December 2021 Edition Bloomberg Commodity Outlook

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Learn more about Bloomberg Indices

Data and outlook as of November 30, 2021

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**BI COMD** (the commodity dashboard)

## The Higher-Price Cure? Commodity Reversion May Dominate 2022

Performance: November -7.3%, 2021 +22.8%, Spot +22.8% (Returns are total return (TR) unless noted)

(Bloomberg Intelligence) -- Commodity prices are more likely to decline in 2022, notably if the higher-price-cure rule prevails. The market has the potential for more supply and demand elasticity than ever, fueled by rapid technological advances and demographic shifts. Brent crude at about \$71 a barrel is less than half its 2008 peak, and copper around \$9,500 a ton is the same price as a decade ago, and that's for a reason -- enduring bear markets. China in decline, the dollar resuming its upward trajectory, the inability of the Treasury long-bond yield to sustain above 2% and an elevated stock market all point to a downward reversion in 2022 pricing.

Gold may be a primary beneficiary, but the world has changed and the old guard is being replaced by Bitcoin and digital assets as stores of value.

#### **Broad Commodity Reversion Risks**

What's the Biggest Risk to Commodities in 2022? The 2021 Rally. Commodity prices have little chance of advancing in 2022, unless there's an unlikely combination of slack supply and demand elasticity, a rebounding China, a weaker dollar and a stronger U.S. stock market. We see greater risks that the 2021 bounce will result in reversion next year. Crude oil, corn, copper and lumber may have set longer-term peaks.

**Underperforming Commodities vs. Money Supply Is Bearish.** Commodities face elevated risk that enduring deflationary forces from before the pandemic will resurface in 2022, with added incentive from 2021's price bounce. Our graphic depicts the Bloomberg Commodity Spot Index's (BCOM) inability to outperform U.S. M2 money supply, notably since the 2011 peak. BCOM appears to be rolling over vs. M2 in a pattern similar to the 1H18 peak. Commodity prices have risen almost uninterrupted since the 2020 swoon and should succumb to normal reversion in 2022 if history repeats, which may feel like a crash.

Note - Click on graphics to get to the Bloomberg terminal



A key question for 2022 -- whether prices can sustain above the 2021 peak -- may have been answered by crude oil's plunge of more than 20% from its October high. Downward commodity-price reversion is more likely in 2022.

China in Decline and Weakening Bond Yields. Commodity prices may face 2022 pressure similar to the stagnant 1980-2003 period. It took 23 years to breach the 1980 BCOM peak. What's different today is that crude oil is being replaced by technology, demographics are less favorable, and China's period of strong economic growth may have run its course. Our graphic depicts an elevated BCOM vs. the declining Chinese required reserve ratio (RRR). The July cut in its RRR preceded property-company issues coming to the forefront.



Most commodities jumping well above production costs in 2021 is incentive for more supply, and the cure for higher prices to play out in 2022. It's a fragile situation, based on the 3% Nov. 26 BCOM decline and 2% S&P 500 Index retreat.



**Gold Could Shine in 2022.** Crude oil at the top of our 2021 performance scorecard and gold on the bottom points to reversion risk in 2022. Crude may have peaked just above \$80 a barrel, while gold looks to have bottomed around \$1,700 an ounce. The pandemic distorted an enduring trend that favors the precious metal vs. petroleum. Further appreciation in U.S. stocks should be needed for commodities to remain buoyant. If the S&P 500 gives back some of about a 25% year-to-date gain, commodities risk dropping at a greater velocity.

What Stops Crude From Reverting vs. Gold?

Security	8YTD +	Chg Nov.	1Yr % Chg	2Yr 8 Chg
Generic 1st 'CL' Future	+37.4%	-20.2%	+47.1%	20.9%
S&P 500 Total Return Index	+23.2%	7%	+27.9%	50.3%
Bloomberg Commodity Spot Index	+22.8%	-7.2%	+29.2%	44.1%
Bloomberg Commodity Index Tota	+22.8%	-7.3%	+28.9%	24.9%
Generic 1st 'HG' Future	+22.4%	-1.4%	+25.3%	61.8%
S&P 500 INDEX	+21.6%	9%	+26.1%	45.4%
Russell 2000 Index	+11.6%	-4.1%	+21.1%	35.7%
MSCI World ex USA Net Total Re	+8.5%	-3.5%	+13.4%	20.4%
Bloomberg Dollar Spot	+5.6%	+1.9%	+3.3%	-2.2%
Broad Dollar Index	+4.8%	+2.1%	+3.1%	1%
MSCI Emerging Markets Net Tota	-3.8%	-3.6%	+3.3%	22.3%
Bloomberg U.S. Treasury: 20+ Y	-4.3%	+1.3%	-5.4%	9.8%
Generic 1st 'GC' Future	-6.4%	6%	4%	20.5%

Nearing year-end, the 20-quarter correlation between the Bloomberg Commodity Index and S&P 500 is about 0.85 -- the highest in our database since 1960.

**Index Performance** (as of Nov. 30)

Name (as	!	1	3	YTD	1	2
		Mth %	Mth %	% Change	Yr %	Yr %
	(!!	Change	Change		Change	Change
▼ Commodities						
▼ BCOM Index TR		-7.3	-0.2	22.8	28.9	24.9
▶ Energy Index		-17.1	-1.0	47.9	47.0	-9.4
▼ All Metals Index		-1.9	-1.5	5.4	10.1	31.8
<ul> <li>Industrial Metals Index</li> </ul>	-(-	-2.3	-0.1	22.5	22.9	46.9
<ul> <li>Precious Metals Index</li> </ul>		-1.5	-3.0	-8.7	-0.6	19.2
▼ Ags & Livestock Index	0	0.0	1.8	19.9	31.1	37.9
<ul> <li>Livestock Index</li> </ul>	2	2.2	-1.5	7.0	9.3	-16.8
▼ Agriculture Index		-0.4	2.5	22.3	35.0	50.6
<ul> <li>Grains Index</li> </ul>		-0.9	2.5	16.5	30.4	45.5
<ul><li>Softs Index</li></ul>	3	3.4	7.1	43.6	52.3	56.9
▶ BCOM EX Indices TR						
▶ BCOM Index Roll Select TR		-6.8	-0.1	23.4	29.4	31.6
▶ BCOM Index Forwards TR						
► BCOM Index ER		-7.3	-0.2	22.7	28.8	24.2
▶ BCOM Index Spot		-7.2	0.2	22.8	29.2	44.1
▼ Stocks						
➤ S&P 500 Index TR		-0.7	1.3	23.2	27.9	50.3
▼ Bonds						
► Barclays U.S. Aggregate	0	0.0	-0.9	-1.6	-1.4	5.7
▼ Currencies						
▶ Bloomberg U.S. Dollar Spot Index	1	1.9	3.1	5.6	3.3	-2.2
US Dollar Index	1	1.9	3.5	6.6	4.4	-2.4
US Trade Weighted Broad Dollar	012	2.5	2.5	4.8	3.1	-0.1



### **Energy**

(Index weight: 19% of BCOM)

Performance: November -17.1%, 2021 +47.9%, Spot +56.5%

#### **Energy Bounce Cure**

What Is \$50 Crude Oil in 2022? May Be Path of Least Resistance. In 2022, we expect the ingenuity that created Covid-19 vaccines in months will accelerate pre-pandemic deflationary trends, notably in energy commodities. Crude oil and natural gas have bounced, but remain well below all-time highs, and that's for a reason -- enduring bear markets, on the back of rapidly advancing technology and demographic shifts.

Crude's Bear-Market Sign - Underperforming Money Supply. Energy prices have bounced in 2021, but only to the upper end of longstanding downward trajectories, which may increase risks of a bear-market resumption in 2022. Our graphic depicts the inability of the Bloomberg Energy Spot Subindex to keep up with rising U.S. money supply, notably since 2011, emphasizing the sector's predominant deflationary challenges. Energy prices have risen almost uninterrupted since the 2020 swoon but should succumb to some normal reversion in 2022, if past patterns repeat, which may feel like a crash.

Some Normal Reversion May Seem Like a Crash

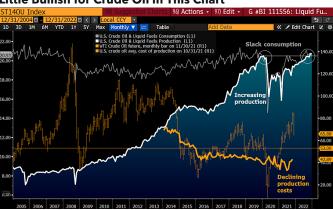


Our outlook for energy is U.S. production-focused, because it's the rapidly rising supply of liquid fuel and natural gas in what was once the world's largest crude-oil importer that's shifting the global energy balance. Advancing tech and unfavorable demographics may herald price challenges.

Crude-Oil Reserve Release, China Copper Kibosh, Commodity Peaks. The coordinated release of strategic petroleum reserves on Nov. 23 elevates the risk of a peak in broad commodities, we believe. China set some precedent in June, releasing copper reserves when the price reached new highs. Though we're concerned about distortions, free-market forces are poised to pressure commodity prices in 2022, notably on the back of enduring bear markets in crude

oil and natural gas. Our graphic shows the predominant price headwinds. Formerly the world's largest crude-oil importer, U.S. liquid fuel production is set to exceed consumption next year.

Little Bullish for Crude Oil in This Chart



Juxtaposed is the declining average cost of shale production. We see little to stop WTI crude oil in 2022 from gravitating toward a production cost of \$43 a barrel.

Hot Natural Gas Risks Reverting Below \$4.50. Natural gas is the star of the 2021 commodity bounce, which is a bad omen for a long-lasting broad market advance. Gas is the most expensive to store, typically unfavorable for investors and one of the worst-performing commodities for almost two decades for a key reason: massive supply from the U.S. To sustain the highest prices in seven years at November's end, the market likely needs a colder-than-normal winter and for supply to not respond. We think that's unlikely and should be a good test if the entrenched bear market is transitioning.

Natural Gas Lesson Since 2005 - Sell Rallies



Similar to the steep backwardation in crude oil, natural gas for December 2022 is closer to \$4.50 per million BTUs vs. the front contract at about \$5 on Nov. 23. We see little reason to doubt the forward curve and see risks rising as the cost of production slips below \$2.



Energy 2022 - A Prime Test of the Price Cure. If energy prices don't revert some in 2022, the higher-price-cure mantra will lose some credibility. We expect the former, and are concerned that some normal reversion, and response in supply-and-demand elasticity, may appear as a crash. To sustain above the 2021 Brent crude-oil future high close of \$86.40 a barrel, which was last matched in 2014, would require some unlikely combination of reduced production vs. increasing consumption. Trends are flowing the opposite way, and the potential for sustaining unprecedented discipline from OPEC is low, as we see it.

#### Green on the Screen in 2021 Risks Red in 2022

Security	%YTD	1	Chg Nov.	1Yr & Chg	2Yr 8 Chg
Bloomberg Natural Gas Subindex	+58.7%		-17.4%	+38.2%	-10.6%
BBG Energy Spot	+56.5%		-12.9%	+56.6%	47.4%
Bloomberg Energy Subindex Tota	+47.9%		-17.1%	+47.0%	-9.4%
Bloomberg Unleaded Gasoline Su	+47.1%		-16.3%	+64.6%	7.9%
Bloomberg Brent Crude Subindex	+46.6%		-15.6%	+58.4%	10.8%
Bloomberg Petroleum Subindex T	+43.6%		-17.0%	+54.8%	-6.0%
Bloomberg WTI Crude Oil Subind	+41.9%		-19.1%	+51.2%	-22.3%
Bloomberg Heating Oil Subindex	+40.0%		-16.3%	+50.6%	-6.7%

Humans can create more energy at lesser costs and are using less. Notables of 2021 -- supply bottlenecks and profits -- are likely to be worked out in 2022 with a top potential result of lower prices. The Brent crude average since 2014 is about \$57 vs. \$81 on Nov. 23.

#### **Worried About Thanksgiving Driving Cost? Gas Can't**

**Match CPI.** Emphasizing free-market capitalism and a system that favors human ingenuity and innovation, U.S. unleaded gasoline prices this Thanksgiving are about the same as just before the 2007-08 financial crisis. Were the average gasoline price to catch up with the consumer price index (CPI) since November 2007, consumers would be paying about \$4.35 a gallon vs. a \$3.71 national average on Nov. 24. Our graphic shows CPI up about 30% since Thanksgiving 2007 vs. closer to 10% for unleaded. By comparison, U.S. M2 money supply is 190% higher and the S&P 500 total return has surged 320%.

**Unleaded Gas Prices Underperforming CPI** 



U.S. innovation in energy and agriculture has been the primary pressure point on commodity prices for most of the past decade. We expect more of the same in the next one.

**Individual Commodities Front Future Change** 

Name	- !]	MTD	3	YTD	11
		% Change	Mth %	% Change	Yr %
	(!		Change		Change
▼ BCOM Single Commodity Price					
Coffee		13.9	18.6	81.1	88.4
Natural Gas	++	-15.2	5.1	81.3	59.7
Gasoline		-19.6	-13.3	40.6	58.5
Gas Oil	++	-17.0	-0.9	41.7	54.0
Heating Oil		-17.3	-3.2	39.8	52.2
HRW Wheat		4.9	15.7	36.5	50.6
Brent Crude	++	-16.4	-3.3	36.2	48.3
Soybean Oil	_ +-	-9.6	-5.7	30.7	47.8
Cotton		-4.3	15.0	36.2	47.5
WTI Crude		-20.3	-2.8	37.2	46.8
Wheat		2.2	9.3	23.3	35.0
Corn		0.1	6.5	17.5	33.5
Aluminum	-0	-2.6	-2.7	33.4	29.3
Sugar		-3.5	-6.2	20.1	28.2
Copper (LME)	++	-2.1	0.0	22.7	25.7
Copper (CME)	-0	-1.5	-1.7	22.3	25.1
Nickel		2.5	2.2	20.8	25.1
Live Cattle	+-	6.7	8.7	19.9	22.2
Lean Hogs	++	5.2	-9.9	13.9	16.7
Zinc		-6.5	7.3	17.8	15.9
Soybeans	++	-2.3	-5.6	-6.9	4.5
Silver		-4.8	-5.0	-13.7	0.9
Gold	++	-0.6	-2.5	-6.4	-0.4
Platinum		-9.0	-8.4	-14.0	-3.9
Soybean Meal	C-	3.0	-0.9	-20.2	-12.3
Palladium	-	-12.5	-29.9	-29.4	-28.0



#### Metals

All (Index weight: 40% of BCOM)

Performance: November -1.3%, 2021 +6.0%

Industrial (Index weight: 19.0% of BCOM.

Performance: November -2.3%, 2021 +22.5%, Spot +22.0%

Precious (Index weight: 16.1% of BCOM.

Performance: November -1.5%, 2021 -8.7%, Spot -8.0%

#### Gold vs. Copper

#### What Stops Gold From Regaining Upper Hand vs.

Copper? Not Much. The copper bounce and gold decline in 2021 may add fuel to more enduring trajectories that favor the precious vs. the industrial metal in 2022. Gold faces increasing competition from Bitcoin, but China in decline and the rules of supply and demand elasticity lean against industrial metals, as we see it.

#### Gold May Keep Outperforming Base Metals. The

Bloomberg Industrial Metals Spot Subindex at the end of November is around the same as it was in March 2007 vs. about a 170% rise in spot gold, for reasons that we see tilting toward maintaining the trend in 2022. Gold tops commodities in terms of limited supply and low storage costs. In a world of rapidly advancing debt-to-GDP and quantitative easing, and on the back of the price pullback this year, we see gold well poised to return to its enduring upward trajectory when valued in fiat currencies. The price bounce in industrial metals since the 2020 swoon could add pressure in 2022.

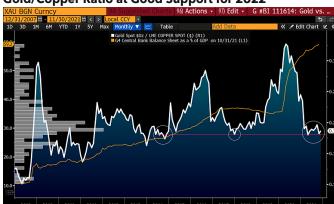
**Did Covid-19 Reverse These Trajectories?** 



China has been a primary source of demand for base metals since 2003, but we think diminishing incremental GDP growth, a declining required reserve ratio and property issues portend a peak.

2022 in Metals May Be About Gold vs. Copper. As the end of 2021 approaches, the lowest gold vs. copper price since 2014 and what we see as enduring trends favor the precious metal in 2022. Our graphic depicts the ratio of spot gold vs. the cash copper price on the LME at about its mean, median and mode, notably since the financial crisis and in our database since 1986. We see it as unlikely that organic demand-pull forces for copper can outweigh elasticity of supply enough to offset gold's march upward. Both are priced in dollars, which provides a more direct tailwind for the precious vs. industrial metal.

Gold/Copper Ratio at Good Support for 2022



To outpace gold's tendency to appreciate in terms of fiat currencies with unlimited supply, copper basically needs outsized demand from China, which we see as mostly past tense. Gold's price dip vs. copper's rally in 2021 may favor reversion in 2022.

What's the Risk in 2022? Some Reversion. The primary issue with industrial metals on the top of our 2021 performance dashboard and precious on the bottom is that it runs counter to enduring trends. We expect the distortions of the pandemic to subside in 2022 and the cure for higher prices to prevail, notably vs. copper and aluminum. The last year the Bloomberg Aluminum Subindex Total return was up about the same as the 31% in 2021 to Nov. 29 was 2017. The index dropped about 17% in 2018 and we see parallels for 2021-22.

Green in 2021 Risks Red in 2022, Boosting Gold

Security	%YTD	1	Chg nov.	1Yr % Chg	2Yr % Chg
Bloomberg Aluminum Subindex To	+30.2%		-3.6%	+25.5%	37.7%
Bloomberg Industrial Metals Su	+22.5%		-2.3%	+22.9%	46.9%
Bloomberg Copper Subindex Tota	+21.8%		-1.8%	+24.7%	58.0%
Bloomberg Nickel Subindex Tota	+19.7%		+2.6%	+23.9%	43.2%
Bloomberg Zinc Subindex Total	+15.2%		-5.2%	+13.2%	36.5%
Bloomberg All Metals Total Ret	+6.0%		-1.3%	+10.8%	32.7%
Broad Dollar Index	+4.8%		+2.1%	+3.1%	1%
Bloomberg Gold Subindex Total	-7.0%		5%	-1.0%	16.5%
Bloomberg Precious Metals Subi	-8.7%		-1.5%	6%	19.2%
Bloomberg Silver Subindex Tota	-14.3%		-4.9%	+.2%	28.1%

Energy and supply issues in China that have helped boost the aluminum price are more likely to be temporary. What appears probable in 2022 is a continuation of the forces that have supported gold prices, notably since the Federal Reserve started raising interest rates again in 2015.

## **Agriculture**

(Index weight: 35% of BCOM)

Performance: November -0.5%, 2021 +22.3, Spot +20.0%

Grains (Index Weight: 24% of BCOM)

Performance: November -1.0%, 2021 +16.5%, Spot +14.8%

**Softs** (Weight: 6% of BCOM)

Performance: November +3.4%, 2021 +43.6%, Spot +50.0%

#### **Ag Headwinds**

#### Test Passed in 2021, Agriculture Faces Greater

**Headwinds in 2022.** The agriculture sector passed the test of supply elasticity in 2021 and, absent a Corn Belt drought in 2022, we see greater risks for price pressure. The Bloomberg Agriculture Spot Index has never been up at a similar velocity four years in a row. The higher price cure is likely to reassert itself in 2022.

Agriculture Faces the Price Cure in 2022. The binary iterations for agriculture prices in 2022 are the potential to achieve new highs, or to follow the tendency from about the past decade of reversion lower. Our bias is the latter. Dominated by grain futures, which trade in dollars and are delivered in the U.S., the Bloomberg Agriculture Spot Index appears in a similar condition as the peaks in 2008 and 2011-12. Agriculture is the most supply-elastic commodity sector, and grain prices at their highest in about eight years are likely to prompt a boost in supply and provide the cure.

**Agriculture Bounced With Money Supply in 2021** 



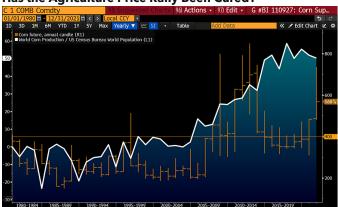
Our graphic depicts the inability of agriculture prices to keep up with rising U.S. money supply, notably since 2011, emphasizing the predominant deflationary challenges to the sector. Less elastic metals have a history of providing superior performance.

#### Advancing Technology Is Top Problem With Ag Prices.

The price of corn -- the most significant agricultural

commodity, based on the value of total production -- being about the same as it was 13 years ago at November-end indicates agriculture's predominant deflationary challenges. Our graphic depicts the front corn future this year as comparable to the failed 2008 rally (when it peaked near \$8 a bushel, then reverted toward \$4 in 2009). Production is accelerating vs. global population growth. The 2021 price bounce may be facing greater forces of supply elasticity, caused by advancing technology. A likely level of mean reversion is \$4, about the average since the start of the millennium and from the end of 2013.

Has the Agriculture Price Rally Been Cured?



This year proved that, absent a Corn Belt drought, the price is apt to move toward its longer-term mean. Reduced production could be needed to sustain above \$6.

What Stops Agriculture From 15% Drop in 2022? The bottom line for agriculture in 2022 is its significant barrier to higher prices due to the 2021 rally. Dominated by the grains, agriculture is the most supply-elastic commodity sector, and 2022 is set to be a down year if it follows trends. There have been two three-year periods (1992-95 and 2005-07) when the Bloomberg Agriculture Spot Index had similar performance as 2019-21. The average index decline in the fourth year of the past advance periods was about 15%.

#### **Price Reversion Risks Elevated in 2022**

Security	%YTD	Ļ	Chg Nov.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Coffee Subindex Tota	+68.2%	1	+12.42	+18.2%	+75.0%	66.1%
Bloomberg Soybean Oil Subindex	+47.1%	T	-9.56	-5.8%	+67.1%	92.6%
BBG Softs TR	+43.6%	T	+3.43	+5.4%	+52.3%	56.98
Generic 1st 'CL' Future	+37.3%		-20.28	-11.2%	+46.9%	20.7%
Bloomberg Cotton Subindex Tota	+34.8%	Т	-4.46	+3.7%	+45.9%	56.8%
Bloomberg Kansas Wheat Subinde	+34.5%	Т	+8.57	+16.6%	+48.4%	67.3%
Bloomberg Corn Subindex Total	+28.6%	Т	-1.75	+4.0%	+46.1%	47.9%
Bloomberg Lean Hogs Subindex T	+22.8%	Т	+.61	-10.4%	+25.9%	-11.8%
Bloomberg Agriculture Subindex	+22.3%	T	36	+2.6%	+35.0%	50.6%
Bloomberg Sugar Subindex Total	+20.9%	Т	-3.47	-8.5%	+29.1%	38.98
Bloomberg Grains Subindex Tota	+16.5%	T	90	+2.9%	+30.4%	45.5%
Bloomberg Wheat Subindex Total	+16.5%	T	+.29	+6.8%	+27.6%	32.7%
Bloomberg Grains Spot Subindex	+14.8%	Т	+3.08	+7.3%	+28.7%	53.5%
Bloomberg Livestock Subindex T	+7.0%	Т	+2.20	+.48	+9.3%	-16.8%
Bloomberg Soybeans Subindex To	-1.0%	Т	-2.58	-4.0%	+10.5%	40.5%
Bloomberg Live Cattle Subindex	-1.4%	Т	+2.90	+5.8%	+.5%	-19.1%
Brazil real	-7.5%		+.30	-3.1%	-4.6%	-24.6%
BBG Soybean Meal TR	-23.1%	Т	+3.73	+3.6%	-17.0%	4.6%

December 2021 Edition Bloomberg Commodity Outlook

This analysis may be simplistic, but we see risks of greater price challenges than in the past due to advancing technology and a more enduring bear market in crude oil. Our dashboard shows crude atop the list of 2021 performers. In 2022, we see WTI crude more likely to revert toward its five-year mean, closer to \$50 a barrel, which would be a hindrance to ag.

Curve Analysis - Contango (	(-)	Bac	kward	lation (	$(\mathbf{+})$	١
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<b>Curve Analysis - Contango</b>	(-)   Bac	kwarda	tion (+)	
Name	Current		1	YTD
	Position	Yr Ago	Yr Change	Change
▼ 1 Year Spread % of First Contract				
► BCOM	2.8	-0.3	3.1	1.5
▼ Sector				
▶ Energy	7.0	-1.2	8.2	7.5
► Agriculture	5.2			
➤ Industrial Metals	2.1			
➤ Precious Metals	-0.9			
➤ Livestock	-1.9			
▼ Single Commodities				
Cotton	22.3	-0.2	22.6	18.7
Thermal Coal	19.4	15.2	4.2	10.0
Unleaded Gas	8.0	-1.3	9.3	4.0
Crude Oil	6.1	0.2	5.8	3.6
Brent Crude	5.5	-0.3	5.8	2.8
Sugar	4.0	5.9	-1.9	-3.9
Natural Gas	4.0	-9.3	13.2	19.7
Zinc	3.8	-1.2	5.0	5.5
Corn	3.6	2.8	0.8	-5.4
Soybean Oil	3.3	7.7	-4.3	-7.6
Gas Oil	3.2	-7.1	10.3	6.7
Nickel	3.1	-1.0	4.1	4.3
Heating Oil	2.7	-6.1	8.8	6.0
Copper (LME)	1.9	0.1	1.8	1.7
Soybean Meal	1.3	11.4	-10.1	-15.2
Coffee	1.3	-7.2	8.5	7.5
Aluminum	1.2	-1.0	2.2	2.8
HRW Wheat	0.9	-4.6	5.5	3.9
Copper (CME)	0.7	-0.7	1.4	0.7
Soybean	0.6	11.0	-10.4	-15.0
Palladium	-0.3	-0.4	0.1	-0.7
Gold	-0.7	-1.1	0.4	0.3
Platinum	-0.8	-1.2	0.4	0.2
Silver	-1.1	-1.6	0.5	0.2
Live Cattle	-1.7	-4.0	2.3	2.7
Lean Hogs	-2.1	4.5	-6.6	-3.8
Wheat	-2.2	-3.3	1.1	-1.9

Measured via the one-year futures spread as the inverse percent of the first contract price. Negative means the one-year out future is higher (contango). Positive means the one-year out future is lower (backwardation).

#### **Individual Commodities Open Interest**

Name	Current	MTD % Change	3 Mth % Change	YTD % Change	1↓ Yr % Change
▼ Open Interest (Aggregate - 1,000s)			change		Glalige
<ul> <li>Single Commodities</li> </ul>					
Lean Hogs	235	0.0	-13.6	23.7	17.5
Cotton	251	-13.5	-6.7	10.1	14.1
Live Cattle	313	7.9	0.0	7.9	13.8
Zinc	193	8.4	7.2	16.3	11.6
Platinum	62	10.7	-6.1	3.3	10.7
HRW Wheat	230	-3.0	1.8	6.5	7.5
Natural Gas	1,282	0.2	-10.0	10.7	6.1
Coffee	267	-12.8	-3.6	3.5	4.7
Gold	545	5.4	7.7	-2.9	0.0
Palladium	10	0.0	11.1	11.1	0.0
Nickel	159	10.4	6.0	0.0	-2.5
Soybean Meal	402	-9.1	14.9	-3.1	-3.6
Crude Oil	2,020	-5.5	-2.3	-5.8	-4.8
Wheat	379	-6.7		-5.7	-6.2
Brent Crude	2,195	-2.7	-5.7	-9.8	-7.8
Silver	141	-0.7	-4.7	-18.0	-7.8
Corn	1,440	-1.9	3.3	-17.1	-13.7
Aluminum	490	1.5	-2.8	-15.4	-14.2
Soybean Oil	402	-3.8		-14.1	-15.9
Sugar	893	1.4		-15.8	-17.5
Heating Oil	306	-28.3	-20.7	-14.0	-18.4
Copper (LME)	155	-6.1	-7.2	-21.3	-19.3
Copper (CME)	185	-15.5		-25.4	-21.9
Unlead Gas	294	-4.2		-29.0	-25.6
Gas Oil	698	-25.8		-24.5	-25.7
Soybean	680	11.3	1.5	-23.7	-28.7



## **PERFORMANCE: Bloomberg Commodity Indices**

## **Composite Indices**

\* Click hyperlinks to open in Bloomberg

Inday Nama	Tieken	20	21								
Index Name	Ticker	Nov	YTD	1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
Bloomberg Commodity ER	BCOM	-7.31%	22.73%	28.83%	16.03%	11.39%	-34.46%	5.32%	2.51%	0.85%	404.91%
Bloomberg Commodity TR	BCOMTR	-7.31%	22.78%	28.89%	19.27%	17.71%	-30.37%	34.75%	108.01%	348.03%	4848.86%
Bloomberg Commodity Spot	BCOMSP	-7.20%	22.80%	29.20%	39.79%	49.14%	11.32%	343.75%	421.28%	395.97%	2275.84%
Bloomberg Roll Select	BCOMRST	-6.78%	23.44%	29.44%	25.47%	23.69%	-20.60%	195.49%	455.68%		
1 Month Forward	BCOMF1T	-6.66%	26.54%	33.32%	29.59%	28.79%	-18.67%	134.77%	342.26%		
2 Month Forward	BCOMF2T	-6.52%	25.36%	31.76%	34.11%	34.35%	-16.91%	189.86%	427.86%		
3 Month Forward	<b>BCOMF3T</b>	-5.14%	27.17%	34.26%	38.95%	36.93%	-12.78%	217.96%	460.81%		
4 Month Forward	BCOMF4T	-4.28%	28.82%	35.76%	43.34%	41.77%	-5.28%	281.24%			
5 Month Forward	<b>BCOMF5T</b>	-4.01%	28.10%	35.10%	45.10%	44.66%	-3.62%	288.50%			
6 Month Forward	BCOMF6T	-3.92%	26.07%	31.71%	41.58%	41.83%	-4.47%	295.24%			
Energy	<b>BCOMENTR</b>	-17.13%	47.95%	46.97%	-23.03%	-13.71%	-69.29%	-70.40%	-36.93%		
Petroleum	<b>BCOMPETR</b>	-17.01%	43.65%	54.83%	4.07%	9.85%	-57.50%	24.15%	127.01%		
Agriculture	<b>BCOMAGTR</b>	-0.36%	22.26%	35.00%	41.39%	12.36%	-16.63%	33.49%	24.22%	77.46%	1653.17%
Grains	<b>BCOMGRTR</b>	-0.90%	16.55%	30.37%	35.80%	14.50%	-17.38%	11.40%	-16.74%	5.33%	478.54%
Industrial Metals	<b>BCOMINTR</b>	-2.33%	22.50%	22.89%	44.66%	50.78%	7.96%	231.68%	295.85%		
Precious Metals	<b>BCOMPRTR</b>	-1.49%	-8.68%	-0.60%	41.95%	39.03%	-16.27%	438.21%	376.18%	256.87%	
All Metals	<b>BCOMAMT</b>	-1.93%	5.38%	10.13%	42.71%	44.78%	-3.48%	350.02%			
Softs	<b>BCOMSOTR</b>	3.43%	43.55%	52.27%	44.38%	-1.74%	-40.90%	-6.81%	5.78%	71.81%	3840.56%
Livestock	<b>BCOMLITR</b>	2.20%	7.03%	9.28%	-23.63%	-11.38%	-38.54%	-61.67%	-55.31%		
Ex-Energy	<b>BCOMXETR</b>	-0.88%	12.78%	20.48%	36.16%	26.23%	-10.82%	115.84%	136.55%		
Ex-Petroleum	<b>BCOMXPET</b>	-3.79%	17.55%	22.83%	18.95%	14.18%	-27.10%				
Ex-Natural Gas	<b>BCOMXNGT</b>	-5.82%	19.55%	27.90%	33.10%	27.96%	-18.69%				
Ex-Agriculture	<b>BCOMXAGT</b>	-9.92%	22.85%	25.88%	9.96%	18.67%	-37.18%				
Ex-Grains	<b>BCOMXGRT</b>	-8.32%	23.72%	28.08%	15.41%	17.84%	-34.36%				
Ex-Industrial Metals	<b>BCOMXIMT</b>	-8.16%	22.83%	30.34%	14.22%	10.82%	-37.09%				
Ex-Precious Metals	<b>BCOMXPMT</b>	-8.23%	30.35%	35.64%	13.92%	12.50%	-34.55%				
Ex-Softs	<b>BCOMXSOT</b>	-8.26%	21.02%	26.94%	17.16%	18.66%	-30.21%				
Ex-Livestock	<b>BCOMXLIT</b>	-7.81%	23.72%	30.06%	22.35%	19.64%	-30.08%				
Ex-Agriculture & Livestock	<b>BCOMXALT</b>	-10.81%	24.24%	27.35%	13.35%	21.65%	-37.47%				
Bloomberg Dollar Spot	BBDXY	1.91%	5.57%	3.30%	-2.13%	-5.80%	21.05%				
Bloomberg US Large Cap TR	<u>B500T</u>	-0.98%	22.59%	27.45%	78.79%	133.78%	358.02%				
US Aggregate	<u>LBUSTRUU</u>	0.30%	-1.29%	-1.15%	17.49%	19.64%	34.88%	132.46%	384.28%	1592.00%	
US Treasury	<u>LUATTRUU</u>	0.77%	-1.82%	-2.05%	15.75%	16.80%	25.34%	114.27%	344.08%	1329.54%	
US Corporate	<u>LUACTRUU</u>	0.06%	-0.96%	-0.53%	26.48%	30.19%	61.76%	191.25%	532.54%	2326.30%	
US High Yield	<u>LF98TRUU</u>	-0.97%	3.34%	5.29%	23.83%	35.66%	95.07%	341.99%	834.35%		

## **Single Commodity Indices**

Indian Name	,	20	21								
Index Name	Ticker	Nov	YTD	1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
Natural Gas	<b>BCOMNGTR</b>	-17.40%	58.66%	38.21%	-61.25%	-59.14%	-89.72%	-99.46%	-99.50%		
Low Sulfer Gas Oil	<b>BCOMGOT</b>	-15.18%	40.77%	51.51%	-5.34%	17.84%	-53.49%	140.09%	200.41%		
WTI Crude	<b>BCOMCLTR</b>	-19.07%	41.92%	51.16%	-16.08%	-16.17%	-74.69%	-35.82%	31.61%		
Brent Crude	<b>BCOMCOT</b>	-15.60%	46.61%	58.39%	23.11%	43.15%	-46.73%	177.82%	584.61%		
ULS Diesel	<b>BCOMHOTR</b>	-16.32%	40.01%	50.59%	-0.57%	13.52%	-50.66%	73.29%	115.56%		
Unleaded Gasoline	<b>BCOMRBTR</b>	-16.31%	47.07%	64.57%	36.10%	20.13%	-25.67%	174.33%	411.13%		
Corn	<b>BCOMCNTR</b>	-1.75%	28.59%	46.11%	36.94%	16.69%	-35.60%	-54.16%	-76.60%	-69.93%	-7.57%
Soybeans	<b>BCOMSYTR</b>	-2.58%	-1.04%	10.54%	28.52%	1.56%	41.73%	369.67%	410.65%	457.43%	3454.96%
Wheat	<b>BCOMWHTR</b>	0.29%	16.53%	27.60%	37.38%	28.98%	-42.15%	-71.60%	-85.85%	-81.67%	-23.03%
Soybean Oil	<b>BCOMBOTR</b>	-9.56%	47.11%	67.07%	101.68%	43.02%	-11.13%	101.47%	52.04%	109.32%	1871.14%
Soybean Meal	<b>BCOMSMT</b>	3.45%	-23.26%	-15.97%	-6.26%	-15.14%	76.73%	685.84%	1168.99%		
HRW Wheat	<b>BCOMKWT</b>	4.14%	28.97%	42.30%	30.43%	12.12%	-55.42%	-47.14%	-47.65%		
Copper	<b>BCOMHGTR</b>	-1.79%	21.78%	24.66%	52.37%	56.01%	9.10%	530.47%	753.16%		
Alumnium	<b>BCOMALTR</b>	-3.58%	30.21%	25.46%	22.02%	38.76%	-15.86%	-0.95%	14.91%		
Zinc	<b>BCOMZSTR</b>	-5.21%	15.22%	13.21%	31.15%	31.06%	45.31%	190.63%	111.26%		
Nickel	<b>BCOMNITR</b>	2.65%	19.73%	23.94%	76.49%	72.93%	2.60%	385.68%	348.21%		
Gold	<b>BCOMGCTR</b>	-0.53%	-7.01%	-1.04%	39.02%	42.83%	-6.98%	449.19%	339.73%	297.32%	
Silver	<b>BCOMSITR</b>	-4.93%	-14.28%	0.21%	52.31%	28.23%	-39.56%	340.36%	355.33%	98.66%	
Sugar	<b>BCOMSBTR</b>	-3.47%	20.88%	29.05%	27.94%	-25.94%	-58.34%	-11.49%	71.21%	-48.21%	88.07%
Coffee	<b>BCOMKCTR</b>	12.42%	68.19%	74.96%	62.06%	-4.01%	-61.86%	-45.51%	-64.57%	-48.40%	
Cotton	<b>BCOMCTTR</b>	-4.46%	34.77%	45.94%	27.13%	42.84%	24.73%	-9.18%	-28.52%	211.48%	1557.04%
Live Cattle	BCOMLCTR	2.90%	-1.36%	0.52%	-15.61%	-4.89%	-20.35%	-13.38%	14.52%	567.27%	1908.75%
Lean Hogs	<u>BCOMLHTR</u>	0.61%	22.83%	25.88%	-38.51%	-25.46%	-62.63%	-90.25%	-92.42%		

## **PERFORMANCE: Bloomberg Commodity Roll Select Indices**

Composite Roll Select Indices \* Click hyperlinks to open in Bloomberg

Inday Name	Ticker	20	21								
Index Name	ricker	Nov	YTD	1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
BCOM Roll Select	<b>BCOMRST</b>	-6.78%	23.44%	29.44%	25.47%	23.69%	-20.60%	195.49%	455.68%		
Roll Select Agriculture	<b>BCOMRAGT</b>	-0.21%	26.54%	38.48%	41.74%	17.18%	-11.79%	137.28%	157.66%		
Roll Select Ex-Ags & Livestock	<b>BBURXALT</b>	-10.20%	23.05%	26.53%	21.19%	29.43%	-25.32%	225.88%			
Roll Select Grains	<b>BCOMRGRT</b>	-0.79%	19.12%	31.52%	35.02%	18.69%	-14.94%	105.73%	72.63%		
Roll Select Softs	<b>BCOMRSOT</b>	3.06%	48.29%	56.63%	40.15%	-4.69%	-38.90%	57.76%	104.24%		
Roll Select Livestock	<b>BCOMRLIT</b>	2.39%	10.86%	13.14%	-12.57%	-13.35%	-37.03%	19.35%	96.59%		
Roll Select Energy	<b>BCOMRENT</b>	-16.52%	45.44%	45.47%	-5.55%	5.27%	-52.19%	37.06%	374.08%		
Roll Select Ex-Energy	<b>BCOMRXET</b>	-0.61%	14.68%	22.06%	37.57%	27.84%	-8.05%	255.43%	351.14%		
Roll Select Petroleum	<b>BCOMRPET</b>	-16.36%	39.19%	48.27%	19.83%	27.95%	-38.33%	331.31%	966.53%		
Roll Select Industrial Metals	<b>BCOMRINT</b>	-1.60%	22.68%	23.27%	42.73%	48.42%	8.88%	367.68%	535.38%		
Roll Select Precious Metals	<b>BCOMRPRT</b>	-1.46%	-8.82%	-0.77%	43.05%	40.15%	-15.06%	457.99%	395.53%		

## **Single Commodity Roll Select Indices**

Index Name	Ticker	2021									
		Nov	YTD	1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
Natural Gas RS	<b>BCOMRNGT</b>	-16.81%	61.77%	46.00%	-48.74%	-43.78%	-79.61%	-93.78%	-71.93%		
Low Sulfer Gas Oil RS	<b>BCOMRGOT</b>	-15.14%	41.92%	51.03%	-2.85%	17.67%	-50.31%	175.61%	303.17%		
WTI Crude RS	<b>BCOMRCLT</b>	-18.09%	36.21%	44.21%	30.38%	32.24%	-41.66%	346.02%	1299.07%		
Brent Crude RS	<b>BCOMRCOT</b>	-15.41%	40.08%	49.15%	18.93%	38.22%	-38.18%	361.31%	1200.77%		
ULS Diesel RS	<b>BCOMRHOT</b>	-15.19%	36.76%	46.25%	-9.02%	-2.03%	-55.10%	166.38%	391.95%		
Unleaded Gasoline RS	<b>BCOMRRBT</b>	-15.19%	47.37%	60.08%	54.83%	52.03%	9.63%	549.92%	950.32%		
Corn RS	<b>BCOMRCNT</b>	-1.82%	25.23%	39.95%	28.06%	13.75%	-40.80%	-24.27%	-53.29%		
Soybeans RS	<b>BCOMRSYT</b>	-2.78%	6.70%	18.42%	39.59%	22.79%	77.89%	665.58%	646.33%		
Wheat RS	<b>BCOMRWHT</b>	1.25%	21.84%	30.08%	34.85%	19.80%	-46.61%	-15.14%	-26.89%		
Soybean Oil RS	<b>BCOMRBOT</b>	-7.57%	54.48%	75.45%	107.31%	47.50%	-3.88%	190.38%	179.08%		
Soybean Meal RS	<b>BCOMRSMT</b>	2.76%	-15.95%	-8.54%	1.71%	3.01%	124.13%	1154.83%	1754.21%		
HRW Wheat RS	<b>BCOMRKWT</b>	4.23%	29.97%	42.73%	23.96%	8.57%	-54.49%	11.13%	26.44%		
Copper RS	<b>BCOMRHGT</b>	-1.23%	21.48%	24.38%	50.61%	55.64%	8.10%	751.00%	1247.99%		
Alumnium RS	<b>BCOMRALT</b>	-2.89%	31.62%	27.20%	19.64%	33.03%	-13.64%	38.71%	83.15%		
Zinc RS	<b>BCOMRZST</b>	-3.35%	15.38%	13.77%	29.06%	27.82%	44.72%	323.63%	237.68%		
Nickel RS	<b>BCOMRNIT</b>	2.28%	18.92%	23.25%	74.58%	71.64%	4.89%	668.50%	710.73%		
Gold RS	<b>BCOMRGCT</b>	-0.50%	-7.06%	-1.04%	40.79%	44.68%	-5.34%	461.55%	348.91%		
Silver RS	<b>BCOMRSIT</b>	-4.87%	-14.75%	-0.53%	50.95%	27.24%	-39.19%	375.03%	402.22%		
Sugar RS	<b>BCOMRSBT</b>	-3.42%	33.03%	41.32%	24.74%	-30.43%	-55.72%	89.30%	239.47%		
Coffee RS	<b>BCOMRKCT</b>	11.33%	65.46%	72.11%	57.88%	-6.12%	-60.98%	-22.20%	-30.31%		
Cotton RS	<b>BCOMRCTT</b>	-4.33%	36.62%	46.68%	27.67%	49.82%	31.03%	37.36%	21.24%		
Live Cattle RS	BCOMRLCT	3.09%	7.05%	10.11%	-9.91%	-3.05%	-22.00%	50.43%	136.66%		
Lean Hogs RS	<u>BCOMRLHT</u>	0.70%	17.78%	18.63%	-13.82%	-28.45%	-56.39%	-30.23%	5.54%		

# BCOM Constituent Weights BCOM Index MEMB <GO>

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Group	Commodity	Ticker	Nov 2021 Contrib to Return %	Nov 30 2021 Weight %	Oct 29 2021 Weight %		Nov 2021 Weight% Change	2022 Target Weight
Energy	Natural Gas	<u>NG</u>	(2.26)	11.48	12.90	4	(1.42)	7.95%
	Low Sulfer Gas Oil	QS	(0.49)	2.99	3.27	•	(0.28)	2.65%
	WTI Crude	<u>CL</u>	(1.91)	8.88	10.18	•	(1.30)	8.04%
	Brent Crude	CO	(1.23)	7.28	8.21	1	(0.93)	6.96%
	ULS Diesel	<u>HO</u>	(0.41)	2.33	2.59	1	(0.25)	2.05%
	Gasoline	XB	(0.42)	2.38	2.64	•	(0.26)	2.17%
	Subtotal		(6.73)	35.34	39.79	1	(4.45)	29.83%
	Corn	<u>C</u>	(0.09)	5.38	5.00	1	0.38	5.59%
Grains	Soybeans	<u>S</u>	(0.11)	4.38	4.17	1	0.21	5.79%
	Wheat	W	(0.00)	2.96	2.70	1	0.26	2.85%
	Soybean Oil	BO	(0.33)	3.38	3.46	•	(0.09)	3.17%
	Soybean Meal	<u>SM</u>	0.07	2.38	2.14	1	0.25	3.52%
	HRW Wheat	KW	0.06	1.81	1.60	1	0.20	1.66%
	Subtotal		(0.41)	20.29	19.07	1	1.21	22.58%
Industrial Metals	Copper	<u>HG</u>	(0.09)	5.23	4.96	1	0.28	5.40%
	Aluminum	<u>LA</u>	(0.15)	4.55	4.37	1	0.17	4.25%
	Zinc	<u>LX</u>	(0.15)	3.03	2.96	1	0.06	3.12%
	Nickel	LN	0.06	2.51	2.27	1	0.24	2.71%
	Subtotal		(0.33)	15.31	14.56	1	0.75	15.48%
Precious Metals	Gold	<u>GC</u>	(0.06)	11.39	10.62	1	0.78	15.00%
	Silver	<u>SI</u>	(0.14)	3.05	2.97	1	0.08	4.75%
	Subtotal		(0.20)	14.45	13.59	1	0.86	19.75%
Softs	Sugar	<u>SB</u>	(0.10)	2.98	2.87	1	0.12	2.79%
	Coffee	<u>KC</u>	0.43	4.40	3.58	1	0.81	2.73%
	Cotton	СТ	(0.07)	1.69	1.69	•	(0.00)	1.50%
	Subtotal		0.25	9.07	8.14	1	0.93	7.03%
Livestock	Live Cattle	<u>LC</u>	0.09	3.87	3.36	1	0.50	3.58%
	Lean Hogs	<u>LH</u>	0.01	1.67	1.48	1	0.20	1.75%
	Subtotal		0.10	5.54	4.84	1	0.70	5.34%
Total			(7.32)	100.00	100.00			100.00%

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