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Potential Game Changer

- If the Brazilian real has bottomed, it should be a game changer for agriculture
- Premium reduced, crude oil nearing good support may be energy floor
- Dollar bulls seem low on fuel for further metals declines
- It may finally be time for gold, with related implications
- Favorable commodity fundamental and technical conditions should prevail

Note - Click on graphics to get to the Bloomberg terminal

Data and outlook as of October 30

Mike McGlone – BI Senior Commodity Strategist

[BI COMD](#) (the commodity dashboard)

Another Weak Commodity Month, or Potential Game-Changing Bottom?

Performance: Oct. -1.5%, YTD -3.5%, Spot -2.7%.
 (Returns are total return (TR) unless noted)

(Bloomberg Intelligence) -- Commodities appear to be at a discount in a nascent bull-market trend. The normalization process in stock-market volatility and strengthening dollar have suppressed commodity prices, but favorable fundamental and technical conditions should prevail. Broad-market demand vs. supply indicators remain positive as energy and agriculture are near potential floors. WTI crude oil is ending the month near \$65 a barrel and good support vs. \$75 and multiyear highs in September.

If the Brazilian real has bottomed, it should be a game changer for soft commodities and mark a potential bottom for agriculture. Metals are ripe for recovery once the dollar arrests its rally. Midterm elections should play a role. The greenback appears to be pushing on a string vs. U.S. stock outperformance.

October May Mark a Game Changer for Firming Commodity Foundation. With crude oil near good support and the Brazilian real potentially at a bottom, the Bloomberg Commodity Index is forming a bit of a floor. Underlying broad-commodity demand and supply conditions remain favorable, which should prevail with higher prices once the dollar stops advancing.

Commodities Appear at Discount in Bull Market. The primary demand vs. supply indicators for commodities remain squarely in positive territory. Consistent with favorable trends in futures curves (toward backwardation), the Bloomberg Commodity Spot Index appears to be on sound footings, particularly due to the discount from the May peak. That apex (near the halfway mark of the 2011-16 bear market; about 10% higher) was into good resistance. Commodities appear to be in early recovery days along with most inflation measures. Mean-reversion risks from multidecade lows favor rebounding commodities.

Commodities Appear to Be in Nascent Bull Market



Commodities & CPI Have Limited Downside Risks



The biggest risks are likely sustained dollar strength or a sharp stock-market decline. These factors could pressure

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Bloomberg Commodity Index (BCOM)

the BCOM to revisit the upward-trending 36-month moving average, about a 6% decline.

Elevated Mean Reversion Risks: Commodities, CPI.

Commodities appear to be just starting to recover from the sharpest declines on our chart, limiting the risk of downside. On a 60-month rate-of-change basis, the low reached in the Thomson Reuters Equal Weight Commodity Index (CCI) two years ago was the most extreme in its six-decade history. It's similar for the consumer price index, with the CPI's rate-of-change metric just recovering from its early 1960s nadir.

The average rate-of-change for both indexes is about 20% vs. 8% currently for CPI and minus 18% for the CCI. Minus 10% is the 60-month change for the Bloomberg Commodity Spot Index vs. a historical average of about plus 40%.

MACRO PERFORMANCE

Greenback Pushing on a String vs. Commodities.

Continued fuel from a strong dollar is likely necessary to keep commodities down. A decline of about 1.5% in the Bloomberg Commodity Spot Index was about the reciprocal of an advance in the trade-weighted broad-dollar index. Their relationship over the past few years shows divergent strength. Despite the greenback advancing about 4% on a two-year basis, commodities are up about double that amount.

The Strong U.S. Dollar Leads Macro Performers

Security	Chg YTD %	Chg Oct.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
US Trade Wgt Broad Dollar Indx	+7.1%	+1.4%	+1.4%	+5.6%	3.7%
Bloomberg Dollar Spot	+4.3%	+2.2%	+2.2%	+2.4%	.1%
S&P 500 Total Return Index	+1.9%	-7.8%	-7.8%	+6.2%	31.3%
Bloomberg Barclays US Corporat	+7%	-1.8%	-1.8%	+8%	9.7%
S&P 500 Index	+3%	-7.9%	-7.9%	+4.2%	26.2%
Bloomberg Commodity Spot Index	-2.7%	-1.6%	-1.6%	+7%	9.6%
MSCI World Net Total Return US	-3.5%	-8.5%	-8.5%	-1%	22.7%
Bloomberg Commodity Index Tota	-3.5%	-1.5%	-1.5%	-1.1%	1.2%
Bloomberg Barclays U.S. Treasu	-8.2%	-2.4%	-2.4%	-5.6%	-8.2%
MSCI Emerging Markets Net Tota	-17.4%	-10.6%	-10.6%	-14.3%	8.4%

From the morning of October 31

The S&P 500 giving back 2018 gains was October's primary macro-performance story, though emerging-market stocks are more directly correlated to commodities. With declines approaching 20% in 2018, the MSCI Emerging Markets Index has had a significant drawdown that appears less likely to accelerate. Simple mean reversion in EM stocks and the dollar would be commodity-positive.

SECTOR PERFORMANCE

Real Recovery in Softs; Crude Oil Back to Support.

Crude oil backing away from the four-year high at the end

of September is our primary bearish commodity takeaway from October. Declining toward good support at month's end should be a positive for November. WTI crude oil was overdue for a correction, but the downside is limited near initial support at \$65 a barrel. The strong dollar also pressured commodities, but not vs. Brazil. The recovering real in the aftermath of the election may mark a game-changing bottom for soft commodities and agriculture. If the real has bottomed, the ags might have as well.

Softs Lead Gainers in October on Real Recovery

Security	Chg YTD %	Chg Oct.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Energy Subindex Tota	+12.8%	-4.1%	-4.1%	+19.9%	22.7%
Bloomberg Livestock Subindex T	-2.9%	-5%	-5%	-9.3%	18.5%
Bloomberg Grains Subindex Tota	-6.4%	-2%	-2%	-8.6%	-19.6%
Bloomberg Agriculture Subindex	-9.0%	+2.1%	+2.1%	-10.0%	-23.1%
Bloomberg Precious Metals Subi	-9.8%	+1.0%	+1.0%	-7.3%	-9.9%
Bloomberg All Metals Total Ret	-12.8%	-1.6%	-1.6%	-9.5%	2.9%
BBG Softs TR	-13.7%	+11.8%	+11.8%	-10.2%	-34.1%
Bloomberg Industrial Metals Su	-15.9%	-4.7%	-4.7%	-12.1%	13.9%

From the morning of October 31

Industrial metals down about 16% on the year and the leading loser is a bit disconcerting for global macroeconomic implications. That's part of the reason recovery is more likely. Continued base-metals weakness has more bearish implications for equities.

ATTRIBUTION

Attribution Analysis Indicates Likely Recovery.

Crude oil ending the month near good support, plus the potential for a bottom in the Brazilian real, provides a floor on returns for about half of the broad index. Energy, the primary supportive sector in 2018, is unlikely to give back much more of the 370-bp total index contribution. WTI crude oil ends October near good support at \$65 a barrel. Agriculture's drag of about 300 bps on the index should lessen if Brazil's currency has indeed bottomed.

The metals will likely need further dollar appreciation to continue to subtract from index total returns. Base metals have been a drag of about 300 bps this year on the back of about 160 bps from precious.

Agriculture Unlikely to Take More, Crude Support

Name	Start % Wgt	End % Wgt	Avg % Wgt	Tot Rtn	CTR
BCOM_SB (Exclus...	100.0	91.2	99.8	-4.0	-4.0
Energy	30.4	26.9	32.3	11.7	3.7
Livestock	6.1	6.0	6.0	-4.1	-0.3
Precious Metals	15.5	14.1	14.9	-10.5	-1.6
Base Metals	20.9	15.8	16.8	-15.7	-2.9
Agriculture	27.1	28.4	29.8	-9.7	-3.0
Port Wgt	32.32	5.98	14.89	16.81	29.80
Contribution	3.67	-0.26	-1.60	-2.85	-2.97
	Energy	Livestock	Precious Metals	Base Metals	Agriculture

BCOM Attribution – 2017 through Oct. 30. Note, these are estimates, actual results will vary.

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Bloomberg Commodity Index (BCOM)

Energy (Index weight: 29% of BCOM)

Performance: Oct. -4.1%, YTD +12.8, Spot +11.6%

*Note index weights are the YTD average.

Crude Oil Bull Going to Gas

Energy Outlook Presents Stalled Crude Oil, Warming Natural Gas. Crude oil should be entering an extended range-trading market. If history is a guide, responsive traders are likely to prevail as the market feels very bullish near peaks and bearish toward nadirs. Natural gas appears to be the opposite -- a tight spring that's ripe to uncoil, with upside potential outweighing downside risks.

A Traders Delight With Crude Bull at Rest. With the best of the bull-market run complete, in our view, crude oil should remain the domain of responsive traders. Brent's 2018 high of \$86.74 a barrel should represent good resistance for an extended period as the market seeks support. Back toward the halfway mark of the 2012-16 price decline, \$10 above or below the \$77 level should mark the bell curve of the trading range for awhile. A good support area is \$67.

Peaking Drivers: Demand vs. Supply, Futures Curve



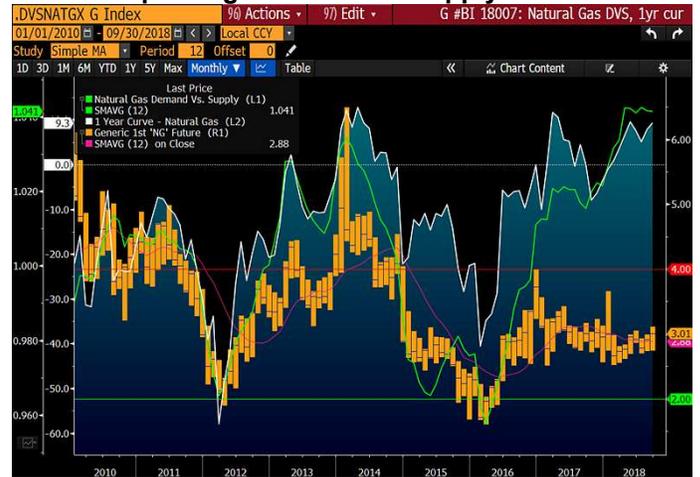
Primary bull-market companions -- demand vs. supply and the trend toward backwardation in the one-year futures curve -- appear to have peaked from multiyear highs. Prices are unlikely to appreciate more in this environment. Demand vs. supply estimates include data from the Energy Information Administration and the International Energy Agency. The one-year curve is the average for Brent and WTI.

Natural Gas Taking Bull Baton From Crude Oil.

Natural gas' primary drivers -- demand vs. supply and the futures curve -- indicate upside price opportunity

outweighs downside risks. Recovering recently with the market pricing in a winter-weather premium may leave gas a bit vulnerable in the shorter term, but the bigger picture is quite price-supportive. The one-year curve remains solidly in backwardation, which is historically an oxymoron in gas due to the high storage costs. Coincidentally, our index of the primary North American demand vs. supply factors shows the ratio well above par.

Drivers Improving: Demand vs. Supply and the Curve



Natural gas, typically the most volatile of the major commodities, remains bound to one of the narrowest percentage ranges in futures history (2017 was the tightest). Prices have done little since indicating a market that's ripe for a catalyst.

Crude Oil Should Be Range-Traders' Delight. There's little room for the crude-oil bull to run, but the downside should also be limited, resulting in an extended range-trading market, in our view. The one-year curve trending into backwardation, a primary bull-market companion, has reached a significant peak and is flat again. Responsive traders are likely to prevail. Traders that held WTI resistance near \$75 a barrel are likely to be in force, supporting \$65. In the midst of the most significant drawdown since last June's trough, if that correction is matched, WTI would likely revisit about \$60.

It wouldn't be a first. Since the nadir in 2016, WTI had two 24% drawdowns. The current is 15% to Oct. 24, which has returned the market to the first revisit of the 52-week average in a year. The trend remains up, but key indicators point to a range-bound market.

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Crude Oil Bull Shifting to Extended Range



PERFORMANCE DRIVERS

Crude Oil Liquidation, Natural Gas Accumulation.

Traders' exit from crude oil and petroleum positions in favor of natural gas elevates reversion risks. October's recovery of about 5% in the Bloomberg Natural Gas Subindex coincided with a sharp increase in managed-money positions, achieving the highest level of net longs in the database since 2006. Priced for cold weather should leave the market a bit vulnerable when it comes, with the potential to be less extreme than expected.

Crude Oil Mean Reversion. Natural Gas Getting Long

Security	Chg YTD %	Chg Oct.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Brent Crude Subindex	+21.9%	-6.3%	-6.3%	+34.9%	56.3%
Bloomberg WTI Crude Oil Subind	+17.0%	-8.1%	-8.1%	+29.7%	36.6%
Bloomberg Petroleum Subindex T	+15.2%	-7.3%	-7.3%	+26.0%	42.0%
Bloomberg Heating Oil Subindex	+13.8%	-2.7%	-2.7%	+24.5%	47.5%
Bloomberg Energy Subindex Tota	+12.9%	-4.0%	-4.0%	+20.1%	22.8%
BBG Energy Spot	+10.5%	-4.5%	-4.5%	+17.0%	28.8%
Bloomberg Natural Gas Subindex	+5.6%	+5.8%	+5.8%	+2.0%	-21.5%
Bloomberg Unleaded Gasoline Su	+7.7%	-12.1%	-12.1%	+4.7%	20.1%

From the morning of October 31

Mean reversion in crude oil was October's predominant energy-performance story, but positive total returns should remain supportive. The Bloomberg Energy Subindex Total Return of almost 13% outpaced about 12% for the spot index through Oct. 29. It's been four years since energy has posted positive roll returns.

Front Energy Futures to Oct. 31

Ticker	Last	Chg YTD %	Chg MTD %	Chg QTD %	1Yr Ago	2 Yrs Ago	Chg 1Yr %	Chg 2 Year %
+ Generic 1st 'CO' Future	76.8	+14.8%	-7.2%	-7.2%	61.4	48.3	+25.1%	58.9%
+ Generic 1st 'CL' Future	66.8	+10.6%	-8.8%	-8.8%	54.4	46.9	+22.8%	42.5%
+ Generic 1st 'HO' Future	226.7	+9.3%	-3.6%	-3.6%	188.5	149.6	+20.3%	51.6%
+ Generic 1st 'NG' Future	3.2	+9.1%	+7.1%	+7.1%	2.9	3.0	+11.9%	7.1%
+ Generic 1st 'XB' Future	183.2	+1.8%	-12.8%	-12.8%	178.0	145.0	+2.6%	26.0%

From the morning of October 31

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Metals

All (Index weight: 35% of BCOM)

Performance: Oct. -1.6%, YTD -12.8%

Industrial (Index weight: 19.0% of BCOM)

Performance: Oct. -4.6%, YTD -15.9, Spot -16.7%)

Precious (Index weight: 16.1% of BCOM)

Performance: Oct. +1.0%, YTD -9.7, Spot -8.6%)

Favored at the Crossroads

From Copper to Gold, Metals Are Gaining Favor at the Crossroads. Under pressure from the strengthening dollar, the metals sector stands as the potential stalwart as stock-market volatility normalizes. Gold has the most upside if equities continue to decline, particularly if U.S. stocks give back more vs. the world. In this scenario, the dollar should decline and metals and broad commodities would benefit. Gold's appreciation potential remains disconcerting, given the macroeconomic implications as the market becomes increasingly coiled.

Industrial metals have provided a discount in a bull market. The implications of sustained declines should increase risks for equity markets. Downtrodden copper appears to have priced closer to a worst-case macroeconomic scenario, making it ripe to benefit in most outcomes.

Broad Metals Discounted Bull

Metals Decline Would Require Strong Greenback, Weak EM Stocks. Metals are increasingly dependent on further dollar gains and/or declines in emerging-market (EM) equities to continue to decrease in value. Mean-reversion potential for a broad-dollar measure that's near multidecade highs elevates the prospects of a similar fate for a metals recovery.

Bears Seem Low on Fuel for a Metals Decline. It will take continued dollar strength or weakness in EM equities to appease metals-sector bears, in our view. Mean reversion potential is elevated. Up about 7% in 2018 through Oct. 30, the trade-weighted broad dollar is a primary metal-price suppressant. It's similar for the MSCI Emerging Markets Index, which is down about 20% and has among the strongest positive correlations to the Bloomberg All Metals Total Return Index. On pace for its worst year since 2008, EM equities have limited downside.

Metals Back to Initial Support With Drivers



Meanwhile, dollar strength has limited room. Near the 2002 and 2016 peaks, the greenback's rally appears to be pushing on a string, notably on the back of the outperforming U.S. stock market. The annual correlations of the metals index since 1997 are minus 0.7 vs. the dollar and plus 0.82 relative to EM stocks.

Dollar Mean-Reversion Risks Elevated With Stocks.

Recent outperformance of U.S. stocks vs. global equities, and signs of divergent dollar weakness, emphasize the risk of a greenback decline. The ratio of the S&P 500 vs. the MSCI World Excluding U.S. Index is a strong companion. On a tear for the past decade, the recent extended high in this ratio increases mean-reversion risks, which would pressure the dollar and support commodities. The greenback's divergent weakness since the 2016 peak should exacerbate a decline when U.S. stocks stop outperforming.

U.S. Dollar Showing Divergent Weakness



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Bloomberg Commodity Index (BCOM)

The ratio of U.S. stocks vs. rest of the world has set a high that's well above the previous peak about two years ago, yet the trade-weighted broad dollar remains below its similar-period apex. Since June 2008, the dollar has increased about 32% vs. 116% for the S&P 500 and a 7% decline for the world ex-U.S. index.

Industrial Metals Discount

Tarnished Copper to Get Most Relief When Metals Reverse Course. Priced for a worst-case scenario in what appears to be a steady bull market, the potential for a copper and industrial metals recovery outweighs further downside, as we see it. The stock market appears more prone to risks, particularly if industrial metals hold below support levels.

Industrial Metals Should Have Less to Fear. Copper and the industrial metals have provided a sufficient drawdown under the weight of falling equity prices, in our view. Sustaining much lower would have adverse macroeconomic implications, notably for equities. It's the stock market that appears to be a bit offside. While equity volatility is normalizing, copper is likely providing a dip in a nascent bear market. Industrial metals are a potential bullish stalwart vs. equities, adjusting to mean reversion in the CBOE SPX Volatility Index (VIX) from its lowest average (250) ever less than a year ago.

Base Metals at Discount in Bull Trend



Measured by the World Bureau of Metal Statistics, demand vs. supply indicators remain above par, barely budging since the bull market began in 2016.

Metals Showing Bullish Divergence vs. Greenback. For the first time since the bear-market bottom in 2015, the Bloomberg All Metals Total Return Index has revisited its lower 52-week Bollinger Band, signaling that the sector is poised to recover from this support level. Despite the trade-weighted broad dollar rallying to within 2% of its 14-year high from 2016, the all-metals gauge has remained

more than 20% above the similar low. It's unlikely the dollar can sustain itself above the 14-year high. Risk vs. reward appears to favor metals' longs at current levels.

Metals in Good Support Zone on Strong Dollar



If metals remain below 3Q levels, it could indicate an end to the bull market, with broader negative macroeconomic implications. In the history of the metals index since 1997, the annual correlation to the dollar is negative 0.70.

Gold Risks Tilting Higher

It May Finally Be Time for Gold, With Related Implications. Precious metals are likely in a nascent bull market, with bottoming inflation and stock-market volatility and a peaking dollar. Unchanged from about five years ago, gold has remained stable despite powerful rallies in stocks and the greenback. Mean reversion supports the benchmark diversifier.

Stocks and Gold Ripe for Trading Places. Aligning the means in this rate-hike cycle, gold appears more likely to revisit its average vs. the S&P 500. Getting back toward \$1,260 an ounce is only 5% above the Oct. 5 price for the metal vs. a 17% decline for the stock market. This wide dispersion appears to have reached an inflection point this month, with the 10-year Treasury yield sustaining above 3.1%. The last yield-resistance breach was in January, above 2.6%. Stocks peaked later that month as gold prospered. The sharp dollar rebound halted gold's climb in April, but is less likely now.

The metal's preemptive recovery absent dollar weakness is a bottom indication. The dollar has less room to rally this time. The Bloomberg Dollar Spot Index is 7% above the 2018 low. The broad trade-weighted index is 2% below the 2016 multiyear peak.

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Bloomberg Commodity Index (BCOM)

Gold Appearing Too Low vs. Rich Stocks



Gold's Risk Is a Substantial Recovery. Risks appear quite extreme for a potential melt-up in gold. Managed-money positions are the most net-short in the database history since 2006, and market volatility has declined to multidecade lows. Typically, market conditions that prompted volatility to decline to such depressed levels need to reverse for it to recover. The 90-day volatility level has declined to the lowest level since 1999 on the orderly price decline. It took about a 7% rally in the Bloomberg Dollar Spot Index from mid-April for gold to decline 11% to Oct. 5.

Gold Bottoming? Record Shorts, Very Low Volatility



Divergent gold strength is a recent takeaway. Gold has stayed close to its 1.7x annual negative beta vs. this dollar measure, but recovered about 1% in the first week of October despite continued greenback strength. It may be the inflection point to spark short covering and higher volatility.

Gold's Upside Potential Outweighs Downside Risk.

Up 13% in this Federal Reserve tightening cycle to Sept. 7, gold is closer to support, which should prevail. A combination of sustained strength in the dollar and the stock market is likely needed for gold to decline below good support near \$1,120 an ounce a year from now. It may benefit most portfolios, which is supporting the diversifier, notably via exchange-traded funds. Total known ETF holdings are up 47% since the first rate hike.

Gold Near Range Bottom Likely Opposite in a Year



Good initial resistance for gold is near \$1,375, the high in this tightening cycle. Trading the past few years within the most compressed range in decades increases the chance of a breakout higher, typically the case in such coiled markets. If the greenback resumes the mean-reversion process of 2017, gold should head toward \$1,400.

Gold's Big Picture Shows Bullish Divergence vs.

Dollar, Stocks. Gold holding steady in an environment of dollar strength and a stock-market rally indicates a bullish divergence. Elevated mean-reversion risks for its primary adversaries are quite supportive for a sustained gold rally. The yellow metal bumped up near \$1,400 an ounce in April with the Bloomberg Dollar Spot Index and the S&P 500 both down about 3%. Back at good support near \$1,200 with recoveries in the stock market and greenback, gold is near the lower end of its trading range.

The market's about as trend-ready as it gets, unchanged vs. five years ago and with the narrowest-for-longest 52-week Bollinger Bands in almost two decades. A bit of sustained mean reversion in the stock market or dollar should unlock the cage for the well-rested gold bull.

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Gold Not Going Down Despite Strong Stocks, Dollar



PERFORMANCE DRIVERS

Gold Lonely at Top Generally Not a Good Sign. It's typically not a good sign when gold is up and most others are down, as happened in October. The S&P 500 index's decline (almost 10% at its worst in the month) is the primary pressure factor on the Bloomberg Industrial Metals Subindex. Gold stands to benefit if stock-market volatility continues to recover, yet all metals would be supported by a weaker dollar that has gained on the back of outperforming U.S. equities.

Except for Gold, Metals Succumb to Weak Stocks

Security	Chg YTD %	Chg Oct.	Chg QTD	Chg Pct	1Yr % Chg	2Yr % Chg
Bloomberg Gold Subindex Total	-7.5%	+2.0%	+2.0%	-4.8%	-5.8%	
Bloomberg Nickel Subindex Total	-8.4%	-7.0%	-7.0%	-5.1%	9.8%	
Bloomberg Precious Metals Subi	-9.7%	+1.0%	+1.0%	-7.2%	-9.8%	
Bloomberg Aluminum Subindex To	-11.2%	-4.7%	-4.7%	-6.9%	13.6%	
Bloomberg All Metals Total Ret	-12.8%	-1.6%	-1.6%	-9.5%	2.9%	
Bloomberg Industrial Metals Su	-15.9%	-4.6%	-4.6%	-12.0%	14.0%	
Bloomberg Silver Subindex Total	-16.7%	-2.3%	-2.3%	-14.8%	-21.3%	
Bloomberg Zinc Subindex Total	-19.2%	-1.2%	-1.2%	-17.9%	9.2%	
Bloomberg Copper Subindex Total	-20.0%	-4.8%	-4.8%	-15.3%	16.9%	

From the morning of October 31

The near-20% year-to-date decline in copper, the worst-performing major commodity, is generally unsustainable in an expanding global economy, particularly when priced at a significant discount to its historical apex only seven years ago. Contrarily, equity prices are well-ahead of similar period peaks.

Agriculture (Index weight: 30% of BCOM)

Performance: Oct. +2.2%, YTD -8.9%, Spot -3.2%

Grains (Index Weight: 24% of BCOM)

Performance: Oct. 0.0%, YTD -6.2%, Spot +1.7%

Softs (Weight: 6% of BCOM)

Performance: Oct. +11.8%, YTD -13.7, Spot -9.8%

Crossing the Recovery Rubicon

From Corn to Sugar, Agriculture Bull Ready to Cross the Rubicon. Conditions in the agriculture sector have the makings of a longer-term foundation, notably if the Brazilian real is finished declining. The grains, comprising the bulk of the Bloomberg Agriculture Subindex, need another exceptional Corn Belt growing season to avoid adding a lot to 2018's minor gains. U.S. soybean supply is the main overhang amid U.S.-China trade tension, but the extreme U.S. price discount will help to rebalance global trade, boosting exports. Some dollar reversion should go a long way.

The beaten-up and previously record-short soft commodities appear to have met Brazil's currency at the bottom. The passage of elections and a revisit of multidecade support levels emphasize upside potential vs. further downside risks. There are plenty of ingredients for a longer-term bottom in 2018, in our view.

Broad Aqs Real Recovery

A Real Recovery? Sugar, Coffee and Soybeans Likely to Drive Aqs.

Confirmation of a bottom for the Brazilian real should be a game changer that supports agriculture prices. Upside potential for the ags outweighs downside risks, in our view.

If the Real Has Bottomed, Aqs Should Follow. The agriculture sector appears to be on the cusp of marking bottom on the back of Brazil's currency. Up about 10% in October, agricultural commodities should benefit if the real-dollar (BRLUSD) cross is moving beyond election jitters and bottoming similar to 2002 and 2009. In February, the Bloomberg Agriculture Spot Index began to trade above its 48-month average for the first time in five years. That rally failed as the real plunged.

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Bloomberg Commodity Index (BCOM)

Real Double Bottom Should Inspire Agriculture



October's agricultural high is the 48-month mean, as BRLUSD appears to be forming a double bottom. It's been 16 years since the last significant shift to sustaining above this mean as the real strengthened. Since 2002, the annual correlation of the Bloomberg Agriculture Index to the BRLUSD cross is 0.68. By comparison, the correlation is 0.76 to the price of corn.

Grains Bear Risks Elevating

Corn, Soybeans and Wheat Risks Tilting Toward Upside Potential. Unless the Corn Belt has another exceptional growing season, grain prices should be higher a year from now. Up about 3% through Oct. 29 despite ripe conditions for lower prices, the Bloomberg Grains Spot Subindex could add substantially to 2018 gains. Key drivers indicate downside risks are limited.

Grains Appear to Be Waiting on Greenback. Gains in grain prices should follow strong U.S. exports. The dollar value of U.S. corn, soybean and wheat exports is among the highest correlations to the Bloomberg Grains Spot Subindex. Despite the recent dip in this measure due to trade tension, the export trend remains positive, notably since bottoming in February 2016. Since then, the dollar value of U.S. exports has increased by about a third, while the trade-weighted broad dollar has gained 3%. Ratcheting up 7% in 2018 through Oct. 29, the strong greenback is a primary drag on grain prices.

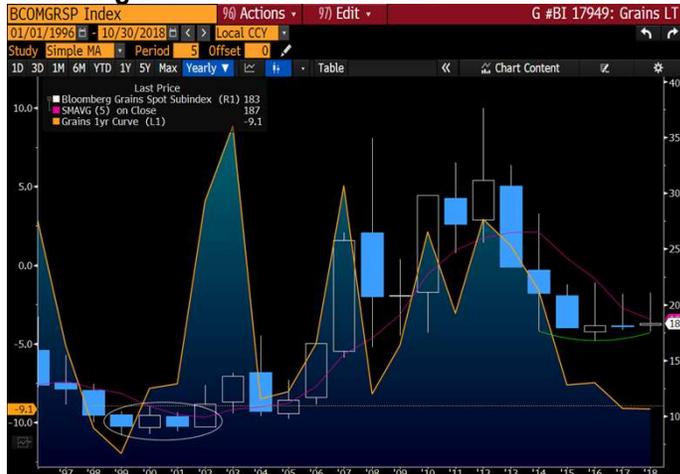
Grain Prices Unlikely to Stay Low - Strong Exports



Relatively low U.S. prices support exports as global trade rebalances from this year's distortions. Since 1999, the BI dollar measure of U.S. corn, soybeans and wheat exports (.EXUSGRN\$ G Index) is 0.92 correlated with grain prices, measured annually.

Grains Potential Bottom Harkens Back to 2002. In the fourth year of narrowing price ranges, the grain market appears to be bottoming. Indicating an extreme, the average of the one-year futures curves of Bloomberg Grains constituents is near a two-decade low. Despite exceptional Corn Belt growing conditions, trade tension and the sharp decline in the Brazil real, the spot grain index is up about 3% in 2018. Divergent strength is the indication.

Rounding Bottom Pattern in Grains



Wheat gains have been offset by soybean losses, with corn in the middle this year. Soybeans are at the epicenter of the U.S.-China trade dispute. Driven by politics, massive U.S. stockpiles limit upside. Unchanged from four years ago, and within the narrowest similar-period range in five decades, corn is ripe to be a leader.

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Upside potential outweighs downside risks, in our view.

Corn Potential at the Top of Grains Radar. Corn is ripe to exit its extremely tight range, with upside potential outweighing downside risks. Initial support and resistance near \$3.25 and \$4.05 a bushel in the front future represent the narrowest 48-month Bollinger Bands since 1964. Typically, when corn is this tightly bound, price appreciation wins out, particularly when it's trading below the USDA estimated U.S. cost of production.

Corn a Prime Uncoiling Candidate



The halfway mark of the range since 2006 is about \$5.70 -- initial target resistance. The low near \$3 is good support. This year marked the first test of the upper band since 2012. Some normalization in exceptional Corn Belt production should extend the top band higher. More-normal global wheat production this year could be a precursor.

Prices vs. Stockpiles About as Bad as It Gets. A price rally in soybeans should be well underway by the time record stockpiles begin to decline. At a four-quarter average of 1.73 million bushels, stocks are the highest ever, and the most extended above the 20-quarter average since 1980. Once this measure peaks, soybean prices should have begun a recovery, if history is a guide. A similar scenario occurred in September 2007, as soybeans rallied more than 80% from lows a year earlier. Prices then peaked about a year later.

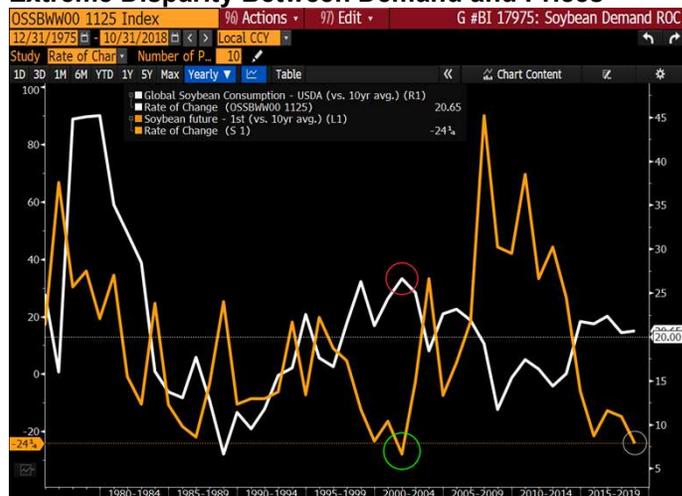
Elevated Mean-Reversion Risks in Soybeans Stocks



Measured annually in the past 30 years, the soybeans-to-stocks correlation is minus 0.74. Comparatively, the highest soybean positive correlation is 0.71 (to wheat). It's 0.62 to corn.

Unsustainable Demand vs. Declining Prices. The disparity between rapidly increasing global soybean demand and declining prices is unsustainable, in our view. Recovering prices are a prime rebalancing suspect. Extremes in the velocity of demand vs. subdued prices harks back to 17 years ago. Relative to its 10-year average, the front soybean future (minus 24% to Oct. 26) is at the lowest level since 2001. About 21% greater than the same mean, the velocity of demand has remained above 20% for the longest period since 2003.

Extreme Disparity Between Demand and Prices



The extreme in the database since 1968 was 2001, when velocity of demand approached 27% vs. minus 27% in prices. That year marked the low as soybeans peaked 320% higher in 2012.

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Bloomberg Commodity Index (BCOM)

Unsustainable Disparity Supports Soybean Futures.

Soybean exports from Brazil have become too expensive, supporting U.S.-traded futures. The 28% premium for soybeans at Paranagua, one of the primary Brazilian ports, is the highest in the database since 2006. U.S.-China trade tension creates an unsustainable overhang of supply in the U.S. vs. empty bins in the Southern Hemisphere. Prices have adjusted accordingly, but relatively low-cost U.S. soybeans support exports to the rest of the world, including to China at such a discount.

Widest Brazil vs. U.S. Soybean Price in Database



The average Paranagua premium since 2006 to the front soybean future is 4%. The .BRLSOY\$ G Index converts the Paranagua price to U.S. dollar-per-bushel equivalents to match the most widely traded future. The annual correlation is 0.86.

Outlook Nov. - A Not so Softs Bottom

Sugar, Coffee and Cotton Weathering Soft Storm; Bottom Potential. The soft commodities appear to have crossed the Rubicon back into a bull market in October, as we see it. An end of the plunge in the Brazilian real is a primary driver.

Softs May Be Forming a Longer-Term Bottom. After significant milestones in October, a foundation could form for a longer-term low in the Bloomberg Softs Spot Subindex. Sugar, coffee and cotton prices bottomed from significant support levels, on the back of record managed-money net shorts as the Brazilian real recovered from a multidecade low vs. the dollar. It's the kind of situation that is often looked back upon as the indication of a selling extreme.

Ending the month back at its 12-month average, the softs index has plenty of mean-reversion room, particularly if

the real-dollar cross has bottomed. It would take about a 34% rally to revisit the 2016 peak. Since 2007, the softs index is 0.72 correlated to the BRLUSD rate, and about the same to coffee prices.

Recovering From Good Support Zone With the Real



Mean Reversion Can Be Powerful: Bottoming Softs.

The Brazilian currency's recovery after the nation's election was October's primary positive agriculture driver, though duration remains in question. The severity of declines in sugar and coffee, and the real (showing a potential double bottom in the BRLUSD cross rate) support our view of longer-term troughs. It's been about a decade since the front sugar future increased more in a single month than October's advance of about 30%.

Softs Lead Gainers in Oct. - Potential for More

Security	Chg YTD %	Chg Oct.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Wheat Subindex Total	+4.4%	-1.7%	-1.7%	+2.6%	-14.2%
Bloomberg Kansas Wheat Subinde	+2.1%	-3.0%	-3.0%	+9%	-15.9%
Bloomberg Cotton Subindex Tota	+4%	+8%	+8%	+15.3%	15.0%
Bloomberg Live Cattle Subindex	-9%	-1.5%	-1.5%	-8.3%	20.3%
Bloomberg Livestock Subindex T	-2.9%	-5%	-5%	-9.3%	18.5%
BBG Soybean Meal TR	-4.4%	-5%	-5%	-4.6%	-10.8%
Bloomberg Corn Subindex Total	-4.7%	+2.6%	+2.6%	-6.7%	-18.9%
Bloomberg Grains Subindex Tota	-6.2%	--	--	-8.4%	-19.4%
Bloomberg Lean Hogs Subindex T	-6.9%	+2.1%	+2.1%	-11.6%	14.4%
Bloomberg Agriculture Subindex	-8.9%	+2.2%	+2.2%	-9.9%	-23.1%
BBG Softs TR	-13.7%	+11.8%	+11.8%	-10.2%	-34.1%
Bloomberg Soybeans Subindex To	-15.4%	-1.0%	-1.0%	-18.2%	-23.7%
Bloomberg Coffee Subindex Tota	-16.6%	+9.9%	+9.9%	-17.8%	-42.7%
Bloomberg Soybean Oil Subindex	-17.6%	-3.1%	-3.1%	-21.8%	-25.5%
Bloomberg Sugar Subindex Total	-18.5%	+19.2%	+19.2%	-16.0%	-44.9%

From the morning of October 31

October (up about 17% to Oct. 29) was among the 10 best months ever for the Bloomberg Softs Spot Subindex (1991), but the gauge has legs for a bottom. Record shorts provide a good foundation. Grains were stable. Up about 3% on a spot basis this year, the Bloomberg Grains Spot Subindex shows divergent strength to an exceptional Corn Belt growing season and trade tension.

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

DATA on BI COMD

(as of the morning of October 31)

Performance - Overview

Key Metrics

Name	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	3 Yr % Change	5 Yr % Change
Bonds							
▶ Barclays U.S. Aggregate	-0.6	-0.6	-2.2	-1.8	-0.9	3.4	9.8
Commodities							
▶ BCOM EX Indices TR							
▶ BCOM Index ER	-1.6	-1.8	-4.9	-2.7	-1.3	-4.1	-33.1
▶ BCOM Index Forwards TR							
▶ BCOM Index Roll Select TR	-1.6	-2.3	-4.1	-1.7	2.5	3.3	-25.7
▶ BCOM Index Spot	-1.6	-1.2	-2.7	0.7	9.6	18.2	-12.0
▶ Ags & Livestock Index							
▶ Agriculture Index	2.4	-2.5	-3.2	-2.8	-9.9	-1.2	-20.0
▶ Grain Index	0.2	-6.5	1.7	2.1	0.1	-3.6	-24.0
▶ Soft Index	11.6	5.8	-9.8	-5.6	-28.8	-0.7	-6.9
▶ Livestock Index	-0.7	9.4	-8.3	-8.6	18.4	-10.4	-18.8
▶ All Metals Index							
▶ Industrial Metals Index	-5.1	-6.4	-16.7	-11.9	16.0	26.3	-5.3
▶ Precious Metals Index	1.5	-2.1	-8.6	-5.9	-7.6	3.9	-14.5
▶ Energy Index	-4.5	1.1	10.5	17.0	28.8	42.6	-21.6
▶ Ex Indices							
▶ BCOM Index TR	-1.4	-1.3	-3.4	-1.0	1.3	-1.3	-31.0
▶ Ags & Livestock Index	1.7	-3.9	-8.1	-10.0	-17.9	-18.0	-34.7
▶ Agriculture Index	2.2	-5.9	-8.9	-9.9	-23.1	-20.4	-38.3
▶ Grains Index	0.0	-8.9	-6.2	-8.4	-19.4	-27.2	-45.0
▶ Softs Index	11.8	3.7	-13.7	-10.2	-34.1	-14.3	-34.5
▶ Livestock Index	-0.5	7.0	-2.9	-9.3	18.5	-6.6	-14.5
▶ All Metals Index	-1.6	-4.4	-12.8	-9.5	2.9	13.3	-12.8
▶ Industrial Metals Index	-4.6	-6.8	-15.9	-12.0	14.0	23.2	-11.3
▶ Precious Metals Index	1.0	-2.4	-9.8	-7.3	-9.9	0.5	-18.4
▶ Energy Index	-4.0	4.8	13.0	20.1	22.9	0.5	-50.0
Currencies							
▶ Bloomberg U.S. Dollar Spot Index	2.2	2.9	4.3	2.4	0.1	0.0	19.5
▶ US Dollar Index	1.9	2.6	5.3	2.6	-1.5	0.0	20.9
▶ US Trade Weighted Broad Dollar	1.5	2.9	7.1	5.6	3.7	7.0	27.2
Stocks							
▶ S&P 500 Index TR	-7.8	-4.3	1.9	6.2	31.3	37.2	69.3

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Commodities										
▶ BCOM Index TR	-2.8%	1.7%	11.8%	-24.7%	-17.0%	-9.5%	-1.1%	-13.3%	16.8%	18.9%
▶ Energy Index	11.7%	-4.3%	16.3%	-38.9%	-39.3%	5.2%	-9.4%	-16.0%	-10.5%	-5.3%
▶ All Metals Index	-12.8%	20.8%	15.7%	-19.5%	-7.1%	-21.6%	2.9%	-11.5%	25.9%	60.2%
▶ Industrial Metals Index	-15.8%	29.4%	19.9%	-26.9%	-6.9%	-13.6%	0.7%	-24.2%	16.2%	80.0%
▶ Precious Metals Index	-9.1%	10.9%	9.5%	-11.5%	-6.7%	-30.8%	6.3%	4.6%	42.7%	29.2%
▶ Ags & Livestock Index	-8.1%	-8.1%	0.9%	-16.1%	-6.0%	-12.6%	2.7%	-12.4%	33.9%	7.9%
▶ Livestock Index	-2.7%	6.4%	-5.6%	-18.8%	11.6%	-3.5%	-3.5%	-2.3%	9.3%	-15.1%
▶ Agriculture Index	-8.2%	-11.0%	2.1%	-15.6%	-9.2%	-14.3%	4.0%	-14.4%	38.5%	13.7%
▶ Grains Index	-6.3%	-11.3%	-5.9%	-19.4%	-9.4%	-16.9%	18.3%	-14.4%	30.3%	-1.6%
▶ Softs Index	-13.7%	-14.8%	13.2%	-9.9%	-10.1%	-16.9%	-22.4%	-14.0%	59.9%	44.2%
▶ BCOM EX Indices TR										
▶ BCOM Index Roll Select TR	-4.3%	3.6%	14.6%	-23.4%	-15.2%	-9.1%	-0.4%	-8.8%	19.5%	23.1%
▶ BCOM Index Forwards TR										
▶ BCOM Index ER	-4.3%	0.7%	11.4%	-24.7%	-17.0%	-9.6%	-1.1%	-13.4%	16.7%	18.7%
▶ BCOM Index Spot	-2.7%	7.6%	23.1%	-18.4%	-17.0%	-8.7%	3.7%	-8.1%	26.4%	41.2%
Stocks										
▶ S&P 500 Index TR	1.9%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%
Bonds										
▶ Barclays U.S. Aggregate	-2.2%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%
Currencies										
▶ Bloomberg U.S. Dollar Spot Index	4.2%	-8.5%	2.8%	9.0%	11.0%	3.3%	-0.7%	1.8%	-1.8%	-4.8%
▶ US Dollar Index	5.3%	-9.9%	3.6%	9.3%	12.8%	0.3%	-0.5%	1.5%	1.5%	-4.2%
▶ US Trade Weighted Broad Dollar	5.1%	-6.0%	4.5%	10.7%	8.4%	2.8%	-1.4%	0.7%	-1.3%	-6.7%

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Performance – Commodity Total Returns

Key Metrics

Name	WTD % Change	MTD % Change	3 Mth % Change	YTD % Change	11 Yr % Change	2 Yr % Change
▼ BCOM Total Return Indices						
Brent Crude Index	-1.3	-6.7	4.6	21.4	34.3	55.7
WTI Crude Index	-1.5	-8.4	-0.5	16.5	29.2	36.1
Heating Oil Index	-1.1	-3.0	6.6	13.4	24.1	47.0
Cotton Index	-2.3	0.6	-13.9	0.2	15.2	14.8
Gasoline Index	0.2	-12.6	-5.7	0.2	4.1	19.5
Wheat Index	-1.5	-2.1	-13.0	4.0	2.2	-14.5
Natural Gas Index	-0.5	5.6	13.1	5.5	1.8	-21.6
HRW Wheat Index	-1.1	-3.0	-14.6	2.1	0.9	-15.9
Soybean Meal Index	-0.7	-0.5	-7.6	-4.4	-4.6	-10.8
Gold Index	-1.4	2.1	-0.7	-7.5	-4.8	-5.8
Nickel Index	-1.7	-7.1	-16.6	-8.4	-5.2	9.7
Corn Index	-0.9	2.5	-5.2	-4.8	-6.8	-19.0
Aluminum Index	-1.7	-4.7	-4.8	-11.1	-6.9	13.7
Live Cattle Index	-1.3	-1.5	3.3	-0.9	-8.3	20.3
Platinum Index	0.4	2.1	-0.8	-10.6	-9.0	-15.0
Lean Hogs Index	1.9	2.1	17.0	-6.9	-11.6	14.4
Silver Index	-2.5	-2.4	-8.0	-16.8	-14.9	-21.4
Copper Index	-2.7	-4.7	-6.0	-20.0	-15.2	17.0
Sugar Index	-4.2	18.6	18.2	-18.8	-16.4	-45.2
Coffee Index	-6.1	9.9	-0.1	-16.6	-17.9	-42.7
Zinc Index	-3.5	-1.2	0.3	-19.3	-18.0	9.2
Soybeans Index	-1.1	-1.1	-8.7	-15.5	-18.3	-23.7
Soybean Oil Index	-0.7	-3.4	-4.1	-17.9	-22.0	-25.7

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
▼ BCOM Total Return Indices										
Brent Crude Index	20.4%	14.2%	25.4%	-45.6%	-47.6%	7.2%	7.6%	16.8%	11.5%	28.6%
WTI Crude Index	15.8%	5.1%	7.1%	-44.3%	-41.7%	6.8%	-11.8%	-3.6%	3.8%	4.4%
Heating Oil Index	12.5%	15.0%	33.5%	-42.8%	-38.8%	0.4%	5.5%	10.7%	8.3%	20.5%
Wheat Index	6.0%	-12.5%	-24.1%	-22.2%	-9.4%	-27.2%	9.8%	-34.0%	21.2%	-26.0%
Natural Gas Index	5.1%	-36.4%	10.3%	-39.9%	-30.7%	5.0%	-30.6%	-47.1%	-40.6%	-51.6%
HRW Wheat Index	2.1%	-14.9%	-25.3%	-32.7%	-4.7%	-26.2%	5.6%	-22.9%	42.1%	-23.8%
Cotton Index	0.5%	12.5%	10.5%	3.0%	-21.2%	9.0%	-12.7%	-21.7%	98.2%	30.1%
Gasoline Index	-0.7%	2.8%	6.4%	-12.6%	-43.8%	1.9%	25.7%	14.5%	13.1%	74.7%
Live Cattle Index	-0.9%	9.1%	-7.4%	-14.3%	22.1%	-5.0%	-3.9%	-1.0%	15.0%	-9.8%
Soybean Meal Index	-4.4%	-4.8%	18.1%	-18.0%	11.8%	20.0%	49.1%	-18.1%	38.9%	34.7%
Corn Index	-4.7%	-12.1%	-9.8%	-19.2%	-13.3%	-30.3%	19.0%	1.1%	30.7%	-10.1%
Gold Index	-7.0%	12.8%	7.7%	-10.9%	-1.7%	-28.7%	6.1%	9.6%	28.7%	22.9%
Lean Hogs Index	-7.2%	2.8%	-2.9%	-26.1%	-4.4%	-2.0%	-2.9%	-4.6%	0.3%	-22.5%
Nickel Index	-7.9%	25.6%	11.8%	-42.6%	7.3%	-20.1%	-10.2%	-24.7%	32.2%	54.9%
Platinum Index	-10.4%	3.0%	0.8%	-26.5%	-12.3%	-11.8%	8.7%	-21.8%	19.3%	54.0%
Aluminum Index	-11.0%	31.2%	9.7%	-22.9%	-3.1%	-20.7%	-4.0%	-21.7%	5.4%	33.8%
Soybeans Index	-15.1%	-8.1%	14.8%	-14.6%	-5.5%	10.5%	24.0%	-16.4%	34.9%	22.9%
Silver Index	-16.2%	5.8%	14.0%	-12.7%	-20.4%	-36.6%	7.1%	-10.1%	81.8%	47.6%
Coffee Index	-16.6%	-16.0%	-1.3%	-31.5%	-37.8%	-30.5%	-41.6%	-11.2%	67.0%	10.3%
Sugar Index	-17.4%	-25.4%	22.8%	-4.7%	-30.9%	-20.0%	-13.0%	-11.9%	24.0%	86.3%
Soybean Oil Index	-17.7%	-7.0%	7.3%	-7.7%	-20.6%	-22.4%	-9.8%	-15.2%	33.8%	14.2%
Zinc Index	-19.5%	29.7%	57.5%	-28.0%	3.5%	-7.0%	9.0%	-27.8%	-8.8%	98.3%
Copper Index	-20.1%	29.2%	15.7%	-25.1%	-16.6%	-8.8%	5.0%	-24.4%	29.5%	130.0%

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Performance – Prices

Key Metrics

Name	WTD % Change	MTD % Change	3 Mth % Change	YTD % Change	11 Yr % Change	2 Yr % Change
▼ BCOM Single Commodity Price						
Gas Oil	-0.8	-2.3	8.1	17.9	28.4	60.7
Brent Crude	-1.4	-7.4	3.1	14.5	24.8	58.5
WTI Crude	-1.4	-9.0	-3.1	10.3	22.5	42.2
Heating Oil	-1.5	-3.6	6.4	9.3	20.3	51.6
Wheat	-1.5	-2.2	-10.1	16.6	18.9	19.6
HRW Wheat	-1.4	-3.6	-11.4	15.4	18.4	18.9
Cotton	-2.3	-0.1	-15.0	-2.5	12.2	11.4
Natural Gas	1.1	7.1	15.8	9.1	11.2	6.4
Palladium	-2.8	-1.6	13.3	-0.5	7.8	70.8
Corn	-1.0	2.2	-2.1	3.8	5.4	2.7
Gasoline	0.9	-12.8	-14.0	1.8	2.9	26.4
Nickel	-1.2	-6.5	-15.1	-7.9	0.6	12.6
Soybean Meal	-0.6	0.0	-10.5	-2.3	-2.0	-3.4
Gold	-1.4	2.2	-0.4	-7.0	-4.1	-4.3
Live Cattle	-1.4	3.0	7.7	-3.9	-5.3	11.9
Platinum	0.5	2.4	-0.9	-10.2	-8.8	-14.3
Aluminum	-1.7	-4.7	-5.8	-13.2	-8.8	14.0
Lean Hogs	1.9	-5.1	-6.8	-17.8	-9.5	26.1
Sugar	-4.1	27.4	25.8	-12.5	-10.0	-38.5
Coffee	-6.1	9.6	2.2	-11.0	-10.2	-31.6
Copper (LME)	-2.1	-3.4	-3.8	-16.2	-11.3	24.9
Copper (CME)	-2.7	-4.9	-5.8	-19.2	-14.0	20.9
Soybeans	-1.0	-1.1	-7.4	-12.1	-14.1	-16.5
Silver	-2.6	-2.6	-7.9	-16.4	-14.2	-19.5
Soybean Oil	-0.7	-2.5	-2.6	-15.4	-19.5	-20.5
Zinc	-3.8	-2.0	1.2	-22.1	-20.2	8.6

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
▼ BCOM Single Commodity Price										
Wheat	17.0%	4.7%	-13.2%	-20.3%	-2.6%	-22.2%	19.2%	-17.8%	46.7%	-11.3%
Gas Oil	17.0%	19.8%	53.6%	-36.3%	-45.8%	1.9%	0.3%	21.2%	20.0%	51.9%
HRW Wheat	15.8%	2.1%	-10.7%	-25.2%	-2.2%	-22.9%	15.9%	-15.7%	58.7%	-14.9%
Brent Crude	14.0%	17.7%	52.4%	-35.0%	-48.3%	-0.3%	3.5%	13.3%	21.6%	70.9%
WTI Crude	9.8%	12.5%	45.0%	-30.5%	-45.9%	7.2%	-7.1%	8.2%	15.1%	77.9%
Heating Oil	9.3%	21.8%	54.8%	-40.4%	-40.0%	1.1%	3.8%	15.4%	20.1%	50.7%
Natural Gas	8.8%	-20.7%	59.3%	-19.1%	-31.7%	26.2%	12.1%	-32.1%	-20.9%	-0.9%
Corn	4.0%	-0.4%	-1.9%	-9.6%	-5.9%	-39.6%	8.0%	2.8%	51.7%	1.8%
Gasoline	0.6%	8.1%	31.4%	-11.7%	-48.5%	-0.9%	4.7%	9.5%	19.5%	103.6%
Palladium	0.2%	55.3%	21.6%	-29.6%	11.2%	2.1%	7.2%	-18.3%	96.5%	116.7%
Cotton	-2.2%	11.3%	11.6%	5.0%	-28.8%	12.6%	-18.1%	-36.6%	91.5%	54.2%
Soybean Meal	-2.4%	-0.1%	18.4%	-27.5%	-16.7%	4.1%	35.9%	-16.4%	18.0%	4.5%
Live Cattle	-3.9%	4.7%	-15.2%	-16.4%	21.5%	1.8%	8.9%	12.1%	25.9%	0.0%
Gold	-6.6%	13.7%	8.6%	-10.5%	-1.5%	-28.3%	7.0%	10.2%	29.7%	24.0%
Nickel	-8.0%	27.5%	13.5%	-41.8%	9.0%	-18.6%	-9.2%	-24.2%	33.8%	58.8%
Platinum	-10.3%	3.6%	1.1%	-26.2%	-11.8%	-10.9%	9.9%	-21.1%	21.5%	55.9%
Coffee	-10.9%	-7.9%	8.2%	-23.9%	50.5%	-23.0%	-36.6%	-5.7%	76.9%	21.3%
Sugar	-12.1%	-22.3%	28.0%	5.0%	-11.5%	-15.9%	-16.3%	-27.5%	19.2%	128.2%
Soybeans	-12.4%	-4.5%	14.4%	-14.5%	-22.3%	-7.5%	18.4%	-14.0%	34.0%	6.9%
Aluminum	-13.2%	33.3%	12.5%	-17.9%	4.1%	-13.9%	2.5%	-18.8%	11.6%	45.6%
Soybean Oil	-15.4%	-3.9%	12.7%	-4.4%	-17.6%	-21.0%	-5.6%	-9.8%	43.1%	21.2%
Silver	-15.8%	7.2%	15.8%	-11.5%	-19.5%	-35.9%	8.3%	-9.8%	83.7%	49.1%
Copper (LME)	-16.2%	30.6%	17.3%	-25.8%	-13.9%	-6.8%	4.2%	-21.2%	31.2%	141.1%
Lean Hogs	-17.8%	8.5%	10.6%	-26.4%	-4.9%	-0.3%	1.7%	5.7%	22.3%	7.1%
Copper (CME)	-18.9%	31.7%	17.4%	-24.4%	-16.8%	-7.0%	6.3%	-22.7%	32.9%	137.3%
Zinc	-19.8%	30.1%	60.2%	-26.2%	6.0%	-0.5%	12.2%	-25.2%	-3.5%	113.5%

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Performance – Volatility

Name	Current	% Change o... Day	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
▼ BCOM 3M Implied Volatility									
Gold	10.2	-3.1	-4.5	8.9	8.9	10.0	6.1	0.5	-29.5
Soybeans	14.4	-3.7	-3.7	-9.5	-9.5	-30.1	27.9	21.7	-20.8
Live Cattle	14.6	-0.3	-0.1	-7.3	-7.3	-16.6	-21.6	-13.6	-36.4
Soybean Oil	14.7	1.1	0.2	-3.8	-3.8	-9.2	-4.7	-16.0	-28.3
Corn	15.0	-4.4	-5.7	-4.2	-4.2	-29.5	17.3	7.1	-27.4
Platinum	16.8	-1.0	-4.3	-8.5	-8.5	6.6	28.6	13.4	-10.3
Silver	17.2	2.2	-0.5	0.3	0.3	9.4	10.9	-1.9	-27.1
Aluminum	17.9	-1.0	-20.2	16.4	16.4	1.4	6.1	-21.2	23.7
Soybean Meal	18.0	-3.0	-3.6	-2.3	-2.3	-11.2	17.5	21.0	-24.0
Cotton	18.6	-0.6	0.9	5.5	5.5	-20.8	-17.8	12.7	-5.3
Copper (LME)	19.4	-7.7	-36.1	-3.6	-3.6	14.9	9.3	14.3	-18.9
Copper (COMEX)	20.3	9.8	5.6	-0.1	-0.1	-0.6	17.5	12.6	16.9
Wheat	20.4	-3.8	-0.7	2.5	2.5	-32.4	2.2	23.2	-0.7
HRW Wheat	21.2	-1.4	1.4	1.0	1.0	-30.7	4.5	25.6	5.6
Gas Oil	23.7	-0.2	-0.9	6.0	6.0	2.3	25.5	9.3	-28.5
Heating Oil	24.0	0.7	6.8	7.1	7.1	6.1	27.7	10.8	-23.3
Palladium	25.4	2.4	1.8	11.1	11.1	12.5	12.0	1.9	-3.3
Brent Crude	25.7	0.2	0.7	4.0	4.0	1.6	35.4	10.2	-27.5
Crude Oil	26.4	0.0	4.6	5.1	5.1	7.4	39.0	9.5	-26.8
Unlead Gas	26.6	-6.8	-2.3	5.9	5.9	8.7	32.8	10.7	-19.0
Zinc	26.7	-8.5	6.7	-6.3	-6.3	4.3	25.9	-21.8	16.5
Coffee	27.5	-3.2	-7.5	-6.6	-6.6	27.9	15.4	12.2	-14.5
Sugar	28.0	-1.5	0.0	7.4	7.4	10.1	29.1	26.4	-0.4
Nickel	30.6	0.3	1.6	-9.3	-9.3	-3.5	8.2	-2.4	7.2
Lean Hogs	34.3	-1.2	-3.1	-4.6	-4.6	-14.0	65.5	58.0	6.3
NaturalGas	45.6	-4.3	-4.8	12.6	12.6	110.5	33.4	8.2	-2.4
▼ BCOM 60 Day Historical Volatility									
Gold	11.3	0.0	0.4	27.1	27.1	24.6	9.2	8.3	-4.8
Soybean Oil	14.4	-1.1	-0.2	0.1	0.1	-6.3	3.0	-0.7	-36.5
Gas Oil	15.9	-1.4	-1.3	-12.0	-12.0	-31.2	-19.9	-24.2	-51.3
Silver	18.2	0.0	1.6	6.2	6.2	4.7	-2.3	9.2	-24.1
Heating Oil	18.7	-0.2	0.2	-15.1	-15.1	-26.3	-13.4	-18.6	-41.5
Platinum	19.8	0.2	-0.7	-10.1	-10.1	-7.0	16.3	57.8	-8.0
Cotton	20.6	0.0	1.2	-4.1	-4.1	-23.8	10.5	-9.4	-15.5
Soybeans	20.9	-0.9	-1.2	-8.0	-8.0	-5.9	62.6	42.8	12.1
Corn	21.7	0.1	0.1	-9.8	-9.8	-14.8	57.5	12.6	-5.5
Copper (CME)	22.0	3.6	2.9	-9.5	-9.5	13.0	13.1	20.4	44.6
Copper (LME)	22.1	1.6	0.9	-6.6	-6.6	24.0	14.3	20.4	57.2
Soybean Meal	22.3	-0.1	-0.2	14.6	14.6	26.2	34.6	14.9	5.1
Brent Crude	22.5	-3.0	-3.5	-14.5	-14.5	-23.4	11.5	-1.2	-36.4
Aluminum	23.2	0.3	0.4	0.2	0.2	18.6	36.4	33.8	59.7
Crude Oil	24.2	0.5	0.5	-5.9	-5.9	-18.9	15.6	-2.1	-35.1
Palladium	25.2	2.3	2.4	-5.7	-5.7	7.8	35.9	5.5	-15.0
Natural Gas	27.7	-0.4	-0.3	26.5	26.5	28.5	-39.9	-21.6	-37.5
Nickel Gas	28.2	-0.6	-0.7	-3.6	-3.6	22.0	-19.8	-15.6	8.1
Unlead Gas	28.7	-1.0	-0.9	-6.4	-6.4	6.5	19.3	-50.7	-30.1
Wheat	30.7	0.2	-2.4	-14.7	-14.7	-18.3	44.6	24.4	6.7
Live Cattle	31.6	0.1	-2.5	-12.9	-12.9	-17.8	67.1	30.9	21.9
HRW Wheat	31.6	0.1	-2.5	-12.9	-12.9	-17.8	67.1	30.9	21.9
Zinc	32.2	1.7	0.5	-6.7	-6.7	38.0	54.5	21.4	65.5
Coffee	33.8	0.6	5.2	18.9	18.9	31.2	50.1	36.6	40.0
Sugar	39.5	0.2	1.3	30.6	30.6	45.7	66.7	19.7	40.5
Lean Hogs	60.5	-0.1	-0.7	13.9	13.9	23.1	95.5	24.1	-1.4

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Curve Analysis – Contango (-) | Backwardation (+)

Key Metrics

Name	Current Position	1 Yr Ago	1 Yr Change	YTD Change	MTD Change	1 Mth Change	3 Mth Change	2 Yr Change
1 Year Spread % of First Contract								
BCOM	-3.4	-2.9	-0.5	-1.7	-0.3	-0.3	0.0	1.3
Sector								
Energy	1.6	3.3	-1.7	-2.7	-1.8	-1.8	-2.8	8.8
Industrial Metals	-0.7	-0.4	-0.2	0.1	0.0	0.0	0.9	0.5
Livestock	-1.0	3.9	-4.9	-7.5	2.1	2.1	6.9	8.0
Precious Metals	-3.2	-2.0	-1.1	-0.8	-0.2	-0.2	-0.4	-1.4
Agriculture	-7.8	-8.0	0.2	-1.8	0.2	0.2	-1.4	-4.3
Single Commodities								
Natural Gas	8.7	-6.4	15.1	12.4	-0.6	-0.6	3.8	16.3
Zinc	4.0	5.5	-1.5	0.6	0.8	0.8	2.4	4.5
Palladium	2.2	1.0	1.2	0.7	0.1	0.1	1.3	2.9
Brent Crude	2.1	4.3	-2.2	-4.2	-3.3	-3.3	0.6	11.9
Gas Oil	1.6	2.6	-1.0	-4.6	0.4	0.4	1.6	8.3
Live Cattle	0.7	4.1	-3.4	-5.6	1.6	1.6	3.7	-9.1
Copper (LME)	0.4	-1.1	1.5	1.7	0.5	0.5	1.8	1.2
Crude Oil	0.2	2.0	-1.8	-4.8	-4.1	-4.1	-7.0	8.7
Cotton	0.2	-1.2	1.4	-5.9	-1.3	-1.3	-8.1	-1.1
Heating Oil	0.2	2.5	-2.3	-5.8	-0.3	-0.3	0.1	7.8
Thermal Coal	0.1	9.3	-9.2	-5.4	0.3	0.3	-12.1	
Platinum	-1.4	-1.9	0.4	0.0	0.2	0.2	0.4	-0.3
Soybean Meal	-1.9	-2.5	0.6	1.5	-0.7	-0.7	-3.9	-2.5
Unleaded Gas	-1.9	8.4	-10.4	-6.6	-5.2	-5.2	-6.3	-0.3
Copper (CME)	-2.2	-1.9	-0.3	-0.4	-0.7	-0.7	0.9	-0.9
Nickel	-2.4	-2.2	-0.3	-0.4	0.1	0.1	-0.2	-0.9
Lean Hogs	-2.7	3.8	-6.5	-9.4	2.5	2.5	10.2	25.1
Gold	-3.0	-1.9	-1.1	-0.8	-0.1	-0.1	-0.2	-1.5
Aluminum	-3.0	-2.6	-0.5	-0.7	-0.6	-0.6	-0.5	-1.3
Silver	-3.4	-2.2	-1.2	-0.9	-0.3	-0.3	-0.5	-1.3
Soybean Oil	-5.7	-1.2	-4.6	-4.6	0.2	0.2	0.9	-5.0
Sugar	-6.5	-5.4	-1.2	-3.0	4.1	4.1	8.1	-15.1
Soybean	-8.0	-2.4	-5.6	-4.8	-0.2	-0.2	-1.8	-8.7
Corn	-9.5	-13.1	3.7	2.7	0.4	0.4	0.1	0.5
Coffee	-12.9	-11.1	-1.8	-2.0	0.7	0.7	-0.6	-6.1
Wheat	-12.9	-19.4	6.5	2.6	-1.4	-1.4	-4.3	7.2
HRW Wheat	-16.8	-22.5	5.6	2.2	-3.2	-3.2	-6.3	1.4

Measured via the one-year futures spread as a 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).

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
1 Year Spread % of First Contract										
BCOM	-3.4	-1.7	-2.2	-7.1	-4.4	0.3	-0.9	-2.0	2.3	-4.1
Sector										
Energy	1.6	4.3	0.4	-14.0	-11.3	3.5	-1.3	-2.5	-2.1	-9.4
Industrial Metals	-0.6	-0.8	-0.8	-1.5	-0.8	-1.8	-2.5	-2.1	0.5	-2.3
Livestock	-1.0	6.5	8.1	0.6	8.3	4.1	-0.7	-0.2	-1.8	-4.8
Precious Metals	-3.2	-2.3	-1.7	-1.0	-0.8	-0.7	-0.7	-0.7	-0.9	-0.9
Agriculture	-7.7	-5.9	-4.2	-5.5	-5.6	-1.5	-2.3	-1.8	12.2	-0.3
Single Commodities										
Natural Gas	8.7	-3.7	-0.1	-22.6	-22.2	-3.2	-20.7	-29.9	-18.4	-21.1
Zinc	4.4	3.4	0.2	-2.8	-1.4	-2.3	-4.5	-3.9	-1.7	-3.2
Palladium	2.2	1.5	-0.5	-0.2	-0.1	-0.5	-0.2	-0.4	0.0	-0.3
Brent Crude	2.1	6.3	-3.1	-22.1	-16.4	4.9	6.3	4.0	-0.4	-8.3
Gas Oil	2.1	6.2	-4.8	-23.8	-12.0	3.1	2.9	3.0	-4.2	-11.0
Live Cattle	0.7	6.3	13.3	8.1	7.0	2.5	-3.3	-4.5	-3.8	-4.3
Cotton	0.5	6.1	1.7	-2.7	-8.6	6.7	-5.7	3.6	34.6	-2.6
Copper (LME)	0.4	-1.3	-0.3	0.3	1.6	1.1	-0.7	-0.3	2.7	-0.9
Crude Oil	0.2	5.0	-5.9	-20.4	-13.5	7.3	-1.3	1.4	-3.2	-6.7
Heating Oil	0.2	5.9	-4.5	-24.5	-4.5	3.2	2.1	2.1	-3.4	-8.0
Thermal Coal	0.1	5.4	18.4	14.0	1.7	1.9	-8.3	-6.2	11.2	-7.9
Platinum	-1.4	-1.4	-1.1	-0.4	-0.4	-0.5	-0.7	-1.0	-0.5	-1.2
Soybean Meal	-1.9	-3.4	-0.4	-5.7	9.8	19.9	12.5	-2.4	9.9	9.5
Unleaded Gas	-2.0	4.7	2.8	1.0	-12.3	7.0	9.8	7.9	3.7	-2.9
Copper (CME)	-2.2	-1.8	-0.8	-1.1	-0.2	1.3	-1.1	-0.8	2.5	-1.2
Nickel	-2.4	-2.0	-1.9	-1.4	-1.1	-1.8	-1.4	-0.1	1.1	-1.1
Lean Hogs	-2.7	6.7	2.9	-7.0	9.6	5.7	2.0	4.2	0.2	-5.3
Gold	-2.9	-2.2	-1.5	-0.5	-0.3	-0.4	-0.7	-0.9	-0.9	-1.0
Aluminum	-3.0	-2.3	-1.0	-2.7	-3.1	-7.5	-5.0	-5.2	-2.3	-5.0
Silver	-3.4	-2.5	-2.0	-1.4	-1.2	-0.9	-0.7	-0.5	-0.9	-0.8
Soybean Oil	-5.7	-1.1	-1.2	-3.1	-0.9	-3.8	-2.8	-1.6	-0.9	-5.3
Sugar	-6.5	-3.5	4.8	0.9	-13.1	-8.2	-5.5	-0.3	26.0	21.9
Soybean	-8.0	-3.3	0.4	-2.0	0.9	13.1	7.7	-1.2	5.9	1.7
Corn	-9.5	-12.1	-10.5	-9.5	-8.1	-9.2	12.7	7.2	9.4	-8.5
Wheat	-12.7	-15.5	-17.1	-10.5	-5.0	-7.2	-6.9	-12.4	-8.7	-15.3
Coffee	-12.9	-10.9	-9.2	-8.4	-7.4	-11.2	-11.5	-4.9	6.1	-5.7
HRW Wheat	-16.8	-19.1	-16.1	-14.9	-6.3	-5.5	-5.7	-7.9	-3.1	-12.7

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Curve Analysis – Gross Roll Yield

Key Metrics

Name	Current 1Yr Yld	Yld 6 Months Ago	Yld 1 Yr Ago	Change from 1 Yr Ago	Yld 2 Yr Ago	Change from 2 Yr Ago
1 Year Gross Yield						
Sector Roll Yield						
BCOM Energy	1.7	-3.2	-7.6	9.3	-26.5	28.3
BCOM Industrial Metals	0.0	-2.1	-3.2	3.2	-1.8	1.8
BCOM Livestock	-0.7	-0.1	0.7	-1.4	3.1	-3.8
BCOM Precious Metals	-0.7	0.5	-0.8	0.1	-0.9	0.2
BCOM	-2.0	-4.1	-6.4	4.4	-10.6	8.6
BCOM Softs	-4.8	-2.9	-3.5	-1.3	-6.4	1.6
BCOM Grains	-10.6	-15.0	-10.5	-0.1	-6.0	-4.6
BCOM Agriculture		-7.9	-7.5			
Commodities Roll Yield						
Brent Crude	8.5	3.5	-7.2	15.8	-15.9	24.4
Crude Oil	6.2	-1.4	-10.6	16.7	-30.2	36.4
Cotton	3.4	5.2	3.2	0.3	-0.5	3.9
Gas Oil	3.3	2.4	-3.2	6.5	-16.5	19.8
Heating Oil	2.6	0.7	-3.6	6.2	-15.5	18.2
Aluminum	2.0	-1.5	-2.8	4.8	-4.8	6.9
Zinc	2.0	1.4	-5.3	7.3	-3.1	5.1
Unlead Gas	1.1	-1.1	-8.3	9.5	-20.8	21.9
Platinum	-0.1	-0.7	-0.5	0.4	-2.6	2.5
Gold	-0.6	-0.5	-0.8	0.2	-0.6	0.0
Silver	-0.8	-0.8	-1.5	0.7	-6.2	5.4
Copper (CME)	-1.6	-1.6	-2.4	0.8	-1.3	-0.3
Lean Hogs	-2.1	-4.5	-15.2	13.1	-2.0	-0.2
Soybean Meal	-2.3	-5.9	-4.9	2.5	0.3	-2.6
Soybean Oil	-2.6	-3.9	-2.9	0.3	-6.7	4.0
Soybean	-4.1	-5.7	-3.8	-0.2	0.5	-4.5
Nickel	-5.2	-1.5	-2.1	-3.1	-1.4	-3.9
Sugar	-6.4	-3.4	-1.0	-5.4	-6.2	-0.2
Coffee	-7.1	-9.4	-5.9	-1.2	-13.2	6.1
Natural Gas	-10.1	-14.3	-19.7	9.6	-46.1	36.0
Corn	-11.3	-15.9	-10.5	-0.7	-7.4	-3.8
Wheat	-15.0	-28.8	-19.0	4.0	-7.5	-7.5
HRW Wheat	-16.4	-26.6	-18.2	1.8	-13.1	-3.2

Measured on a gross roll yield basis; the 251 business day difference between the total return and spot change.

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
1 Year Gross Yield											
Sector Roll Yield											
BCOM Energy	1.7	-7.7	-32.5	-12.6	1.6	-5.1	-11.7	-11.0	-13.8	-51.8	-5.6
BCOM Industrial Metals	0.0	-3.0	-2.0	-1.8	-2.1	-3.9	-3.3	-2.2	-4.1	-16.7	-3.3
BCOM Livestock	-0.7	0.5	0.2	1.1	-0.2	-4.5	-9.8	-12.3	-14.8	-20.2	-22.5
BCOM Precious Metals	-0.7	-0.2	-1.1	-0.6	-0.4	-0.5	-0.9	-0.6	-1.1	-1.1	-2.6
BCOM	-2.0	-5.9	-11.4	-6.3	0.0	-0.9	-4.7	-6.6	-9.5	-21.8	-6.5
BCOM Softs	-4.8	-4.2	-5.6	-7.4	-12.5	-4.9	0.9	9.0	0.5	-24.7	-18.2
BCOM Agriculture	-7.8	-8.0	-6.1	-4.1	-1.0	4.9	1.9	-1.9	-9.6	-8.3	-10.2
BCOM Grains	-10.6	-10.7	-7.0	-4.7	0.7	8.2	3.6	-5.8	-12.6	-2.5	-7.8
Commodities Roll Yield											
Brent Crude	8.5	-4.9	-27.7	-23.3	0.3	6.9	4.2	8.3	-12.5	-55.6	-3.1
Crude Oil	6.2	-7.3	-38.2	-14.0	4.3	-0.3	-4.5	-9.7	-11.3	-70.3	0.3
Heating Oil	3.5	-6.4	-25.3	-3.0	1.1	-1.3	1.0	-2.9	-11.7	-25.3	-0.3
Cotton	3.4	1.0	-1.1	-2.1	7.7	-3.6	5.2	15.5	14.3	-24.1	-14.5
Gas Oil	3.3	-0.9	-22.7	-11.0	-1.6	2.1	7.4	2.1	-12.3	-20.5	-3.0
Aluminum	2.0	-3.2	-2.9	-6.0	-9.1	-8.4	-6.2	-3.3	-6.0	-13.6	-5.0
Zinc	2.0	-3.1	-2.7	-2.5	-4.6	-8.8	-3.1	-3.0	-5.3	-11.2	-2.6
Unlead Gas	1.1	-4.0	-27.2	1.1	4.7	1.3	18.9	4.5	-6.9	-16.9	-2.0
Platinum	-0.1	-1.1	-0.4	-0.2	-0.5	-0.8	-1.2	0.9	-2.7	-6.2	-0.7
Copper (CME)	-0.5	-3.5	-1.6	-0.7	0.3	-1.7	-1.3	-0.1	-3.6	-7.1	0.5
Silver	-0.8	0.1	-1.8	-1.2	-0.9	-0.7	-1.1	4.5	-5.1	-1.5	-1.1
Nickel	-0.9	-0.6	-1.7	0.5	-2.9	-2.3	-1.0	-1.7	-1.6	-7.3	-1.8
Gold	-1.0	-0.3	-0.9	-0.4	-0.2	-0.4	-0.9	2.9	-1.0	-1.1	-1.6
Live Cattle	-2.0	4.4	7.8	2.0	0.6	-6.8	-12.8	-12.5	-12.2	-9.6	-15.9
Soybean Oil	-2.1	-2.9	-5.4	-3.2	-2.9	-1.3	-4.2	-4.2	-8.5	-6.9	-4.3
Lean Hogs	-2.1	-8.2	-13.6	0.3	0.6	-1.7	-4.5	-9.6	-23.8	-30.8	-38.1
Soybean Meal	-2.3	-4.8	-0.5	9.6	28.7	16.5	13.0	-1.3	20.7	30.2	0.4
Soybean	-4.1	-3.0	0.2	-0.2	17.0	18.5	5.5	-1.8	0.5	16.1	-2.2
Sugar	-6.4	-3.2	-5.2	-9.9	-19.5	-4.1	3.1	18.7	4.6	-41.8	-28.3
Coffee	-7.1	-9.2	-9.7	-7.8	-12.6	-7.2	-5.0	-3.4	-8.5	-11.1	-8.5
Natural Gas	-10.1	-14.0	-52.6	-19.8	0.8	-22.3	-42.7	-13.8	-16.1	-47.6	-11.8
Corn	-11.3	-12.4	-7.9	-9.6	-7.4	9.4	10.8	0.4	-20.9	-11.8	-11.0
Wheat	-15.0	-18.0	-10.9	-1.9	-7.0	-5.1	-9.4	-14.6	-23.8	-14.7	-7.1
HRW Wheat	-16.4	-17.8	-14.7	-7.6	-2.5	-3.3	-4.1	-7.6	-9.9	-4.7	-4.7

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Curve Analysis – Forwards / Forecasts Spread %

Name	10/2018	9/2018	8/2018	7/2018	6/2018	5/2018	4/2018	3/2018	2/2018	1/2018	12/2017
1 Yr Spread ((Forward-Forecast)/ Forecast											
Energy											
WTI Crude Spread %	-0.9	2.4	1.2	2.6	6.1	4.3	7.3	3.6	0.3	4.7	19.4
Brent Crude Spread %	1.3	4.1	3.8	5.7	7.1	8.9	9.8	4.6	0.3	7.7	23.8
ULS Diesel Spread %	1.7	2.2	1.1	0.2	8.4	9.6	6.1	2.6	0.8	7.6	32.8
Unleaded Gasoline Spread %	-1.4	2.8	-0.1	-0.3	-0.1	1.4	3.5	1.3	-0.2	8.3	15.1
Soft											
Sugar Spread %	3.3	-3.6	-2.0	-5.8	-2.3	0.7	-6.2	-6.9	-4.0	-4.5	-5.2
Coffee Spread %	-4.8	-6.8	-9.0	-5.6	-5.6	-2.5	-1.3	-4.0	-4.3	-6.0	-6.5
Cotton Spread %	-2.8	-2.5	-1.9	3.1	-0.2	9.9	2.5	5.1	10.2	6.7	7.7
Industrial Metals											
Copper Spread % (LME)	-1.9	-1.7	-3.4	-5.2	-2.9	-1.3	-2.5	-3.5	3.3	7.0	17.8
Aluminum Spread %	-1.5	-1.0	0.6	-0.4	0.2	3.9	3.3	-3.9	2.7	7.5	14.7
Zinc Spread %	-2.9	-4.9	-7.2	-7.3	-4.2	-0.4	-2.1	2.8	7.5	10.1	16.6
Nickel Spread %	-3.5	-3.1	-0.8	1.9	8.4	10.8	5.1	10.3	14.5	13.4	23.2
Precious Metals											
Gold Spread %	-0.3	-1.7	-1.7	-2.5	-2.2	0.3	1.1	1.5	1.8	5.4	4.1
Silver Spread %	-2.4	-4.3	-4.5	-2.5	-4.1	-2.3	-2.6	-3.2	-3.6	1.1	0.1
Grain											
Corn Spread %	-3.2	-3.4	-5.1	-3.5	-5.9	2.4	4.4	3.6	3.0	0.2	-3.3
Soybeans Spread %	-3.4	-3.3	-5.4	-7.1	-8.0	0.6	2.6	4.4	4.3	2.8	-2.7
Wheat Spread %	-2.5	-1.4	1.0	5.2	0.0	10.3	8.6	2.7	9.1	4.0	-3.0

Data Set

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Energy										
Natural Gas Forward	3.00	2.95	3.72	2.34	2.89	4.23	3.35	2.99	4.34	5.57
WTI Crude Forward	67.4	60.4	53.7	37.0	53.3	98.4	91.8	98.8	91.4	79.4
WTI Crude Forecast	68.0	50.6	43.2	50.0	93.6	98.2	95.0	94.0	79.0	61.4
Brent Crude Forward	75.0	66.9	56.8	37.3	57.3	110.8	111.1	107.4	94.8	77.9
Brent Crude Forecast	74.0	54.0	44.9	54.0	100.0	108.0	111.9	110.7	80.0	62.0
ULS Diesel Forward	2.18	2.08	1.70	1.10	1.89	3.08	3.05	2.94	2.54	2.12
ULS Diesel Forecast	2.14	1.56	1.34	1.69	2.79	2.98	3.05	2.87	2.13	
Unleaded Gasoline Forward	2.00	1.80	1.67	1.27	1.44	2.79	2.81	2.69	2.45	2.05
Unleaded Gasoline Forecast	2.03	1.56	1.39	1.64	2.65	2.86	2.95	2.91	2.12	1.47
Soft										
Sugar Forward	0.12	0.15	0.20	0.15	0.15	0.16	0.20	0.23	0.32	0.27
Sugar Forecast	0.12	0.16	0.18	0.13	0.17	0.18	0.22	0.27	0.21	0.17
Coffee Forward	1.10	1.26	1.37	1.27	1.67	1.11	1.44	2.27	2.40	1.36
Coffee Forecast	1.15	1.35	1.37	1.34	1.79	1.26	1.78	2.53	1.60	1.23
Cotton Forward	0.82	0.79	0.71	0.63	0.60	0.85	0.75	0.92	1.45	0.76
Cotton Forecast	0.84	0.73	0.65	0.64	0.76	0.84	0.79	1.34	0.90	0.60
Industrial Metals										
Copper Forward (LME)	6,484	7,219	5,526	4,713	6,349	7,373	7,913	7,595	9,644	7,352
Copper Forecast (LME)	6,610	6,129	4,826	5,575	6,871	7,334	7,958	8,855	7,460	5,100
Aluminum Forward	2,124	2,258	1,694	1,506	1,834	1,762	2,047	1,997	2,459	2,204
Aluminum Forecast	2,158	1,968	1,600	1,693	1,883	1,883	2,038	2,450	2,167	1,675
Zinc Forward	2,853	3,335	2,564	1,600	2,168	2,045	2,055	1,831	2,447	2,535
Zinc Forecast	2,939	2,861	2,043	1,961	2,170	1,930	1,963	2,210	2,192	1,641
Nickel Forward	13,179	12,714	9,975	8,788	15,088	13,843	17,008	18,731	24,715	18,467
Nickel Forecast	13,651	10,322	9,594	12,170	17,000	15,124	17,602	22,997	21,814	14,672
Precious Metals										
Gold Forward	1,263	1,309	1,152	1,060	1,184	1,202	1,676	1,567	1,421	1,096
Gold Forecast	1,268	1,258	1,262	1,165	1,265	1,420	1,677	1,575	1,211	960
Silver Forward	15.54	17.15	15.99	13.80	15.57	19.34	30.17	27.88	30.91	16.82
Silver Forecast	15.92	17.13	17.11	15.84	19.10	24.00	31.40	35.50	19.68	14.66
Platinum Forecast	885	951	1,000	1,076	1,390	1,514	1,556	1,752	1,616	1,184
Palladium Forecast	992.1	855.0	616.6	700.0	803.0	734.0	643.0	733.0	520.0	255.0
Grain										
Corn Forward	3.6	3.5	3.5	3.6	4.0	4.2	7.0	6.5	6.3	4.1
Corn Forecast	3.7	3.6	3.6	3.8	4.1	5.9	7.0	6.9	4.9	3.8
Soybeans Forward	9.0	9.5	10.0	8.7	10.2	13.1	14.2	12.0	13.9	10.4
Soybeans Forecast	9.3	9.8	9.9	9.5	12.4	14.0	14.7	13.5	10.5	10.4
Wheat Forward	4.9	4.3	4.1	4.7	5.9	6.1	7.8	6.5	7.9	5.4
Wheat Forecast	5.0	4.4	4.4	5.1	5.8	6.9	7.5	7.4	6.2	5.4

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Market Flows – Open Interest

Key Metrics

Name	Current	MTD % Change	3 Mth % Change	YTD % Change	11 Yr % Change	2 Yr % Change	2 Year High
▼ Open Interest (Aggregate - 1,000s)							
▼ Single Commodities							
Soybean Meal	533	3.7	3.9	41.8	34.3	39.9	533
Soybean Oil	549	-4.0	5.8	23.7	20.9	18.6	606
Coffee	286	-16.1	-12.3	31.2	19.7	36.2	341
Cotton	265	7.3	1.5	-5.0	14.7	1.9	322
Soybean	777	-11.1	-5.9	10.2	13.3	22.0	976
Natural Gas	1,547	-5.9	2.7	6.8	12.7	36.2	2,971
Sugar	804	-1.8	-19.2	6.8	10.7	-5.9	1,062
Gas Oil	999	-3.2	-0.7	15.5	7.8	7.7	1,138
Corn	1,678	-0.7	-9.9	9.0	7.6	25.1	2,007
Silver	210	3.5	-3.7	8.3	7.1	8.3	244
Nickel	143	-8.9	-12.8	-4.7	4.4	-11.2	188
HRW Wheat	319	17.7	13.1	-3.3	1.9	23.2	342
Wheat	541	17.4	12.5	3.4	0.9	11.1	581
Live Cattle	342	4.3	9.6	2.7	-1.4	25.3	432
Platinum	75	4.2	-7.4	-9.6	-2.6	7.1	94
Heating Oil	419	1.2	6.6	-6.7	-3.2	1.2	491
Aluminum	466	-4.9	2.9	-10.4	-6.4	-6.1	550
Unlead Gas	384	-9.2	-15.8	-0.8	-6.8	-5.7	501
Gold	482	4.6	4.1	2.1	-7.1	-4.9	598
Copper (LME)	181	21.5	13.8	-10.8	-10.4	5.2	234
Lean Hogs	226	3.7	-5.0	-5.4	-12.4	-1.7	282
Brent Crude	2,154	-5.0	-7.8	-7.2	-14.5	-0.3	2,704
Crude Oil	2,098	-6.0	-10.5	-14.7	-14.9	14.7	2,714
Palladium	28	21.7	27.3	-24.3	-15.2	27.3	40
Copper (CME)	252	6.3	-16.8	-10.0	-16.3	24.8	338
Zinc	150	-13.3	-16.2	-25.0	-17.6	-25.0	225

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
▼ Open Interest (Aggregate - 1,000s)										
▼ BCOM	14,616	14,623	12,965	11,965	10,881	11,033	10,367	9,282	10,206	8,524
▼ Sector										
▶ Energy	7,600	7,931	7,084	6,057	5,033	5,346	4,980	4,230	4,262	3,712
▶ Agriculture	5,744	5,168	4,493	4,563	4,211	4,090	3,876	3,418	4,399	3,447
▶ Industrial Metals	1,189	1,354	1,319	1,178	1,224	1,104	1,006	1,159	1,105	1,016
▶ Precious Metals	794	786	667	673	620	613	658	585	783	669
▶ Livestock	568	572	501	431	481	591	578	552	534	443
▼ Single Commodities										
Brent Crude	2,154	2,322	2,159	2,031	1,513	1,443	1,285	886	873	728
Crude Oil	2,098	2,460	2,051	1,671	1,468	1,616	1,473	1,328	1,430	1,193
Corn	1,678	1,540	1,236	1,334	1,237	1,203	1,128	1,151	1,549	1,002
Natural Gas	1,547	1,448	1,243	957	939	1,291	1,165	1,011	772	708
Gas Oil	999	865	802	700	435	477	512	458	619	545
Sugar	797	753	805	879	836	830	754	559	613	834
Soybean	777	705	632	646	599	576	546	460	629	418
Soybean Oil	549	444	372	384	355	340	306	273	358	211
Wheat	541	523	448	368	371	411	456	384	492	362
Soybean Meal	533	376	329	402	341	262	212	194	192	162
Gold	482	472	416	415	372	380	428	419	585	490
Aluminum	466	520	541	551	595	539	495	682	546	487
Heating Oil	419	449	429	342	346	279	263	269	301	304
Unlead Gas	384	387	400	355	332	239	282	277	267	235
Live Cattle	342	333	306	265	266	327	329	317	327	265
HRW Wheat	318	330	239	193	132	154	158	139	219	145
Coffee	286	218	191	172	160	142	144	105	140	126
Cotton	265	279	242	185	178	172	171	152	207	187
Copper (CME)	251	280	224	166	160	167	147	121	167	155
Lean Hogs	226	239	194	166	215	264	248	235	207	178
Silver	210	194	164	168	151	132	141	106	136	124
Copper (LME)	179	203	209	146	155	132	130	143	196	163
Zinc	150	200	184	167	182	184	166	148	135	149
Nickel	143	150	160	148	132	81	69	65	61	62
Platinum	75	83	63	65	64	62	60	42	39	33
Palladium	28	37	24	24	33	39	29	18	23	23

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Market Flows – Commitment of Traders

Key Metrics

Name	Current	5 Day Change	1 Mth Change	3 Mth Change	YTD Change	1 Yr Change	2 Yr Change
▼ Net - Managed Money Total/Disagg							
▼ Single Commodities							
Brent Crude	360,785	-48,333	-107,093	7,540	-200,499	-145,952	-15,925
Natural Gas	247,412	3,752	167,059	202,150	299,858	194,998	110,381
WTI Crude	206,295	-36,560	-126,813	-195,395	-205,677	-28,583	-61,894
Aluminum (Pre- MiFID II)	163,475	6,307	-3,292	21,105	3,315	-10,481	115,362
Aluminum (Post- MiFID II)	145,668	-30,052	-262	5,239			
Zinc (Pre MiFID II)	79,906	-1,121	-6,682	3,640	-471	-8,898	44,606
Live Cattle	75,218	-4,974	876	38,303	-7,492	-33,593	40,224
Gasoline	73,153	-11,214	-5,953	-6,469	-6,297	3,472	32,423
Sugar	63,515	52,503	126,126	147,357	136,571	170,763	-194,021
Heating Oil	49,386	-7,099	-4,030	5,404	-32,438	-11,390	37,030
Cotton	47,804	124	-12,875	-33,248	-54,598	743	-20,226
Nickel	42,230	-664	-1,792	12,113	13,772	5,041	22,602
Zinc (Post MiFID II)	41,474	-7,084	7,251	-15,280			
Copper (LME) (Post MiFID II)	38,139	-5,294	1,431	11,510			
Copper (LME) (Pre MiFID II)	37,448	-917	-16,651	-27,111	-31,597	-34,385	25,052
Soybean Meal	36,555	-5,435	14,666	-16,823	5,298	18,876	22,067
Lean Hogs	28,265	-5,446	6,440	34,556	-25,692	-36,343	1,596
Corn	25,381	5,227	166,657	154,704	232,005	199,775	94,343
HRW Wheat	21,712	-6,462	-15,372	3,784	56,134	32,552	16,307
Palladium	12,403	2,281	6,791	8,943	-13,412	-10,493	4,078
Platinum	-3,742	-1,137	15,590	25,365	468	-1,648	-8,076
Copper (CME)	-4,689	-2,810	9,049	19,034	-104,209	-113,428	12,005
Silver	-21,209	11,945	23,848	-13,340	-14,104	-86,064	-61,888
Wheat	-26,105	-9,312	-24,726	-29,662	119,630	57,860	97,282
Gold	-26,899	10,473	47,491	-4,744	-136,818	-199,942	-178,706
Soybean Oil	-31,548	1,558	78,402	58,663	-34,954	-67,161	-146,702
Coffee	-34,730	19,648	74,429	55,279	23,116	11,259	-85,381
Soybeans	-44,422	-8,054	25,391	13,977	24,669	-93,668	-143,027

Historical

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
▼ Net - Managed Money Total/Disagg										
BCOM	1.3M	1.2M	1.8M	107,932.0	1.1M	835,105.0	791,313.0	637,042.0	1.6M	1.1M
▼ Sector										
Energy	937,031.0	1.1M	1.0M	95,835.0	278,790.0	623,230.0	258,739.0	230,666.0	224,236.0	185,192.0
Industrial Metals	318,370	437,560	423,576	90,351	218,292	35,635	14,988	-4,018	39,105	15,752
Livestock	103,483	136,667	147,051	24,525	117,295	137,611	110,898	104,018	133,520	83,521
Agriculture	58,162	-449,709	225,844	-75,733	383,375	-1,048	281,653	188,257	962,170	594,114
Precious Metals	-39,447	124,419	101,310	-239	153,310	70,026	171,032	134,710	232,650	252,599
▼ Single Commodities										
Brent Crude	360,785	561,284	454,585	163,672	115,571	136,611	125,397	81,537		
Natural Gas	247,412	-52,446	174,043	-161,686	-53,308	134,994	-89,820	-124,269	-96,119	-27,225
WTI Crude	206,295	411,972	307,909	100,797	199,388	270,386	134,834	192,466	217,046	133,742
Aluminum (Pre- MiFID II)	163,475	160,160	145,790	71,738	118,175					
Aluminum (Post- MiFID II)	145,668									
Zinc (Pre MiFID II)	79,906	80,377	81,039	20,140	49,726					
Live Cattle	75,218	82,710	92,516	11,081	80,102	96,771	59,569	68,105	104,412	49,281
Gasoline	73,153	79,450	50,091	28,391	44,226	54,637	64,383	61,288	67,205	50,763
Sugar	63,515	-73,056	138,442	165,810	-66,824	-25,626	19,000	43,792	141,534	167,357
Heating Oil	49,386	81,824	33,541	-35,339	-27,087	26,602	23,945	19,644	36,104	27,912
Cotton	47,804	102,402	76,052	51,307	11,005	43,288	25,828	6,683	40,645	61,292
Nickel	42,230	28,458	57,232	15,372	29,631					
Zinc (Post MiFID II)	41,474									
Copper (LME) (Post MiFID II)	38,139									
Copper (LME) (Pre MiFID II)	37,448	69,045	67,384	9,065	25,215					
Soybean Meal	36,555	31,257	19,537	-40,843	54,132	57,931	41,489	-15,232	40,129	35,586
Lean Hogs	28,265	53,957	54,535	13,444	37,193	40,840	51,329	35,913	29,108	34,240
Corn	25,381	-206,624	-113,648	-136,111	239,704	-94,812	140,109	148,653	396,782	205,427
HRW Wheat	21,712	-34,422	9,085	-14,975	24,999	8,022	23,619	9,128	49,108	9,943
Palladium	12,403	25,815	12,742	8,690	19,970	15,660	16,769	5,212	13,034	11,626
Platinum	-3,742	-4,210	8,223	9,052	17,898	14,689	29,228	11,379	22,793	16,782
Copper (CME)	-4,689	99,520	72,131	-25,964	-4,455	35,635	14,988	-4,018	39,105	15,752
Silver	-21,209	-7,105	39,098	6,282	17,051	5,573	23,113	6,200	26,836	26,631
Wheat	-26,105	-145,735	-108,927	-83,120	20,481	-71,468	-11,899	-29,252	36,542	-8,683
Gold	-26,899	109,919	41,247	-24,263	98,391	34,104	101,922	111,919	169,987	197,560
Soybean Oil	-31,548	3,406	85,522	60,895	35,047	-46,649	-42,424	-2,103	56,961	29,956
Coffee	-34,730	-57,846	12,706	-15,181	25,385	-8,417	-23,076	2,905	36,182	23,630
Soybeans	-44,422	-69,091	107,075	-63,515	39,446	136,683	109,007	23,683	164,287	69,606

Bloomberg Commodity Outlook – November 2018 Edition

Bloomberg Commodity Index (BCOM)

Market Flows – ETF Flows (annual)

Name	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ETFs (\$ Billion AUM)										
▾ Total ETF Assets Under Management (\$...)	133.86	141.73	120.35	86.92	101.22	110.91	195.29	171.16	166.48	113.35
▾ Precious Metals	101.47	109.98	90.30	62.95	77.79	84.93	164.56	142.19	130.39	80.66
▸ Gold	89.24	95.36	76.91	51.78	62.75	68.70	143.55	120.89	105.90	70.06
▸ Silver	8.68	10.11	9.41	7.24	8.64	10.60	16.18	16.38	18.41	8.02
▸ Platinum	2.01	2.39	2.26	2.22	3.32	3.46	2.48	2.49	2.83	1.41
▸ Palladium	0.82	1.28	1.07	1.24	2.30	1.40	1.37	1.32	2.12	0.65
▸ Precious Metals Basket	0.62	0.70	0.57	0.40	0.64	0.68	0.92	1.07	1.13	0.52
▸ Other	0.10	0.15	0.08	0.06	0.13	0.10	0.06	0.02		
▸ Broad Commodity	20.20	17.26	14.83	10.84	14.55	17.70	19.57	18.21	19.74	14.55
▸ Energy	8.72	11.07	12.20	10.72	5.40	4.61	6.72	5.79	9.65	12.15
▸ Agriculture	2.02	1.78	1.82	1.75	2.37	2.61	3.11	3.90	5.23	4.76
▸ Industrial Metals	1.42	1.63	1.17	0.64	1.09	1.02	1.27	0.99	1.38	1.16
▸ Livestock	0.02	0.01	0.02	0.02	0.03	0.03	0.06	0.08	0.10	0.08
ETFs Fund Flows (\$ Billion)										
▾ Total ETF Fund Flows (\$ Billion)	-2.92	8.72	23.47	9.77	3.14	-40.74	19.52	1.83	16.13	37.53
▾ Broad Commodity	2.42	1.05	2.38	-0.01	1.37	-0.41	0.45	-0.83	2.20	6.47
▾ Precious Metals	0.08	8.60	22.61	-3.83	-2.45	-36.83	17.74	5.92	14.98	19.61
▾ Industrial Metals	0.02	0.05	0.30	-0.14	0.20	-0.15	0.27	-0.03	0.08	0.65
▾ Livestock	-0.01	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.01	0.01	0.03
▾ Agriculture	-0.07	0.22	0.15	-0.19	-0.17	-0.04	-0.76	-0.64	-0.72	2.54
▾ Energy	-5.37	-1.20	-1.97	13.94	4.19	-3.29	1.85	-2.57	-0.43	8.23
DELTA WEIGHTED:										
ETFs (\$ Billion AUM) (DW)										
▾ Total ETF Assets Under Management (\$...)	135.73	146.22	123.03	88.63	101.61	110.16	197.39	171.70	168.44	114.84
▾ Precious Metals	102.59	111.21	91.00	62.94	77.80	85.03	166.20	142.69	131.34	81.00
▾ Broad Commodity	20.55	17.50	14.85	10.87	14.55	17.70	19.57	18.21	19.75	14.56
▾ Energy	9.01	13.93	14.07	12.28	5.71	3.72	7.20	5.84	10.63	13.25
▾ Agriculture	2.11	1.91	1.90	1.85	2.46	2.69	3.17	3.97	5.28	4.81
▾ Industrial Metals	1.45	1.66	1.19	0.68	1.06	0.99	1.20	0.90	1.35	1.15
▾ Livestock	0.02	0.01	0.02	0.02	0.03	0.03	0.06	0.08	0.10	0.08
ETFs Fund Flows (\$ Billion) (DW)										
▾ Total ETF Fund Flows (\$ Billion)	-6.88	11.40	19.57	19.87	8.80	-41.92	21.57	1.69	16.31	38.58
▾ Broad Commodity	2.56	1.22	2.37	-0.01	1.37	-0.41	0.45	-0.83	2.20	6.47
▾ Precious Metals	0.77	8.75	22.83	-3.35	-1.85	-36.09	18.61	5.75	14.48	19.69
▾ Industrial Metals	0.03	0.03	0.28	-0.03	0.22	-0.09	0.28	-0.05	0.03	0.61
▾ Livestock	-0.01	-0.01	0.00	0.00	-0.01	-0.03	-0.02	-0.01	0.01	0.03
▾ Agriculture	-0.13	0.30	0.15	-0.16	-0.17	0.03	-0.78	-0.56	-0.78	2.57
▾ Energy	-10.10	1.10	-6.06	23.41	9.23	-5.33	3.03	-2.59	0.37	9.20

BLOOMBERG INTELLIGENCE: COMMODITY DASHBOARDS

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BI provides analysis on several key drivers of BCOM performance; industrial and precious metals mining, oil and natural gas production, and agricultural chemicals. The dashboards include key macro data libraries and interactive charting and commentary from analysts with an average of seventeen years of experience.

Crude Oil Production: BI OILS <GO>

Region	2015	2014	2013	2012	2011
OECD	45.6	45.6	46.1	45.9	46.4
Americas	24.2	24.1	24.1	23.6	24.0
United States	19.2	19.0	18.8	18.7	18.9
Canada	2.4	2.4	2.4	2.4	2.3
Chile	0.3	0.3	0.3	0.3	0.3
Mexico	2.0	2.0	2.0	2.1	2.1
Latin America	18.4	18.5	18.7	18.4	18.6
Pacific	6.0	8.1	8.3	8.5	8.2
Non-OECD	47.9	46.9	45.7	44.6	43.1
Europe	4.7	4.9	4.7	4.8	4.5
China	10.7	10.4	10.1	9.8	9.4
Other Asia	12.5	12.1	11.9	11.6	11.2
Latin America	6.9	6.8	6.6	6.4	6.2
Middle East	6.3	8.1	7.9	7.8	7.5
Africa	4.1	3.9	3.8	3.8	3.6
Total World Crude Oil Demand	93.5	92.5	91.8	90.6	89.5

Natural Gas Production: BI NGAS <GO>

Category	Current	Prev Week	1 Week % Chg	1 Week % Chg	Prev Year
Natural Gas Inventories					
US Working Storage (BCF)					
East	559.00	581.00	-22.00	-3.79	356.00
West	244.00	239.00	4.00	1.70	164.00
Producing	576.00	548.00	28.00	5.11	376.00
Total	1,479.00	1,467.00	12.00	0.82	896.00
Net Injections/Withdrawals	12.00	-42.00	54.00	126.07	-57.00
Consensus (Bloomberg Survey)	1,474.00	1,463.00	11.00	0.75	901.00
Domestic Working Storage (BCF)					
East	219.76	219.77	-0.01	-0.00	113.79
West	49.53	49.52	-0.98	-1.99	22.76
Total	269.29	269.28	-0.99	-0.37	136.46

Precious Metal Mining: BI PMET <GO>

Indicator	Value
Avg Gold Spot Price	1,220
Known ETF Gold Holdings	52,128
IMF Global Gold Reserves	1,036
Sales Growth (YoY)	-8.90
EBITDA Margin (%)	70.89
T12M Sales Growth (%)	8.83
Return on Equity (%)	2.91
Est P/E Current Yr	61.79
Price/Book	1.84

Agricultural Chemicals: BI AGCH <GO>

Indicator	Value
Agricultural Price Ind	1.25
U.S. Farm Net Cash In	0.40
U.S. Corn Price Future	3.60
Sales Growth (YoY)	2.43
EBITDA Margin (%)	15.30
EPS Growth (YoY)	-11.17
ROIC (%)	7.83
Est P/E Current Yr	15.00
Price/Book	1.80

Copper: BI COPP <GO>

Indicator	Value
China GDP YoY (%)	7.30
YTD Copper Surplus/Deficit	201,158
Major Exch Copper Inv	599,596
Sales Growth (YoY)	-1.59
EBITDA Margin (%)	26.52
T12M Sales Growth (%)	-2.59
Return on Equity (%)	2.71
Est P/E Current Yr	17.46
Price/Book	1.09

Aluminum: BI ALUM <GO>

Indicator	Value
China Industrial Prod	7.60
Global Primary Alumi	4,288
Global Primary Alumi	4,178
Sales Growth (YoY)	2.18
EBITDA Margin (%)	8.70
T12M Sales Growth (%)	1.46
Return on Equity (%)	4.95
Est P/E Current Yr	15.05
Price/Book	1.38

COMMODITY CHEAT SHEET FOR THE BLOOMBERG PROFESSIONAL® SERVICE

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BCOM QUICK FACTS

[Index Methodology](#)

Weighting Bias	2/3 market liquidity and 1/3 world production
No. of Commodities	20
Re-balancing Frequency	Annual
Roll Schedule	Monthly (5 day roll)
Caps/Limits	Single commodity: max 15% Single commodity and its derivatives: max 25% Related commodity groups: max 33%
First Value Date	30 December 1990

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