

Commodity Monthly Monitor

# Will the commodity bounce from late summer last?

02 August 2022 — 02 September 2022



#### Contents

01	Commodities Market Overview		06	<u>Inventories</u>	
				Agriculture	28
02	Sector Overview Agriculture Energy	7		Energy Industrial Metals Livestock	30 31 32
	Industrial Metals Precious Metals	9	07	Moving Average and Volumes  Agriculture	34
03	<u>Technical Overview</u>			Energy Carbon	35 36
	Positioning Inventories Curve Dynamics	12 13 14		Industrial Metals Livestock Precious Metals	37 38 39
0.4	Technicals	15	80	<u>Future Curves</u>	
04	<u>Summary Tables</u>			Agriculture	41
	Prices	17		Energy	42
	Roll Yields	18		Carbon	43
	CFTC Net Positioning	19		Industrial Metals	44
	Inventory Levels	20		Livestock Precious Metals	45 46
05	CFTC Net Positioning	CFTC Net Positioning			
	Agriculture 2		09	Commodity Monthly Matrix	
	Energy	23		<u>Explained</u>	
	Industrial Metals	24	1 0		
	Livestock	25	TO	<u>Calendar</u>	
	Precious Metals	26			

#### **Authors**



Nitesh Shah

Head of Commodities & Macroeconomic Research, Europe



Aneeka Gupta

Director, Macroeconomic Research



**Mobeen Tahir** 

Director, Macroeconomic Research & Tactical Solutions

#### **Summary**

After a deep correction in June, commodities continued to post gains in July and August, with the Bloomberg Commodity Index Total Return up 19.64% year to date (31/12/2021/ - 9/9/2022). In fact, June was the only calendar month this year so far that we have seen losses. But losses in that month were large (-14.6%). In the first week of September, commodity prices are down once again as fears of demand destruction weigh on sentiment.

Developed world central banks have become very hawkish. The Federal Reserve (Fed) has delivered two back-to-back rate increases of 75 basis points (bps) and indicates there is more to come. Fed Funds target now matches the peak range that was implemented during the last rate hike cycle that ended in late 2018. However, there's one big difference: the speed at which this target range was established. During the last rate hike cycle, it took three years to get to this point, while the present scenario took only four months. The European Central Bank raised rates for the first time in 11 years in July 2022, providing a shock move of 50 bps. And it then followed through with a 75bps move in September. Many other developed world central banks have made similarly large rate increases. However, the US economy appears to have the greatest strength among major developed countries and, hence, is likely to have the capacity to keep going with this pace of tightening for longer. Europe, at the epicentre of the energy crisis, may feel the weight of a recession very soon and the ECB may not be able to match the Fed's pace. The US Dollar, which has been appreciating to a 20-year high, could keep strengthening. A strong Dollar has weighed on commodity price performance in Dollar-terms. In Euro-terms, Bloomberg Commodity Index Total Return has been 13.2% higher and, in Sterling-terms, it has been 16.8% higher than in US Dollar (year-to-date).

Despite recession risks increasing, dragging down front-month prices, many commodities remain in a state of backwardation. Backwardation usually signifies a tightness in supply. We note that capital investment in many commodities is low and likely to be depressed in an economic downturn. As we come out of

a recession sometime in 2023, we may find supply of key commodities extremely low.

The Northern Hemisphere summer period highlighted just how climate risks are important for the commodity complex. Heat stress and droughts damaged crops across the US, Europe, and China. Droughts have reduced water supply for hydro power, shutting off metal smelting activity in parts of China and Europe. Higher and volatile energy prices are forcing many metal producers to reduce output, exacerbating the supply shortages.

As we go to print, the European Union is holding emergency meetings on the energy crisis. Ideas on the table for debate include putting a price cap on Russian gas exports and offering liquidity support for the European power sector. The former is lacking support, chiefly because it seems impossible to implement. Russia's likely reaction would be to switch off all gas coming into the EU. Supply from Russia to EU has already fallen significantly. Emergency liquidity support is seen a necessary measure to keep struggling power companies afloat. However, other power companies who have seen excess profits in recent months may face windfall taxes.

#### Performance

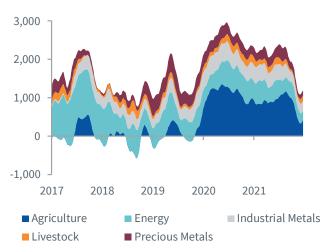
Performance*	- 1 Mth	- 6 Mth	- 12 Mth
All Commodities	1.3%	-1.7%	24.1%
Energy	3.2%	21.0%	71.9%
Industrial Metals	-4.9%	-26.3%	-8.3%
Precious Metals	-5.4%	-15.8%	-10.9%
Agriculture	6.5%	-5.8%	20.9%
MSCI World	-4.0%	-11.7%	-17.2%
US Aggregate Bond	-2.4%	-7.4%	-11.8%

<sup>\*</sup>Bloomberg TR Indexes for basket returns, data to Friday 02 September 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.** 

- + More hawkishness from central banks weighs on precious metals. The US dollar has reached its highest level in over two decades. Precious metals are under pressure despite what seems like the right time for investors to be looking for defensive assets.
- + Industrial metals down as risk-off sentiment continues in markets. Industrial metal supply is on the decline, especially in Europe where energy intensive industries like zinc and aluminium have had to cut production. Still, markets have their eyes on interest rates and the prospect of a recession rather than what could become lasting supply tightness.
- + The energy sector posted another monthly gain, driven by natural gas prices in the US. Crude oil prices were subdued in the past month but The Organization of the Petroleum Exporting Countries+ (OPEC+) hopes to turn this around with its latest supply cuts.
- + Agricultural commodity prices rebound as tighter supply outweighs demand concerns. Speculative positioning in agricultural commodities rebounded last month underscoring an improvement in sentiment. Except for wheat, the short end of the agriculture commodity futures curves remains in backwardation, suggesting continued tightness in supply.

#### Commodity Monthly Matrix<sup>1</sup>

Commodity	Current Price <sup>2</sup>	Returns (-1 Mth)	Price vs 200 days MA	Inventories <sup>3</sup> (- 3 Mths)	Positioning <sup>4</sup> (- 1 Mth)	Roll Yield <sup>5</sup>	02 Sep Score	22 Jul Score
WTI Oil	86.9	-8.0%	-9.9%	0.9%	-9.9%	0.5%	0	0
Brent Oil	93.0	-7.5%	-7.2%	3.9%	7%	1.3%	0	(1)
Natural Gas	8.79	14.0%	40.7%	38.9%	-3%	-0.7%	(2)	1
Gasoline	2.46	-19.4%	-19.9%	-2.1%	-3%	2.4%	0	0
Heating Oil	3.58	5.8%	5.1%	-10.1%	15%	1.9%	3	0
Carbon	77.5	-5.1%	-6.6%	-	-	-0.3%	0	0
Wheat	7.93	2.4%	-13.9%	0.2%	-7%	-2.2%	(4)	(4)
Corn	6.69	13.2%	-3.2%	0.3%	69%	0.5%	3	(3)
Soybeans	15.1	-3.7%	-3.5%	0.9%	1%	6.3%	3	(2)
Sugar	0.18	2.6%	-3.4%	-	1166%	0.8%	2	(4)
Cotton	1.08	7.5%	-11.9%	-	51%	5.0%	2	(2)
Coffee	2.33	10.8%	1.8%	8.9%	96%	1.7%	3	(1)
Soybean Oil	0.72	9.7%	2.6%	7.1%	111%	5.2%	0	(1)
Cocoa	2,430	3.8%	-2.0%	-	52%	0.6%	1	3
Aluminium	2,297	-5.2%	-20.1%	-34.5%	1%	-0.1%	0	0
Copper (COMEX)	3.42	-2.9%	-18.8%	-37.2%	15%	0.0%	2	(2)
Copper (LME)	7,694	-1.5%	-17.1%	-24.3%	4%	0.2%	2	(2)
Zinc	3,173	-6.5%	-13.3%	-36.1%	-1%	0.4%	0	1
Nickel	20,468	-8.8%	-21.2%	-23.7%	-19%	-0.1%	(2)	(2)
Lead	1,889	-8.1%	-14.7%	-12.2%	5%	0.0%	(1)	(1)
Tin	21,293	-12.9%	-41.6%	13.6%	1%	0.2%	1	1
Gold	1,710	-3.5%	-6.8%	-	-8%	-0.2%	(4)	(4)
Silver	17.8	-11.6%	-20.3%	-	-1812%	-0.2%	(4)	(3)
Platinum	817	-9.2%	-14.8%	-	-171%	-0.1%	(1)	(1)
Palladium	2,012	-3.6%	-4.7%	-	56%	-0.4%	(1)	1
Live Cattle	1.45	5.8%	4.9%	-	47%	-3.8%	1	(1)
Lean Hogs	0.90	-24.9%	-9.6%	-	-9%	8.9%	0	-
Feeder Cattle	1.84	3.2%	10.7%	-	-1017%	-0.6%	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.

<sup>&</sup>lt;sup>1</sup> Detailed explanation of the matrix calculations can be found at the end of this report.

<sup>&</sup>lt;sup>2</sup> All prices are futures prices to Friday 02 September 2022. Broad sector returns based on Bloomberg Commodity Index family.

<sup>&</sup>lt;sup>3</sup> % 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.

<sup>&</sup>lt;sup>4</sup> CFTC futures and LME COTR net positioning as at 30 August 2022 and 02 September 2022 respectively, % change from previous

<sup>&</sup>lt;sup>5</sup> 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.

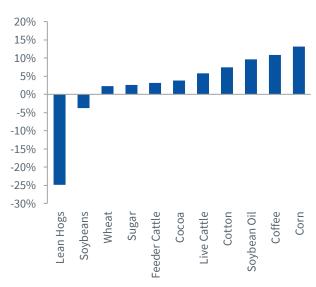
### Sector Overview

#### Agriculture

- + Adverse weather conditions in key coffee growing regions helped coffee gain 10.8% last month. The coffee crop in Colombia, the world's second largest producer of Arabica coffee, has received roughly 200-300% more rainfall than usual in recent months especially in the north and central regions caused by the La Nina cycle. Brazil, the world's largest Arabica producer is also facing harsh drought conditions that could hamper next years crop.
- Sugar prices climbed 2.6% over the month owing to a weaker supply outlook. Latest reports indicate India (the world's biggest sugar producer) is set to permit sugar exports in two tranches for the next season that begins in October. This follows government restrictions on exports this season. The new export policy is expected to be announced in September, which could allow total exports of around 7-8mt in the upcoming season, out of which 4-5mt is expected to be allowed in the first tranche. Additionally, European sugar processors are among the industries under pressure from the energy crisis. At the same time, beet output has been impacted by this year's drought in Europe. Brazil has also been hit by adverse weather whilst Thailand is struggling with logistical hurdles and delivery delays. The tighter supply situation should lend a tailwind to sugar prices.
- Cotton prices rebounded 7.5% last month following losses for two months in a row. The United States Department of Agriculture (USDA) has slashed its supply projections for global cotton ending stocks by 1.5mn bales in 2022/23. Production is lowered nearly 3.1mn bales whilst consumption is reduced by 800,000 bales. US producers increased their cotton acreage by 11% this season to 5.05m hectares. But, with the drought becoming more severe over the last couple of months, the USDA expects that the harvested area won't exceed 2.89m ha. The abandonment of 43%, if confirmed, will be by far the highest since USDA records began in 1960. Owing to historically high abandonment in the US Southwest region, US production estimates are forecast to reach their lowest level since 2009/10. The US is the world's largest exporter of cotton, having more than 27% share of the world export market. That implies that the fall in US production will dampen the world trade surplus, putting pressure on declining inventories.

• Cocoa's outlook improved after International Cocoa Organisation (ICCO) forecasted a significantly bigger than expected supply deficit on the global cocoa market set to total 230,000 tons for the current 2021/22 crop year. A downward adjustment of supply was attributed to smaller crop in Ghana, the second largest producer. Whilst the upward adjustment to the grinding figure was largely due to Bulgaria being factored into the statistics for the first time. The ICCO predicts that stocks at the end of the crop year will total 1.682mn tons, amounting to a third of the years grinding volume.

#### **Agriculture — September Returns\***

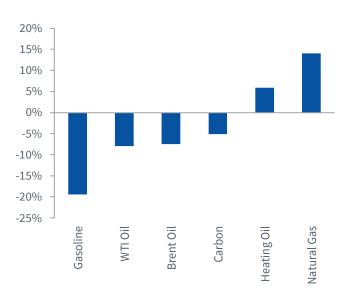


#### Energy

- Rising US natural gas prices led the energy complex (Bloomberg Energy Subindex Total Return) to post a gain of 3.2%. The front month Henry Hub natural gas contract price rose 14% as demand for the fuel rose with hot weather driving air conditioning demand higher. More than a third of US electricity is produced using natural The National Oceanic and Atmospheric Administration expects elevated temperatures for much of the United States for the coming two weeks (with notable exception of the West Coast). Earlier in the summer (June), US natural gas prices fell when Freeport's liquefaction plant in South Texas went offline. Freeport's LNG facility remains offline and has reduced the US's export capacity by 17%. In Freeport's recent update, it estimates the date for partial re-opening will be in November (pushed out from October). As a result of Freeport's closure, net injections of natural gas into storage are above the 5-year average, but as stocks started the summer at a lower base, working gas stocks are still 11% below the 5-year average for this time of year.
- Recession fears continue to pressure oil prices lower, with Brent crude prices down 7.2% and WTI crude down 8.0% over the month. The International Energy Agency (IEA)'s latest reading on global inventory from June (which is quite lagged) showed a decline of 5 million barrels. Although industry stocks rose 6.2 million barrels, to 2681 million barrels, that is still 292.1 million barrels below the five-year average. Government stocks are down because of strategic reserve releases. Inventory seems to point to tightness in the oil market. The Organization for Petroleum Exporting Countries and its partners (OPEC+) had increased its quota by 100 thousand barrels per day for September, after President Biden's plead for more supply (although the market was surprised. However, on 05 September 2022 (after the data cut-off for this report), OPEC+ decided it will cut production by that amount in October. Saudi Arabia, in particular, has been vocal about the disconnect between the physical market and futures prices and the latest OPEC+ decision looks like an attempt to jolt the market back to its vision of functioning.

- + The energy crisis could drive oil demand higher as the power industry switches to oil, away from natural gas. The sharp rally in European Title Transfer Facility (TTF) natural gas prices (which trades approximately 8 times the level of US Henry Hub), has driven energy costs up acutely in Europe. To the extent possible, we expect higher power production from oil rather than natural gas.
- + For most of the month petroleum products heating oil and gasoline moved in opposite directions. Energy Information Agency (EIA) data indicates that US gasoline demand in summer 2022 had been below summer 2021. Heating oil is now also declining with gasoline as latest inventory data points to a stock-build.

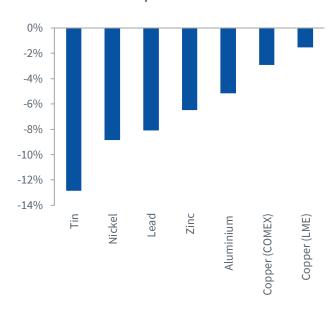
**Energy — September Returns\*** 



#### Industrial Metals

- Industrial metals were down 4.9% last month and, considering the last six months, are the worst performing commodity sector.
- + Risk sentiment turned bearish again following comments from Jerome Powell at the Jackson Hole Symposium at the end of August. As equities pulled back, so did industrial metals. To overcome this broader sell-off in markets amid fears of recession, industrial metals needed some glimmer of positive economic data. Unfortunately, that did not materialise. Typically, manufacturing activity in China, the world's largest consumer of industrial metals, has a notable bearing on metal prices. China's Manufacturing Purchasing Managers' Index (PMI) went into contractionary territory in August after being expansionary for the two preceding months. Thus, the reprieve industrial metals experienced in the second half of July, disappeared in August.
- Performance was negative last month for industrial metals even though the energy crisis in Europe is brewing a very tight metals market in the coming months. Production of metals like aluminium and zinc is very energy intensive and many European producers have cut production given the surge in energy prices. Europe's largest aluminium smelter, Aluminium Dunkerque said that it would close 22% of production by 01 October 2022, equivalent to 64Kt, noting that electricity prices are "way too high to restart production at full capacity." Europe's aluminium production has reached its lowest level since the 1970s (source: Bloomberg). The tightness in supply this drop in production will bring is currently not reflected in prices. Aluminium's futures curve is still in contango (higher futures prices than spot prices). This suggests that, for now, markets are fixated on an impending recession and paying little attention to how tight the market might be when Europe comes out of recession, or somehow avoids it altogether.

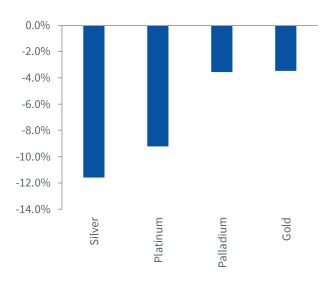
#### Industrial Metals — September Returns\*



#### **Precious Metals**

- Precious metals were down 5.4% last month with all four metals, that is, gold, silver, platinum and palladium in negative territory.
- Powell's speech at Jackson Hole didn't help gold. If there was any expectation of a dovish pivot from the Federal Reserve anytime soon, it was eroded after the symposium. More hawkishness from the Fed means strength for the US dollar and gains in US Treasury yields - neither of which is a welcome sign for gold. Both things continued to materialise last month, and so did the expected impact on gold. But Fed hawkishness at a time when the US is already in a technical recession, and sentiment is largely risk-off in equity markets, should result in greater demand for defensive assets. This has not yet materialised given net outflows from precious metals exchange traded products globally last month and speculative positioning on futures also largely declining. This, to us, suggests that gold's credentials as a hedge against economic risks are currently underappreciated something that may get rectified in the coming months.
- + Silver was under the pump even more so than gold last month. Silver, often seen as a leveraged play on gold, tends to experience amplified moves in the same direction as gold. This couldn't have been truer than in the twelve months following the Covid-induced market crash of March 2020. Unfortunately, last month, the movement was in the negative direction. Net speculative positioning for silver went into negative territory with silver prices now hovering around their lowest level in 2 years. Sometimes silver draws support from a rally in industrial metals, given around half of silver's physical demand comes from industrial applications. But fears of recession have weighed on industrial metals too.
- + While platinum has had an almost similar trajectory to gold, palladium's retreat was somewhat milder in contrast. Palladium draws most of its demand from gasoline cars. The automobile industry is still in recovery mode from the chip shortage and while sales have picked up versus last year, they haven't really trended upwards. This possibly explains the choppy, but largely sideways movement in palladium in recent weeks.

#### **Precious Metals — September Returns\***



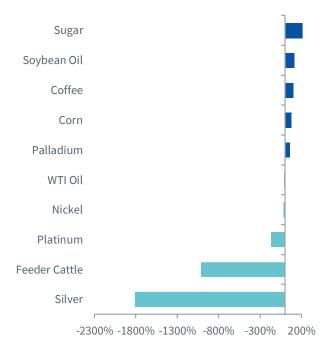
### Technical Overview

as of 02 September 2022

#### **Positioning**

- + Silver's positioning really stands out on the chart as it fell into negative territory last month.
- + While palladium's positioning shows a very modest improvement last month, it remains in negative territory.
- + Net speculative positioning in WTI crude oil futures fell 9.9%, bringing positioning more than 2 standard deviation below the historic 5-year average. With elevated shorts in both WTI and Brent, we could see a short-covering rally with an appropriate trigger (for example, an increase in demand or a supply shock).
- + Trading sentiment towards industrial metals failed to pick up last month. Nickel's net speculative positioning was down 19.1% over the last month.
- + Net speculative positioning in sugar turned to net long 40,240 contracts from net short 9197 contracts a month ago underscoring a positive change in investor sentiment towards sugar.
- + Net positioning in soybean oil, coffee and corn rose 111.2%, 95.8% and 68.6% after investors trimmed their shorts by 21%, 30% and 16% respectively underscoring an improvement in sentiment.

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



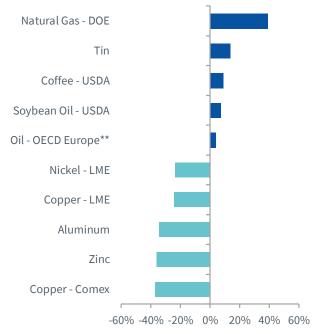
Source: Bloomberg

\*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**

- + Natural gas inventories have risen in the past 3-months as expected from a seasonal perspective but are 11% (close to 1 standard deviation) below the 5-year average.
- + The change in industrial metal inventories is very pronounced. Metal inventories have dropped in the region of 20-40% in the last three months given the drop in production. As mentioned in the industrial metals summary section, this could result in meaningful tightness down the road something that is not priced in by markets currently.
- + Coffee inventories rose 8.9% over the prior 3 months however they still remain 5% below the 5-year average.
- + Soybean oil inventories are up 7.1% over the prior 3 months in line with USDA's latest report indicating higher global ending soybean oil stocks on the back of higher soybean crush in Brazil.

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



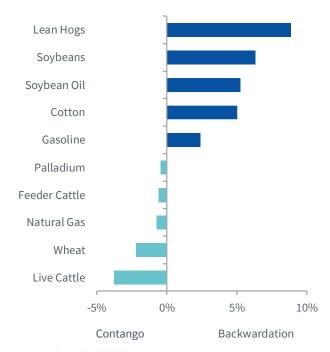
Source: Bloomberg

\*Percent change in inventory based on 3 month change (in %). Historical performance is not an indication of future performance and any investments may go down in value.

#### **Curve Dynamics**

- + The front end of the wheat futures curve remains in contango with a negative roll yield of -2.2%.
- + Soybean and Soybean oil yielding a positive roll yield of 6.3% and 5.2% respectively.
- Lean hogs futures curve exhibits the steepest backwardation among all commodities, providing a positive roll yield of 8.9%. This indicates tightness in supply. Live cattle futures remain in seasonal contango with a negative roll yield of -3.8%.

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



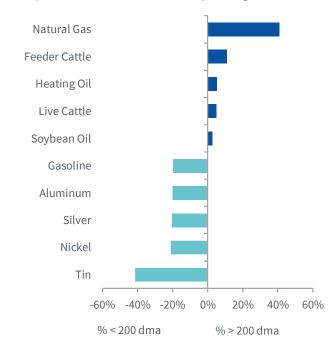
Source: Bloomberg

\*Roll yields calculated as percent change between front month futures price and next month futures price on 02 September 2022. **Historical performance is not an indication of future performance and any investments may go down in value.** 

#### **Technicals**

- + After an 11.6% drop in prices last month, silver prices are now trading at 20.3% below their 200-day moving average (dma).
- + Natural gas is trading 41% above its 200-day moving average (dma), marking one of the most bullish moves in the commodity space in the past month.
- The 50-dma gasoline price is very close to falling below the 200-dma gasoline price, which would mark a socalled 'death-cross' in technical analysis parlance.
   Despite its ominous name, a death cross often precedes market rebounds.
- + Following a 12.9% drop in prices last month, tin is now trading at 41.6% below its 200-dma.
- + Nickel prices are trading around 21.2% below their 200-dma after falling by 8.8% last month.
- + We recently observed that many base metals have hit a 'death-cross', that is, the 50-dma has fallen below the 200-dma. This can potentially signify an oversold market. This remains the case for all base metals covered in this report.
- + Soybean oil is trading 2.6% above its 200-dma, in a signal that investors have become significantly more bullish on the crop.

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 02 September 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	86.9	USD/bbl.	-8.0%	-25.7%	-21.5%	24.1%
Brent Oil	93.0	USD/bbl.	-7.5%	-20.9%	-17.6%	27.4%
Natural Gas	8.79	USD/MMBtu	14.0%	3.5%	84.5%	89.3%
Gasoline	2.46	USd/gal.	-19.4%	-41.2%	-25.5%	13.9%
Heating Oil	3.58	USd/gal.	5.8%	-15.0%	2.4%	65.1%
Carbon	77.5	EUR/MT	-5.1%	-9.9%	13.5%	26.0%
Agriculture						
Wheat	7.9	USd/bu.	2.4%	-25.1%	-25.1%	12.6%
Corn	6.7	USd/bu.	13.2%	-8.4%	-9.5%	29.6%
Soybeans	15.1	USd/bu.	-3.7%	-12.6%	-10.0%	18.1%
Sugar	0.18	USd/lb.	2.6%	-6.2%	-2.6%	-8.8%
Cotton	1.08	USd/lb.	7.5%	-22.1%	-11.2%	13.9%
Coffee	2.33	USd/lb.	10.8%	-2.4%	1.0%	21.2%
Soybean Oil	0.72	USd/lb.	9.7%	-12.2%	-10.1%	21.2%
Cocoa	2,430	USD/MT	3.8%	-2.2%	-2.4%	-7.6%
Industrial Metals						
Aluminum	2,297	USD/MT	-5.2%	-15.0%	-35.9%	-14.4%
Copper	3.42	USd/lb.	-2.9%	-24.9%	-26.5%	-20.2%
Copper (LME)	7,694	USD/MT	-1.5%	-19.0%	-24.6%	-17.9%
Zinc	3,173	USD/MT	-6.5%	-18.2%	-18.1%	6.7%
Nickel	20,468	USD/MT	-8.8%	-27.1%	-22.3%	5.0%
Lead	1,889	USD/MT	-8.1%	-12.7%	-21.5%	-19.4%
Tin	21,293	USD/MT	-12.9%	-39.5%	-53.6%	-37.2%
Precious Metals						
Gold	1,710	USD/t oz.	-3.5%	-8.4%	-11.0%	-5.5%
Silver	17.8	USD/t oz.	-11.6%	-20.1%	-29.4%	-25.5%
Platinum	817	USD/t oz.	-9.2%	-20.6%	-23.5%	-17.8%
Palladium	2,012	USD/t oz.	-3.6%	-1.2%	-24.4%	-16.1%
Livestock						
Live Cattle	1.45	USd/lb.	5.8%	8.2%	3.2%	14.7%
Lean Hogs	0.90	USd/lb.	-24.9%	-18.2%	-15.3%	0.2%
Feeder Cattle	1.84	USd/lb.	3.2%	6.3%	16.2%	14.7%

Performance of front month futures from 02 Sep 21 (1 Year), 02 Mar 22 (6 Month), 02 Jun 22 (3 Month) and 02 Aug 22 (1 Month) to 02 Sep 22. **Historical performance is not an indication of future performance and any investments may go down in value.** 

#### Roll Yields\*

	Unit	Exchange	02-Sep	1 Week	1 Month	3 Month
Energy						
WTI Oil	USD/bbl.	NYMEX	0.5%	0.7%	1.3%	2.2%
Brent Oil	USD/bbl.	ICE	1.3%	2.0%	1.9%	2.2%
Natural Gas	USD/MMBtu	NYMEX	-0.7%	0.3%	0.1%	0.1%
Gasoline	USd/gal.	NYMEX	2.4%	6.5%	9.9%	5.5%
Heating Oil	USd/gal.	NYMEX	1.9%	1.8%	1.2%	2.6%
Carbon	EUR/MT	ICE	-0.3%	-0.2%	-0.1%	0.0%
Agriculture						
Wheat	USd/bu.	СВОТ	-2.2%	-2.5%	-2.4%	-1.1%
Corn	USd/bu.	СВОТ	0.5%	0.7%	-0.5%	3.6%
Soybeans	USd/bu.	СВОТ	6.3%	9.9%	10.8%	4.3%
Sugar	USd/lb.	NYBOT	0.8%	1.1%	-0.6%	-0.9%
Cotton	USd/lb.	NYBOT	5.0%	3.8%	6.4%	8.0%
Coffee	USd/lb.	NYBOT	1.7%	1.6%	1.5%	0.0%
Soybean Oil	USd/lb.	СВОТ	5.2%	4.3%	4.6%	2.4%
Cocoa	USD/MT	NYBOT	0.6%	0.0%	-2.1%	-1.0%
Industrial Metals						
Aluminum	USD/MT	LME	-0.1%	-0.1%	-0.1%	0.0%
Copper	USd/lb.	COMEX	0.0%	0.4%	0.2%	0.0%
Copper (LME)	USD/MT	LME	0.2%	0.1%	0.0%	0.0%
Zinc	USD/MT	LME	0.4%	0.8%	1.1%	0.0%
Nickel	USD/MT	LME	-0.1%	-0.1%	-0.1%	0.0%
Lead	USD/MT	LME	0.0%	0.0%	-0.1%	0.0%
Tin	USD/MT	LME	0.2%	0.2%	0.1%	0.0%
Precious Metals						
Gold	USD/t oz.	COMEX	-0.2%	0.0%	-0.2%	-0.1%
Silver	USD/t oz.	COMEX	-0.2%	0.0%	-0.2%	-0.1%
Platinum	USD/t oz.	NYMEX	-0.1%	0.1%	-0.4%	0.1%
Palladium	USD/t oz.	NYMEX	-0.4%	-0.1%	-0.2%	-0.2%
Livestock						
Live Cattle	USd/lb.	CME	-3.8%	-1.6%	-3.9%	-0.4%
Lean Hogs	USd/lb.	CME	8.9%	9.3%	24.6%	-1.9%
Feeder Cattle	USd/lb.	CME	-0.6%	-0.7%	-1.8%	-1.4%

<sup>\*</sup>Roll return non-annualised from front month futures into second month on the date shown. 02 Jun 22 (3 Month), 02 Aug 22 (1 Month), 26 Aug 22 (1 Week). **Historical performance is not an indication of future performance and any investments may go down in value.** 

#### CFTC Net Positioning<sup>1</sup>

	Current	5 Yr Average	1 Month	6 Month	1 Year
Energy					
WTI Oil	278,457	503,792	309,178	429,057	425,777
Brent Oil <sup>2</sup>	37,264	140,019	34,888	133,479	140,887
Natural Gas	-129,210	-86,945	-125,689	-126,913	-144,585
Gasoline	49,451	70,950	50,870	62,825	41,196
Heating Oil	25,138	13,582	21,858	8,085	38,310
Agriculture					
Wheat	-11,297	994	-10,541	9,035	23,239
Corn	276,569	152,251	164,074	438,039	317,678
Soybeans	90,910	69,166	90,061	203,306	66,948
Sugar	40,240	70,678	-3,775	87,646	290,762
Cotton	52,672	57,022	34,988	94,314	108,567
Coffee	48,152	510	24,590	61,452	53,063
Soybean Oil	51,225	44,379	24,260	83,836	52,261
Cocoa	-9,334	17,688	-19,648	16,221	21,483
Industrial Metals <sup>3</sup>					
Copper (COMEX)	-22,551	14,182	-26,384	22,411	22,032
Copper (LME)	36,823	43,338	35,436	52,901	49,549
Aluminum	157,746	164,135	156,443	171,254	184,540
Nickel	23,320	26,818	28,820	51,923	30,483
Zinc	27,768	52,430	27,911	58,821	82,616
Lead	31,456	52,730	29,938	54,251	64,556
Tin	6,771	7,969	6,705	7,762	6,534
Precious Metals					
Gold	118,051	199,708	128,287	290,706	228,975
Silver	-8,902	30,794	520	46,726	21,541
Platinum	-6,802	19,008	-2,511	19,633	8,039
Palladium	-1,129	6,669	-2,560	-904	-258
Livestock					
Live Cattle	80,719	80,556	54,924	77,743	108,278
Lean Hogs	51,970	48,482	57,343	80,404	94,092
Feeder Cattle	-2,056	3,612	-184	-3,227	10,296

<sup>&</sup>lt;sup>1</sup> Net positions in number contracts.

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

<sup>&</sup>lt;sup>2</sup> Brent 5 yr average of net positions from January 2011 as positions were not reported by CFTC before then.

<sup>&</sup>lt;sup>3</sup> 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\*

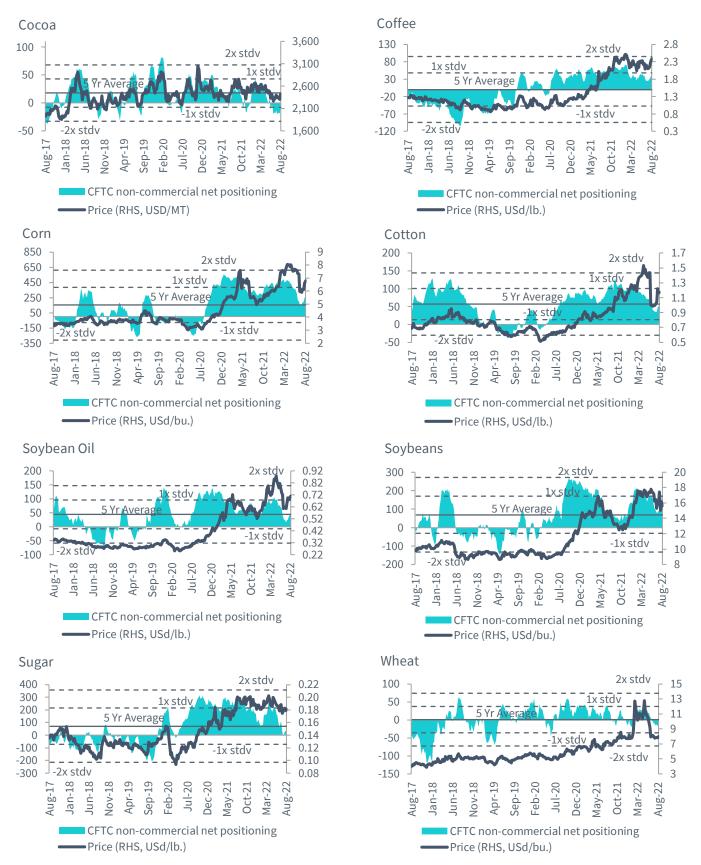
	Current	5 Yr Average	1 Month	3 Month	6 Month
Energy					
Oil - US	418,346	-2.9%	-2%	1%	1%
Oil - OECD Europe**	337	-5%	0.1%	3.9%	12%
Natural Gas - DOE	2,640	-10.5%	7%	39%	61%
Gasoline - DOE	214,475	-3%	-5%	-2%	-13%
Heating Oil - DOE	8,141	-2%	18%	-10%	17%
Industrial Metals					
Aluminium	480,113	-71%	0%	-35%	-58%
Aluminium - LME	276,050	-76%	-7%	-39%	-66%
Aluminium - SHFE	204,063	-56%	10%	-27%	-39%
Copper	198,101	-55%	-13%	-26%	-34%
Copper - LME	110,550	-42%	-16%	-24%	53%
Copper - SHFE	37,477	-75%	1%	-14%	-76%
Copper - COMEX	50,074	-49%	-17%	-37%	-29%
Nickel - LME	54,498	-74%	-6%	-24%	-30%
Zinc	162,373	-34%	-2%	-36%	-49%
Zinc - LME	77,500	-52%	14%	-7%	-46%
Zinc - SHFE	84,873	2%	-13%	-50%	-51%
Lead	105,514	-25%	-1%	-12%	-21%
Lead - LME	37,475	-59%	-4%	-3%	-15%
Lead - SHFE	68,039	33%	0%	-16%	-23%
Tin	6,402	-25%	-19%	14%	24%
Tin - LME	4,610	44%	16%	57%	105%
Tin - SHFE	1,792	-67%	-55%	-34%	-39%
Agriculture					
Wheat - USDA	267,340	-6.8%	-0.1%	0.2%	0.1%
Corn - USDA	311,840	-1%	-0.1%	0.3%	0.8%
Soybeans - USDA	101,410	1%	1.8%	0.9%	1.8%
Sugar - USDA	48,901	-1%	-	-	7.1%
Cotton - USDA	82,770	-3%	-1.8%	-	-0.1%
Coffee - USDA	32,650	-5%	-	8.9%	8.9%
Soybean Oil - USDA	4,630	3%	4%	7%	19%

<sup>\*</sup>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 = Jun 2022.

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

### CFTC Net Positioning

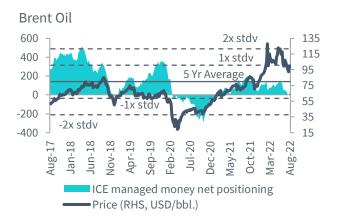
#### Agriculture

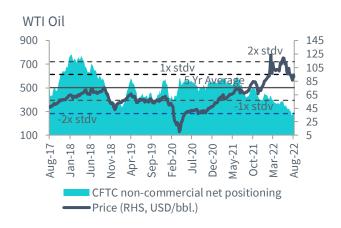


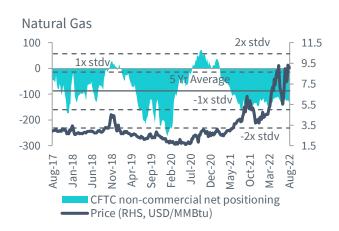
Source: Bloomberg, WisdomTree.

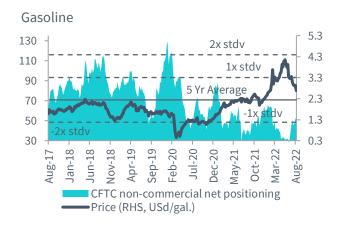
Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. All commodity futures price data is denominated in USD unless otherwise indicated. CFTC futures and LME COTR net positioning as at 30 Aug 2022 and 02 Sep 2022 respectively. **Historical performance is not an indication of future performance and any investments may go down in value.** 

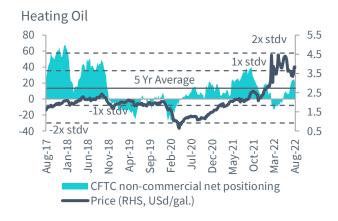
#### Energy







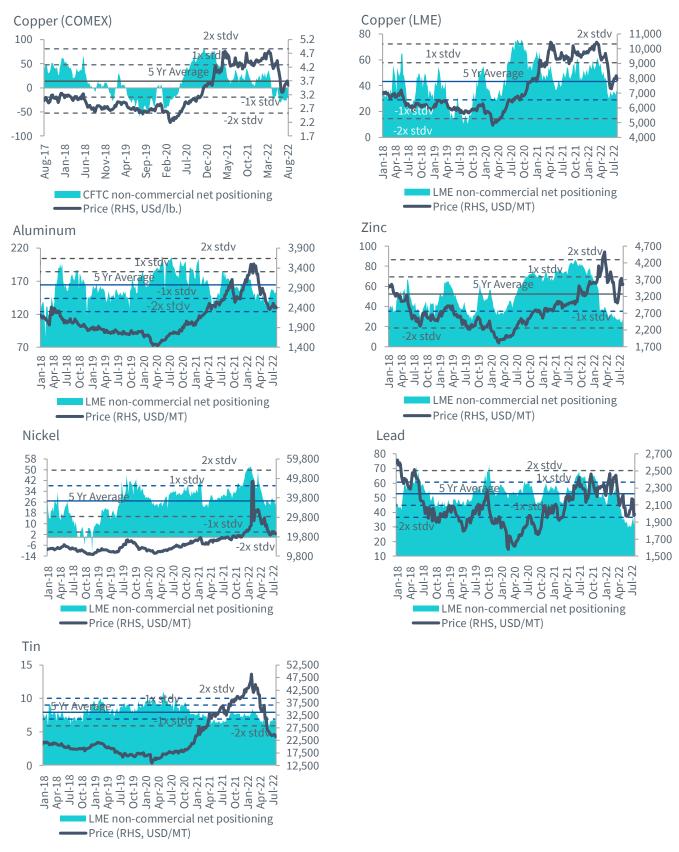




Source: Bloomberg, WisdomTree.

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.** 

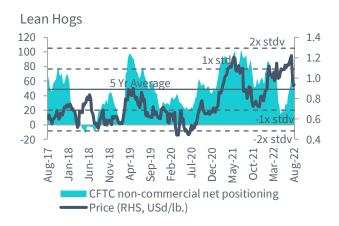
#### **Industrial Metals**

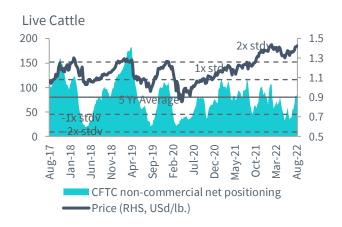


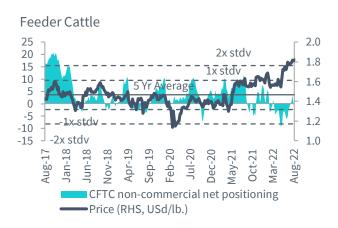
Source: Bloomberg, WisdomTree.

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

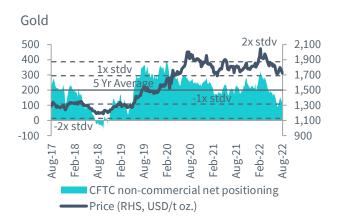


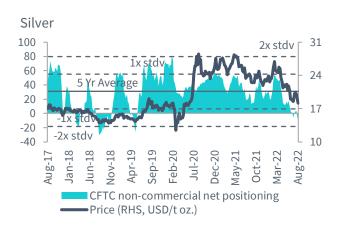


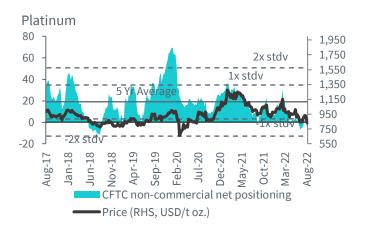


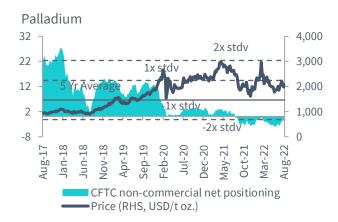
Source: Bloomberg, WisdomTree. Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. respective graphs represent daily data. All commodity futures price data is denominated in USD unless otherwise indicated. **Historical performance is not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

#### **Precious Metals**







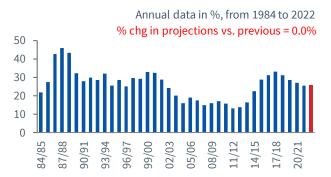


Source: Bloomberg, WisdomTree. Note: positioning in '000 contracts. Standard deviation based on 5-year average CFTC non-commercial net positioning. respective graphs represent daily data. All commodity futures price data is denominated in USD unless otherwise indicated. **Historical performance is not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

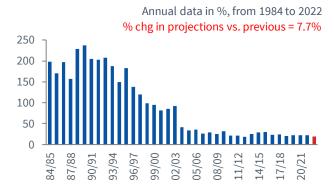
### Inventories

#### Agriculture

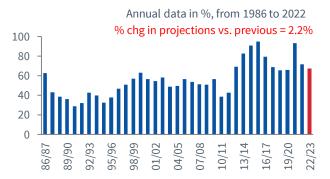
#### Corn - Stock to Use



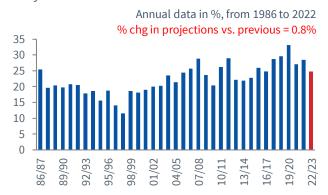
#### Coffee - Stock to Use



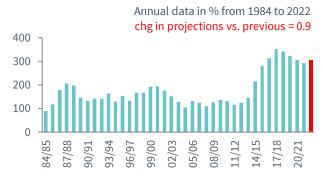
Cotton - Stock to Use



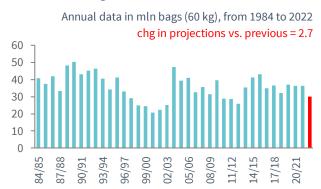
#### Soybeans - Stock to Use



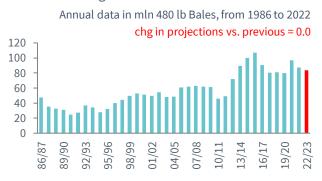
Corn - Ending Stocks



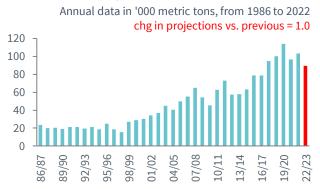
Coffee - Ending Stocks



Cotton - Ending Stocks



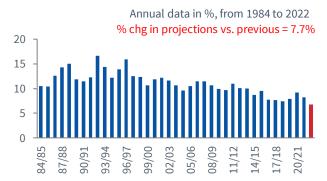
#### Soybeans - Ending Stocks



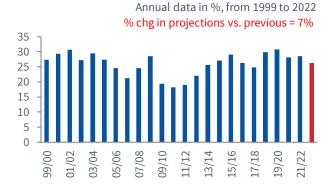
Source: USDA, Bloomberg, WisdomTree. Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2022/2023 estimates. **Historical performance is not an indication of future performance and any investments may go down in value.** 

#### Agriculture

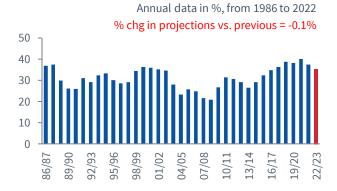
#### Soybean Oil - Stock to Use



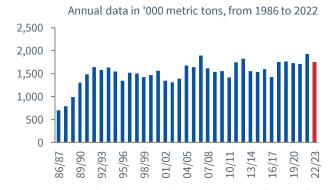
Sugar - Stock to Use



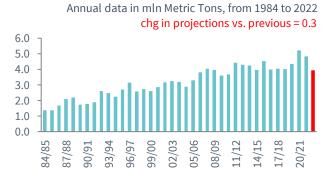
Wheat - Stock to Use



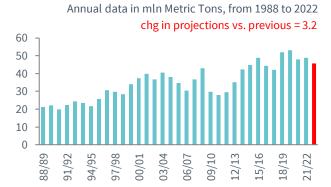
Cocoa - Inventory



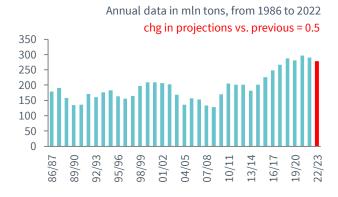
#### Soybean Oil - Ending Stocks



Sugar - Ending Stocks



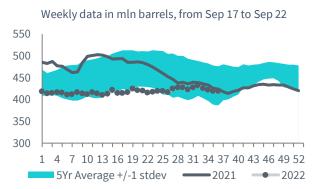
Wheat - Ending Stocks



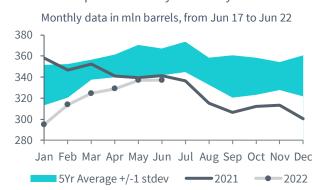
Source: USDA, Bloomberg, WisdomTree. Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2022/2023 estimates. Historical performance is not an indication of future performance and any investments may go down in value.

#### Energy

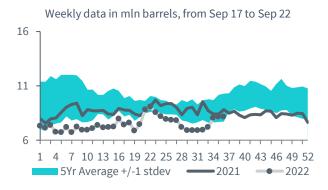
#### **US Oil Inventory**



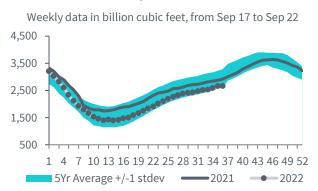
#### **OECD Europe Oil Industry Inventory**



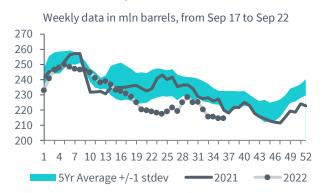
#### **Heating Oil Inventory**



#### Natural Gas Inventory

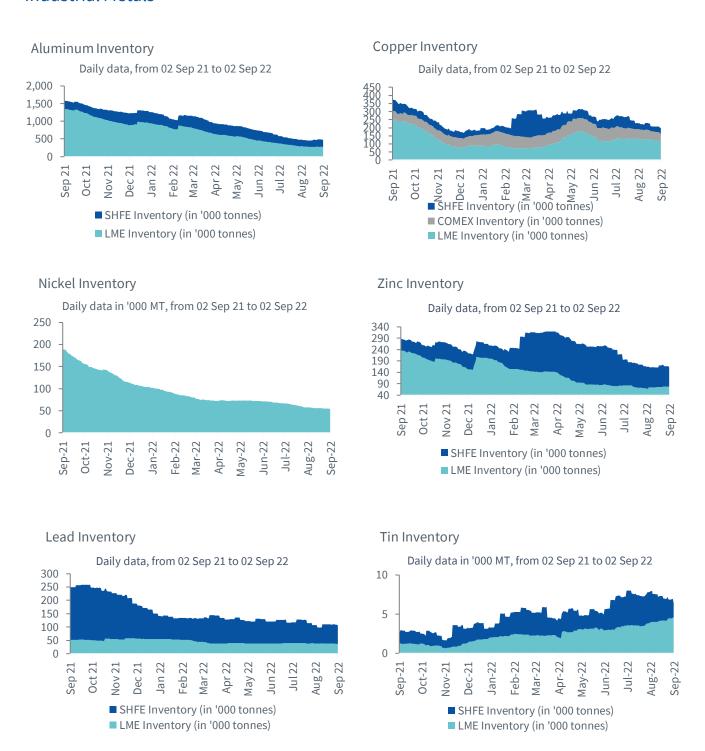


#### **Gasoline Inventory**



Source: Source: IEA / DOE, Bloomberg, WisdomTree. Note: "Oil - OECD Inventory" represents OECD industry stocks and is reported with a 4-month lag. Historical performance is not an indication of future performance and any investments may go down in value.

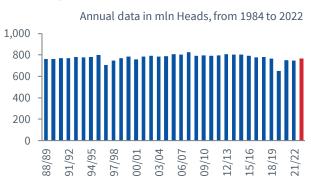
#### **Industrial Metals**



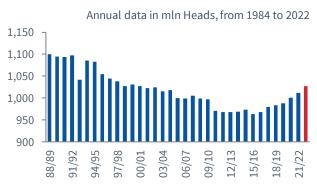
Source: Bloomberg, WisdomTree. Historical performance is not an indication of future performance and any investments may go down in value.

#### Livestock

#### Lean Hogs Inventory



#### Live Cattle Inventory

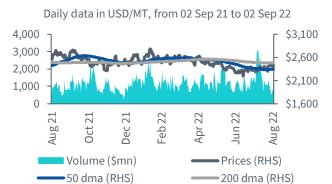


Source: USDA, Bloomberg, WisdomTree. Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2022/2023 estimates. **Historical performance is not an indication of future performance and any investments may go down in value.** 

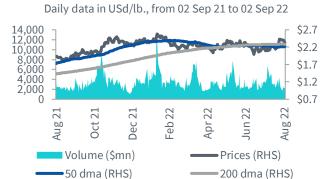
## Moving Average and Volumes

#### Agriculture

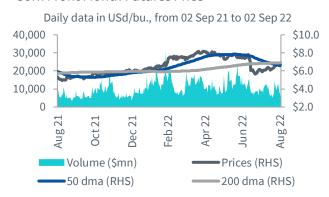
#### Cocoa Front Month Futures Price



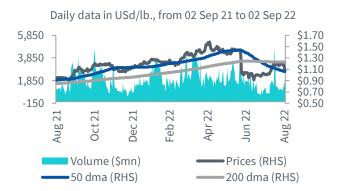
#### Coffee Front Month Futures Price



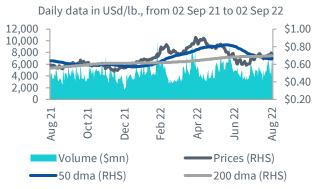
#### Corn Front Month Futures Price



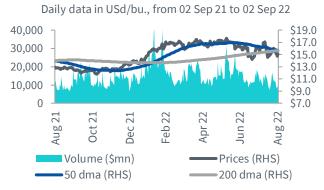
#### Cotton Front Month Futures Price



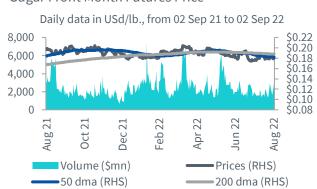
#### Soybean Oil Front Month Futures Price



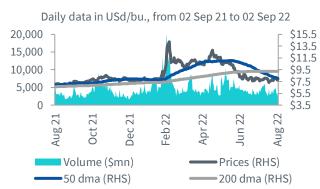
#### Soybeans Front Month Futures Price



#### Sugar Front Month Futures Price



Wheat Front Month Futures Price



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

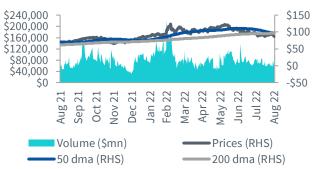
#### Brent Oil Front Month Futures Price

Daily data in USD/bbl., from 02 Sep 21 to 02 Sep 22



#### WTI Oil Front Month Futures Price

Daily data in USD/bbl., from 02 Sep 21 to 02 Sep 22



#### Natural Gas Front Month Futures Price

Daily data in USD/MMBtu, from 02 Sep 21 to 02 Sep 22



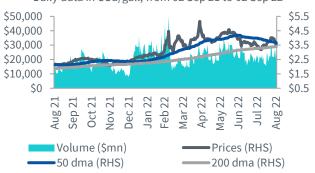
#### Gasoline Front Month Futures Price





#### Heating Oil Front Month Futures Price

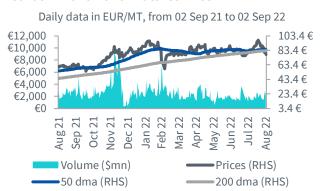
Daily data in USd/gal., from 02 Sep 21 to 02 Sep 22



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

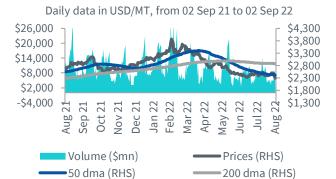
#### Carbon Front Month Futures Price



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.

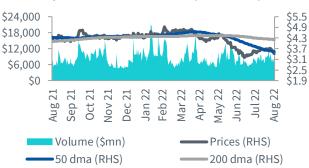
### **Industrial Metals**

### Aluminum Front Month Futures Price



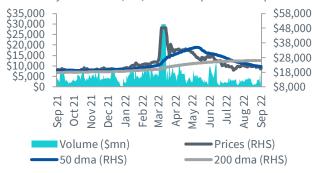
### Copper (COMEX) Front Month Futures Price





### Nickel Front Month Futures Price

Daily data in USD/MT, from 02 Sep 21 to 02 Sep 22



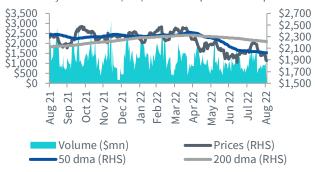
### Zinc Front Month Futures Price

Daily data in USD/MT, from 02 Sep 21 to 02 Sep 22



### Lead Front Month Futures Price

Daily data in USD/MT, from 02 Sep 21 to 02 Sep 22



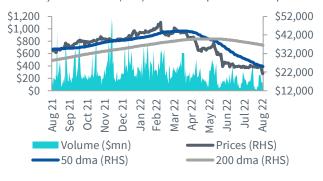
#### Copper (LME) Front Month Futures Price

Daily data in USD/MT, from 02 Sep 21 to 02 Sep 22



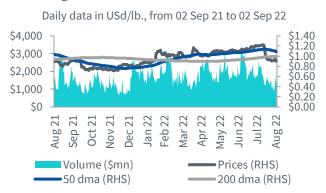
### Tin Front Month Futures Price

Daily data in USD/MT, from 02 Sep 21 to 02 Sep 22

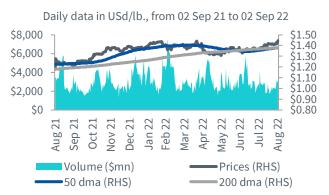


### Livestock

### Lean Hogs Front Month Futures Price

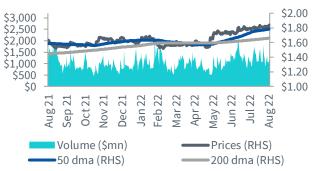


### Live Cattle Front Month Futures Price



### Feeder Cattle Front Month Futures Price



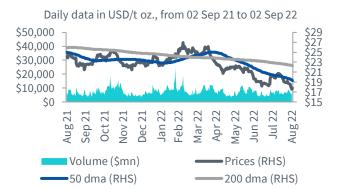


### **Precious Metal**

### Gold Front Month Futures Price

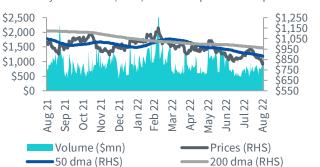


### Silver Front Month Futures Price



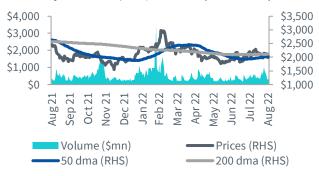
### Platinum Front Month Futures Price





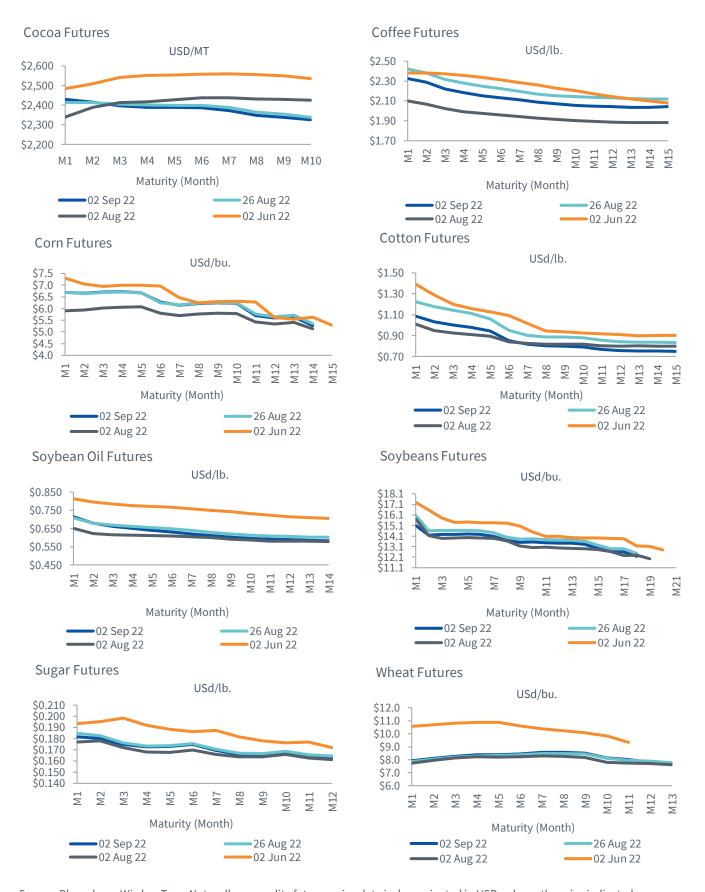
### Palladium Front Month Futures Price



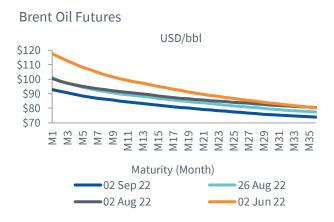


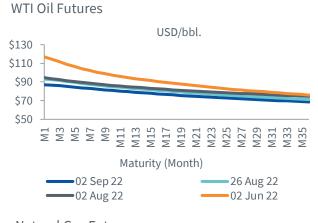
# Future Curves

## Agriculture

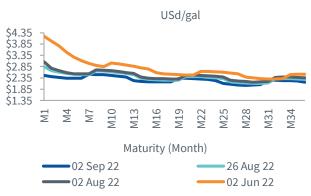


## Energy

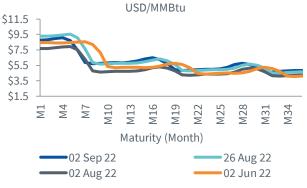




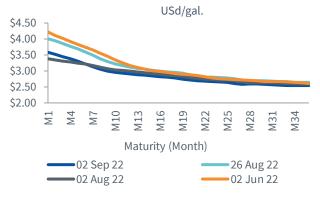








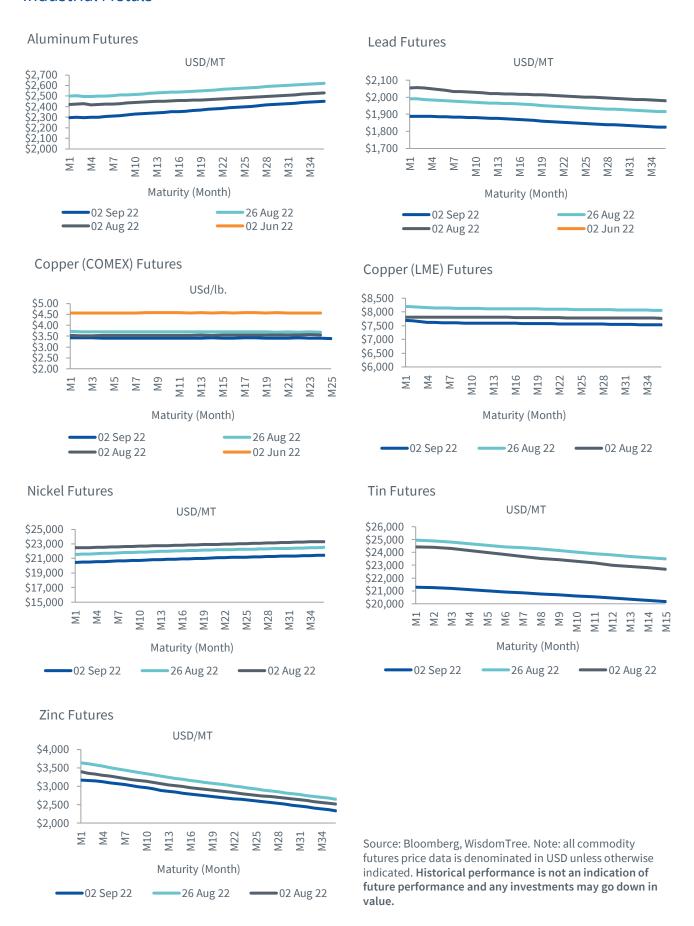
### Heating Oil Futures



## Carbon

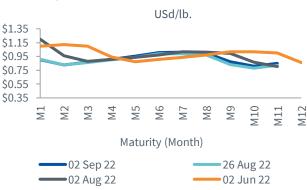
## 

### **Industrial Metals**



### Livestock

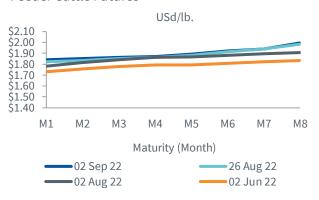
## Lean Hogs Futures



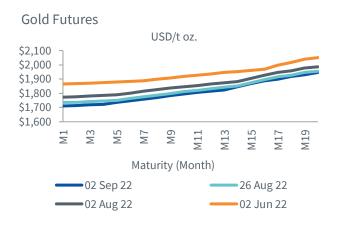
### Live Cattle Futures

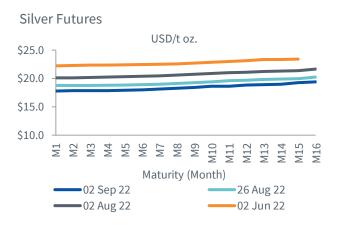


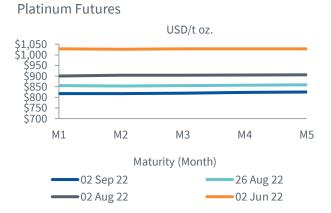
### Feeder Cattle Futures

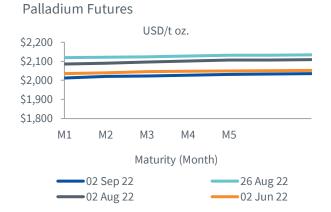


### **Precious Metals**









## 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				
07-Sep-22	Chris Gannatti	Cloud Computing continues to exhibit strong growth in 2022		
05-Sep-22	Nitesh Shah	What's hot: Suspension of EU ETS unlikely		
31-Aug-22	Chris Gannatti	Will we see batteries powering large containerships?		
30-Aug-22	Aneeka Gupta	Supply bull vs. demand bear clouds cotton's outlook		
25-Aug-22	Chris Gannatti	Many Megatrends Depend on Semiconductors. What's Happening in the Space?		
23-Aug-22	Pierre Debru	The secret tool that institutional investors use to protect digital assets from hacks		
22-Aug-22	Nitesh Shah	What's hot: Zinc and aluminium supply tightening amid energy price shock		
19-Aug-22	Chris Gannatti	AI continues to build the foundation for a remarkable future in biology		
18-Aug-22	Elvira Kuramshina	WisdomTree Quarterly Thematic Review: Thematic ETFs holding ground in the face of macro adversity		
16-Aug-22	A Gupta/P Debru	Navigating the shortening odds of a recession: Bear markets don't last as long as Bull markets		
12-Aug-22	Chris Gannatti	Battery Solutions: showcasing the power of expertise in thematic strategies		
11-Aug-22	Pierre Debru	Looking back at Equity Factors in Q2 with WisdomTree		
08-Aug-22	Chris Gannatti	Central bank policy has catalysed a valuation opportunity in the software space		

WisdomTree - Past Issues of Commodity Monthly Monitor					
Jun-Jul 2022	Research Team	Commodities narrowly miss a bear market			
May-Jun 2022	Research Team	Commodities wobble as central banks declare war on inflation			
Apr- May 2022	Research Team	Energy and agricultural supply tightness counters economic demand soft patch			
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			
The granula gates are for a self-field investors and					

The research notes are for qualified investors only.

Key Reports					
Current	Next release				
14-Sep-22	13-Oct-22	USDA	World Agricultural Supply and Demand Estimates		
07-Sep-22	13-Oct-22	EIA	Short-Term Energy Outlook		
14-Sep-22	13-Oct-22	OPEC	OPEC Oil Market Report		
13-Jul-22	11-Aug-22	IEA	IEA Oil Market Report		

### **Important Information**

**Communications issued in the European Economic Area ("EEA"):** This document has been issued and approved by WisdomTree Ireland Limited, which is authorised and regulated by the Central Bank of Ireland.

**Communications issued in jurisdictions outside of the EEA:** This document has been issued and approved by WisdomTree UK Limited, which is authorised and regulated by the United Kingdom Financial Conduct Authority.

WisdomTree Ireland Limited and WisdomTree UK Limited are each referred to as "WisdomTree" (as applicable). Our Conflicts of Interest Policy and Inventory are available on For professional clients only. The information contained in this document is for your general information only and is neither an offer for sale nor a solicitation of an offer to buy securities or shares. This document should not be used as the basis for any investment decision. Investments may go up or down in value and you may lose some or all of the amount invested. Past performance is not necessarily a guide to future performance. Any decision to invest should be based on the information contained in the appropriate prospectus and after seeking independent investment, tax and legal advice.

This document is not, and under no circumstances is to be construed as, an advertisement or any other step in furtherance of a public offering of shares or securities in the United States or any province or territory thereof. Neither this document nor any copy hereof should be taken, transmitted or distributed (directly or indirectly) into the United States.

This document may contain independent market commentary prepared by WisdomTree based on publicly available information. Although WisdomTree endeavours to ensure the accuracy of the content in this document, WisdomTree does not warrant or guarantee its accuracy or correctness. Any third party data providers used to source the information in this document make no warranties or representation of any kind relating to such data. Where WisdomTree has expressed its own opinions related to product or market activity, these views may change. Neither WisdomTree, nor any affiliate, nor any of their respective officers, directors, partners, or employees accepts any liability whatsoever for any direct or consequential loss arising from any use of this document or its contents.

This document may contain forward looking statements including statements regarding current expectations or beliefs with regards to the performance of certain assets classes and/or sectors. Forward looking statements are subject to certain risks, uncertainties and assumptions. There can be no assurance that such statements will be accurate and actual results could differ materially from those anticipated in such statements. WisdomTree strongly recommends that you do not place undue reliance on these forward-looking statements.

Any historical performance included in this document may be based on back testing. Back testing is the process of evaluating an investment strategy by applying it to historical data to simulate what the performance of such strategy would have been. However, back tested performance is purely hypothetical and is provided in this document solely for informational purposes. Back tested data does not represent actual performance and should not be interpreted as an indication of actual or future performance.

The application of regulations and tax laws can often lead to a number of different interpretations. Any views or opinions expressed in this communication represent the views of WisdomTree and should not be construed as regulatory, tax or legal advice. WisdomTree makes no warranty or representation as to the accuracy of any of the views or opinions expressed in this communication. Any decision to invest should be based on the information contained in the appropriate prospectus and after seeking independent investment, tax and legal advice.