EHSAN KHOMAN
Head of Commodities, ESG and Emerging Markets Research – EMEA

DIFC Branch – Dubai
T: +971 (0)4 387 5033
E: ehsan.khoman@ae.mufg.jp

RAMYA RS
Analyst

DIFC Branch – Dubai
T: +971 (0)4 387 5031
E: ramya.rs@ae.mufg.jp

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China's economic malaise is carving a ceiling on commodity prices

Global commodities: Global markets continue to contend with a flagging Chinese economic recovery but it's not been a homogeneous story. Chinese oil demand has been solid year-to-date, while fresh credit concerns around Chinese property developers are clear headwinds. This disconnect matters for commodity returns. Chinese stimulus measures remain smaller than in previous cycles With ~55% of global metals demand and ~14% of global energy demand derived from China, what happens in China matters for a cyclical asset class like commodities. Taken together, the macro backdrop is what is driving investor angst which risks sentencing the commodities upside over the remainder of 2023.

Energy: After surging to a six month high close to USD90/b two weeks ago, Brent crude's quiet rally is ebbing owing to (i) a pessimistic Chinese outlook; (ii) indications that the Fed is not yet done tightening; and (iii) higher Iranian and Venezuelan supply. Meanwhile, deliberations to avoid strikes at Australian LNG terminals have begun this week, with the threat to supply set to continue driving volatility across global gas markets.

Base metals: Until China stimulus achieves material improvement in confidence and/or easing DM policy, we expect little potential for sustained near term gains.

Precious metals: We would argue for fading upside moves in gold price until a clear downward trend in yields and the USD emerges.

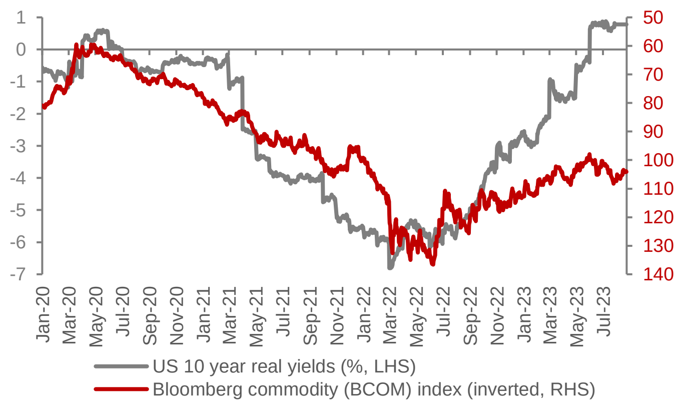
Bulk commodities: The persistent troubles in China's property market pose a threat to iron ore and thus far the myriad, piecemeal Chinese stimulus initiatives and reassuring rhetoric have failed to turn the tide.

Agriculture: Rice's precipitous rally has more room to run, as constrained supply meets robust demand.

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

CHART OF THE WEEK: DECADE-HIGH REAL YIELDS DEFLATE FROTHY ASSETS

US 10 YEAR REAL YIELDS (%) VS BLOOMBERG COMMODITY (BCOM) INDEX



Source: Bloomberg, MUFG Research

Investors may scale back their demand for commodities exposure as higher US real rates threaten to stifle growth. Whilst our US rates strategist believes that Fed Funds rate will peak this quarter, rising energy, wage and rental prices is complicating the outlook for monetary policy.

GLOBAL COMMODITIES (0.1% W/W; -7.1% YTD)

The devil is in the details as its not been a homogeneous story on Chinese commodities demand thus far this year

Global markets continue to contend with a flagging Chinese economic recovery. A protracted crisis in the property market, deflation, weak exports and a falling yuan reinforce fissures in the world's largest commodity consumer. Yet the devil is in the details as its not been a homogeneous story on Chinese commodities demand thus far this year. On the one hand, freed from the constraints of the pandemic, Chinese oil demand has been solid year-to-date approaching an all-time high of 16m b/d. On the other hand, metals demand is highly correlated to the infrastructure complex and fresh credit concerns around Chinese property developers are clear headwinds. This disconnect matters for commodity returns.

The mixed developments in China signal that energy demand is robust whilst the demand for metals weak

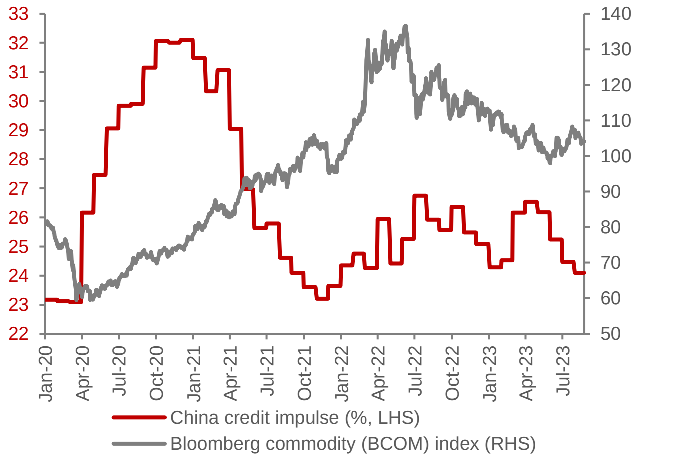
Base metals have retreated from their January high as the economy has lost steam, hampering margins at Chinese smelters and fabricators, especially for aluminium. The drop in profitability in H1 2023 is their worst performance in over a decade. In tandem, copper inventories have dropped with traditional drivers of consumption having stalled with new sources of growth from the energy transition which copper is a central driver supporting demand. Meanwhile, with construction accounting for as much as 40% of China's steel demand, the challenging state of the property market suggests steelmakers are going to be cautious about tapping more imports to replenish supplies. Turning to crude oil, shipments remain the bright spot among China's commodities imports with demand growth set to account for ~40% of the global total this year, as the tepid macro data is quite concentrated outside the oil-intensive services sector. Though, the recovery may now be running on fumes as refiners throttle back imports and switch to running down inventories. Separately, with China's economic activity underpinned by coal, China's economic malaise is reining in the breakneck pace of imports, which have nearly doubled from last year.

The macro backdrop is what is driving investor angst which risks sentencing the commodities upside for the remainder of 2023

As we recently catalogued, what is becoming increasingly apparent is that Chinese stimulus measures remain smaller than in previous cycles (see here). Structural challenges surrounding the government's desire to pivot to an economy led by consumption instead of investment – are helpful for energy and agricultural demand but not for old economy base metals driven by construction. With ~55% of global metals demand and ~14% of global energy demand derived from China, what happens in China matters for a cyclical asset class like commodities. Taken together, the macro backdrop is what is driving investor angst which risks sentencing upside for the broad Bloomberg commodities (BCOM) index over the remainder of 2023.

STAGNANT CHINA CREDIT IMPULSE MAY SIGNAL WEAKNESS FOR THE BROADER COMMODITIES INDEX

CHINA CREDIT IMPULSE (%) VS BLOOMBERG COMMODITY (BCOM) INDEX



Source: Bloomberg, MUFG Research

CHINESE MANUFACTURING SLOWDOWN HAS WEIGHED ON MACRO SENTIMENT AND INVESTOR POSITIONING

CHINA MANUFACTURING PMI VS NET COPPER POSITIONING (LOTS)

Source: Bloomberg, MUFG Research

ENERGY (0.5% W/W; -6.8% YTD)

Crude oil

Data from oil cargo shipments indicate Iran to boost its already surging oil exports

After surging to a six month high close to USD90/b two weeks ago, Brent crude's quiet rally is ebbing. The downturn has been exacerbated by three key factors – (i) a pessimistic economic outlook in China; (ii) indications that the Fed is not yet finished tightening; and (iii) a further revival in both Iranian and Venezuelan supply. Reports have come in that Iran and the US are inching towards an understanding that would ease sanctions enforcement in exchange for limits on Iranian uranium enrichment, which would in turn allow the flow of Iranian crude barrels to the currently tight market. Iran has already shipped 2.2m b/d of oil during the first 20 days of August – the highest ever monthly exports this year. This development comes after diplomatic efforts between the US and Iran have raised speculation about whether aspects of the nuclear deal abandoned by former President Trump in 2018 could be revived.

Russia honours initial commitment to cut production as seaborne crude flows fall

Meanwhile, seaborne crude flows from Russia, fell to their lowest since January after Russia pledges to restrict its oil exports. Average nationwide shipments in the four weeks to 20 August dropped to 2.84m b/d, tanker-tracking data compiled by Bloomberg show – nearly 1.1m b/d below the peak in mid-May. These figures are a testament that Russia is now honouring a pledge to keep supply off the global market alongside its allies in the OPEC+ producer coalition. Russia initially said it would cut oil production in retaliation for Western sanctions and price caps on its oil imposed after the invasion of Ukraine, using February 2023 figures as a baseline. Yet seaborne flows had continued to rise, dropping significantly only in the last few weeks.

US crude oil inventories at lowest levels since the beginning of the year

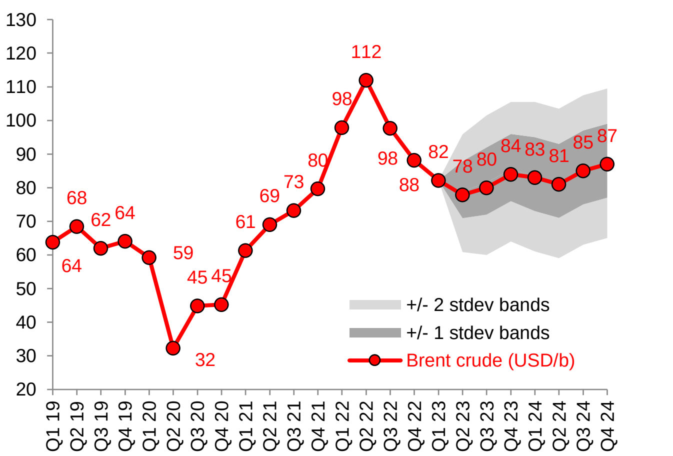
The current pressure in the oil market comes from weaker-than-expected Chinese macro data, as well as, unfavourable July Fed minutes suggesting the possibility of further monetary tightening. However, oil fundamentals remain largely constructive as continued OPEC+ supply cuts should ensure that we see sizeable inventory draws for the remainder of the year. The latest weekly inventory report by the EIA was also largely constructive, showing US commercial crude oil inventories falling to the lowest level since the start of 2023.

Oil fundamentals to dominate the future course of prices

Looking ahead, we stick to our call for oil rising with rate hikes ending, the US dollar peaking, demand surging, all juxtaposed against the structural underinvestment thesis. We believe that between bullish physical fundamentals and a dimming macroeconomic backdrop, that the fundamentals will dominate the future course of the prices.

WE ANTICIPATE BRENT OIL TO PRINT NORTH OF USD80/B IN H2 2023 AND 2024 ON SUPPLY TIGHTNESS

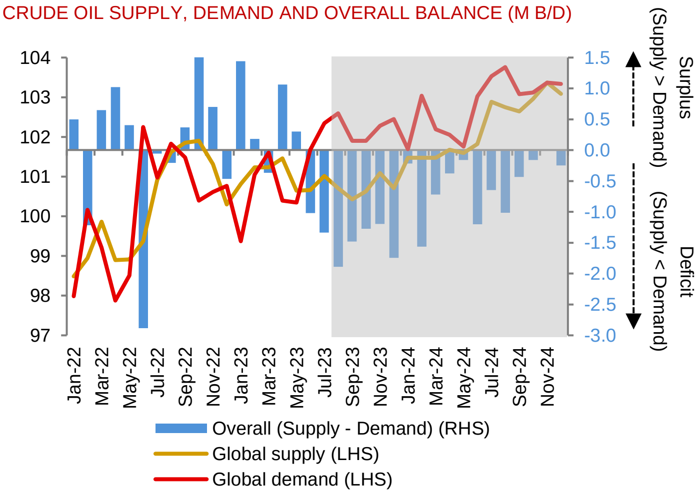
BRENT FORECASTS WITH STANDARD DEVIATION BANDS (USD/B)



Source: Bloomberg, New York Fed, MUFG Research

OIL MARKET FUNDAMENTALS POINT TO A DEEP DEFICIT IN H2 2023 ON HIGHER DEMAND AND WEAKER SUPPLY

CRUDE OIL SUPPLY, DEMAND AND OVERALL BALANCE (M B/D)



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

Natural gas

European natural gas (TTF) prices spiked again on the supply risks from Australian industrial action

Deliberations to avoid strikes at Australian LNG terminals have begun this week with early indications that workers will consider a “strong offer” from Woodside Energy Group on pay and work conditions – EU natural gas (TTF) prices have plunged ~15% on the development. Europe is currently recovering from last year’s energy crisis, when Russian supply cuts left it highly exposed to shifts in the tight global market. To add to this, the current likelihood of strike could disrupt 10% of the world’s liquefied natural gas flows, which has left the traders in Europe on edge. Labour unions have warned earlier that industrial action could start as soon as 2 September at a facility of Woodside Energy Group Ltd. if no deal is reached in pay discussions, which has sent the TTF prices soaring. We believe this price jump will be short-lived as European gas storage levels are remarkably robust at 89% full today – above the five year average, leaving the continent in a rosy position to navigate the winter heating season ahead.

Hurricane Hilary in focus in the US

Meanwhile, US natural gas (Henry Hub) prices fell as Hurricane Hilary failed to disrupt production in California, while Tropical Storm Harold missed offshore production areas in the Gulf of Mexico. Further, with cooler weather expected to cover two-thirds of the eastern US by next week, and hence lower demand for power to run air conditioners.

Carbon markets

EU carbon prices hit highest in almost a month on the back of gains in natural gas

EU carbon prices surged to the highest in almost a month following the rise in gas prices which has bolstered the attractiveness of burning coal for power. These emission permits are set to find upward price support, helped by reduced auction volume during Europe’s summer holiday season. Carbon permits are increasing becoming popular as policy is deployed to encourage polluters to curb their emissions. Eurostat reported that the EU greenhouse gas emissions totalled 941m mtCO2e in Q1 2023, down ~3% from Q1 2022, amid a steady rise in EU carbon prices in this period.

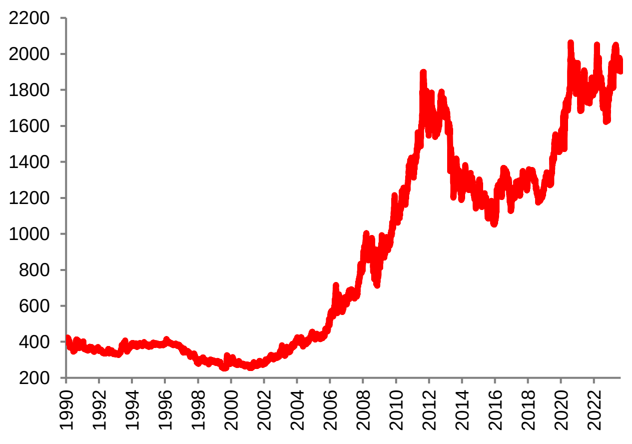
BASE METALS (2.0% W/W; -14.3% YTD)

Short-term gains in the base metals complex on the back of weakening US dollar

The demand outlook for base metals remains subdued, in our view, and the release of broadly weaker-than-expected July China macro data, as well as, apprehensions over liquidity risks in China’s USD2.9trn trust industry are a testament to our view. The only

GOLD FALLS AS US YIELDS HIT RECORD HIGHS ON THE POSSIBILITY OF ANOTHER RATE HIKE

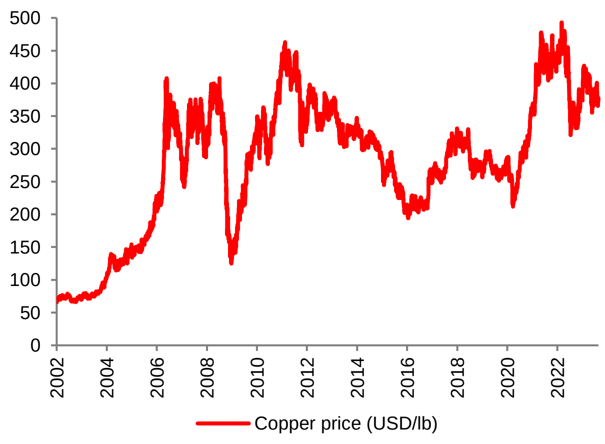
GOLD PRICES (USD/OZ)



Source: Bloomberg, MUFG Research

COPPER PRICES REBOUND ON HOPES OF CHINESE DEMAND RECOVERY AND WEAKER US DOLLAR

COPPER PRICES (USD/LB)



Source: Bloomberg, MUFG Research

exception in our opinion has been copper, as we believe in strong global demand given the decarbonization efforts. Investment sentiment for copper remained upbeat this week, with positive price movements on the back of surprisingly upbeat copper consumption data in China, more support measures from the Chinese government and a weaker US dollar. Some price recovery in the rest of the base metals complex was also seen last week amid gains in global equity market and China's efforts to control the CNY. Looking ahead, until China stimulus achieves a material improvement in confidence and/or developed markets monetary policy adjusts to an easing cycle, we expect little potential sustained broad base metals near term upside.

PRECIOUS METALS (0.4% W/W; 3.8% YTD)

Weakness in Gold prices as US yields hit highest since 2009

Following the US Federal Reserve's release of the minutes of the July monetary policy meeting, gold prices began to slide, as US yields hit decade high. The US central bank maintained its hawkish bias, leaving it open for another rate hike as inflation pressures remain elevated. This is the first time since March that gold has fallen below USD1,900/oz. The Federal Reserve's aggressive monetary policy tightening has been the biggest headwind for gold, and hence continues to struggle in this environment. As a non-yielding asset, gold is having to compete for a place in portfolios (less of an issue when bond yields are low, but more challenging as yields rise). With central banks raising interest rates (with the exception of China), its intuitive that gold ETF holdings are now the lowest since early 2020 and net long positioning is the lowest since March, with significant new shorts added. Any dips below USD1,900/oz is viewed as a buying opportunity, in our view, as we would argue for fading upside moves in the USD-denominated gold price until a clear downward trend in yields and the USD emerges.

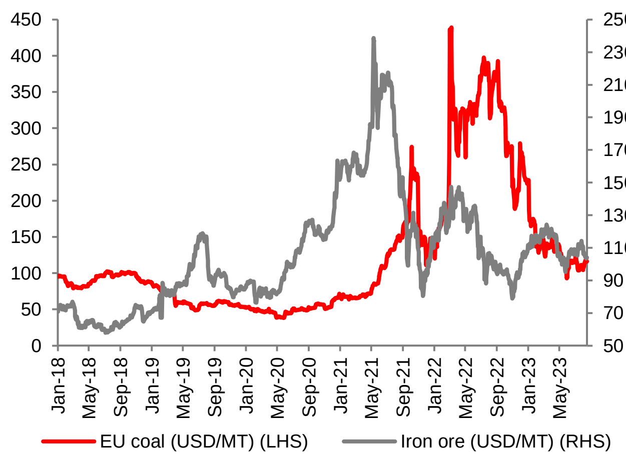
BULK COMMODITIES (3.3% W/W; -1.9% YTD)

Iron ore is approaching one month highs amid increasing speculation on seasonal pick-up in China's property sector

Bulk commodities have been foraying upward this week, Iron ore in particular, following speculation that Chinese steel mills will ramp up output ahead of the country's seasonal pick-up in construction activity during September and October. However, concerns regarding oversupply remain as troubles continue to weigh down the real-estate industry in China, and likely to result in lower steel demand, hurting iron ore consumption. Taken together, our expectations is for the market to remain in a surplus over H2 2023, which would pull prices lower. Hence, in the longer term, broader

CHINA PROPERTY WOES DEPRESS PRICES FOR COAL AND IRON ORE

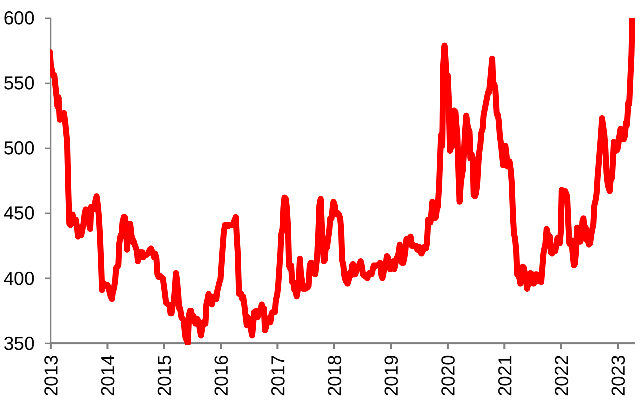
EU COAL AND IRON ORE:PRICES (USD/MT)



Source: Bloomberg, MUFG Research

RICE SUPPLY FACES NEW THREAT AS INDIA (LARGEST EXPORTER OF RICE) MULLS MORE LIMITS

THAILAND WHITE RICE 5% PRICES (USD/MT)



Source: Bloomberg, MUFG Research

bearishness surrounding sluggish growth in China and recessionary angst in the Europe will likely weigh on bulk commodity prices.

AGRICULTURE (0.9% W/W; -4.9% YTD)

The potential for tighter curbs on Indian rice exports poses a fresh threat for global food inflation

Rice prices came under further pressure, as Indian government is considering a tax on shipments of parboiled rice, according to an article published on Bloomberg. Although there has been no official announcement on this as yet, the fact that world's largest supplier of rice grains is considering tighter curbs on exports, led to price surge. Also, a recent report by the Fitch ratings, mentions that China grapples with heavy rain and increasing flood risks posing threat to rice production in the country. Asian rice prices -- already at the highest in 15 years -- could climb further. In general, food crops are threatened by dry conditions and governments are currently seeking to ensure food stability as worries over food security stay front and centre for investors.

Commodity prices – performance

	Commodity	Ticker	Unit	2022	2022/2023				Change %						
				31-Dec	01-Aug	08-Aug	15-Aug	22-Aug	Week	1 MTD	3 MTD	YTD	1 Year	3 Years	5 years
1	Bloomberg BCOM Total Returns	BCOMTR Index	Index	245.89	239.45	237.55	233.51	234.05	0.23	-2.96	4.71	-4.91	-12.27	53.32	36.24
2	Bloomberg BCOM Spot Index	BCOMSP Index	Index	536.54	506.55	502.95	497.72	498.35	0.13	-2.24	2.52	-7.12	-16.96	42.10	44.14
3	Energy	BCOMENSP Index	Index	423.92	382.40	393.22	395.11	389.36	-1.46	1.30	14.11	-8.15	-36.95	64.98	21.18
4	US Natural Gas	NG1 Comdty	USD/MMBtu	4.475	2.56	2.777	2.659	2.56	-3.72	-2.92	10.17	-42.86	-72.19	4.45	-13.73
5	EU Natural Gas	TZT1 Comdty	EUR/MMBtu	76.315	27.123	31.066	38.813	42.908	10.55	41.54	37.84	-47.39	-85.08	426.76	62.16
6	WTI Crude	CL1 Comdty	USD/b	80.26	81.37	82.92	80.99	80.35	-0.79	-3.48	8.28	-1.63	-15.78	86.47	16.39
7	Brent Crude	CO1 Comdty	USD/b	85.91	84.91	86.17	84.89	84.03	-1.01	-2.63	8.42	-3.03	-16.87	87.85	11.48
8	Gasoline	XB1 COMB Comdty	USD/lb	245.95	287.3	284.51	284.76	278.91	-2.05	-5.94	3.48	12.01	-6.07	114.54	33.78
9	EU ETS EUA	MO1 Comdty	USD/gal	81.49	84.16	83.44	86.19	88.92	3.17	3.77	3.46	9.12	-3.17	246.94	349.54
10	Metals	BCOMIN Index	Index	165.34	148.64	142.86	138.10	140.79	1.95	-5.81	-0.18	-14.29	-10.10	22.59	19.71
11	Industrial Metals Index	BCOMINSP Index	Index	290.239	265.654	255.713	248.7314	253.5856	1.95	-5.69	0.39	-12.63	-8.15	26.57	27.86
12	Copper	HG1 Comdty	USD/lb	381	391	377	367	376	2.44	-5.63	3.87	-0.73	2.35	29.65	42.49
13	Aluminium	LA1 Comdty	USD/MT	2,350	2,221	2,153	2,114	2,144	1.43	-5.00	-4.56	-8.76	-10.63	23.35	4.47
14	Zinc	LX1 Comdty	USD/MT	2,990	2,575	2,489	2,307	2,324	0.72	-9.64	-4.30	-22.30	-34.71	-4.77	-6.30
15	Nickel	LN1 Comdty	USD/MT	29,901	22,189	20,611	19,608	20,323	3.65	-8.15	-4.76	-32.03	-8.78	38.61	50.99
16	Precious Metals Index	BCOMPRSP Index	Index	534.84	570.15	558.19	553.21	555.39	0.40	-4.30	-2.48	3.84	12.64	-3.34	61.98
17	Gold	GC1 Comdty	USD/t oz	1,826	1,941	1,924	1,903	1,896	-0.32	-3.76	-4.09	3.84	9.37	-1.97	58.52
18	Silver	SI1 Comdty	USD/t oz	24.04	24.326	22.807	22.656	23.45	3.50	-4.61	1.47	-0.92	25.20	-10.89	63.80
19	Platinum	PL1 Comdty	USD/t oz	1074	940	904	892	926	3.73	-2.81	-11.90	-13.23	6.31	0.60	19.69
20	Palladium	PA1 Comdty	USD/t oz	1,798	1,237	1,218	1,239	1,265	2.12	1.13	-10.83	-28.25	-34.61	-40.83	41.57
21	Bulk Commodities	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	Hard Coking Coal	IAC1 Comdty	USD/MT	262.82	240.5	248	252.5	257.5	1.98	10.96	9.57	-2.02	2.86	140.65	38.81
23	Iron Ore	SCO1 Comdty	USD/MT	111.28	108.03	103.23	103.85	108.63	4.60	-2.72	3.80	-1.69	4.27	-11.37	62.72
24	Agriculture	BCOMAG Index	Index	68.82	67.97	66.55	65.02	65.58	0.86	-3.60	0.71	-4.91	-4.83	78.20	53.83
25	Agriculture Index	BCOMAGSP Index	Index	433.80	390.541	383.009	376.7214	379.9463	0.86	-2.59	-4.55	-12.42	-12.64	52.53	55.69
26	Grain Index	BCOMGRSP Index	Index	327.54	269.21	264.38	258.22	262.41	1.62	-3.17	-6.47	-19.89	-17.71	42.57	39.28
27	Soybean	S 1 Comdty	USD/bu	1,519	1,447	1,430	1,323	1,352	2.13	-7.54	1.08	-12.01	-14.68	48.40	58.76
28	Wheat	W 1 Comdty	USD/bu	792.00	652.25	656.25	598.50	601.75	0.54	-9.80	-3.50	-24.18	-23.28	13.89	15.04
29	Corn	C 1 Comdty	USD/bu	678.50	497.00	485.75	464.00	466.50	0.54	-7.24	-19.05	-31.10	-29.17	42.97	34.82
30	Soft Index	BCOMOSP Index	Index	345.72	372.83	363.07	356.52	352.39	-1.16	-4.71	-11.91	1.93	-9.38	53.11	71.47
31	Cotton	CT1 Comdty	USD/lb	83.37	86.87	86.20	86.20	84.99	-1.40	-0.53	-0.39	1.94	-27.91	33.36	2.99
32	Coffee	KC1 Comdty	USD/lb	167.30	164.55	161.35	149.25	146.60	-1.78	-9.81	-20.78	-11.24	-35.62	23.65	52.78
33	Sugar	SB1 Comdty	USD/lb	20.04	24.39	23.45	23.77	23.40	-1.56	-3.86	-10.19	15.67	29.57	80.67	129.05
34	Livestock Index	BCOMLISP Index	Index	218.93	239.20	237.41	230.79	230.84	0.02	-2.80	5.95	5.44	9.79	58.27	61.00
35	Live Cattle	LC1 Comdty	USD/lb	154.83	179.50	179.70	179.10	177.95	-0.64	-0.06	7.82	14.94	26.00	68.19	64.43
36	Lean Hogs	LH1 Comdty	USD/lb	87.70	103.68	102.10	78.20	79.58	1.76	-23.58	-2.75	-9.26	-15.32	46.68	48.46
37	USD Index	DXY Index	Index	103.52	102.30	102.53	103.21	103.56	0.34	1.92	0.31	0.28	-4.43	11.33	8.51

Source: Bloomberg, MUFG Research

Commodity prices – quarterly and annual forecasts

				22-Aug	Quarter Averages								Annuals			
	Commodity	**Ticker**	**Unit**	**Spot**	**Q1-23**	**Q2-23**	**Q3-23**	**Q4-23**	**Q1-24**	**Q2-24**	**Q3-24**	**Q4-24**	**2022**	**2023**	**2024**	**2025**
1	Energy															
2	US Natural Gas	NGA Comdty	USD/MMBtu	2.56	2.80	2.50	2.90	3.10	3.40	3.60	3.75	4.15	4.61	2.82	3.73	4.50
3	EU Natural Gas	TZTA Comdty	EUR/MWh	42.91	54.38	75.11	33.00	62.00	58.00	45.00	65.00	68.00	106.35	68.84	79.75	68.00
4	EU ETS EUA	MOA Comdty	EUR/MT	89.87	89.92	86.47	84.00	90.00	92.00	83.00	97.00	105.00	83.57	87.48	94.25	110.00
5	WTI Crude	CLA Comdty	USD/b	79.64	76.32	88.62	76.00	79.00	78.00	77.00	81.00	83.00	81.01	76.95	79.75	86.00
6	Brent Crude	COA Comdty	USD/b	84.03	81.62	92.97	80.00	84.00	83.00	81.00	85.00	87.00	86.16	81.02	84.00	90.00
7	Industrial Metals															
8	Copper	LMCADS03 Comdty	USD/lb	8,363	9,507	8,150	8,350	8,400	8,800	9,200	9,800	10,150	8,792	8,465	9,488	10,350
9	Aluminium	LMAHDS03 Comdty	USD/MT	2,177	2,896	2,275	2,450	2,600	2,850	3,100	3,200	3,450	2,711	2,441	3,150	3,700
10	Zinc	LMZSDS03 Comdty	USD/MT	2,332	3,863	2,525	2,400	2,450	2,775	2,900	3,000	3,150	3,440	2,621	2,956	3,650
11	Nickel	LMNIDS03 Comdty	USD/MT	20,504	28,922	22,900	22,250	20,000	19,650	21,000	21,600	22,250	25,598	22,833	21,125	23,500
12	Precious Metals															
13	Gold	XAU Comdty	USD/t oz	1,926	1,918	1,955	2,045	2,030	2,015	2,085	2,100	2,030	1,856	2,000	2,058	1,950
14	Silver	XAG Comdty	USD/t oz	23.76	22.72	23.50	25.60	24.50	24.00	24.50	25.10	25.70	22.46	24.26	24.83	23.80
15	Platinum	XPT Comdty	USD/t oz	926	1,002.78	1,035	1,005	970	1,090	1,175	1,250	1,300	940.84	1,003	1,204	1,260
16	Palladium	XPD Comdty	USD/t oz	1,265	1,562	1,926	1,480	1,450	1,415	1,550	1,600	1,750	2,021	1,473	1,579	1,800
17	Bulk Commodities															
18	Hard Coking Coal	IACA Comdty	USD/MT	257.50	321.87	308.86	290.00	295.00	305.00	320.00	315.00	295.00	291.13	294.22	308.75	355.00
19	Iron Ore	SCOA Comdty	USD/MT	108.63	124.77	141.61	105.00	100.00	98.00	105.00	100.00	115.00	121.33	111.19	104.50	112.50
20	Agriculture															
21	Soybean	BOA Comdty	USD/bu	1,346	1,503	1,393	1,500	1,515	1,450	1,420	1,480	1,525	1,429	1,499	1,469	1,490
22	Wheat	W A Comdty	USD/bu	627.50	733.77	1019.17	730.00	775.00	810.00	840.00	820.00	850.00	876.51	737.19	830.00	910.00
23	Corn	C A Comdty	USD/bu	479.50	656.43	643.92	705.00	685.00	710.00	725.00	700.00	680.00	658.70	676.61	703.75	715.00
24	Cotton	CTA Comdty	USD/lb	84.36	83.34	92.18	72.00	78.00	80.00	85.00	82.00	86.00	92.79	78.34	83.25	85.00
25	Coffee	DFA Comdty	USD/lb	2374	2,022	2,054	2,030	1,960	1,950	1,975	1,980	2,000	2,039	2,048	1,976	2,005
26	Sugar	SBA Comdty	USD/lb	23.40	19.91	18.26	21.60	20.80	20.20	20.35	19.60	19.65	17.60	21.08	19.95	19.40

Source: Bloomberg, MUFG Research

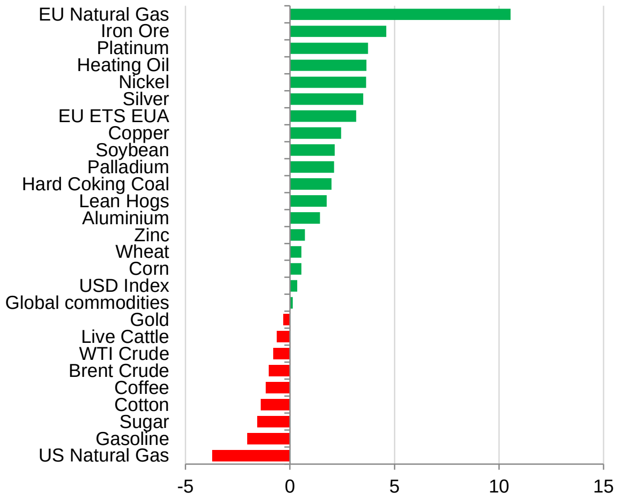
Commodity prices – 6-12 month forward outlook, vs. spot/nearby forwards

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

Core indicators – commodities flows and returns

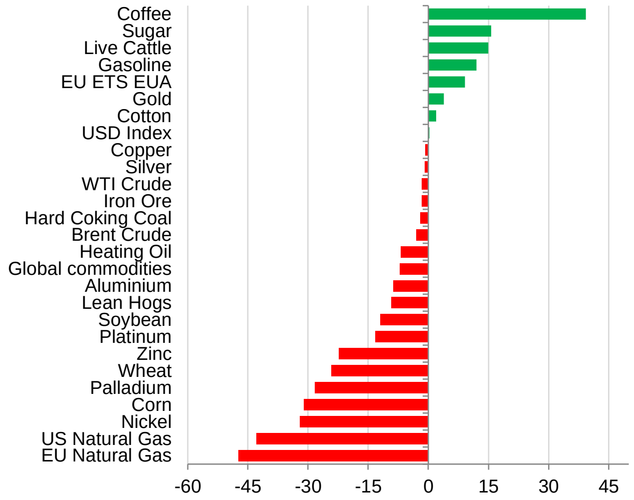
COMMODITIES MARKET PRICE RETURNS

WEEK ENDING 22 August 2023 (% W/W)



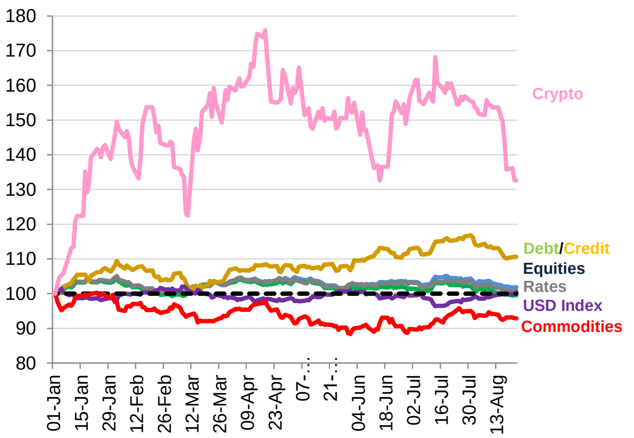
COMMODITIES MARKET PRICE RETURNS

YEAR-TO-DATE 2023 (%)



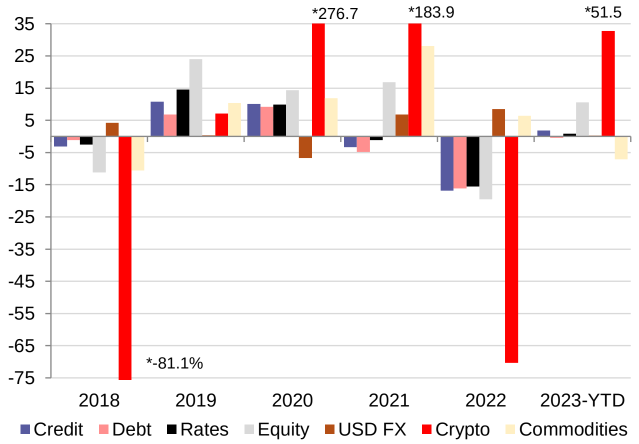
USD-DENOMINATED GLOBAL ASSET MARKET RETURNS

REBASED 1 JANUARY 2023 = 100



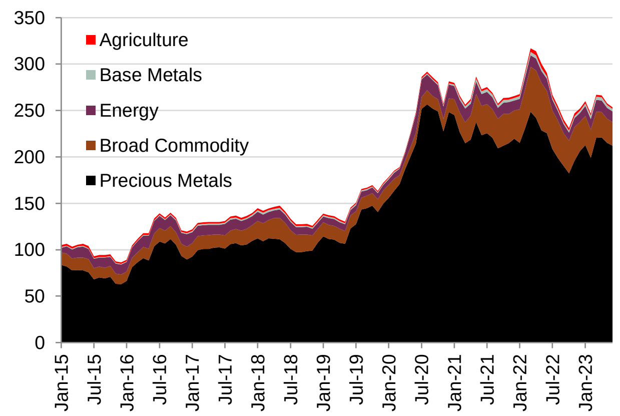
USD-DENOMINATED GLOBAL ASSET MARKET RETURNS

ANNUALISED PERFORMANCE (%)



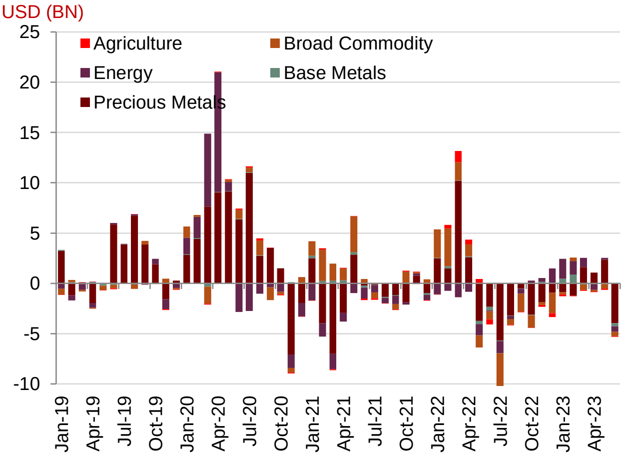
COMMODITIES ETF COMBINED CUMULATIVE AUM

USD (BN)



COMMODITIES ETF COMBINED CUMULATIVE FUND FLOWS

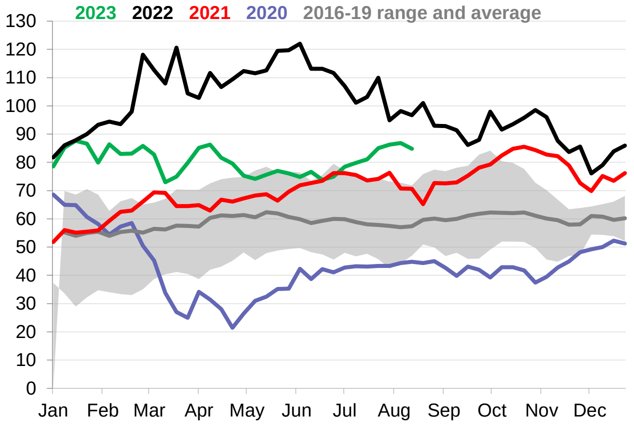
USD (BN)



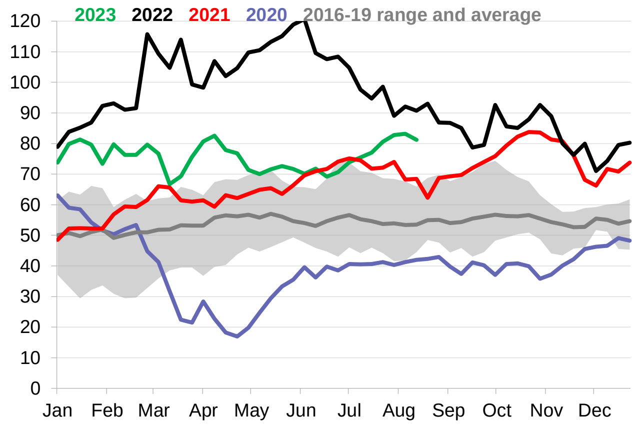
Source: Bloomberg, MUFG Research

Core indicators – prices

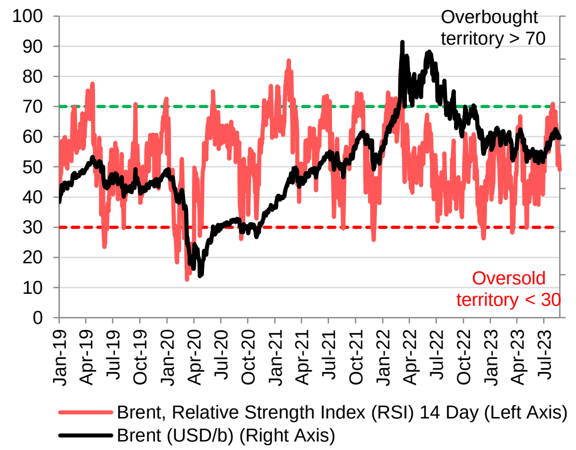
BRENT SPOT
USD/B



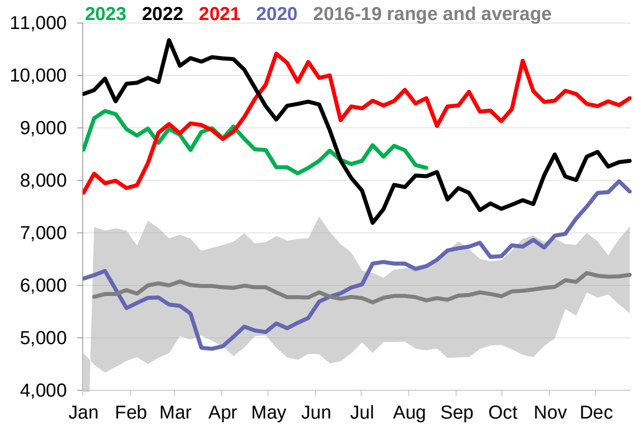
NYMEX WTI SPOT
USD/B



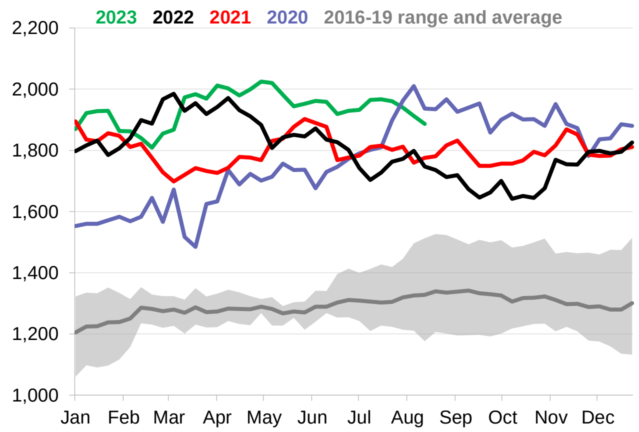
14 DAY RELATIVE STRENGTH INDEX (RSI) AND WTI
USD/B AND 0-100 INDEX (<30 = OVERSOLD; >70 = OVERBOUGHT)



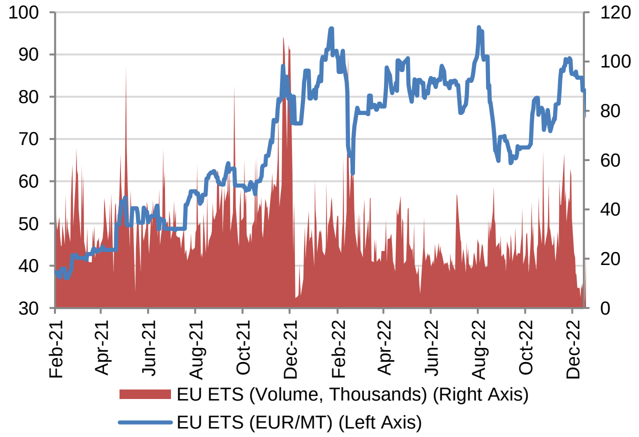
COPPER SPOT
USD/LB



GOLD SPOT
USD/T OZ



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

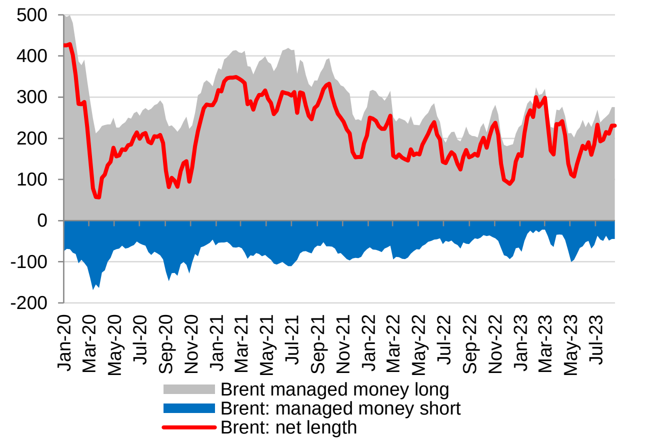


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – market positioning

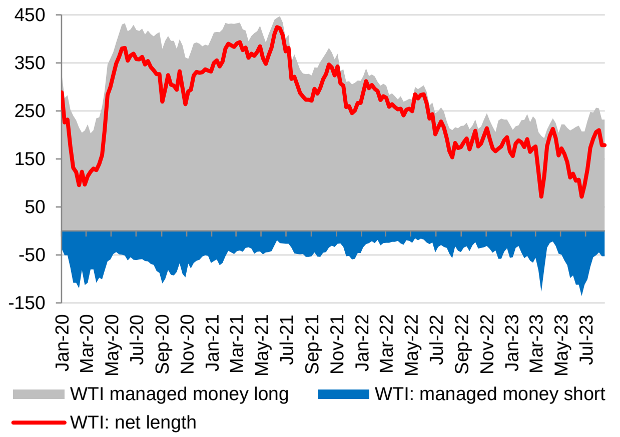
BRENT CRUDE MANAGED MONEY

CONTRACTS (THOUSANDS)



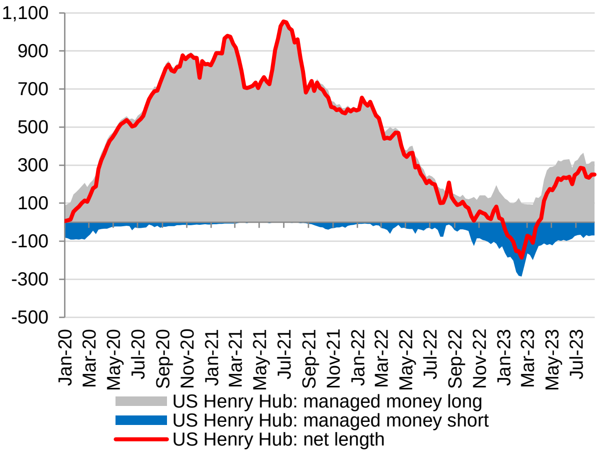
WTI CRUDE MANAGED MONEY

CONTRACTS (THOUSANDS)



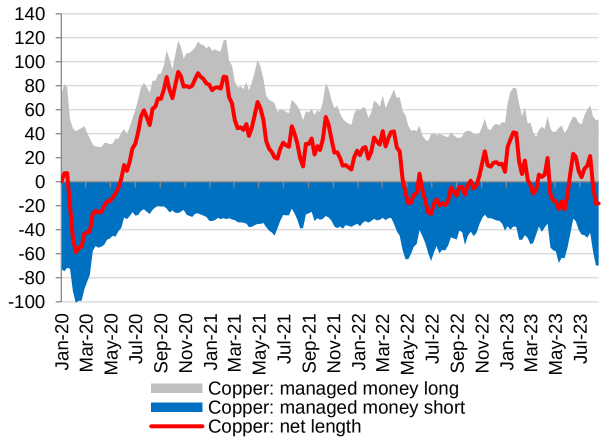
US HENRY HUB NATURAL GAS MANAGED MONEY

CONTRACTS (THOUSANDS)



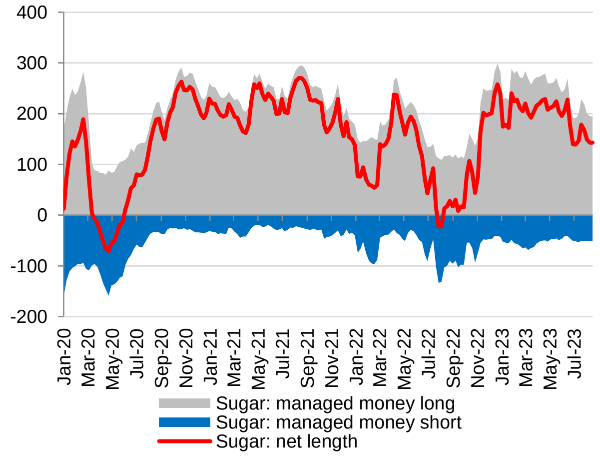
COPPER MANAGED MONEY

CONTRACTS (THOUSANDS)



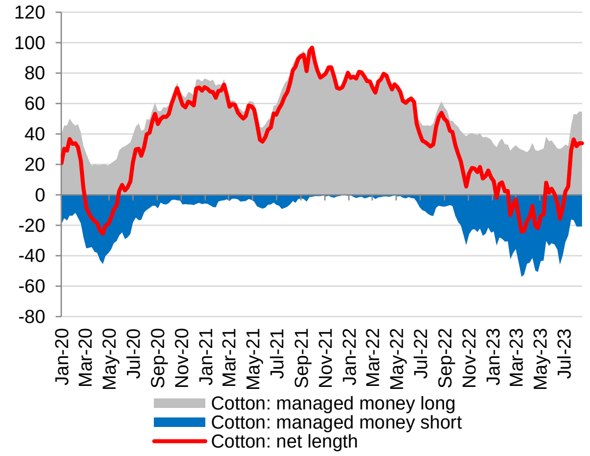
SUGAR MANAGED MONEY

CONTRACTS (THOUSANDS)



COTTON MANAGED MONEY

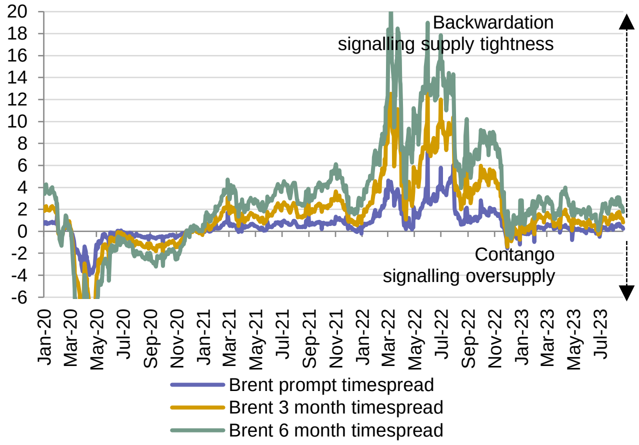
CONTRACTS (THOUSANDS)



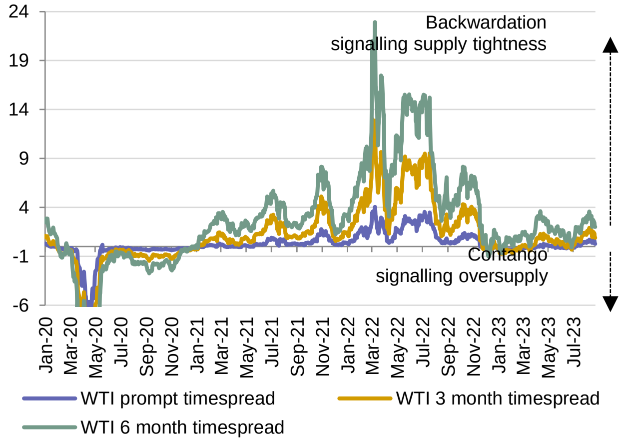
Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

Core indicators – timespreads and futures

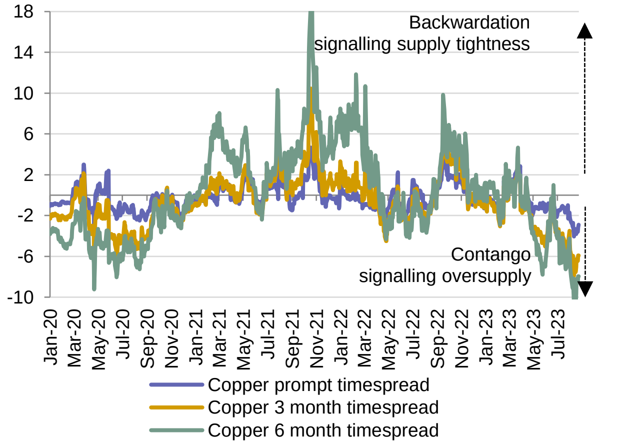
BRENT TIMESPREADS – FRONT, 3 AND 6 MONTHS
USD/B



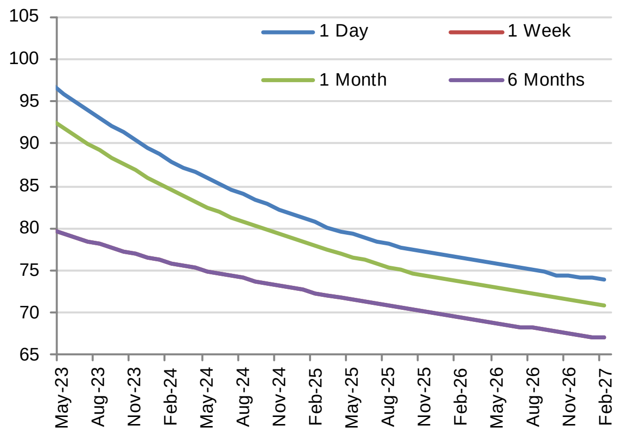
WTI TIMESPREADS – FRONT, 3 AND 6 MONTHS
USD/B



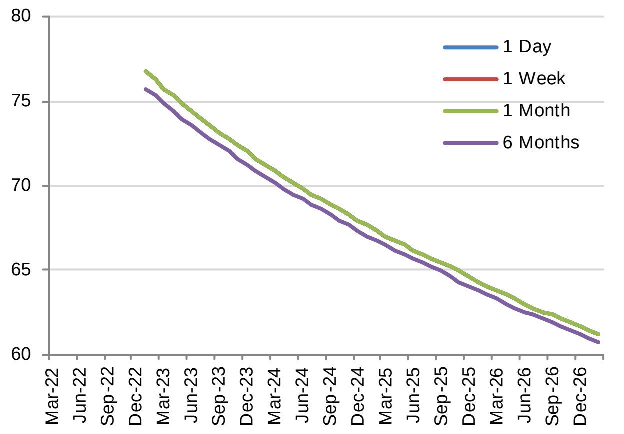
COPPER TIMESPREADS – FRONT, 3 AND 6 MONTHS
USD/B



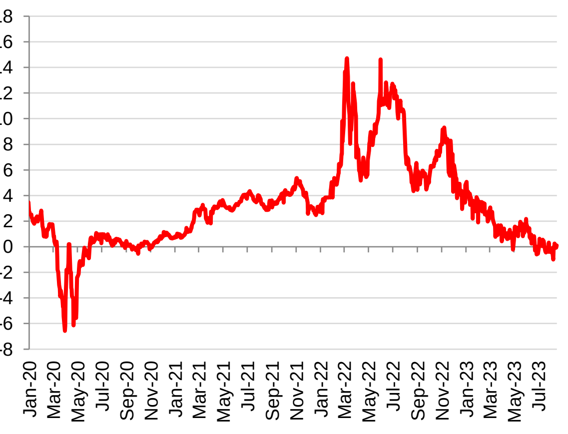
BRENT FUTURES CURVE
USD/B



WTI FUTURES CURVE
USD/B

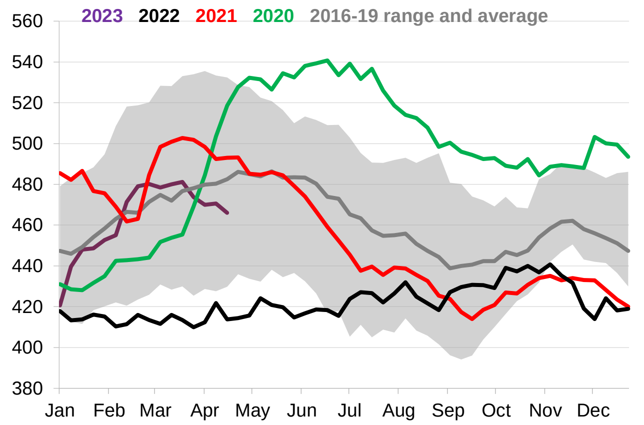


BRENT-DUBAI SPREAD
USD/B

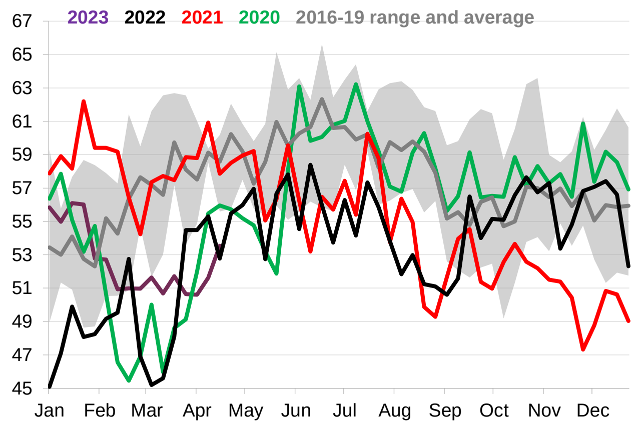


Source: Bloomberg, EIA, IEA, OPEC, MUFG Research

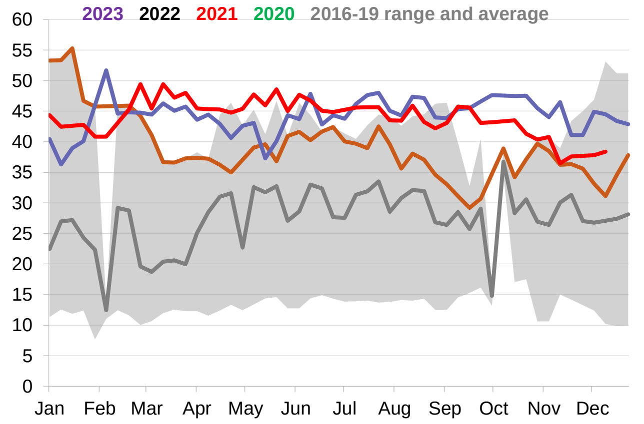
US CRUDE INVENTORIES
MILLION BARRELS



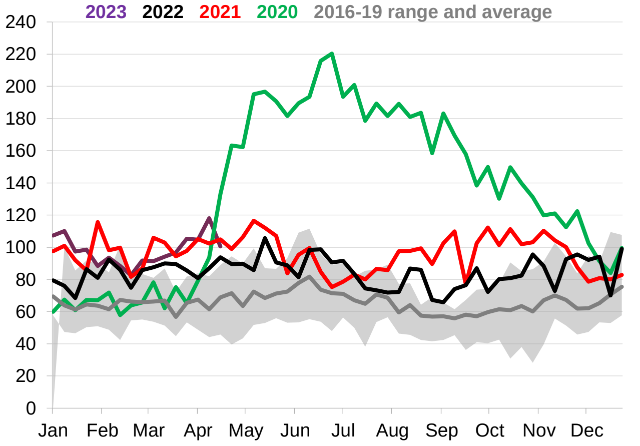
ARA CRUDE INVENTORIES
MILLION BARRELS



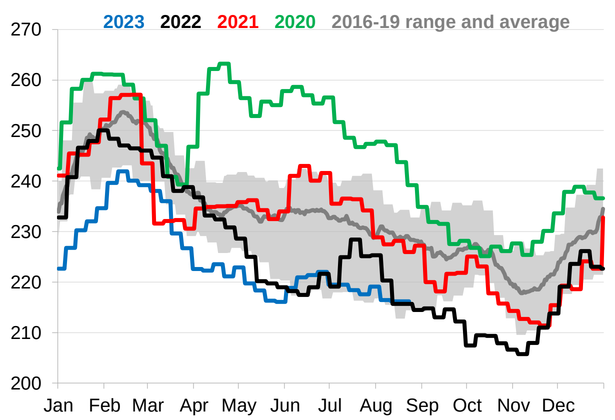
CHINA SHANDONG CRUDE INVENTORIES
MILLION BARRELS



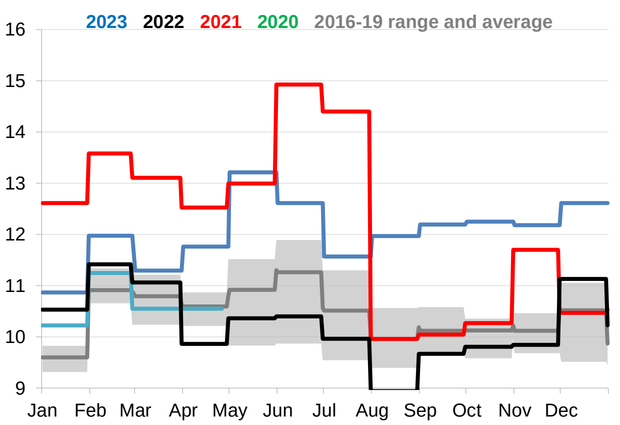
GLOBAL CRUDE FLOATING STORAGE
MILLION BARRELS



US GASOLINE INVENTORIES
MILLION BARRELS



JAPAN GASOLINE INVENTORIES
MILLION BARRELS



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

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

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

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

Research

London:

MR DEREK HALPENNY
Head of Research, Global Markets EMEA
& International Securities
T: +44 (0)20 7577 1887

MR LEE HARDMAN
Currency Analyst
T: l+44 (0)20 7577 1968

MS MOMOKO MIYACHI
Research Assistant
T: +44 (0)20 7577 1886

Shanghai:

MR MARCO SUN
Chief Financial Markets Analyst
T: +86 21 2063 5485

Hong Kong:

MS LIN LI
Head of Global Markets Research Asia
T: +852 2862 7005

New York:

MR GEORGE GONCALVES
Head of US Macro Strategy
T: +1-212- 405-6687

Dubai:

MR EHSAN KHOMAN
Head of Commodities, ESG and Emerging
Markets Research – EMEA
T: +971 (0)4 387 5033

Tokyo

MR TEPPEI INO
Tokyo Head of Global Markets Research
T: +81 (0) 3 6214 4185

MS SUMINO KAMEI
Senior Analyst
T: +81 (0) 3 6214 4179

MR TOMOKI HIRAMATASU
Analyst
T: +81 (0) 3 6214 4152

MR TAKAHIRO SEKIDO
Chief Japan Strategist
T: +81 (0) 3 6214 4150

MR KENTO SAITO
Research Assistant
T: +81 (0) 3 6214 4149

MR TOSHIYUKI SUZUKI
Global Market Economist
T: +81 (0) 3 6214 4148

Singapore:

MR JEFF NG
Senior Currency Analyst
T: +65 6918 5536

MS SOPHIA NG
Currency Analyst
T: +65 6918 5537

Sao Paulo:

MR CARLOS PEDROSO
Chief Economist
T: +55-11-3268-0245

MR MAURICIO NAKAHODO
Senior Economist
T: +55-11-3268-0420

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