Commodity Monthly Monitor

Jitters in the oil market and beyond

16 Aug - 13 Sep 2019



Summary

Volatility has hit oil markets. A drone attack on Saudi Aramco facilities caused oil prices to spike by nearly 20% intraday on Monday 16 September. This was the largest spike in a single day in oil markets since the 1980s and was fuelled by concerns about the global oil supply initially losing 5% of its flow without full recovery until Saudi Arabia restores order. Within hours however, prices turned as markets began assessing the damage done by the drone strike and started becoming less pessimistic about the impact on supply. We believe this price behaviour is symptomatic of oil markets taking a myopic view of the situation. What the markets are not pricing in is a reasonable geopolitical risk premium given the political fragility in the region. The key risk is an escalation of tensions in the region resulting in sustained disruption to supply. In the most extreme scenario, this could manifest in the form of an overt military conflict in the region causing the Strait of Hormuz, one of the most important global oil chokepoints, to become a warzone. So how does one avoid being myopic and form a reasonable expectation of where prices should be? At the very least, we can zoom out on the oil price chart and observe that Brent was trading around \$85/barrel roughly this time last year. This is the time when US announced sanctions on Iran. Since then, global economic gloom has shrouded the markets and expectations of weakening demand have caused oil prices to drop. While demand growth may have slowed, we believe it is broadly steady and concerns about a protracted reduction in demand, owing to trade wars or otherwise, may have been over-extrapolated. We therefore still see upside potential in oil prices and believe a fairer price for Brent given the geopolitical risks is in the \$70-\$75/barrel range

Gold's relatively flat performance last month following a strong rally since June is by no means a sign of the metal losing its shine. We believe the risks that have caused investors to look towards historically safe haven assets remain unchanged. What we are witnessing instead is investors turning to the broader precious metals complex tactically not only to preserve wealth but make gains from a correlation rally. This has given a strong impetus to silver in recent months and most recently to platinum and palladium.

Trade wars continue to weigh on industrial metals and agricultural commodities. There is cautious optimism in markets for progress to be made as US and China resume talks. Despite renewed optimism over the US-China trade negotiations due to take place in October, we expect all announced tariffs to be imposed as scheduled but we believe there is a low probability of additional tariffs being imposed immediately. We believe the attrition could continue for another few months and a deal may only be reached as we get close to the US presidential election next year.

- Sharp spike in oil markets as Saudi facilities are attacked. A drone attack on Saudi Aramco facilities
 sent oil prices surging by more than 20% as markets opened on Monday 16 September before paring
 initial gains later in the day. The attack is a reminder of the geopolitical risks in the region and the
 potential supply shocks that may arise if they manifest.
- Haven investing rally extends to the broader precious metals' basket. Following a considerable rally
 since June, gold was relatively flat last month. The rally however has extended to the wider basket with
 speculative positioning driving the rally in silver and most recently platinum and palladium as investors
 seek to gain from the correlation of other precious metals with gold.
- Polarised performance across agricultural commodities. A new round of trade talks between the US
 and China, due to take place in October are fuelling hopes of the US and China moving a step
 forward in resolving the trade negotiations. However there remains plenty of ambiguity on the products
 for which China plans to reduce the punitive tariffs for US agricultural suppliers. Most agricultural
 commodities apart from cotton saw a steep rise in short positioning over the prior month.
- Nickel outperforms amidst lacklustre performance across industrial metals. Nickel benefitted from the
 announcement that the ban on Indonesian ore exports that was expected in 2022 had been brought
 forward to January 2020. In comparison, the other industrial metals posted a lacklustre performance
 owing to the weak global economic backdrop.

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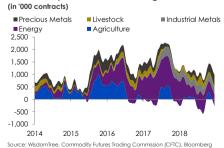
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Commodity Monthly Matrix ¹								
	Current Price ²	Returns (-1 Mth)	Price vs 200 days MA	Inventories ³ (- 3 Mths)	Positioning ⁴ (- 1 Mth)	Roll Yield ⁵	13 Sep Score	16 Aug Score
WTI Oil	55	-3.9%	-2.5%	-14.3%	6%	0.1%	2	0
Brent Oil	60	-1.8%	-6.0%	-1.6%	52%	1.6%	2	0
Natural Gas	2.6	21.8%	-1.9%	44.6%	32%	-1.5%	(1)	(4)
Gasoline	1.6	-10.6%	-10.0%	-2.6%	-20%	1.2%	0	(2)
Heating Oil	1.9	0.0%	-2.2%	8.0%	40%	0.0%	1	0
Carbon	26.4	-2.6%	6.6%	-	-	0.0%	(2)	(2)
Wheat	4.9	2.9%	-0.3%	-2.7%	-80%	0.5%	1	(2)
Corn	3.6	-2.9%	-7.5%	5.4%	-152%	-3.6%	(4)	(2)
Soybeans	9	1.5%	0.4%	-12.0%	-57%	-1.6%	0	(2)
Sugar	0.1	-7.1%	-11.2%	-	-56%	-8.8%	(2)	(2)
Cotton	0.6	3.9%	-11.0%	8.4%	32%	-1.0%	(1)	(4)
Coffee	1.0	3.3%	1.8%	-	-41%	-3.2%	(1)	(2)
Soybean Oil	0.3	-0.8%	1.6%	4.5%	-69%	-1.2%	(3)	0
Cocoa	2,296	6.6%	-1.2%	-	-405%	-1.8%	(3)	(4)
Aluminium	1,777	1.1%	-2.4%	-19.2%	3%	-0.8%	1	(2)
Copper (COMEX)	2.7	1.9%	-2.1%	47.2%	26%	-0.7%	(1)	(4)
Copper (LME)	5,950	2.4%	-1.9%	19.3%	-17%	-0.3%	(3)	(4)
Zinc	2,384	2.9%	-8.4%	-14.5%	-5%	-0.1%	(1)	(2)
Nickel	17,810	11.9%	37.0%	1.8%	38%	0.0%	1	4
Lead	2,096	1.0%	5.8%	2.0%	0%	-0.4%	(2)	0
Tin	16,470	-4.0%	-15.3%	3.0%	6%	-0.1%	(2)	(2)
Gold	1,493	-0.6%	10.9%	-	-10%	-	(2)	4
Silver	17	2.7%	11.8%	-	46%	-	4	4
Platinum	952	10.8%	13.2%	-	68%	-	4	4
Palladium	1,601	10.3%	13.8%	-	29%	-	4	(2)
Live Cattle	1.0	-2.5%	-15.9%	-	-59%	-6.0%	(4)	(1)
Lean Hogs	0.7	-15.9%	-6.9%	-	-27%	-3.2%	(4)	(1)
Feeder Cattle	1.4	6.9%	-3.3%	-	-8%	1.4%	0	(1)

Performance ²	- 1 Mth	- 6 Mth	- 12 Mth
All Commodities	1.6%	-2.4%	-2.6%
Energy Industrial Metals	2.6% 4.3%	-6.8% -1.1%	-13.9% 5.1%
Precious Metals Agriculture	0.0%	13.5% -4.9%	23.0% -6.7%
MSCI World	3.8%	5.7%	4.0%
US Aggregate Bond	-0.8%	5.4%	8.6%

Bloomberg IR Indexes for basket returns, data to Friday 13 September 201 Source: WisdomTree, Bloomberg

CFTC Net Speculative Positioning



- 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 Friday 13 Sep 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 COTR 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.

Sector Overview



Agriculture

- The agricultural sector posted a polarised performance last month. At one end of the spectrum, feeder cattle prices rose 6.9% while lean hogs declined 15.9% over the prior month. A new round of trade talks between the US and China, due to take place in October are fuelling hopes of the US and China moving a step forward in resolving the trade negotiatons. However there still remains plenty of ambiguity on the products for which China plans to reduce the punitive tariffs for US agricultural suppliers. According to the US Soybean Export Council, China bought sizeable quantities of soybeans, apparently totalling 15 cargoes or more than 600,000 tons, which mark the biggest purchase since June this year.
- Corn prices remained under pressure over the prior month declining 2.9%. A bearish outlook on corn in
 the monthly September World Agricultural Supply and Demand Estimate (WASDE) report added further
 headwinds to corn prices. Corn yields were dropped only slightly and were offset with demand
 decreases for corn used for ethanol. With use falling more than supply, corn ending stocks are
 expected to be higher over the prior month.

Industrial Metals

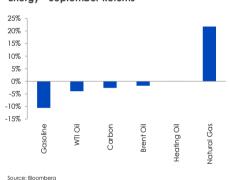
• Nickel was the outlier among industrial metals, rising 11.9% over the prior month amidst a subdued performance posted by the rest of the metals. While there have been signs of goodwill in the US-China trade war after China moved to exempt some US goods from tariffs and President Trump agreed to delay raising tariffs on US\$250bn of goods from October 1 to October 15th, the global macro backdrop remains weak. Chinese economic data in August lost momentum with industrial production, retail sales and manufacturing investment weakening in August. Chinese export growth in August slid to -1% owing to the trade war risks and subdued external demand. China's central bank responded by cutting the reserve requirement ratio (RRR) for all depository financial institutions by 50 basis points (bps) and selected financial institutions by 100bps. Eurozone industrial production in July was worse than expected showing a decline of -0.4%. In the US, the Institute of Supply Management's (ISM) gauge of manufacturing activity moved into negative territory in August for the first time since 2016. Despite renewed optimism over the US-China trade negotiations due to take place in October, we expect all announced tariffs to be imposed as scheduled but we believe there is a low probability of additional tariffs being imposed immediately.



Energy

- Oil markets in recent months have largely been fixated on demand for the commodity with economic data and developments on the trade front being the major determinants of prices. In our previous publications we have observed that weak prices imply an inadequate geopolitical risk premium being demanded by investors particularly given the tensions in the Middle East. The latest attack on Saudi Aramco facilities is a blunt reminder to markets of the fragility in the region and the disruptive impact any geopolitical escalation could have on oil supply. An overt conflict between Saudi Arabia and Iran could indeed cause the Strait of Hormuz (the world's most important oil transit chokepoint) to become out of bounds for vessels, potentially creating a major supply shock.
- Economically, global demand for oil has largely been steady. We have therefore recently been forecasting Brent prices to attain levels around \$70-\$75 per barrel by the end of the year as the geopolitical risk premium gets priced in and the Organisation for Petroleum Exporting Countries (OPEC) potentially tightens supply further. While a major conflict in the region remains an unpredictable event that would fuel the oil price rally considerably, we expect volatility on the political front to continue in the near term. Further support could be lent to prices if progress is made between US and China in their trade talks. Thus, we see the skew of risks to oil prices to be on the upside for the rest of the year.

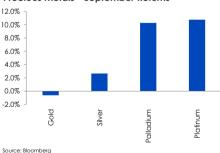
Energy - September Returns*



Precious Metals

- Gold hovered around the \$1500/oz mark last month as speculative positioning reached all time highs surpassing levels achieved in 2016 around the Brexit referendum and US presidential election. We believe the risks that have driven investors to seek safe havens in recent months propelling gold prices are still alive. The Brexit puzzle remains unsolved as we approach the October 31st deadline, the trade dispute between US and China continues, political risks in Europe have not dissipated, and tensions in the Middle East are on the rise. In our base case, we project speculative positioning to come down from current levels but expect monetary policy from the Federal Reserve (Fed) to remain accommodative pushing gold up to \$1550/oz by Q2 2020. In an alternative scenario however, if speculative positioning remains at current levels, prices could reach \$1820/oz around the same time.
- The rest of the precious metals basket is experiencing a lagged rally on account of its correlation with gold. Silver followed gold and has rallied since July defying generally unimpressive global manufacturing Purchasing Managers Index (PMIs). We expect silver to shine further based on our internal model's base case and reach \$19.90/oz before the end of the year before weakness in manufacturing demand weighs on prices. Platinum and palladium, which are more industrial than silver, rallied strongly last month with returns over 10% for both. This, again, reflects the correlation trade across the broader precious metals complex with speculative positioning driving prices despite fundamentals staying broadly unchanged.

Precious Metals - September Returns*

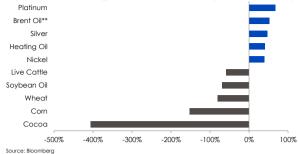


Technical Overview (as of Sep 13, 2019)



- Most agricultural commodities apart from cotton saw a steep rise in short positioning over the prior month. Net speculative positioning in cocoa futures swung from net long to net short contracts and is now trading more than 1-standard deviation below its long-term average underpinning the extreme bearishness towards the
- Net speculative positioning on nickel futures rose 38% after confirmation that the ban on Indonesian ore exports that was expected in 2022 had been brought forward to January 2020.
- Net positioning for Brent crude increased last month as investors covered their shorts and added new long positions following price weakness in recent months. Net speculative positioning in platinum increased by nearly 68% during the month as investors sought to benefit from the correlation of the broader precious metals basket with gold.
- Silver's net speculative positioning increased by around 46% during the month having accumulated considerably since June in line with speculative positioning in

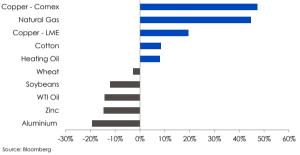
Top 5/Bottom 5 Change in CFTC Net Positions (over past month)¹



Inventories

- Cotton inventories have increased 8.4% over the past 3 months. In the latest WASDE report, the US Department of Agriculture (USDA) raised its forecasts for world ending cotton stocks for 2019/20 to 1.3mn bales owing to higher beginning stocks but lower production, consumption and world trade.
- According to USDA, global soybean ending stocks for 2019/20 are lower as reduced stocks for Argentina and the United States are partly offset by higher stocks for Brazil, Iran and India.
- Copper inventories have increased on average by 24% on all three exchanges over the period owing to a seasonal demand Iull.
- In line with seasonal trends, WTI inventories continued their decline last month. They have edged moderately towards the lower end of the preceding 5-year average +/-1 standard deviation potentially indicating that demand might not be as weak as
- Natural gas inventories continue to build as per seasonal trends as winter approaches and the demand for the commodity increases for heating purposes.

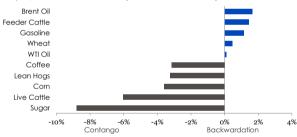
Top 5/Bottom 5 Change in Inventories (over past 3 months)²



Curve Dynamics

- Coffee, lean hogs, corn, live cattle, sugar futures are in contango. Roll yields are considerably negative with sugar at -8.8% and corn at -3.6% indicating that the markets are in over-supply in the short-term.
- The front end of the wheat futures contract reverted to backwardation with a roll yield of +0.5% from being in contango with a roll yield of -0.8% a month ago.
- Gasoline remains in strong backwardation at the front end on account of its seasonal futures curve. Brent and WTI are both in backwardation and the oil rally on 16 September has made the curves more backwardated.

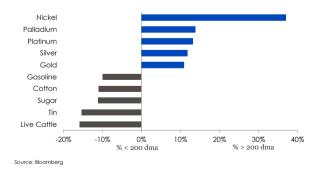
Top 5/Bottom 5 Roll Yields (front to next month)³



Technicals

- Cotton futures staged a recovery over the prior month, rising 3.9% surpassing its 50dma. While it remains below its 200-dma, the condition of US cotton plants has worsened considerably which could lend tailwind for further price upside.
- Nickel prices surged by 37% above its 200-dma driven by the announcement of the Indonesian ore export ban being moved forward to January 2020. We continue to expect further upside for nickel owing to the ongoing supply deficit coupled with rising demand from the Electric Vehicle (EV) industry.
- According to the International Tin Association (ITA), concerted production cuts planned by Chinese tin smelters are likely to result in a decline in domestic stocks. The ITA expects Chinese tin production to fall this year to 145,000 – 150,000 tons in accordance with the planned cuts. At the same time ITA expects Tin demand to remain at 160,000 tons. Tin prices have drifted 15.3% below its 200-dma, however we expect the further tightening of supply to support a price recovery in the near term.
- It is unsurprising that the precious metals complex features in the chart given the recent risk aversion in markets. Following a recovery in prices last month, palladium now leads the pack and stands at 13.8% above its 200-day moving average.

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



¹ CFIC futures net positionina 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 Sep 13, 2019.

4 Percent difference between the front month futures price and its 200 day moving average on Sep 13, 2019.

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

Summary Tables



PRICES ¹	Current	Unit	1 Month	3 Month	6 Month	1 Year	ROLL YIELDS ²	Unit	Exchang e	13-Sep	1 Week	1 Month	3 Mon
Energy							Energy						
WTI Oil	55	USD/bbl.	-3.9%	4.9%	-5.9%	-20.0%	WTI Oil	USD/bbl.	NYMEX	0.1%	0.2%	0.0%	-0.5%
Brent Oil	60	USD/bbl.	-1.8%	-1.8%	-10.9%	-23.0%	Brent Oil	USD/bbl.	ICE	1.6%	1.6%	0.6%	1.4%
Natural Gas	2.6	USD/MMBtu	21.8%	12.4%	-7.3%	-7.2%	Natural Gas	USD/MMBtu	NYMEX	-1.5%	-2.2%	-0.6%	0.1%
Gasoline	1.6	USd/gal.	-10.6%	-9.7%	-16.4%	-22.1%	Gasoline	USd/gal.	NYMEX	1.2%	1.4%	9.2%	1.5%
Heating Oil	1.9	USd/gal.	0.0%	3.9%	-5.7%	-15.5%	Heating Oil	USd/gal.	NYMEX	0.0%	-0.1%	-0.4%	-0.5%
Carbon	26.4	EUR/MT	-2.6%	5.9%	18.9%	39.7%	Carbon	EUR/MT	ICE	0.0%	0.0%	-0.1%	-0.2%
Agriculture Wheat	4.9	USd/bu.	2.9%	-9.3%	10.3%	3.0%	Agriculture Wheat	USd/bu.	СВОТ	0.5%	-0.8%	-0.8%	-0.6%
Corn	3.6	USd/bu.	-2.9%	-7.5% -19.6%	-0.5%	5.7%	Corn	USd/bu.	CBOT	-3.6%	-3.7%	-0.8%	-1.3%
Soybeans	8.8	USd/bu.	1.5%	-0.4%	-0.5%	7.5%	Soybeans	USd/bu.	CBOT	-3.6%	-3.7%	-2.6% -0.5%	-0.7%
Sugar	0.1	USd/lb.	-7.1%	-0.4%	-0.5%	-6.8%	Sugar	USd/lb.	NYBOT	-8.8%	-7.9%	-8.2%	-1.2%
Cotton	0.6	USd/lb.	3.9%	-7.8%	-18.6%	-24.5%	Cotton	USd/lb.	NYBOT	-1.0%	0.3%	-0.1%	-0.4%
Coffee	1.0	USd/lb.	3.3%	2.2%	5.3%	3.2%	Coffee	USd/lb.	NYBOT	-3.2%	-3.3%	-3.4%	-2.4%
Soybean Oil	0.3	USd/lb.	-0.8%	3.3%	-2.5%	5.5%	Soybean Oil	USd/lb.	CBOT	-1.2%	0.1%	0.0%	-0.5%
Cocoa	2,296	USD/MT	6.6%	-9.1%	4.2%	-0.8%	Cocoa	USD/MT	NYBOT	-1.2%	-2.7%	-2.4%	0.7%
Industrial Metals	2,270	03D/WII	0.0%	-7.170	4.2/0	-0.0%	Industrial Meta		NIBOI	-1.0%	-2.7 /0	-2.4/0	0.7 /6
Aluminum	1,777	USD/MT	1.1%	1.2%	-5.6%	-12.4%	Aluminum	USD/MT	LME	-0.8%	-0.6%	-0.6%	-0.7%
Copper	2.7	USd/lb.	1.9%	0.9%	-8.6%	0.6%	Copper	USd/lb.	COMEX	-0.7%	-0.7%	-0.3%	0.0%
Copper (LME)	5,950	USD/MT	2.4%	2.0%	-8.4%	-1.1%	Copper (LME)		LME	-0.7%	-0.7%	-0.2%	-0.3%
Zinc	2,384	USD/MT	2.9%	-7.7%	-17.4%	1.6%	Zinc	USD/MT	LME	-0.1%	0.1%	-0.2%	2.1%
Nickel	17,810	USD/MT	11.9%	51.4%	35.7%	42.2%	Nickel	USD/MT	LME	0.0%	0.1%	-0.1%	-0.29
Lead	2,096	USD/MT	1.0%	10.5%	-1.0%	3.5%	Lead	USD/MT	LME	-0.4%	0.0%	0.1%	0.3%
Tin	16,470	USD/MT	-4.0%	-15.6%	-22.3%	-13.5%	Tin	USD/MT	LME	-0.1%	0.1%	0.0%	0.3%
Precious Metals	10,470	03D/1411	-4.070	-13.0/0	-22.570	-10.0/6	Precious Meta		ENTE	-0.170	0.176	0.070	0.57
Gold	1,493	USD/t oz.	-0.6%	11.5%	14.0%	24.1%	Gold	USD/t oz.	COMEX	-0.4%	-0.4%	-0.4%	-0.39
Silver	17.4	USD/t oz.	2.7%	17.1%	13.4%	23.3%	Silver	USD/t oz.	COMEX	-0.8%	-0.8%	-0.8%	-0.5%
Platinum	952	USD/t oz.	10.8%	17.6%	13.1%	18.5%	Platinum	USD/t oz.	NYMEX	-0.6%	-0.6%	-0.6%	-0.69
Palladium	1,601	USD/t oz.	10.3%	12.0%	4.2%	60.5%	Palladium	USD/t oz.	NYMEX	0.0%	0.0%	-0.1%	-0.69
Livestock	1,001	00271 021	10.070	12.070	11270	00.070	Livestock	00571 021	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	0.070	0.070	0.170	0.07
Live Cattle	1.0	USd/lb.	-2.5%	-10.1%	-22.6%	-11.5%	Live Cattle	USd/lb.	СМЕ	-6.0%	-4.9%	1.3%	4.1%
Lean Hogs	0.7	USd/lb.	-15.9%	-16.1%	4.7%	19.4%	Lean Hogs	USd/lb.	CME	-3.2%	1.6%	22.3%	-5.09
Feeder Cattle	1.4	USd/lb.	6.9%	0.2%	-3.6%	-11.9%	Feeder Cattle		CME	1.4%	1.9%	0.4%	-0.2%
FTC NET POSITIONII	NG ³	Current	5 Yr Average	1 Month	6 Month	1 Year	INVENTOR'	Y LEVELS⁴	Current	5 Yr Average	1 Month	3 Month	6 Mon
nergy							Energy						
WTI Oil		449,964	433,444	425,231	385,938	584,345	Oil - US		416,068	-4.9%	-6%	-14%	-7%
Brent Oil**		221,033	173,437	145,401	88,886	296,145	Oil - OECD Euro	ne**	346	-1%	2%	-2%	-7 % 7%
Natural Gas		-146,835	-116,014	-216,003	-24,229	-71,882	Natural Gas - D	•				-2/0	
Gasoline			71,575	64,012		98,403			3019	-4%	10%	45%	154
							Gasoline - DOF		3,019	-4% 2%	10%	45% -3%	
		50,972 -814			86,548 -14 154		Gasoline - DOE		228,904	2%	-2%	-3%	1549 -7%
Heating Oil		-814	11,777	-1,356	-14,154	41,018	Heating Oil - DO	DE					
Heating Oil griculture		-814	11,777	-1,356	-14,154	41,018	Heating Oil - DO	DE	228,904 11,012	2% -2%	-2% 7%	-3% 8%	-7% 1%
Heating Oil griculture Wheat		-814 3,541	-43,386	-1,356 17,785	-14,154 -63,074	41,018 18,427	Heating Oil - DO Industrial Metal Aluminum	DE s	228,904 11,012 1,253,761	2% -2% - 52%	-2% 7% - 9%	-3% 8% -1 9%	-7% 1% -35%
Heating Oil griculture Wheat Corn		-814 3,541 -71,960	-43,386 64,478	-1,356 17,785 137,585	-14,154 -63,074 -192,475	41,018 18,427 6,241	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME	DE s	228,904 11,012 1,253,761 910,950	2% -2% - 52% -58%	-2% 7% -9% -7%	-3% 8% -19% -15%	-7% 1% -35% -24%
Heating Oil griculture Wheat Corn Soybeans		-814 3,541 -71,960 -58,980	-43,386 64,478 34,053	-1,356 17,785 137,585 -37,634	-63,074 -192,475 -68,080	41,018 18,427 6,241 -77,854	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF	DE s	228,904 11,012 1,253,761 910,950 342,811	2% -2% - 52% -58% -23%	-2% 7% - 9% -7% -12%	-3% 8% -19% -15% -28%	-7% 1% -35% -24% -54%
Heating Oil griculture Wheat Corn Soybeans Sugar		-814 3,541 -71,960 -58,980 -183,701	-43,386 64,478 34,053 50,350	-1,356 17,785 137,585 -37,634 -117,956	-63,074 -192,475 -68,080 -81,682	41,018 18,427 6,241 -77,854 -106,501	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper	DE s	228,904 11,012 1,253,761 910,950 342,811 493,264	2% -2% -52% -58% -23% -8%	-2% 7% - 9% -7% -12% 5%	-3% 8% -19% -15% -28% 16%	-7% 1% -35% -24% -54%
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton		-814 3,541 -71,960 -58,980 -183,701 -23,546	-43,386 64,478 34,053 50,350 53,746	-1,356 17,785 137,585 -37,634 -117,956 -34,534	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700	18,427 6,241 -77,854 -106,501 82,663	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME	DE s	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625	2% -2% -52% -58% -23% -8% 18%	-2% 7% -9% -7% -12% 5% 9%	-3% 8% -19% -15% -28% 16% 19%	-7% 1% -359 -249 -549 1659
Heating Oil riculture Wheat Corn Soybeans Sugar Cotton Coffee		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767	-43,386 64,478 34,053 50,350 53,746 -12,207	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217	-63,074 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115	18,427 6,241 -77,854 -106,501 82,663 -99,293	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188	2% -2% -52% -58% -23% -8% 18% -16%	-2% 7% -9% -7% -12% 5% 9% -3%	-3% 8% -19% -15% -28% 16% 19% 5%	-79 1% -35; -24; -54; 249 165 -36;
Heating Oil riculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil		3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862	-63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COM	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451	2% -2% -52% -58% -23% -8% 18% -16% -57%	-2% 7% -9% -7% -12% 5% 9% -3% 7%	-3% 8% -19% -15% -28% 16% 19% 5% 47%	-799 178 -355 -249 -549 249 165 -369 -139
Heating Oil priculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767	-43,386 64,478 34,053 50,350 53,746 -12,207	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217	-63,074 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115	18,427 6,241 -77,854 -106,501 82,663 -99,293	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680	2% -2% -52% -58% -23% -8% -16% -57% -52%	-2% 7% -9% -7% -12% 5% 9% -3% 7%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2%	-79 1% -35' -24' -54' 249 165 -36' -13'
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089	-63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175	2% -2% -52% -58% -23% -8% -16% -57% -52% -71%	-2% 7% -9% -7% -12% 5% 9% -3% 7% 16% -10%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15%	-79 1% -355 -245 -546 -249 165 -366 -136 -146 -215
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX)		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089	-63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82%	-2% 7% -9% -7% -12% 5% 9% -3% 7% 16% -10%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39%	-79 1% -35 -24 -54 249 165 -36 -13 -14 -21 6%
Heating Oil riculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX) Copper (LME)		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40%	-2% 7% -9% -1% -12% 5% 9% -3% 7% 16% -10% -17% -4%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26%	-79 1% -35 -24 -54 249 165 -36 -13 -14 -21 6% -35
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48%	-2% 7% -9% -7% -12% 5% 9% -3% 7% 16% -10% -17% -4%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2%	-79 1% -35; -24; -54; 249; 165; -36; -14; -21; 6%; -35; -69;
Heating Oil priculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum Nickel		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52%	-2% 7% -9% -7% -12% 5% 9% -3% 7% 16% -10% -17% -4% -17%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11%	-79 1% -35 -24 -54 249 165 -36 -13 -14 -21 6% -35 -69
Heating Oil priculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum Nickel Zinc		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904	18,427 6,241 -77,854 -106,501 82,663 -97,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30%	-2% 7% -9% -7% -12% 5% 9% -3% -10% -17% -4% -17% -38%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19%	-79 1% -35 -24 -54 249 165 -36 -13 -14 -21 -6% -35 -69 -39 -16
Heating Oil priculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318 57,255	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COM Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842	2% -2% -52% -58% -23% -8% -16% -57% -52% -40% -48% -52% -30% 32%	-2% 7% -9% -7% -12% 5% 9% -3% -7% 16% -10% -17% -4% -17% -38% 8%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3%	-757 199 -357 -244 -544 -366 -133 -144 -211 -357 -656 -357 -166 -322
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904	18,427 6,241 -77,854 -106,501 82,663 -97,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - LME Copper - SHFE Copper - COM Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760	2% -2% -52% -58% -23% -8% -16% -57% -52% -40% -48% -52% -30% 32% 45%	-2% 7% -9% -7% -12% 5% 9% -3% 7% 16% -10% -17% -4% -17% -38% 8% 38%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% 96%	-79 1% -35 -24 -54 24; 165 -36 -13 -14 -21 -6% -35 -39 -16 -22; 496
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227	-43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7.089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842	2% -2% -52% -58% -23% -8% -16% -57% -52% -40% -48% -52% -30% 32%	-2% 7% -9% -7% -12% 5% 9% -3% -7% 16% -10% -17% -4% -17% -38% 8%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3%	-79 1% -35 -24 -54 24; 165 -36 -13 -14 -21 -6% -35 -39 -16 -22; 496
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin ecious Metals Gold		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7.089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE Agriculture	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760 5,082	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30% 32% 45% 17%	-2% 7% -9% -7% -12% 5% 9% -3% 7% 16% -10% -17% -4% -17% -38% 8% 38% -16%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% 96% -37%	-79 1% -35': -24': -54': 249': 165': -36': -14': -21': 6%: -39': -39': -40': 222': 496': -415':
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin ecious Metals Gold Silver		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227 309,774 67,299	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930 142,899 36,556	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673 344,267 45,997	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720 98,852 26,090	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - CME Copper - CME Copper - CME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE Agriculture Wheat - USDA	DE s E	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760 5,082	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30% 32% 45% 17%	-2% -7% -7% -12% -5% -9% -3% -7% -16% -10% -17% -4% -17% -38% -8% -38% -16%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% 96% -37%	-7% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals ⁵ Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin gocious Metals Gold Silver Platinum		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227 309,774 67,299 36,975	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930 142,899 36,556 23,272	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673 344,267 45,997 22,054	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720 98,852 26,090 17,864	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145	Heating Oil - DO Industrial Metali Aluminum Aluminum - LME Aluminium - SHF Copper Copper - SHFE Copper - COMI Nickel - LME Zinc Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE Agriculture Wheat - USDA Corn - USDA	DE s E E E EX	1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760 5,082	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30% 32% 45% 117%	-2% 7% -7% -12% 5% 9% -3% -10% -17% -4% -17% -4% -16% -38% 8% 38% -16%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% -37%	-7% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin ecious Metals Gold Silver Platinum Palladium		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227 309,774 67,299	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930 142,899 36,556	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673 344,267 45,997	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720 98,852 26,090	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - SHFE Copper - COMI Nickel - LME Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE Agriculture Wheat - USDA Soybeans - USDA	DE s E E E EX	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760 5,082 286,510 306,270 99,190	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30% 32% 45% 117%	-2% -7% -7% -12% -5% -9% -3% -7% -16% -10% -17% -4% -17% -38% -8% -38% -16%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% 96% -37%	-7% 1% -35% -24% -34% -36% -36% -36% -31% -31% -21% -6% -3% -166 -22% -4966 -41% -5.99% -0.7% -7%
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin cious Metals Gold Silver Platinum Palladium estock		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227 309,774 67,299 36,975 11,600	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930 142,899 36,556 23,272 13,774	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673 344,267 45,997 22,054 9,014	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720 98,852 26,090 17,864 13,091	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145 -28,517 -28,323 -7,161 6,695	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - SHFE Copper - COMI Nickel - LME Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE Agriculture Wheat - USDA Soybeans - USDA Sugar - USDA	DE s E E E EX	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760 5,082 286,510 306,270 99,190 47,836	2% -2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30% 32% 45% 110% 57% 33%	-2% 7% -7% -12% 5% 9% -3% -10% -17% -4% -17% -48 -16% -38% 8% -38% -16%	-3% 8% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% 96% -37% -2.7% 5.4% -12.0%	-79 1% -3511 -241 -544 -249 165 -361 -131 -211 -6% -399 -166 -411 -5.91 -67 -79
Heating Oil griculture Wheat Corn Soybeans Sugar Cotton Coffee Soybean Oil Cocoa dustrial Metals Copper (COMEX) Copper (LME) Aluminum Nickel Zinc Lead Tin ecious Metals Gold Silver Platinum Palladium		-814 3,541 -71,960 -58,980 -183,701 -23,546 -39,767 12,645 -21,644 -40,309 16,591 154,630 38,925 30,601 56,983 9,227 309,774 67,299 36,975	11,777 -43,386 64,478 34,053 50,350 53,746 -12,207 33,953 21,108 1,428 35,127 155,396 16,207 44,808 51,015 7,930 142,899 36,556 23,272	-1,356 17,785 137,585 -37,634 -117,956 -34,534 -28,217 40,862 7,089 -54,169 19,930 149,931 28,111 32,318 57,255 8,673 344,267 45,997 22,054	-14,154 -63,074 -192,475 -68,080 -81,682 -1,700 -69,115 48,703 -17,530 25,018 50,979 152,304 20,393 62,904 48,911 9,720 98,852 26,090 17,864	18,427 6,241 -77,854 -106,501 82,663 -99,293 -67,452 6,563 -8,964 27,952 180,152 -773 29,396 53,385 7,145	Heating Oil - DO Industrial Metal Aluminum Aluminum - LME Aluminium - SHF Copper Copper - SHFE Copper - COMI Nickel - LME Zinc - LME Zinc - SHFE Lead Lead - LME Lead - SHFE Tin Tin - LME Tin - SHFE Agriculture Wheat - USDA Soybeans - USDA	DE s E E E EX	228,904 11,012 1,253,761 910,950 342,811 493,264 296,625 152,188 44,451 166,680 139,175 62,550 76,625 99,491 75,650 23,841 11,842 6,760 5,082 286,510 306,270 99,190	2% -2% -52% -58% -23% -8% -16% -57% -52% -71% -82% -40% -48% -52% -30% 32% 45% 117%	-2% 7% -7% -12% 5% 9% -3% -10% -17% -4% -17% -4% -16% -38% 8% -38% -16% -16% -0.5% -2.5%	-3% 8% -19% -15% -28% 16% 19% 5% 47% 2% -15% -39% 26% 2% 11% -19% 3% 96% -37%	-7% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%

1Performance of front month futures from 13 Sep 18 (1 Year), 13 Mar 19 (6 Month), 13 Jun 19 (3 Month) and 13 Aug 19 (1 Month) to 13 Sep 19.
2Roll return non-annualised from front month futures into second "month on 13 Jun 19 (3 Month), 13 Aug 19 (1 Month), 06 Sep 19 (1 Week), 13 Sep 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 COTR 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 CFTC before then and inventory data (OECD) reported with 3 month lag with current = June 2019.

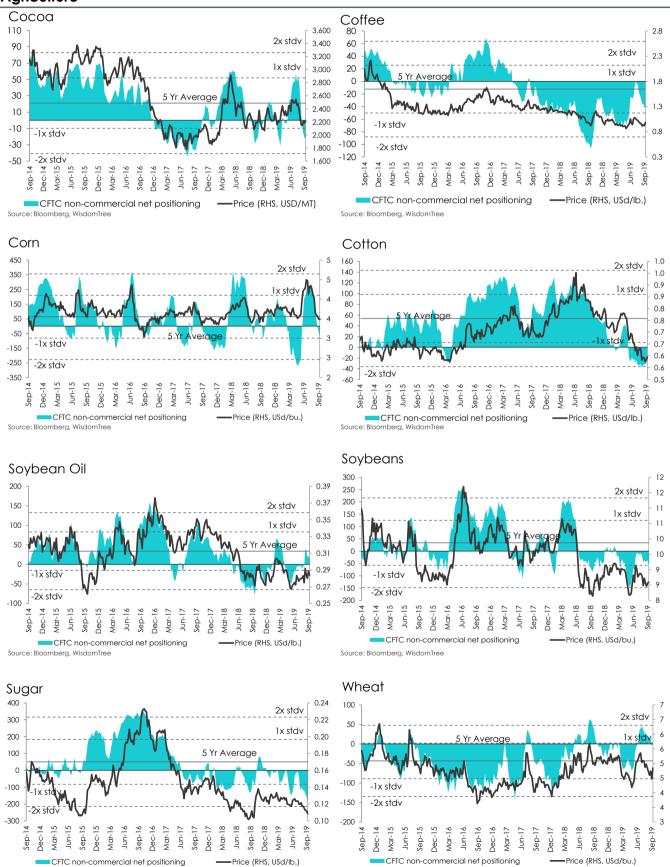
Historical performance is not an indication of future performance and any investments may go down in value.



CFTC Speculative Net Long Futures Positions

Agriculture

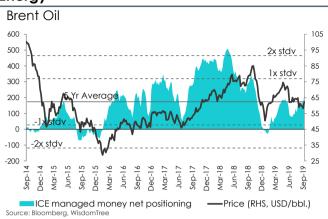
Source: Bloomberg, WisdomTree

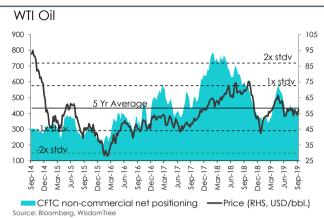


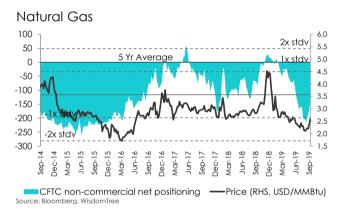
Source: Bloomberg, WisdomTree

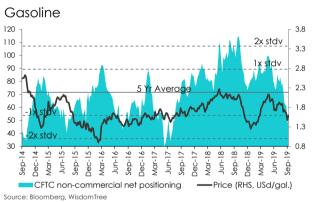


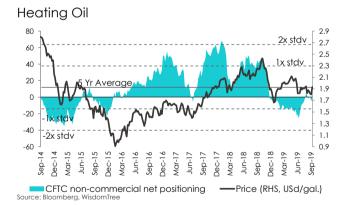
Energy





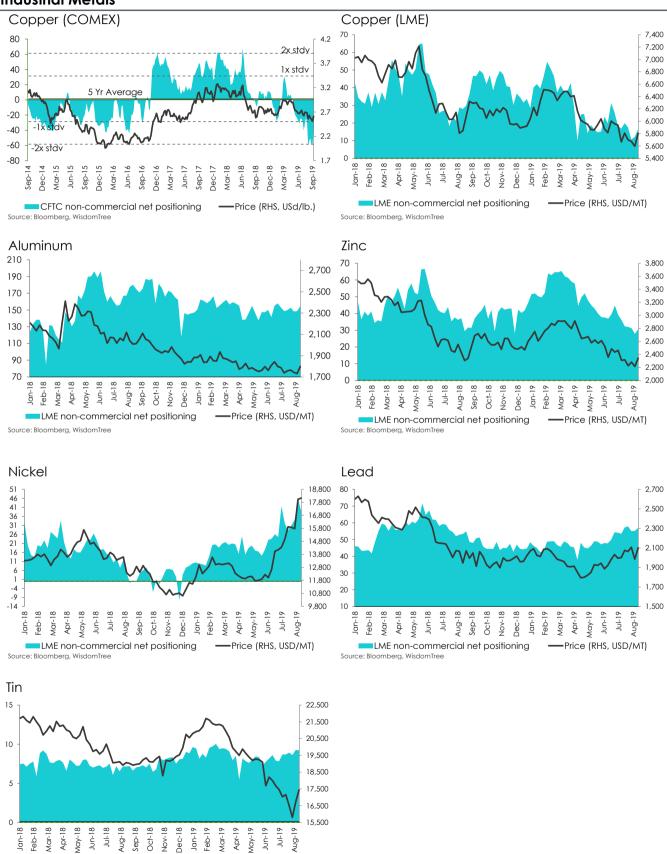








Industrial Metals



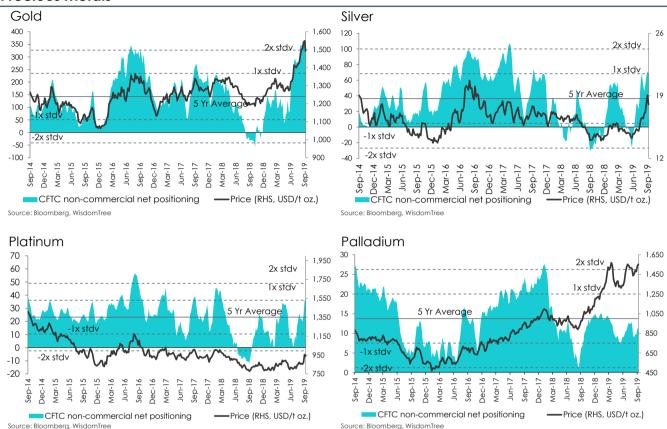
Price (RHS, USD/MT)

LME non-commercial net positioning

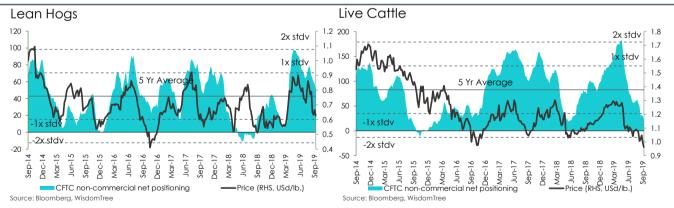
Source: Bloomberg, WisdomTree

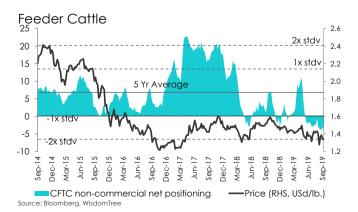


Precious Metals



Livestock

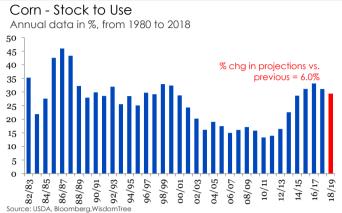


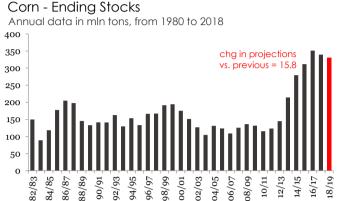


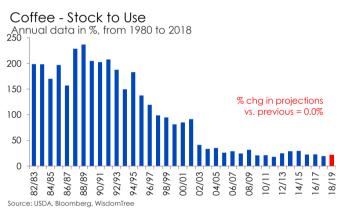


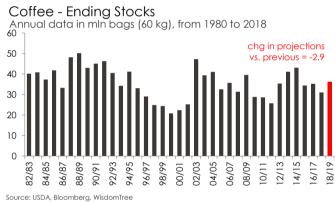
Inventories

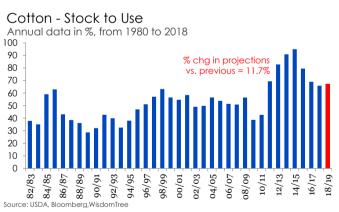
Agriculture

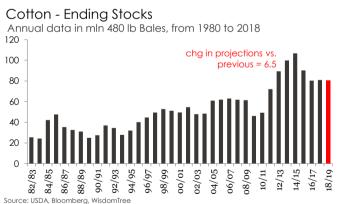


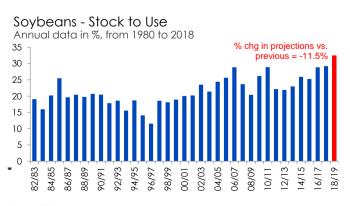


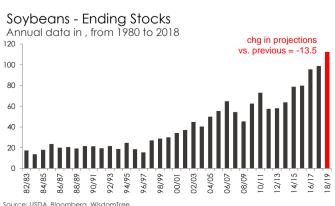










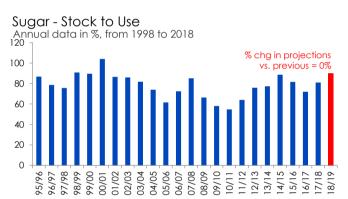




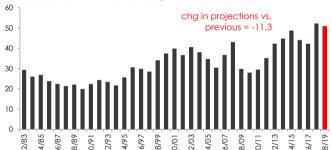
Soybean Oil - Stock to Use Annual data in %, from 1980 to 2018 18 16 % chg in projections vs 14 previous = 5.1% 12 10 8 6 4 02/03 12/13 82/83 68/88 26/96 66/86 00/01 10/11

Source: USDA, Bloomberg, WisdomTree

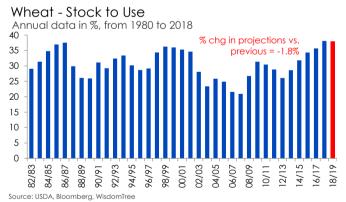
0.5

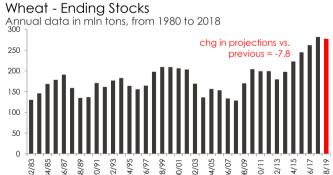






Source: USDA, Bloomberg, WisdomTree

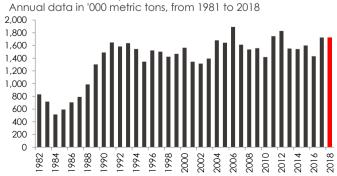




Source: USDA, Bloomberg, WisdomTree

Cocoa - Inventory

Source: USDA, Bloomberg, WisdomTree

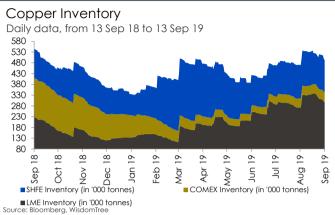


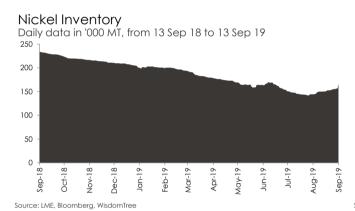
Source: International Cocoa Organisation, Bloomberg, WisdomTree

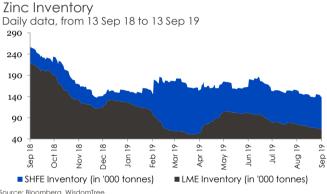


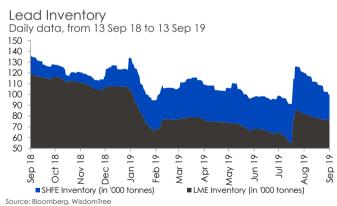
Industrial Metals

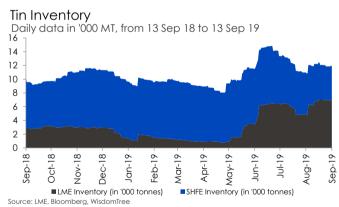




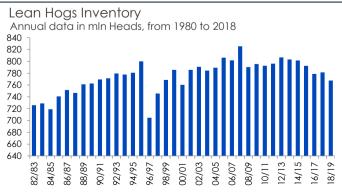


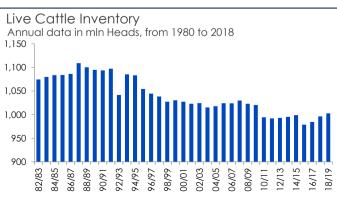






Livestock



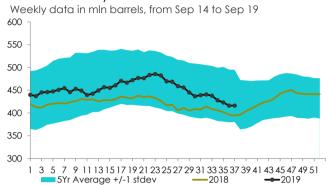


Source: USDA, Bloomberg, WisdomTree



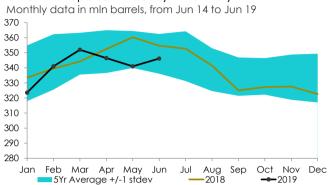
Energy

US Oil Inventory



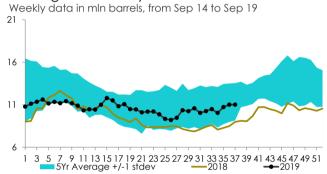
Source: DOE, Bloomberg, WisdomTree

OECD Europe Oil Industry Inventory



Source: IEA, Bloomberg, WisdomTree

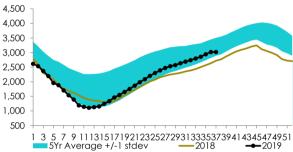
Heating Oil Inventory



Source: DOE, Bloomberg, WisdomTree

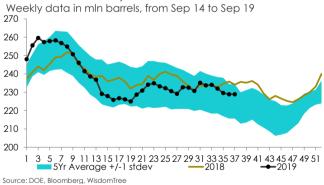
Natural Gas Inventory





Source: DOE, Bloomberg, WisdomTree

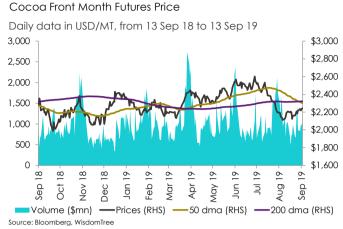
Gasoline Inventory



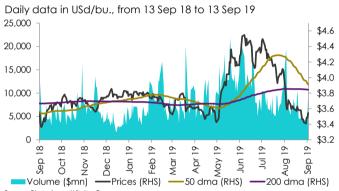


Commodities Front Month Futures and Trading Volumes

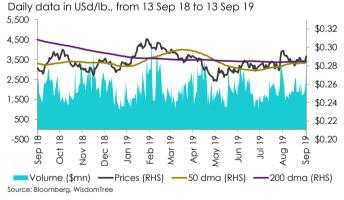
Agriculture



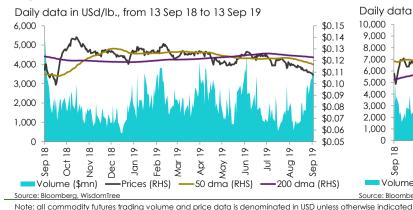
Corn Front Month Futures Price



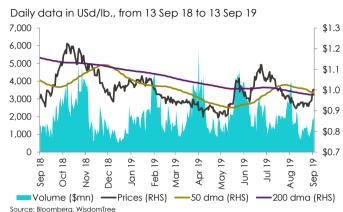
Soybean Oil Front Month Futures Price



Sugar Front Month Futures Price



Coffee Front Month Futures Price

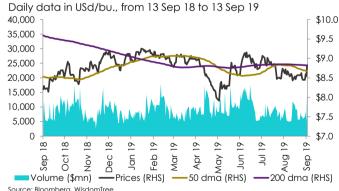


Cotton Front Month Futures Price

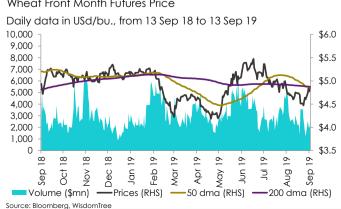


Source: Bloomberg, WisdomTree

Soybeans Front Month Futures Price

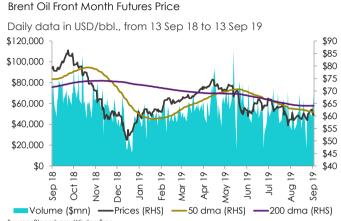


Wheat Front Month Futures Price

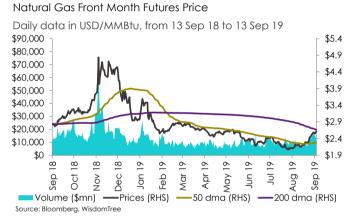




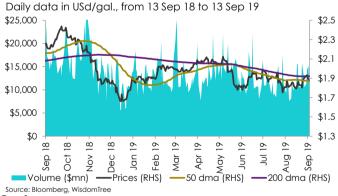
Energy



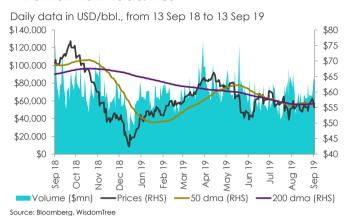
Source: Bloomberg, WisdomTree



Heating Oil Front Month Futures Price



WTI Oil Front Month Futures Price



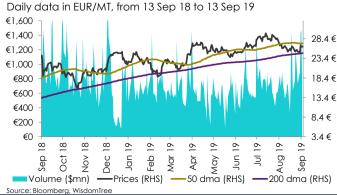
Gasoline Front Month Futures Price

Source: Bloomberg, WisdomTree



Carbon

Carbon Front Month Futures Price





\$2,500

\$2,400

\$2,300

\$2 200

\$2,100

\$2,000

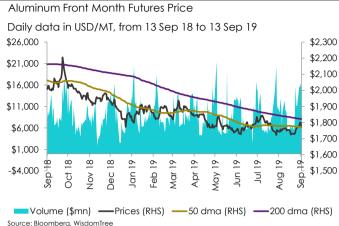
\$1.900

\$1,800

\$1,700

-200 dma (RHS)

Industrial Metals



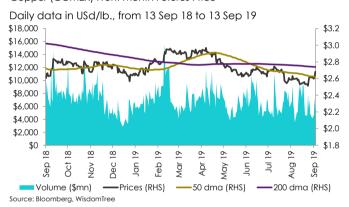
\$4,000 \$3,000 \$2,000 \$1,000 \$0 ∞ ∞ 6 Feb Apr h \exists Aug Μαγ g Oct

-Prices (RHS)

Daily data in USD/MT, from 13 Sep 18 to 13 Sep 19

Volume (\$mn) —

Copper (COMEX) Front Month Futures Price

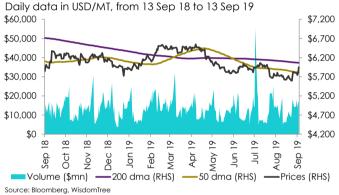


Copper (LME) Front Month Futures Price

Lead Front Month Futures Price

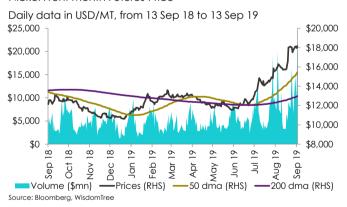
\$6,000

\$5,000

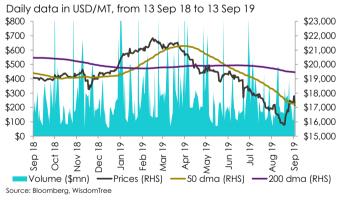


-50 dma (RHS)

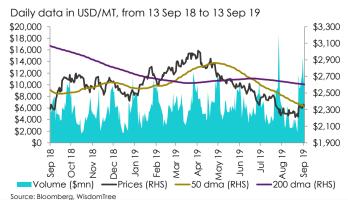
Nickel Front Month Futures Price



Tin Front Month Futures Price

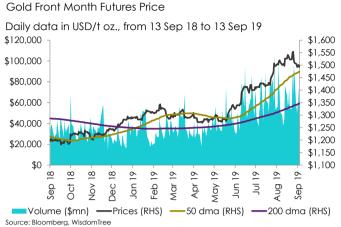


Zinc Front Month Futures Price

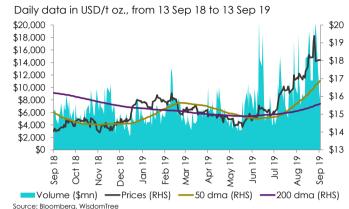




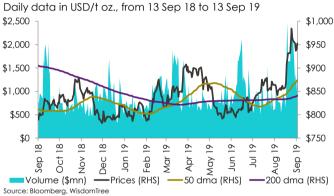
Precious Metals



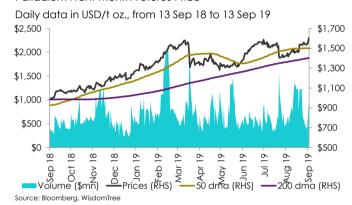
Silver Front Month Futures Price



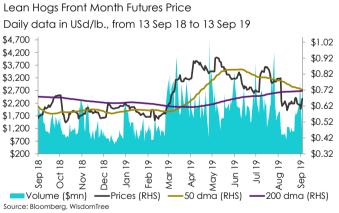
Platinum Front Month Futures Price



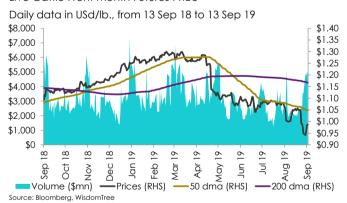
Palladium Front Month Futures Price



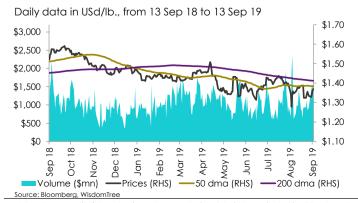
Livestock



Live Cattle Front Month Futures Price



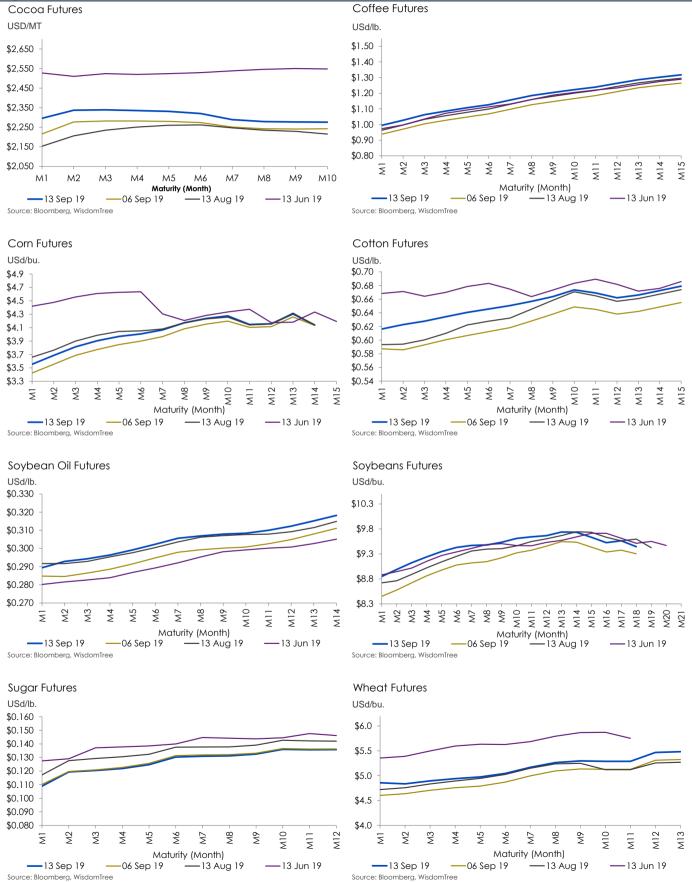
Feeder Cattle Front Month Futures Price





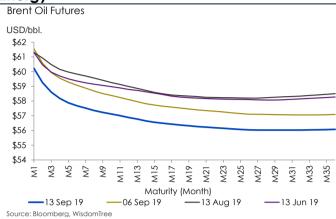
Futures Curves

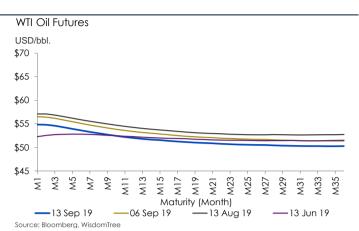




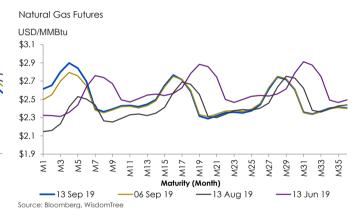


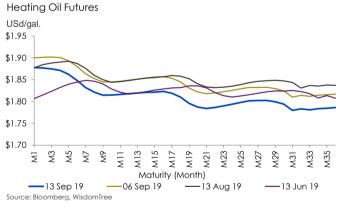




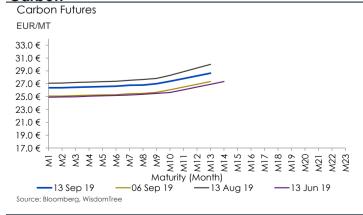


Gasoline Futures USd/gal. \$1.80 \$1.75 \$1.70 \$1.65 \$1.60 \$1.55 \$1.50 \$1.45 \$1.40 \$1.35 \$1.30 M17 M15-M19 M23 M33 M21 M31 Maturity (Month) -13 Sep 19 -06 Sep 19 -13 Aug 19 -13 Jun 19 Source: Bloomberg, WisdomTree



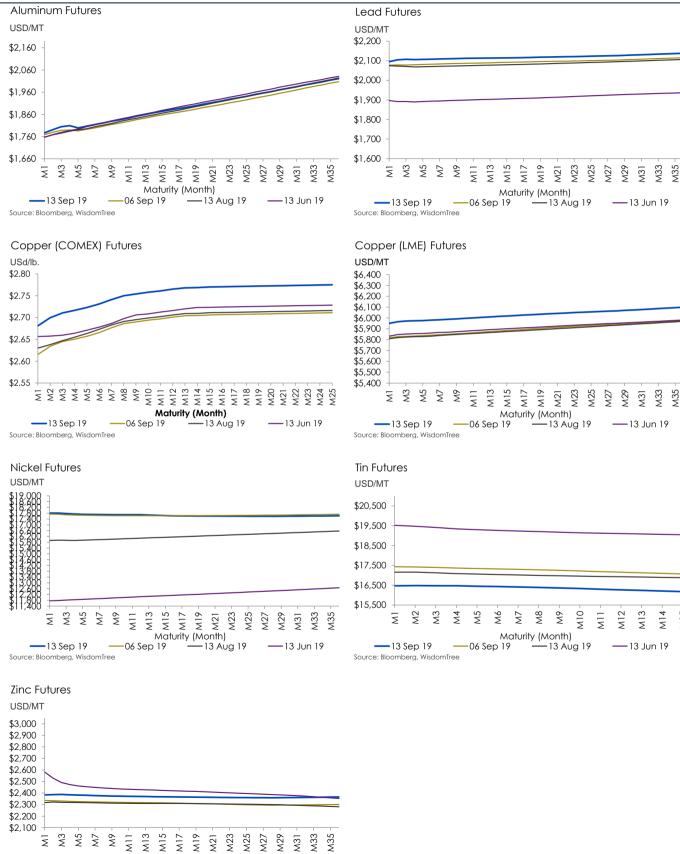


Carbon





Industrial Metals



13 Aug 19

-13 Jun 19

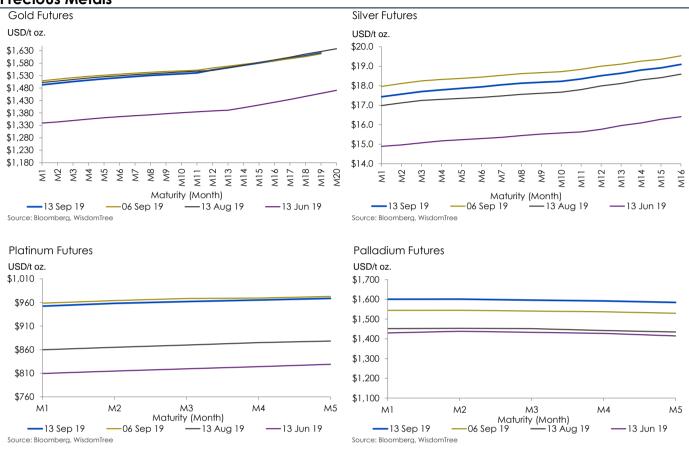
Maturity (Month)

06 Sep 19

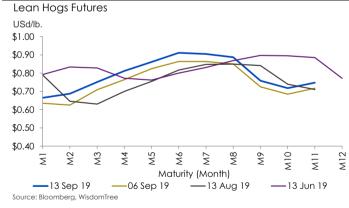
-13 Sep 19



Precious Metals

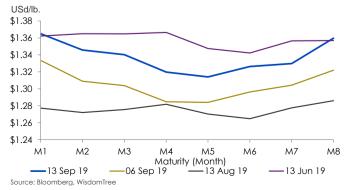


<u>Livestock</u>



Live Cattle Futures USd/lb. \$1.20 \$1.15 \$1.10 \$1.05 \$1.00 \$0.95 \$0.90 M1 M2 М3 M4 M5 M6 M7 M8 Maturity (Month) -06 Sep 19 -13 Sep 19 -13 Áug 19 — 13 Jun 19 Source: Bloomberg, WisdomTree

Feeder Cattle Futures





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 - R	ecent Blogs	
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
12-Aug-19	Aneeka Gupta	The gold market reigns supreme_
02-Aug-19	Kevin Flanagan	Like a good neighbour the Fed is there
25-Jul-19	Aneeka Gupta	June ETP Flows: Buy the rumour, sell the fact
23-Jul-19	Aneeka Gupta	ECB: A stitch in time saves nine
16-Jul-19	Christopher Gannatti	How WisdomTree classifies artificial intelligence companies – Part 2
10-Jul-19	Christopher Gannatti	How WisdomTree classifies artificial intelligence companies
08-Jul-19	Nitesh Shah	40 Years of fraught US-Iran tension in the Persian Gulf plays on
03-Jul-19	Aneeka Gupta	<u>Platinum's turn to shine in 2019</u>
26-Jun-19	Nitesh Shah	Gold above US\$1400, where next?

WisdomTree - Past Issues of Commodity Monthly Monitor

 Jul - Aug 2019
 Research Team
 Trump and Xi's Midas touch

Jun - Jul 2019 Research Team <u>Pre-committed Fed drives a rally across cyclicals & defensives</u>

 May - Jun 2019
 Research Team

 Apr - May 2019
 Research Team

 Irade reprices commodity risk

Mar - Apr 2019 Research Team <u>Commodities hanging on the balance of a trade deal</u>

The research notes are for qualified investors only.

Var	Reports	
$N \boldsymbol{\leftrightarrow} V$	$\mathbf{r} \in \mathcal{O} \cap \mathcal{O} \cap \mathcal{O}$	я

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