARRELS



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

Global oil supply/demand balance (thousands b/d and y/y change)

As of June 2022	2019 (tho. b/d)	2020 (tho. b/d)	2021 (tho. b/d)	2022 (tho. b/d)	2023 (tho. b/d)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Demand									
North America	*25,245*	*22,124*	*23,777*	*24,703*	*24,955*	*-3,122*	*1,654*	*926*	*252*
LatAm	*6,654*	*6,275*	*6,578*	*6,732*	*6,855*	*-379*	*304*	*154*	*123*
Europe	*15,093*	*13,147*	*13,772*	*14,591*	*14,707*	*-1,945*	*625*	*819*	*116*
CIS	*4,722*	*4,417*	*4,724*	*4,948*	*5,007*	*-305*	*306*	*224*	*59*
Asia	*27,931*	*27,382*	*28,708*	*29,627*	*30,751*	*-549*	*1,326*	*919*	*1,124*
Middle East	*8,241*	*7,745*	*7,922*	*8,176*	*8,223*	*-496*	*177*	*254*	*47*
Africa	*4,251*	*4,129*	*4,324*	*4,429*	*4,623*	*-122*	*195*	*105*	*194*
Total OECD Demand	47,854	42,029	44,559	46,415	46,910	-5,825	2,530	1,856	494
Total Non-OECD Demand	52,218	50,332	52,647	54,343	55,900	-1,887	2,315	1,697	1,557
Total Global Demand	100,072	92,361	97,206	100,759	102,810	-7,711	4,845	3,553	2,051
Supply									
North America	*25,767*	*24,752*	*25,205*	*26,666*	*27,744*	*-1,014*	*453*	*1,461*	*1,078*
US shale	*9,923*	*9,194*	*9,009*	*9,748*	*10,550*	*-729*	*-187*	*741*	*801*
Other US	*8,306*	*8,276*	*8,619*	*9,153*	*9,344*	*-30*	*343*	*534*	*191*
Total US	*18,229*	*17,470*	*17,627*	*18,902*	*19,894*	*-759*	*157*	*1,275*	*992*
LatAm	*4,794*	*4,841*	*4,831*	*5,116*	*5,279*	*47*	*-10*	*285*	*163*
Europe	*3,477*	*3,685*	*3,527*	*3,632*	*3,757*	*208*	*-158*	*105*	*125*
CIS	*14,643*	*13,504*	*13,763*	*14,481*	*14,778*	*-1,139*	*259*	*718*	*296*
Asia	*7,694*	*7,510*	*7,437*	*7,391*	*7,234*	*-184*	*-74*	*-45*	*-157*
Middle East	*3,012*	*3,013*	*3,089*	*3,187*	*3,202*	*1*	*75*	*99*	*15*
Africa	*1,487*	*1,390*	*1,309*	*1,293*	*1,257*	*-97*	*-81*	*-16*	*-37*
Total Non-OPEC	65,004	62,530	63,128	66,043	67,655	-2,474	598	2,915	1,612
Total OPEC Crude	30,166	26,340	27,089	29,697	30,452	-3,826	748	2,609	755
Total OPEC NGL	5,234	4,978	5,126	5,353	5,431	-256	148	228	78
Total OPEC Supply	35,400	31,318	32,214	35,050	35,883	-4,081	896	2,836	832
Total OPEC+ Supply	46,105	41,049	42,039	45,415	46,435	-5,056	990	3,376	1,020
Ecuador	*531*	*479*	*494*	*459*	*437*	*-52*	*14*	*-34*	*-22*
Venezuela	*875*	*508*	*555*	*803*	*830*	*-367*	*47*	*248*	*28*
Algeria	*1,023*	*898*	*908*	*939*	*935*	*-125*	*10*	*31*	*-5*
Congo	*333*	*288*	*265*	*253*	*232*	*-44*	*-23*	*-12*	*-21*
Gabon	*213*	*189*	*184*	*184*	*180*	*-24*	*-5*	*0*	*-3*
Angola	*1,389*	*1,262*	*1,116*	*1,014*	*959*	*-127*	*-146*	*-102*	*-55*
Nigeria	*1,731*	*1,577*	*1,391*	*1,502*	*1,552*	*-154*	*-185*	*111*	*50*
Eq. Guinea	*110*	*113*	*101*	*100*	*94*	*3*	*-12*	*-1*	*-6*
Libya	*1,086*	*366*	*1,151*	*1,154*	*1,266*	*-720*	*785*	*4*	*112*
Iran	*2,362*	*2,157*	*2,683*	*2,700*	*2,883*	*-205*	*527*	*17*	*183*
Iraq	*4,712*	*4,044*	*4,026*	*4,427*	*4,514*	*-668*	*-17*	*401*	*87*
Kuwait	*2,682*	*2,437*	*2,414*	*,669*	*2,713*	*-245*	*-23*	*255*	*44*
Saudi Arabia	*9,944*	*9,184*	*9,083*	*10,420*	*10,596*	*-760*	*-101*	*1,336*	*176*
UAE	*3,177*	*2,840*	*2,717*	*3,073*	*3,260*	*-336*	*-124*	*356*	*187*
Total Global Supply	100,404	93,848	95,342	101,093	103,538	-6,555	1,494	5,751	2,445
Imbalance (Supply – Demand)	332	1,488	-1,863	335	729	---	---	---	---
OECD Commercial Stocks	65	377	-1,084	47	389	---	---	---	---
5yr Avg OECD Days of Demand	61.5	62.3	63.0	63.0	63.0	---	---	---	---

Source: Bloomberg, BP, EIA, IEA, GS, JODI, NBS, OPEC, Various Government Sources, MUFG Research

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