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A Month to Avoid Repeating - April Commodities

- Industrial commodities, energy and industrial metals lead April decliners
- Reflation story may be at risk if April commodity trends are sustained
- Supply dominated energy remains a primary drag on index returns
- Most would like to reverse April metals trends; copper weak, gold the stalwart
- The big agriculture short, farmers plant the seeds as hedge funds drill the market with shorts
- Lower commodity and higher bond prices are not supportive of further Fed tightening

Mike McGlone – BI Senior Analyst; Commodities. [BI COMD](#) (the commodity dashboard)

Reflation Story at Risk If April Commodity Trends Sustained

Performance: April -1.5%, YTD -3.8%, Spot -1.6%. (returns are total return (TR) unless noted)

For the sake of the global economic outlook, it may be best if April's weak commodity-market nuances aren't sustained. Down 1.5% for the month and off 3.8% in 2017, the [Bloomberg Commodity Index Total Return](#) decline isn't severe, but occurs despite a weaker dollar and led by energy. In giving back about half of this year's gains in April and with gold up, industrial metals will be of concern if these trends continue. Oversupplied energy remains the primary broad commodity pressure factor.

Ending the month in the middle of the range, crude oil may need to probe support near \$45 a barrel to cleanse overweight longs. Agriculture remained under planting-season pressure, but at high risk of a short-covering rally. If the dollar has peaked, precious metals should remain a leader.

Commodities vs. Bonds May Be Reversing Recovery



MACRO OUTLOOK

In Dollar-Commodity Tango, One Side Likely to Prevail in 2017. Coincident declines of about 4% this year in the [Bloomberg Commodity](#) and [Dollar Spot indexes](#) are unlikely to be sustained, since one side usually gives. Since 2004, BCOM's monthly beta to the value of the dollar is minus 1.6. If the dollar has ended its near-historic rally since 2013, commodities should be primary beneficiaries. The fact that the dollar is down about 1% in the current rate-hike cycle is a toppish indication, notably if rate expectations decline.

The dollar is showing signs of peaking while U.S. and China GDP, PMI and CPI are increasing, leaving crude oil as the primary remaining factor for a broad commodity recovery. If these trends are sustained and crude oil stabilizes, the BCOM index is likely to resume 2016's recovery.

Dollar, Commodities Both on the Bottom Is Rare

Security	Chg YTD %	Chg April	Chg 6M Pct	1Yr % Chg	2Yr % Chg
MSCI World Net Total Return US	+8.0%	+1.5%	+12.6%	+14.7%	9.3%
S&P 500 Total Return Index	+7.2%	+1.0%	+14.1%	+17.9%	18.1%
Bloomberg Barclays US Corporat	+3.9%	+1.2%	+5.8%	+13.3%	12.0%
Bloomberg Barclays U.S. Treasu	+3.0%	+1.6%	-5.8%	-3.2%	3.5%
Bloomberg Commodity Index Tota	-3.8%	-1.5%	-3%	-1.3%	-18.3%
Bloomberg Dollar Spot	-4.0%	-5%	+7%	+4.3%	3.9%

If This Fed Indicator Trend Is Sustained, Bias May Tilt to Ease. If the 2017 trend of lower commodities and higher bond prices continues, rate-hike expectations may shift to cuts. Although distorted a bit by the 2008 financial crisis, a good proxy for Federal Reserve rate cycles are trends in the spot [Bloomberg Commodity Index](#) vs. the [BC U.S. Treasury 20+ Year index](#). Commodities are down slightly in 2017, but leadership by precious rather than industrial metals isn't a good indication for more tightening, coincident with a 3% gain in Treasuries with

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

durations of 20-plus years.

If the Fed were to shift to a black-box-type model, this ratio of commodities vs. Treasury bonds might be considered a primary contributor. In addition, the industrial metals vs. precious metals ratio (copper vs. gold), is a good proxy for interest-rate and bond-yield trends.

Reverse Soon or Tightening Trend May Stall -- Key Fed Indicators. Were Federal Reserve moves systematic rather than people decisions, a few prominent indicators would signal the central bank's done with interest-rate hikes. Correlations are good quantitative measures of historic relationships, but analyzing them on overlapping charts often is a better guide. The Bloomberg Industrial Metals Subindex vs. Precious index ratio bottomed before the start of the past three tightening cycles and peaked before easing cycles ensued. In the current cycle, the bottom lagged the initial hike.

Fed Funds: BCOM vs. Bonds, Industrial vs. Precious



To support the reflation story, industrial vs. precious metals and the Bloomberg Commodity Index vs. BC U.S. Treasury 20+ relationships should have bottomed. Both have strong histories of trending with the Fed, but trending down in 2017 appears disconcerting.

SECTOR PERFORMANCE

Energy Lower Crude Oil Helping to Drive Higher Gold - April Commodities. Crude-oil weakness is a dissuasive factor for Federal Reserve interest-rate tightening, and thus a pressure factor on the U.S. dollar and support for gold prices. Dominated by gold rallying and most other commodities declining, the [Bloomberg Precious Metals Subindex](#) ended April as 2017's leader, up 9.1%, bookended by energy, down 14.1%. [Industrial metals'](#)

3.4% retreat in the month was led by the sharp decline in China iron ore prices, but industrials appear to be in a tightening demand vs. supply condition.

2017 Performance Bookends: Gold Up, Crude Oil Down

Security	Chg YTD %	Chg April	Chg 6M Pct	1Yr % Chg	2Yr % Chg
Bloomberg Precious Metals Subi	+9.1%	-0.6%	-3.5%	-3.3%	5.9%
Bloomberg Livestock Subindex T	+7.6%	+7.4%	+23.2%	+4.0%	-10.0%
Bloomberg Industrial Metals Su	+4.0%	-3.4%	+8.5%	+13.7%	-10.9%
Bloomberg Grains Subindex Tota	-2.2%	-0.8%	-3.9%	-15.3%	-15.2%
Bloomberg Agriculture Subindex	-4.2%	-1.2%	-7.6%	-9.2%	-8.0%
BBG Softs TR	-8.2%	-3.5%	-19.5%	+4.8%	.8%
Bloomberg Energy Subindex Tota	-14.1%	-3.0%	-1.2%	-2.9%	-41.6%

Increasing exports, plus the potential for more from China, supported livestock as the best-performing sector in April and nudged it higher on the 2017 leader board. Near-record U.S. agriculture product exports, if sustained, should provide underlying price support, notably if the dollar has peaked.

ATTRIBUTION

BCOM Returns Through April: Metals Holding the Line on Declines. Gold's high weighting in the [Bloomberg Commodity Index](#) is showing its benefits in 2017, with precious metals contributing the most to BCOM total returns, adding 125 bps. The 14% decline in the [Bloomberg Energy Subindex](#) is the primary drag on index total returns, subtracting about 490 bps. Next is [agriculture](#), taking away 140 bps, about half of which is from declining sugar. Base metals, despite their April decline, have been good for about 70 bps of contribution on the year, mostly from aluminum.

Metals the Primary Positive Contributors in 2017

Name	Start % Wgt	End % Wgt	Avg % Wgt	Tot Rtn	CTR
BCOM_SB (Exclusion: Cash)	100.0	85.6	99.3	-3.9	-3.9
Precious Metals	13.3	16.5	15.8	8.9	1.3
Base Metals	16.9	18.5	18.2	3.9	0.7
Livestock	4.2	6.3	6.0	7.3	0.4
Agriculture	26.8	29.6	30.3	-4.3	-1.4
Energy	38.8	14.8	29.1	-15.3	-4.9

Category	Avg Weight	Contribution
Agriculture	30.36	-1.40
Energy	25.10	-4.88
Base Metals	18.17	0.66
Precious Metals	15.80	1.25
Livestock	6.02	0.43

Led by a recovery in long-depressed live cattle, and with a contribution near 40 bps, livestock is the new shining star that may have just started contributing again to positive returns.

Bloomberg Commodity Index (BCOM)

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Energy (Index weight: 30.4% of BCOM).

Performance: April -3.0%, YTD -14.1, Spot -9.2%

*Note index weights are the YTD average

Supply Dominated Markets Go Down Easier - Energy Apr

Keeping It Simple in Crude Oil: Supply-Dominated Markets Go Do. Focusing on a few supply cuts here and there can sometimes cause entrenched analysts to miss the macro element -- energy remains dominated by supply, which generally means lower prices. The theme was predominant in April, measured by the 3.0% decline in the [Bloomberg Energy Subindex](#) for a 2017 loss of 14.1%. On a spot basis, the decline is 9.2% but certainly not inflationary, and Federal Reserve tightening cycles rarely coincide with declining crude oil prices.

Macroeconomic implications of continued weakness in crude oil are unfavorable for further rate increases, notably when combined with declining bond yields. Still-elevated energy futures long positions and weak equities indicate the 2017 mean-reversion process in energy prices may have more to go.

PRICE – OUTLOOK

Crude Oil May Need to Purge a Few More Positions Before Recovery. Energy prices may remain under pressure until extended net-long positions are reduced. Since the sum of [Bloomberg Energy Subindex](#) constituent managed-money net positions reached a record above the 2014 peak in October, the index is unchanged, as open interest and net longs have remained elevated by historical comparison. This overabundance of long positions may need to be reduced to help clear a path to higher prices. Backwardation-trending futures curves indicate tightening demand vs. supply.

Locked in a trading range, continued weakness to retest WTI crude oil support near \$45 a barrel (the price before the November OPEC cut announcement) may be necessary to clean the slate a bit. Key resistance remains \$53, the 2017 average before the March 8 breakdown.

Energy Remaining Capped With Extended Longs



Energy vs. Stocks Underperformance Harkens Back to Pre-Crisis.

Crude oil and stock market decline risks are elevated if this relationship is a guide. July 2007-October 2008 was the last time the ratio of the [S&P 500 Energy Sector Index](#) vs. the spot [Bloomberg Energy Subindex](#) declined with a velocity similar to the current period. Energy equities underperformed the underlying commodities in 2007-08, as crude oil rallied rapidly to an all-time high at \$145 a barrel in July 2008 and stocks fell as the financial crisis escalated.

Energy Equities Have Been Leading Crude Lower



Despite broad stock market strength in the current period, underperforming energy stocks could indicate that 2017's crude oil price decline may continue.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

PERFORMANCE DRIVERS

April Energy May Be Just a Double-Dog Dare for OPEC in May. Amid a supply glut, the 8.6% decline in April -- typically one of the best months for the [Bloomberg Unleaded Gasoline Subindex](#) -- was the worst since a 10% retreat in 2013. Unleaded gas surpassed natural gas as the leading energy decliner in 2017 on a total-return basis, down 19.7% through April 28. Bearish stock buildups, 9% above the five-year average, greet the summer driving season. Rolling into contango has played a role this year, but is also indicative of rapidly increasing U.S. liquid-fuels production.

Natural Gas Leads Energy Decliners in 1Q

Security	Chg YTD %	Chg April	Chg 6M Pct	1Yr % Chg	2Yr % Chg
BBG Energy Spot	-9.2%	-1.5%	+1.9%	+14.9%	-8.1%
Bloomberg Brent Crude Subindex	-10.6%	-3.2%	+1.3%	-3.2%	-42.9%
Bloomberg WTI Crude Oil Subind	-11.9%	-3.2%	-1.6%	-7.8%	-48.7%
Bloomberg Energy Subindex Tota	-14.1%	-3.0%	-1.2%	-2.9%	-41.6%
Bloomberg Heating Oil Subindex	-14.4%	-4.6%	-4.1%	-1.4%	-40.8%
Bloomberg Natural Gas Subindex	-16.5%	+6.6%	+1.2%	+8.3%	-39.6%
Bloomberg Unleaded Gasoline Su	-19.7%	-8.6%	-8.6%	-12.3%	-35.7%

Brent and **WTI crude oil** prices remained within March's ranges in April, indicating the potential for range extension in May. The path of least resistance remains down, unless OPEC can convince the oversupplied and overweight long-positioned market that it can put a floor under prices.

SUPPLY VS. DEMAND

Hey OPEC, Nice Try! Take a Look at U.S. Oil Production Now. U.S. oil volume of 9.2 million barrels a day is higher than in 2014, around the time OPEC initiated its strategy aimed at knocking off higher-cost output by maintaining elevated output and pressuring prices. While the equities of U.S. energy companies targeted by OPEC's initial decision have underperformed the S&P, OPEC members have suffered more profoundly, as budget pressures from lost oil revenue forced cuts to public subsidies. The abrupt retreat in its strategy signals OPEC's weaker financial position.

Crude Oil Prices, U.S. Oil Output & Equities



While oil prices are down more than 50% from 2014, U.S. output is rebounding more violently. Volume peaked at 9.6 million barrels a day in June 2015 and bottomed at just under 8.5 million in October. E&Ps such as Pioneer, Continental, Concho and EOG are re-igniting activity as prices have improved.

Hey OPEC, Nice Try! Take a Look at U.S. Oil Production Now.

Vincent G Piazza - BI Senior Industry Analyst. Philipp Chladek - BI Senior Industry Analyst. [{NSN OP0UG86JIJUP <GO>}](#)

Front Energy Futures

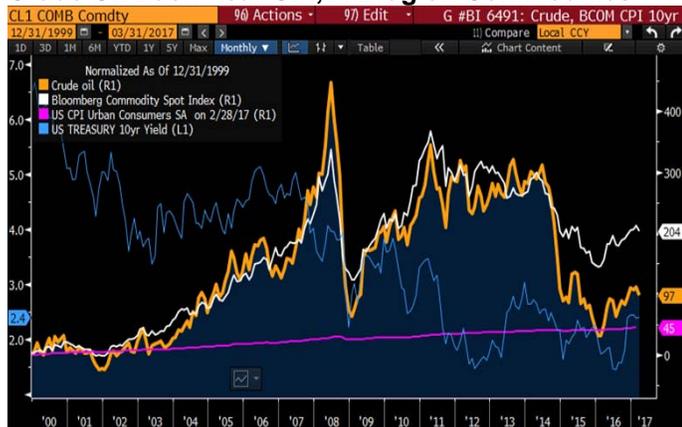
Ticker	Last	Chg YTD %	Chg MTD %	1 Yr Ago	2 Yrs Ago	Chg Change 1Yr 2 Year Percent	2 Yr High	Diff From 2yr High
+ Generic 1st 'XB' Future	154.8	-7.0%	-8.94%	158.5	205.0	-3.1% -22.7%	214.6	-59.8%
+ Generic 1st 'CL' Future	49.3	-8.2%	-2.51%	45.9	59.6	+7.2% -13.5%	61.4	-12.1%
+ Generic 1st 'CO' Future	52.0	-8.4%	-1.48%	48.1	66.8	+8.1% -19.5%	65.7	
+ Generic 1st 'HO' Future	150.7	-11.6%	-4.22%	137.8	197.6	+7.3% -21.4%	195.5	-44.8%
+ Generic 1st 'NG' Future	3.3	-12.0%	+2.70%	2.2	2.8	+57.7% 30.2%	3.9	-7%

Weaker Oil Implications: Less 'Transitory,' More Paradigm Shift. The weak crude oil prices dubbed in 2015 as "transitory" by Janet Yellen may be deemed less so in 2017. If the recent breakdown is sustained, global implications are increasingly disinflationary. Measured since the end of 1999, **crude oil's** price gain has diminished to 97%, bouncing above the 45% rate of CPI change and well below broad commodities, up 204%. Crude is increasingly significant in the global economy, but advancing technology is pressuring prices, shifting it to a deflationary factor since 2014.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Crude Oil Back Near CPI, A Drag on Commodities



The paradigm shift that's pressuring oil prices appears to be a participant in the broader disinflation trend driven by technology and a maturing society. WTI averaged \$48.70 a barrel in 2015, \$43.50 in 2016 and \$48.69 in 2017 as of April 31. Sustaining above \$50 in 2017 may be an accomplishment.

Recipe for Lower Crude-Oil Prices: Flat Curve, Record Inventory. Unless the crude oil and liquid fuel market finds some new form of magic to rapidly reduce inventories or inflate consumption, historic trends paint a bleak picture for prices. Never in Department of Energy data history on U.S. liquid-fuel inventories have they been higher and the WTI crude oil one-year futures curve been in a flatter contango. The last year that the [WTI futures curve](#) was flatter than today's 2.6% was 2014; liquid-fuel inventories at that time were flatlined on the 60-month average.

Crude Oil One-Year Curve, Liquid-Fuel Inventories



With near-record inventories (more than 20% above the 2014 level), production ramping up and consumption stagnant, the path of least resistance is for the futures curve to move steeper into contango, led by lower front

prices. It appears something has to give in the crude curve vs. inventory tango.

It May Take Some Magic to Reduce Record Crude Oil Inventories. Despite OPEC cuts, the global glut of liquid fuels is unlikely to diminish, pressuring prices. Like paying off a credit-card balance with greater payments, the primary way to reduce elevated global fuel inventories is for consumption to exceed production. Analysis of recent DOE estimates to 2019 show production exceeding consumption and increasing inventories, despite the crude oil price rallying to \$59, suggests some form of unknown magic. Such a scenario appears more likely to pressure prices.

Inventories Unlikely to Decline at This Pace



At the current pace, lower prices may be the primary force able to shift the disparity in excessive production vs. consumption, sufficient enough to reduce inventories. Despite the 2016 7% plunge in U.S. fossil fuels production, the sharpest in 60 years, renewable energy production increased 7%.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Metals

Industrial (Index weight: 18.0% of BCOM).
Performance: April -3.4, YTD +4.0, Spot 4.7%

Precious (Index weight: 15.6% of BCOM).
Performance: April -0.6%, YTD +9.1%, Spot +9.6%

April Metals Trends Most Would Like to Reverse

Reversing April Metals Trend Is Desirable for Economic Outlook. If the metals continue April's trend of gold up and everything else down, global economic implications would be quite disconcerting. On the brighter side, despite the monthly decline of 3.4% in the [Bloomberg Industrial Metals Index](#), it remains up 4.0% in 2017. [Precious metals](#) are still the leader, up 9.1% in 2017 on the back of a 4% decline in the Bloomberg Dollar Spot index. If the dollar has finally peaked, metals should be primary beneficiaries, notably silver.

The sharp decline in iron ore seemed to lead most industrial commodities lower in April. Industrial metals' continued underperformance vs. precious metals isn't a good economic sign, but industrial metals prices may need some consolidation, notably due to still-extended copper positions.

PERFORMANCE DRIVERS

Continuing April's Metal Trend Could Be Negative for Economy. Declining iron ore prices in China have grabbed headlines on ample supplies, pressuring primary steel-alloying metals nickel and zinc. [Copper](#), the most significantly traded industrial metal, remained under pressure in April, giving back about half of 2017's gains with a 2.2% decline for the month, also on supply issues and still-extended futures long positions. Ending April 28 with only a 3.1% gain in 2017, the [Bloomberg Copper Index](#) has slipped well behind gold, up 9.8%.

[Aluminum](#) moved to the status as the best-performing 2017 [Bloomberg Commodity Index](#) component in April, with a total return of 12.1% -- notably by basically declining less for the month. Aluminum prices appear to be catching up to favorable supply vs. demand conditions.

Gold Bucks the Bearish Metals Trend in April

Name	4/2017	3/2017	2/2017	1/2017	12/2016	11/2016	10/2016
Commodities							
BCOM Index TR	-1.5%	-2.7%	0.2%	0.1%	1.8%	1.3%	-0.5%
Energy Index	-3.0%	-1.5%	-2.7%	-7.6%	9.0%	4.3%	-2.7%
Grains Index	-0.8%	-5.2%	1.6%	2.3%	-0.7%	-2.5%	4.7%
Industrial Metals Index	-3.4%	-2.0%	2.2%	7.5%	-5.0%	10.3%	1.3%
Copper Index	-2.2%	-2.2%	-1.0%	8.9%	-4.8%	18.9%	-0.2%
Aluminum Index	-2.9%	1.8%	5.6%	7.2%	-2.2%	-0.3%	3.6%
Zinc Index	-5.5%	-2.1%	-1.2%	11.0%	-4.9%	9.6%	3.2%
Nickel Index	-5.8%	-8.9%	10.2%	-0.8%	-11.0%	7.3%	-1.1%
Precious Metals Index	-0.6%	-0.6%	3.9%	6.3%	-2.2%	-8.0%	-4.5%
Gold Index	1.4%	-0.4%	3.6%	5.0%	-1.8%	-8.0%	-3.3%
Silver Index	-5.8%	-1.1%	4.9%	9.8%	-2.9%	-7.9%	-7.4%
Platinum Index (Not i...	-0.3%	-7.9%	3.5%	10.1%	-0.8%	-7.0%	-5.4%

INDUSTRIALS OUTLOOK

Industrial Metals Still on Recovery Road, But Not Without Bumps. Industrial metals' underperformance in April may be the pause that refreshes the bullish trend in place since the end of 2015. Giving back about half of 2017's gains in April, another similar month could have more serious economic reflation-related implications for the sector. Extended copper positions are signaling some correction, or more consolidation. Overall, the industrial metals appear to be catching-up to favorable supply vs. demand, evidenced by the flattening futures curves trend since 2013.

Metals Pulling Back Somewhat on Elevated Positions



Industrial metals appeared to jump on the road to recovery in 2013, when the futures-curve trend toward contango bottomed. On a narrower curves path since, the oil collapse in 2014-15 appears to have derailed metals. They may be just in the process of rejoining that recovery.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Mean Reversion Appears a Primary Driver of Aluminum Recovery. China's reduced output is helping to boost aluminum prices, which appear to be just catching up to the flattening contango trend in the metal's futures curve. In 2014, aluminum was on the path to recovery amid a distinct flattening in the one-year curve, but topped out at almost \$2,100 a ton as crude oil collapsed. The curve was almost 4% in contango then, compared with 1.6% at the end of April. Resistance at \$2,100 may be unfinished business for aluminum as long as it isn't dragged lower by crude oil again.

Aluminum Price Catching-Up to Flatter Curve



Aluminum is up only 14% since its one-year curve bottomed in November 2013 at about 8%. The sharp divergence in the curve relative to front-futures prices suggests that aluminum may have plenty of room to run. Trending away from contango is a sign of demand exceeding supply.

PRECIOUS & MACRO

Extended Silver Longs Weigh on Prices, But May Get More Extended. If its response is similar to 2016, when future positions reached extended longs similar to April's, silver could decline another 18%. Or it could be setting up for continued recovery on the back of a dollar that may have peaked. The commodity with one of the highest negative correlations to the U.S. dollar, silver has kept close to its traditional relationship, up about 2.4x the rate of the [Bloomberg Dollar Spot](#) decline (4%) in 2017. In the past 10 years, the silver-to-dollar monthly beta has been negative 2.3.

Managed-money net positions revisiting the 2016 record highs increases long-liquidation risks. Pressure from industrial metals weighed on silver in April, but it appears to be marking time, riding the 52-week moving average

higher in an improved relative-value position compared with last year's peak.

Silver Longs Weighing on Prices



What Might It Take to Push Gold to \$1,400? How About Bitcoin? Bitcoin has surpassed the price of an ounce of gold for a second time, though there may not be a chance for a third. The new kid on the block may not be as lustrous as old man gold, but it's versatile. In an environment where the U.S. dollar is declining in the only major economy that's raising its interest rates, Bitcoin's second assault on gold prices may be more sustainable, carrying strong implications for the demand for liquid alternatives, namely gold -- historically the benchmark.

Bitcoin Strength May Pull Gold Along



Gold should gain coincident support from rallying Bitcoin, notably due to the new world of exchange-traded funds -- a realm that the digital currency may join. Bitcoin's strength may also be in anticipation of an end to the four-year rally in the Bloomberg Dollar Spot index.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Gold Apparently Not Waiting Around for Recovery in VIX Index. Nearing the lowest sustained period in a decade for the **VIX volatility index**, recovering gold may be looking ahead to brighter days. The VIX 26-week moving average hasn't kept below the current 12.8% since the pre-crisis period in 2007. September 2014 marked the recent low in this measure at 12.8%. Among the first things learned in the Chicago options trading pits is that volatility is always mean-reverting, but it can stay low for extended periods.

Gold Recovery May Anticipate Similar for VIX



Some claim that 2008 was simply a volatility mean-reverting event. Primary adversaries for gold are the stock market when it's rallying, and sustained low or declining volatility. Gold prices may be a primary beneficiary of elevated mean-reversion VIX risk.

Even With Stock Market Still Rocking, Gold Has Come Knocking. Pressured by substantial appreciation in the U.S. dollar and stock market the past few years, gold may be a prime beneficiary when its historic adversaries tire. This process may have begun, coincident with the current Federal Reserve tightening cycle. Gold and the S&P 500 are neck and neck from Dec. 15, 2015, to April 28, both up about 20% vs. a 1% drop in the **Bloomberg Dollar Spot Index**. The curtailing of easy money may have markets looking ahead to an endgame that benefits precious metals, notably gold.

Current Tightening Cycle Performance - Gold Ahead

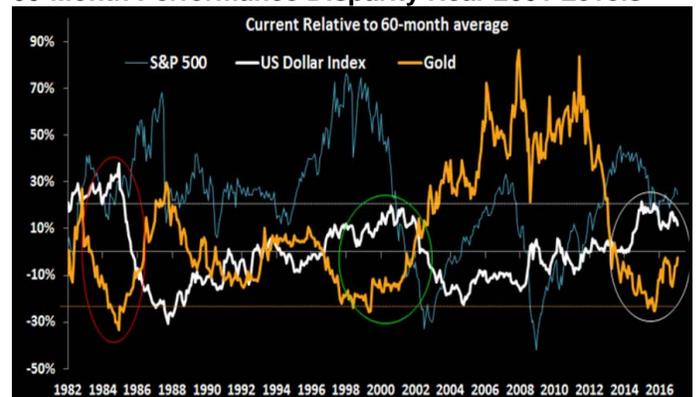


Historically, quasi-currency gold is the sole commodity that has gained in sharply down stock markets. Nearing key support, the dollar is showing divergent weakness, unable to rally despite rate hikes. Potentially more so than the past, if stocks flounder, so may Fed tightening, adding luster to gold.

Gold-Dollar Performance Reversion Trends Harken Back to 2001.

The gold-dollar inverse relationship may be in early mean-reversion stages, last comparable to 2001. Gold, up 10% in 2017 to April 28 on the back of a 4.0% drop in the U.S. Dollar Index (DXY), is still about 3% below its 60-month average. In December 2015, gold bottomed at 25% below this mean, similar to July 1999. The dollar is in a similar but opposite situation, still about 12% above its 60-month average as it reverts from the most extended stretch above this mean in 30 years.

60-Month Performance Disparity Near 2001 Levels



Continued simple mean reversion should favor gold, which showed divergent strength in 2016, rallying 8.1% despite the 3.6% gain in the dollar. Gold may be gaining the upper hand in an environment where it's not pressured by a stronger dollar. The DXY is used in this analysis due to its long history.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Gold-Copper Reversion Trend Still Favoring Gold, Bond Rallies. The 2017 disinflationary trend of gold outperforming copper -- by about 7% to April 28 -- has reverted most of the extreme from earlier in the year, but appears to have more to go. Copper-to-gold, a relationship with a high correlation to bond yields, has more downward reversion room if history is a guide. Copper managed-money net positions relative to gold are still overextended. In the past five years, copper has rarely outperformed gold for a prolonged period, with relative positions near current extremes.

Copper vs. Gold Managed Positions Still Elevated



Excessive long positions have limited copper's performance in 2017 relative to other metals. Combined CME and LME copper managed-money net positions and open interest, although off record highs, remain historically elevated. Gold stays in the opposite situation, with positions near five-year averages.

Stalled Gold Curve Could Signal Same From the Federal Reserve. Among the highest-correlated market indicators to the fed funds rate is the shape of the gold one-year futures curve, which has stalled in 2017. In 1H16, when increased volatility and the stock-market decline reduced Federal Reserve rate-tightening expectations, the steepening gold futures contango was one of the few leading indicators that held steadfast to further tightening -- it was right. Down slightly at 1.6% in 2017, the gold curve has flattened about 20 bps from 2017's peak on the day of the March rate hike.

If the curve continues to flatten, the indication would be Fed one-and-done in 2017. Since gold is a currency, its futures curve is priced off interest-rate expectations. In the last tightening cycle, the curve averaged 92 bps above the fed funds upper target. Currently, it's 43 bps.

Gold Curve Moving Away From Expecting Higher Rates



Reverse Soon or Tightening Trend May Stall -- Key Fed Indicators. Were Federal Reserve moves systematic rather than people decisions, a few prominent indicators would signal the central bank's done with interest-rate hikes. Correlations are good quantitative measures of historic relationships, but analyzing them on overlapping charts often is a better guide. The [Bloomberg Industrial Metals Subindex](#) vs. [Precious index](#) ratio bottomed before the start of the past three tightening cycles and peaked before easing cycles ensued. In the current cycle, the bottom lagged the initial hike.

Fed Funds: BCOM vs. Bonds, Industrial vs. Precious



To support the reflation story, industrial vs. precious metals and the [Bloomberg Commodity Index](#) vs. [BC U.S. Treasury 20+](#) relationships should have bottomed. Both have strong histories of trending with the Fed, but trending down in 2017 to April 28 appears disconcerting.

Bloomberg Commodity Index (BCOM)

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Agriculture (Index weight: 30.4% of BCOM.
Performance: April -1.2%, YTD -4.2%, Spot -1.3%)

Grains (Index Weight: 23.3% of BCOM.
Performance: April -0.8%, YTD -2.2%, Spot +1.4%)

Softs (Weight: 7.1% of BCOM.
Performance: April -3.5%, YTD -8.2%, Spot -6.5%)

Hedge Funds vs. Farmers - April Agriculture

Farmers Plant Seeds, Hedge Funds Drill the Market With Shorts. Slowly declining agricultural commodities are at elevated risk of a sharp short-covering rally or potential longer-term bottom on the back of near-record grain short positions and strong U.S. exports. April marked time, with North American producers drilling seeds and speculators building shorts. Grains are the majority of the agriculture sector and the U.S. growing season is predominant. Soft commodities have been this year's primary pressure factor, though sugar's decline may be excessive.

May should be more volatile for the [Bloomberg Agriculture Subindex](#), down this year in terms of total return (4.2%) and spot (1.3%) through April 28. Rapid increases in U.S. grains, cotton and beef exports may continue if the dollar has finally peaked.

MACRO OUTLOOK

Extreme Hedge Fund Speculation May Benefit Midwest Farmers. The last time the grain markets had combined net-short positions similar to the end of April was a little over a year ago, just before a 21% rally in the Bloomberg Grains Subindex. March 2016 marked an all-time high in corn, soybean and wheat managed-money net short positions. At minus 420,000 contracts, positions now are about the same. Yet the distinct trend since the end of February of sharply increasing open interest as prices decline is a strong indication of new shorts.

Speculative shorts have been pressuring U.S. grain futures amid recovery in South American production, but U.S. output is the predominant factor. The rally was short-lived in 2016 due to bumper crops. Such extreme one-sided positions can be a foundation for a longer-term market bottom.

Extreme Shorts, Open Interest Up With Prices Down



Record U.S. Exports May Cause Corn, Beans and Wheat Price Spike. The highest combined U.S. corn, soybean and wheat export estimates ever from the USDA could boost grain prices by almost 50%, if history is a guide. U.S. grain exports are expected to be a record 140 million tons this year, well above the 2008 and 2011 peaks at 128 million. Both of those export rallies boosted grain prices, but coincided with a weaker dollar. Current records have been boosted by low prices and occurred in spite of the greenback's strength.

Grain Exports, New Records Despite Strong Dollar



Already-booming exports could be a set up for a sustained increase if the dollar has peaked, down 4.0% in 2017 based on the [Bloomberg Dollar Index](#). Other than increased trade restrictions, higher grain prices may be the primary factor to bring exports back to more-normal levels.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

PERFORMANCE DRIVERS

Planting Remains in Full Force, Predominant Ag Pressure Point. As U.S. farmers hit full speed planting crops, concern over an even bigger supply glut remains the primary pressure factor on agriculture in 2017. Down 17.1% this year after a 3.7% monthly decline, sugar has been the biggest commodity drag. Live cattle jumped to 2017's leader, up 17.7%, supported by an 11.9% rally in April. President Donald Trump's meeting with China's president has helped to boost export optimism. Grains remain under pressure, with substantial short positions.

Sugar and Soybeans Lead 2017 Ag Decliners

Security	Chg YTD %	Chg April	Chg 6M Pct	1Yr % Chg	2Yr % Chg
Bloomberg Live Cattle Subindex	+17.7%	+11.9%	+26.2%	+20.5%	-4.0%
Bloomberg Cotton Subindex Total	+7.9%	--	+10.9%	+18.4%	11.8%
Bloomberg Corn Subindex Total	+3%	-1.3%	-1.3%	-15.4%	-16.7%
Bloomberg Wheat Subindex Total	+2%	-1.6%	-5.4%	-25.1%	-26.6%
Bloomberg Kansas Wheat Subindex	-1.0%	+1.1%	-3.9%	-24.3%	-36.9%
Bloomberg Grains Subindex Total	-2.2%	-8%	-3.9%	-15.3%	-15.2%
BBG Soybean Meal TR	-2.6%	+1.1%	-4.5%	-6.9%	1.2%
Bloomberg Agriculture Subindex	-4.2%	-1.2%	-7.6%	-9.2%	-8.0%
Bloomberg Coffee Subindex Total	-5.6%	-5.7%	-21.5%	+3%	-17.9%
Bloomberg Soybeans Subindex Total	-6.6%	--	-6.6%	-8.9%	-2.0%
Bloomberg Lean Hogs Subindex Total	-6.7%	+3%	+15.2%	-16.5%	-18.1%
BBG Softs TR	-8.2%	-3.5%	-19.5%	+4.8%	-8%
Bloomberg Soybean Oil Subindex	-9.7%	-9%	-11.4%	-8.8%	-7.9%
Bloomberg Sugar Subindex Total	-17.1%	-3.7%	-23.6%	-3.9%	8.1%

Soybeans have led grain decliners in 2017, anticipating strong U.S. production following the recovery in South America and declining palm-oil prices. Yet April was subdued in the grains. Cotton is second on the leader board, supported by strong U.S. exports.

LOTS OF BEAN BEARS

Soybean Complex Speculative Shorts Highest Since 2006 Bottom. The soybean complex may have the greatest base of short positions since near its bottom in 2006 at \$5.40 a bushel. Prices peaked two years later, rallying about 300%. Combined soybean, oil and bean meal managed-money net positions are the shortest since October 2006. Speculators appear to be expecting a bumper crop similar to 2016, following the recovery in South American supply. Short-covering risks are high, notably as the U.S. soybean stocks-to-use ratio appears to have peaked.

The 12-month average stocks-to-use is the lowest since July 2015 and contrarily trending down. Among USDA data sets since 2000, soybeans have the greatest negative correlation to U.S. production and stocks-to-use at 0.72. Covering risks are extreme if production disappoints.

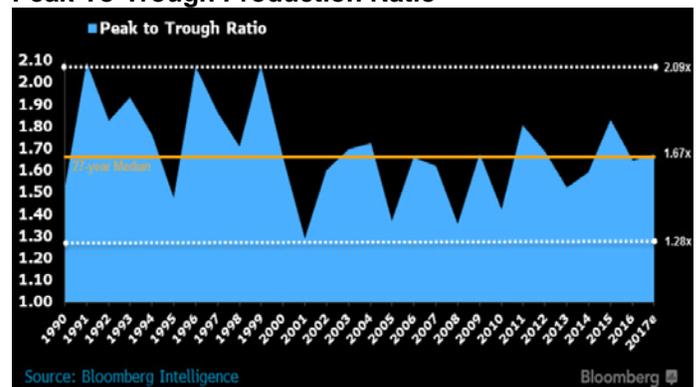
Nearing Record Shorts Elevates Covering Risks



Malaysia's Peak Monthly Palm Oil Output to Exceed 2 Million Tons.

Malaysia's monthly palm oil production could peak at 2.1 million metric tons this year, a record high. This is based on a 27-year median peak-to-trough production ratio of 1.67x (historical range 1.28x - 2.09x). Monthly production varies seasonally with usual troughs in February or March, and peaks in September or October. Palm output bottomed out at 1.26 million tons in February 2017. Given that rainfall is back to normal and production was very weak last year, this year's peak will be relatively higher. *Malaysia's Monthly Palm Oil Output To Hit 2 Million.* Alvin Tai - BI Industry Analyst. [{NSN OQJNO6JTSEV <GO>}](#)

Peak-To-Trough Production Ratio



BIG CORN SHORT

Big Corn Short Harkens Back to Sharp Midseason 2015 Rally. Corn speculators appear to be betting on another bumper crop, which puts the market at elevated risk for a sharp short-covering rally. U.S. crop planting

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

isn't halfway complete, yet managed-money net positions are nearing 2016's extreme shorts.

New Shorts Appear to Dominate Recent Decline



The indication is plenty of new shorts, similar to the situation just before the peak of the growing-season rally in 2015. Corn jumped almost 30% to about \$4.50 a bushel, but it proved short-lived as the crop became a bumper.

HOW MUCH WORSE WHEAT

As Bad as It Gets, Extreme Scenario May Illuminate Wheat Prices. One of the best things for wheat is that conditions appear to be getting about as bad as possible, or as good as they get for lower food costs. Wheat is still above 2016's 10-year low, but barely. Global stocks-to-use is just off the peak reached in 2016, the highest in 18 years. Also, open interest has leaped to the highest ever on the recent price decline, indicating that new shorts and managed-money net positions are almost the shortest ever, near last year's low.

Since 2000, the highest annual positive wheat-price correlation has been to U.S. exports, at 0.62, based on USDA data. Exports in 2017 are estimated at the highest since 2014, notably if the dollar continues to decline. U.S. wheat-acres planted are the lowest ever in USDA tracking since 1965.

Extreme Short, Record Open Interest on Down Prices



HOW MUCH LOWER SUGAR

Sugar May Be Setting Up for Some Sweetening Similar to 2010. Raw-sugar futures, dipping in April to near the lowest price in about a year below 16 cents a pound, may be entering a relative-value zone last seen in 2010. Indicating greater demand vs. supply, global sugar stocks-to-use is trending down for the longest run since 2009-11. The last similar example of a significant price correction within a favorable supply-to-demand trend was 2010. Also, sugar managed-money net positions are near the lowest since the February 2016 bottom.

Sugar Entering Value Relative to Stocks-to-Use



Sugar declined 50% in January-June 2010, then rallied 150% to the 2011 peak. F.O. Licht notes that the surplus in 2017 has pressured prices vs. a deficit in 2016. Higher prices may be necessary to stunt the favorable stocks-to-use scenario.

Bloomberg Commodity Index (BCOM)

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EXPORTS WARM COTTON

Cotton May Be in Early Catch-Up to Exports If History Is a Guide. Cotton prices may be in the early stages of catching up to the highest U.S. exports since 2011. The 52-week moving average of USDA export estimates has been on a substantial upswing since 2016's bottom, reaching 281,000 bales as of April 26. Unless exports suddenly collapse, cotton prices may be ripe to revisit 2011 levels near \$1.40 a pound. At 80.7 cents, cotton is the second-best Bloomberg Commodity Index performer in 2017, up 7.9%.

Cotton Exports on a Tear, Prices Tagging Along



Among USDA data sets, U.S.-traded cotton futures have the highest correlation to exports. Despite a fourth-consecutive annual increase in the Bloomberg Dollar Spot Index in 2016, cotton exports have turned higher. If the 4% dollar decline is sustained in 2017, exports should get an additional boost.

LIVESTOCK- OUTLOOK

Live Cattle May Be on the Bullish Path With Increasing Exports. Live-cattle futures appear underpriced if global exports continue to recover, or don't. A reduction in meat from Brazil, the world's largest exporter, may distort the data, but is a support factor for U.S. CME-traded futures. In a market that can be distorted by a substantial amount of domestic production that isn't exported, live-cattle future prices have the highest correlation among USDA meat and beef data sets

to world exports, at 0.62 annually since 2000.

Live Cattle Appears at a Discount to World Exports



At the end of 2016, the two-year decline in meat and beef exports was 5.5%, but live-cattle prices declined 5.3x at 29%. With a two-year annual beta of 1.6x, the past few years' decline in cattle appears excessive. Brazil's tainted-beef issue may be the prod to get live cattle back on a bullish path.

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

DATA on BI COMD

Performance - Overview

Key Metrics

Name	% Change on Day	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	3 Yr % Change	5 Yr % Change
Commodities										
BCOM Index TR	0.5	0.0	-1.5	-1.5	-5.0	-3.8	-1.3	-18.3	-38.0	-40.2
Energy Index	0.5	0.0	-3.0	-3.0	-8.8	-14.1	-2.9	-41.6	-65.2	-62.8
Grains Index	-0.3	0.0	-0.8	-0.8	-6.4	-2.2	-15.3	-15.2	-42.4	-38.4
Industrial Metals Index	0.4	0.0	-3.4	-3.4	-3.5	4.0	13.7	-10.9	-13.2	-30.4
Precious Metals Index	0.0	0.0	-0.6	-0.6	3.0	9.1	-3.3	5.9	-5.4	-32.0
Softs Index	3.2	-1.0	-3.5	-5.2	-14.1	-8.2	4.8	0.8	-31.9	-40.5
Livestock Index	1.9	0.0	7.4	7.4	9.4	7.6	4.0	-10.0	-20.3	-6.7
Agriculture Index	0.5	0.0	-1.2	-1.2	-8.8	-4.2	-9.2	-8.0	-36.6	-34.8
BCOM EX Indices TR										
BCOM Index Roll Select TR	0.5	0.0	-1.1	-1.1	-3.9	-1.9	2.5	-12.9	-32.5	-34.4
BCOM Index Forwards TR										
BCOM Index ER	0.5	0.0	-1.6	-1.6	-5.1	-4.0	-1.8	-18.7	-38.4	-40.6
BCOM Index Spot	0.5	0.0	-0.5	-0.5	-2.6	-0.8	7.0	-2.5	-23.6	-24.0
Stocks										
S&P 500 Index TR	-0.2	0.0	1.0	1.0	5.1	7.2	17.9	18.1	34.8	88.7
Bonds										
Barclays U.S. Aggregate	0.1	0.0	0.8	0.8	1.5	1.6	0.8	3.9	7.9	12.0
Currencies										
Bloomberg U.S. Dollar Spot Index	-0.1	-0.2	-0.5	-0.3	-2.4	-4.0	4.3	3.9	20.3	25.0
US Dollar Index	0.0	0.0	-1.3	-0.7	-1.5	-3.1	5.6	3.1	24.3	25.8
Pound Index	0.3	0.0	2.6	2.6	1.7	2.6	-10.1	-14.9	-14.4	-11.2

Historical

Name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Commodities										
BCOM Index TR	-3.8%	11.8%	-24.7%	-17.0%	-9.5%	-1.1%	-13.3%	16.8%	18.9%	-35.6%
Energy Index	-14.1%	16.3%	-38.9%	-39.3%	5.2%	-9.4%	-16.0%	-10.5%	-5.3%	-47.3%
Grains Index	-2.2%	-5.9%	-19.4%	-9.4%	-16.9%	18.3%	-14.4%	30.3%	-1.6%	-26.3%
Industrial Metals Index	4.0%	19.9%	-26.9%	-6.9%	-13.6%	0.7%	-24.2%	16.2%	80.0%	-48.3%
Precious Metals Index	9.1%	9.5%	-11.5%	-6.7%	-30.8%	6.3%	4.6%	42.7%	29.2%	-4.1%
Softs Index	-8.2%	13.2%	-9.9%	-10.1%	-16.9%	-22.4%	-14.0%	59.9%	44.2%	-28.4%
Livestock Index	7.6%	-5.6%	-18.8%	11.6%	-3.5%	-3.5%	-2.3%	9.3%	-15.1%	-28.4%
Agriculture Index	-4.2%	2.1%	-15.6%	-9.2%	-14.3%	4.0%	-14.4%	38.5%	13.7%	-27.5%
BCOM EX Indices TR										
BCOM Index Roll Select TR	-1.9%	14.6%	-23.4%	-15.2%	-9.1%	-0.4%	-8.8%	19.5%	23.1%	-29.8%
BCOM Index Forwards TR										
BCOM Index ER	-4.5%	11.4%	-24.7%	-17.0%	-9.6%	-1.1%	-13.4%	16.7%	18.7%	-36.6%
BCOM Index Spot	-0.8%	23.1%	-18.4%	-17.0%	-8.7%	3.7%	-8.1%	26.4%	41.2%	-28.9%
Stocks										
S&P 500 Index TR	7.2%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%
Bonds										
Barclays U.S. Aggregate	1.6%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%
Currencies										
Bloomberg U.S. Dollar Spot Index	-4.0%	2.8%	9.0%	11.0%	3.3%	-0.7%	1.8%	-1.8%	-4.8%	8.9%
US Dollar Index	-3.1%	3.6%	9.3%	12.8%	0.3%	-0.5%	1.5%	1.5%	-4.2%	6.0%
Pound Index	7.7%	-30.3%	-5.7%	-4.3%	3.9%	8.7%	-0.5%	-6.6%	17.3%	-45.5%

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Performance – Commodity Total Returns

Key Metrics

Name	% Change on Day	WTD % Change	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
BCOM Total Return Indices							
Live Cattle Index	2.1	0.0	11.9	19.3	17.7	20.5	-4.0
Aluminum Index	-0.7	0.0	-2.9	4.5	12.1	11.3	-7.3
Gold Index	0.2	0.0	1.4	4.8	9.8	-2.8	6.4
Cotton Index	1.2	0.0	0.0	-0.3	7.9	18.4	11.8
Silver Index	-0.4	0.0	-5.8	-1.7	7.3	-4.9	3.8
Platinum Index	0.0	0.0	-0.3	-5.3	4.6	-12.7	-16.9
Copper Index	0.6	0.0	-2.2	-4.7	3.1	12.1	-13.7
Zinc Index	1.0	0.0	-5.5	-9.2	1.5	33.4	7.2
Corn Index	-0.7	0.0	-1.3	-4.2	0.3	-15.4	-16.7
Wheat Index	0.2	0.0	-1.6	-5.8	0.2	-25.1	-26.6
HRW Wheat Index	0.8	0.0	1.1	-6.0	-1.0	-24.3	-36.9
Soybean Meal Index	0.3	0.7	1.1	-10.1	-2.6	-6.9	1.2
Coffee Index	3.0	0.0	-5.7	-13.9	-5.6	0.3	-17.9
Nickel Index	1.2	0.0	-5.8	-8.1	-6.2	-1.5	-33.3
Soybeans Index	-0.1	0.0	0.0	-9.6	-6.6	-8.9	-2.0
Lean Hogs Index	1.6	0.0	0.3	-5.0	-6.7	-16.5	-18.1
Soybean Oil Index	-0.8	0.0	-0.9	-8.9	-9.7	-8.8	-7.9
Brent Crude Index	0.4	0.0	-3.2	-9.5	-10.6	-3.2	-42.9
WTI Crude Index	0.6	0.0	-3.2	-10.7	-11.9	-7.8	-48.7
Heating Oil Index	-0.2	0.0	-4.6	-11.2	-14.4	-1.4	-40.8
Natural Gas Index	1.0	0.0	0.6	-2.9	-16.5	8.3	-39.6
Sugar Index	4.5	0.0	-3.7	-22.4	-17.1	-3.9	8.1
Gasoline Index	-0.4	0.0	-8.6	-14.3	-19.7	-12.3	-35.7

Historical

Name	2017↑	2016	2015	2014	2013	2012	2011	2010
BCOM Total Return Indices								
Live Cattle Index	17.7%	-7.4%	-14.3%	22.1%	-5.0%	-3.9%	-1.0%	15.0%
Aluminum Index	12.1%	9.7%	-22.9%	-3.1%	-20.7%	-4.0%	-21.7%	5.4%
Gold Index	9.8%	7.7%	-10.9%	-1.7%	-28.7%	6.1%	9.6%	28.7%
Cotton Index	7.9%	10.5%	3.0%	-21.2%	9.0%	-12.7%	-21.7%	98.2%
Silver Index	7.3%	14.0%	-12.7%	-20.4%	-36.6%	7.1%	-10.1%	81.8%
Platinum Index	4.6%	0.8%	-26.5%	-12.3%	-11.8%	8.7%	-21.8%	19.3%
Copper Index	3.1%	15.7%	-25.1%	-16.6%	-8.8%	5.0%	-24.4%	29.5%
Zinc Index	0.5%	57.5%	-28.0%	3.5%	-7.0%	9.0%	-27.8%	-8.8%
Corn Index	0.3%	-9.8%	-19.2%	-13.3%	-30.3%	19.0%	1.1%	30.7%
Wheat Index	0.2%	-24.1%	-22.2%	-9.4%	-27.2%	9.8%	-34.0%	21.2%
HRW Wheat Index	-1.0%	-25.3%	-32.7%	-4.7%	-26.2%	5.6%	-22.9%	42.1%
Soybean Meal Index	-2.6%	18.1%	-18.0%	11.8%	20.0%	49.1%	-18.1%	38.9%
Coffee Index	-5.6%	-1.3%	-31.5%	37.8%	-30.5%	-41.6%	-11.2%	67.0%
Nickel Index	-6.2%	11.8%	-42.6%	7.3%	-20.1%	-10.2%	-24.7%	32.2%
Soybeans Index	-6.6%	14.8%	-14.6%	-5.5%	10.5%	24.0%	-16.4%	34.9%
Lean Hogs Index	-6.7%	-2.9%	-26.1%	-4.4%	-2.0%	-2.9%	-4.6%	0.3%
Soybean Oil Index	-9.7%	7.3%	-7.7%	-20.6%	-22.4%	-9.8%	-15.2%	33.8%
Brent Crude Index	-10.6%	25.4%	-45.6%	-47.6%	7.2%	7.6%	16.8%	11.5%
WTI Crude Index	-11.9%	7.1%	-44.3%	-41.7%	6.8%	-11.8%	-3.6%	3.8%
Heating Oil Index	-14.4%	33.5%	-42.8%	-38.8%	0.4%	5.5%	10.7%	8.3%
Natural Gas Index	-16.5%	10.3%	-39.9%	-30.7%	5.0%	-30.6%	-47.1%	-40.6%
Sugar Index	-17.1%	22.8%	-4.7%	-30.9%	-20.0%	-13.0%	-11.9%	24.0%
Gasoline Index	-19.7%	6.4%	-12.6%	-43.8%	1.9%	25.7%	14.5%	13.1%

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Performance – Prices

Key Metrics

Name	% Change on Day	WTD % Change	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
■ BCOM Single Commodity Price							
Palladium	1.7	0.0	3.6	11.9	21.0	32.4	5.8
Aluminum	-0.7	0.2	-2.4	5.7	12.6	14.6	2.3
Lean Hogs	1.6	10.5	12.7	10.6	11.9	-4.3	0.3
Cotton	1.2	-1.7	2.0	5.4	11.6	23.8	18.4
Gold	0.2	0.0	1.7	6.7	10.1	0.2	4.5
Silver	-0.4	0.4	-5.4	0.7	8.0	-1.7	4.0
Live Cattle	2.1	0.0	3.4	4.8	6.9	8.0	-17.9
Wheat	0.2	3.3	1.3	2.8	5.9	-9.1	-8.3
Platinum	0.0	0.0	0.1	-3.5	5.2	-9.7	-18.1
HRW Wheat	0.8	2.9	4.0	0.7	4.5	-5.2	-12.1
Corn	-0.7	2.4	0.6	1.1	4.1	-5.3	1.5
Copper (CME)	0.6	0.4	-1.7	-3.0	4.1	17.2	-6.2
Copper (LME)	0.7	0.2	-1.6	-2.7	3.7	15.6	-6.4
Zinc	1.0	0.2	-4.9	-4.4	2.2	37.4	13.9
Soybean Meal	0.3	1.3	2.4	-7.9	0.9	-4.5	-0.9
Coffee	3.0	1.8	-4.2	-12.5	-2.7	10.8	-3.4
Soybeans	-0.1	1.2	1.1	-8.9	-4.0	-6.1	-2.2
Nickel	1.2	0.2	-5.5	0.0	-5.5	1.7	-29.7
Gasoline	-0.4	0.0	-8.9	1.4	-7.0	-3.1	-22.7
Soybean Oil	-0.8	0.8	-0.2	-7.5	-7.9	-4.1	1.5
WTI Crude	0.7	0.0	-2.5	-7.2	-8.2	7.2	-13.5
Brent Crude	0.4	0.6	-1.5	-6.3	-8.4	8.1	-19.5
Gas Oil	0.6	0.3	-3.0	-6.1	-9.1	9.7	-22.3
Heating Oil	-0.3	0.2	-4.2	-6.9	-11.6	7.3	-21.4
Natural Gas	1.1	0.0	2.7	-3.4	-12.0	57.7	30.2
Sugar	4.5	0.6	-3.8	-20.7	-17.3	5.3	22.5

Historical

Name	2017†	2016	2015	2014	2013	2012	2011	2010	2009	2008
■ BCOM Single Commodity Price										
Palladium	21.0%	21.6%	-29.6%	11.2%	2.1%	7.2%	-18.3%	96.5%	116.7%	-50.1%
Cotton	13.6%	11.6%	5.0%	-28.8%	12.6%	-18.1%	-36.6%	91.5%	54.2%	-27.9%
Aluminum	13.1%	12.5%	-17.9%	4.1%	-13.9%	2.5%	-18.8%	11.6%	45.6%	-36.0%
Gold	10.1%	8.6%	-10.5%	-1.5%	-28.3%	7.0%	10.2%	29.7%	24.0%	5.5%
Silver	7.5%	15.8%	-11.5%	-19.5%	-35.9%	8.3%	-9.8%	83.7%	49.1%	-24.3%
Live Cattle	6.9%	-15.2%	-16.4%	21.5%	1.8%	8.9%	12.1%	25.9%	0.0%	-10.5%
Platinum	5.2%	1.1%	-26.2%	-11.8%	-10.9%	9.9%	-21.1%	21.5%	55.9%	-38.7%
Copper (CME)	3.6%	17.4%	-24.4%	-16.8%	-7.0%	6.3%	-22.7%	32.9%	137.3%	-53.6%
Copper (LME)	3.4%	17.3%	-25.8%	-13.9%	-6.8%	4.2%	-21.2%	31.2%	141.1%	-54.2%
Wheat	2.6%	-13.2%	-20.3%	-2.6%	-22.2%	19.2%	-17.8%	46.7%	-11.3%	-31.0%
Zinc	2.0%	60.2%	-26.2%	6.0%	-0.5%	12.2%	-25.2%	-3.5%	113.5%	-49.6%
Corn	1.7%	-1.9%	-9.6%	-5.9%	-39.6%	8.0%	2.8%	51.7%	1.8%	-10.6%
HRW Wheat	1.5%	-10.7%	-25.2%	-2.2%	-22.9%	15.9%	-15.7%	58.7%	-14.9%	-31.0%
Lean Hogs	1.2%	10.6%	-26.4%	-4.9%	-0.3%	1.7%	5.7%	22.3%	7.1%	5.2%
Soybean Meal	-0.4%	18.4%	-27.5%	-16.7%	4.1%	35.9%	-16.4%	18.0%	4.5%	-9.4%
Coffee	-4.4%	8.2%	-23.9%	50.5%	-23.0%	-36.6%	-5.7%	76.9%	21.3%	-17.7%
Soybeans	-5.1%	14.4%	-14.5%	-22.3%	-7.5%	18.4%	-14.0%	34.0%	6.9%	-18.9%
Nickel	-6.9%	13.5%	-41.8%	9.0%	-18.6%	-9.2%	-24.2%	33.8%	58.8%	-55.4%
Gasoline	-7.0%	31.4%	-11.7%	-48.5%	-0.9%	4.7%	9.5%	19.5%	103.6%	-59.3%
WTI Crude	-8.5%	45.0%	-30.5%	-45.9%	7.2%	-7.1%	8.2%	15.1%	77.9%	-53.5%
Soybean Oil	-8.6%	12.7%	-4.4%	-17.6%	-21.0%	-5.6%	-9.8%	43.1%	21.2%	-31.9%
Brent Crude	-9.0%	52.4%	-35.0%	-48.3%	-0.3%	3.5%	13.3%	21.6%	70.9%	-51.4%
Gas Oil	-9.4%	53.6%	-36.3%	-45.8%	1.9%	0.3%	21.2%	20.0%	51.9%	-50.1%
Heating Oil	-11.8%	54.8%	-40.4%	-40.0%	1.1%	3.8%	15.4%	20.1%	50.7%	-46.8%
Natural Gas	-12.4%	59.3%	-19.1%	-31.7%	26.2%	12.1%	-32.1%	-20.9%	-0.9%	-24.9%
Sugar	-17.8%	28.0%	5.0%	-11.5%	-15.9%	-16.3%	-27.5%	19.2%	128.2%	9.1%

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Performance – Volatility

Name	Current	% Change on Day	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	3 Yr % Change
BCOM 3M Implied Volatility										
Corn	24.8	0.0	15.2	10.9	6.5	36.9	25.6	-14.5	-4.2	-15.7
Aluminum	20.9	11.0	13.7	29.8	36.3	3.2	18.6	14.7	29.1	6.5
Wheat	25.3	2.4	13.0	11.4	3.4	14.2	14.1	-6.6	-5.3	-14.2
Soybean Oil	21.8	-2.1	1.0	6.4	-3.2	14.8	12.4	8.4	20.9	7.8
Unlead Gas	27.8	3.7	3.7	5.0	-4.9	3.3	10.5	-32.3	-13.3	71.1
HRW Wheat	24.5	3.4	12.6	13.2	3.2	13.4	9.9	-5.7	-7.0	-10.2
Soybeans	18.1	1.1	2.1	9.0	3.4	5.8	7.0	-24.8	-8.5	-17.6
Live Cattle	18.8	-1.4	10.4	3.6	4.4	6.9	3.5	-7.5	18.8	107.4
Zinc	29.1	1.2	-7.9	1.5	9.9	-18.2	1.6	13.6	55.0	86.7
Crude Oil	28.6	-3.7	-4.5	1.2	-6.2	0.2	0.5	-27.5	15.3	71.6
Brent Crude	29.1	-4.0	-3.9	1.3	-3.2	-0.1	-0.3	-28.0	-8.3	77.6
Gas Oil	27.6	3.1	0.5	1.3	-2.1	-2.9	-3.9	-28.6	3.0	91.5
Heating Oil	26.1	1.7	-2.1	1.6	-5.3	-5.1	-4.1	-27.4	-5.6	87.4
Soybean Meal	20.8	-0.9	4.4	-0.3	-6.4	-5.3	-4.2	-29.3	-3.8	-13.8
Coffee	28.2	5.3	-0.5	-0.1	-3.9	-7.3	-4.9	-2.0	-27.9	-45.0
Copper (LME)	19.2	-2.6	-14.4	341.1	0.6	-20.1	-8.1	7.1	6.5	20.3
Lean Hogs	22.4	-1.9	-3.7	-7.9	-13.5	-11.1	-8.2	21.7	-11.3	13.3
Natural Gas	32.2	-0.6	-3.3	-3.1	-2.5	-12.9	-12.6	-18.4	-16.5	12.1
Cotton	16.2	-2.9	-14.6	-18.7	-17.2	-23.8	-15.2	-14.8	-17.4	-23.2
Sugar	24.8	4.7	6.3	-0.7	-7.5	-8.5	-17.6	-15.6	-6.0	13.8
Nickel	28.0	1.9	-3.1	5.9	5.2	-23.3	-19.2	108.2	-7.2	-18.4
Palladium	23.9	2.6	3.7	9.2	9.0	-13.7	-19.7	-16.3	17.0	-7.3
Copper (COMEX)	19.2	3.1	-4.4	3.4	3.0	-18.2	-20.6	-13.4	-3.1	4.2
Gold	11.2	-0.9	-18.1	-6.7	-9.0	-15.7	-24.1	-33.5	-23.9	-21.3
Silver	19.3	0.0	-4.3	-0.1	-2.1	-11.1	-24.3	-32.3	-23.8	-14.7
Platinum	15.7	-0.1	-11.0	0.9	-8.3	-20.3	-25.8	-29.8	-13.2	-9.6
BCOM 60 Day Historical Volatility										
Sugar	28.5	11.3	17.7	14.9	5.8	-0.5	9.5	-27.5	0.5	-14.1
Cotton	18.2	0.6	0.0	17.2	8.7	12.1	6.2	-13.7	-10.1	-11.4
Live Cattle	22.9	0.2	-0.3	1.0	-3.5	2.9	5.4	37.6	36.2	50.3
HRW Wheat	22.9	0.2	-0.3	1.0	-3.5	2.9	5.4	-12.1	-26.0	-16.1
Unlead Gas	31.5	-1.9	-2.6	-9.8	-10.3	-10.2	-3.0	-52.8	-29.8	39.4
Copper (CME)	21.1	-0.1	-3.9	-3.9	-7.0	-10.8	-4.5	0.4	-3.8	35.1
Nickel Gas	29.4	-0.1	-4.8	-3.6	-3.7	-13.5	-7.4	-22.3	0.9	60.0
Aluminum	14.7	0.3	4.9	3.1	3.1	-8.5	-7.8	-15.5	2.0	-19.8
Copper (LME)	21.3	-0.2	-5.0	-7.5	-6.0	-14.5	-8.0	2.8	-0.3	28.1
Wheat	23.8	0.6	-3.8	-3.8	-6.8	-6.6	-13.1	-8.9	-22.7	-21.4
Soybean Oil	20.2	-0.3	-2.5	2.9	2.3	-8.8	-19.0	13.1	8.7	6.5
Palladium	21.2	1.0	-2.2	-28.6	-33.1	-39.3	-21.4	-32.1	-5.8	13.7
Coffee	22.5	1.9	1.7	14.9	7.6	-19.3	-22.1	-22.3	-47.8	-63.7
Zinc	27.3	0.2	-2.5	9.2	14.4	-23.5	-23.1	-10.5	60.8	72.5
Soybeans	13.1	0.0	-6.3	-22.1	-23.2	-29.4	-24.4	-16.0	-16.4	-24.9
Corn	17.1	0.9	-0.1	2.5	3.4	-16.8	-25.1	-12.8	-14.0	-9.9
Gold	10.1	-1.5	-0.6	-6.5	-9.0	-34.1	-29.8	-50.3	-33.7	-27.6
Natural Gas	39.0	0.1	-2.2	-11.5	-21.5	-30.9	-31.4	-19.4	-7.9	-36.2
Platinum	17.0	0.0	1.2	-2.0	-16.3	-39.3	-33.6	-35.8	-11.6	31.8
Gas Oil	21.7	0.1	3.6	0.9	-0.3	-29.1	-33.7	-59.6	-31.6	47.4
Soybean Meal	14.4	0.0	1.3	-31.0	-32.0	-41.1	-35.7	-37.0	-34.8	-25.9
Crude Oil	22.9	0.2	-1.5	-9.6	-9.9	-37.8	-37.2	-58.7	-57.3	40.7
Heating Oil	18.8	-0.9	-8.4	-19.8	-19.0	-42.9	-40.7	-62.8	-70.4	-21.8
Brent Crude	21.5	0.1	-1.6	-6.8	-10.1	-42.1	-41.1	-59.1	-57.5	47.8
Silver	16.1	0.1	-2.6	-3.6	-8.1	-45.4	-44.7	-43.0	-42.8	-26.3
Lean Hogs	31.3	-0.4	1.2	19.6	12.7	-4.2	-48.1	0.2	-18.5	-2.7

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

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

Key Metrics

Name	Current Position	1 Yr Ago	1 Yr Change	YTD Change	MTD Change	1 Mth Change	3 Mth	2 Yr Change
1 Year Spread % of First Contract								
BCOM	-3.8	-4.7	0.9	-1.4	-1.1	-0.8	-1.2	0.8
Sector								
Energy	-1.3	-11.5	10.2	1.3	-1.7	-0.1	2.8	5.9
Precious Metals	-2.1	-1.1	-1.0	-0.3	-0.1	-0.3	-0.3	-1.3
Industrial Metals	-1.5	-0.7	-0.8	-0.7	-0.1	-0.2	-0.5	-0.5
Agriculture	-5.9	-4.9	-1.1	-1.7	0.0	-0.3	-2.2	0.5
Livestock	-2.4	6.7	-9.2	-10.6	-6.8	-6.3	-9.7	-3.0
Single Commodities								
Natural Gas	10.5	-39.5	50.0	10.6	-1.1	4.7	16.4	27.1
Cotton	7.5	1.1	6.4	5.9	2.8	4.4	3.5	5.8
Crude Oil	-2.6	-7.0	4.4	3.3	0.2	1.3	2.0	8.0
Brent Crude	-1.7	-4.9	3.1	1.3	-1.0	-0.1	-0.2	6.0
Gas Oil	-4.4	-8.6	4.3	0.4	-0.9	-0.8	1.0	0.7
Palladium	-0.1	-0.7	0.5	0.3	0.1	-0.2	0.2	0.1
Platinum	-1.2	-0.4	-0.7	0.0	0.1	0.0	-0.1	-0.8
Gold	-1.6	-0.8	-0.8	-0.1	0.0	0.0	-0.1	-1.2
Zinc	-0.2	-0.6	0.5	-0.4	0.0	-0.2	-0.4	0.2
Heating Oil	-4.9	-7.5	2.6	-0.4	-1.6	-0.3	1.5	-0.2
Silver	-2.5	-1.3	-1.2	-0.6	-0.3	-0.5	-0.5	-1.3
Nickel	-2.5	-1.5	-1.0	-0.6	-0.2	-0.2	-0.1	-1.3
Aluminum	-1.6	-0.9	-0.8	-0.6	-0.4	-0.4	-0.1	1.0
Copper (LME)	-1.1	0.4	-1.6	-0.8	-0.4	-0.4	-0.5	-1.0
Soybean Meal	-1.5	2.9	-4.4	-1.1	0.0	-0.7	-4.4	-3.5
Copper (CME)	-2.1	-1.2	-0.9	-1.3	0.3	0.2	-1.2	-1.4
Coffee	-10.6	-7.1	-3.5	-1.4	-1.1	-1.0	-2.0	-1.2
Corn	-12.0	-5.4	-6.6	-1.5	-1.4	-1.2	-2.6	-0.8
Wheat	-18.9	-13.2	-5.6	-1.8	-2.2	-2.1	-1.4	-6.3
Soybean Oil	-3.6	-3.2	-0.4	-2.4	0.1	-0.5	-2.4	-0.2
HRW Wheat	-18.5	-16.5	-2.0	-2.5	-0.3	-0.9	-2.3	-6.7
Soybean	-2.3	1.7	-4.0	-2.6	-0.1	-1.1	-4.6	-3.5
Unleaded Gas	-4.5	-1.4	-3.1	-7.3	-5.9	-5.2	-3.6	-6.4
Live Cattle	4.6	9.6	-5.0	-8.7	-5.8	-6.3	-8.4	-1.5
Sugar	-4.0	-6.3	2.2	-8.8	0.4	-1.8	-5.9	9.1
Lean Hogs	-9.5	3.8	-13.4	-12.5	-7.8	-6.3	-10.9	-4.4

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	2017 T	2016	2015	2014	2013	2012	2011	2010	2009	2008
1 Year Spread % of First Contract										
BCOM	-3.6	-2.3	-7.7	-4.8	0.6	-0.9	-1.9	2.1	-4.2	-14.0
Sector										
Livestock	1.9	8.1	0.6	8.3	4.1	-0.7	-0.2	-1.8	-4.8	-10.4
Industrial Metals	-1.5	-0.8	-1.5	-0.8	-1.8	-2.5	-2.1	0.5	-2.3	-5.0
Energy	-1.6	-2.6	-18.7	-13.5	3.7	-0.1	-1.9	-4.3	-9.7	-30.2
Precious Metals	-2.1	-1.7	-1.0	-0.8	-0.7	-0.7	-0.7	-0.9	-0.9	-0.6
Agriculture	-6.2	-4.2	-5.5	-5.6	-1.5	-2.3	-1.8	12.2	-0.3	-12.2
Single Commodities										
Live Cattle	13.1	13.3	8.1	7.0	2.5	-3.3	-4.5	-3.8	-4.3	-5.6
Natural Gas	9.6	-0.1	-22.6	-22.2	-3.2	-20.7	-29.9	-18.4	-21.1	-31.6
Cotton	6.6	1.7	-2.7	-8.6	6.7	-5.7	3.6	34.6	-2.6	-18.5
Palladium	-0.1	-0.5	-0.2	-0.1	-0.5	-0.2	-0.4	0.0	-0.3	-20.5
Zinc	-0.2	0.2	-2.8	-1.4	-2.3	-4.5	-3.9	-1.7	-3.2	-7.0
Copper (LME)	-1.1	-0.3	0.3	1.6	1.1	-0.7	-0.3	2.7	-0.9	-3.0
Platinum	-1.1	-1.1	-0.4	-0.4	-0.5	-0.7	-1.0	-0.5	-1.2	-54.1
Soybean Meal	-1.5	-0.4	-5.7	9.8	19.9	12.5	-2.4	9.9	9.5	-1.9
Gold	-1.6	-1.5	-0.5	-0.3	-0.4	-0.7	-0.9	-0.9	-1.0	-0.9
Aluminum	-1.6	-1.0	-2.7	-3.1	-7.5	-5.0	-5.2	-2.3	-5.0	-9.5
Soybean	-2.3	0.4	-2.0	0.9	13.1	7.7	-1.2	5.9	1.7	-4.1
Copper (CME)	-2.3	-0.8	-1.1	-0.2	1.3	-1.1	-0.8	2.5	-1.2	-2.6
Brent Crude	-2.4	-3.1	-22.1	-16.4	4.9	6.3	4.0	-0.4	-8.3	-35.3
Nickel	-2.5	-1.9	-1.4	-1.1	-1.8	-1.4	-0.1	1.1	-1.1	-3.0
Silver	-2.5	-2.0	-1.4	-1.2	-0.9	-0.7	-0.5	-0.9	-0.8	-0.4
Crude Oil	-2.9	-5.9	-20.4	-13.5	7.3	-1.3	1.4	-3.2	-6.7	-35.1
Soybean Oil	-3.5	-1.2	-3.1	-0.9	-3.8	-2.8	-1.6	-0.9	-5.3	-6.0
Sugar	-4.0	4.8	0.9	-13.1	-8.2	-5.5	-0.3	26.0	21.9	-19.3
Gas Oil	-4.4	-4.8	-23.8	-12.0	3.1	2.9	3.0	-4.2	-11.0	-25.1
Heating Oil	-4.7	-4.5	-24.5	-4.5	3.2	2.1	2.1	-3.4	-8.0	-23.2
Unleaded Gas	-4.9	2.8	1.0	-12.3	7.0	9.8	7.9	3.7	-2.9	-30.8
Lean Hogs	-9.3	2.9	-7.0	9.6	5.7	2.0	4.2	0.2	-5.3	-15.2
Coffee	-11.0	-9.2	-8.4	-7.4	-11.2	-11.5	-4.9	6.1	-5.7	-10.8
Corn	-11.3	-10.5	-9.5	-8.1	-9.2	12.7	7.2	9.4	-8.5	-14.0
HRW Wheat	-19.1	-16.1	-14.9	-6.3	-5.5	-5.7	-7.9	-3.1	-12.7	-10.6
Wheat	-20.0	-17.1	-10.5	-5.0	-7.2	-6.9	-12.4	-8.7	-15.3	-12.5

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

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 Livestock	4.3	3.1	-0.4	4.7	-1.1	5.4
BCOM Precious Metals	-3.0	-0.9	-0.6	-2.4	-0.5	-2.4
BCOM Industrial Metals	-3.9	-1.8	-2.1	-1.9	-1.8	-2.2
BCOM Softs	-5.9	-6.4	-8.6	2.8	-6.6	0.7
BCOM Agriculture	-8.1	-6.0	-5.6	-2.4	-0.5	-7.5
BCOM	-8.3	-10.6	-8.2	-0.2	-2.4	-6.0
BCOM Energy	-17.8	-26.5	-16.6	-1.2	-4.2	-13.6
Commodities Roll Yield						
Soybean Meal	-1.2	0.3	5.5	-6.7	19.4	-20.6
Soybean	-1.7	0.5	2.0	-3.7	10.3	-12.0
Silver	-2.9	-6.2	-1.2	-1.6	-1.2	-1.7
Gold	-3.0	-0.6	-0.4	-2.6	-0.3	-2.6
Platinum	-3.0	-2.6	-0.2	-2.8	-0.3	-2.7
Nickel	-3.0	-1.4	-1.9	-1.1	-0.5	-2.6
Aluminum	-3.1	-4.8	-5.9	2.8	-6.2	3.1
Lean Hogs	-3.2	-2.0	-3.7	0.5	-1.8	-1.3
Zinc	-3.7	-3.1	-1.9	-1.8	-3.2	-0.5
Soybean Oil	-4.0	-6.7	-3.7	-0.3	-2.4	-1.6
Copper (CME)	-4.6	-1.3	-0.8	-3.9	0.0	-4.6
Gas Oil	-7.5	-16.5	-10.2	2.7	-3.8	-3.8
Cotton	-7.6	-0.5	-0.9	-6.7	8.3	-15.9
Corn	-7.9	-7.4	-9.3	1.3	-6.6	-1.3
Coffee	-8.5	-13.2	-8.7	0.2	-6.8	-1.7
Heating Oil	-8.7	-15.5	-10.0	1.4	1.7	-10.4
Unlead Gas	-9.2	-20.8	-4.3	-4.9	-3.1	-6.1
Sugar	-9.2	-6.2	-11.9	2.7	-14.6	5.4
Brent Crude	-11.3	-15.9	-14.3	3.0	-5.0	-6.3
Wheat	-13.1	-7.5	-4.5	-8.7	-3.9	-9.2
Crude Oil	-14.9	-30.2	-21.6	6.7	-1.4	-13.5
HRW Wheat	-16.5	-13.1	-11.2	-5.3	-2.3	-14.2
Natural Gas	-49.3	-46.1	-20.9	-28.4	-4.8	-44.5

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

Historical

Name	2017†	2016	2015	2014	2013	2012	2011	2010	2009	2008
1 Year Gross Yield										
Sector Roll Yield										
BCOM Livestock	4.3	0.2	1.1	-0.2	-4.5	-9.8	-12.3	-14.8	-20.2	-22.5
BCOM Precious Metals	-3.0	-1.1	-0.6	-0.4	-0.5	-0.9	-0.6	-1.1	-1.1	-2.6
BCOM Industrial Metals	-3.1	-2.0	-1.8	-2.1	-3.9	-3.3	-2.2	-4.1	-16.7	-3.3
BCOM Softs	-5.9	-5.6	-7.4	-12.5	-4.9	0.9	9.0	0.5	-24.7	-18.2
BCOM	-8.4	-11.4	-6.3	0.0	-0.9	-4.7	-6.6	-9.5	-21.8	-6.5
BCOM Agriculture	-8.5	-7.0	-4.7	0.7	8.2	3.6	-5.8	-12.6	-2.5	-7.8
BCOM Energy	-17.8	-32.5	-12.6	1.6	-5.1	-11.7	-11.0	-13.8	-51.8	-5.6
Commodities Roll Yield										
Live Cattle	12.5	8.0	1.0	-0.3	-6.8	-12.9	-11.1	-11.2	-10.9	-14.5
Soybean Meal	-1.3	-0.5	9.6	28.7	16.5	13.0	-1.3	20.7	30.2	0.4
Silver	-1.6	-1.8	-1.2	-0.9	-0.7	-1.1	4.5	-5.1	-1.5	-1.1
Soybean	-1.7	0.2	-0.2	17.0	18.5	5.5	-1.8	0.5	16.1	-2.2
Sugar	-2.2	-5.2	-9.9	-19.5	-4.1	3.1	18.7	4.6	-41.8	-28.3
Nickel	-2.5	-1.7	0.5	-2.9	-2.3	-1.0	-1.7	-1.6	-7.3	-1.8
Soybean Oil	-2.7	-5.4	-3.2	-2.9	-1.3	-4.2	-4.2	-8.5	-6.9	-4.3
Gold	-3.0	-0.9	-0.4	-0.2	-0.4	-0.9	2.9	-1.0	-1.1	-1.6
Platinum	-3.0	-0.4	-0.2	-0.5	-0.8	-1.2	0.9	-2.7	-6.2	-0.7
Lean Hogs	-3.2	-13.6	0.3	0.6	-1.7	-4.5	-9.6	-23.8	-30.8	-38.1
Aluminum	-3.7	-2.9	-6.0	-9.1	-8.4	-6.2	-3.3	-6.0	-13.6	-5.0
Zinc	-3.8	-2.7	-2.5	-4.6	-8.8	-3.1	-3.0	-5.3	-11.2	-2.6
Copper (CME)	-4.6	-1.6	-0.7	0.3	-1.7	-1.3	-0.1	-3.6	-7.1	0.5
Cotton	-7.6	-1.1	-2.1	7.7	-3.6	5.2	15.5	14.3	-24.1	-14.5
Gas Oil	-7.7	-22.7	-11.0	-1.6	2.1	7.4	2.1	-12.3	-20.5	-3.0
Corn	-7.9	-7.9	-9.6	-7.4	9.4	10.8	0.4	-20.9	-11.8	-11.0
Coffee	-8.5	-9.7	-7.8	-12.6	-7.2	-5.0	-3.4	-8.5	-11.1	-8.5
Heating Oil	-8.7	-25.3	-3.0	1.1	-1.3	1.0	-2.9	-11.7	-25.3	-0.3
Unlead Gas	-9.2	-27.2	1.1	4.7	1.3	18.9	4.5	-6.9	-16.9	-2.0
Brent Crude	-11.3	-27.7	-23.3	0.3	6.9	4.2	8.3	-12.5	-55.6	-3.1
Wheat	-13.1	-10.9	-1.9	-7.0	-5.1	-9.4	-14.6	-23.8	-14.7	-7.1
Crude Oil	-15.4	-38.2	-14.0	4.3	-0.3	-4.5	-9.7	-11.3	-70.3	0.3
HRW Wheat	-16.5	-14.7	-7.6	-2.5	-3.3	-4.1	-7.6	-9.9	-4.7	-4.7
Natural Gas	-45.6	-52.6	-19.8	0.8	-22.3	-42.7	-13.8	-16.1	-47.6	-11.8

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Curve Analysis – Forwards / Forecasts Spread %

Name	4/2017	3/2017	2/2017	1/2017	12/2016	11/2016	10/2016	9/2016	8/2016	7/2016	6/2016
■ 1 Yr Spread ((Forward-Forecast)/ Forec...											
■ Energy											
WTI Crude Spread %	-6.6	-4.2	-0.5	-0.7	24.3	15.5	9.9	13.8	6.3	-1.9	3.1
Brent Crude Spread %	-4.3	-2.4	1.5	0.5	26.6	14.3	9.8	12.8	6.2	-1.8	2.8
ULS Diesel Spread %	-6.6	-3.9	1.2	-0.2	27.0	18.3	13.3	16.1	8.6	1.9	5.6
Unleaded Gasoline Spread %	-7.4	-3.3	-1.4	-0.5	19.8	7.2	3.0	4.6	-3.5	-12.0	-2.3
■ Soft											
Sugar Spread %	-11.3	-7.7	0.2	4.1	8.4	10.1	20.8	33.9	19.5	16.6	13.0
Coffee Spread %	-9.5	-3.2	-2.2	3.2	0.0	10.3	22.8	15.1	12.4	16.9	7.3
Cotton Spread %	5.5	6.5	7.1	5.7	8.3	12.8	7.8	7.5	4.0	18.0	0.3
■ Industrial Metals											
Copper Spread % (LME)	0.6	2.0	8.7	13.2	14.5	22.2	2.0	2.3	-3.7	2.6	-0.2
Aluminum Spread %	6.7	10.7	11.5	8.1	5.9	9.2	9.3	5.3	1.0	5.0	2.5
Zinc Spread %	-1.0	4.2	9.4	13.7	25.5	34.3	22.5	19.2	16.8	18.4	5.1
Nickel Spread %	-11.2	-6.3	0.4	-9.3	4.0	19.5	11.4	12.7	3.7	17.2	0.6
■ Precious Metals											
Gold Spread %	1.2	0.7	1.1	-3.0	-8.7	-8.2	-0.3	2.9	2.3	6.2	3.3
Silver Spread %	-1.0	5.8	6.9	-2.0	-6.6	-6.4	1.4	9.6	6.1	19.9	6.0
■ Grain											
Corn Spread %	0.8	1.5	2.8	1.5	-1.9	-5.8	-0.6	-4.5	-13.7	-10.3	-1.8
Soybeans Spread %	-1.8	-3.3	3.2	2.4	0.8	4.8	2.2	-2.7	-4.3	-1.3	9.3
Wheat Spread %	1.0	2.6	5.3	0.6	-7.9	-13.4	-5.9	-9.4	-16.2	-9.1	-3.6

Data Set

Name	4/2017	3/2017	2/2017	1/2017	12/2016	11/2016	10/2016	9/2016	8/2016	7/2016	6/2016	5/2016
■ Energy												
Natural Gas Forward	3.30	3.28	3.06	3.30	3.72	3.35	3.12	3.11	3.11	3.13	2.62	2.39
WTI Crude Forward	50.4	51.7	54.7	54.5	53.7	49.7	47.3	48.9	45.7	43.2	44.9	45.2
WTI Crude Forecast	54.0	54.0	55.0	54.9	43.2	43.0	43.0	43.0	43.0	44.0	43.6	41.4
Brent Crude Forward	53.1	54.2	56.7	56.3	56.8	51.2	48.7	50.3	47.4	44.2	46.0	46.1
Brent Crude Forecast	55.5	55.5	55.9	56.0	44.9	44.8	44.4	44.6	44.6	45.0	44.8	43.7
ULS Diesel Forward	1.56	1.61	1.68	1.67	1.70	1.57	1.51	1.54	1.44	1.34	1.39	1.39
ULS Diesel Forecast	1.67	1.67	1.68	1.68	1.34	1.33	1.33	1.33	1.33	1.31	1.31	1.29
Unleaded Gasoline Forward	1.52	1.59	1.65	1.66	1.67	1.49	1.43	1.45	1.34	1.26	1.40	1.43
Unleaded Gasoline Forecast	1.65	1.65	1.67	1.67	1.39	1.39	1.39	1.39	1.39	1.43	1.43	1.43
■ Soft												
Sugar Forward	0.17	0.18	0.19	0.20	0.20	0.20	0.22	0.23	0.20	0.19	0.18	0.17
Sugar Forecast	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.17	0.17	0.17	0.16	0.14
Coffee Forward	1.36	1.44	1.47	1.55	1.37	1.48	1.65	1.52	1.47	1.48	1.36	1.23
Coffee Forecast	1.50	1.49	1.50	1.50	1.37	1.34	1.34	1.32	1.31	1.27	1.26	1.25
Cotton Forward	0.76	0.76	0.75	0.74	0.71	0.72	0.69	0.68	0.65	0.74	0.63	0.62
Cotton Forecast	0.72	0.71	0.70	0.70	0.65	0.64	0.64	0.64	0.63	0.63	0.63	0.63
■ Industrial Metals												
Copper Forward (LME)	5,768	5,847	5,958	5,981	5,526	5,815	4,848	4,862	4,614	4,926	4,778	4,691
Copper Forecast (LME)	5,732	5,735	5,480	5,283	4,826	4,760	4,752	4,750	4,792	4,800	4,790	4,862
Aluminum Forward	1,901	1,938	1,913	1,821	1,694	1,732	1,734	1,670	1,609	1,645	1,598	1,548
Aluminum Forecast	1,781	1,751	1,715	1,685	1,600	1,587	1,587	1,586	1,594	1,566	1,560	1,558
Zinc Forward	2,648	2,776	2,817	2,850	2,564	2,692	2,457	2,376	2,312	2,245	1,957	1,855
Zinc Forecast	2,676	2,665	2,575	2,506	2,043	2,005	2,005	1,994	1,979	1,898	1,862	1,821
Nickel Forward	9,618	10,120	10,909	10,011	9,975	11,214	10,451	10,558	9,751	10,630	9,069	8,517
Nickel Forecast	10,826	10,800	10,862	11,043	9,594	9,385	9,385	9,367	9,404	9,069	9,019	9,072
■ Precious Metals												
Gold Forward	1,260	1,247	1,253	1,215	1,152	1,171	1,273	1,315	1,310	1,353	1,274	1,217
Gold Forecast	1,245	1,238	1,240	1,253	1,262	1,276	1,277	1,279	1,280	1,274	1,233	1,219
Silver Forward	17.47	18.16	18.39	17.63	15.99	16.41	17.80	19.22	18.67	20.41	17.29	15.87
Silver Forecast	17.65	17.17	17.20	18.00	17.11	17.53	17.55	17.54	17.60	17.01	16.31	15.65
Platinum Forecast	1,006	1,008	1,015	1,020	1,000	1,013	1,013	1,017	1,007	998	990	990
Palladium Forecast	758.1	747.5	725.0	724.0	616.6	610.0	610.0	610.0	598.0	580.0	580.0	590.0
■ Grain												
Corn Forward	3.7	3.8	3.8	3.8	3.5	3.4	3.6	3.4	3.1	3.4	3.7	3.9
Corn Forecast	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.5	3.6	3.8	3.8	3.8
Soybeans Forward	9.7	9.7	10.3	10.2	10.0	10.3	10.1	9.6	9.5	10.1	10.7	10.1
Soybeans Forecast	9.9	10.1	10.0	10.0	9.9	9.9	9.9	9.8	9.9	10.3	9.8	9.3
Wheat Forward	4.4	4.5	4.6	4.5	4.1	3.8	4.2	4.1	3.8	4.3	4.6	4.8
Wheat Forecast	4.4	4.4	4.4	4.5	4.4	4.4	4.5	4.5	4.5	4.7	4.8	4.9

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Market Flows – Open Interest

Key Metrics

Name	Current	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	2 Year High
■ Open Interest (Aggregate - 1,000s)							
■ Single Commodities							
Palladium	35	6.1	20.7	45.8	52.2	6.1	38
Live Cattle	425	9.3	20.7	38.9	55.1	53.4	425
Silver	200	-5.7	13.0	22.0	-2.0	11.7	235
Natural Gas	1,476	7.4	26.3	18.7	33.6	43.6	1,476
Gold	475	14.5	8.2	14.2	-9.5	17.6	658
Lean Hogs	219	8.4	1.4	12.9	-2.2	-0.9	267
HRW Wheat	268	5.9	16.5	12.1	36.7	61.5	289
Gas Oil	897	-3.1	-1.6	11.9	22.5	37.0	987
Brent Crude	2,413	-1.3	0.0	11.8	7.4	21.0	2,482
Copper (CME)	247	-10.5	-11.8	10.3	41.1	60.4	301
Soybean Meal	360	-3.0	-6.0	9.4	2.9	7.8	431
Soybean Oil	407	-0.3	0.5	9.4	-0.3	5.7	479
Corn	1,340	-7.0	-1.7	8.4	-2.4	1.5	1,522
Coffee	206	6.2	12.0	7.9	12.0	10.8	228
Crude Oil	2,198	-1.2	2.5	7.2	27.3	28.0	2,240
Platinum	67	6.4	6.4	6.4	6.4	-5.6	84
Zinc	194	0.0	-1.5	5.4	23.6	4.9	224
Wheat	472	-7.3	-2.3	5.4	22.3	6.6	531
Cotton	253	-8.7	-5.6	4.6	32.5	39.0	288
Soybean	643	-9.6	-12.4	1.7	-19.6	-7.2	896
Unlead Gas	405	5.2	-8.4	1.3	4.7	5.7	444
Heating Oil	421	-1.2	-0.9	-1.9	9.4	16.6	446
Sugar	777	-4.1	-7.2	-3.5	0.3	-7.0	940
Aluminum	509	-2.9	0.2	-5.9	-4.1	-12.2	667
Copper (LME)	195	-5.8	-8.5	-6.7	14.7	16.1	234
Nickel	149	-8.0	-8.6	-6.9	-6.9	10.4	188

Historical

Name	2017 †	2016	2015	2014	2013	2012	2011	2010	2009	2008
■ BCOM	14,033	12,965	11,965	10,881	11,033	10,367	9,282	10,206	8,524	6,715
■ Sector										
■ Energy	6,896	6,282	5,357	4,598	4,868	4,468	3,772	3,643	3,167	2,880
■ Agriculture	4,719	4,493	4,563	4,211	4,090	3,876	3,418	4,399	3,447	2,352
■ Industrial Metals	1,293	1,319	1,178	1,224	1,104	1,006	1,159	1,105	1,016	861
■ Precious Metals	748	643	649	587	574	629	567	760	646	411
■ Livestock	638	501	431	481	591	578	552	534	443	369
■ Single Commodities										
Brent Crude	2,391	2,159	2,031	1,513	1,443	1,285	886	873	728	595
Crude Oil	2,198	2,051	1,671	1,468	1,616	1,473	1,328	1,430	1,193	1,189
Natural Gas	1,476	1,243	957	939	1,291	1,165	1,011	772	708	680
Corn	1,340	1,236	1,334	1,237	1,203	1,128	1,151	1,549	1,002	810
Sugar	770	805	879	836	830	754	559	613	834	357
Soybean	643	632	646	599	576	546	460	629	418	278
Aluminum	507	541	551	595	539	495	682	546	487	474
Gold	475	416	415	372	380	428	419	585	490	307
Wheat	472	448	368	371	411	456	384	492	362	251
Heating Oil	426	429	342	346	279	263	269	301	304	225
Live Cattle	420	306	265	266	327	329	317	327	265	213
Soybean Oil	406	372	384	355	340	306	273	358	211	208
Unlead Gas	405	400	355	332	239	282	277	267	235	191
Soybean Meal	360	329	402	341	262	212	194	192	162	116
HRW Wheat	268	239	193	132	154	158	139	219	145	83
Cotton	253	242	185	178	172	171	152	207	187	126
Copper (CME)	247	224	166	160	167	147	121	167	155	75
Lean Hogs	218	194	166	215	264	248	235	207	178	156
Silver	207	164	168	151	132	141	106	136	124	86
Coffee	206	191	172	160	142	144	105	140	126	123
Copper (LME)	195	209	146	155	132	130	143	196	163	140
Zinc	194	184	167	182	184	166	148	135	149	125
Nickel	149	160	148	132	81	69	65	61	62	47
Platinum	66	63	65	64	62	60	42	39	33	18
Palladium	35	24	24	33	39	29	18	23	23	12

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Market Flows – Commitment of Traders

Key Metrics

Name	Current	5 Day Change	1 Mth Change	3 Mth Change	YTD Change	1 Yr2 Yr Change	Change
Net - Managed Money Total/Disagg							
Single Commodities							
Gold	165,281	4,018	99,310	105,602	124,034	-18,806	104,628
Live Cattle	138,355	6,822	29,815	29,080	45,839	116,205	61,001
Silver	80,201	-16,344	15,129	25,092	41,103	9,981	74,671
Aluminum	180,179	-7,162	-11,102	23,117	34,389	103,299	104,426
Cotton	96,596	13,226	-9,012	9,255	20,544	64,338	47,476
Palladium	21,697	373	2,664	4,185	8,955	14,091	5,008
Natural Gas	180,810	-6,445	44,020	41,621	6,767	235,653	330,650
Platinum	6,489	-1,768	-3,790	-16,311	-1,734	-15,434	-7,031
Heating Oil	24,599	-9,367	5,269	-10,379	-8,942	25,128	38,213
Copper (LME)	52,365	-1,007	-6,409	-15,983	-15,019	18,372	28,004
Zinc	65,679	-2,268	-13,908	-20,581	-15,360	15,238	-15,837
Soybean Meal	-1,806	-4,445	-61,140	-70,191	-21,343	-32,980	-3,576
Coffee	-8,769	-13,847	-15,695	-34,510	-21,475	-15,559	-3,676
HRW Wheat	-17,233	-1,988	-32,432	-45,127	-26,318	-16,594	-4,062
Brent Crude	427,433	-9,811	21,447	-35,064	-27,152	9,357	155,504
Gasoline	20,495	-13,117	-366	-41,016	-29,596	-5,469	-5,174
Copper (CME)	39,887	728	-14,793	-51,304	-32,244	24,063	25,964
Nickel	23,321	-2,484	-6,438	-26,596	-33,911	-12,222	18,388
Lean Hogs	10,657	-7,523	-35,300	-45,167	-43,878	-26,408	-5,246
WTI Crude	255,421	-67,943	-5,156	-115,518	-52,488	6,298	-2,710
Wheat	-162,327	-20,201	-41,322	-73,628	-53,400	-101,522	-55,414
Corn	-196,257	-24,448	-114,566	-217,155	-82,609	-276,038	-103,874
Soybean Oil	-37,014	10,282	-11,849	-132,919	-122,536	-131,415	-53,787
Sugar	13,656	-17,719	-53,381	-151,475	-124,786	-141,352	51,095
Soybeans	-48,275	-2,447	-113,944	-224,685	-155,350	-208,400	-16,242

Historical

Name	2017†	2016	2015	2014	2013	2012	2011	2010	2009	2008
Net - Managed Money Total/Disagg										
BCOM	1.3M	1.8M	107,932.0	1.1M	835,105.0	791,313.0	637,042.0	1.6M	1.1M	263,141.0
Sector										
Energy	908,758.0	1.0M	95,835.0	278,790.0	623,230.0	258,739.0	230,666.0	224,236.0	185,192.0	38,894.0
Industrial Metals	361,431	423,576	90,351	218,292	35,635	14,988	-4,018	39,105	15,752	-17,586
Precious Metals	273,668	101,310	-239	153,310	70,026	171,032	134,710	232,650	252,599	118,482
Livestock	149,012	147,051	24,525	117,295	137,611	110,898	104,018	133,520	83,521	9,221
Agriculture	-361,429	225,844	-75,733	383,375	-1,048	281,653	188,257	962,170	594,114	119,945
Single Commodities										
Brent Crude	427,433	454,585	163,672	115,571	136,611	125,397	81,537			
WTI Crude	255,421	307,909	100,797	199,388	270,386	134,834	192,466	217,046	133,742	82,331
Natural Gas	180,810	174,043	-161,686	-53,308	134,994	-89,820	-124,269	-96,119	-27,225	-85,920
Aluminum	180,179	145,790	71,738	118,175						
Gold	165,281	41,247	-24,263	98,391	34,104	101,922	111,919	169,987	197,560	100,925
Live Cattle	138,355	92,516	11,081	80,102	96,771	59,569	68,105	104,412	49,281	16,394
Cotton	96,596	76,052	51,307	11,005	43,288	25,828	6,683	40,645	61,292	5,638
Silver	80,201	39,098	6,282	17,051	5,573	23,113	6,200	26,836	26,631	11,742
Zinc	65,679	81,039	20,140	49,726						
Copper (LME)	52,365	67,384	9,065	25,215						
Copper (CME)	39,887	72,131	-25,964	-4,455	35,635	14,988	-4,018	39,105	15,752	-17,586
Heating Oil	24,599	33,541	-35,339	-27,087	26,602	23,945	19,644	36,104	27,912	146
Nickel	23,321	57,232	15,372	29,631						
Palladium	21,697	12,742	8,690	19,970	15,660	16,769	5,212	13,034	11,626	
Gasoline	20,495	50,091	28,391	44,226	54,637	64,383	61,288	67,205	50,763	42,337
Sugar	13,656	138,442	165,810	-66,824	-25,626	19,000	43,792	141,534	167,357	52,014
Lean Hogs	10,657	54,535	13,444	37,193	40,840	51,329	35,913	29,108	34,240	-7,173
Platinum	6,489	8,223	9,052	17,898	14,689	29,228	11,379	22,793	16,782	5,815
Soybean Meal	-1,806	19,537	-40,843	54,132	57,931	-41,489	-15,232	40,129	35,586	7,668
Coffee	-8,769	12,706	-15,181	25,385	-8,417	-23,076	2,905	36,182	23,630	-16,072
HRW Wheat	-17,233	9,085	-14,975	24,999	8,022	23,619	9,128	49,108	9,943	8,438
Soybean Oil	-37,014	85,522	60,895	35,047	-46,649	-42,424	-2,103	56,961	29,956	-7,171
Soybeans	-48,275	107,075	-63,515	39,446	136,683	109,007	23,683	164,287	69,606	31,518
Wheat	-162,327	-108,927	-83,120	20,481	-71,468	-11,899	-29,252	36,542	-8,683	9,118
Corn	-196,257	-113,648	-136,111	239,704	-94,812	140,109	148,653	396,782	205,427	28,794

Bloomberg Commodity Index (BCOM)

Tables & Charts – April 2017 Edition

Market Flows – ETF Flows (annual)

Name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
ETFs (\$ Billion AUM)										
■ Total ETF Assets Under Management (\$...)	180.02	163.12	119.34	113.29	127.14	226.83	201.40	189.73	118.83	55.75
■ Precious Metals	147.78	130.13	93.08	87.26	97.82	191.77	168.93	152.12	84.90	43.48
■ Broad Commodity	17.26	16.69	12.20	16.57	20.53	23.19	20.90	20.12	15.01	5.56
■ Energy	11.64	13.07	11.52	5.80	4.93	7.20	6.27	10.30	12.72	4.67
■ Agriculture	1.92	2.00	1.90	2.49	2.73	3.31	4.14	5.56	4.84	1.85
■ Industrial Metals	1.38	1.19	0.62	1.14	1.08	1.31	1.07	1.56	1.27	0.10
■ Livestock	0.03	0.04	0.02	0.03	0.05	0.06	0.10	0.06	0.10	0.09
ETFs Fund Flows (\$ Billion)										
■ Total ETF Fund Flows (\$ Billion)	6.84	24.61	9.59	1.39	-43.36	20.97	5.24	18.46	39.53	15.66
■ Precious Metals	5.21	23.49	-3.90	-3.79	-39.82	19.30	9.45	17.14	21.52	9.41
■ Energy	0.70	-1.79	13.81	3.80	-3.10	1.72	-2.71	-0.50	8.17	4.73
■ Broad Commodity	0.66	2.40	0.00	1.46	-0.35	0.53	-0.89	2.23	6.48	0.91
■ Industrial Metals	0.15	0.34	-0.18	0.19	-0.09	0.25	-0.09	0.15	0.73	0.04
■ Agriculture	0.14	0.16	-0.13	-0.26	0.01	-0.80	-0.56	-0.52	2.61	0.43
■ Livestock	0.00	0.02	-0.01	-0.02	-0.01	-0.03	0.04	-0.04	0.02	0.14
DELTA WEIGHTED:										
ETFs (\$ Billion AUM) (Dw)										
■ Total ETF Assets Under Management (\$...)	185.01	165.50	120.73	113.71	126.36	228.82	201.91	191.55	120.14	56.25
■ Precious Metals	148.98	130.84	93.06	87.44	98.11	193.43	169.50	153.08	85.22	43.81
■ Broad Commodity	17.26	16.69	12.20	16.57	20.53	23.19	20.90	20.12	15.01	5.56
■ Energy	15.36	14.67	12.84	5.97	3.79	7.47	6.14	11.12	13.68	4.83
■ Agriculture	1.97	2.06	1.97	2.54	2.80	3.36	4.20	5.60	4.86	1.85
■ Industrial Metals	1.39	1.20	0.63	1.15	1.09	1.31	1.08	1.56	1.27	0.10
■ Livestock	0.03	0.04	0.02	0.03	0.05	0.06	0.10	0.06	0.10	0.09
ETFs Fund Flows (\$ Billion) (Dw)										
■ Total ETF Fund Flows (\$ Billion)	8.36	20.87	19.43	7.40	-44.70	23.09	5.31	18.96	40.60	16.88
■ Precious Metals	5.09	23.75	-3.60	-3.20	-39.01	20.15	9.33	16.75	21.68	9.45
■ Energy	2.32	-5.80	23.30	9.26	-5.30	3.00	-2.59	0.40	9.06	5.91
■ Broad Commodity	0.66	2.40	0.00	1.46	-0.35	0.53	-0.89	2.23	6.48	0.91
■ Industrial Metals	0.15	0.34	-0.17	0.19	-0.08	0.25	-0.09	0.15	0.74	0.04
■ Agriculture	0.14	0.16	-0.09	-0.29	0.06	-0.81	-0.49	-0.53	2.63	0.43
■ Livestock	0.00	0.02	-0.01	-0.02	-0.01	-0.03	0.04	-0.04	0.02	0.14

Monthly

Name	4/2017	3/2017	2/2017	1/2017	12/2016	11/2016	10/2016	9/2016	8/2016	7/2016	6/2016
ETFs (\$ Billion AUM)											
■ Total ETF Assets Under Management (\$...)	177.27	178.58	178.04	168.64	161.86	168.26	181.36	190.99	183.95	187.48	182.19
■ Precious Metals	145.00	145.37	144.47	135.49	129.65	134.92	149.96	157.69	152.11	155.71	149.01
■ Broad Commodity	17.27	17.29	17.53	17.21	16.13	15.44	15.44	15.98	15.79	16.24	15.74
■ Energy	11.67	12.51	12.52	12.56	13.01	14.76	12.82	14.20	13.00	12.40	14.46
■ Agriculture	1.92	1.94	2.08	2.00	1.86	1.91	2.07	2.14	2.08	2.12	2.20
■ Industrial Metals	1.38	1.43	1.41	1.35	1.17	1.20	1.06	0.97	0.95	0.99	0.77
■ Livestock	0.03	0.03	0.03	0.04	0.04	0.03	0.02	0.01	0.01	0.01	0.01
ETFs Fund Flows (\$ Billion)											
■ Total ETF Fund Flows (\$ Billion)	0.87	0.76	4.23	0.98	-6.93	-3.64	0.55	1.43	0.59	6.12	5.96
■ Precious Metals	1.12	0.12	3.68	0.29	-3.88	-4.67	1.35	1.61	1.41	3.78	5.74
■ Broad Commodity	0.20	0.02	0.25	0.19	0.44	-0.17	0.00	-0.45	-0.33	1.25	0.40
■ Agriculture	0.03	-0.06	0.09	0.08	-0.01	-0.09	0.01	0.01	0.04	0.05	-0.04
■ Industrial Metals	0.01	0.03	0.04	0.08	0.02	0.03	0.07	-0.03	0.01	0.19	-0.02
■ Livestock	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
■ Energy	-0.48	0.65	0.18	0.35	-3.49	1.25	-0.89	0.29	-0.53	0.85	-0.13

BCOM Constituent Weights

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Group	Commodity	Ticker	Apr 2017 Contrib to Return %	Apr 28 2017 Weight	Mar 31 2017 Weight	Mar 2017 Weight Change	2017 Target Weight
Energy	Natural Gas	NG	0.05	8.2%	7.8%	↑ 0.4%	8.0%
	WTI Crude	CL	-0.22	6.5%	6.6%	↓ -0.1%	7.2%
	Brent Crude	CO	-0.23	7.2%	7.4%	↓ -0.2%	7.8%
	ULS Diesel	HO	-0.17	3.4%	3.5%	↓ -0.1%	3.8%
	Gasoline	XB	-0.33	3.6%	3.9%	↓ -0.3%	3.8%
	Subtotal		-0.90	28.9%	29.2%	↓ -0.3%	30.6%
Grains	Corn	C	-0.10	7.6%	7.6%	↑ 0.1%	7.4%
	Soybeans	S	-0.01	5.7%	5.6%	↑ 0.1%	5.8%
	Wheat	W	-0.06	3.4%	3.4%	↑ 0.1%	3.3%
	Soybean Oil	BO	-0.02	2.6%	2.6%	↑ 0.0%	2.8%
	Soybean Meal	SM	0.03	3.0%	2.9%	↑ 0.1%	2.9%
	HRW Wheat	KW	0.01	1.2%	1.2%	↑ 0.1%	1.2%
	Subtotal		-0.15	23.4%	23.0%	↑ 0.4%	23.5%
Industrial Metals	Copper	HG	-0.17	7.8%	7.9%	↓ -0.1%	7.6%
	Aluminum	LA	-0.15	5.1%	5.2%	↓ -0.1%	4.6%
	Zinc	LX	-0.16	2.7%	2.9%	↓ -0.1%	2.7%
	Nickel	LN	-0.14	2.4%	2.5%	↓ -0.1%	2.5%
	Subtotal		-0.63	18.0%	18.5%	↓ -0.5%	17.4%
Precious Metals	Gold	GC	0.16	12.2%	11.9%	↑ 0.2%	11.2%
	Silver	SI	-0.27	4.3%	4.6%	↓ -0.2%	4.1%
	Subtotal		-0.11	16.5%	16.5%	↑ 0.0%	15.3%
Softs	Sugar	SB	-0.10	2.7%	2.8%	↓ -0.1%	3.4%
	Coffee	KC	-0.14	2.2%	2.3%	↓ -0.1%	2.4%
	Cotton	CT	0.00	1.6%	1.5%	↑ 0.0%	1.4%
	Subtotal		-0.24	6.4%	6.6%	↓ -0.2%	7.2%
Livestock	Live Cattle	LC	0.45	4.3%	3.9%	↑ 0.5%	4.0%
	Lean Hogs	LH	0.01	2.4%	2.4%	↑ 0.0%	2.1%
	Subtotal		0.46	6.8%	6.3%	↑ 0.5%	6.1%
Total		-1.57	100%	100%		100%	

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>

	2015	2014	2013	2012	2011
Demand (M*BP0)					
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
Europe	18.4	18.3	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
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>

	Current	Prev Week	1 Week Net Chg	1 Week % Chg	Prev Year
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

Precious Metal Mining: BI PMET <GO>

Indicator	Value
Avg Gold Spot Price	1,220
Known ETF Gold Hold	52,128
MFG Global Gold Reser	1,036

Agricultural Chemicals: BI AGCH <GO>

Indicator	Value
Agricultural Price Ind	1.25
U.S. Farm Net Cash In	92.40
U.S. Corn Price Future	3.60

Copper: BI COPP <GO>

Indicator	Value
China GDP YoY	7.30
YTD Copper Surplus	201,15k
Major Exch Copper Inv	599,9k

Aluminum: BI ALUM <GO>

Indicator	Value
China Industrial Prod	7.60
Global Primary Alumi	4,28k
Global Primary Alumi	4,17k

COMMODITY CHEAT SHEET FOR THE BLOOMBERG PROFESSIONAL® SERVICE

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Crop calendar	CCAL

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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