

Commodity Monthly Monitor

Energy and agricultural supply tightness counters economic demand soft patch

25 April 2022 — 25 May 2022



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Summary

With global growth forecasts being revised down, industrial metals prices are declining in line with other cyclical assets like equities. However, owing to acute supply concerns, energy and agricultural commodities posted gains the past month. Precious metals as a group have come under dual pressure: industrially inclined metals that silver and palladium followed base metals lower, while defensive metals like gold have come under the pressure of rising bond yields.

At the heart of global economic concerns is China. Its inflexible stance on zero Covid has driven the economy to a grind. Markets are still waiting for evidence of China's "do whatever it takes" strategy to produce results. A recent survey by Bloomberg, points to Economists having slashed their forecast for China's GDP growth to just 4.5%, significantly below the 4.9% they were expecting the prior month and much below the 5.5% target that Beijing officials have set. Attempts to loosen monetary and fiscal policy seem to be insufficient to counter the deadlock in activity brought about by lockdowns. In late April 2022, President Xi called for an "all-out effort" to build infrastructure in the hope that it will spur economic activity. We believe it will eventually be very positive for commodity demand, but the time lag may be long.

Also, markets are expressing concerns about developed country central banks who have taken a hawkish tilt in recent months, potentially overdoing it. The Federal Reserve has largely telegraphed two further back-to-back rate hikes in coming months in addition to its quantitative tightening program. The European Central Bank (ECB) has committed to ending its negative interest rate policy within months. The ECB had started its negative interest rate experiment back in 2014 when the euro area was facing a sovereign debt crisis. Markets are worried that some of these bold moves may tip their respective economies into recession. Households and firms are already facing the pressure of supply shocks raising prices. Higher interest rates, while designed to cool the economy and therefore prices, maybe ill-equipped to tackle the root cause supply-shock price increases.

High and rising commodity prices may be here to stay as supply shocks don't seem to be diminishing. European Union has renewed its commitment to wean itself off Russian energy. A redirection to importing energy from other sources will continue to be price positive. The Organization of Petroleum Exporting Countries (OPEC) is not only being too slow in raising its target production levels, but also it is underproducing relative to its quota. That is a policy choice we don't think will change. Underinvestment in many commodity extraction industries is likely to keep supplies tight.

The crisis in Ukraine has not only removed export supplies of key agricultural products from wheat, corn, oilseeds in the area, but the increase in energy prices has raised the cost of fertiliser globally. That will continue to have repercussions on future crop cycles, and we expect a combination of thrifting (which will hurt crop yields) and cost pass-through to keep raising agricultural prices. We have seen a significant increase in protectionism in this period of food scarcity. Indonesia briefly has halted exports of palm oil and India has put export restrictions on wheat and sugar. We expect more tit-for-tat protectionism in this environment, which will continue to raise prices.

We believe that despite the risks of demand softening, commodities continue to be the best hedge against the supply shocks, driving inflationary pressures. Growing risks of policy errors could also benefit gold as markets turn to the anti-thesis of fiat currencies.

Performance

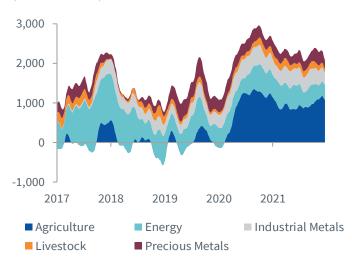
Performance*	- 1 Mth	- 6 Mth	- 12 Mth
All Commodities	4.2%	27.8%	44.9%
Energy	18.2%	65.9%	119.5%
Industrial Metals	-9.6%	8.2%	18.2%
Precious Metals	-3.9%	0.7%	-8.1%
Agriculture	0.7%	23.8%	36.1%
MSCI World	-5.5%	-15.3%	-9.5%
US Aggregate Bond	0.5%	-8.0%	-7.9%

^{*}Bloomberg TR Indexes for basket returns, data to Wednesday 25 May 2022. Source: WisdomTree, Bloomberg.

Historical performance is not an indication of future performance, and any investments may go down in value.

CFTC Net Speculative Positioning

(in '000 contracts)



Source: WisdomTree, Commodity Futures Trading Commission (CFTC), Bloomberg. **Historical performance is not an indication of future performance, and any investments may go down in value.**

- + Despite what might seem like disappointing performance, gold is holding up well relative to bond markets. Rising longer dated Treasury yields and strong US dollar have created headwinds for gold, but the risk of stagflation is helping support the defensive commodity.
- The energy complex continues to drive most of the gains in commodities. US natural gas prices have risen sharply (35% in the past month) as export volumes rise. With a renewed commitment from the European Union to wean itself off Russian energy supplies, US natural gas has a captive market for its exports. Despite all the warning signs of oil demand weakening with a slowing global economy, oil supply remains extremely tight with OPEC underdelivering and Russian supplies continuing to be shuttered. Crude oil prices continue to rise.
- + Agricultural commodities buoyed by the rise of protectionism and supply disruptions Protectionism is on the rise. Driven in part by the disruptions from the war in Ukraine, countries have been more tempted to withhold flows of wheat, sugar, soybean oil, and fertilisers to the global market. Backwardation at the front end of the futures curve for most agricultural commodities underscores near term tightness in the market.
- + With the geopolitical risk premium largely eroded, focus now returns on fundamentals for industrial metals. Industrial metals have experienced unusually high volatility in the last couple of months due to the Ukraine conflict. While the conflict continues and uncertainty remains, focus may have, for now, returned to long term fundamentals for industrial metals.

Commodity Monthly Matrix¹

Commodity	Current Price ²	Returns (-1 Mth)	Price vs 200 days MA	Inventories ³ (- 3 Mths)	Positioning ⁴ (- 1 Mth)	Roll Yield ⁵	26 May Score	19 Apr Score
WTI Oil	110.3	12.0%	26.7%	1.5%	4.1%	2.4%	2	0
Brent Oil	114.0	11.4%	26.6%	-7.0%	7%	2.6%	4	4
Natural Gas	8.97	34.5%	71.3%	5.4%	11%	-0.2%	(1)	2
Gasoline	3.83	18.3%	43.6%	-10.7%	-21%	2.9%	2	4
Heating Oil	3.87	-5.5%	35.4%	26.7%	65%	3.1%	2	4
Carbon	81.0	-2.4%	8.5%	-	-	0.0%	0	1
Wheat	11.48	8.1%	31.5%	-5.1%	12%	-0.7%	1	0
Corn	7.72	-3.5%	21.1%	6.2%	-8%	4.4%	1	1
Soybeans	16.8	-1.3%	16.7%	10.7%	-18%	3.7%	0	2
Sugar	0.20	3.9%	2.5%	-	-19%	-0.8%	(2)	2
Cotton	1.45	2.7%	21.7%	0.3%	-8%	8.5%	(1)	4
Coffee	2.17	-1.7%	-1.4%	-	-3%	-0.1%	(4)	(1)
Soybean Oil	0.79	-4.6%	19.6%	6.3%	-6%	2.6%	(2)	(1)
Cocoa	2,407	-1.0%	-6.0%	-	-71%	-1.1%	(3)	0
Aluminium	2,856	-7.0%	-4.2%	-33.5%	-7%	-0.3%	(2)	(1)
Copper (COMEX)	4.28	-3.9%	-3.5%	12.3%	-217%	0.5%	(1)	0
Copper (LME)	9,375	-4.1%	-3.8%	124.6%	-17%	0.0%	(1)	(1)
Zinc	3,759	-10.5%	5.5%	-20.7%	-27%	0.0%	0	(1)
Nickel	26,749	-18.0%	8.8%	-9.3%	-32%	-0.1%	(4)	0
Lead	2,092	-10.1%	-9.2%	-2.8%	-23%	-0.4%	(3)	0
Tin	34,286	-14.7%	-13.6%	0.0%	-12%	0.2%	(1)	0
Gold	1,846	-2.5%	0.4%	-	-33%	0.0%	(3)	(4)
Silver	21.9	-7.6%	-7.4%	-	-71%	0.1%	(1)	(1)
Platinum	933	3.4%	-6.3%	-	-70%	0.2%	(1)	(1)
Palladium	1,989	-6.0%	-7.2%	-	-47%	0.0%	(1)	(1)
Live Cattle	1.32	-4.9%	-1.3%	-	-30%	-0.2%	(4)	1
Lean Hogs	1.09	1.2%	21.2%	-	-76%	1.0%	0	0
Feeder Cattle	1.55	-1.2%	-3.0%	-	-91%	-7.9%	0	0

The score matrix is designed to highlight significant changes in key variables but should not be viewed as predictor of performance. Source: WisdomTree. Information not available.

Green = returns positive, inventories falling, positioning rising, roll yield positive.

Red = the opposite. Black = neutral.

Historical performance is not an indication of future performance, and any investments may go down in value.

 $^{^{}m 1}$ Detailed explanation of the matrix calculations can be found at the end of this report.

² All prices are futures prices to Wednesday 25 May 22. Broad sector returns based on Bloomberg Commodity Index family.

³ % change in inventory over the past 3 months except for sugar and coffee which are based on past 6 months as data is updated bi-annually by USDA.

⁴ CFTC futures and LME COTR net positioning as at May 17, 2022 and May 20, 2022 respectively, % change from previous month.

⁵ Calculated as % difference between front month and second month futures prices on report date. Historical performance is not an indication of future performance and any investments may go down in value.

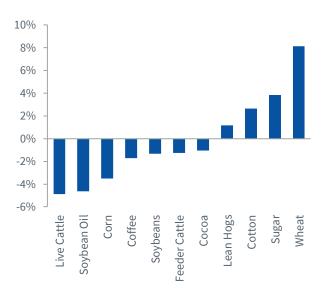
Sector Overview

Agriculture

- Wheat prices posted the highest gains amongst agricultural commodities up 8% over the prior month. The price performance was largely driven by an announcement that the Indian government would restrict wheat exports to manage domestic supplies of the grain. This announcement came as a surprise to the market as India had previously indicated a push for higher exports in response to the supply losses from Ukraine that resulted in higher wheat prices in the global market. India exported a record high 1.4mn tons in April, which was nearly six times the amount in April last year. These quantities will need to be supplied elsewhere, which could further diminish already low stocks in the leading export countries. The United States Department of Agriculture (USDA) also forecasted a major decline in the US winter wheat production for 2022/23 owing to the drought in the Southern Plains. According to USDA, the current state of the US winter wheat plants is the poorest in 26 years, and downward adjustments of the yield can be expected over the coming months.
- + Sugar prices rose 3.9% over the prior month buoyed by stronger demand from India, the world's largest sugar consumer. The Indian Sugar Mills Association (ISMA) expects demand to grow by 3% year-on-year to reach a record 27.2mn tons in the current marketing year 2021/22. However, we expect sugar prices to come under pressure over the coming months. For one, global production is forecast up 1.7mn tons to 182.9 million as higher production in Brazil, China, and Russia is expected to more than offset declines in India and Ukraine according to USDA. In addition, lower oil prices are likely to make it less attractive to produce ethanol. As the crushing season in Brazil gathers pace, we are likely to see higher sugar production as sugar mills turn less sugarcane into ethanol.
- + Cotton prices are trading close to an eleven-year high. USDA expects global cotton production to grow by 2% in the coming crop year owing to a higher crop in India. While global cotton consumption is expected to fall just 1% short of last year owing to lower demand from India and China, global demand will still outpace production. Consequently, the global market is expected to be in a supply deficit for a third year in a row, to the tune of 200,000 tons according to USDA.

+ Soybean oil prices dipped 4.6% last month following news that Indonesia lifted a ban on palm oil exports on May 23, reversing its original ban on April 28. Indonesia's ban was widely expected to be short lived. While this decision does loosen the supply situation somewhat on the vegetable oil market, it fails to fill the gap from the decline in sunflower oil exports from Russia and Ukraine. Owing to which we expect demand for soybean oil to remain high.

Agriculture — May Returns*



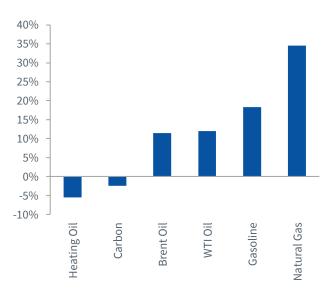
Source: Bloomberg. *May returns refer to returns from 25 April 2022 to 25 May 2022. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Energy

- US natural gas prices rose 34.5% in the past month, as injections into storage are far lower than normal for this time of year. Storage levels are more than a standard deviation below seasonal average. Not only is the US using more natural gas for electricity production, export volumes are rising. Recently, the Federal Energy Regulatory Commission (FERC) approved three projects that would facilitate additional U.S. natural gas exports. These approved pipelines will help transport natural gas to liquefied natural gas terminals along the coast, ready for export markets. With Europe's energy security issues, there is captive demand for this natural gas. Above average temperatures forecast for the South of the US over the coming two weeks (Source: NOAA, 26 May 2022), could drive up air-conditioning demand and in turn power demand, thus raising natural gas demand as a feedstock.
- The International Energy Agency (IEA) revised down its oil demand forecasts once again this month, citing a more tempered economic expansion and a reaction to higher oil prices. The IEA now expects 2022 demand growth of 1.8 million barrel per day (mb/d) on average (compared to 2.1 mb/d projections back in March 2022). At the same time, more Russian oil is being shuttered in as the EU and G-7 contemplate tougher sanctions and the full phase-out of oil imports from Russia. This will accelerate the reorientation trade flows that are already in place. However, with China lockdowns and the Chinese economy slowing, the demand for Russian barrels will continue to suffer. Moreover, refining capacity needs to be adjusted for China to consume more Russian Urals and Europe to consume more Middle Eastern heavy crudes. The Organization for Petroleum Exporting Countries (OPEC) is still producing below its quota and thus keeping the oil market tight.
- + European Union Allowances (Carbon) fell 2.4% in the past month, with a sharp intraday decline on 18th May following the proposal from the European Commission (EC) to auction Allowances from the Market Stability Reserve (MSR) to fund its plan to wean the EU off Russian energy. The MSR, introduced in 2019, is an important part of the EU's Emission Trading System's infrastructure, that was designed to constrain the supply of Allowances following years of oversupply.

The EC's decision to raid the MSR has spooked the market, with many wondering why the Commission is being so cavalier in destroying credibility that has taken so long to build up. This news overshadowed some positive news from the Committee on Environment, Public Health and Food Safety, which agreed on rules to end the free allocation of Allowances by adopting a Carbon Border Adjustment Mechanism (CBAM). The CBAM effectively works like a tax on imports of good that meet the EU's stricter environmental policies. By removing this source of 'carbon-arbitrage' the EU can start auctioning Allowances to sectors that previously received them freely. That could help raise the price of Allowances. The report is scheduled for a vote at the plenary session 6-9 June 2022 after which Parliament will be ready to start negotiations with member states.

Energy - May Returns*

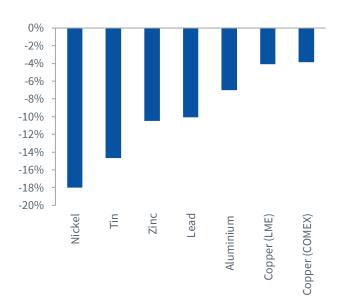


Source: Bloomberg. *May returns refer to returns from 25 April 2022 to 25 May 2022. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Industrial Metals

- + Industrial metals were down 0.2% last month following a period of uncharacteristically high price volatility. Russia is the third largest producer of nickel and aluminium and among the top ten producers of copper and zinc worldwide. The knee-jerk reaction in prices at the start of March was most prominent in industrial metals.
- + While the geopolitical risk premium was largely expected to fade away ultimately, the pace at which industrial metals have pulled back has taken many by surprise. Apprehensions of an impending recession in major economies have created a risk-off sentiment in markets something industrial metals are certainly not immune to. Such worries have been augmented by the slowdown in China from renewed lockdowns. Markets often use Manufacturing Purchasing Managers' Indices (PMIs) from the world's biggest consumer of industrial metals as a proxy for the near-term outlook of the asset class. China's Manufacturing PMI fell into contractionary territory in March and went deeper still in April.
- But as China eases its lockdowns, industrial activity will pick up again. This should help sentiment recover towards industrial metals in the near-term. We maintain that the biggest demand growth driver for industrial metals in the long run is going to be the energy transition. This is true for many metals including copper, aluminium, nickel, zinc, and tin, among others. The conflict in Ukraine has, if anything, accelerated this transition. Most recently, the European Commission has presented the REPowerEU Plan which aims to reduce Europe's dependence not only on Russia, but fossil fuels. Transitioning towards greener sources of energy is at the heart of this plan. The decarbonisation of road transportation as well as the energy grid through renewable energy, energy storage, and electric vehicles, bodes well for the demand growth of many industrial metals.

Industrial Metals — May Returns*

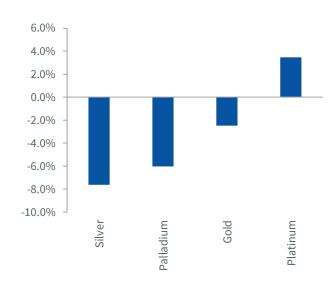


Source: Bloomberg. *May returns refer to returns from 25 April 2022 to 25 May 2022. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Precious Metals

- + Precious metals were down 3.9% last month with gold, silver, and palladium all making losses and platinum being the only metal to make gains over the period.
- + We have observed that gold is holding up well relative to bond markets, breaking down the traditionally strong relationship between gold and Treasury Inflation-Protected Securities. Gold is an asset that generally performs well in adverse economic and financial conditions. With fears of a recession rising, investors are increasingly turning to gold as hedge. We have seen 7.3 million ounces of inflows into global gold exchange-traded commodities (ETCs) in the year so far to 24 May 2022 (compared to a net outflow of 9.2 million ounces in full year 2021).
- + Market pundits are increasingly talking about 'stagflation' a recession combined with high inflation. Today, we are facing energy price shocks and food shortages consequences of the Covid pandemic and the war in Ukraine. The impact of these events does not appear to be fading as much as many had hoped. Episodes of stagflation are extremely rare and, therefore, making quantitative conclusions from them is fraught with difficulty. Between Q3 1973 and Q1 1975, US GDP had been declining in real terms and, over that period, inflation rose from 7.4% to 10.3%. Gold prices had risen 73% in that time frame (source: Bloomberg). In the late 1970s we also saw economic deceleration combined with accelerating inflation, with gold prices more than doubling in calendar year 1979.
- + Based on silver's high historic correlation to gold, on may assume its sensitivity to gold prices is broadly stable through the economic cycle. However, the correlation between the two metals fluctuates. We believe that if recession becomes the main driver of the gold price, manufacturing activity could contract, placing negative pressure on silver, while gold prices continue to rise. That could send the gold-to-silver ratio higher.

Precious Metals — May Returns*



Source: Bloomberg. *May returns refer to returns from 25 April 2022 to 25 May 2022. **Historical performance is not an indication of future performance, and any investments may go down in value.**

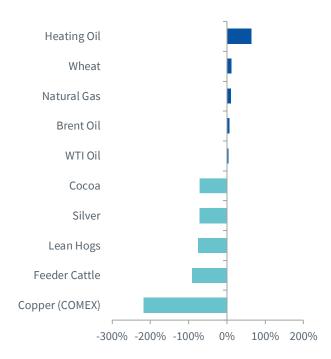
Technical Overview

as of May 25, 2022

Positioning

- + Net speculative positioning in silver fell 71.1% last month and is now one standard deviation below the preceding 5-year average.
- + Copper's COMEX net positioning fell into negative territory last month. Copper is often characterized as the bellwether metal for the economy. With lockdowns in China hurting industrial demand, sentiment towards copper also took a hit last month.
- + Although shorts still outnumber longs, net speculative positioning in heating oil (ultra-low sulphur diesel) rose 65% last month.
- + Natural gas also is in net short, but those shorts have trimmed amid the sharp price rise and inventory being significantly below average for this time of year.
- + Net speculative positioning in wheat rose 12% underscoring an improvement in sentiment following the announcement of the wheat export ban by India.
- Sentiment on the cocoa market weakened evident from the 71% sharp decline in net speculative positioning.
- + Net positioning in lean hogs declined 76% owing to a 75% build up in short positioning alongside a 33% decline in long positioning following a strong price performance.

Top 5/Bottom 5 Change in CFTC Net Positions (over past month)*



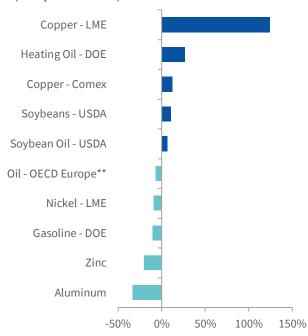
Source: Bloomberg

*CFTC futures net positioning as at report date, percent change from previous month. **Historical performance is not an indication of future performance and any investments may go down in value.**

Inventories

- + The build-up in copper's LME inventories largely goes against the sideways trend in recent months and appears large in percentage terms given the relatively low base. Copper inventories are still below where they were this time last year.
- + Nickel, zinc, and aluminium inventories continued their recent trend of gradual drawdowns.
- + Heating oil inventory increased 27% over the past 3 months, while gasoline inventory declined 11% over the same period. Both distillates have seen their inventories fall significantly below average this year, but the recent build in heating oil, has helped restore its inventory closer to normal levels for this time of year.
- + Soybeans inventories rose 10% over the prior three months. On the global market, USDA estimates production to recover significantly in South America after the drought hit production losses this season. Global soybean ending stocks are estimated to increase to 99.6mt in 2022/23, higher than consensus estimates.

Top 5/Bottom 5 Change in Inventories (over past 3 months)*



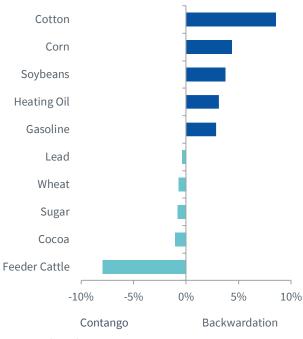
Source: Bloomberg

*Percent change in inventory based on 3 month change (in %). ** (OECD) inventory data reported with 4-month lag with current = January 2022. **Historical performance is not an indication of future performance and any investments may go down in value.**

Curve Dynamics

- + Curves for several industrial metals have flattened in recent weeks from being highly backwardated. It is unusual for industrial metals to remain so deep in backwardation for a protracted period and the conflict was driving this largely. Having said that, uncertainty remains in terms of the near-term outlook and curves may change shape again.
- + With the expiring of the May 2022 heating oil contracts, front month rolls have fallen from 12% last month to 3.1% currently. Heating oil futures still offer one of the highest roll yields in the commodity complex at the moment.
- + The sharp rise in gasoline prices over the past month (18.3%) amid declining inventory, has driven front month roll yields higher for gasoline. Front-month roll yields currently stand at 2.9% for gasoline, up from just 0.6% last month.
- + The front end of the cotton futures curve moved further into backwardation, yielding a positive roll yield of 8.5% versus 4.4% a month back underscoring tightness in the market.
- + The front end of the corn futures curve moved further into backwardation, yielding a positive roll yield of 4.4% versus 0.3% a month back underscoring tightness in the market. This aligns with a reduction in world production estimates in 2022/23 by USDA.
- + The front end of the soybean futures curve moved further into backwardation, yielding a positive roll yield of 3.7% versus 1.7% a month back underscoring tightness in the market.
- + The front end of the sugar futures curve moved from backwardation into contango yielding a negative roll yield of 0.8% indicating ample supply in the near term.
- + The front end of the cocoa and feeder cattle futures curve remain in contango.

Top 5/Bottom 5 Roll Yields (front to next month)*



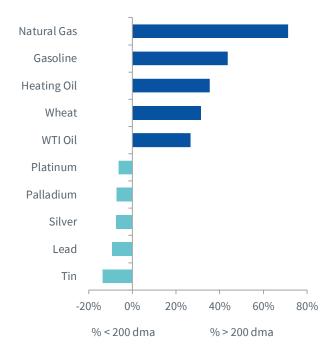
Source: Bloomberg

*Roll yields calculated as percent change between front month futures price and next month futures price on May 25, 2022. Historical performance is not an indication of future performance and any investments may go down in value.

Technicals

- + Despite a 3.4% gain last month, platinum remains 6.3% below its 200-day moving average (dma).
- + Palladium fell 6.0% last month and is now trading at 7.2% below its 200-dma.
- + Silver's decline of 7.6% over the month has brought it at 7.4% below its 200-dma.
- + Following a 14.7% drop in prices last month, tin is now trading at 13.6% below its 200-dma.
- + Wheat continues to make strong gains this year and is now trading 31.5% above its 200-dma. Sentiment towards wheat remains positive in light of the recent export ban from India.

Top 5/Bottom 5 Price Diff to 200 day moving av. (dma)*



Source: Bloomberg

*Percent difference between the front month futures price and its 200 day moving average on May 25 2022. **Historical performance is not an indication of future performance and any investments may go down in value.**

Summary Tables

Prices

	Current	Unit	1 Month	3 Month	6 Month	1 Year
Energy						
WTI Oil	110.3	USD/bbl.	12.0%	20.5%	40.7%	67.0%
Brent Oil	114.0	USD/bbl.	11.4%	16.4%	38.7%	66.1%
Natural Gas	8.97	USD/MMBtu	34.5%	100.7%	77.0%	208.0%
Gasoline	3.83	USd/gal.	18.3%	40.5%	65.2%	81.0%
Heating Oil	3.87	USd/gal.	-5.5%	35.7%	62.2%	90.0%
Carbon	81.0	EUR/MT	-2.4%	-7.6%	8.9%	52.2%
Agriculture						
Wheat	11.5	USd/bu.	8.1%	36.2%	37.2%	74.9%
Corn	7.7	USd/bu.	-3.5%	17.1%	33.2%	24.5%
Soybeans	16.8	USd/bu.	-1.3%	5.7%	32.7%	11.2%
Sugar	0.20	USd/lb.	3.9%	9.4%	-1.3%	15.5%
Cotton	1.45	USd/lb.	2.7%	18.9%	20.6%	75.5%
Coffee	2.17	USd/lb.	-1.7%	-9.6%	-11.9%	44.2%
Soybean Oil	0.79	USd/lb.	-4.6%	14.8%	29.5%	18.3%
Cocoa	2,407	USD/MT	-1.0%	-6.6%	-2.0%	1.1%
Industrial Metals						
Aluminum	2,856	USD/MT	-7.0%	-15.2%	4.5%	21.5%
Copper	4.28	USd/lb.	-3.9%	-4.4%	-4.1%	-5.4%
Copper (LME)	9,375	USD/MT	-4.1%	-5.5%	-5.3%	-5.4%
Zinc	3,759	USD/MT	-10.5%	3.4%	13.0%	26.6%
Nickel	26,749	USD/MT	-18.0%	8.0%	28.3%	57.3%
Lead	2,092	USD/MT	-10.1%	-11.9%	-8.6%	-2.5%
Tin	34,286	USD/MT	-14.7%	-23.4%	-15.9%	9.1%
Precious Metals						
Gold	1,846	USD/t oz.	-2.5%	-2.1%	3.5%	-2.7%
Silver	21.9	USD/t oz.	-7.6%	-8.9%	-7.0%	-22.0%
Platinum	933	USD/t oz.	3.4%	-11.0%	-4.2%	-21.9%
Palladium	1,989	USD/t oz.	-6.0%	-15.8%	7.8%	-28.4%
Livestock						
Live Cattle	1.32	USd/lb.	-4.9%	-5.0%	-4.1%	13.3%
Lean Hogs	1.09	USd/lb.	1.2%	5.2%	44.6%	-5.4%
Feeder Cattle	1.55	USd/lb.	-1.2%	-3.4%	-7.4%	13.2%

Performance of front month futures from 25 May 21 (1 Year), 25 Nov 21 (6 Month), 25 Feb 22 (3 Month) and 25 Apr 22 (1 Month) to 25 May 22. **Historical performance is not an indication of future performance and any investments may go down in value.**

Roll Yields*

	Unit	Exchange	25-May	1 Week	1 Month	3 Month
Energy						
WTI Oil	USD/bbl.	NYMEX	2.4%	2.4%	0.9%	2.1%
Brent Oil	USD/bbl.	ICE	2.6%	2.0%	0.2%	3.8%
Natural Gas	USD/MMBtu	NYMEX	-0.2%	-1.0%	-2.0%	-1.6%
Gasoline	USd/gal.	NYMEX	2.9%	3.6%	0.6%	-5.0%
Heating Oil	USd/gal.	NYMEX	3.1%	2.8%	12.0%	1.5%
Carbon	EUR/MT	ICE	0.0%	0.0%	0.0%	0.0%
Agriculture						
Wheat	USd/bu.	СВОТ	-0.7%	-0.2%	-1.0%	-0.9%
Corn	USd/bu.	СВОТ	4.4%	3.8%	0.3%	0.7%
Soybeans	USd/bu.	СВОТ	3.7%	3.5%	1.7%	0.5%
Sugar	USd/lb.	NYBOT	-0.8%	-0.6%	0.4%	2.3%
Cotton	USd/lb.	NYBOT	8.5%	6.2%	4.4%	2.9%
Coffee	USd/lb.	NYBOT	-0.1%	0.5%	0.0%	0.6%
Soybean Oil	USd/lb.	СВОТ	2.6%	3.5%	3.3%	0.0%
Cocoa	USD/MT	NYBOT	-1.1%	-1.0%	-2.2%	-1.5%
Industrial Metals						
Aluminum	USD/MT	LME	-0.3%	-0.2%	-0.3%	0.0%
Copper	USd/lb.	COMEX	0.5%	0.1%	0.0%	0.0%
Copper (LME)	USD/MT	LME	0.0%	0.1%	0.1%	0.2%
Zinc	USD/MT	LME	0.0%	0.1%	0.4%	0.1%
Nickel	USD/MT	LME	-0.1%	-0.1%	0.0%	0.7%
Lead	USD/MT	LME	-0.4%	-0.1%	-0.1%	0.0%
Tin	USD/MT	LME	0.2%	0.4%	0.4%	0.2%
Precious Metals						
Gold	USD/t oz.	COMEX	0.0%	0.0%	0.0%	0.0%
Silver	USD/t oz.	COMEX	0.1%	0.1%	0.0%	0.0%
Platinum	USD/t oz.	NYMEX	0.2%	0.2%	0.0%	0.0%
Palladium	USD/t oz.	NYMEX	0.0%	-0.1%	-0.1%	-0.1%
Livestock						
Live Cattle	USd/lb.	CME	-0.2%	-0.2%	2.7%	-1.2%
Lean Hogs	USd/lb.	CME	1.0%	-2.2%	-5.5%	-4.2%
Feeder Cattle	USd/lb.	CME	-7.9%	-6.0%	-2.9%	-2.9%

^{*}Roll return non-annualised from front month futures into second month on the date shown. 25 Feb 22 (3 Month), 25 Apr 22 (1 Month), 18 May 22 (1 Week). **Historical performance is not an indication of future performance and any investments may go down in value.**

CFTC Net Positioning¹

	Current	5 Yr Average	1 Month	6 Month	1 Year
Energy					
WTI Oil	379,194	509,959	364,305	452,111	525,418
Brent Oil ²	114,806	145,251	107,352	153,181	3,279
Natural Gas	-114,356	-80,847	-128,878	-139,196	-75,629
Gasoline	33,730	71,515	42,538	54,674	53,595
Heating Oil	-3,213	13,586	-9,087	16,074	24,770
Agriculture					
Wheat	31,425	-919	28,061	27,533	17,287
Corn	439,416	138,712	480,205	429,467	387,971
Soybeans	158,856	60,883	193,727	74,922	158,585
Sugar	205,354	63,944	255,004	251,588	264,853
Cotton	78,431	57,467	85,568	112,545	57,696
Coffee	35,653	-2,424	36,612	66,063	58,573
Soybean Oil	95,679	43,575	101,301	71,967	88,589
Cocoa	9,324	16,636	32,094	9,034	16,991
Industrial Metals ³					
Copper (COMEX)	-23,408	16,545	19,942	14,255	24,544
Copper (LME)	47,753	43,752	57,529	59,397	45,002
Aluminum	140,739	165,236	151,041	161,168	146,553
Nickel	33,224	26,865	48,810	39,586	28,877
Zinc	29,270	54,039	39,833	78,591	74,459
Lead	43,461	54,007	56,604	63,607	54,787
Tin	6,613	8,060	7,505	7,729	6,208
Precious Metals					
Gold	178,365	199,545	266,548	246,342	232,955
Silver	13,485	32,700	46,600	41,023	51,775
Platinum	2,421	19,946	8,052	13,339	24,461
Palladium	-3,215	7,988	-2,182	-1,824	1,908
Livestock					
Live Cattle	50,356	85,774	72,154	88,560	82,432
Lean Hogs	15,120	50,362	62,114	59,891	92,334
Feeder Cattle	-7,580	4,872	-3,963	492	6,303

¹ Net positions in number contracts.

Historical performance is not an indication of future performance and any investments may go down in value.

 $^{^2}$ Brent 5 Yr average of net positions from January 2011 as positions were not reported by CFTC before then.

³ All Industrial metals positioning data (excluding copper) is sourced from LME COTR data in Bloomberg from 30 January 2018 (first available date) under post-MIFID rules.

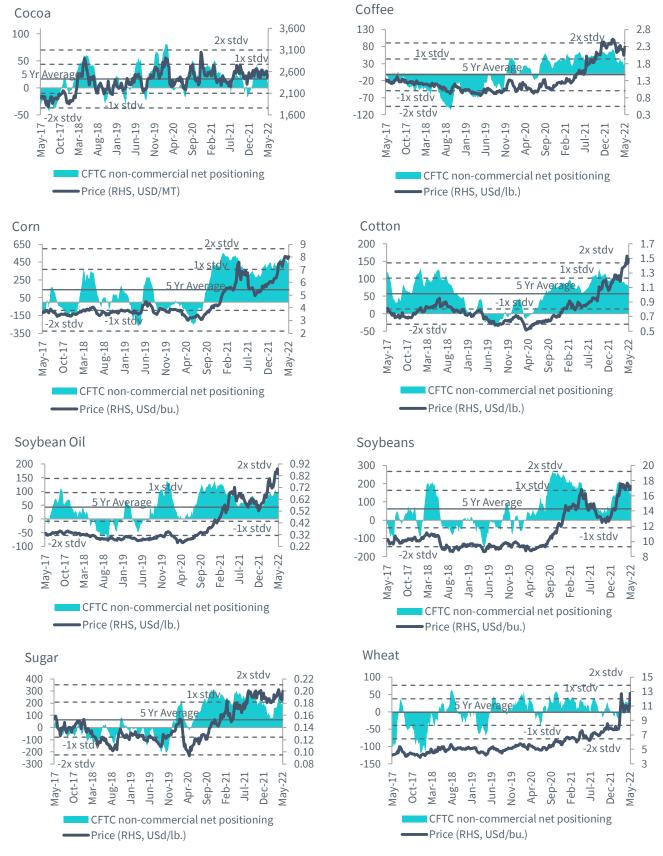
Inventory Levels*

	Current	5 Yr Average	1 Month	3 Month	6 Month
Energy					
Oil - US	419,801	-4.9%	1%	2%	-3%
Oil - OECD Europe**	290	-2%	-4.1%	-7.0%	-14%
Natural Gas - DOE	1,732	5.0%	16%	5%	-52%
Gasoline - DOE	219,707	-1.1%	-5%	-11%	4%
Heating Oil - DOE	8,789	-17%	19%	27%	4%
Industrial Metals					
Aluminum	770,451	-55%	-12%	-34%	-38%
Aluminum - LME	481,650	-61%	-18%	-41%	-48%
Aluminium - SHFE	288,801	-40%	-2%	-14%	-11%
Copper	302,845	-34%	5%	-1%	72%
Copper - LME	168,150	-16%	22%	125%	104%
Copper - SHFE	54,436	-65%	-22%	-66%	56%
Copper - COMEX	80,259	-22%	-1%	12%	36%
Nickel - LME	72,600	-68%	-1%	-9%	-38%
Zinc	251,589	-1%	-9%	-21%	9%
Zinc - LME	85,050	-51%	-16%	-41%	-49%
Zinc - SHFE	166,539	106%	-5%	-4%	156%
Lead	129,500	-12%	3%	-3%	-38%
Lead - LME	38,850	-60%	-2%	-12%	-32%
Lead - SHFE	90,650	80%	5%	2%	-40%
Tin	5,191	-40%	-4%	0%	42%
Tin - LME	3,035	-2%	5%	35%	155%
Tin - SHFE	2,156	-61%	-16%	-27%	-12%
Agriculture					
Wheat - USDA	267	-99.9%	-4.1%	-5.1%	-4.0%
Corn - USDA	309,390	138%	5.9%	6.2%	5.9%
Soybeans - USDA	99,600	68%	11.2%	10.7%	7.3%
Sugar - USDA	48,756	48%	-	-	-
Cotton - USDA	82,820	30%	-0.7%	0.3%	-1.8%
Coffee - USDA	36,294	4%	-	-	-
Soybean Oil - USDA	4,092	1%	3%	6%	10%

^{*}Current inventories relative 1, 3, 6 months ago. The column "5-yr average" is the current inventory level relative to 5 years average inventory. For energy, 5-yr average is the average of the same month as report month over the past 5 years. SHFE started reporting inventory data from April 2015. ** (OECD) inventory data reported with 4-month lag with current = January 2022. **Historical performance is not an indication of future performance and any investments may go down in value.**

CFTC Net Positioning

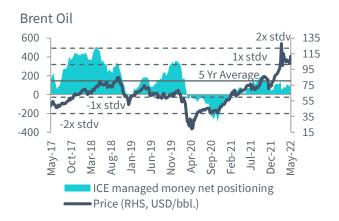
Agriculture

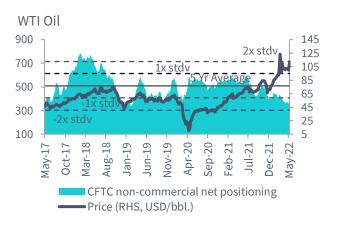


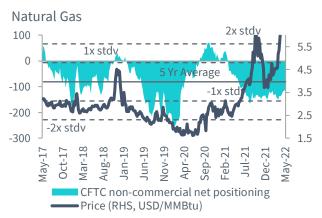
Source: Bloomberg, WisdomTree.

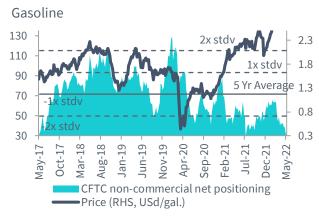
Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. All commodity futures price data is denominated in USD unless otherwise indicated. CFTC futures and LME COTR net positioning as at Apr 19, 2022 and Apr, 12, 2022 respectively. **Historical performance is not an indication of future performance and any investments may go down in value.**

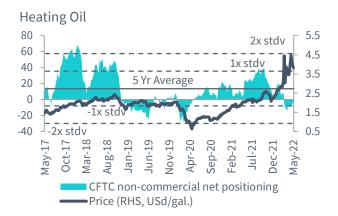
Energy







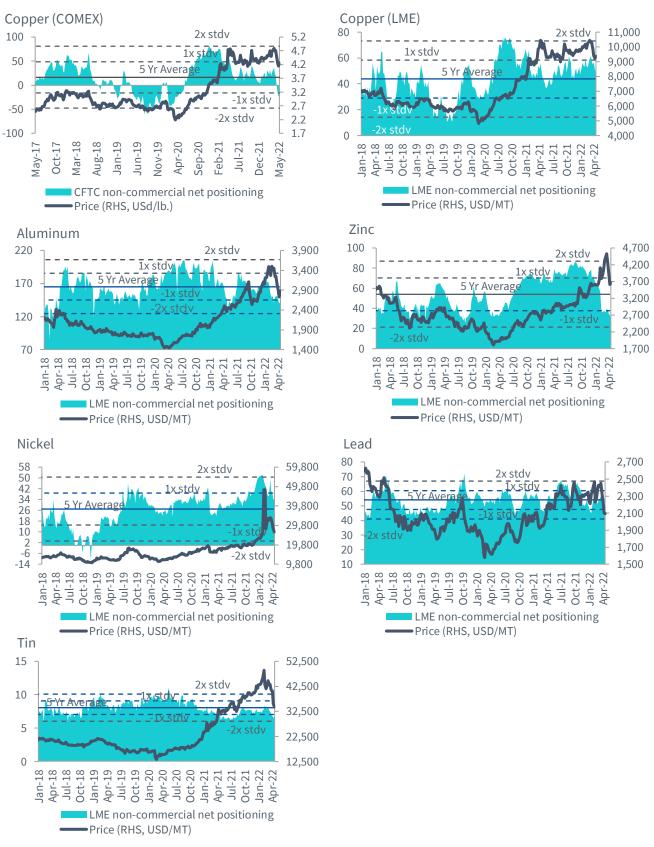




Source: Bloomberg, WisdomTree.

Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. All commodity futures price data is denominated in USD unless otherwise indicated. *Brent average of net positions from January 2011 as positions were not reported by CFTC before then. **Historical performance is not an indication of future performance and any investments may go down in value.**

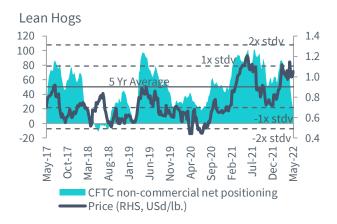
Industrial Metals

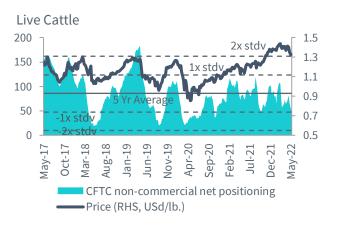


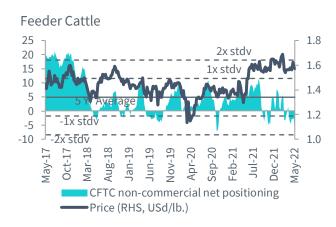
Source: Bloomberg, WisdomTree.

Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. LME non-commercial net positions from 30 January 2018 post MIFID II data and respective graphs represent daily data. All commodity futures price data is denominated in USD unless otherwise indicated. **Historical performance is not an indication of future performance and any investments may go down in value.**

Livestock

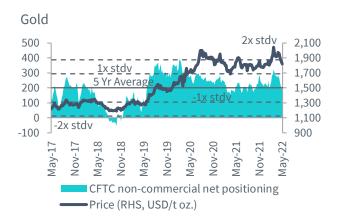


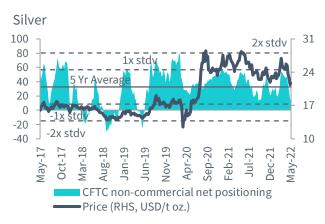


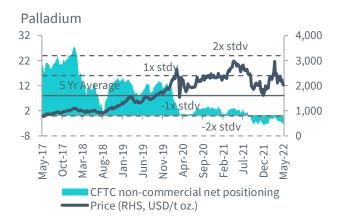


Source: Bloomberg, WisdomTree. Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. respective graphs represent daily data. All commodity futures price data is denominated in USD unless otherwise indicated. **Historical performance is not an indication of future performance and any investments may go down in value.**

Precious Metals







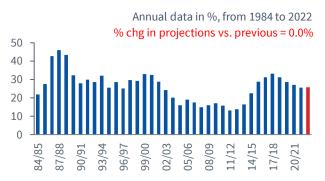


Source: Bloomberg, WisdomTree. Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. respective graphs represent daily data. All commodity futures price data is denominated in USD unless otherwise indicated. **Historical performance is not an indication of future performance and any investments may go down in value.**

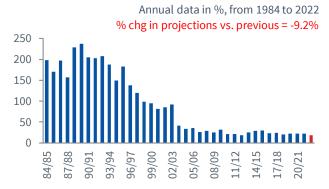
Inventories

Agriculture

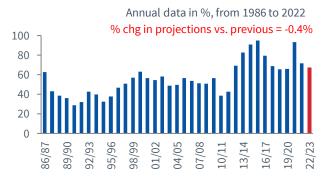
Corn - Stock to Use



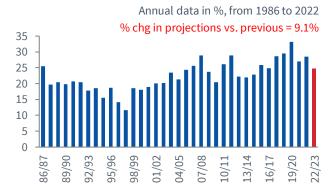
Coffee - Stock to Use



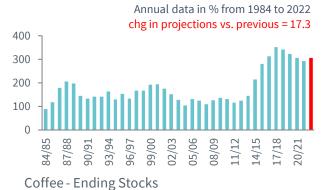
Cotton - Stock to Use



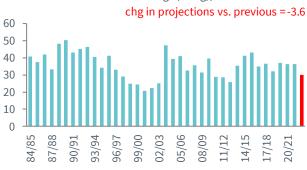
Soybeans - Stock to Use



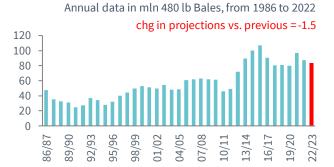
Corn - Ending Stocks



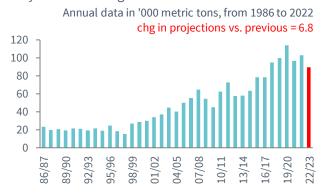
Annual data in mln bags (60 kg), from 1984 to 2022



Cotton - Ending Stocks



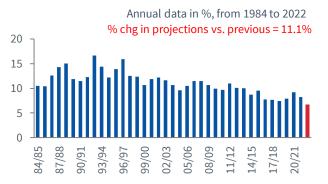
Soybeans - Ending Stocks



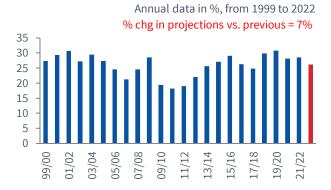
Source: USDA, Bloomberg, WisdomTree. Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2022/2023 estimates. % chg stands for percentage change. Historical performance is not an indication of future performance and any investments may go down in value.

Agriculture

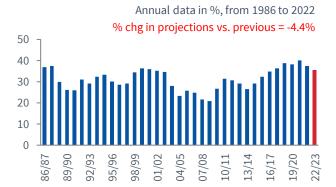
Soybean Oil - Stock to Use



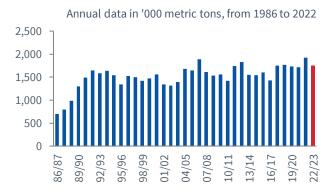
Sugar - Stock to Use



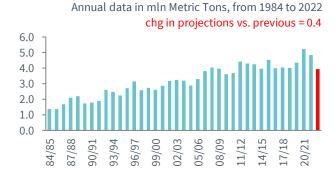
Wheat - Stock to Use



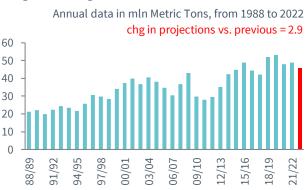
Cocoa - Inventory



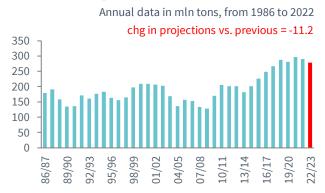
Soybean Oil - Ending Stocks



Sugar - Ending Stocks



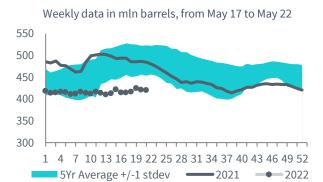
Wheat - Ending Stocks



Source: USDA, Bloomberg, WisdomTree. Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2022/2023 estimates. Historical performance is not an indication of future performance and any investments may go down in value.

Energy

US Oil Inventory



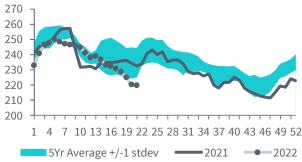
Heating Oil Inventory



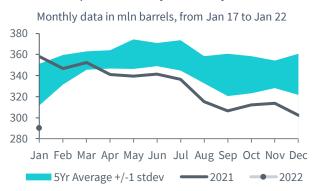


Gasoline Inventory

Weekly data in mln barrels, from May 17 to May 22

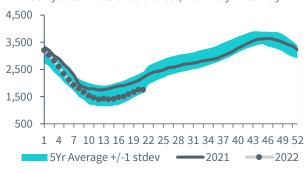


OECD Europe Oil Industry Inventory



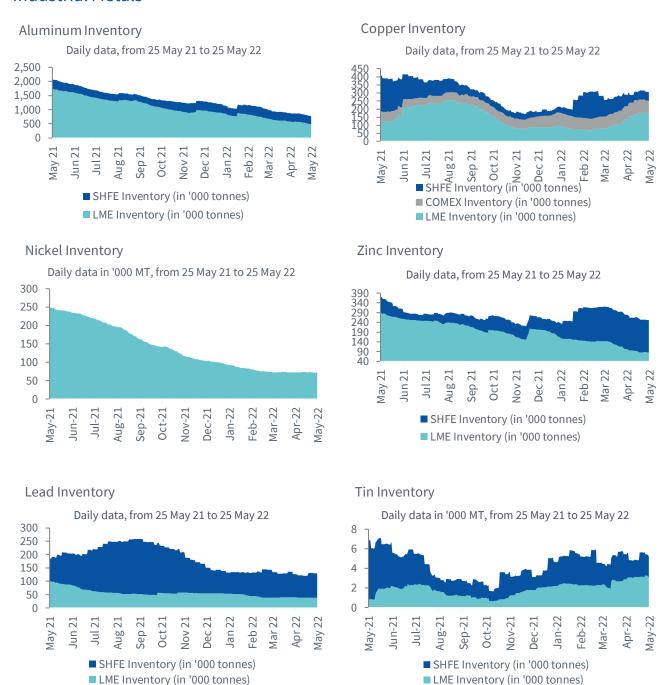
Natural Gas Inventory

Weekly data in billion cubic feet, from May 17 to May 22



Source: Source: IEA / DOE, Bloomberg, WisdomTree. Note: "Oil - OECD Inventory" represents OECD industry stocks and is reported with a 3-month lag. Historical performance is not an indication of future performance and any investments may go down in value.

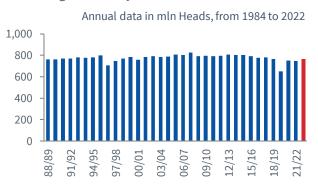
Industrial Metals



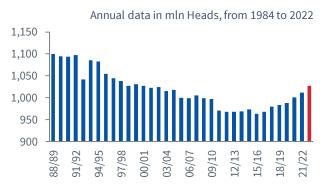
Source: Bloomberg, WisdomTree. Historical performance is not an indication of future performance and any investments may go down in value.

Livestock

Lean Hogs Inventory



Live Cattle Inventory

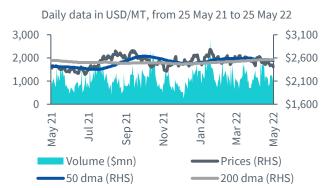


Source: USDA, Bloomberg, WisdomTree. Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2022/2023 estimates. Historical performance is not an indication of future performance and any investments may go down in value.

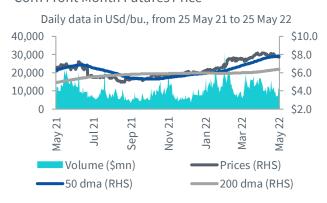
Moving Average and Volumes

Agriculture

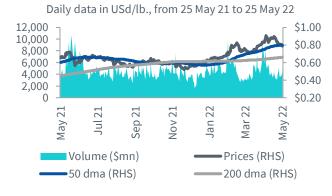
Cocoa Front Month Futures Price



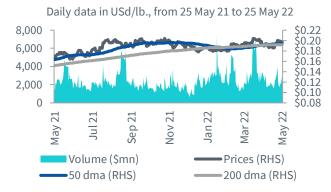
Corn Front Month Futures Price



Soybean Oil Front Month Futures Price



Sugar Front Month Futures Price



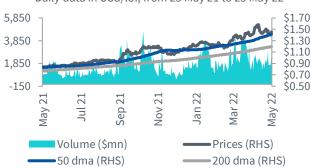
Coffee Front Month Futures Price





Cotton Front Month Futures Price

Daily data in USd/lb., from 25 May 21 to 25 May 22



Soybeans Front Month Futures Price

Daily data in USd/bu., from 25 May 21 to 25 May 22



Wheat Front Month Futures Price

Daily data in USd/bu., from 25 May 21 to 25 May 22

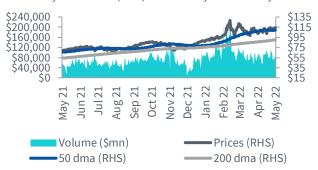


Source: Bloomberg, WisdomTree. Note: all commodity futures trading volume and price data is denominated in USD unless otherwise indicated. Historical performance is not an indication of future performance and any investments may go down in value.

Energy

Brent Oil Front Month Futures Price

Daily data in USD/bbl., from 25 May 21 to 25 May 22



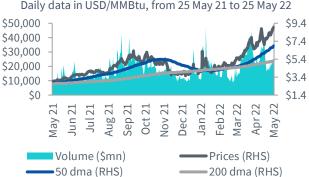
WTI Oil Front Month Futures Price

Daily data in USD/bbl., from 25 May 21 to 25 May 22



Natural Gas Front Month Futures Price

Daily data in USD/MMBtu, from 25 May 21 to 25 May 22



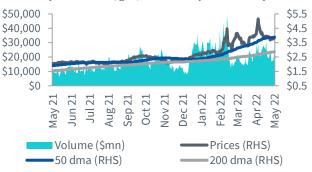
Gasoline Front Month Futures Price

Daily data in USd/gal., from 25 May 21 to 25 May 22



Heating Oil Front Month Futures Price

Daily data in USd/gal., from 25 May 21 to 25 May 22



Source: Bloomberg, WisdomTree. Note: all commodity futures trading volume and price data is denominated in USD unless otherwise indicated. Historical performance is not an indication of future performance and any investments may go down in value.

Carbon

Carbon Front Month Futures Price

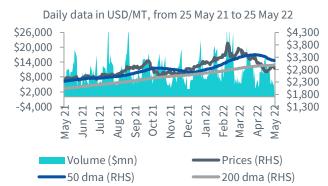
Daily data in EUR/MT, from 25 May 21 to 25 May 22



Source: Bloomberg, WisdomTree. Note: all commodity futures trading volume and price data is denominated in USD unless otherwise indicated. **Historical performance is not an indication of future performance and any investments may go down in value.**

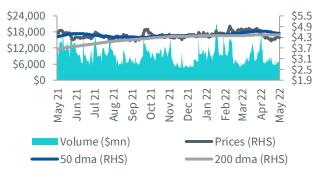
Industrial Metals

Aluminum Front Month Futures Price



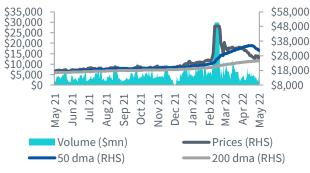
Copper (COMEX) Front Month Futures Price





Nickel Front Month Futures Price

Daily data in USD/MT, from 25 May 21 to 25 May 22



Zinc Front Month Futures Price

Daily data in USD/MT, from 25 May 21 to 25 May 22



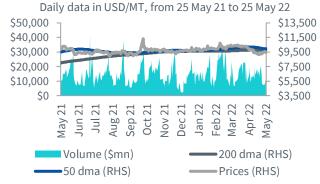
Lead Front Month Futures Price

Daily data in USD/MT, from 25 May 21 to 25 May 22



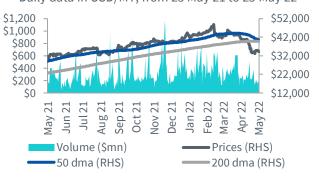
Copper (LME) Front Month Futures Price

Daily data in LICD/MT from 25 May 21 to 25 May



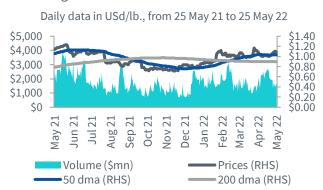
Tin Front Month Futures Price

Daily data in USD/MT, from 25 May 21 to 25 May 22

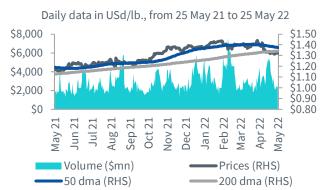


Livestock

Lean Hogs Front Month Futures Price



Live Cattle Front Month Futures Price

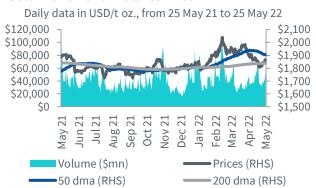


Feeder Cattle Front Month Futures Price



Precious Metal

Gold Front Month Futures Price



Silver Front Month Futures Price



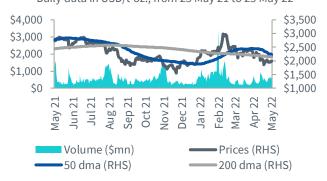
Platinum Front Month Futures Price





Palladium Front Month Futures Price



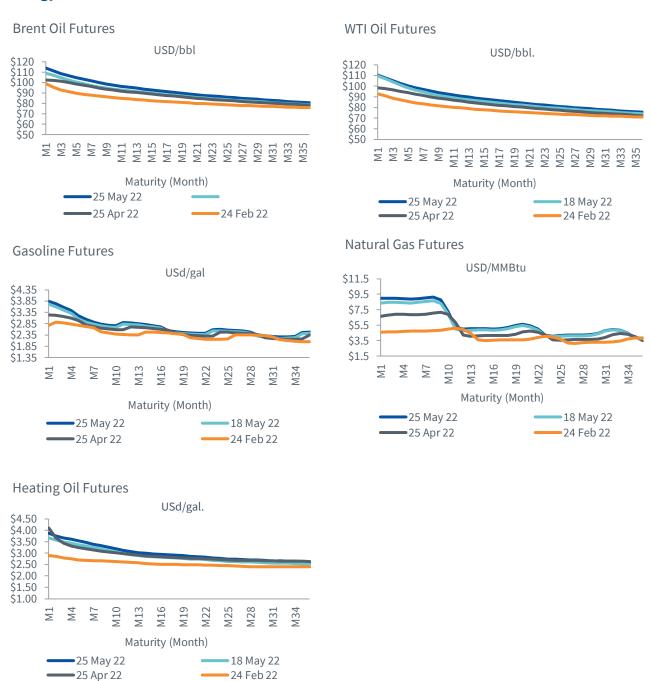


Future Curves

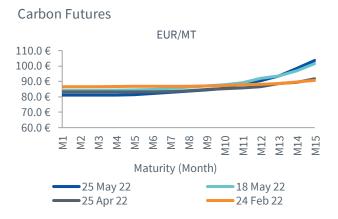
Agriculture



Energy



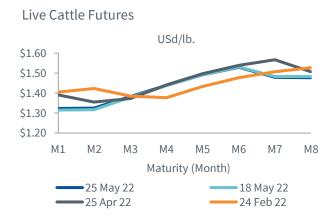
Carbon



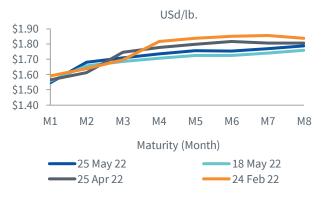
Industrial Metals



Livestock



Feeder Cattle Futures



Precious Metals



Commodity Monthly Matrix Explained

Score based on unweighted sum of four fundamental/technical measures detailed below with each measure awarded a possible score of -1, 0, or 1 depending on whether variable is viewed as fundamentally negative, neutral or positive. Score ranging from -4 to +4. For commodities where data is not available or not relevant, scores are calculated on remaining variables and adjusted to the -4 to +4 scale. The score matrix is designed to highlight significant changes in key variables but should not be viewed as predictor of performance.

The four fundamental/technical measures are as follow:

- + Price vs. 200 days moving average: 1 when price is above 200dma and return is positive, -1 when price is below 200dma and return is negative, 0 otherwise.
- + % change in net positioning over the past month: 1 when % change is positive, -1 when % change is negative, 0 when no change.
- + % change in inventory level over the past 3 months: 1 when % is negative, -1 when % is positive, 0 when no change.
- + Roll yield between the front and second month futures contracts: 1 when in backwardation, -1 when in contango, 0 when no change.

Calendar

WisdomTree - Recent Blogs					
27-May-22	Aneeka Gupta	What's Hot: Time to trade the dislocation between agricultural commodities and industrial metals			
25-May-22	Chris Gannatti	Where Can We Store Carbon Dioxide?			
23-May-22	Didier Haenecour	A fresh look at euro investment grade spreads			
20-May-22	Gannatti/Kuramshina	What's Hot: Cloud Computing: Are Share Prices Heading Toward Zero, or is it an Opportunity to consider?			
19-May-22	Benjamin Dean	Digital assets: 'the government' is not going to ban them			
17-May-22	Aneeka Gupta	Japan offers an avenue in a violent global value rotation			
13-May-22	Mobeen Tahir	What's Hot: Industrial Metals – Is this the entry point investors were waiting for?			
13-May-22	Benjamin Dean	Digital asset market note: A 'depegging' Soros would be proud of			
10-May-22	Wood Mackenzie	Battery Storage: Driving the Energy Transition			
06-May-22	Aneeka Gupta	What's Hot: Russia's war in Ukraine heats up Soybean oil prices			
05-May-22	Kevin Flanagan	Fed Watch: Nifty-Fifty			
03-May-22	Wood Mackenzie	Energy Transition Commodities: Price Resilience to Economic Slowdown			
26-Apr-22	Chris Gannatti	https://www.wisdomtree.eu/en-gb/blog/2022-04-26/waste-to-energy-and-implications-for-decarbonisation-efforts			

WisdomTree - Past Issues of Commodity Monthly Monitor					
Mar- Apr 2022	Research Team	China sneezing doesn't mean commodities will catch a cold			
Feb- Mar 2022	Research Team	War intensifies commodity market tightness			
Jan- Feb 2022	Research Team	Commodities start the year of the tiger with a roar			
Dec- Jan 2022	Research Team	The best commodity performance in over two decades			
Oct- Nov 2021	Research Team	Commodities to catch an inflation bid?			

The research notes are for qualified investors only.

Key Reports					
Current	Next release				
12-May-22	10-Jun-22	USDA	World Agricultural Supply and Demand Estimates		
10-May-22	07-Jun-22	EIA	Short-Term Energy Outlook		
12-May-22	14-Jun-22	OPEC	OPEC Oil Market Report		
12-May-22	15-Jun-22	IEA	IEA Oil Market Report		

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