

Summary

We are still waiting for a confirmation of a "phase one" deal between US and China, with the term only really being used by the US. In the absence of a deal, we could see US tariffs on Chinese goods increased on December 15th, although we believe that deadline could be pushed out further at the 11th hour to keep negotiations ongoing. Either way, we are not hopeful of a meaningful deal being reached this side of 2020 (a phase one deal will not be a comprehensive deal). With this in mind, we expect defensive hedges via gold to remain in favour despite the premature rally in equity markets. Industrial metals do not share the same level of optimism as stock markets. Industrial metals fell 4.8% last month, led by nickel (-14.0%) as concerns over what a prolonged trade spat will do to demand linger.

Energy bucked the trend of price declines in the commodity complex, but whether these gains will be sustained will depend on Organization of the Petroleum Exporting Countries (OPEC) policy making at the beginning of December. We expect the cartel to at least extend current cuts if not deepen them. But in terms of December policy meetings that will be the only meaningful one. We expect the Federal Reserve to stick with the status quo on December 10/11th as there are tentative signs of green shoots in the US economy. The European Central Bank (ECB) is unlikely to change the policy setting at its December 12th meeting, but under a new President for the first time in eight years, the ECB could give hints about how it could change course in coming months. We think that central banks will generally avoid spooking markets as liquidity tends to decline in the final weeks of the year.

As we write our final Commodity Monitor of 2019, we are preparing outlooks for 2020. Reflecting on the past 12 months, precious metals (+18%) have been the clear outperformer in the commodity complex. Individual commodities such as nickel (+33%) and palladium (+58%) have done exceptionally well due to idiosyncratic reasons. Once again natural gas has been a drag on energy performance, while oil and product prices are up on the year. We will host a webinar on December 11th 2019 on our cross-asset outlooks which will cover commodities alongside equities, bonds, foreign exchange and crypto currencies.

To sign up please visit [Bright talk webcast link](#).

- **As non-OPEC supply continues to grow, the pressure on OPEC to cut supply and maintain global balance is increasing.** Falling rig counts in the US remain a warning sign over how sustainable production growth can be in an era of weak prices.
- **Softs and grains bifurcate agricultural commodity performance last month.** A short covering rally across coffee, cocoa, sugar helped drive a price recovery across soft commodities (except for cotton) in sharp contrast to grains led by corn, soybeans and wheat which witnessed a decline in net speculative positioning owing to a weaker crop outlook.
- **Trade uncertainty weighs yet again on industrial metals.** Industrial metals had another difficult month after a modest recovery in the month before as the bullish risk-on sentiment prevailing in equity markets did not quite permeate into base metals. Industrial metals have not yet moved to price in any meaningful breakthrough between US and China on the trade front.
- **Palladium shines again in another dull month for precious metals.** A broad risk on sentiment prevailed in equity markets last month on the back of healthy third quarter US earnings as well as cautious optimism on the US-China trade front. Precious metals retreated during the month as the demand for haven investing slowed. Palladium however outshined its precious metal peers adding further to its gains in recent months.

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Commodity Monthly Matrix¹

	Current Price ²	Returns (-1 Mth)	Price vs 200 days MA	Inventories ³ (-3 Mths)	Positioning ⁴ (-1 Mth)	Roll Yield ⁵	25 Nov Score	25 Oct Score
WTI Oil	58	2.4%	0.8%	5.3%	12%	0.2%	2	(1)
Brent Oil	64	2.6%	-1.5%	0.5%	34%	1.6%	1	0
Natural Gas	2.5	10.0%	1.9%	27.3%	33%	-2.1%	0	(4)
Gasoline	1.7	0.1%	-6.2%	-4.8%	25%	0.2%	3	3
Heating Oil	1.9	-1.8%	0.0%	13.9%	84%	0.1%	0	2
Carbon	24.4	-2.1%	-3.0%	-	-	-0.2%	(4)	(4)
Wheat	5.3	2.6%	9.7%	1.0%	-75%	-0.4%	(2)	0
Corn	3.7	-4.2%	-3.8%	-3.8%	-64%	-2.7%	(2)	0
Soybeans	9	-3.0%	1.0%	-6.2%	-50%	-1.6%	(1)	2
Sugar	0.1	3.8%	5.4%	3.6%	49%	-0.7%	0	(1)
Cotton	0.6	-0.3%	-2.6%	-2.0%	-268%	-1.7%	(2)	(1)
Coffee	1.2	18.5%	20.6%	-	96%	-0.9%	1	(3)
Soybean Oil	0.3	-1.7%	5.5%	-8.3%	15%	-0.5%	1	0
Cocoa	2,647	8.7%	11.2%	-	98%	1.9%	4	0
Aluminium	1,741	0.4%	-2.8%	14.2%	29%	0.8%	1	(2)
Copper (COMEX)	2.6	-1.0%	-2.6%	-4.7%	17%	-0.5%	0	1
Copper (LME)	5,863	-0.8%	-2.4%	-34.9%	52%	-0.1%	0	1
Zinc	2,303	-9.9%	-10.1%	-25.0%	60%	0.3%	2	3
Nickel	14,444	-14.0%	1.1%	-55.5%	11%	-0.1%	1	(1)
Lead	1,926	-13.8%	-4.1%	-8.6%	3%	-0.3%	0	4
Tin	16,478	-1.1%	-10.9%	-18.3%	6%	0.0%	0	(1)
Gold	1,457	-2.8%	4.2%	-	3%	-	2	(2)
Silver	17	-5.8%	4.6%	-	-6%	-	(2)	(2)
Platinum	900	-3.1%	3.6%	-	19%	-	2	0
Palladium	1,771	1.6%	17.2%	-	-17%	-	0	4
Live Cattle	1.2	6.9%	5.6%	-	92%	-4.4%	1	0
Lean Hogs	0.6	-6.0%	-15.9%	-	-30%	-9.9%	(4)	(3)
Feeder Cattle	1.4	-2.6%	0.8%	-	295%	-0.3%	0	4

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

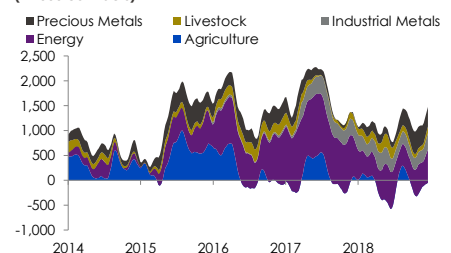
Performance²

	- 1 Mth	- 6 Mth	- 12 Mth
All Commodities	-1.0%	0.8%	-1.4%
Energy	1.8%	-3.4%	-7.5%
Industrial Metals	-4.8%	0.2%	0.0%
Precious Metals	-3.7%	13.7%	18.0%
Agriculture	0.0%	0.9%	-4.5%
MSCI World	3.0%	10.1%	17.5%
US Aggregate Bond	0.5%	4.7%	10.9%

Bloomberg TR indexes for basket returns, data to Monday 25 November 2019. Source: Wisdomtree, Bloomberg

CFTC Net Speculative Positioning

(in '000 contracts)



Source: Wisdomtree, Commodity Futures Trading Commission (CFTC), Bloomberg

- Information not available. Green = returns positive, inventories falling, positioning rising, roll yield positive. Red = the opposite. Black = neutral. 1 Detailed explanation of the matrix calculations can be found at the end of this report. 2 All prices are futures prices to Monday 25 Nov 19. 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 COIR net positioning as at Sep 10, 2019 and Sep 13, 2019 respectively, % change from previous month. 5 Calculated as % difference between front month and second month futures prices on report date.

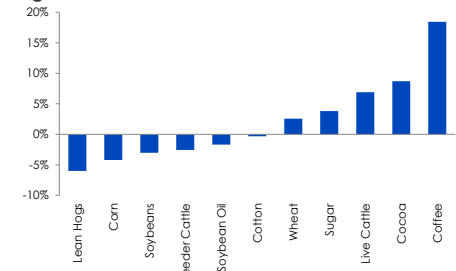
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Sector Overview

Agriculture

- Coffee prices staged a strong price recovery over the prior month rising by 18.5%. The primary driver was expectations of a supply deficit on the arabica coffee market owing to a lower Brazilian crop which resulted in a short covering rally. Speculative short positions have been scaled back by 47% over the period. We expect the recovery of coffee prices to lose steam given that net short positions are already quite low and the momentum from the short covering rally is likely to abate.
- Soybean prices slumped 3% over the prior month owing to rising uncertainty surrounding the completion of first phase of the US-China trade conflict. Since the 2019/20 fiscal year began on 1 September 2019 the US has received Chinese soybean orders worth 8mn tons of which 3mn tons have already been shipped, much higher than a year ago but much lower compared to level of shipments 18.6mn tons prior to the trade wars two years ago. Soybean demand from China is likely to reduce owing to lower feed demand caused by the spread of the African swine fever. We expect soybean prices to remain under pressure owing to the high level of global ending soybean stocks as confirmed in the latest World Agricultural Supply and Demand Estimate report (WASDE) by the US Department of Agriculture (USDA). USDA also envisages 84mn acres of acreage for soybeans in the upcoming year which is 10% up on 2019.

Agriculture - November Returns*

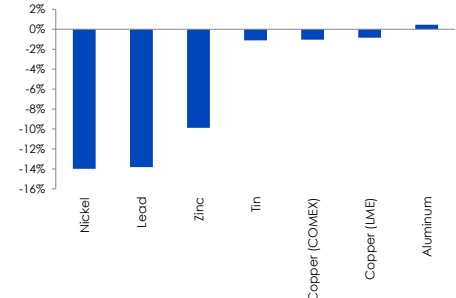


Source: Bloomberg

Industrial Metals

- Nickel has had a rollercoaster ride. After a remarkable run this year through to September, the metal has partially retreated for reasons which are not necessarily obvious. The drop from the top can potentially be explained by a couple of important factors. Firstly, markets may have realised that the sudden rally on the back of Indonesia's ore export ban, which was brought forward by two years to January 2020, was overdone. This potential shift in sentiment is not necessarily reflected in speculative markets as positioning remains relatively elevated. Secondly, the rollercoaster ride called trade war continues to go through loops leaving the markets disoriented. Latest forecasts from the International Nickel Study Group (INSG) point towards demand weakness in the year ahead narrowing the current supply deficit for the metal. All forecasts however depend heavily on what happens on the trade front and its subsequent impact on the global economy.
- Last month we observed that zinc and lead experienced a slight recovery as the International Lead and Zinc Study Group (ILZSG) reported higher supply deficits in the first half of this year compared to last year. Both industrial metals remain in supply deficits. We attribute the price weakness last month primarily to trade woes bearing their brunt on industrial metals. Speculative positioning for both lead and zinc has retreated after a healthy build-up in the month before. As with Nickel, we take ILZSG's forecast of supply surpluses for both metals next year with a pinch of salt as any such forecast is heavily dependent on developments on the trade front and historically, they have been revised by wide margins.

Industrial Metals - November Returns*

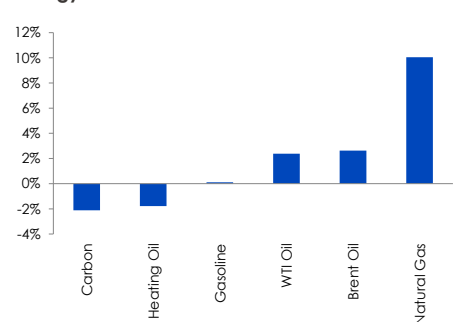


Source: Bloomberg

Energy

- The growing consensus of a global supply surplus in the first half of 2020, is likely to be a catalyst for the Organization of the Petroleum Exporting Countries (OPEC) and its partners to at least extend current supply cuts if not deepen them when they meet to decide on policy over 5-6th December 2020. Saudi Arabia – the largest member of the cartel – is on the cusp of floating part of its national oil company. Even though it has vastly reduced the estimated valuation of the company, it can't afford for oil prices to slip further and hence will apply pressure to all OPEC members to continue to cut. Non-OPEC supply is expected to rise especially from Brazil, Norway and Guyana. While the International Energy Agency and Energy Information Administration expect US oil supply to continue to expand, we are sceptical that this can be achieved if WTI prices do not rise substantially. Under current weak prices, rig counts in the US are falling. Production is only able to remain stable because drilled-but-uncompleted wells are being utilised.
- The International Marine Organization 2020 rules are coming into play in January and that is acting as a catalyst for higher refining activity. Refiners, ship owners and ports are increasing their readiness for the implementation of the new rules which will largely reduce the sulphur content of the fuels used in ships. Lower sulphur crudes such as WTI and Brent which will require less refining than higher sulphur crudes stand to benefit.
- Natural gas prices have seen a seasonal price increase over the past month, even though there has been a pull-back in recent weeks. The National Oceanic and Atmospheric Administration's forecast for a mild winter doesn't bode well for natural gas prices. However, with low expectations, the potential for an upside surprise could be high if the weather forecasts turn abruptly.

Energy - November Returns*

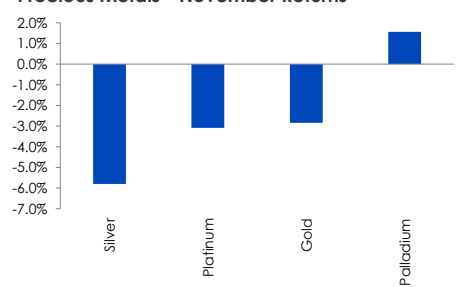


Source: Bloomberg

Precious Metals

- The bull rally in equity markets, triggered initially in October following healthy third quarter US earnings and economic data, continued as cautious optimism developed in markets regarding a potential phase one trade deal between US and China. Both gold and silver retreated during the month as net speculative positioning pulled back slightly following meaning accumulation since May. Despite the pullback, gold's speculative positioning is relatively elevated reflecting a recognition among market participants of the value of holding gold to hedge against a range of geopolitical and macroeconomic risks. These include US-China trade wars which are far from over, upcoming UK elections and Brexit uncertainty, potential impeachment of President Trump and fragile global economic growth.
- Palladium has been the exception within the precious metals' basket in the last two months continuing its upward momentum unabated. Fundamentally, the metal is undersupplied relative to its strong demand in the automobile industry. With tighter emission standards and increasing adoption of hybrid cars, palladium's demand is expected to remain alive. It is this dynamic in its industrial application that has defied its correlation with other precious metals in the last two months.

Precious Metals - November Returns*



Source: Bloomberg

*Note: all returns are based on front month futures prices in the month to Monday 25 November 2019. Historical performance is not an indication of future performance and any investments may go down in value.

Technical Overview (as of Nov 25, 2019)

Positioning

- Net positioning in Ultra-low Sulphur Diesel (heating oil) has risen as we approach the end of 2019. Demand for the low sulphur fuel will rise as traditional bunker fuels will no longer be compliant with International Marine Organization rules from the beginning of 2020 without ships installing scrubber technology.
- Net speculative positioning on cocoa futures rose 98% owing to a 45% increase in long positions over the period. Concerns about a shortage in the short-term availability of cocoa beans helped revive sentiment on the cocoa market.
- A short covering rally in which short positions on coffee futures declined by 47% helped drive net speculative positioning up by 96% over the period.
- Net speculative positioning on wheat futures declined by 75%. According to USDA latest report, global 2019/20 wheat ending stocks are forecasted to rise to a record 288.3mn tons owing to global supplies rising more than consumption.
- Cotton futures faced the sharpest decline in net speculative positioning by 268% over the period likely owing to the uncertainty surrounding the US-China trade conflict, as China is a major supplier of cotton textiles to the US.

Inventories

- Natural gas inventories continued to build during the month in line with seasonal trends as we approach winter when heating demand picks up. Heating oil inventories followed suit for similar reasons.
- Sugar inventories rose 3.6% over the prior 3 months. According to USDA latest projections in November, global production for 2019/20 is estimated lower by 6mn tons to 174mn primarily due to the 5mn drop in India resulting from lower area and expected yields.
- Inventories for nickel, copper, zinc, tin and lead in storage houses on the London Metal Exchange (LME) and Shanghai Futures Metal Exchange (SHFE) are down 55.5%, 34.9%, 25.0%, 18.3% and 8.6% respectively over the last 3 months.

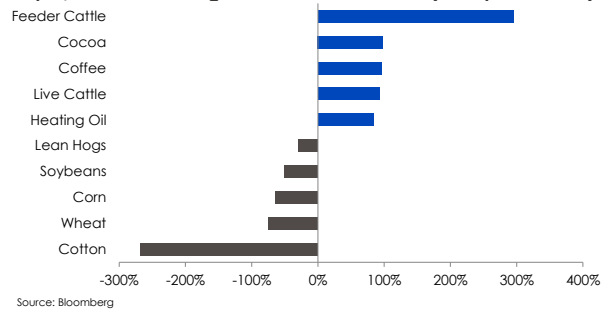
Curve Dynamics

- Of the major commodities, Brent offers the best front month roll yields. That is indicative of near-term tightness in the commodity with crude production in many OPEC nations falling. Prices further along the curve are lower as there is potential for higher supply in certain non-OPEC countries in 2020.
- All agricultural commodities, with the exception of cocoa are in contango, with lean hogs showing the steepest futures curve, exhibiting a negative roll of 9.9%. In sharp contrast, cocoa is exhibiting a positive roll return of 1.9%, slightly less than the prior week at 2.9%.
- Only aluminium and zinc futures curves are in slight backwardation at the front end offering positive roll yields of 0.8% and 0.3% respectively.

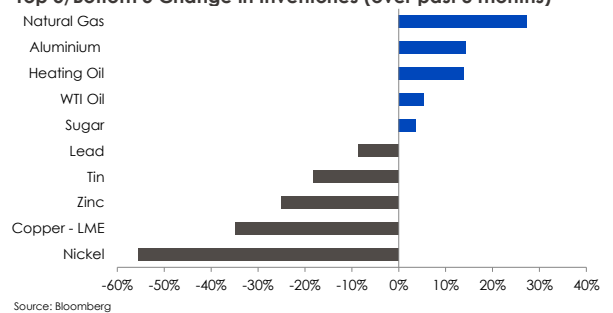
Technical

- Gasoline prices are 6.2% below the 200-day moving average (dma), reflecting the fact that we are far away from summer-driving peak prices. However, current prices are 2.4% above the 50-day moving average, indicating moderate strength in the current season.
- Coffee prices staged a strong price recovery and is trading 20% above its 200-dma primarily owing to a short covering rally. However, we expect the price momentum to abate as net short positions are quite low and the support from this side is largely exhausted.
- Wheat prices are trading 9.7% above its 200-dma, however the overhang of record high global ending wheat stocks is likely to cap any further upside. Ongoing trade related weakness in industrial metals have resulted in tin, zinc and lead to be trading notably below their 200-dma at -10.9%, -10.1% and -4.1% respectively.
- Owing to its strong industrial demand and relatively limited supply, palladium has continued its strong rally and its price has risen 48% year-to-date. Palladium's price now stands at 17.2% above its 200-dma.

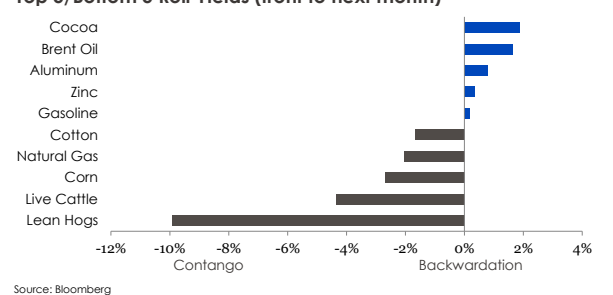
Top 5/Bottom 5 Change in CFTC Net Positions (over past month)¹



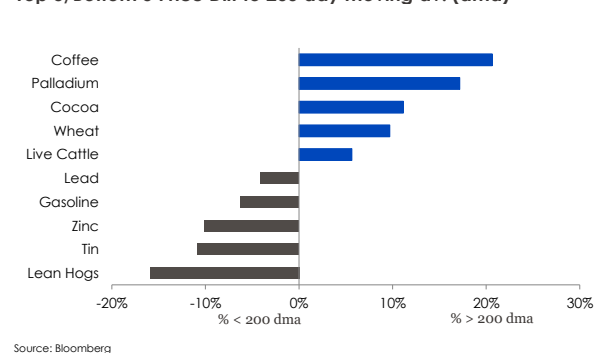
Top 5/Bottom 5 Change in Inventories (over past 3 months)²



Top 5/Bottom 5 Roll Yields (front to next month)³



Top 5/Bottom 5 Price Diff to 200 day moving av. (dma)⁴



¹ CFTC futures net positioning as at report date, percent change from previous month. ² Percent change in inventory based on 3 month change (in %).

³ Roll yields calculated as percent change between front month futures price and next month futures price on Nov 25, 2019.

⁴ Percent difference between the front month futures price and its 200 day moving average on Nov 25, 2019.

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Summary Tables



PRICES ¹	Current	Unit	1 Month	3 Month	6 Month	1 Year	ROLL YIELDS ²	Unit	Exchange	25-Nov	1 Week	1 Month	3 Month
Energy							Energy						
WTI Oil	58	USD/bbl.	2.4%	7.1%	-1.1%	15.1%	WTI Oil	USD/bbl.	NYMEX	0.2%	-0.2%	-0.1%	0.3%
Brent Oil	64	USD/bbl.	2.6%	7.3%	-7.3%	8.2%	Brent Oil	USD/bbl.	ICE	1.6%	1.5%	0.5%	0.8%
Natural Gas	2.5	USD/MMBtu	10.0%	17.6%	-2.6%	-41.2%	Natural Gas	USD/MMBtu	NYMEX	-2.1%	-2.4%	-6.5%	0.5%
Gasoline	1.7	USD/gal.	0.1%	1.9%	-13.4%	20.4%	Gasoline	USD/gal.	NYMEX	0.2%	0.3%	2.3%	7.2%
Heating Oil	1.9	USD/gal.	-1.8%	7.1%	-1.4%	3.6%	Heating Oil	USD/gal.	NYMEX	0.1%	0.2%	0.5%	-0.4%
Carbon	24.4	EUR/MT	-2.1%	-2.6%	-3.8%	20.9%	Carbon	EUR/MT	ICE	-0.2%	-0.2%	-0.2%	0.0%
Agriculture							Agriculture						
Wheat	5.3	USD/bu.	2.6%	11.7%	8.5%	6.3%	Wheat	USD/bu.	CBOT	-0.4%	-0.7%	-1.1%	-0.6%
Corn	3.7	USD/bu.	-4.2%	3.0%	-8.3%	3.2%	Corn	USD/bu.	CBOT	-2.7%	-2.5%	-2.7%	-2.5%
Soybeans	8.9	USD/bu.	-3.0%	5.8%	7.6%	1.3%	Soybeans	USD/bu.	CBOT	-1.6%	-1.4%	-1.5%	-1.5%
Sugar	0.1	USD/lb.	3.8%	11.8%	9.9%	2.8%	Sugar	USD/lb.	NYBOT	-0.7%	-0.9%	-0.6%	-9.0%
Cotton	0.6	USD/lb.	-0.3%	11.6%	-5.4%	-13.7%	Cotton	USD/lb.	NYBOT	-1.7%	-2.7%	-1.4%	-0.7%
Coffee	1.2	USD/lb.	18.5%	27.2%	26.3%	9.9%	Coffee	USD/lb.	NYBOT	-0.9%	-3.3%	-3.3%	-3.4%
Soybean Oil	0.3	USD/lb.	-1.7%	7.4%	12.7%	10.1%	Soybean Oil	USD/lb.	CBOT	-0.5%	-0.6%	-0.7%	-0.5%
Cocoa	2,647	USD/MT	8.7%	19.9%	7.3%	28.4%	Cocoa	USD/MT	NYBOT	1.9%	2.9%	-1.9%	-1.8%
Industrial Metals							Industrial Metals						
Aluminum	1,741	USD/MT	0.4%	-0.7%	-2.2%	-10.8%	Aluminum	USD/MT	LME	0.8%	-0.2%	-0.3%	-0.5%
Copper	2.6	USD/lb.	-1.0%	4.6%	-2.2%	-4.3%	Copper	USD/lb.	COMEX	-0.5%	-0.5%	-0.3%	-0.2%
Copper (LME)	5,863	USD/MT	-0.8%	4.2%	-1.4%	-5.8%	Copper (LME)	USD/MT	LME	-0.1%	-0.1%	-0.1%	-0.1%
Zinc	2,303	USD/MT	-9.9%	1.9%	-13.6%	-10.4%	Zinc	USD/MT	LME	0.3%	0.1%	0.7%	0.1%
Nickel	14,444	USD/MT	-14.0%	-8.1%	16.9%	33.0%	Nickel	USD/MT	LME	-0.1%	-0.1%	0.0%	0.1%
Lead	1,926	USD/MT	-13.8%	-7.2%	5.7%	-1.6%	Lead	USD/MT	LME	-0.3%	-0.4%	0.2%	0.1%
Tin	16,478	USD/MT	-1.1%	3.4%	-15.4%	-12.5%	Tin	USD/MT	LME	0.0%	-0.2%	-0.1%	0.1%
Precious Metals							Precious Metals						
Gold	1,457	USD/t oz.	-2.8%	-4.6%	13.5%	19.1%	Gold	USD/t oz.	COMEX	-0.5%	-0.5%	-0.4%	-0.3%
Silver	16.9	USD/t oz.	-5.8%	-3.0%	16.3%	18.6%	Silver	USD/t oz.	COMEX	-0.8%	-0.8%	-0.8%	-0.8%
Platinum	900	USD/t oz.	-3.1%	5.3%	12.1%	6.6%	Platinum	USD/t oz.	NYMEX	-0.6%	-0.6%	-0.5%	-0.6%
Palladium	1,771	USD/t oz.	1.6%	21.8%	33.6%	58.9%	Palladium	USD/t oz.	NYMEX	0.0%	0.2%	0.3%	-0.2%
Livestock							Livestock						
Live Cattle	1.2	USD/lb.	6.9%	14.4%	7.7%	2.2%	Live Cattle	USD/lb.	CME	-4.4%	-5.1%	-3.5%	5.0%
Lean Hogs	0.6	USD/lb.	-6.0%	2.9%	-29.4%	3.3%	Lean Hogs	USD/lb.	CME	-9.9%	-10.6%	-11.5%	0.5%
Feeder Cattle	1.4	USD/lb.	-2.6%	3.4%	-0.9%	-5.0%	Feeder Cattle	USD/lb.	CME	-0.3%	1.3%	0.2%	3.6%
CFIC NET POSITIONING ³	Current	5 Yr Average	1 Month	6 Month	1 Year	INVENTORY LEVELS ⁴	Current	5 Yr Average	1 Month	3 Month	6 Month		
Energy						Energy							
WTI Oil	438,961	438,305	392,752	520,957	411,794	Oil - US	450,380	-2.1%	3%	5%	-5%		
Brent Oil**	321,212	183,535	238,952	175,937	97,447	Oil - OECD Europe**	357	3%	-0.1%	0.5%	5%		
Natural Gas	-141,589	-114,300	-211,848	-61,841	25,925	Natural Gas - DOE	3,638	#NAME?	-2%	27%	95%		
Gasoline		72,315	63,079	89,929	77,496	Gasoline - DOE	220,846	1%	0%	-5%	-4%		
Heating Oil	-315	12,340	-1,974	-14,934	8,844	Heating Oil - DOE	11,438	-9%	1%	14%	13%		
Agriculture						Industrial Metals							
Wheat	4,905	-41,464	19,397	-21,613	-24,158	Aluminum	1,500,812	-39%	19%	14%	-14%		
Corn	-95,325	54,352	-58,128	-34,087	48,308	Aluminum - LME	1,230,025	-39%	27%	32%	2%		
Soybeans	41,348	35,938	83,107	-127,225	-48,525	Aluminum - SHFE	270,787	-40%	-8%	-29%	-50%		
Sugar	-104,865	43,728	-203,643	-140,412	25,316	Copper	391,234	-28%	-11%	-26%	0%		
Cotton	-9,046	53,302	5,395	-25,633	46,280	Copper - LME	216,100	-15%	-17%	-35%	16%		
Coffee	-2,177	-15,091	-50,621	-58,609	-25,889	Copper - SHFE	135,037	-27%	-6%	-14%	-22%		
Soybean Oil	100,628	35,452	87,709	-36,546	-45,022	Copper - COMEX	40,097	-61%	16%	-5%	26%		
Cocoa	62,169	19,937	31,350	16,512	-3,950	Nickel - LME	66,822	-80%	-13%	-55%	-59%		
Industrial Metals⁵						Zinc							
Copper (COMEX)	-33,611	875	-40,532	-22,175	11,940	Zinc	109,210	-76%	-11%	-25%	-31%		
Copper (LME)	26,874	33,551	17,625	25,176	45,346	Zinc - LME	59,500	-82%	2%	-15%	-42%		
Aluminum	167,156	155,125	129,479	146,617	165,839	Zinc - SHFE	49,710	-60%	-22%	-34%	-12%		
Nickel	34,785	18,539	31,324	18,448	2,611	Lead	102,257	-44%	17%	-9%	-3%		
Zinc	55,620	44,387	34,862	51,963	40,807	Lead - LME	67,100	-55%	-3%	-15%	-7%		
Lead	62,762	52,215	60,852	45,265	48,516	Lead - SHFE	35,157	10%	92%	6%	8%		
Tin	8,642	7,998	8,181	7,815	8,333	Tin	9,986	12%	-10%	-18%	1%		
Precious Metals						Tin - SHFE							
Gold	299,187	151,448	290,532	79,688	4,618	Tin - SHFE	3,551	-18%	-22%	-35%	-57%		
Silver	46,941	38,386	49,777	-20,114	-11,291	Agriculture							
Platinum	41,752	23,650	35,177	14,936	22,973	Wheat - USDA	288,280	47.1%	0.2%	1.0%	-1.6%		
Palladium	11,077	13,375	13,302	7,886	14,268	Corn - USDA	295,960	103%	-2.2%	-3.8%	-6.0%		
Livestock						Soybeans - USDA							
Live Cattle	100,539	80,176	52,261	105,173	83,548	Soybeans - USDA	95,420	51%	0.2%	-6.2%	-1.6%		
Lean Hogs	36,412	41,729	51,649	90,973	41,596	Sugar - USDA	49,580	38%	3.6%	3.6%	4%		
Feeder Cattle	6,537	6,608	1,653	-1,601	-1,496	Cotton - USDA	80,800	13%	-3.5%	-2.0%	6.8%		
						Coffee - USDA	33,545	-7%	-	-	-8%		
						Soybean Oil - USDA	3,410	-18%	-7.3%	-8%	-2%		

¹Performance of front month futures from 25 Nov 18 (1 Year), 25 May 19 (6 Month), 25 Aug 19 (3 Month) and 25 Oct 19 (1 Month) to 25 Nov 19.
²Roll return non-annualised from front month futures into second "1" month on 27 Aug 19 (3 Month), 25 Oct 19 (1 Month), 18 Nov 19 (1 Week), 25 Nov 19.

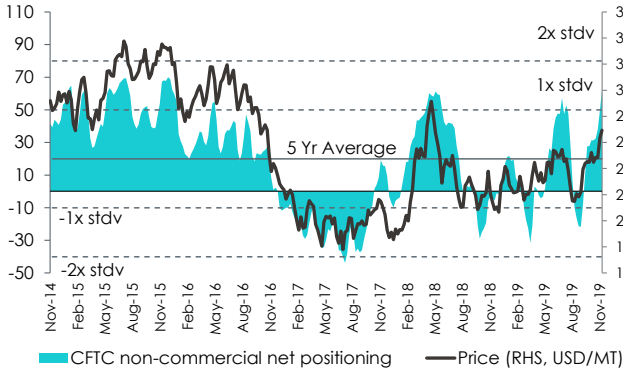
³Net positions in number of contracts. ⁴Current inventories relative to 1, 3, 6 months ago. Under the column "5 yr average" is the current inventory level relative to 5 year average inventory. For energy, 5 yr average is the average of the same month as report month over the past 5 years. SHFE started reporting inventory data from April 2015. ⁵All industrial metals positioning data (excluding copper) is sourced from LME COIR data in Bloomberg from 30 January 2018 (first available date) under post-MIFID rules. **Brent 5 Yr average of net positions from January 2011 as positions were not reported by CFIC before then and inventory data (OECD) reported with 3 month lag with current = Aug 2019.

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

CFTC Speculative Net Long Futures Positions

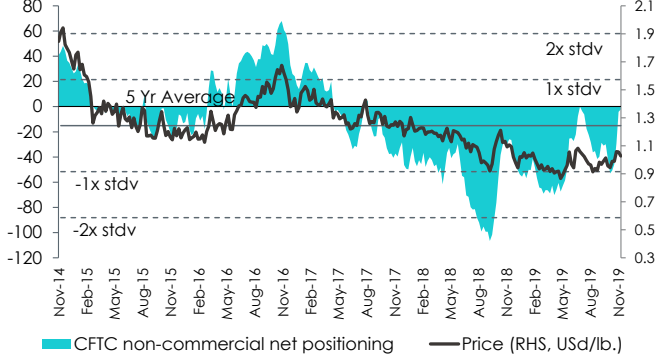
Agriculture

Cocoa



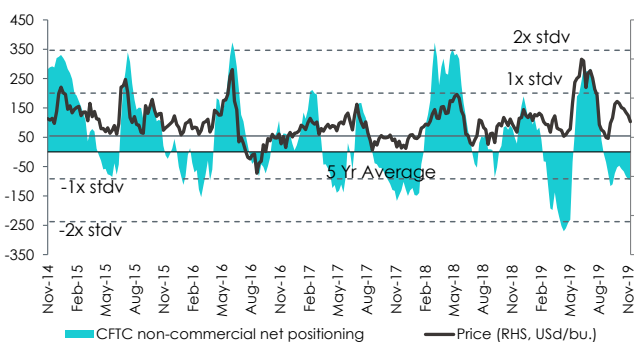
Source: Bloomberg, WisdomTree

Coffee



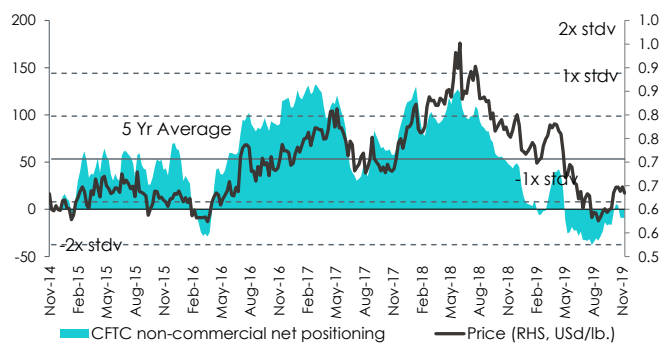
Source: Bloomberg, WisdomTree

Corn



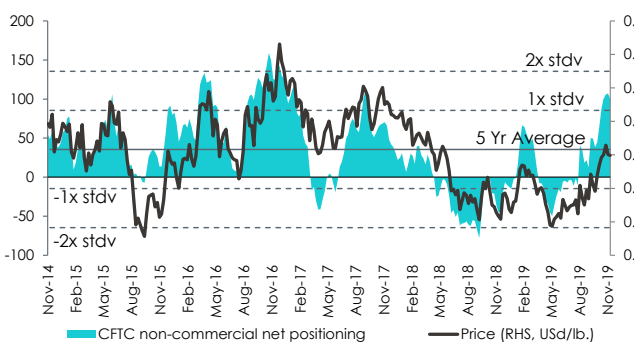
Source: Bloomberg, WisdomTree

Cotton



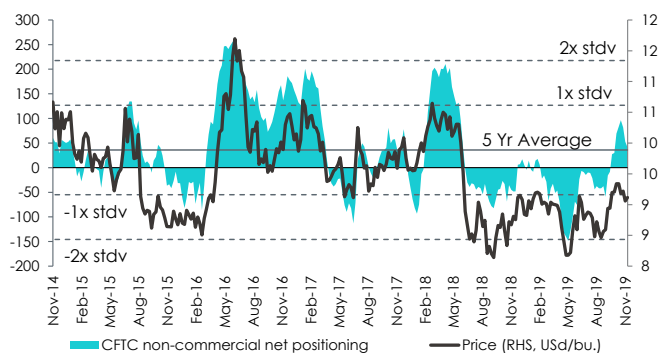
Source: Bloomberg, WisdomTree

Soybean Oil



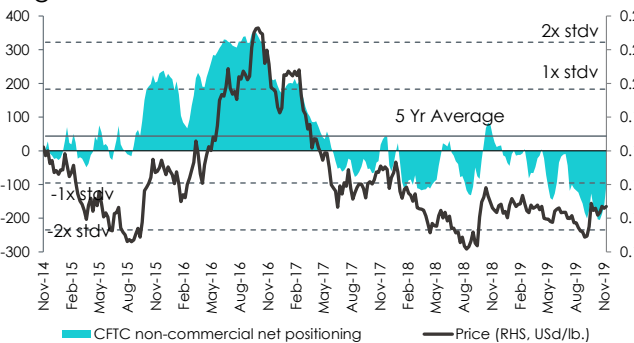
Source: Bloomberg, WisdomTree

Soybeans



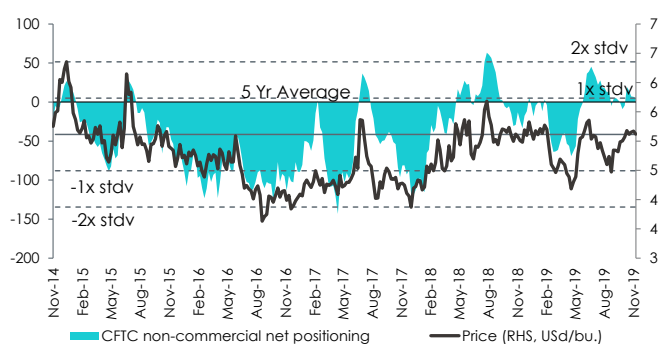
Source: Bloomberg, WisdomTree

Sugar



Source: Bloomberg, WisdomTree

Wheat



Source: Bloomberg, WisdomTree

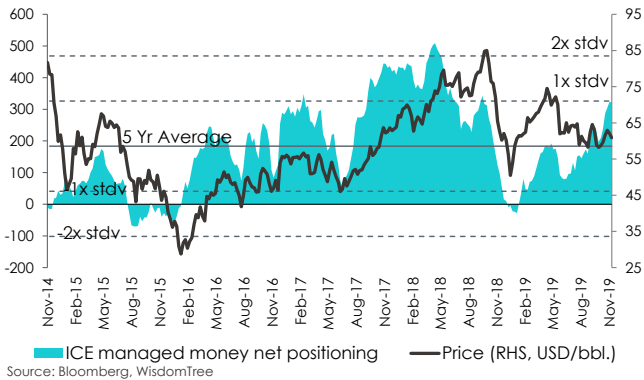
Note: positioning in '000 contracts. Standard deviation based on 5 year average CFTC non-commercial net positioning

All commodity futures price data is denominated in USD unless otherwise indicated. CFTC futures and LME COIR net positioning as at Sep 10, 2019 and Sep 13, 2019 respectively.

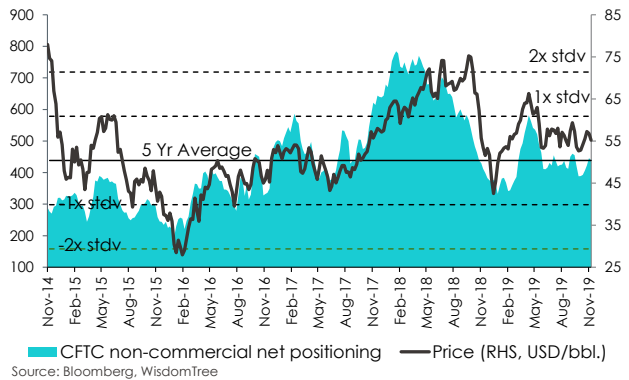
Historical performance is not an indication of future performance and any investments may go down in value.

Energy

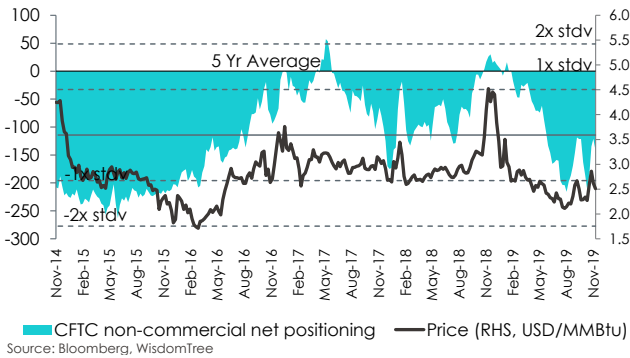
Brent Oil



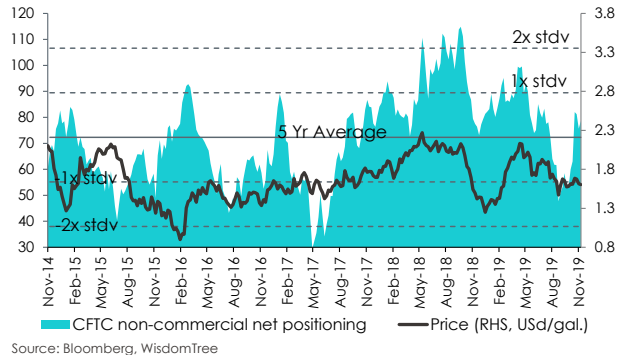
WTI Oil



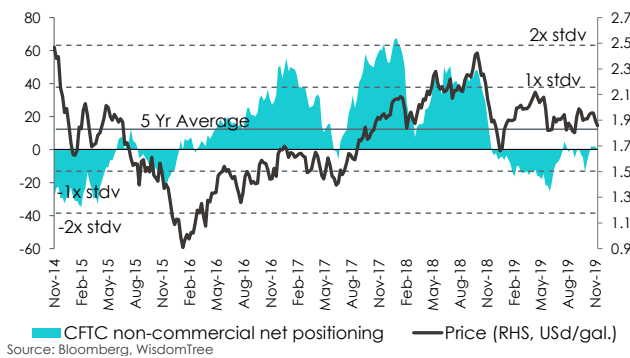
Natural Gas



Gasoline

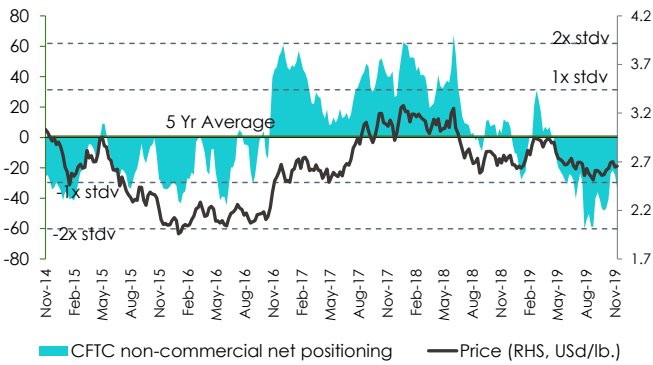


Heating Oil



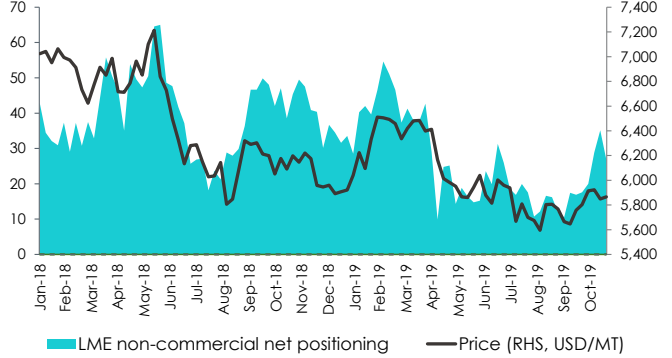
Industrial Metals

Copper (COMEX)



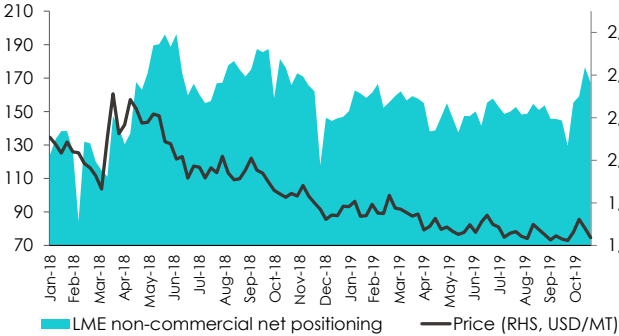
Source: Bloomberg, WisdomTree

Copper (LME)



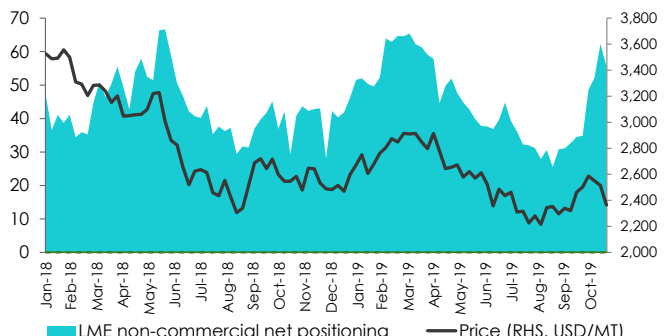
Source: Bloomberg, WisdomTree

Aluminum



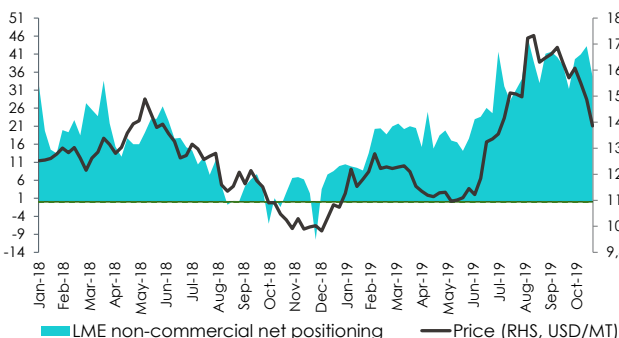
Source: Bloomberg, WisdomTree

Zinc



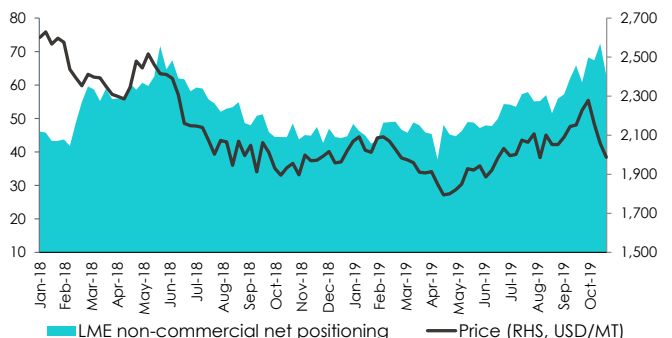
Source: Bloomberg, WisdomTree

Nickel



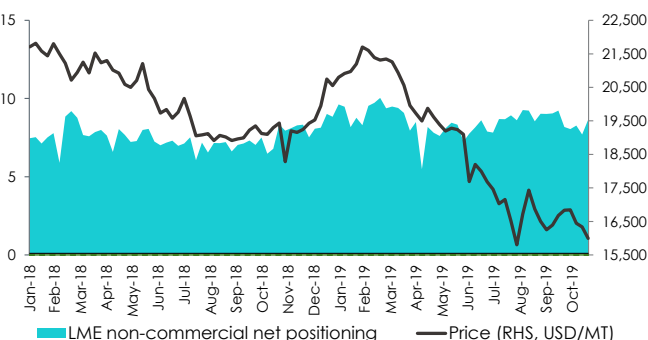
Source: Bloomberg, WisdomTree

Lead



Source: Bloomberg, WisdomTree

Tin



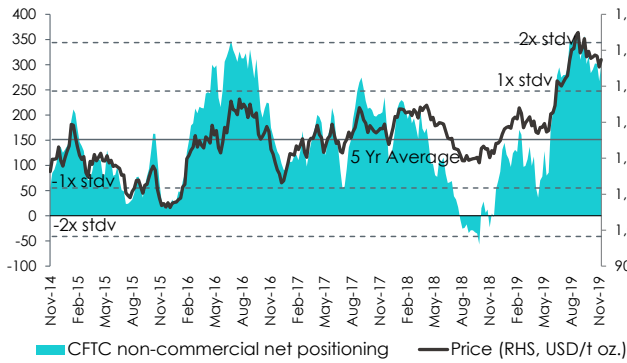
Source: Bloomberg, WisdomTree

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.

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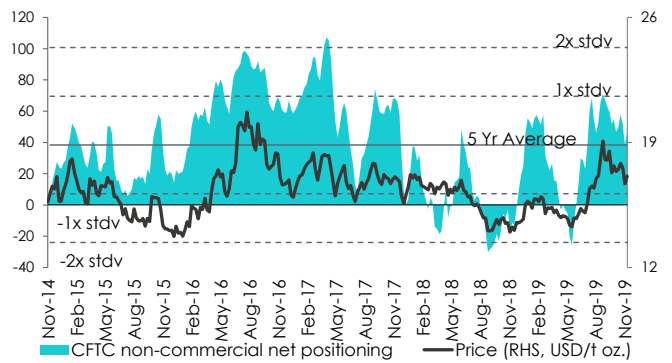
Precious Metals

Gold



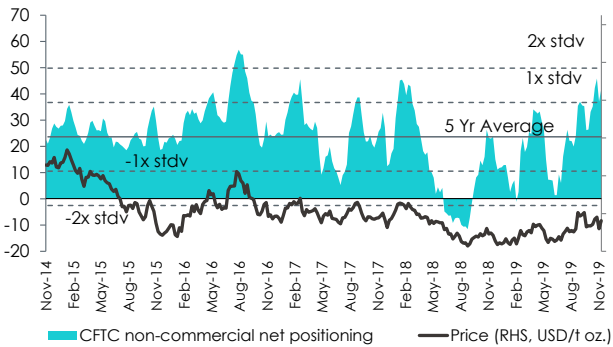
Source: Bloomberg, WisdomTree

Silver



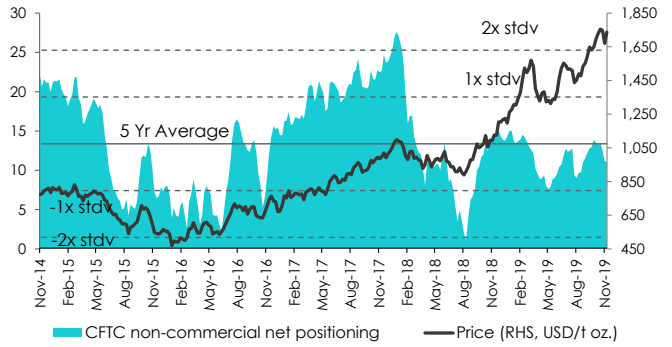
Source: Bloomberg, WisdomTree

Platinum



Source: Bloomberg, WisdomTree

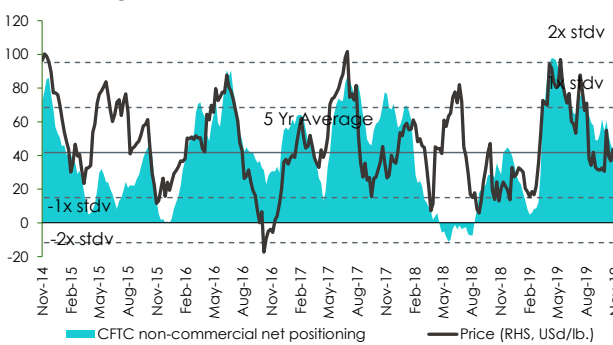
Palladium



Source: Bloomberg, WisdomTree

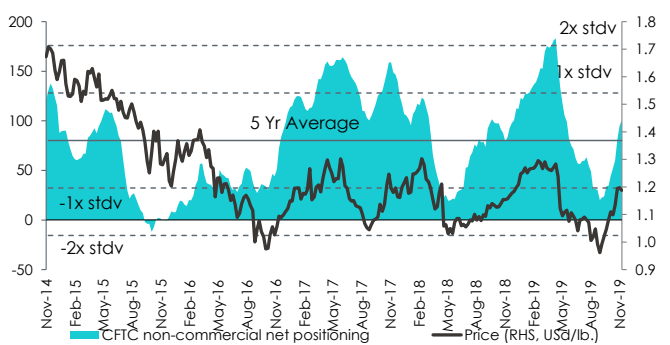
Livestock

Lean Hogs



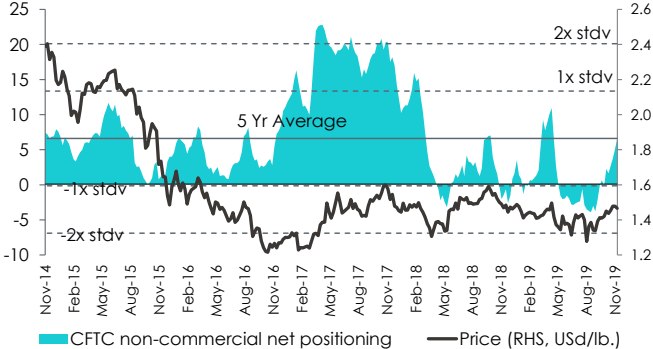
Source: Bloomberg, WisdomTree

Live Cattle



Source: Bloomberg, WisdomTree

Feeder Cattle



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.

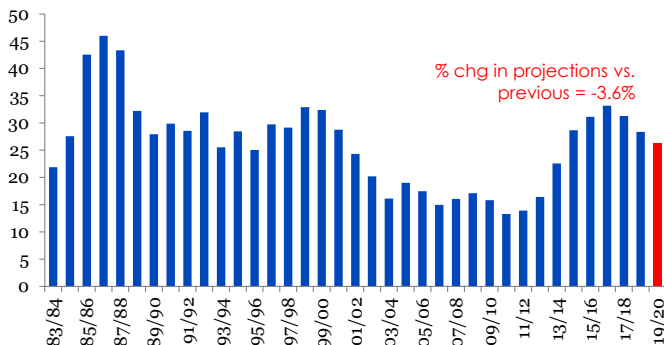
Historical performance is not an indication of future performance and any investments may go down in value.

Inventories

Agriculture

Corn - Stock to Use

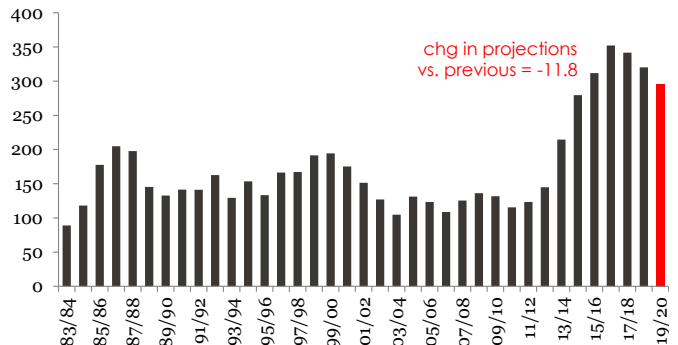
Annual data in %, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Corn - Ending Stocks

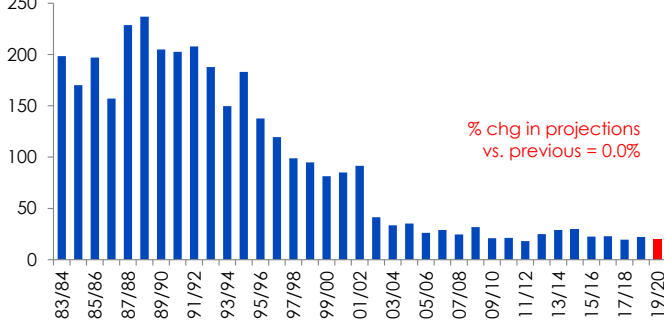
Annual data in mln tons, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Coffee - Stock to Use

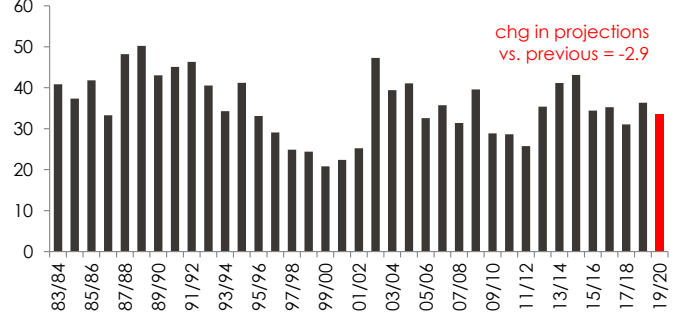
Annual data in %, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Coffee - Ending Stocks

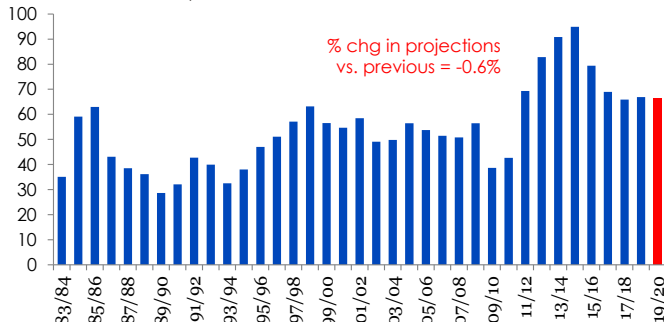
Annual data in mln bags (60 kg), from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Cotton - Stock to Use

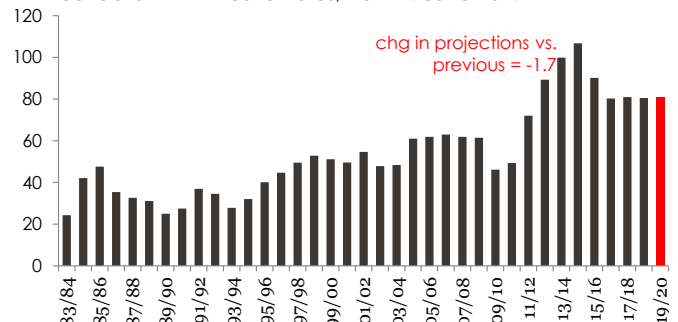
Annual data in %, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Cotton - Ending Stocks

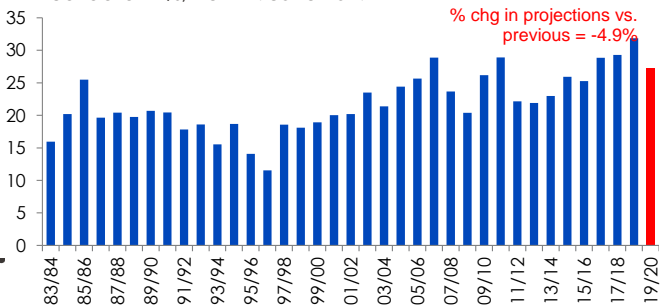
Annual data in mln 480 lb Bales, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Soybeans - Stock to Use

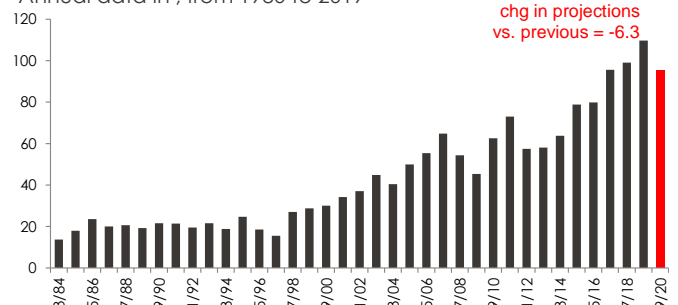
Annual data in %, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Soybeans - Ending Stocks

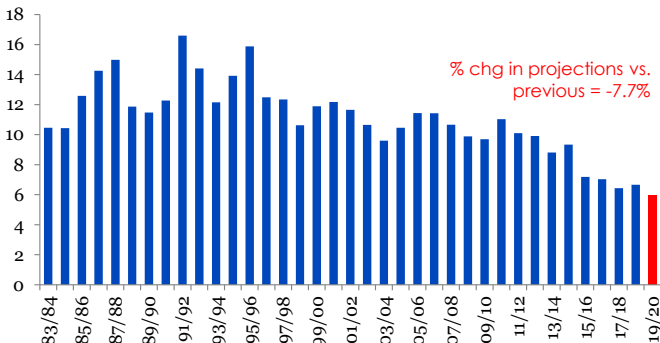
Annual data in , from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Soybean Oil - Stock to Use

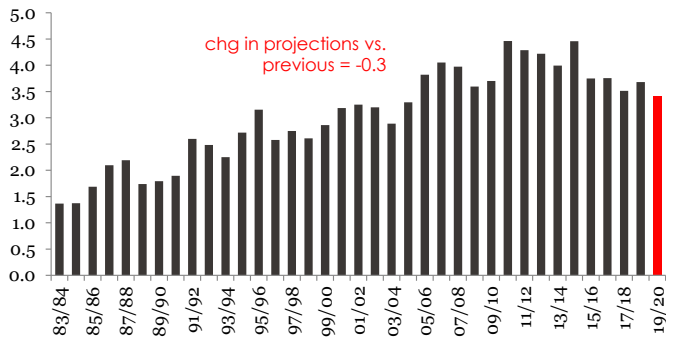
Annual data in %, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Soybean Oil - Ending Stocks

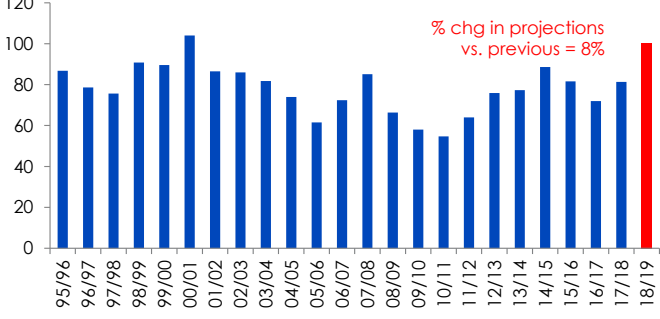
Annual data in mln Metric Tons, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Sugar - Stock to Use

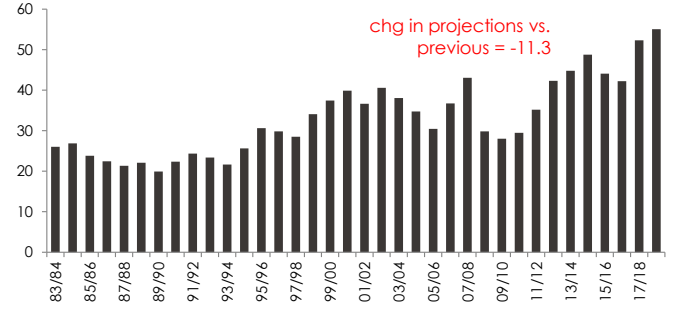
Annual data in %, from 1998 to 2019



Source: USDA, Bloomberg, WisdomTree

Sugar - Ending Stocks

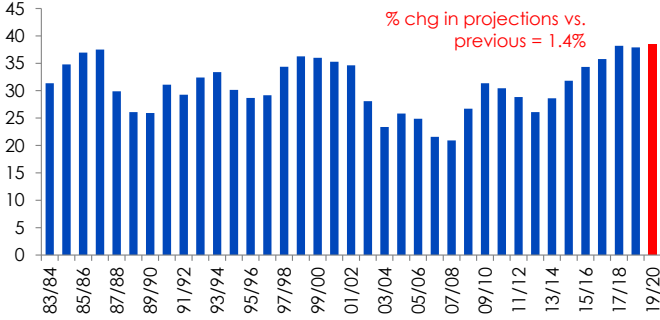
Annual data in mln Metric Tons, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Wheat - Stock to Use

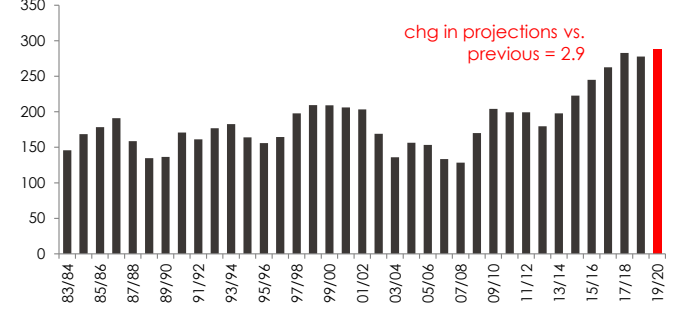
Annual data in %, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Wheat - Ending Stocks

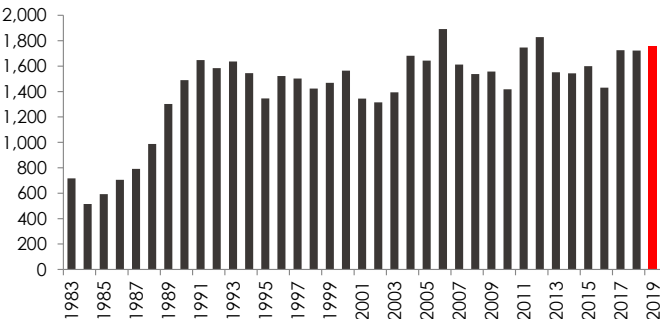
Annual data in mln tons, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Cocoa - Inventory

Annual data in '000 metric tons, from 1981 to 2019

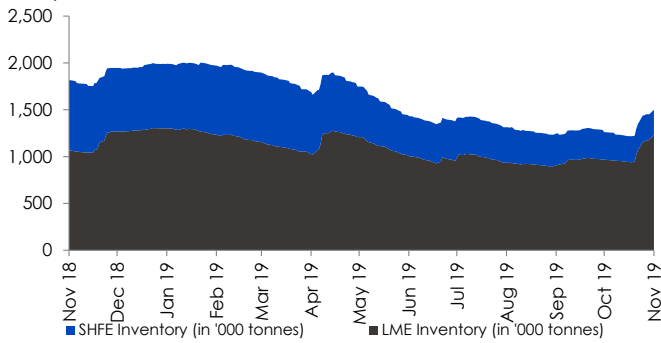


Source: International Cocoa Organisation, Bloomberg, WisdomTree

Industrial Metals

Aluminum Inventory

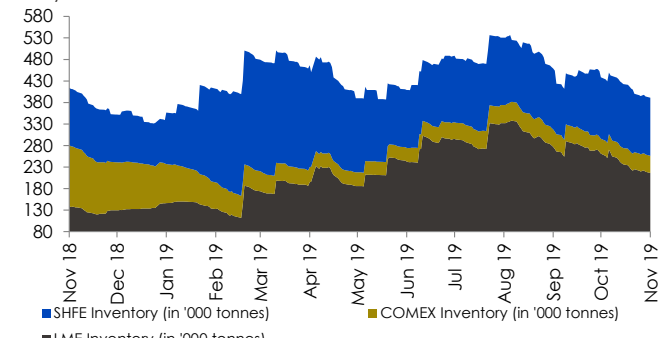
Daily data, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Copper Inventory

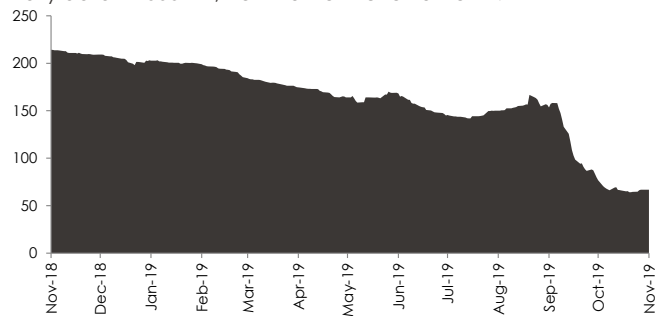
Daily data, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Nickel Inventory

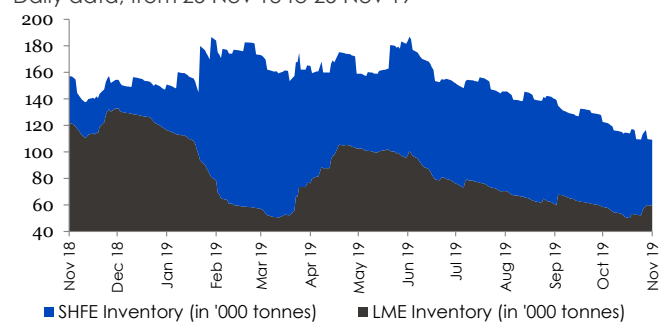
Daily data in '000 MT, from 25 Nov 18 to 25 Nov 19



Source: LME, Bloomberg, WisdomTree

Zinc Inventory

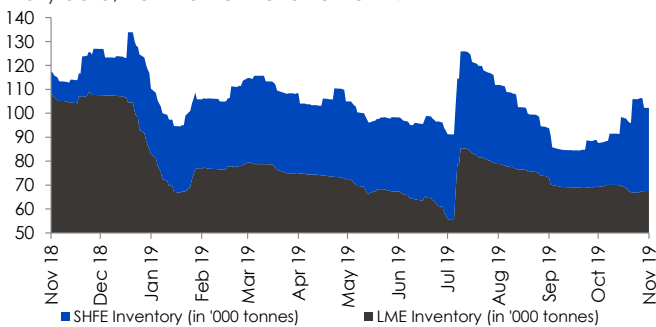
Daily data, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Lead Inventory

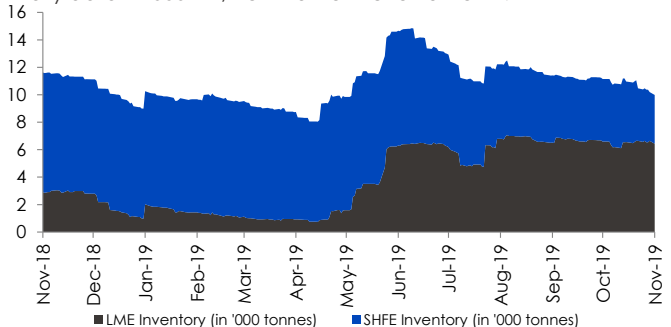
Daily data, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Tin Inventory

Daily data in '000 MT, from 25 Nov 18 to 25 Nov 19

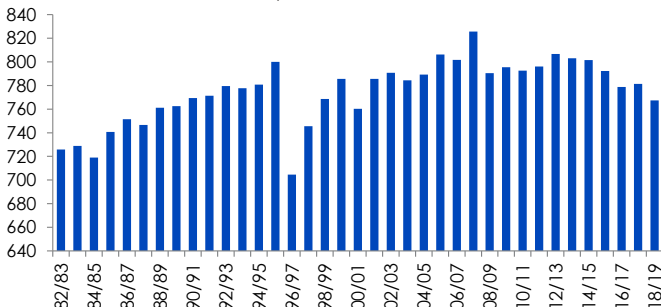


Source: LME, Bloomberg, WisdomTree

Livestock

Lean Hogs Inventory

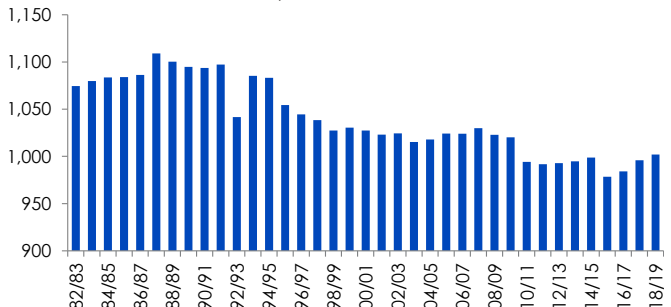
Annual data in mln Heads, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

Live Cattle Inventory

Annual data in mln Heads, from 1980 to 2019



Source: USDA, Bloomberg, WisdomTree

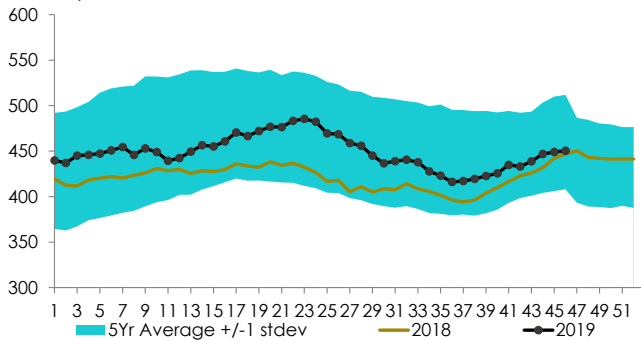
Note: Ending stocks, inventories and stock to use data from the USDA are annual with monthly update of 2018/2019 estimates.

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Energy

US Oil Inventory

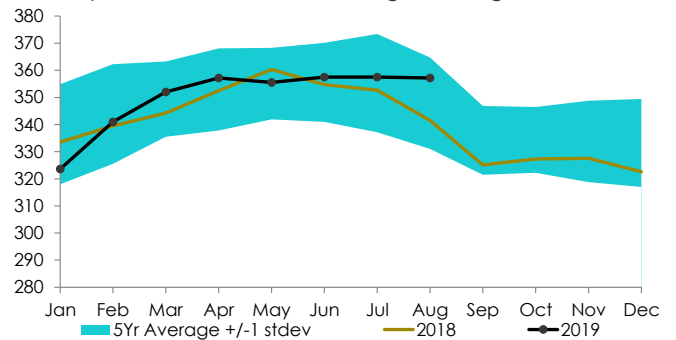
Weekly data in mln barrels, from Nov 14 to Nov 19



Source: DOE, Bloomberg, WisdomTree

OECD Europe Oil Industry Inventory

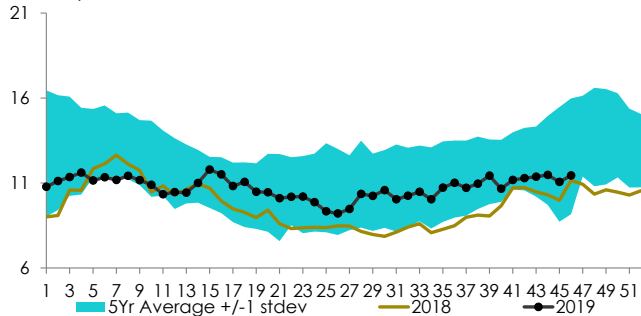
Monthly data in mln barrels, from Aug 14 to Aug 19



Source: IEA, Bloomberg, WisdomTree

Heating Oil Inventory

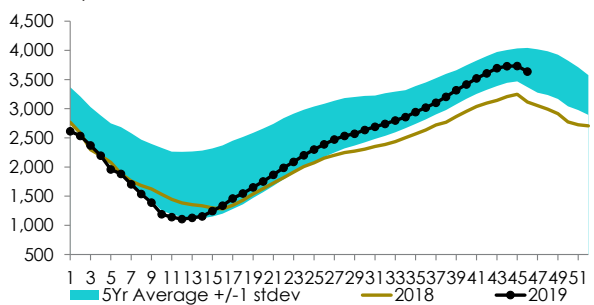
Weekly data in mln barrels, from Nov 14 to Nov 19



Source: DOE, Bloomberg, WisdomTree

Natural Gas Inventory

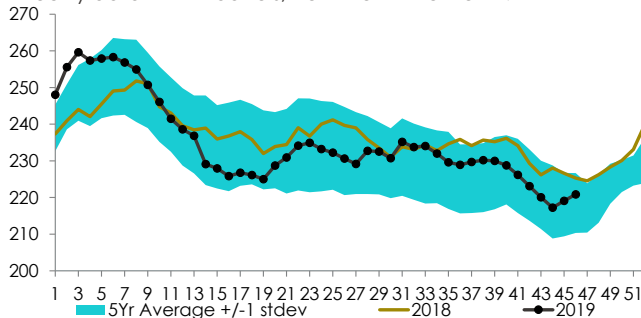
Weekly data in billion cubic feet, from Nov 14 to Nov 19



Source: DOE, Bloomberg, WisdomTree

Gasoline Inventory

Weekly data in mln barrels, from Nov 14 to Nov 19



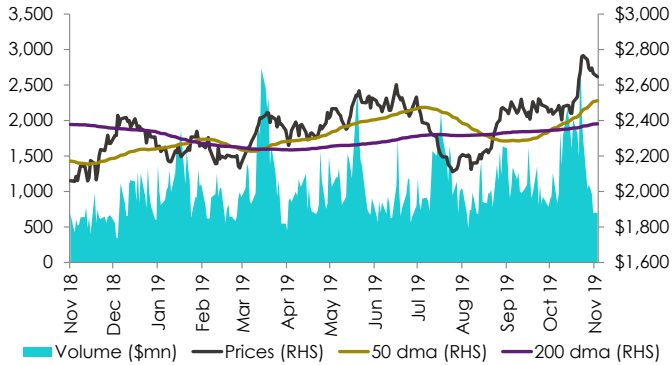
Source: DOE, Bloomberg, WisdomTree

Commodities Front Month Futures and Trading Volumes

Agriculture

Cocoa Front Month Futures Price

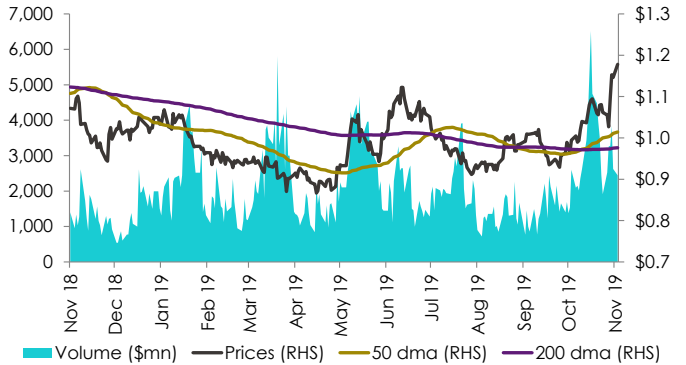
Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Coffee Front Month Futures Price

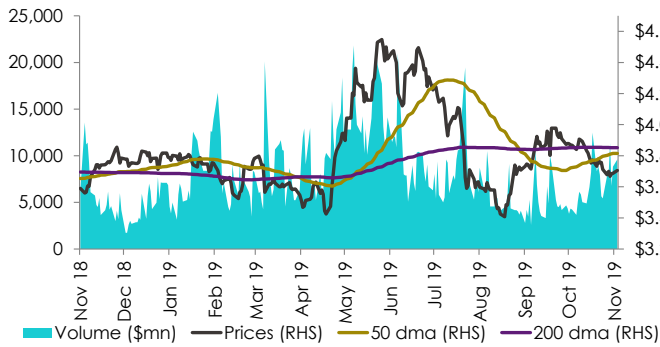
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Corn Front Month Futures Price

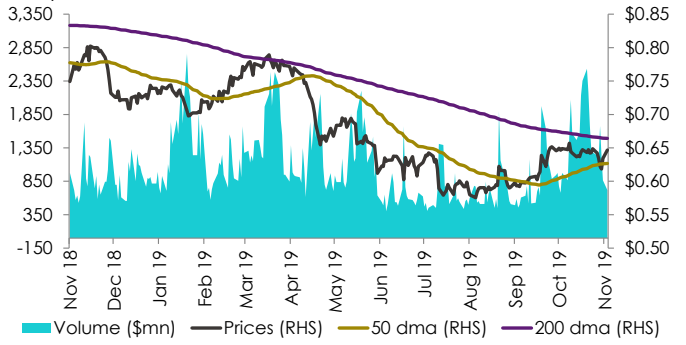
Daily data in USD/bu., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Cotton Front Month Futures Price

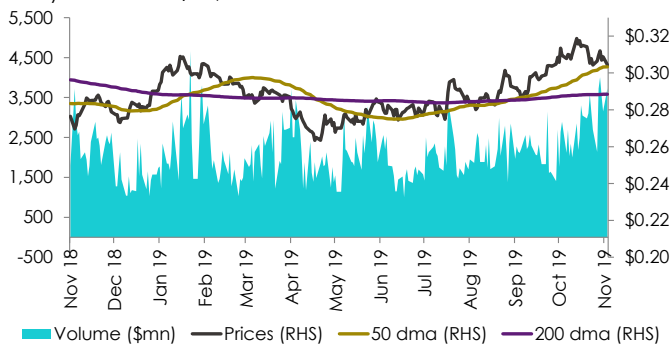
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Soybean Oil Front Month Futures Price

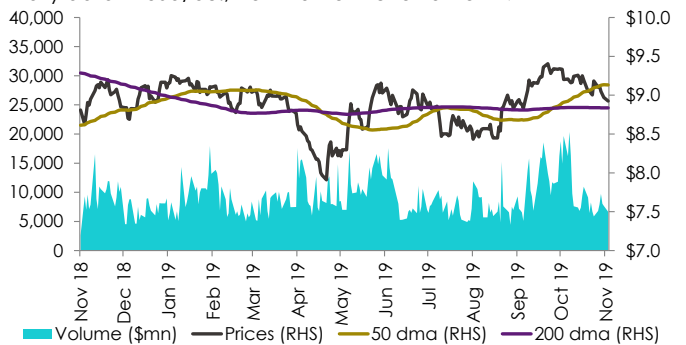
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Soybeans Front Month Futures Price

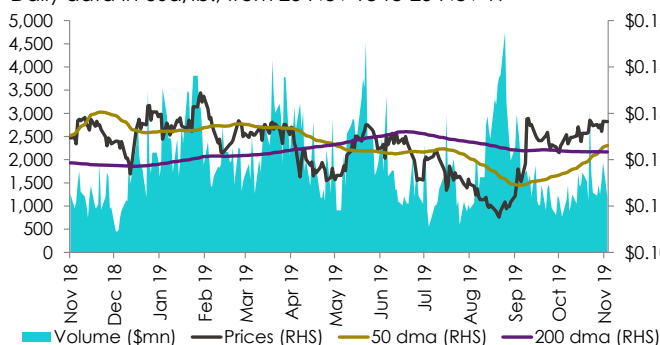
Daily data in USD/bu., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Sugar Front Month Futures Price

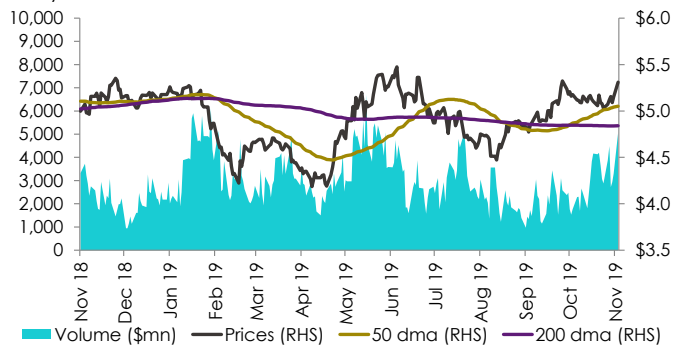
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Wheat Front Month Futures Price

Daily data in USD/bu., from 25 Nov 18 to 25 Nov 19



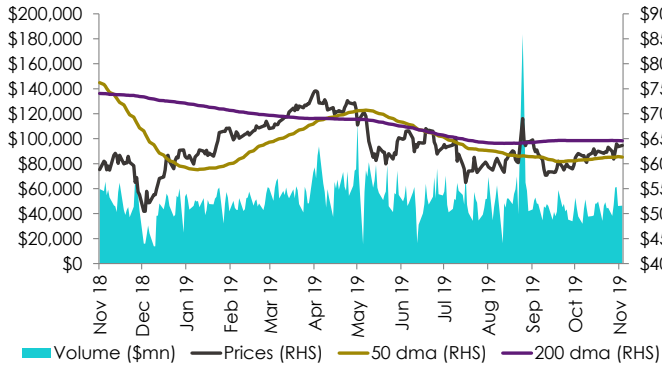
Source: Bloomberg, WisdomTree

Note: all commodity futures trading volume and price data is denominated in USD unless otherwise indicated.
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Energy

Brent Oil Front Month Futures Price

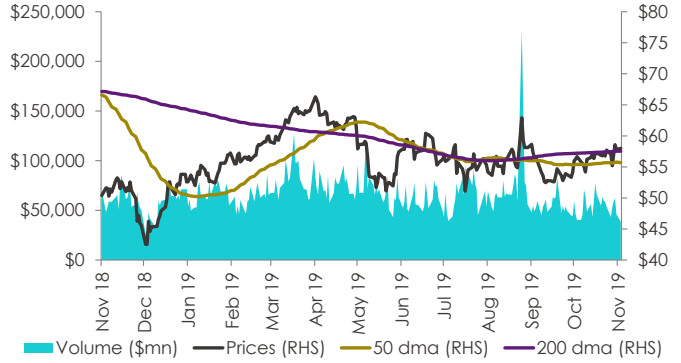
Daily data in USD/bbl., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

WTI Oil Front Month Futures Price

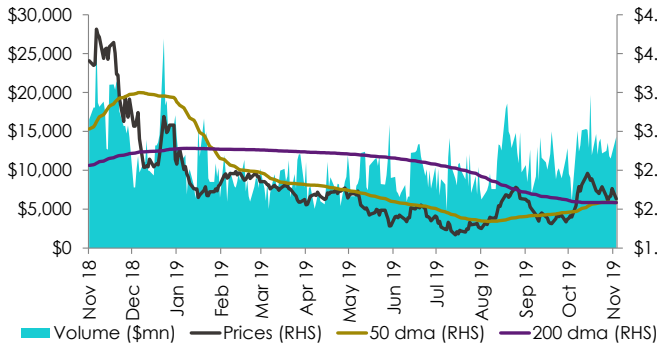
Daily data in USD/bbl., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Natural Gas Front Month Futures Price

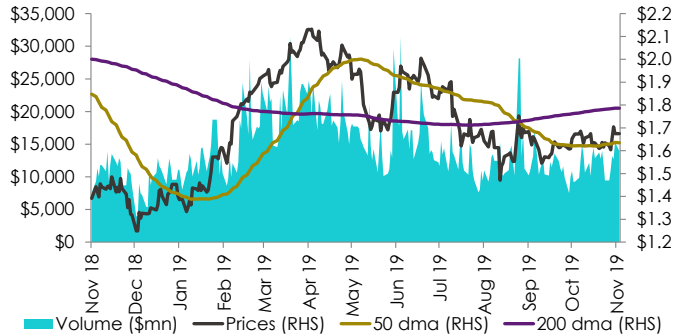
Daily data in USD/MMBtu, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Gasoline Front Month Futures Price

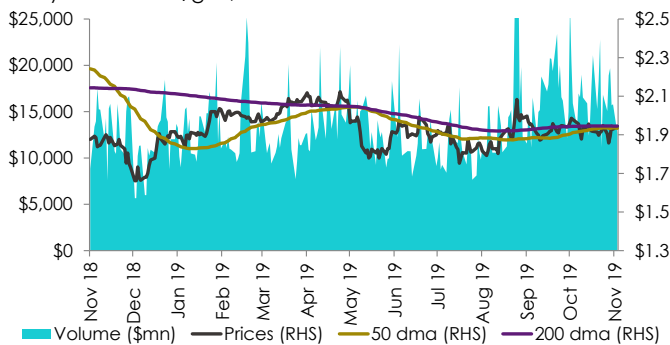
Daily data in USD/gal., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Heating Oil Front Month Futures Price

Daily data in USD/gal., from 25 Nov 18 to 25 Nov 19

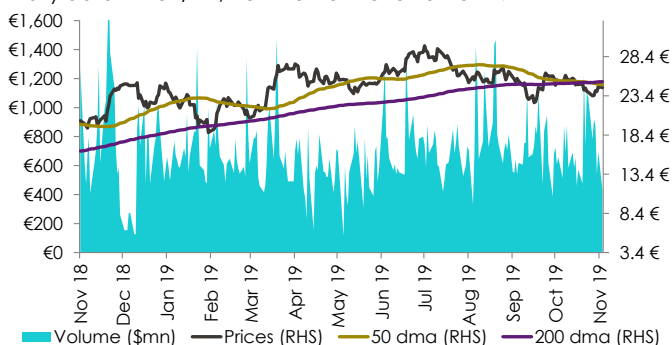


Source: Bloomberg, WisdomTree

Carbon

Carbon Front Month Futures Price

Daily data in EUR/MT, from 25 Nov 18 to 25 Nov 19



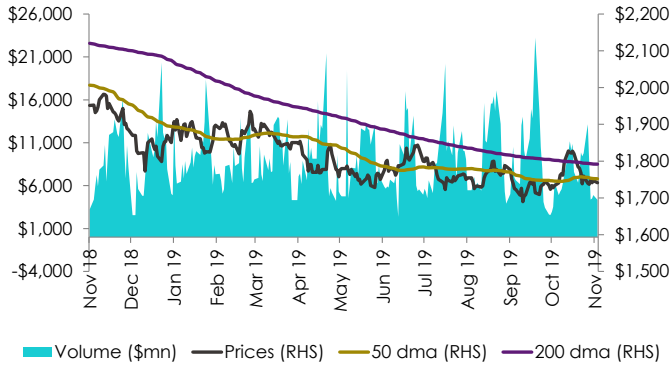
Source: Bloomberg, WisdomTree

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Industrial Metals

Aluminum Front Month Futures Price

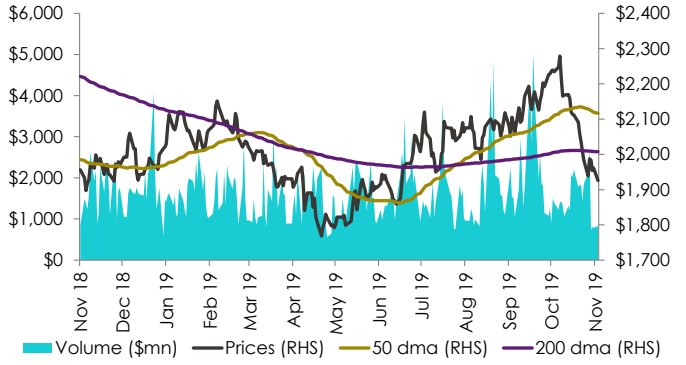
Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Lead Front Month Futures Price

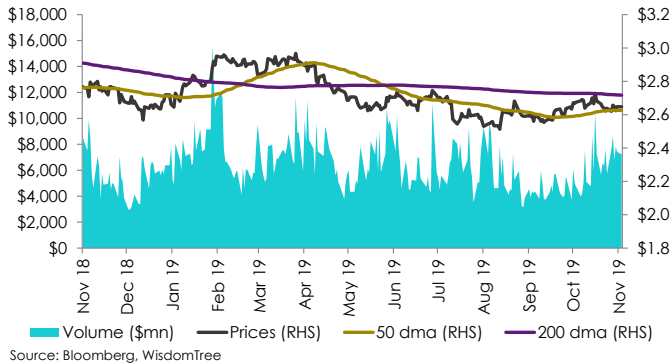
Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Copper (COMEX) Front Month Futures Price

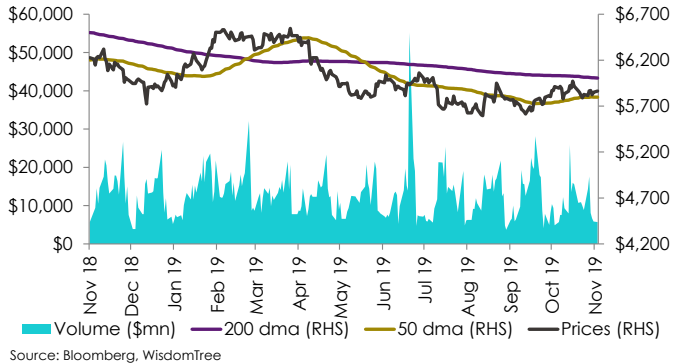
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Copper (LME) Front Month Futures Price

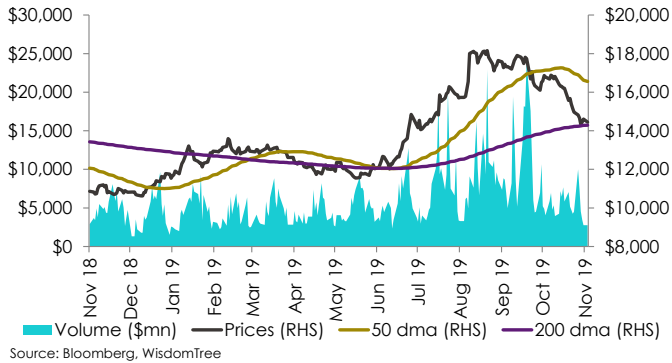
Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Nickel Front Month Futures Price

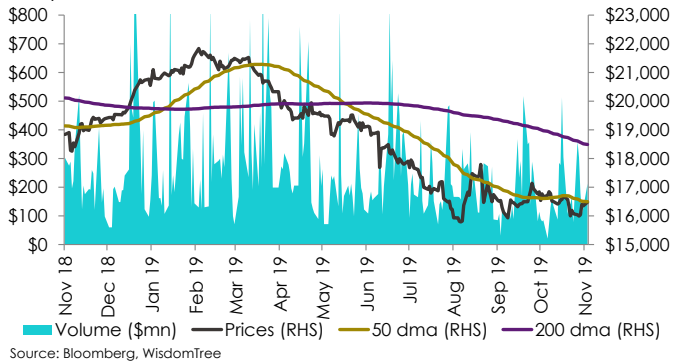
Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Tin Front Month Futures Price

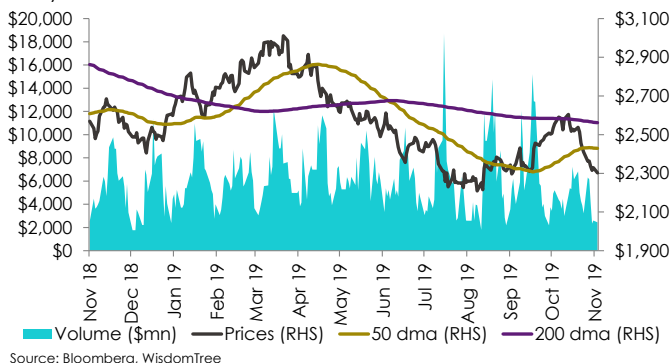
Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Zinc Front Month Futures Price

Daily data in USD/MT, from 25 Nov 18 to 25 Nov 19



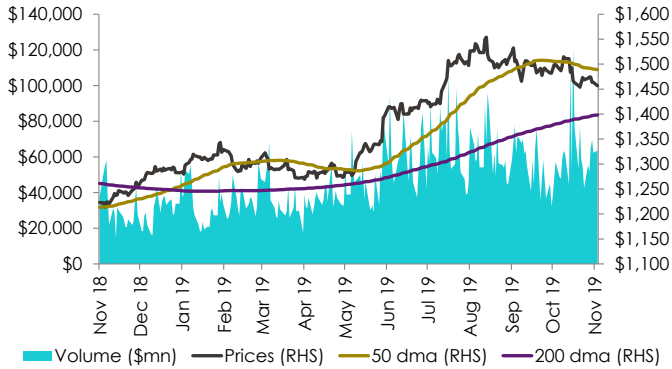
Source: Bloomberg, WisdomTree

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Precious Metals

Gold Front Month Futures Price

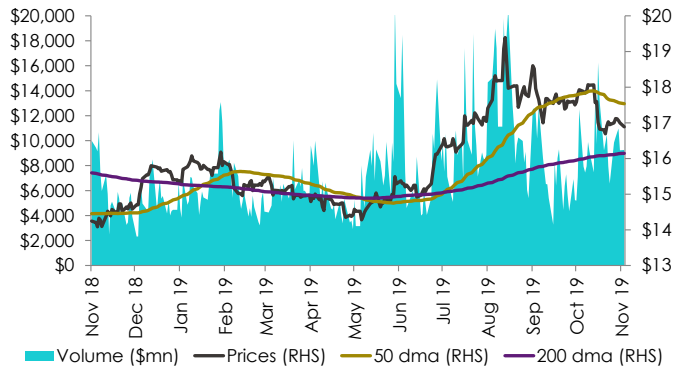
Daily data in USD/t oz., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Silver Front Month Futures Price

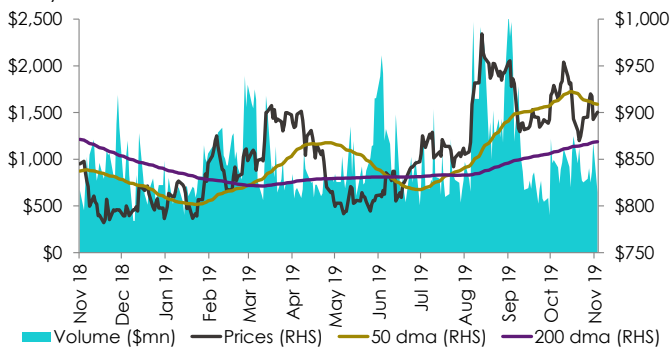
Daily data in USD/t oz., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Platinum Front Month Futures Price

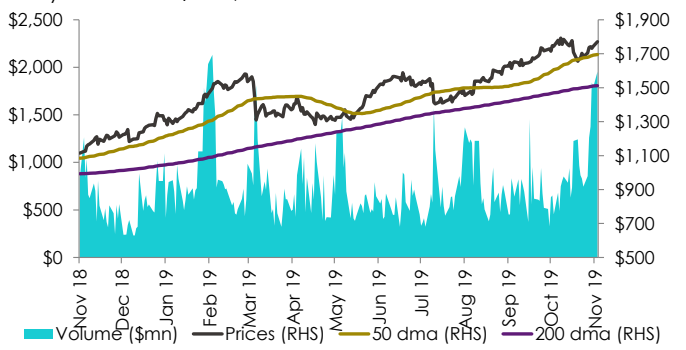
Daily data in USD/t oz., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Palladium Front Month Futures Price

Daily data in USD/t oz., from 25 Nov 18 to 25 Nov 19

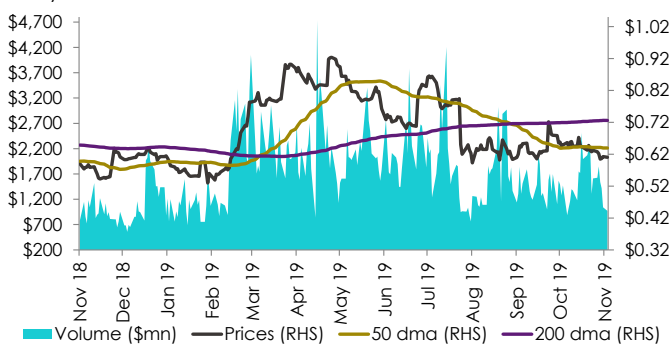


Source: Bloomberg, WisdomTree

Livestock

Lean Hogs Front Month Futures Price

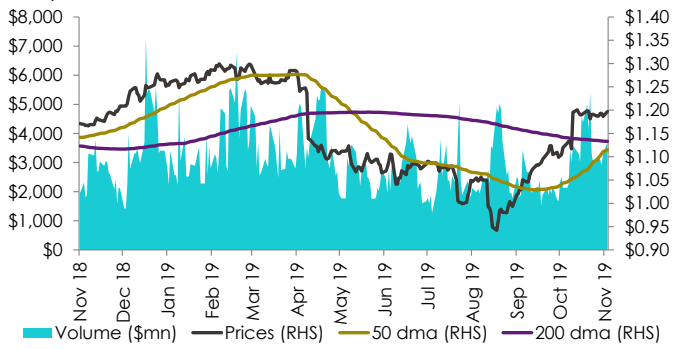
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Live Cattle Front Month Futures Price

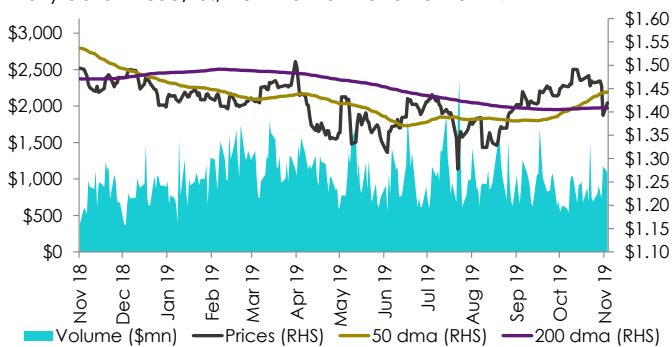
Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



Source: Bloomberg, WisdomTree

Feeder Cattle Front Month Futures Price

Daily data in USD/lb., from 25 Nov 18 to 25 Nov 19



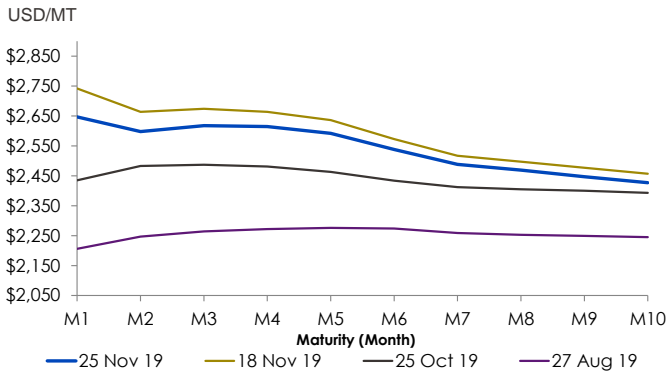
Source: Bloomberg, WisdomTree

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Futures Curves

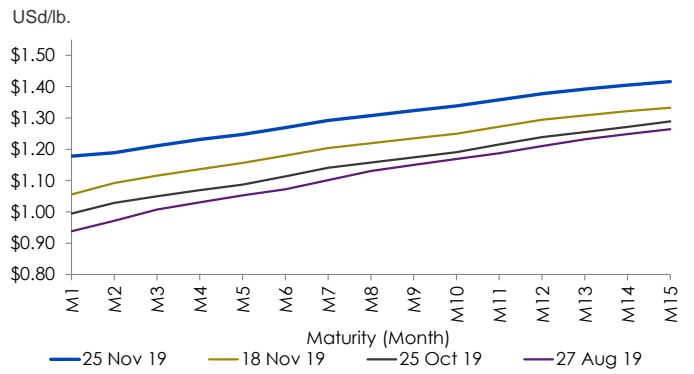
Agriculture

Cocoa Futures



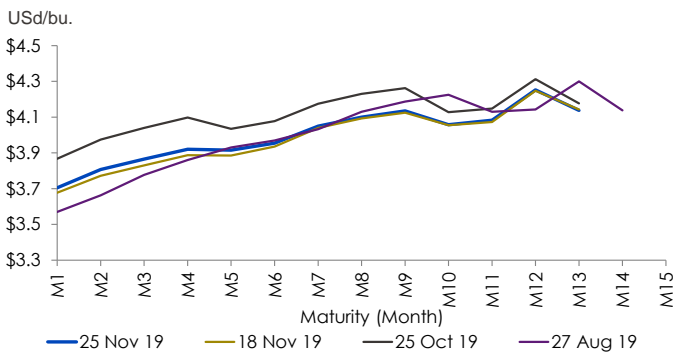
Source: Bloomberg, WisdomTree

Coffee Futures



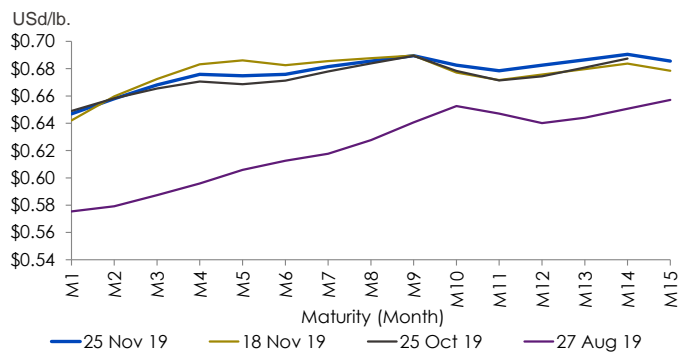
Source: Bloomberg, WisdomTree

Corn Futures



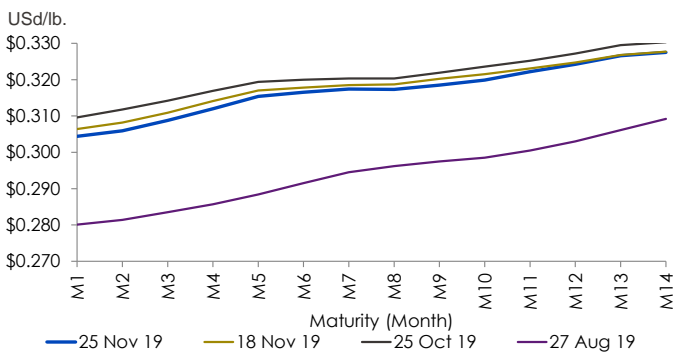
Source: Bloomberg, WisdomTree

Cotton Futures



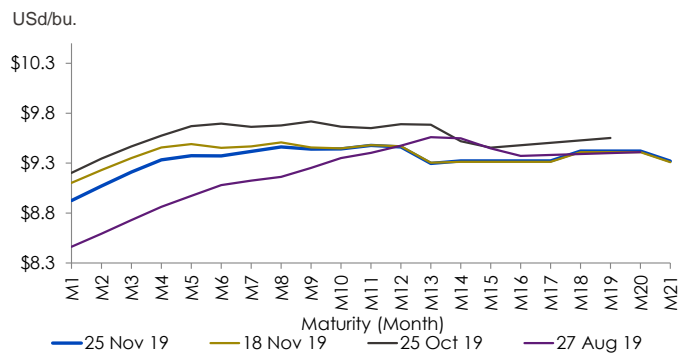
Source: Bloomberg, WisdomTree

Soybean Oil Futures



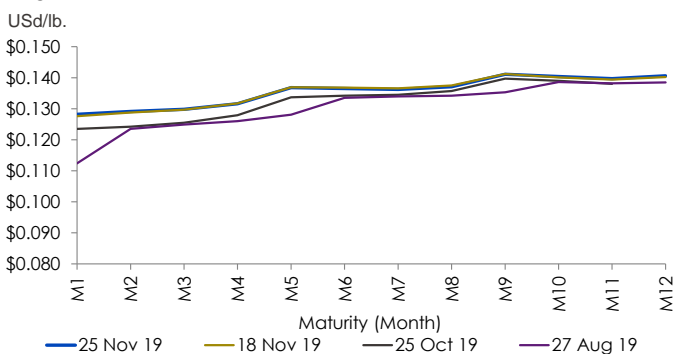
Source: Bloomberg, WisdomTree

Soybeans Futures



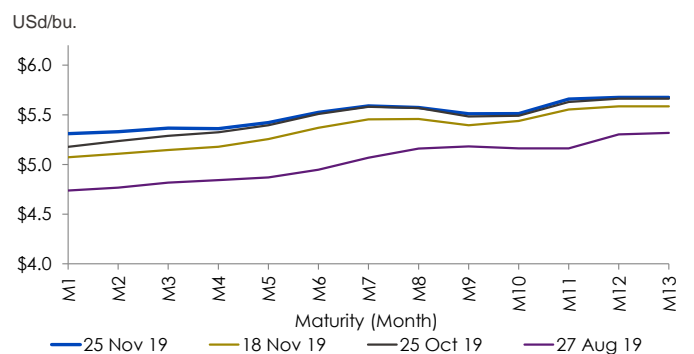
Source: Bloomberg, WisdomTree

Sugar Futures



Source: Bloomberg, WisdomTree

Wheat Futures



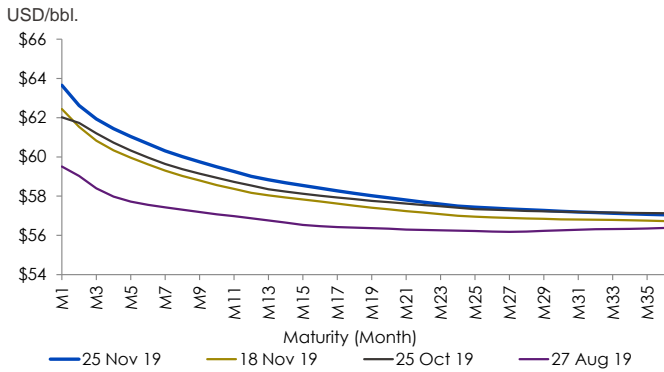
Source: Bloomberg, WisdomTree

Note: all commodity futures price data is denominated in USD unless otherwise indicated.

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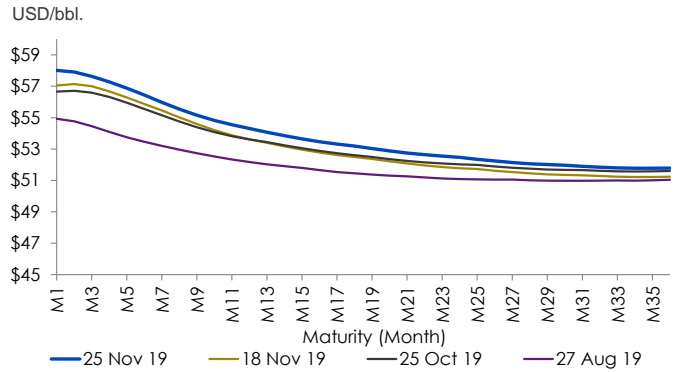
Energy

Brent Oil Futures



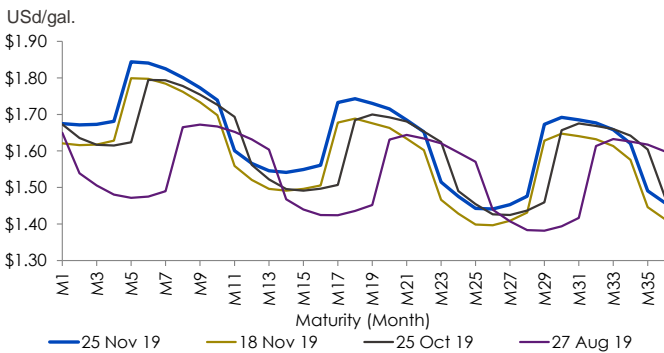
Source: Bloomberg, WisdomTree

WTI Oil Futures



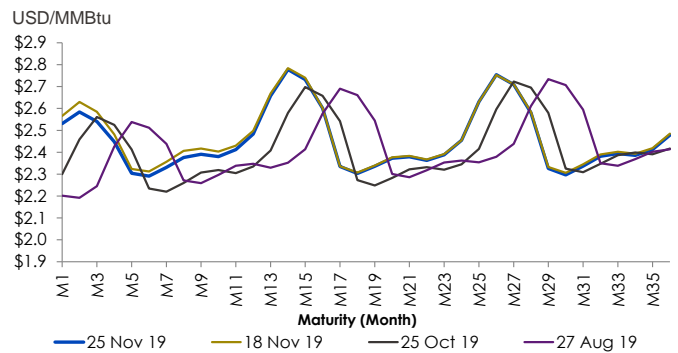
Source: Bloomberg, WisdomTree

Gasoline Futures



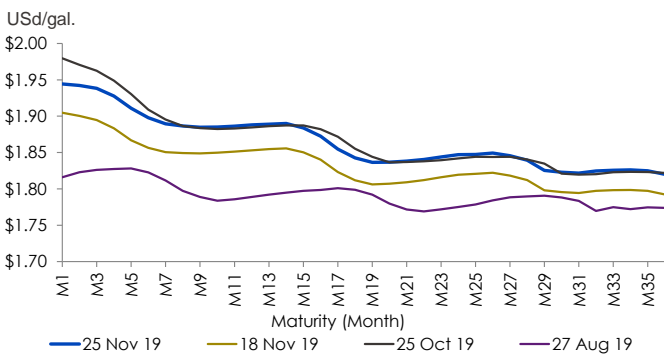
Source: Bloomberg, WisdomTree

Natural Gas Futures



Source: Bloomberg, WisdomTree

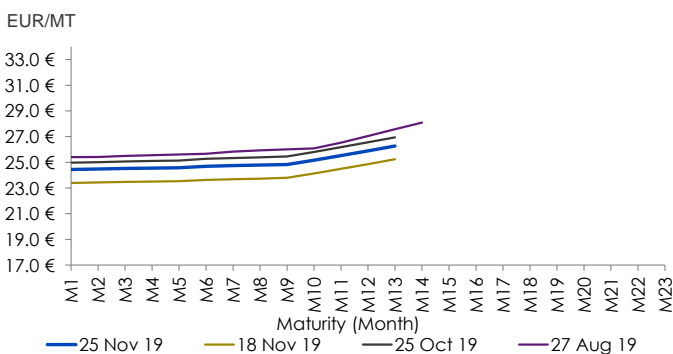
Heating Oil Futures



Source: Bloomberg, WisdomTree

Carbon

Carbon Futures



Source: Bloomberg, WisdomTree

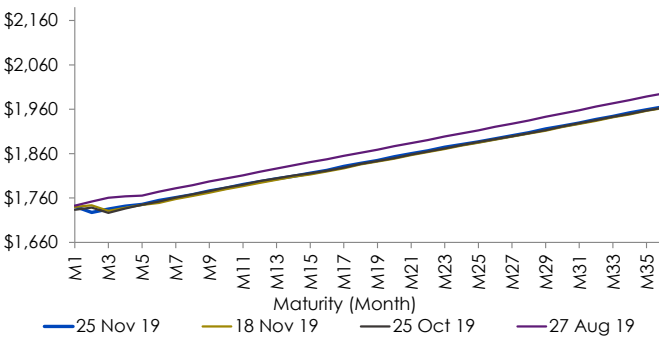
Note: all commodity futures price data is denominated in USD unless otherwise indicated.

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Industrial Metals

Aluminum Futures

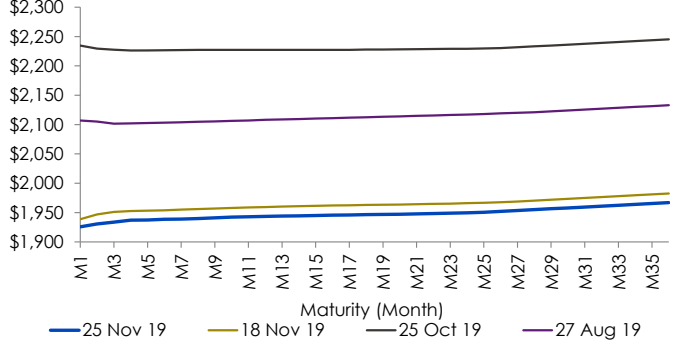
USD/MT



Source: Bloomberg, WisdomTree

Lead Futures

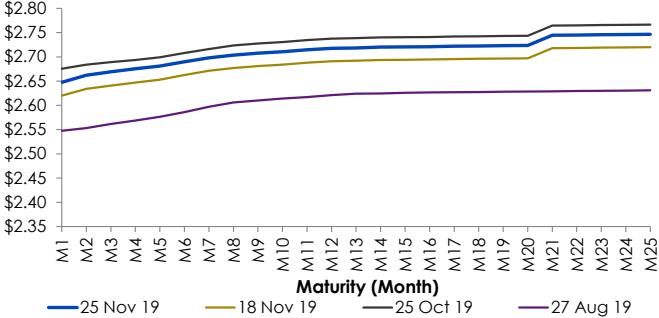
USD/MT



Source: Bloomberg, WisdomTree

Copper (COMEX) Futures

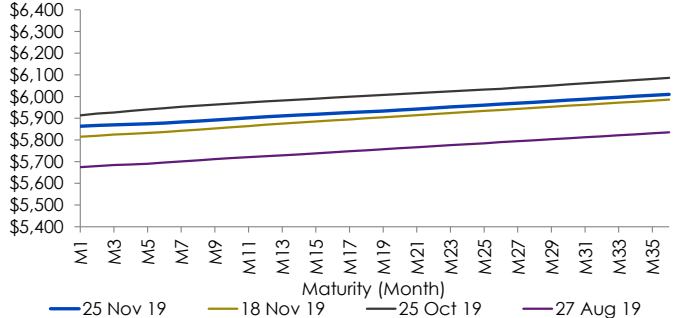
USD/lb.



Source: Bloomberg, WisdomTree

Copper (LME) Futures

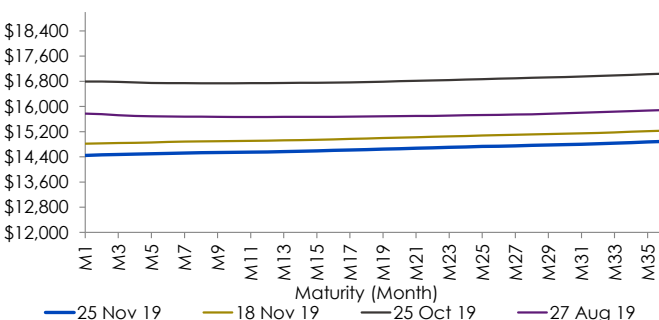
USD/MT



Source: Bloomberg, WisdomTree

Nickel Futures

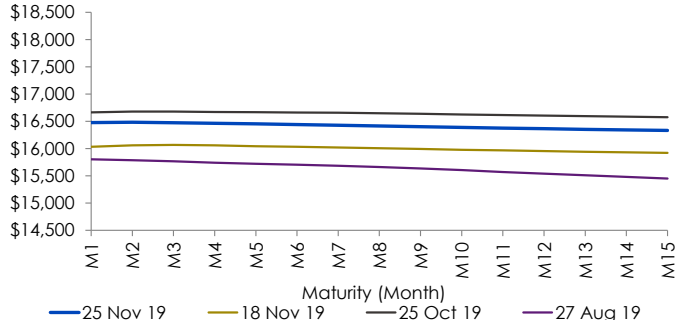
USD/MT



Source: Bloomberg, WisdomTree

Tin Futures

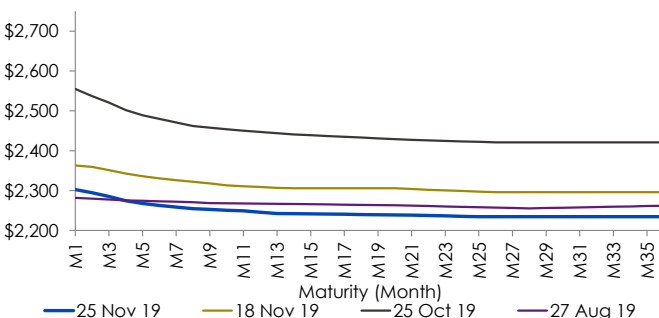
USD/MT



Source: Bloomberg, WisdomTree

Zinc Futures

USD/MT

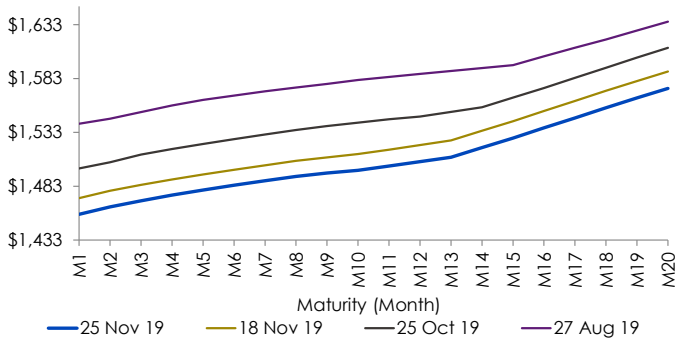


Source: Bloomberg, WisdomTree

Precious Metals

Gold Futures

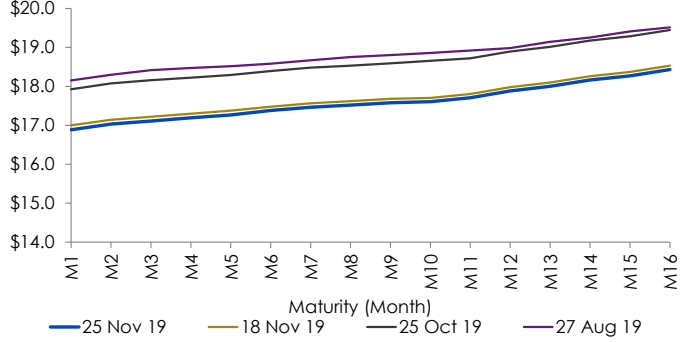
USD/t oz.



Source: Bloomberg, WisdomTree

Silver Futures

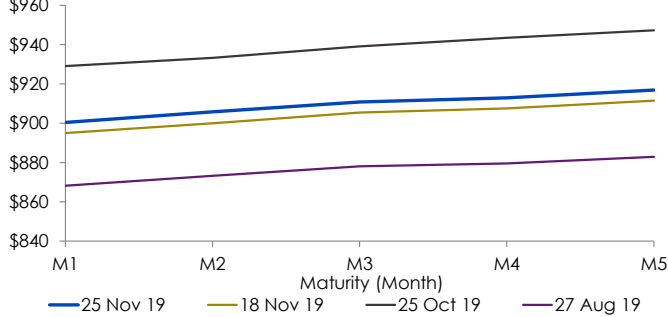
USD/t oz.



Source: Bloomberg, WisdomTree

Platinum Futures

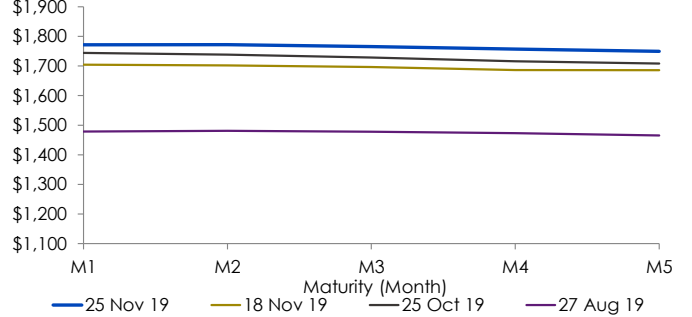
USD/t oz.



Source: Bloomberg, WisdomTree

Palladium Futures

USD/t oz.

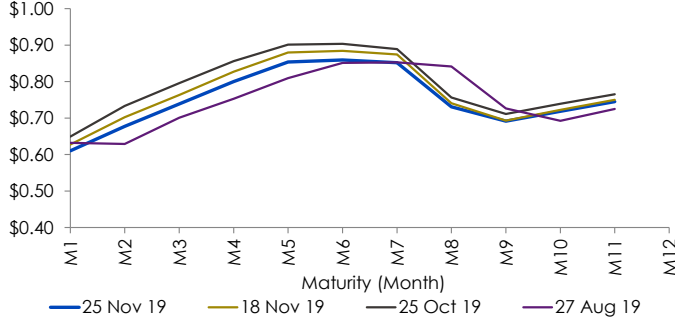


Source: Bloomberg, WisdomTree

Livestock

Lean Hogs Futures

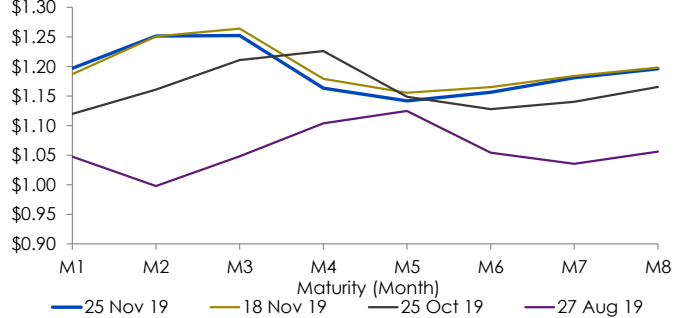
USD/lb.



Source: Bloomberg, WisdomTree

Live Cattle Futures

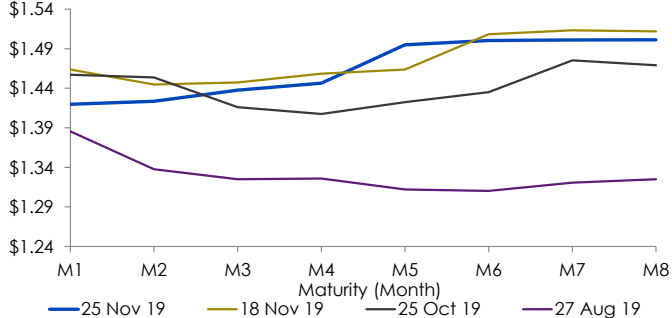
USD/lb.



Source: Bloomberg, WisdomTree

Feeder Cattle Futures

USD/lb.



Source: Bloomberg, WisdomTree

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

25-Nov-19	Nitesh Shah	Gold: how we value the precious metal
19-Nov-19	Lidia Treiber	How do AT1 CoCos compare to other risk assets?
15-Nov-19	Aneeka Gupta	Time to seize the European small cap equity opportunity
25-Oct-19	Jesper Koll	Japan fiscal boost coming?
21-Oct-19	Kevin Flanagan	Markets to the Fed: Go fund me
10-Oct-19	Nitesh Shah	Nickel rally defies industrial metals rut
30-Sep-19	WisdomTree	Why we're bullish on Cloud Computing
23-Sep-19	Kevin Flanagan	What is the highest yielding treasury security?
17-Sep-19	Nitesh Shah	Platinum surfs on gold's rising tide
17-Sep-19	Nitesh Shah	Oil price shock could be followed by large geopolitical tremors
10-Sep-19	Christopher Gannatti	The cloud computing megatrend for growth amidst uncertainty
03-Sep-19	Nitesh Shah	Faster than a speeding (silver) bullet
21-Aug-19	Nitesh Shah	Gold could rise to over US\$1800/oz if geopolitical risks remain elevated

WisdomTree - Past Issues of Commodity Monthly Monitor

Sep - Oct 2019	Research Team	Phase 1 of trade deal bifurcates commodity markets
Aug - Sep 2019	Research Team	Jitters in the oil market and beyond
Jul - Aug 2019	Research Team	Trump and Xi's Midas touch
Jun - Jul 2019	Research Team	Pre-committed Fed drives a rally across cyclicals & defensives
May - Jun 2019	Research Team	All Eyes on the G-20 Summit

The research notes are for qualified investors only.

Key Reports

Current	Next release		
08-Nov-19	10-Dec-19	USDA	World Agricultural Supply and Demand Estimates
13-Nov-19	10-Dec-19	EIA	Short-Term Energy Outlook
14-Nov-19	11-Dec-19	OPEC	OPEC Oil Market Report
15-Nov-19	12-Dec-19	IEA	IEA Oil Market Report

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