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# Commodities Buck Trump and Strong Dollar

- Commodities buck the strong dollar, shifting focus to industrials
- Industrial metals lead the optimistic commodity market to modest gains
- Trump election sparks a historic shift in metals: precious to industrial
- Energy recovers on the last day sparked by OPEC production cut signal
- Agriculture is soured by weak softs but soybeans buck harvest pressure on strong demand
- Surges to new records in copper and crude oil open interest indicate a relative value shift

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

## Industrial Metals Lead Commodity Optimism in November

Performance: Nov. +1.3%, YTD +9.8%. Spot +20.4%.  
 (returns are total return (TR) unless noted)

Led by copper and the best month for the industrial metals since September 2012 -- coincident with the worst month for bonds -- the commodity market bucked the strong dollar in November amid optimism for economic growth in a Trump administration. The [Bloomberg Commodity Index \(BCOM\)](#) gained 1.3% in November for a 2016 total return of 9.8%, on a spot increase of 20.4%. The extreme divergence of industrial metals' strength vs. precious metals' weakness should have positive macroeconomic implications.

Strength in the [U.S. dollar](#), [bond yields](#) and [stock market](#) after President-elect Donald Trump's win accelerated a shift from safe havens to industrial metals. The 10-year monthly beta of the BCOM to the [Bloomberg Dollar Spot index](#), near negative 1.6, indicated a risk of decline over 6% in November.

### Gold/Copper Ratio Spike & Coincident Yield Rallies



### Industrial Metals Top Performer, Precious the Bottom

Security	Nov. % Chg	↑ Chg	YTD %	1Yr %	2Yr %
		QTD %	Chg	Chg	Chg
Bloomberg Industrial Metals Su	+10.3%	+11.8%	+26.3%	+30.6%	-11.7%
Bloomberg Livestock Subindex T	+4.3%	+9.8%	-14.2%	-10.7%	-33.7%
Bloomberg Energy Subindex Tota	+4.3%	+1.4%	+6.6%	-4.6%	-49.2%
Bloomberg Grains Subindex Tota	-2.5%	+2.1%	-5.3%	-7.7%	-22.8%
Bloomberg Agriculture Subindex	-2.9%	+2%	+4.5%	+3.4%	-13.5%
BBG Softs TR	-7.0%	-7.8%	+17.5%	+20.6%	-2.3%
Bloomberg Precious Metals Subi	-8.0%	-12.1%	+11.9%	+11.0%	-3%

## MACRO OUTLOOK

**Reflation or Just Reversion - Commodities & Bond Yields Rallying.** Commodities and bond yields rallying in tandem is a clear signal of global economic normalization. While the [Bloomberg Commodity Index \(BCOM\)](#) total return appears to be finally recovering from an unprecedented five successive down years, the greater risk of reflation or normalization may be with the stock and bond markets. The U.S. 10-year Treasury yield jumped 55 bps in November, the greatest monthly leap since 2009, but ended the month at 2.39%, up only about 10 bps in 2016.

### Stocks Up & Bonds Down – BCOM Up

Security	Nov. % Chg	↑ Chg	YTD %	1Yr %	2Yr %
		QTD %	Chg	Chg	Chg
S&P 500 Total Return Index	+4.0%	+2.1%	+10.1%	+8.3%	11.3%
Bloomberg Dollar Spot	+3.9%	+6.1%	+1.9%	+1.4%	13.4%
MSCI World Net TR USD Index	+1.6%	-3%	+5.2%	+3.3%	2.6%
Bloomberg Commodity Index Tota	+1.3%	+8%	+9.8%	+6.4%	-23.6%
Bloomberg Barclays US Corporat	-6%	-2%	+14.8%	+11.9%	8.1%
Bloomberg Barclays U.S. Treasu	-6.7%	-10.7%	+3.2%	+3.2%	4.8%

Similar to the 1987 market crash when stocks ended the year with slight gains, Treasury bonds approach year's end with slight gains after the lowest yields in history. If economic normalization is returning, long-suffering commodities may take the baton from bonds.

# Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

## SECTOR PERFORMANCE

**Commodities Radiate Economic Optimism on New Administration.** The sharp divergence in industrial metals strength vs precious weakness was the primary performance story in November. Mean reversion was at play as beaten-up [copper](#) finally joined the metals recovery in 2016, boosting the [Bloomberg Industrial Metals Subindex](#) to 2016's lead, up 26.3%. On a two-year return basis, industrial metals remained down 12% vs. precious unchanged. Industrial-metal rallies relative to precious metals have a high correlation with increasing bond yields.

Energy prices kept to a narrow range amid optimism for OPEC production cuts. Pressured by [high negative roll yields](#), flattening [curve contangos](#) indicate improvement. Weak soft commodities, namely [sugar](#) and [coffee](#), on the back of the plunging [Brazilian real](#), pressured agricultural commodities.

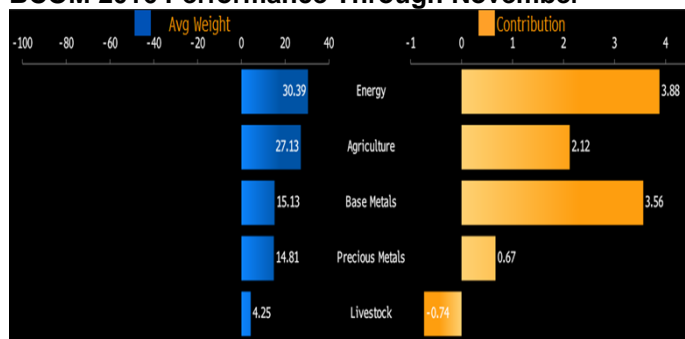
## CURVES & FLOWS

**Commodities Shift to Industrial From Precious Metals in November.** Reflecting economic optimism in a Donald Trump administration, market flows in November neared records into industrial commodities and energy, and away from safe-haven precious metals. [Copper futures open interest](#) on the LME and CME, combined, surged to a record. Outflows from precious metals ETFs reached levels not seen since 2013's gold plunge. Combined WTI crude oil and [Brent open interest](#) also leaped to records, but absent a discernible price trend, leaving it vulnerable to volatility.

The disparity of divergent strength in copper vs. weakness in gold near 30% was the month's most extreme since November 1987. The highest-velocity plunge in the gold-to-copper ratio since the 2009 financial crisis has strong inverse implications for U.S. bond yields

## ATTRIBUTION

### BCOM 2016 Performance Through November



Note, PORT data for the BCOM is a rough approximation

**Industrial Metals Run Close to Energy as Commodity Performance Leader.** The energy sprint on the last day of November nudged the sector to the top contributor to 2016 Bloomberg Commodity Index (BCOM) total returns, accounting for about 40% of total index returns with near 390 bps. The industrial metals sector is the close second with near 360 bps of total return contribution. The 68% rally in zinc is the largest metals contributor, adding about 140 bps to total returns (about the same as Brent crude) vs. 120 bps from copper. Agriculture, led by the 17.5% rally in soft commodities, is the third-highest sector-return contributor, accounting for about 210 bps. Precious metals pulled back to about 70 bps of contribution. Livestock remained the only drag on index total returns, subtracting about 70 bps.

### 2016 Spot Futures Changes – Zinc in the Lead Wheat and Live Cattle the Laggards

Name	2016↑	2015	2014	2013	2012	2011
BCOM Single Commodity Price						
Zinc	68.1%	-26.2%	6.0%	-0.5%	12.2%	-25.2%
Natural Gas	43.3%	-19.1%	-31.7%	26.2%	12.1%	-32.1%
Heating Oil	42.7%	-40.4%	-40.0%	1.1%	3.8%	15.4%
Gas Oil	37.4%	-36.3%	-45.8%	1.9%	0.3%	21.2%
Palladium	36.5%	-29.6%	11.2%	2.1%	7.2%	-18.3%
Brent Crude	35.4%	-35.0%	-48.3%	-0.3%	3.5%	13.3%
WTI Crude	32.3%	-30.5%	-45.9%	7.2%	-7.1%	8.2%
Sugar	30.0%	5.0%	-11.5%	-15.9%	-16.3%	-27.5%
Nickel	25.6%	-41.8%	9.0%	-18.6%	-9.2%	-24.2%
Copper (CME)	23.4%	-24.4%	-16.8%	-7.0%	6.3%	-22.7%
Copper (LME)	23.4%	-25.8%	-13.9%	-6.8%	4.2%	-21.2%
Soybean Oil	20.4%	-4.4%	-17.6%	-21.0%	-5.6%	-9.8%
Soybean Meal	19.7%	-27.5%	-16.7%	4.1%	35.9%	-16.4%
Silver	19.5%	-11.5%	-19.5%	-35.9%	8.3%	-9.8%
Soybeans	18.5%	-14.5%	-22.3%	-7.5%	18.4%	-14.0%
Gasoline	16.7%	-11.7%	-48.5%	-0.9%	4.7%	9.5%
Coffee	16.4%	-23.9%	50.5%	-23.0%	-36.6%	-5.7%
Aluminum	15.1%	-17.9%	4.1%	-13.9%	2.5%	-18.8%
Cotton	14.5%	5.0%	-28.8%	12.6%	-18.1%	-36.6%
Gold	10.3%	-10.5%	-1.5%	-28.3%	7.0%	10.2%
Platinum	1.8%	-26.2%	-11.8%	-10.9%	9.9%	-21.1%
Corn	-6.1%	-9.6%	-5.9%	-39.6%	8.0%	2.8%
Lean Hogs	-14.7%	-26.4%	-4.9%	-0.3%	1.7%	5.7%
HRW Wheat	-16.5%	-25.2%	-2.2%	-22.9%	15.9%	-15.7%
Live Cattle	-19.0%	-16.4%	21.5%	1.8%	8.9%	12.1%
wheat	-19.0%	-20.3%	-2.6%	-22.2%	19.2%	-17.8%

BI COMD

## Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

### Energy (Index weight: 30.4% of BCOM.

Performance: Nov. +4.3%, YTD +6.6%. Spot +34.4%)

\*Note index weights are the YTD average

## Energy Sector Teeters on Dollar, Trump, OPEC

### PERFORMANCE DRIVERS

**Energy Hangs on OPEC Despite Trump, the Dollar and Seasonals.** Energy commodities may be showing divergent strength, or are pausing to refresh the downtrend. The most significant production cut signal from OPEC since 2008 supported energy in November, despite a U.S. dollar surge and pressure due to Donald Trump's election victory and reduced energy regulation rhetoric. The [Bloomberg Energy Subindex](#) November increase of 4.3% may indicate divergent strength vs. historical trends for the month and the 3.9% surge in the [Bloomberg Dollar Spot Index](#).

### Natural Gas: The Primary Energy Gainer in November

Security	November Chg	Chg QTD %	YTD %	1Yr %	2Yr %
Bloomberg Natural Gas Subindex	+5.0%	+5.1%	-8%	-4%	-57.6%
Bloomberg Unleaded Gasoline Su	+4.6%	+1.5%	-4.1%	-7.9%	-32.4%
Bloomberg WTI Crude Oil Subind	+4.2%	+5%	+4%	-14.6%	-54.9%
Bloomberg Brent Crude Subindex	+3.7%	-6%	+15.9%	-4.6%	-48.4%
Bloomberg Heating Oil Subindex	+3.6%	+3%	+22.8%	-2%	-39.8%

The [Bloomberg Energy Subindex](#) fell an average of 3.6% in November in seven of the past 10 years. Fears of a colder-than-normal winter supported [natural gas](#), up 5.0% -- and the only energy gainer before the OPEC meeting on November 30. Since the start of 2014, the monthly beta of the energy index to the [dollar index](#) is minus 2.3.

**Energy Cage Continues to Compress, Increasing Breakout Potential.** The indication is crude oil is ripe for some volatility soon. WTI crude trades in a narrowing range of \$43-\$49 a barrel in the month, ending at the top, amid a record surge in open interest and strong ETF inflows. Over-optimism may be the greater risk. Winter-weather risks supported natural gas, offsetting some pre-OPEC pressure from WTI and Brent, which sprinted over 8% higher on the last day of November on the indication of a production cut.

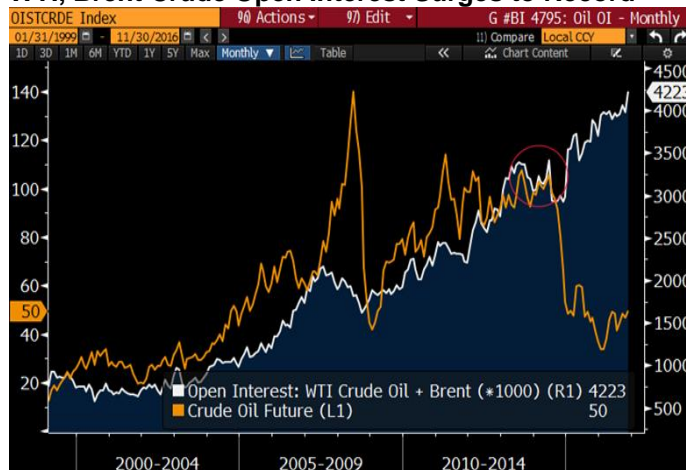
The [Bloomberg Energy Subindex](#) was up 4.3% in November, with a 2016 total return of 6.6% and a spot gain of 34.4%. The [gross annual roll yield](#) near minus 30% reflects the steep [contango-shaped futures curves](#) of the past 12 months. Brent and [WTI one-year curves](#)

narrowed to near 10% from about 17% a year ago.

### ENERGY - CURVES & FLOWS

**Record Crude Oil Open Interest May Leave the Market Vulnerable.** The most recent similar surge to new highs in combined WTI and [Brent open interest](#) occurred during the consolidation period of 2013-14, peaking in June 2014. This combined OI measure continued its climb as the market consolidated, making it more vulnerable to long liquidation. Open interest typically tracks prices, making the record shift higher absent a price trend -- a bit of an anomaly. Combined WTI and Brent crude oil open interest surged to a record high of 4.3 million contracts in November.

### WTI, Brent Crude Open Interest Surges to Record



[Long energy ETF inflows](#) in November of \$1.5 billion are the highest on a monthly basis since February. Delta weighted, total ETF energy flows were near \$3 billion. The correlation between monthly net energy ETF flows and percentage change of the [Bloomberg Energy Subindex](#) has been near negative 0.6 since 2009.

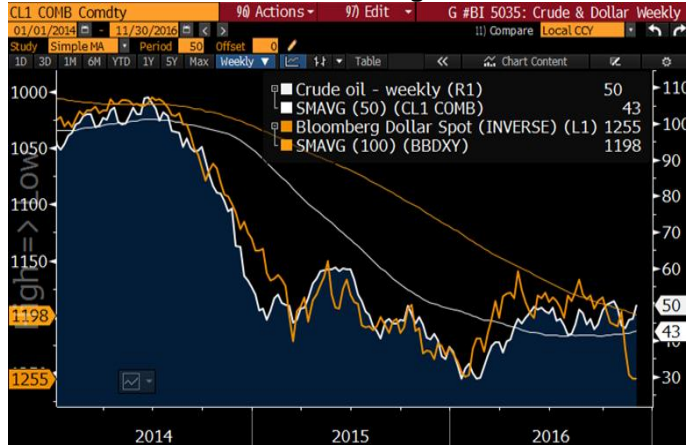
### ENERGY – OUTLOOK

**Catch-Up to Surging Dollar May Spur Crude Oil Risk Back to \$30.** Energy may either be showing divergent strength despite the recent surge in the U.S. dollar, or delaying a potential plunge back to the coincident "dollar up, energy down" trend since the start of 2014. [Crude oil](#) could trade near \$30 a barrel if it catches up to levels matching the [Bloomberg Dollar Spot index](#) at the end of November. Since the start of 2014, the Bloomberg Energy Index has declined 2.3% on average when the dollar rallied 1%.

# Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

## Crude Oil Bucks U.S. Dollar Surge in November



The Bloomberg Energy Subindex-to-Dollar Spot Index's negative beta of 2.3x suggests energy could have declined near 9% in November, based on the dollar index gain of 3.9%. [Crude oil](#) may increasingly depend upon strong signals from OPEC to curtail some catch-up to coincident trends.

## Front Energy Futures

Ticker	Last	Chg MTD %	1 Yr Ago	2 Yrs Ago	Chg Pct 1Yr	Chg YTD %
+ Generic 1st 'NG' Future	3.3	+10.6%	2.2	4.1	+49.7%	+43.2%
+ Generic 1st 'HO' Future	157.1	+5.0%	133.7	223.1	+17.5%	+42.7%
+ Generic 1st 'CL' Future	49.0	+4.5%	41.7	66.2	+17.6%	+32.2%
+ Generic 1st 'CO' Future	50.5	+4.5%	44.6	70.2	+13.1%	+35.4%
+ Generic 1st 'XB' Future	149.1	+2.8%	135.9	190.4	+9.7%	+17.7%

## Energy ETFs had Strong Inflows in Nov. Precious Metals Strong Outflows

Name	11/2016	10/2016	9/2016	8/2016	7/2016	6/2016
<b>ETFs (\$ Billion AUM)</b>						
Total ETF Assets Under Managem...	167.14	181.19	190.14	183.16	186.71	181.35
Precious Metals	134.63	149.94	157.67	152.09	155.69	149.00
Broad Commodity	15.08	15.43	15.21	15.10	15.58	15.04
Energy	14.30	12.69	14.16	12.93	12.33	14.35
Agriculture	1.92	2.07	2.14	2.08	2.12	2.20
Industrial Metals	1.18	1.04	0.95	0.94	0.97	0.75
Livestock Index	0.03	0.02	0.01	0.01	0.01	0.01
<b>ETFs Fund Flows (\$ Billion)</b>						
Total ETF Fund Flows (\$ Billion)	-3.25	0.51	1.46	0.59	6.15	5.95
Energy	-1.54	-0.93	0.32	-0.53	0.88	-0.14
Industrial Metals	0.04	0.07	-0.03	0.01	0.19	-0.02
Livestock Index	0.01	0.01	0.00	0.00	0.00	0.00
Agriculture	-0.08	0.01	0.01	0.04	0.05	-0.04
Broad Commodity	-0.20	0.00	-0.45	-0.33	1.25	0.40
Precious Metals	-4.57	1.35	1.60	1.41	3.78	5.74

# Metals

**Industrial** (Index weight: 15.1% of BCOM. Performance: November +10.3, YTD +26.3%)

**Precious** (Index weight: 14.8% of BCOM. Performance: November -8.0%, YTD +11.9%)

## Industrial Metals Take the Baton from Precious

### PERFORMANCE DRIVERS

**Trump Sparks Historic Shift in Metals: Precious to Industrial.** The extreme divergence of industrial metals' strength vs. precious metals' weakness should have positive macroeconomic implications. The 18% dispersion in the [Bloomberg Industrial Metals Subindex](#) in November, with a gain of 10.3% countered by the 8.0% decline in [precious metals](#), was the most in [BCOM index](#) history since 1991. Due to the approximate equal weight of both subindexes, the metals combined were up about 2% in November, led by a 18.9% gain in copper. Strong October [China PMI](#) was a contributing factor.

### Copper the Stud in Nov., Gold and Silver the Duds

Security	November Chg	Chg QTD %	YTD %	1Yr %	2Yr %
Bloomberg Copper Subindex Tota	+18.9%	+18.7%	+21.6%	+26.7%	-9.6%
Bloomberg Zinc Subindex Total	+9.6%	+13.1%	+65.5%	+69.9%	16.9%
Bloomberg Nickel Subindex Tota	+7.3%	+6.1%	+25.7%	+24.4%	-33.0%
Bloomberg Aluminum Subindex To	-3%	+3.3%	+12.2%	+16.5%	-20.9%
Bloomberg Silver Subindex Tota	-7.9%	-14.7%	+17.5%	+15.1%	2.8%
Bloomberg Gold Subindex Total	-8.0%	-11.1%	+9.8%	+9.3%	-1.4%

The potential for economic growth and inflation is unlikely to be bad for gold or silver -- it just may be better for industrial metals. Strength in the U.S. dollar, bond yields and stock market in the aftermath of the election of Donald Trump accelerated a shift from safe havens to industrial metals.

**Extreme Copper-Up, Silver-Down Divergence Positive Macro Signal.** Beaten-up [copper](#) revived in November to be the commodity stud of the month as measured by the 18.9% gain in the [Bloomberg Copper Subindex](#), its best month since March 2009. Copper essentially played catch-up to most other metals, coal and iron ore. On a two-year basis, copper is ending November still down 9.6% vs. best performers zinc (up 16.9%) and silver (2.8% gain). The spot price copper-up, silver-down

## Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

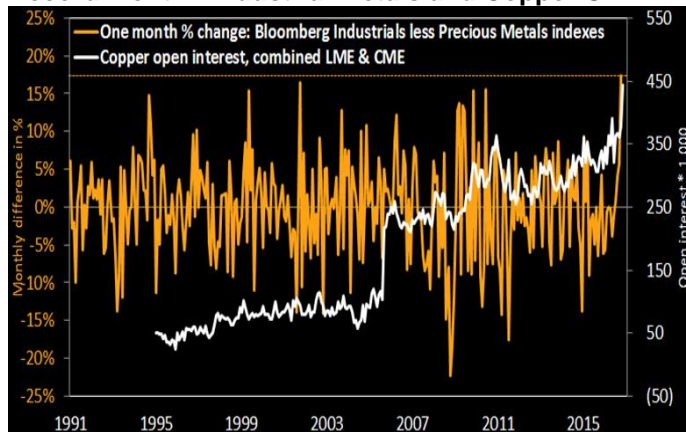
divergence near 30% on the month was the most extreme in Bloomberg data history since 1986.

March 2009, the crisis low in the stock market, was the most recent similar monthly example of copper-up, silver-down -- [LME 3-month copper](#) rallied 17% and [silver](#) declined 1%. Increasingly linked through electrical applications, more industrial copper also set new futures position records in November.

### METALS - CURVES & FLOWS

**Industrial-Precious Metal Divergence Historically Unprecedented.** Copper traded on both the CME and LME set new [futures open interest](#) (OI) and [net managed-money long-position](#) records in November, indicating potential excessive optimism in the shorter term. This also indicates the multiyear copper lows reached in February may mark a longer-term bottom for prices. Up 41% in 2016 as of the end of November, combined CME and LME copper open interest was last exceeded on an annual basis by the 48% increase in the crisis recovery year of 2009, when CME copper futures gained 137%.

#### Record Month - Industrial Metals and Copper OI



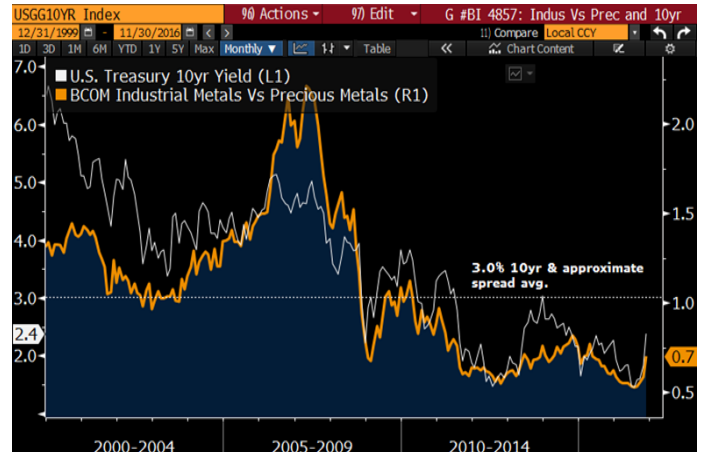
Due to its economic significance and high trading liquidity, copper is the highest-weighted metal in the [Bloomberg Industrial Metals Subindex](#) at about 40%. It also has been the leading laggard for most of 2016, unable to sustain a gain of more than 5% until November.

### METALS - OUTLOOK

**A Little Reversion: Bond Yields & Industrial vs. Precious Metals.** The November jump in bond yields and the spread between industrial metals vs. precious metals may be just a bounce from historically depressed levels or a new beginning. Historical mean reversion trends suggest markets were ripe for an excuse to revert and may be in the early stages. The past five-year high in the

U.S. Treasury 10-year yield near 3% and the average in the [Bloomberg Industrial Metals Subindex](#) divided by the precious metals spread, near 1.1 since 1991, may mark good coincident resistance levels (chart below).

#### Industrial Metals and Bond Yields Recover



With a ratio of 0.7 at the end of November, the [Bloomberg Industrial Metals Subindex](#) would have to jump about 50% relative to unchanged precious metals to return to the historic mean between the two indexes, or precious metals would have to drop by about one-third. Trump may be the spark that bottoms this ratio.

#### Open Interest 2016 Changes – Copper the leader

Name	Current	1 Yr % Change	3 Mo % Change	1 Yr % Change	2 Yr % Change	2 Year High
<b>Open Interest (Aggregate - 1,000s)</b>						
Copper (LME)	209	43	19	19	33	214
Copper (CME)	232	40	15	25	30	243
Cotton	255	38	-3	11	43	262
Lean Hogs	219	32	-4	6	9	267
HRW Wheat	248	29	-4	9	31	274
Wheat	451	23	-8	2	21	514
Natural Gas	1,164	22	2	12	16	1,193
Crude Oil	2,014	21	10	14	22	2,070
Gas Oil	823	18	-11	3	15	936
Heating Oil	395	16	-3	1	11	436
Nickel	166	12	2	1	19	188
Zinc	187	12	-7	-5	9	224
Soybean Oil	428	11	-8	7	-3	479
Soybean	709	10	13	11	2	896
Brent Crude	2,209	9	3	0	1	2,333
Live Cattle	288	9	5	13	3	323
Palladium	26	8	18	0	0	38
Coffee	186	8	-12	13	9	228
Unleaded Gas	372	5	-7	-5	1	431
Platinum	68	5	-3	-14	-11	84
Gold	411	-1	-19	-26	4	658
Silver	163	-3	-16	-15	-1	225
Corn	1,264	-5	-6	-4	-3	1,501
Aluminum	517	-6	3	-3	-10	667
Sugar	821	-7	-4	-9	-4	940
Soybean Meal	370	-8	-2	5	-12	431

## Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

**Agriculture** (Index weight: 27.1% of BCOM. Performance: November -2.9%, YTD +4.5)

**Grains** (Index Weight: 19.9% of BCOM. Performance: November -2.5%, YTD -5.3%)

**Softs** (Weight: 7.2% of BCOM. Performance: November -7.0%, YTD +17.5%)

## Record Harvests and Sugar Sour Agriculture

### PERFORMANCE DRIVERS

**Soybeans Buck Trend of Souring Ags Despite Record Harvest.** A seemingly ho-hum month for the [Bloomberg Agriculture Subindex](#), down 2.9% in November, masks some significant developments. The primary agriculture component, the soybean complex ([beans](#), [meal](#) and [oil](#)) rose despite the largest harvest in U.S. history, increasing about 3% in a month when declining prices are common. [Corn](#) and [wheat](#) were pressured by harvest selling as South American-produced [coffee](#) and [sugar](#) plunged with the [Brazilian real](#).

Sugar gave back 8%, though is still up 27% in 2016. Live cattle bounced from a six-year low to lead November agriculture gainers, lessening the [Bloomberg Livestock Subindex](#) to a 14.2% 2016 decline. The [Bloomberg Agriculture Subindex](#) ended November with a total return of 4.5% in 2016 on a spot gain of 10.2%.

### Soybean and Cattle Strength Offset by Weak Softs

Security	November Chg	Chg QTD %	YTD % Chg	1Yr % Chg	2Yr % Chg
Bloomberg Live Cattle Subindex	+7.2%	+10.7%	-10.7%	-7.7%	-26.1%
Bloomberg Soybean Oil Subindex	+4.6%	+9.8%	+15.3%	+19.7%	5.2%
Bloomberg Cotton Subindex Total	+3.1%	+4.3%	+12.0%	+13.1%	15.6%
Bloomberg Soybeans Subindex Total	+2.1%	+7.4%	+19.3%	+16.6%	2.0%
BBG Soybean Meal TR	+2%	+5.9%	+20.3%	+11.3%	-3.0%
Bloomberg Lean Hogs Subindex Total	-2%	+8.8%	-19.0%	-14.7%	-44.9%
Bloomberg Corn Subindex Total	-4.2%	+1.0%	-10.7%	-13.9%	-26.3%
Bloomberg Kansas Wheat Subindex Total	-5.1%	-5.3%	-26.8%	-27.4%	-51.7%
Bloomberg Wheat Subindex Total	-7.2%	-3.9%	-25.1%	-25.9%	-40.6%
Bloomberg Sugar Subindex Total	-8.1%	-13.8%	+24.7%	+27.3%	10.7%
Bloomberg Coffee Subindex Total	-10.2%	-2.7%	+8.4%	+14.6%	-34.1%

**Coffee Dumped With Sugar for a Full Meal of Soybeans & Oil.** [Soybean production](#) records in the U.S., the world's largest producer, failed to damp the soybean complex rally as the harvest concluded in November. Stronger [global soybean demand](#) offset harvest pressure. Prices have declined in four of the last five Novembers, by an average 2.4%. At about a 38% weight in 2016, the soybean complex is the largest component in the Bloomberg Agriculture Subindex. The more than 6%

November decline in the Brazilian real contributed to declines in coffee and sugar, primary exports.

The [Bloomberg Softs Subindex](#) November drop of 7.0% was the primary contributor to the 2.9% decline in the broad Bloomberg Agriculture Subindex. A recovery from six-year low prices in [live cattle](#) reached in October supported the [Bloomberg Livestock Subindex's](#) 4.3% gain.

### AGRICULTURE - CURVES & FLOWS

**If Record Production Doesn't Pressure Soybeans, Edible Oil Might.** Increasing production, already at a record, may be necessary to damp soybean prices, barring a reduction in demand, much of which is coming from [edible oil](#). Higher prices are among the most significant factors that can suppress demand for most commodities. Farmers typically are skeptical of bean oil-driven soybean rallies, given bean meal is the more significant demand source. Not since the 75% soybean rally in 2007 has the palm oil-to-soybean ratio been sustained above the 3.0 level reached at November's end.

### Palm Oil-to-Soybean Ratio Is Historically Elevated



With North American grain bins full, attention has shifted to the South American growing season, in the early days. With few developments of note so far, focus is shifting to the persistent rally in crude palm oil futures, which ended November near a three-year high.

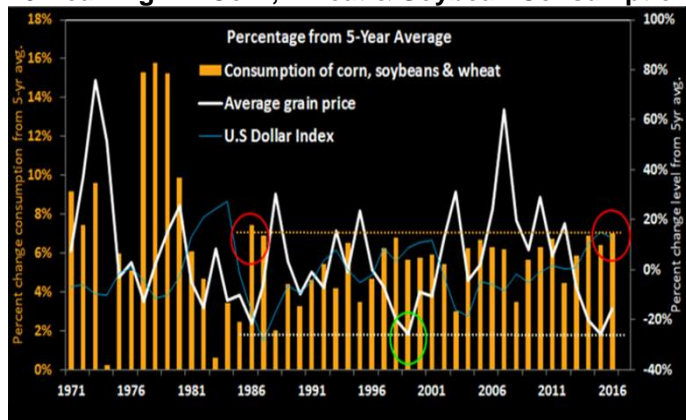
# Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

## AGRICULTURE – OUTLOOK

**Ags Increasingly Dependent on Sustaining Record Production.** Given that [record grain production](#) is highly dependent on the weather and [record demand](#) is a direct result of lower prices, historical trends favor greater volatility in production to help boost prices and suppress demand. Despite the largest U.S. soybean yield and production year in history, soybean prices have rallied in 2016. Globalization and increasing demand sources are key factors. Corn, soybeans and wheat demand are at 20-year highs.

### 20-Year High in Corn, Wheat & Soybean Consumption



Classified as an oilseed, soybeans have been supported by strong edible oil demand and shrinking supplies, evidenced by this year's 28% gain in [crude palm oil](#) futures on the Malaysia Derivatives Exchange. Higher-than-expected EPA final 2017 biofuel targets added agriculture support in November.

### BCOM Broad Indices Total Returns

Ticker	Ticker	YTD Change %	Chg MTD %	Chg Pct 1M	Chg QTD Pct	Chg Pct 1Yr	Change 2 Year Percent
+ BBG Cmtdy Spot	BCOMSP	+20.4%	+2.4%	+2.4%	+3.2%	+18.2%	-9.2
+ BBGCI-F6T	BCOMF6T	+13.8%	+1.5%	+1.5%	+1.8%	+11.0%	-15.7
+ BBGCI-F4T	BCOMF4T	+13.6%	+1.6%	+1.6%	+2.0%	+10.7%	-16.6
+ BBGCI-F5T	BCOMF5T	+13.2%	+1.5%	+1.5%	+1.7%	+10.4%	-16.4
+ BBG RollSelctT	BCOMRST	+12.6%	+1.4%	+1.4%	+1.2%	+9.2%	-19.8
+ BBG Cmtdy 2 M Fwd TR	BCOMF2T	+11.4%	+1.4%	+1.4%	+1.2%	+8.2%	-20.9
+ BBG Cmtdy 3 M Fwd TR	BCOMF3T	+11.4%	+1.2%	+1.2%	+1.0%	+8.5%	-19.7
+ BBG Cmtdy 1 M Fwd TR	BCOMF1T	+10.8%	+1.3%	+1.3%	+0.8%	+7.7%	-21.6
+ BBG Commodity TR	BCOMTR	+9.8%	+1.3%	+1.3%	+0.8%	+6.4%	-23.6

## DATA on BI COMD

### BCOM Individual Commodities Open Interest - Sorted by YTD change

Name	Current	YTD % Change	MTD % Change	3 Mth % Change	1 Yr % Change	2 Yr % Change	2 Year High
<b>Open Interest (Aggregate - 1,000s)</b>							
Copper (LME)	209	43	19	19	31	30	214
Copper (CME)	230	39	14	23	28	40	243
Cotton	255	38	-3	12	43	48	262
Lean Hogs	218	31	-5	5	8	-8	267
HRW Wheat	245	27	-5	7	28	70	274
Crude Oil	2,020	21	10	13	22	41	2,070
Wheat	444	21	-10	1	22	19	514
Natural Gas	1,154	21	1	11	14	21	1,193
Gas Oil	832	19	-10	4	16	83	936
Heating Oil	388	13	-5	0	11	5	436
Soybean	721	12	15	14	4	7	896
Zinc	186	11	-8	-7	8	4	224
Nickel	164	11	1	1	17	28	188
Soybean Oil	425	11	-9	7	-4	13	479
Live Cattle	289	9	5	13	4	-10	323
Palladium	26	8	18	0	-4	-19	38
Coffee	186	8	-12	12	8	24	228
Platinum	70	8	0	-13	-8	9	84
Brent Crude	2,187	8	2	1	0	46	2,333
Unlead Gas	365	3	-9	-6	0	17	431
Gold	406	2	-20	-27	3	9	658
Aluminum	520	-6	4	-4	-10	-18	667
Sugar	822	-6	-4	-9	-4	-2	940
Silver	157	-7	-19	-17	-3	1	225
Corn	1,237	-7	-8	-5	-4	4	1,501
Soybean Meal	368	-8	-3	5	-12	1	431

### Annualized Roll Yields - BCOM Sectors and Individual Commodities

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
<b>Sector Roll Yield</b>						
BCOM Energy	-30.0	-17.6	-8.2	-21.8	2.2	-32.2
BCOM	-11.8	-8.5	-4.9	-7.0	0.1	-11.9
BCOM Agriculture	-6.7	-6.0	-4.8	-1.8	1.2	-7.8
BCOM Softs	-5.9	-9.8	-6.5	0.6	-13.4	7.4
BCOM Industrial Metals	-2.2	-2.1	-1.8	-0.4	-2.6	0.4
BCOM Precious Metals	-1.2	-0.6	-0.6	-0.6	-0.4	-0.7
BCOM Livestock	0.2	-0.1	1.0	-0.8	-0.2	0.4
<b>Commodities Roll Yield</b>						
Natural Gas	-50.2	-26.2	-12.4	-37.8	0.7	-50.9
Crude Oil	-32.2	-23.0	-9.8	-22.4	5.3	-37.5
Gas Oil	-21.5	-13.7	-8.2	-13.3	-1.7	-19.8
Brent Crude	-20.8	-15.1	-14.3	-6.4	0.8	-21.6
Unlead Gas	-16.3	-5.7	-0.9	-15.4	1.3	-17.6
Heating Oil	-15.0	-10.8	-1.5	-13.5	-1.3	-13.7
HRW Wheat	-13.0	-11.5	-5.2	-7.9	-1.4	-11.6
Coffee	-11.4	-9.0	-5.2	-6.2	-14.5	3.1
Wheat	-8.5	-4.8	0.7	-9.2	-7.7	-0.8
Corn	-5.9	-10.2	-11.8	6.0	-6.1	0.2
Sugar	-5.4	-15.7	-8.8	3.4	-19.9	14.5
Cotton	-5.1	-1.3	1.9	-7.0	5.8	-10.9
Soybean Oil	-3.9	-3.4	-2.6	-1.3	-3.0	-0.8
Aluminum	-3.5	-6.4	-6.0	2.5	-10.2	6.7
Zinc	-3.5	-2.2	-2.2	-1.3	-4.0	0.5
Silver	-2.3	-1.1	-1.2	-1.1	-0.8	-1.5
Lean Hogs	-2.0	-2.4	-0.7	-1.3	-7.4	5.4

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

### BCOM Broad Indices Total Returns

Name	% Change on Day	YTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
<b>Commodities</b>								
BCOM Index TR	2.0	1.1	1.3	1.3	4.0	9.8	6.4	-23.6
Energy Index	6.4	6.4	4.3	4.3	5.6	6.6	-4.6	-49.2
Grains Index	-0.8	-2.5	-2.5	-2.5	6.2	-5.3	-7.7	-22.8
Industrial Metals Index	0.8	-2.3	10.3	10.3	17.6	26.3	30.6	-11.7
Precious Metals Index	-1.5	-0.5	-8.0	-8.0	-11.2	11.9	11.0	-0.3
Softs Index	0.0	-0.9	-7.0	-7.0	-0.8	17.5	20.6	-2.3
Livestock Index	1.3	-1.2	4.3	4.3	-4.7	-14.2	-10.7	-33.7
Agriculture Index	-0.5	-1.7	-2.9	-2.9	4.4	4.5	3.4	-13.5
<b>BCOM EX Indices TR</b>								
BCOM Index Roll Select TR	1.7	0.8	1.4	1.4	4.4	12.6	9.2	-19.8
BCOM Index Forwards TR	2.0	1.1	1.3	1.3	3.9	9.5	6.1	-23.9
BCOM Index ER	2.0	1.1	2.4	2.4	6.6	20.4	18.2	-9.2
Agriculture Index	-0.5	-1.7	-1.7	-1.7	6.4	10.2	9.3	-4.5
Energy Index	6.4	6.4	5.3	5.3	10.9	34.4	25.4	-22.8
Industrial Metals Index	0.8	-2.3	10.5	10.5	18.0	28.2	32.8	-7.8
Precious Metals Index	-1.5	-0.6	-7.7	-7.7	-10.9	13.1	12.1	1.5
Livestock Index	1.3	-1.2	10.9	10.9	2.4	-14.4	-10.9	-34.8
Petroleum Index	8.6	7.1	5.5	5.5	10.6	31.5	17.0	-24.2
<b>Ex Indices</b>								
<b>Stocks</b>								
S&P 500 Index TR	0.2	-0.4	4.0	4.0	2.1	10.1	8.3	11.3
<b>Bonds</b>								
Barclays U.S. Aggregate	0.1	0.4	-2.1	-2.1	-2.9	2.8	2.4	3.4
<b>Currencies</b>								
Bloomberg U.S. Dollar S...	0.5	0.1	3.9	3.9	5.7	1.9	1.4	13.4

# Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2016 Edition

## DATA on BI COMD

### Contango (-), Backwardation (+)

Name	Current	1 Yr Ago	1 Yr Change	YTD Change	MTD Change	1 Mth Change	3 Mth Change	2 Yr Change
<b>1 Year Spread % of First Contract</b>								
Heating Oil	-6.5	-15.7	9.2	18.0	1.2	1.2	0.8	-7.6
Natural Gas	-5.2	-28.4	23.2	17.3	4.5	2.3	2.3	-4.6
Gas Oil	-7.3	-14.1	6.8	16.4	0.4	-0.6	1.6	-1.6
Brent Crude	-6.1	-16.0	9.9	16.0	3.0	3.6	2.0	1.5
Crude Oil	-7.9	-17.2	9.3	12.5	1.3	0.6	2.3	-4.5
Sugar	8.0	2.7	5.2	7.1	0.4	-0.6	3.0	18.7
Cotton	3.5	-5.0	8.5	6.2	4.0	2.2	4.2	9.1
Soybean Meal	-0.4	-3.5	3.2	5.3	-0.7	-1.0	-3.4	-15.8
Soybean	1.5	-2.7	4.1	3.4	0.7	0.8	-1.4	0.1
Soybean Oil	0.1	-3.7	3.8	3.2	1.2	0.8	3.0	0.9
Zinc	-0.1	-2.8	2.7	2.8	0.4	0.4	0.0	0.9
Aluminum	-0.9	-2.7	1.8	1.9	0.7	0.9	1.8	-0.6
Live Cattle	9.9	5.3	4.6	1.8	1.3	0.1	1.5	4.4
Copper (CME)	-0.9	-1.4	0.5	0.2	0.4	0.4	0.8	-1.0
Coffee	-8.3	-10.0	1.7	0.1	-1.5	-1.5	-1.7	-3.3
Nickel	-1.5	-1.5	0.0	0.0	0.1	0.1	0.1	-0.6
Palladium	-0.5	-0.4	-0.1	-0.4	0.2	0.2	0.0	-0.3
Copper (LME)	-0.1	0.5	-0.6	-0.5	0.7	0.7	0.9	-1.7
Silver	-2.2	-1.3	-0.9	-0.7	-0.1	-0.1	0.0	-1.0
Platinum	-1.2	-0.4	-0.8	-0.8	-0.1	-0.1	-0.5	-0.7
Gold	-1.5	-0.4	-1.0	-0.9	0.0	0.0	-0.2	-1.2
Unleaded Gas	-1.3	1.5	-2.9	-2.3	0.1	0.3	4.9	-5.5
Corn	-12.8	-8.2	-4.6	-3.2	-2.9	-2.8	2.0	-1.9
HRW Wheat	-19.4	-15.7	-3.7	-4.5	-1.4	-1.2	3.1	-15.9
Lean Hogs	-13.4	-5.8	-7.6	-6.4	11.6	14.4	-11.1	-29.3
Wheat	-22.3	-13.0	-9.3	-11.9	-4.0	-2.2	2.9	-17.3

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).

### Long Only ETF AUM and Flows (monthly)

Name	11/2016	10/2016	9/2016	8/2016	7/2016	6/2016
<b>ETFs (\$ Billion AUM)</b>						
Total ETF Assets Under Manag...	167.14	181.19	190.14	183.16	186.71	181.35
Precious Metals	134.63	149.94	157.67	152.09	155.69	149.00
Industrial Metals	1.18	1.04	0.95	0.94	0.97	0.75
Energy	14.30	12.69	14.16	12.93	12.33	14.35
Broad Commodity	15.08	15.43	15.21	15.10	15.58	15.04
Agriculture	1.92	2.07	2.14	2.08	2.12	2.20
Livestock Index	0.03	0.02	0.01	0.01	0.01	0.01
<b>ETFs Fund Flows (\$ Billion)</b>						
Total ETF Fund Flows (\$ Billion)	-3.25	0.51	1.46	0.59	6.15	5.95
Precious Metals	-4.57	1.35	1.60	1.41	3.78	5.74
Industrial Metals	0.04	0.07	-0.03	0.01	0.19	-0.02
Energy	1.54	-0.93	0.32	-0.53	0.88	-0.14
Broad Commodity	-0.20	0.00	-0.45	-0.33	1.25	0.40
Agriculture	-0.08	0.01	0.01	0.04	0.05	-0.04
Livestock Index	0.01	0.01	0.00	0.00	0.00	0.00

### Long Only ETF AUM and Flows (annual)

Name	2016	2015	2014	2013	2012
<b>ETFs (\$ Billion AUM)</b>					
Total ETF Assets Under Manag...	171.01	118.80	112.84	126.60	226.47
Precious Metals	137.57	93.07	87.24	97.80	191.74
Industrial Metals	1.21	0.62	1.14	1.08	1.31
Energy	14.38	11.48	5.78	4.88	7.13
Broad Commodity	15.75	11.71	16.16	20.07	22.92
Agriculture	2.07	1.90	2.49	2.73	3.31
Livestock Index	0.03	0.02	0.03	0.05	0.06
<b>ETFs Fund Flows (\$ Billion)</b>					
Total ETF Fund Flows (\$ Billion)	31.92	9.57	1.39	-43.37	20.88
Precious Metals	27.47	-3.90	-3.79	-35.82	19.20
Industrial Metals	0.33	-0.18	0.19	-0.09	0.25
Energy	1.99	13.79	3.81	-3.11	1.72
Broad Commodity	1.94	0.00	1.46	-0.35	0.53
Agriculture	0.17	-0.13	-0.26	0.01	-0.80
Livestock Index	0.01	-0.01	-0.02	-0.01	-0.03

### Delta Weighted ETF AUM and Flows (monthly)

Name	11/2016	10/2016	9/2016	8/2016	7/2016	6/2016
<b>ETFs (\$ Billion AUM)</b>						
Total ETF Assets Under Manag...	170.49	183.65	192.87	184.88	188.83	184.55
Agriculture	1.97	2.13	2.20	2.13	2.18	2.26
Precious Metals	134.92	150.44	158.16	152.51	156.33	149.47
Industrial Metals	1.20	1.06	0.97	0.95	0.99	0.77
Energy	17.31	14.59	16.33	14.18	13.75	17.01
Broad Commodity	15.08	15.43	15.21	15.10	15.58	15.04
Livestock Index	0.01	0.00	0.00	0.00	0.00	0.00
<b>ETFs Fund Flows (\$ Billion)</b>						
Total ETF Fund Flows (\$ Billion)	-1.74	0.77	1.47	-0.44	7.42	6.26
Agriculture	-0.08	0.00	0.01	0.04	0.06	-0.05
Precious Metals	-4.57	1.51	1.62	1.47	3.71	5.82
Industrial Metals	0.04	0.07	-0.03	0.00	0.19	-0.02
Energy	3.06	-0.81	0.32	-1.63	2.22	0.10
Broad Commodity	-0.20	0.00	-0.45	-0.33	1.25	0.40
Livestock Index	0.01	0.00	0.00	0.00	0.00	0.00

### Delta Weighted ETF AUM and Flows (annual)

Name	2016	2015	2014	2013	2012	2011
<b>ETFs (\$ Billion AUM)</b>						
Total ETF Assets Under Manag...	174.16	119.84	112.86	125.99	226.78	197.83
Agriculture	2.12	1.97	2.54	2.79	3.35	4.19
Precious Metals	137.81	92.79	87.03	97.57	191.87	165.76
Industrial Metals	1.23	0.63	1.15	1.09	1.31	1.08
Energy	17.25	12.73	5.99	4.47	7.34	6.17
Broad Commodity	15.75	11.71	16.16	20.07	22.92	20.62
Livestock Index	0.01	0.00	0.00	0.00	0.00	0.00
<b>ETFs Fund Flows (\$ Billion)</b>						
Total ETF Fund Flows (\$ Billion)	32.69	17.46	4.71	-43.59	21.80	4.77
Agriculture	0.16	-0.08	-0.29	0.07	-0.82	-0.48
Precious Metals	27.59	-3.66	-3.30	-39.35	19.69	8.93
Industrial Metals	0.33	-0.17	0.19	-0.08	0.25	-0.09
Energy	2.65	21.36	6.65	-3.87	2.14	-2.70
Broad Commodity	1.94	0.00	1.46	-0.35	0.53	-0.89
Livestock Index	0.01	0.00	0.00	0.00	0.00	0.00

### Implied Volatility – Three Month

Name	Current	% Change on Day	Wtd % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change
Zinc	41.2	-4.4	73.4	62.8	79.8	74.7	41.8
Cotton	21.7	-1.3	-2.1	10.9	10.4	-0.9	24.0
Soybeans	19.3	-1.1	3.3	4.0	5.8	9.4	16.7
Soybean Oil	23.6	-0.7	1.9	15.4	15.3	15.9	13.4
Live Cattle	19.8	-2.3	2.7	-14.0	-13.7	-4.8	13.1
Copper (COMEX)	27.6	3.3	12.8	62.3	59.1	45.9	11.4
Soybean Meal	23.0	-1.8	-2.9	-2.9	-2.9	2.5	10.9
Silver	24.7	1.4	0.1	4.8	4.7	-2.5	9.0
Gold	15.9	7.9	3.2	9.3	10.3	3.4	8.2
Nickel	34.7	7.2	10.1	-13.6	21.6	18.3	6.5
Lean Hogs	27.2	-0.1	9.9	-16.1	-15.8	-4.6	4.7
Platinum	23.3	16.5	25.9	30.0	24.0	24.2	4.5
Copper (LME)	26.0	-18.4	31.7	69.5	8.6	15.7	4.4
Unleaded Gas	34.7	3.9	-8.0	5.6	5.6	-8.9	2.6
Palladium	28.7	1.9	3.0	9.6	9.1	6.6	-4.6
Natural Gas	43.7	-1.0	-5.8	-9.2	-6.6	15.1	-5.0
Aluminum	19.0	-2.1	8.0	28.3	31.5	35.9	-5.4
Wheat	21.1	0.3	-1.6	-1.2	2.3	-13.1	-7.8
HRW Wheat	20.4	2.6	-1.1	-0.8	1.5	-10.8	-8.8
Crude Oil	38.2	-13.5	-14.2	-1.2	6.0	3.1	-10.5
Corn	18.2	0.4	-0.8	-9.8	-11.8	-18.1	-10.8
Sugar	26.3	-2.0	-0.9	-4.4	-6.3	-14.6	-13.8
Coffee	28.8	-0.4	-1.6	-11.0	-10.3	-5.1	-15.3
Heating Oil	33.5	-13.1	-8.9	-1.0	7.1	2.9	-16.4
Gas Oil	34.5	-14.5	-14.0	-2.4	3.9	5.6	-17.8
Brent Crude	35.7	-18.6	-18.7	-5.8	0.6	-1.0	-17.9

### Net Managed Money Positions Total/Disaggregated

Name	Current	Change	2 M	Change	3 M	Change	YTD	Change
<b>Net - Managed Money Total/Disagagg</b>								
Natural Gas	27,556	54	-81.3	139	189,242	115	-13	
Soybeans	113,644	16	29.7	12	177,159	315	200	
Gold	121,235	-8	-11.7	-52	145,498	927	83	
Brent Crude	292,764	15	-25.1	-18	129,092	65	344	
Copper (CME)	76,346	8	647.2	3,313	102,310	355	4,178	
Aluminum	169,882	1	13.9	12	98,144	135	2	
WTI Crude	188,324	15	-35.4	18	87,527	95	16	
Corn	-60,394	29	13.7	63	75,717	39	-129	
Coffee	50,722	-4	17.7	107	65,903	359	25	
Copper (LME)	73,520	5	132.1	160	64,455	835	99	
Soybean Meal	19,377	38	41.3	-59	60,220	180	-67	
Zinc	76,584	0	-1.0	-2	56,444	603	4	
Live Cattle	58,059	32	113.3	38	46,978	933	-47	
Nickel	56,116	-3	-10.9	-9	40,744	539	48	
Heating Oil	3,359	955	-60.2	-69	38,698	107	115	
Silver	42,846	-12	-0.8	-49	36,564	383	385	
Soybean Oil	95,533	-2	-5.7	145	34,638	344	355	
Cotton	80,553	30	23.9	20	29,246	167	1,389	
HRW Wheat	10,905	450	840.9	146	25,880	145	-21	
Lean Hogs	31,931	-6	1.2	-10	18,487	189	-42	
Sugar	176,851	-19	-32.3	-34	11,041	0	597	
Palladium	12,412	34	23.5	-29	3,722	63	-34	
Platinum	8,531	-						



# PERFORMANCE: Bloomberg Commodity Indices

## Composite Indices

\* Click hyperlinks to open in Bloomberg

Index Name	Ticker	2016									
		Nov	Oct	Q3	Q2	YTD	1-Year	3-Year	5-Year	10-Year	20-Year
Bloomberg Commodity ER	<a href="#">BCOM</a>	1.30%	-0.52%	-3.94%	12.71%	9.47%	6.07%	-30.77%	-41.16%	-50.92%	-28.89%
Bloomberg Commodity TR	<a href="#">BCOMTR</a>	1.33%	-0.49%	-3.86%	12.78%	9.79%	6.40%	-30.50%	-40.85%	-47.19%	10.11%
Bloomberg Commodity Spot	<a href="#">BCOMSP</a>	2.36%	0.84%	-2.48%	15.49%	20.41%	18.23%	-17.52%	-25.36%	8.01%	170.38%
Bloomberg Roll Select	<a href="#">BCOMRST</a>	1.36%	-0.19%	-2.70%	12.56%	12.62%	9.23%	-26.14%	-35.81%	-24.95%	160.87%
1 Month Forward	<a href="#">BCOMF1T</a>	1.34%	-0.52%	-3.72%	12.88%	10.77%	7.75%	-27.75%	-36.85%	-35.34%	109.01%
2 Month Forward	<a href="#">BCOMF2T</a>	1.43%	-0.25%	-3.39%	12.56%	11.43%	8.20%	-27.47%	-38.15%	-34.40%	143.83%
3 Month Forward	<a href="#">BCOMF3T</a>	1.23%	-0.22%	-3.26%	12.29%	11.37%	8.47%	-26.43%	-36.30%	-27.22%	164.27%
4 Month Forward	<a href="#">BCOMF4T</a>	1.56%	0.46%	-2.57%	12.34%	13.58%	10.74%	-23.42%	-33.19%	-19.46%	
5 Month Forward	<a href="#">BCOMF5T</a>	1.48%	0.25%	-2.52%	12.15%	13.22%	10.39%	-24.04%	-33.38%	-17.64%	
6 Month Forward	<a href="#">BCOMF6T</a>	1.50%	0.34%	-2.08%	11.87%	13.76%	10.96%	-23.14%	-32.65%	-14.48%	
Energy	<a href="#">BCOMENTR</a>	4.26%	-2.73%	-3.66%	20.35%	6.63%	-4.58%	-58.56%	-64.40%	-85.24%	-62.16%
Petroleum	<a href="#">BCOMPETR</a>	4.01%	-3.65%	-2.04%	17.01%	8.34%	-7.27%	-61.44%	-61.31%	-67.04%	14.75%
Agriculture	<a href="#">BCOMAGTR</a>	-2.85%	3.11%	-8.10%	12.67%	4.45%	3.40%	-22.22%	-25.80%	-9.76%	-27.06%
Grains	<a href="#">BCOMGRTR</a>	-2.48%	4.70%	-13.58%	7.25%	-5.25%	-7.68%	-33.52%	-27.84%	-22.66%	-45.35%
Industrial Metals	<a href="#">BCOMINTR</a>	10.33%	1.31%	4.09%	6.11%	26.29%	30.55%	-9.79%	-28.40%	-46.13%	99.71%
Precious Metals	<a href="#">BCOMPRTTR</a>	-7.99%	-4.51%	0.24%	10.24%	11.93%	10.97%	-10.97%	-39.78%	52.56%	222.15%
Softs	<a href="#">BCOMSOTR</a>	-6.95%	-0.94%	6.86%	20.46%	17.49%	20.63%	-5.20%	-39.85%	-14.68%	-30.16%
Livestock	<a href="#">BCOMLITR</a>	4.27%	5.35%	-21.33%	-1.86%	-14.21%	-10.74%	-23.84%	-30.65%	-58.00%	-64.02%
Ex-Energy	<a href="#">BCOMXETR</a>	-0.24%	0.85%	-4.05%	9.31%	10.31%	10.67%	-15.90%	-29.35%	-13.56%	30.98%
Ex-Petroleum	<a href="#">BCOMXPET</a>	0.42%	0.62%	-4.49%	11.44%	9.21%	9.63%	-21.07%	-36.15%	-44.95%	
Ex-Natural Gas	<a href="#">BCOMXNGT</a>	0.96%	-0.46%	-3.47%	11.31%	10.69%	6.89%	-27.88%	-36.46%	-25.73%	
Ex-Agriculture	<a href="#">BCOMXAGT</a>	3.06%	-1.89%	-2.08%	12.81%	11.84%	7.27%	-34.70%	-47.07%	-60.23%	
Ex-Grains	<a href="#">BCOMXGRT</a>	2.01%	-1.35%	-2.02%	13.89%	12.75%	9.13%	-30.36%	-44.29%	-53.77%	
Ex-Industrial Metals	<a href="#">BCOMXIMT</a>	-0.49%	-0.84%	-5.34%	14.14%	6.60%	2.13%	-34.27%	-43.23%	-49.72%	
Ex-Precious Metals	<a href="#">BCOMXPMT</a>	3.02%	0.30%	-4.65%	13.28%	8.95%	5.09%	-34.19%	-41.82%	-55.33%	
Ex-Softs	<a href="#">BCOMXSOT</a>	2.10%	-0.45%	-4.76%	12.19%	9.21%	5.25%	-32.49%	-41.18%	-50.06%	
Ex-Livestock	<a href="#">BCOMXLIT</a>	1.22%	-0.69%	-3.07%	13.64%	11.14%	7.31%	-31.07%	-41.55%	-46.83%	
Ex-Agriculture & Livestock	<a href="#">BCOMXALT</a>	2.99%	-2.24%	-0.82%	14.06%	13.96%	8.61%	-35.94%	-48.60%	-61.31%	
Bloomberg Dollar Spot	<a href="#">BBDXY</a>	3.91%	2.15%	-0.23%	0.27%	1.86%	1.43%	23.00%	28.51%	23.29%	
S&P 500 Total Return	<a href="#">SPXT</a>	3.70%	-1.82%	3.85%	2.46%	9.79%	8.06%	29.75%	96.33%	94.62%	322.28%
US Aggregate	<a href="#">LBUSTRUU</a>	-2.37%	-0.76%	0.46%	2.21%	2.50%	2.17%	8.60%	12.74%	51.90%	177.19%
US Treasury	<a href="#">LUATTRUU</a>	-2.67%	-1.10%	-0.28%	2.10%	1.14%	0.98%	6.18%	7.31%	46.53%	161.01%
US Corporate	<a href="#">LUACTRUU</a>	-2.68%	-0.81%	1.41%	3.57%	5.41%	4.58%	12.31%	24.25%	67.62%	213.78%
US High Yield	<a href="#">LF98TRUU</a>	-0.47%	0.39%	5.55%	5.52%	15.01%	12.11%	13.17%	43.79%	103.69%	284.07%

## Single Commodity Indices

Index Name	Ticker	2016									
		Nov	Oct	Q3	Q2	YTD	1-Year	3-Year	5-Year	10-Year	20-Year
Natural Gas	<a href="#">BCOMNGTR</a>	4.95%	0.18%	-7.94%	30.96%	-0.81%	-0.37%	-55.89%	-74.84%	-98.32%	-99.29%
WTI Crude	<a href="#">BCOMCLTR</a>	4.21%	-3.56%	-4.89%	18.72%	0.42%	-14.58%	-65.44%	-69.81%	-78.82%	-24.11%
Brent Crude	<a href="#">BCOMCOT</a>	3.73%	-4.19%	-2.15%	19.59%	15.86%	-4.62%	-66.51%	-62.78%	-55.59%	171.40%
ULS Diesel	<a href="#">BCOMHOTR</a>	3.63%	-3.26%	-1.18%	23.18%	22.77%	-0.19%	-56.68%	-56.54%	-53.07%	26.10%
Unleaded Gasoline	<a href="#">BCOMRBTR</a>	4.65%	-3.01%	3.92%	3.08%	-4.05%	-7.87%	-51.20%	-38.13%	-24.51%	194.46%
Corn	<a href="#">BCOMCNTR</a>	-4.16%	5.37%	-10.61%	2.26%	-10.69%	-13.91%	-37.81%	-44.81%	-50.63%	-82.11%
Soybeans	<a href="#">BCOMSYTR</a>	2.06%	5.26%	-17.21%	27.77%	19.27%	16.62%	-5.84%	39.56%	132.39%	283.30%
Wheat	<a href="#">BCOMWHTR</a>	-7.24%	3.57%	-13.98%	-9.22%	-25.06%	-25.91%	-52.22%	-55.15%	-76.44%	-92.73%
Soybean Oil	<a href="#">BCOMBOTR</a>	4.56%	5.01%	4.35%	-8.94%	15.31%	19.68%	-19.02%	-37.86%	-23.44%	-23.72%
Soybean Meal	<a href="#">BCOMSMT</a>	0.16%	5.68%	-25.23%	50.33%	20.29%	11.25%	7.80%	108.27%	340.52%	1105.64%
HRW Wheat	<a href="#">BCOMKWT</a>	-5.11%	-0.15%	-7.35%	-16.21%	-26.76%	-27.40%	-57.55%	-60.24%	-68.87%	-77.61%
Copper	<a href="#">BCOMHGTR</a>	18.94%	-0.22%	0.23%	0.03%	21.58%	26.74%	-19.50%	-30.07%	-24.41%	227.31%
Aluminium	<a href="#">BCOMALTR</a>	-0.32%	3.59%	0.63%	8.13%	12.20%	16.51%	-14.71%	-39.36%	-62.91%	-29.87%
Zinc	<a href="#">BCOMZSTR</a>	9.61%	3.22%	12.64%	15.55%	65.52%	69.92%	34.66%	10.87%	-53.49%	81.15%
Nickel	<a href="#">BCOMNITR</a>	7.25%	-1.09%	11.55%	10.81%	25.73%	24.42%	-20.52%	-40.67%	-67.51%	184.25%
Gold	<a href="#">BCOMGCTR</a>	-8.01%	-3.31%	-0.74%	6.75%	9.78%	9.28%	-7.56%	-34.87%	67.06%	197.35%
Silver	<a href="#">BCOMSITR</a>	-7.94%	-7.35%	2.65%	19.86%	17.47%	15.14%	-21.11%	-52.87%	4.57%	218.03%
Sugar	<a href="#">BCOMSBTR</a>	-8.13%	-6.19%	9.85%	29.93%	24.68%	27.29%	-21.43%	-43.75%	-20.72%	10.19%
Coffee	<a href="#">BCOMKCTR</a>	-10.21%	8.34%	1.50%	10.97%	8.36%	14.77%	2.09%	-60.27%	-49.99%	-69.10%
Cotton	<a href="#">BCOMCTTR</a>	3.08%	1.17%	6.18%	10.37%	11.95%	13.12%	-3.07%	-12.67%	7.63%	-75.91%
Live Cattle	<a href="#">BCOMLCTR</a>	7.24%	3.23%	-13.30%	-4.67%	-10.73%	-7.71%	-6.35%	-16.26%	-33.85%	-15.28%
Lean Hogs	<a href="#">BCOMLHTR</a>	-0.21%	9.07%	-31.65%	1.40%	-19.00%	-14.70%	-46.01%	-49.87%	-80.76%	-92.01%

## PERFORMANCE: Bloomberg Commodity Roll Select Indices

Composite Roll Select Indices \* [Click hyperlinks to open in Bloomberg](#)

Index Name	Ticker	2016					1-Year	3-Year	5-Year	10-Year	20-Year
		Nov	Oct	Q3	Q2	YTD					
BCOM Roll Select	<a href="#">BCOMRST</a>	1.36%	-0.19%	-2.70%	12.56%	12.62%	9.23%	-26.14%	-35.81%	-24.95%	160.87%
Roll Select Agriculture	<a href="#">BCOMRAGT</a>	-2.80%	3.35%	-6.81%	11.94%	5.71%	4.63%	-21.44%	-24.72%	18.46%	33.68%
Roll Select Ex-Ags & Livestock	<a href="#">BBURXALT</a>	3.11%	-1.82%	0.25%	13.84%	17.96%	12.56%	-30.34%	-42.30%	-44.49%	
Roll Select Grains	<a href="#">BCOMRGRT</a>	-2.23%	4.29%	-11.90%	6.85%	-4.09%	-6.83%	-34.09%	-28.33%	3.15%	3.66%
Roll Select Softs	<a href="#">BCOMRSOT</a>	-7.44%	0.41%	8.01%	20.47%	21.17%	25.17%	-0.28%	-35.89%	15.34%	28.98%
Roll Select Livestock	<a href="#">BCOMRLIT</a>	2.28%	4.35%	-20.94%	-0.96%	-17.11%	-13.64%	-19.71%	-27.33%	-26.05%	41.38%
Roll Select Energy	<a href="#">BCOMRENT</a>	4.57%	-2.01%	-1.55%	19.75%	15.75%	4.29%	-49.65%	-54.59%	-70.63%	109.82%
Roll Select Ex-Energy	<a href="#">BCOMRXET</a>	-0.33%	0.91%	-3.35%	9.15%	10.74%	11.14%	-14.83%	-28.07%	8.95%	130.26%
Roll Select Petroleum	<a href="#">BCOMRPET</a>	4.72%	-2.42%	-0.62%	18.33%	17.38%	3.08%	-53.72%	-51.80%	-38.92%	346.34%
Roll Select Industrial Metals	<a href="#">BCOMRINT</a>	10.33%	1.32%	4.36%	5.96%	26.15%	30.48%	-9.16%	-26.64%	-36.00%	202.76%
Roll Select Precious Metals	<a href="#">BCOMRPRT</a>	-7.99%	-4.49%	0.29%	10.55%	12.30%	11.32%	-10.59%	-39.39%	53.31%	231.76%

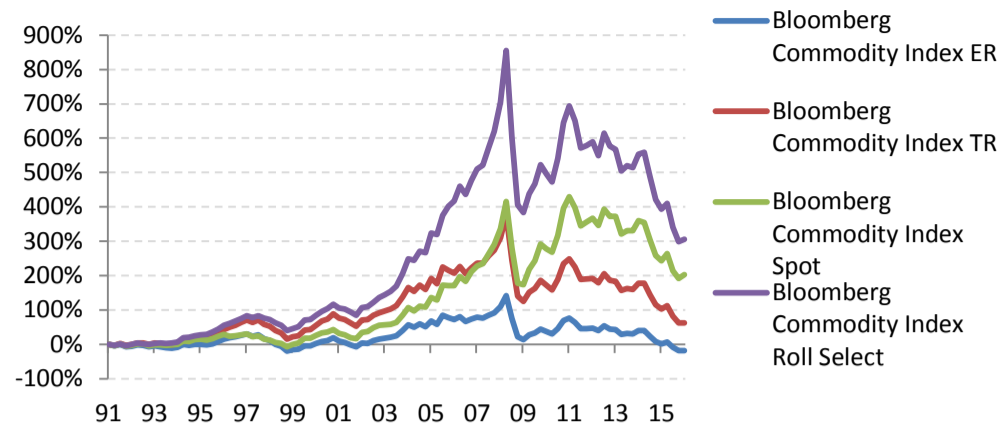
## Single Commodity Roll Select Indices

Index Name	Ticker	2016					1-Year	3-Year	5-Year	10-Year	20-Year
		Nov	Oct	Q3	Q2	YTD					
Natural Gas RS	<a href="#">BCOMRNGT</a>	4.07%	-0.93%	-4.02%	23.22%	8.27%	4.36%	-44.28%	-63.72%	-94.96%	-84.66%
WTI Crude RS	<a href="#">BCOMRCLT</a>	5.58%	-2.67%	-2.31%	19.08%	16.59%	3.74%	-53.76%	-55.88%	-44.34%	358.01%
Brent Crude RS	<a href="#">BCOMRCOT</a>	4.08%	-2.76%	-0.85%	17.65%	14.74%	-1.95%	-59.33%	-55.27%	-38.31%	388.09%
ULS Diesel RS	<a href="#">BCOMRHOT</a>	3.54%	-1.55%	-1.29%	22.75%	23.13%	1.80%	-53.90%	-54.17%	-43.98%	197.16%
Unleaded Gasoline RS	<a href="#">BCOMRRBT</a>	5.90%	-2.33%	5.15%	13.15%	19.56%	12.20%	-42.94%	-27.89%	-7.94%	529.85%
Corn RS	<a href="#">BCOMRCNT</a>	-3.89%	4.72%	-9.42%	3.48%	-9.26%	-12.81%	-38.64%	-47.96%	-35.56%	-66.23%
Soybeans RS	<a href="#">BCOMRSYT</a>	2.41%	5.41%	-14.50%	24.79%	21.19%	18.50%	-4.86%	44.88%	163.95%	370.38%
Wheat RS	<a href="#">BCOMRWHT</a>	-6.90%	2.37%	-13.20%	-9.32%	-25.36%	-26.79%	-53.38%	-55.44%	-56.73%	-67.07%
Soybean Oil RS	<a href="#">BCOMRBOT</a>	4.52%	4.78%	4.26%	-8.40%	15.55%	20.01%	-17.11%	-34.83%	-8.92%	22.40%
Soybean Meal RS	<a href="#">BCOMRSMT</a>	0.51%	5.80%	-24.24%	43.67%	17.14%	8.34%	5.03%	117.57%	397.52%	1269.74%
HRW Wheat RS	<a href="#">BCOMRKWT</a>	-5.08%	0.54%	-6.92%	-15.30%	-24.98%	-25.95%	-55.96%	-58.08%	-51.80%	-41.61%
Copper RS	<a href="#">BCOMRHGT</a>	18.91%	-0.28%	0.28%	0.09%	21.11%	26.02%	-19.96%	-30.55%	-14.88%	380.11%
Aluminium RS	<a href="#">BCOMRALT</a>	-0.45%	3.47%	1.46%	7.49%	12.19%	16.93%	-12.72%	-35.09%	-54.71%	7.07%
Zinc RS	<a href="#">BCOMRZST</a>	9.78%	3.51%	12.87%	15.54%	65.49%	70.22%	34.50%	13.23%	-42.97%	179.65%
Nickel RS	<a href="#">BCOMRNIT</a>	7.27%	-0.98%	11.41%	10.81%	25.98%	24.78%	-18.95%	-38.89%	-59.64%	373.18%
Gold RS	<a href="#">BCOMRGCT</a>	-8.03%	-3.31%	-0.68%	7.13%	10.27%	9.74%	-7.21%	-34.57%	66.90%	199.34%
Silver RS	<a href="#">BCOMRSIT</a>	-7.89%	-7.32%	2.67%	19.94%	17.53%	15.18%	-20.56%	-52.20%	7.25%	251.42%
Sugar RS	<a href="#">BCOMRSBT</a>	-9.21%	-4.11%	11.80%	29.64%	31.36%	35.57%	-12.35%	-36.34%	24.74%	135.63%
Coffee RS	<a href="#">BCOMRKCT</a>	-9.62%	8.09%	1.56%	11.07%	9.01%	15.06%	4.44%	-58.44%	-41.34%	-44.90%
Cotton RS	<a href="#">BCOMRCTT</a>	2.20%	1.07%	7.37%	11.08%	12.20%	13.72%	-3.28%	-12.54%	35.14%	-61.08%
Live Cattle RS	<a href="#">BCOMRLCT</a>	7.62%	1.45%	-12.73%	-4.67%	-11.78%	-8.90%	-9.02%	-19.55%	-9.06%	67.18%
Lean Hogs RS	<a href="#">BCOMRLHT</a>	-3.63%	9.07%	-31.72%	4.10%	-23.97%	-19.83%	-35.29%	-39.05%	-50.56%	-17.93%

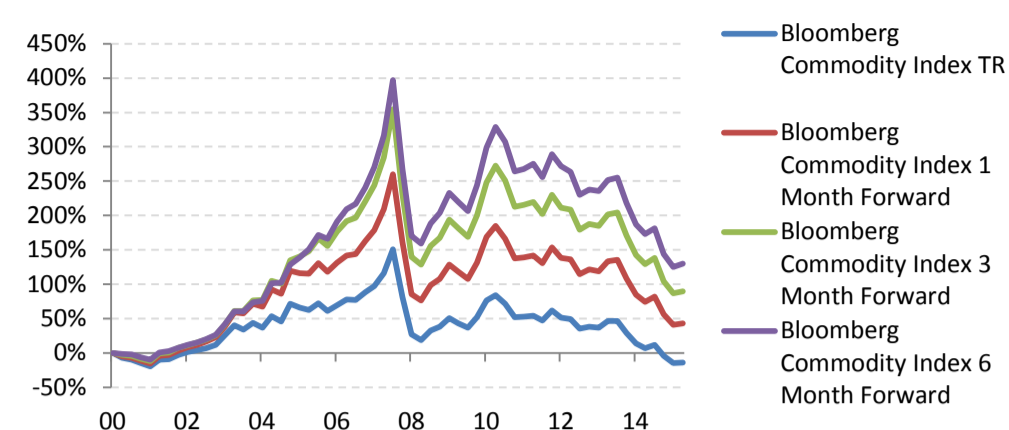
# PERFORMANCE: Historical Return

\* Click hyperlinks to open in Bloomberg

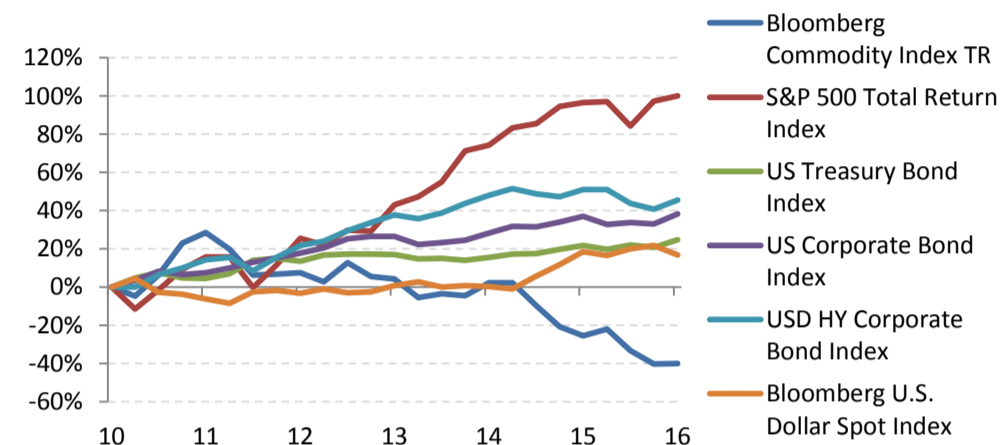
## Bloomberg Commodity Composite Indices



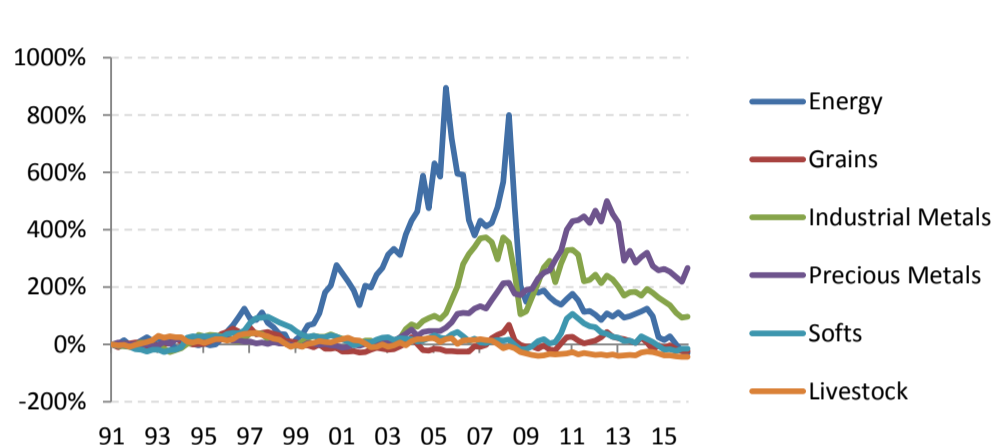
## Bloomberg Commodity Forward Indices



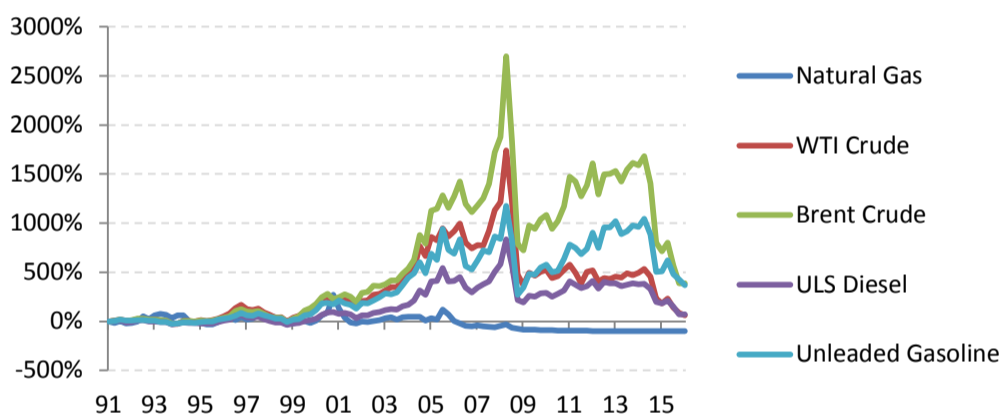
## Commodities vs. Equities vs. Bonds vs. USD



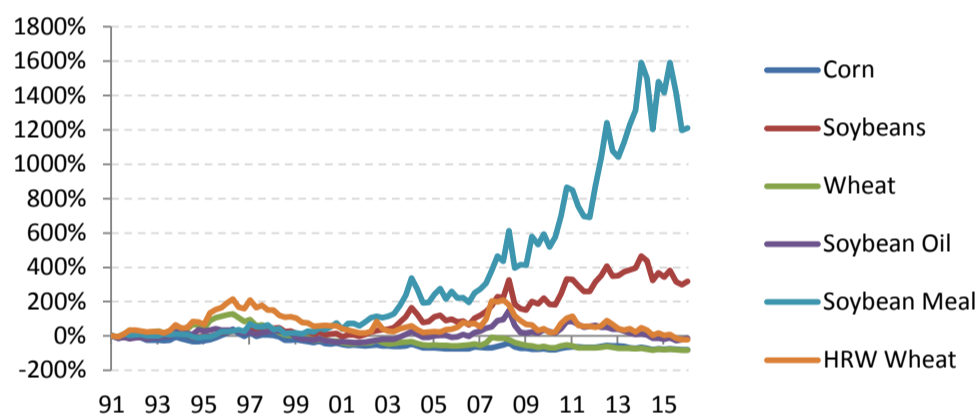
## Bloomberg Commodity Group Subindices



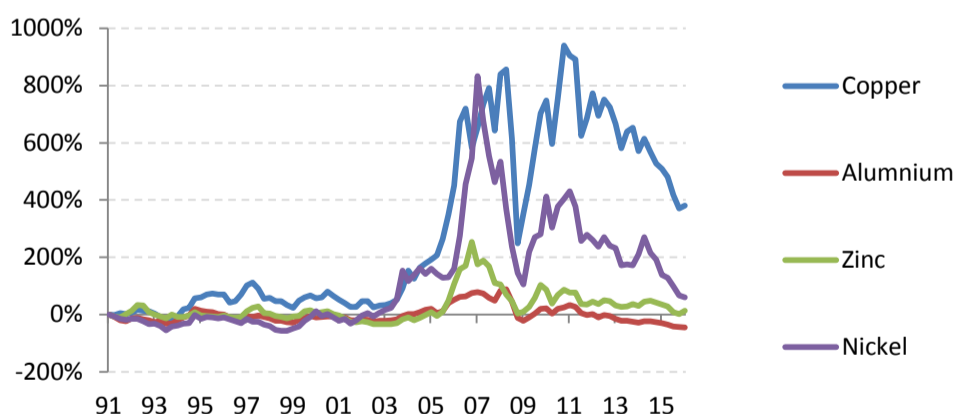
## Bloomberg Commodity Energy Subindices



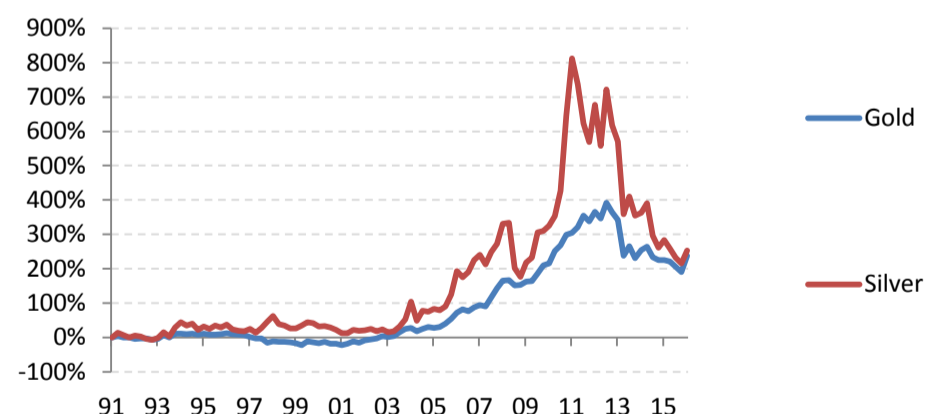
## Bloomberg Commodity Grains Subindices



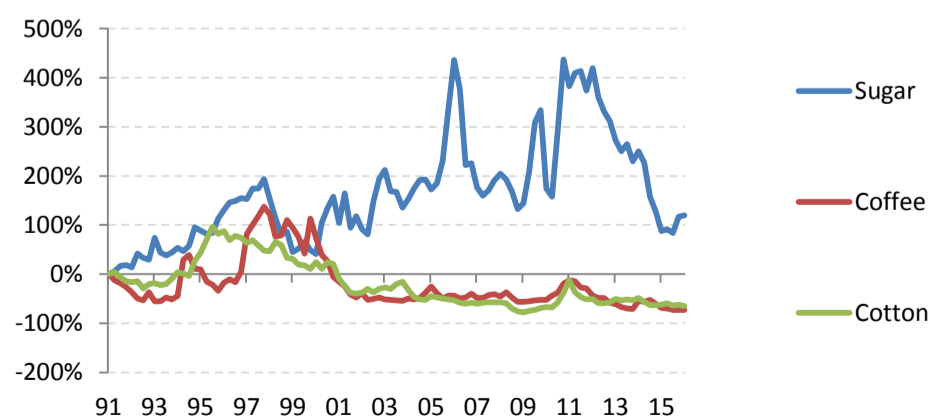
## Bloomberg Commodity Industrial Metals Subindices



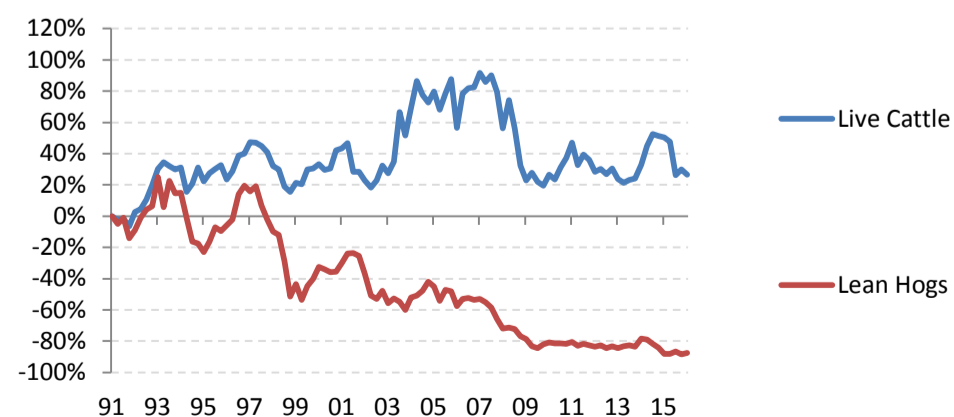
## Bloomberg Commodity Precious Metals Subindices



## Bloomberg Commodity Softs Subindices



## Bloomberg Commodity Livestock Subindices



## BCOM Constituent Weights

[BCOM Index MEMB <GO>](#) \* Click hyperlinks to open in Bloomberg

Group	Commodity	Ticker	Nov 2016 Contrib to Return %	Nov 30 2016 Weight	Oct 31 2016 Weight	Nov 2016 Weight Change	2017 Target Weight	2016 Target Weight
Energy	Natural Gas	<a href="#">NG</a>	0.47	10.0%	9.8%	↑ 0.2%	8.0%	8.4%
	WTI Crude	<a href="#">CL</a>	0.35	8.5%	8.4%	↑ 0.2%	7.2%	7.5%
	Brent Crude	<a href="#">CO</a>	0.35	9.3%	8.8%	↑ 0.5%	7.8%	7.5%
	ULS Diesel	<a href="#">HO</a>	0.16	4.5%	4.4%	↑ 0.1%	3.8%	3.8%
	Gasoline	<a href="#">XB</a>	0.17	3.8%	3.7%	↑ 0.1%	3.8%	3.7%
	<b>Subtotal</b>			<b>1.49</b>	<b>36.0%</b>	<b>35.0%</b>	<b>↑ 1.0%</b>	<b>30.6%</b>
Grains	Corn	<a href="#">C</a>	-0.26	5.9%	6.1%	↓ -0.3%	7.4%	7.4%
	Soybeans	<a href="#">S</a>	0.11	5.5%	5.5%	↓ 0.0%	5.8%	5.7%
	Wheat	<a href="#">W</a>	-0.19	2.4%	2.5%	↓ -0.1%	3.3%	3.3%
	Soybean Oil	<a href="#">BO</a>	0.12	2.9%	2.8%	↑ 0.1%	2.8%	2.8%
	Soybean Meal	<a href="#">SM</a>	0.00	2.7%	2.8%	↓ -0.1%	2.9%	2.8%
	HRW Wheat	<a href="#">KW</a>	-0.05	0.8%	0.9%	↓ 0.0%	1.2%	1.2%
<b>Subtotal</b>			<b>-0.25</b>	<b>20.2%</b>	<b>20.6%</b>	<b>↓ -0.4%</b>	<b>23.5%</b>	<b>23.2%</b>
Industrial Metals	Copper	<a href="#">HG</a>	1.28	7.8%	6.7%	↑ 1.1%	7.6%	7.6%
	Aluminum	<a href="#">LA</a>	-0.02	4.4%	4.5%	↓ -0.1%	4.6%	4.6%
	Zinc	<a href="#">LX</a>	0.32	3.6%	3.3%	↑ 0.3%	2.7%	2.5%
	Nickel	<a href="#">LN</a>	0.18	2.5%	2.4%	↑ 0.1%	2.5%	2.4%
	<b>Subtotal</b>			<b>1.75</b>	<b>18.2%</b>	<b>16.8%</b>	<b>↑ 1.4%</b>	<b>17.4%</b>
Precious Metals	Gold	<a href="#">GC</a>	-0.90	9.9%	11.0%	↓ -1.1%	11.2%	11.4%
	Silver	<a href="#">SI</a>	-0.37	4.0%	4.5%	↓ -0.4%	4.1%	4.2%
	<b>Subtotal</b>		<b>-1.27</b>	<b>14.0%</b>	<b>15.5%</b>	<b>↓ -1.5%</b>	<b>15.3%</b>	<b>15.6%</b>
Softs	Sugar	<a href="#">SB</a>	-0.37	4.0%	4.5%	↓ -0.5%	3.4%	3.6%
	Coffee	<a href="#">KC</a>	-0.27	2.3%	2.6%	↓ -0.3%	2.4%	2.3%
	Cotton	<a href="#">CT</a>	0.04	1.4%	1.4%	↑ 0.0%	1.4%	1.5%
	<b>Subtotal</b>		<b>-0.60</b>	<b>7.8%</b>	<b>8.5%</b>	<b>↓ -0.7%</b>	<b>7.2%</b>	<b>7.4%</b>
Livestock	Live Cattle	<a href="#">LC</a>	0.16	2.4%	2.2%	↑ 0.1%	4.0%	3.6%
	Lean Hogs	<a href="#">LH</a>	0.00	1.5%	1.4%	↑ 0.2%	2.1%	2.1%
	<b>Subtotal</b>		<b>0.16</b>	<b>3.9%</b>	<b>3.6%</b>	<b>↑ 0.3%</b>	<b>6.1%</b>	<b>5.6%</b>
<b>Total</b>			<b>1.29</b>	<b>100%</b>	<b>100%</b>		<b>100%</b>	<b>100%</b>

## Commodity Price Forecasts

[CPFC <GO>](#)

Bloomberg survey of commodity analysts

Group	Commodity		Q4 16	Q1 17	Q2 17	Q3 17
Energy	Natural Gas	Forward	3.10	3.30	3.25	3.26
		Forecast	2.92	3.00	3.00	3.00
	WTI Crude	Forward	48.48	51.40	52.77	53.15
		Forecast	48.00	50.00	52.50	54.00
	Brent Crude	Forward	50.07	53.06	54.13	54.55
		Forecast	50.00	51.00	54.00	55.50
	ULS Diesel	Forward	153.67	159.43	157.36	157.36
		Forecast	148.80	150.00	133.00	133.00
	Gasoline	Forward	145.07	157.93	171.76	163.16
		Forecast	142.00	155.50	170.00	167.50
Grains	Corn	Forward	345.79	350.02	359.93	371.29
		Forecast	350.00	356.00	358.50	367.50
	Soybeans	Forward	1,003.39	1,041.57	1,051.70	1,039.29
		Forecast	1,000.00	995.00	1,000.00	994.00
	Wheat	Forward	401.38	405.42	424.00	448.15
		Forecast	420.50	427.50	450.00	465.00
Industrial Metals	Copper	Forward	5,329	5,825	5,828	5,827
		Forecast	4,850	5,000	5,100	5,100
	Aluminum	Forward	1,711	1,732	1,736	1,741
		Forecast	1,630	1,652	1,657	1,675
	Zinc	Forward	2,523	2,704	2,711	2,709
		Forecast	2,203	2,284	2,308	2,296
	Nickel	Forward	10,870	11,251	11,297	11,336
		Forecast	10,450	10,655	11,062	11,115
Precious Metals	Gold	Forward	1,224	1,175	1,179	1,184
		Forecast	1,325	1,300	1,298	1,300
	Silver	Forward	17.15	16.48	16.57	16.66
		Forecast	19.00	18.55	18.66	19.30
Softs	Sugar	Forward	21.20	19.61	18.84	18.33
		Forecast	21.00	21.00	20.00	19.35
	Coffee	Forward	154.92	150.90	153.92	156.94
		Forecast	146.50	150.50	153.00	155.00
	Cotton	Forward	70.59	71.70	72.01	70.99
		Forecast	68.00	66.90	65.00	65.00

## VOLATILITY: Realized

### Composite Indices

Index Name	Ticker	1-Mon	3-Mon	1-Year	3-Year	5-Year	10-Year	20-Year
Bloomberg Commodity ER	BCOM	16.47%	13.34%	15.38%	13.71%	13.22%	17.78%	16.15%
Bloomberg Commodity TR	BCOMTR	16.48%	13.34%	15.38%	13.71%	13.22%	17.77%	16.14%
Bloomberg Commodity Spot	BCOMSP	16.20%	13.31%	15.49%	13.79%	13.28%	17.86%	16.24%
Bloomberg Roll Select	BCOMRST	15.39%	12.44%	14.06%	12.77%	12.36%	16.78%	14.75%
1 Month Forward	BCOMF1T	16.19%	13.16%	15.03%	13.37%	12.92%	17.45%	15.61%
2 Month Forward	BCOMF2T	16.01%	12.98%	14.65%	13.06%	12.64%	17.16%	15.10%
3 Month Forward	BCOMF3T	15.52%	12.72%	14.35%	12.77%	12.40%	16.88%	14.68%
4 Month Forward	BCOMF4T	15.23%	12.48%	13.98%	12.50%	12.15%	16.62%	
5 Month Forward	BCOMF5T	14.74%	12.07%	13.52%	12.07%	11.74%	16.15%	
6 Month Forward	BCOMF6T	14.74%	12.07%	13.52%	12.07%	11.74%	16.15%	
Energy	BCOMENTR	36.56%	31.06%	35.43%	30.10%	26.33%	29.40%	30.95%
Petroleum	BCOMPETR	45.96%	37.93%	42.55%	35.54%	30.30%	34.17%	33.59%
Agriculture	BCOMAGTR	12.88%	13.01%	15.33%	15.35%	16.00%	20.82%	18.39%
Grains	BCOMGRTR	17.44%	17.23%	18.96%	19.08%	20.11%	25.05%	22.56%
Industrial Metals	BCOMINTR	24.04%	17.48%	18.08%	17.15%	17.63%	24.82%	22.33%
Precious Metals	BCOMPRTTR	21.05%	17.83%	18.10%	17.21%	19.24%	22.37%	19.96%
Softs	BCOMSOTR	20.38%	18.84%	21.22%	21.42%	19.77%	22.62%	20.90%
Livestock	BCOMLITR	17.12%	22.06%	17.86%	15.87%	14.10%	14.43%	14.70%
Ex-Energy	BCOMXETR	11.88%	9.56%	10.92%	10.64%	11.62%	16.24%	13.85%
Ex-Petroleum	BCOMXPET	11.24%	8.96%	11.04%	10.78%	11.59%	16.00%	
Ex-Agriculture	BCOMXAGT	20.69%	16.85%	19.03%	16.60%	15.56%	19.51%	
Ex-Grains	BCOMXGRT	11.88%	9.56%	10.92%	10.64%	11.62%	16.24%	
Ex-Industrial Metals	BCOMXIMT	18.23%	14.87%	17.08%	15.05%	14.20%	18.38%	
Ex-Precious Metals	BCOMXPMT	17.51%	14.94%	16.52%	14.79%	14.04%	18.19%	
Ex-Softs	BCOMXSOT	19.13%	15.33%	17.83%	15.54%	14.43%	18.91%	
Ex-Livestock	BCOMXLIT	17.59%	14.12%	16.05%	14.27%	13.74%	18.31%	
Ex-Agriculture & Livestock	BCOMXALT	20.69%	16.85%	19.03%	16.60%	15.56%	19.51%	
S&P 500 Total Return Index	SPXT	10.47%	10.99%	13.93%	13.44%	13.01%	20.91%	19.65%
US Treasury Bond Index	LUATTRUU	4.82%	3.71%	4.00%	3.63%	3.51%		
USD IG Corporate Bond Index	LUACTRUU	5.40%	4.26%	4.49%	4.44%	4.43%		
USD HY Corporate Bond Index	LF98TRUU	5.02%	3.57%	5.66%	4.26%	3.79%		
Bloomberg U.S. Dollar Spot Index	BBDXY	7.55%	6.50%	6.99%	6.37%	6.09%	7.18%	

### Single Commodity Indices

Index Name	Ticker	1-Mon	3-Mon	1-Year	3-Year	5-Year	10-Year	20-Year
Natural Gas	BCOMNGTR	39.90%	34.99%	40.50%	40.38%	39.77%	42.04%	46.71%
WTI Crude	BCOMCLTR	49.59%	40.91%	45.55%	39.04%	33.51%	36.72%	35.23%
Brent Crude	BCOMCOT	47.71%	39.20%	45.19%	37.13%	31.37%	34.24%	32.78%
ULS Diesel	BCOMHOTR	40.91%	34.88%	41.94%	32.90%	28.02%	31.55%	32.97%
Unleaded Gasoline	BCOMRBTR	43.78%	36.66%	39.66%	34.47%	29.90%	34.75%	34.63%
Corn	BCOMCNTR	21.59%	22.29%	22.62%	22.58%	24.87%	30.54%	26.83%
Soybeans	BCOMSYTR	18.00%	17.05%	21.81%	20.61%	20.84%	25.00%	23.90%
Wheat	BCOMWHTR	18.28%	22.64%	24.06%	26.42%	26.64%	33.74%	29.60%
Soybean Oil	BCOMBOTR	29.96%	25.00%	21.22%	21.04%	19.86%	24.08%	23.54%
Soybean Meal	BCOMSMT	22.81%	21.37%	25.65%	24.37%	25.19%	28.32%	26.79%
HRW Wheat	BCOMKWT	18.94%	20.66%	23.00%	24.76%	25.00%	30.69%	26.85%
Copper	BCOMHGTR	26.48%	19.71%	20.53%	19.80%	20.28%	29.80%	27.33%
Aluminium	BCOMALTR	17.39%	15.67%	16.68%	16.92%	17.88%	22.65%	20.58%
Zinc	BCOMZSTR	44.11%	30.85%	27.20%	23.09%	21.89%	32.90%	28.67%
Nickel	BCOMNITR	40.25%	31.06%	31.12%	29.65%	28.08%	38.09%	35.87%
Gold	BCOMGCTR	17.57%	14.55%	16.42%	15.32%	17.15%	19.59%	17.83%
Silver	BCOMSITR	33.69%	28.12%	25.97%	25.93%	28.63%	34.65%	30.80%
Sugar	BCOMSBTR	26.43%	27.43%	31.23%	27.85%	25.81%	32.93%	32.21%
Coffee	BCOMKCTR	31.88%	27.55%	27.97%	36.42%	33.33%	31.47%	36.56%
Cotton	BCOMCTTR	14.41%	21.74%	19.79%	19.23%	21.12%	27.17%	25.99%
Live Cattle	BCOMLCTR	15.64%	22.69%	20.30%	17.00%	14.91%	14.70%	14.66%
Lean Hogs	BCOMLHTR	30.90%	38.04%	28.04%	25.72%	22.56%	23.22%	24.52%

**VOLATILITY: Implied**

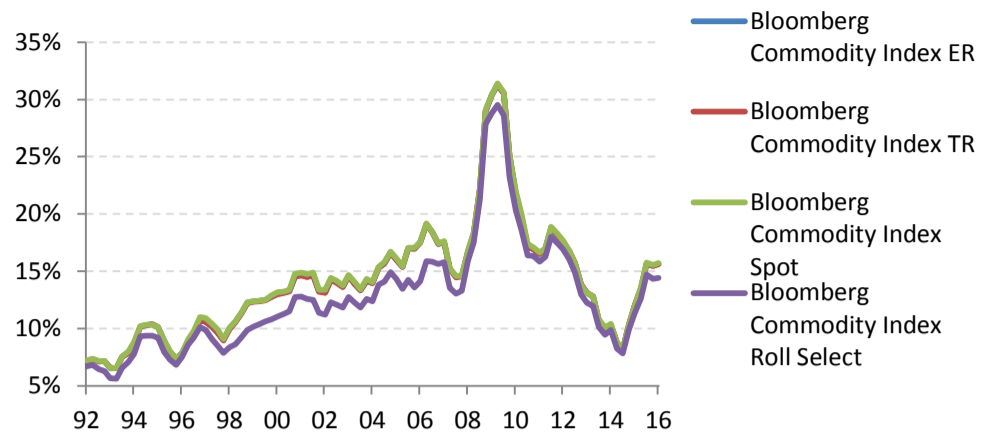
[VCA <GO>](#)

[OVDV <GO>](#)

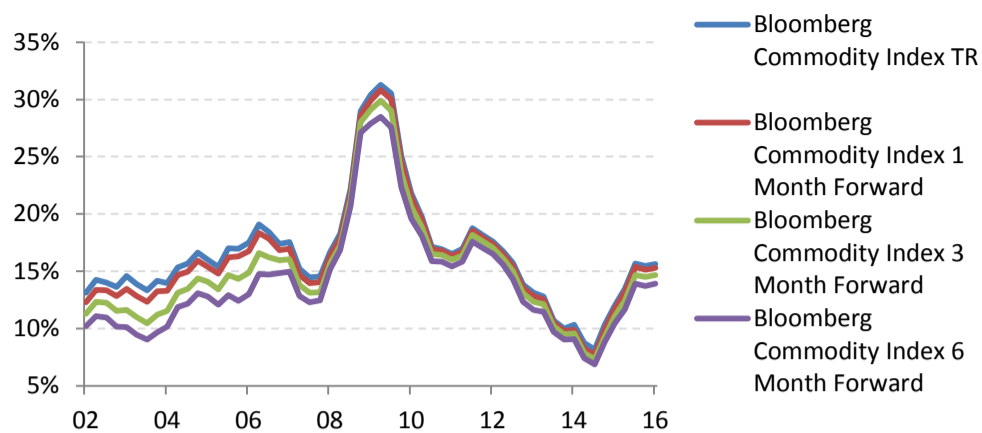
		Term	1M			3M			6M		
		Money	90%	100%	110%	90%	100%	110%	90%	100%	110%
Energy	Natural Gas	End of Nov	1%	49%	1%	0%	44%	1%	0%	35%	0%
		End of Oct	1%	45%	-1%	-1%	47%	2%	0%	34%	0%
	WTI Crude	End of Nov	4%	59%	-1%	3%	44%	-3%	2%	39%	-2%
		End of Oct	4%	36%	-2%	3%	36%	-2%	2%	35%	-2%
	Brent Crude	End of Nov	4%	57%	-3%	3%	44%	-2%	2%	39%	-2%
End of Oct		4%	34%	-2%	2%	35%	-2%	2%	35%	-2%	
ULS Diesel	End of Nov	3%	43%	-1%	0%	39%	0%	1%	35%	0%	
	End of Oct	2%	29%	-2%	1%	31%	-1%	1%	31%	-1%	
Gasoline	End of Nov	0%	45%	0%	0%	33%	0%	0%	34%	0%	
	End of Oct	1%	33%	-1%	0%	33%	0%	0%	34%	0%	
Grains	Corn	End of Nov	5%	17%	4%	1%	18%	1%	-1%	21%	1%
		End of Oct	3%	20%	3%	1%	21%	1%	0%	22%	1%
	Soybeans	End of Nov	4%	20%	3%	1%	19%	1%	0%	19%	1%
		End of Oct	3%	17%	2%	1%	18%	1%	0%	18%	1%
	Wheat	End of Nov	3%	19%	5%	-1%	21%	2%	-1%	22%	2%
		End of Oct	-2%	22%	3%	-2%	21%	2%	-2%	22%	2%
Soybean Oil	End of Nov	1%	25%	5%	-1%	24%	2%	0%	22%	1%	
	End of Oct	1%	21%	4%	0%	20%	2%	-1%	20%	1%	
Soybean Meal	End of Nov	3%	25%	3%	0%	23%	1%	0%	21%	1%	
	End of Oct	2%	27%	2%	1%	24%	1%	0%	22%	1%	
HRW Wheat	End of Nov	2%	17%	5%	-1%	20%	3%	-1%	21%	2%	
	End of Oct	1%	21%	4%	-1%	20%	2%	-1%	20%	2%	
Industrial Metals	Copper	End of Nov	1%	28%	0%	0%	27%	0%	1%	26%	0%
		End of Oct	5%	17%	1%	2%	17%	0%	1%	19%	0%
	Aluminum	End of Nov	0%	20%	2%	0%	19%	-1%	0%	19%	0%
		End of Oct	0%	15%	1%	0%	14%	0%	0%	14%	0%
Zinc	End of Nov	0%	72%	5%	0%	43%	6%	0%	37%	1%	
	End of Oct	0%	23%	-3%	0%	23%	-3%	0%	24%	-2%	
Nickel	End of Nov	0%	42%	-2%	-3%	32%	5%	-3%	32%	5%	
	End of Oct	0%	26%	0%	0%	29%	0%	0%	29%	0%	
Precious Metals	Gold	End of Nov	3%	14%	0%	1%	15%	0%	1%	16%	0%
		End of Oct	0%	14%	2%	0%	14%	1%	0%	15%	0%
Silver	End of Nov	2%	23%	2%	0%	24%	1%	1%	25%	1%	
	End of Oct	2%	22%	5%	0%	24%	2%	0%	24%	1%	
Softs	Sugar	End of Nov	4%	29%	0%	0%	27%	1%	-1%	24%	1%
		End of Oct	1%	25%	1%	-1%	28%	1%	-1%	27%	1%
	Coffee	End of Nov	1%	31%	3%	-2%	29%	2%	-2%	28%	2%
End of Oct		0%	31%	3%	-2%	32%	2%	-2%	31%	2%	
Cotton	End of Nov	0%	23%	4%	-1%	22%	2%	0%	21%	1%	
	End of Oct	2%	20%	4%	0%	20%	1%	0%	19%	0%	
Livestock	Live Cattle	End of Nov	8%	22%	1%	3%	20%	-3%	2%	18%	-2%
		End of Oct	4%	24%	0%	2%	23%	-2%	1%	21%	-2%
Lean Hogs	End of Nov	7%	24%	0%	4%	27%	-5%	3%	21%	-3%	
	End of Oct	6%	39%	-7%	4%	32%	-6%	3%	23%	-5%	

# VOLATILITY: Historical 1-Year Realized

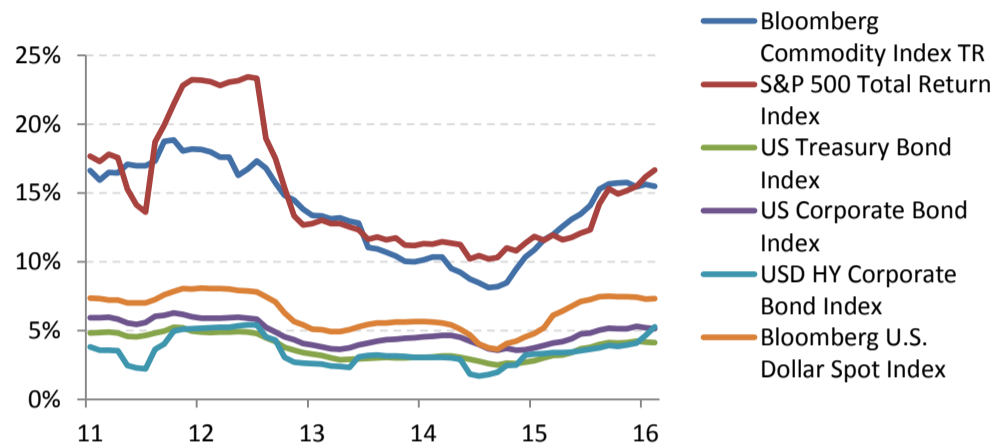
## Bloomberg Commodity Composite Indices



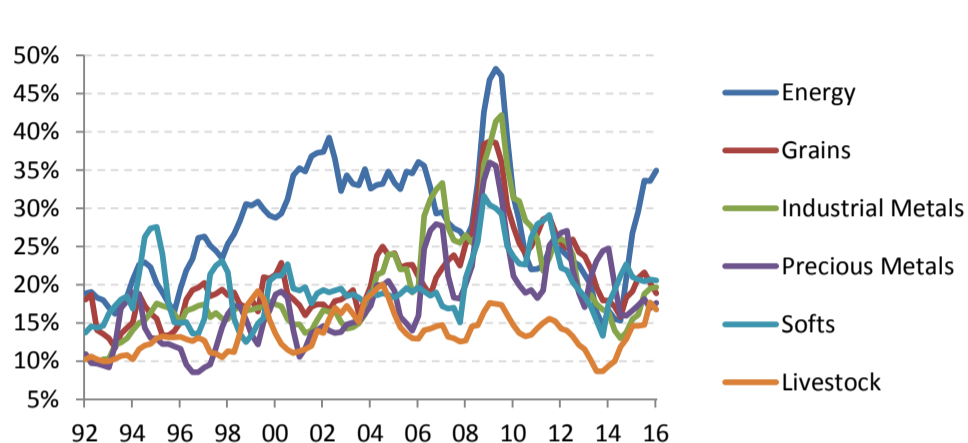
## Bloomberg Commodity Forward Indices



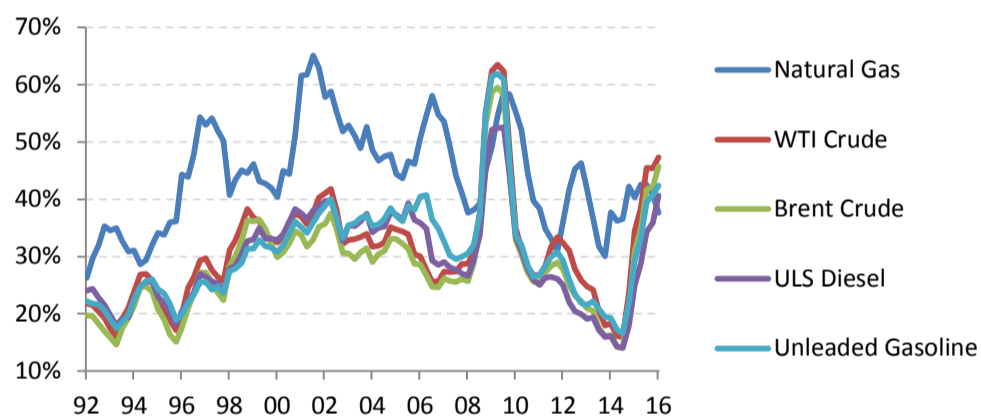
## Commodities vs. Equities vs. Bonds vs. USD



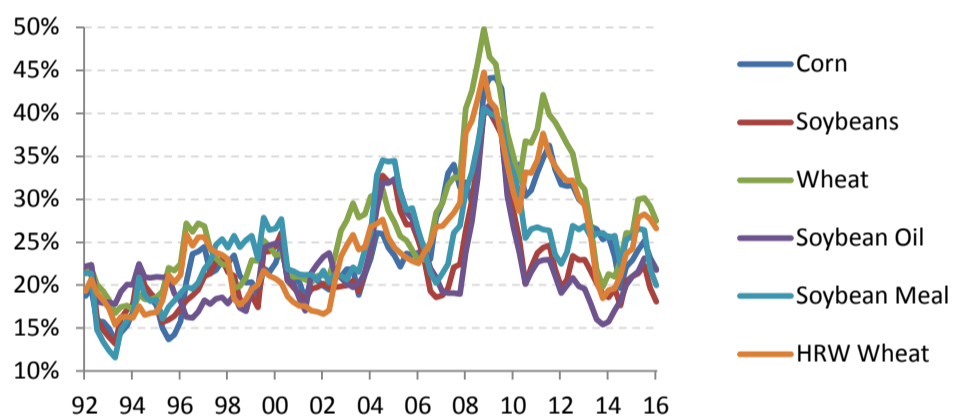
## Bloomberg Commodity Group Subindices



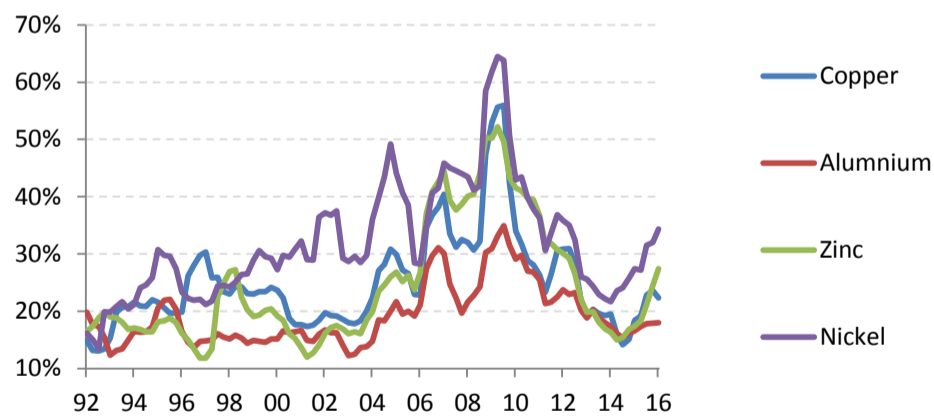
## Bloomberg Commodity Energy Subindices



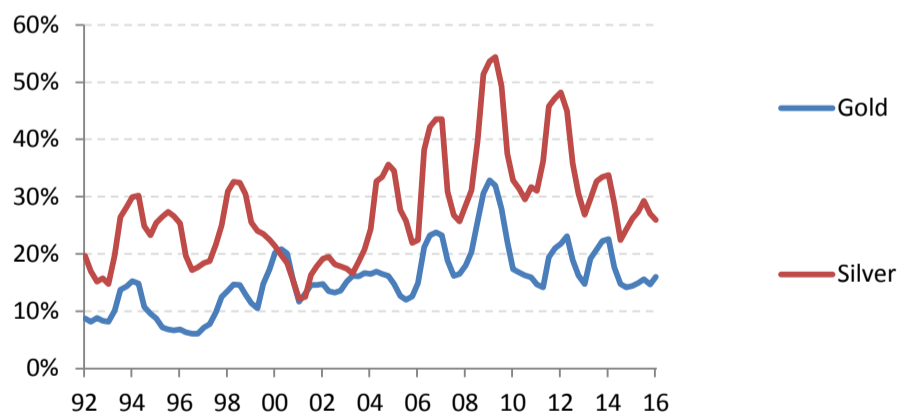
## Bloomberg Commodity Grains Subindices



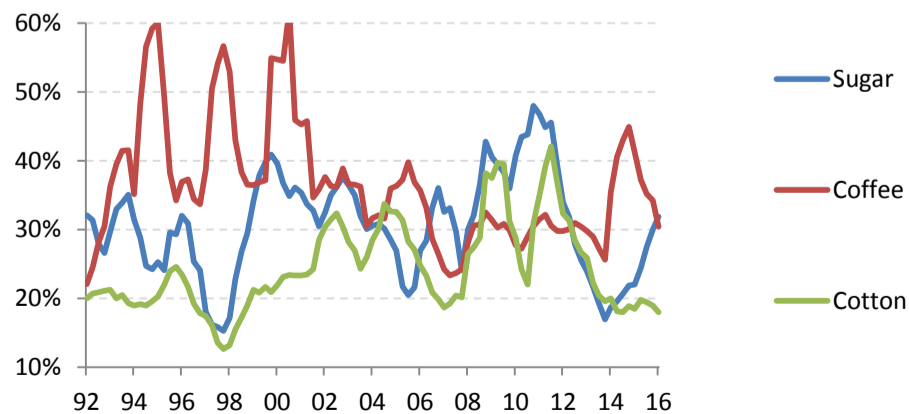
## Bloomberg Commodity Industrial Metals Subindices



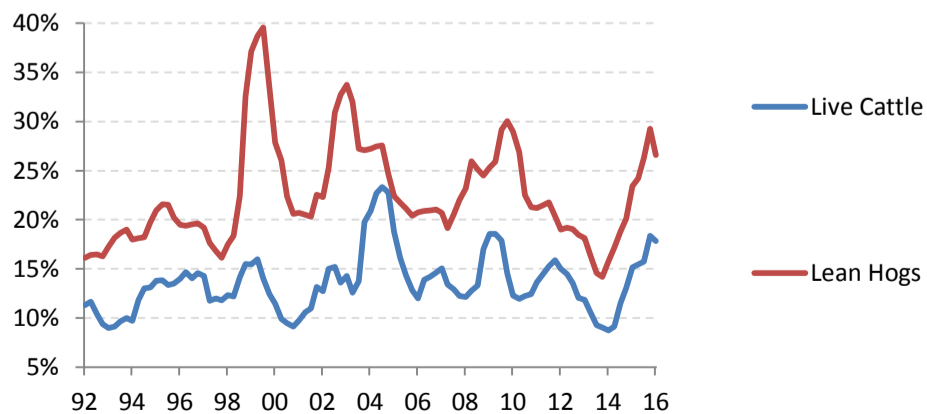
## Bloomberg Commodity Precious Metals Subindices



## Bloomberg Commodity Softs Subindices



## Bloomberg Commodity Livestock Subindices



# CORRELATION: BCOM Composites vs. Equities vs. Bond vs. Currency

1-Year		Bloomberg Commodity	Roll Select	1 Month Forward	3 Month Forward	6 Month Forward	Energy	Petroleum	Agriculture	Grains	Industrial Metals	Precious Metals	Softs	Livestock	Ex-Energy	Ex-Ags & Livestock
Commodities	Bloomberg Commodity		99%	100%	99%	99%	89%	86%	57%	45%	60%	25%	39%	18%	72%	96%
	Roll Select	99%		100%	100%	100%	87%	85%	58%	46%	61%	28%	39%	17%	74%	95%
	1 Month Forward	100%	100%		100%	99%	88%	86%	58%	46%	61%	25%	39%	18%	73%	95%
	3 Month Forward	99%	100%	100%		100%	87%	86%	58%	46%	61%	26%	39%	16%	74%	95%
	6 Month Forward	99%	100%	99%	100%		86%	86%	57%	45%	62%	28%	38%	16%	74%	95%
	Energy	89%	87%	88%	87%	86%		96%	26%	17%	37%	0%	22%	13%	33%	94%
	Petroleum	86%	85%	86%	86%	86%	96%		26%	17%	38%	0%	23%	15%	34%	91%
	Agriculture	57%	58%	58%	58%	57%	26%	26%		92%	31%	8%	53%	9%	79%	31%
	Grains	45%	46%	46%	46%	45%	17%	17%	92%		21%	3%	18%	5%	68%	21%
	Industrial Metals	60%	61%	61%	61%	62%	37%	38%	31%	21%		18%	23%	15%	69%	58%
	Precious Metals	25%	28%	25%	26%	28%	0%	0%	8%	3%	18%		9%	-7%	51%	27%
	Softs	39%	39%	39%	39%	38%	22%	23%	53%	18%	23%	9%		8%	47%	26%
	Livestock	18%	17%	18%	16%	16%	13%	15%	9%	5%	15%	-7%	8%		19%	13%
	Ex-Energy	72%	74%	73%	74%	74%	33%	34%	79%	68%	69%	51%	47%	19%		56%
Ex-Agriculture & Livestock	96%	95%	95%	95%	95%	94%	91%	31%	21%	58%	27%	26%	13%	56%		
Equities	S&P 500 Total Return Index	40%	40%	40%	40%	40%	41%	44%	18%	13%	37%	-17%	15%	19%	22%	39%
	S&P Energy	67%	66%	67%	66%	67%	73%	76%	21%	15%	42%	-4%	16%	15%	30%	71%
	S&P Financial	35%	34%	35%	35%	35%	37%	39%	15%	10%	39%	-26%	13%	14%	17%	35%
	S&P Health Care	23%	23%	23%	23%	23%	21%	24%	12%	7%	27%	-15%	11%	15%	15%	21%
	S&P Consumer Discretionary	27%	27%	27%	28%	28%	27%	30%	16%	13%	29%	-20%	12%	18%	16%	25%
	S&P IT	28%	29%	28%	29%	29%	30%	33%	16%	12%	25%	-19%	11%	17%	14%	27%
	S&P Utilities	13%	14%	13%	13%	13%	9%	8%	10%	6%	6%	12%	14%	8%	14%	11%
	S&P Consumers Staples	15%	16%	15%	15%	16%	14%	15%	9%	4%	12%	-3%	11%	17%	11%	14%
	S&P Industrials	40%	40%	40%	40%	41%	39%	41%	17%	12%	43%	-13%	14%	18%	25%	40%
	S&P Telecommunication	26%	27%	27%	27%	27%	24%	24%	12%	10%	19%	7%	8%	13%	20%	26%
S&P Materials	52%	52%	52%	52%	52%	50%	52%	23%	17%	45%	-4%	17%	16%	33%	52%	
Bond	US Treasury	-25%	-24%	-25%	-24%	-24%	-33%	-35%	-7%	-5%	-27%	33%	-5%	-5%	-3%	-27%
	USD IG Corporate	-16%	-14%	-15%	-14%	-14%	-23%	-25%	0%	-1%	-19%	24%	3%	-3%	1%	-19%
	USD HY Corporate	38%	40%	39%	40%	41%	41%	44%	19%	11%	26%	-12%	23%	11%	19%	38%
Currency	Bloomberg U.S. Dollar Spot	-39%	-40%	-40%	-40%	-41%	-25%	-26%	-27%	-20%	-25%	-39%	-26%	1%	-43%	-36%
	EURUSD	17%	18%	18%	18%	18%	3%	2%	15%	9%	16%	39%	19%	1%	31%	15%
	JPYUSD	-7%	-7%	-7%	-8%	-7%	-19%	-20%	-1%	0%	-12%	54%	1%	-10%	14%	-7%
	CADUSD	62%	62%	62%	62%	62%	53%	56%	27%	20%	44%	28%	22%	9%	48%	62%
	MXNUSD	49%	50%	50%	51%	51%	44%	47%	33%	26%	34%	4%	25%	0%	36%	46%
	GBPUSD	28%	29%	29%	29%	30%	24%	26%	12%	8%	28%	5%	11%	3%	21%	28%
	AUDUSD	47%	48%	48%	48%	49%	32%	36%	31%	20%	49%	26%	29%	8%	50%	44%
	CHFUSD	6%	7%	6%	7%	7%	-8%	-8%	7%	2%	7%	40%	15%	-4%	23%	5%
KRWUSD	37%	38%	38%	38%	39%	23%	24%	24%	14%	34%	30%	28%	3%	41%	34%	
CNYUSD	19%	19%	19%	19%	19%	11%	12%	14%	10%	21%	13%	15%	6%	23%	17%	

5-Year		Bloomberg Commodity	Roll Select	1 Month Forward	3 Month Forward	6 Month Forward	Energy	Petroleum	Agriculture	Grains	Industrial Metals	Precious Metals	Softs	Livestock	Ex-Energy	Ex-Ags & Livestock
Commodities	Bloomberg Commodity		99%	100%	99%	98%	82%	78%	62%	53%	60%	45%	39%	21%	80%	93%
	Roll Select	99%		99%	99%	99%	80%	77%	62%	53%	62%	47%	40%	20%	81%	93%
	1 Month Forward	100%	99%		100%	99%	81%	77%	63%	53%	61%	46%	40%	20%	80%	93%
	3 Month Forward	99%	99%	100%		100%	79%	77%	63%	53%	62%	48%	40%	20%	81%	92%
	6 Month Forward	98%	99%	99%	100%		78%	77%	61%	52%	63%	49%	40%	19%	81%	92%
	Energy	82%	80%	81%	79%	78%		89%	23%	17%	30%	13%	17%	13%	31%	90%
	Petroleum	78%	77%	77%	77%	77%	89%		23%	16%	36%	17%	20%	13%	35%	84%
	Agriculture	62%	62%	63%	63%	61%	23%	23%		94%	26%	19%	51%	11%	80%	31%
	Grains	53%	53%	53%	53%	52%	17%	16%	94%		18%	13%	21%	9%	70%	22%
	Industrial Metals	60%	62%	61%	62%	63%	30%	36%	26%	18%		39%	24%	12%	69%	61%
	Precious Metals	45%	47%	46%	48%	49%	13%	17%	19%	13%	39%		17%	3%	63%	47%
	Softs	39%	40%	40%	40%	40%	17%	20%	51%	21%	24%	17%		9%	48%	25%
	Livestock	21%	20%	20%	20%	19%	13%	13%	11%	9%	12%	3%	9%		22%	14%
	Ex-Energy	80%	81%	80%	81%	81%	31%	35%	80%	70%	69%	63%	48%	22%		60%
Ex-Agriculture & Livestock	93%	93%	93%	92%	92%	90%	84%	31%	22%	61%	47%	25%	14%	60%		
Equities	S&P 500 Total Return Index	33%	33%	33%	34%	35%	29%	36%	14%	9%	34%	5%	13%	10%	24%	33%
	S&P Energy	57%	57%	57%	57%	57%	60%	66%	19%	13%	38%	15%	19%	9%	32%	61%
	S&P Financial	28%	29%	29%	30%	30%	26%	32%	11%	7%	34%	0%	13%	8%	20%	29%
	S&P Health Care	17%	18%	18%	18%	19%	14%	19%	8%	5%	22%	0%	8%	8%	14%	17%
	S&P Consumer Discretionary	23%	24%	24%	24%	25%	20%	27%	11%	8%	28%	-1%	9%	9%	18%	23%
	S&P IT	26%	27%	26%	27%	28%	22%	29%	12%	8%	29%	4%	11%	9%	20%	26%
	S&P Utilities	11%	12%	12%	12%	12%	9%	10%	5%	4%	8%	9%	8%	1%	10%	12%
	S&P Consumers Staples	17%	18%	18%	18%	19%	14%	18%	8%	5%	19%	4%	9%	8%	14%	17%
	S&P Industrials	31%	32%	32%	33%	33%	26%	33%	14%	9%	37%	5%	13%	9%	25%	32%
	S&P Telecommunication	19%	20%	20%	20%	21%	17%	21%	7%	5%	18%	6%	7%	7%	14%	20%
S&P Materials	43%	44%	44%	44%	45%	36%	44%	17%	12%	42%	17%	17%	10%	34%	44%	
Bond	US Treasury	-20%	-20%	-21%	-21%	-21%	-23%	-27%	-9%	-7%	-24%	15%	-4%	-6%	-9%	-21%
	USD IG Corporate	-13%	-13%	-13%	-13%	-13%	-17%	-20%	-4%	-4%	-16%	14%	1%	-4%	-4%	-14%
	USD HY Corporate	29%	30%	30%	31%	32%	25%	30%	17%	12%	29%	3%	17%	11%	23%	27%
Currency	Bloomberg U.S. Dollar Spot	-37%	-38%	-38%	-38%	-39%	-24%	-26%	-21%	-14%	-26%	-39%	-24%	-5%	-37%	-36%
	EURUSD	28%	29%	28%	29%	29%	12%	13%	15%	11%	27%	38%	18%	2%	34%	28%
	JPYUSD	0%	0%	-1%	0%	0%	-10%	-10%	3%	2%	-9%	34%	4%	-5%	10%	-1%
	CADUSD	52%	53%	52%	53%	54%	41%	47%	24%	16%	38%	34%	25%	10%	43%	52%
	MXNUSD	43%	45%	44%	45%	46%	32%	38%	25%	17%	37%	25%	27%	5%	39%	42%
	GBPUSD	28%	29%	29%	29%	30%	19%	22%	13%	8%	27%	24%	14%	5%	27%	29%
	AUDUSD	43%	45%	44%	45%	46%	26%	30%	25%	17%	40%	38%	27%	9%	45%	41%
	CHFUSD	19%	19%	19%	19%	20%	5%	5%	9%	5%	21%	36%	13%	0%	27%	19%
KRWUSD	30%	31%	31%	31%	32%	16%	19%	17%	10%	30%	28%	22%	3%	33%	29%	
CNYUSD	12%	12%	13%	13%	13%	8%	7%	11%	10%	10%	5%	6%	1%	13%	10%	



# CORRELATION: BCOM Singles vs. Equities vs. Bond vs. Currency

		1-Year																						
		Natural Gas	WTI Crude	Brent Crude	ULS Diesel	Unleaded Gasoline	Corn	Soybeans	Wheat	Soybean Oil	Soybean Meal	HRW Wheat	Copper	Aluminium	Zinc	Nickel	Gold	Silver	Sugar	Coffee	Cotton	Live Cattle	Lean Hogs	
Commodities	Natural Gas		23%	23%	21%	21%	3%	11%	0%	12%	6%	-1%	5%	8%	13%	11%	-1%	-2%	4%	1%	-2%	-3%	4%	
	WTI Crude	23%		98%	94%	83%	13%	18%	8%	28%	12%	10%	33%	33%	23%	36%	-6%	11%	14%	30%	12%	8%	13%	
	Brent Crude	23%	98%		96%	85%	13%	19%	8%	28%	13%	9%	33%	33%	23%	33%	-6%	10%	13%	29%	12%	8%	13%	
	ULS Diesel	21%	94%	96%		81%	13%	21%	8%	27%	16%	9%	30%	32%	22%	30%	-2%	13%	14%	28%	10%	7%	14%	
	Unleaded Gasoline	21%	83%	85%	81%		12%	17%	8%	25%	13%	9%	29%	30%	19%	23%	-6%	7%	11%	16%	9%	8%	13%	
	Corn	3%	13%	13%	13%	12%		56%	65%	30%	52%	61%	7%	16%	10%	10%	1%	0%	5%	12%	23%	-4%	7%	
	Soybeans	11%	18%	19%	21%	17%	56%		38%	53%	88%	33%	20%	24%	26%	26%	1%	13%	12%	20%	18%	4%	10%	
	Wheat	0%	8%	8%	8%	8%	65%	38%		18%	36%	93%	7%	17%	6%	9%	3%	5%	7%	15%	19%	0%	2%	
	Soybean Oil	12%	28%	28%	27%	25%	30%	53%	18%		16%	17%	30%	26%	33%	27%	3%	16%	-2%	22%	15%	9%	12%	
	Soybean Meal	6%	12%	13%	16%	13%	52%	88%	36%	16%		33%	14%	18%	17%	19%	2%	10%	16%	11%	16%	-1%	7%	
	HRW Wheat	-1%	10%	9%	9%	9%	61%	33%	93%	17%	33%		6%	17%	6%	9%	1%	4%	5%	12%	16%	3%	2%	
	Copper	5%	33%	33%	30%	29%	7%	20%	7%	30%	14%	6%		52%	52%	60%	4%	28%	8%	26%	18%	9%	18%	
	Aluminium	8%	33%	33%	32%	30%	16%	24%	17%	26%	18%	17%	52%		49%	49%	8%	24%	0%	22%	13%	2%	18%	
	Zinc	13%	23%	23%	22%	19%	10%	26%	6%	33%	17%	6%	58%	49%		52%	12%	25%	6%	27%	14%	1%	14%	
	Nickel	11%	36%	33%	30%	23%	10%	26%	9%	27%	19%	9%	60%	49%	52%		4%	27%	11%	30%	25%	-5%	13%	
	Gold	-1%	-6%	-6%	-2%	-6%	1%	1%	3%	3%	2%	1%	4%	8%	12%	4%		78%	4%	4%	0%	-16%	3%	
	Silver	-2%	11%	10%	13%	7%	0%	13%	5%	16%	10%	4%	28%	24%	25%	27%	78%		7%	18%	14%	-8%	1%	
	Sugar	4%	14%	13%	14%	11%	5%	12%	7%	-2%	16%	5%	8%	0%	6%	11%	4%	7%		31%	7%	7%	4%	
	Coffee	1%	30%	29%	28%	16%	12%	20%	15%	22%	11%	12%	26%	22%	27%	30%	4%	18%	31%		27%	6%	5%	
	Cotton	-2%	12%	12%	10%	9%	23%	18%	19%	15%	16%	16%	18%	13%	14%	25%	0%	14%	7%	27%		-2%	0%	
Live Cattle	-3%	8%	8%	7%	8%	-4%	4%	0%	9%	-1%	3%	9%	2%	1%	-5%	-16%	-8%	7%	6%	-2%		19%		
Lean Hogs	4%	13%	13%	14%	13%	7%	10%	2%	12%	7%	2%	18%	18%	14%	13%	3%	1%	4%	5%	0%	19%			
Equities	S&P 500 Total Return Index	8%	44%	44%	41%	38%	7%	16%	8%	20%	9%	12%	30%	30%	27%	34%	-26%	-1%	2%	28%	14%	18%	11%	
	S&P Energy	19%	77%	75%	72%	64%	11%	16%	8%	23%	8%	13%	36%	36%	26%	37%	-12%	9%	4%	25%	12%	9%	13%	
	S&P Financial	8%	40%	40%	36%	33%	5%	14%	5%	16%	8%	7%	36%	30%	29%	33%	-36%	-7%	1%	25%	13%	19%	3%	
	S&P Health Care	1%	24%	24%	22%	21%	2%	10%	6%	12%	6%	8%	24%	22%	17%	27%	-23%	0%	3%	20%	9%	16%	7%	
	S&P Consumer Discretionary	3%	30%	30%	28%	26%	7%	14%	9%	13%	9%	13%	23%	25%	19%	30%	-26%	-7%	1%	23%	15%	17%	11%	
	S&P IT	3%	33%	33%	31%	31%	7%	13%	8%	19%	7%	12%	18%	21%	19%	26%	-25%	-6%	-2%	24%	14%	18%	8%	
	S&P Utilities	9%	8%	8%	9%	4%	1%	8%	7%	4%	5%	10%	-1%	3%	14%	9%	9%	15%	8%	17%	5%	4%	9%	
	S&P Consumers Staples	4%	16%	16%	15%	11%	-1%	8%	5%	11%	2%	7%	5%	11%	15%	14%	-7%	5%	3%	22%	3%	12%	15%	
	S&P Industrials	9%	42%	41%	38%	35%	6%	16%	6%	20%	9%	10%	38%	32%	32%	37%	-23%	4%	1%	27%	13%	15%	13%	
	S&P Telecommunication	10%	24%	25%	25%	15%	6%	12%	7%	12%	8%	9%	14%	17%	19%	16%	3%	13%	-1%	18%	11%	8%	13%	
S&P Materials	12%	53%	52%	49%	43%	12%	20%	8%	25%	12%	11%	40%	33%	31%	38%	-13%	11%	2%	33%	14%	11%	13%		
Bond	US Treasury	-5%	-36%	-35%	-33%	-31%	-4%	-4%	-2%	-7%	-2%	-5%	-30%	-17%	-12%	-21%	38%	19%	2%	-14%	-12%	-11%	3%	
	USD IG Corporate	-1%	-26%	-24%	-23%	-23%	-3%	1%	1%	-1%	2%	-1%	-21%	-12%	-7%	-14%	26%	18%	8%	-7%	-3%	-7%	3%	
	USD HY Corporate	5%	44%	46%	43%	34%	5%	13%	12%	15%	10%	13%	21%	21%	18%	25%	11%	11%	29%	16%	12%	4%	4%	
Currency	Bloomberg U.S. Dollar Spot	-6%	-28%	-25%	-25%	-22%	-14%	-17%	-19%	-18%	-14%	-13%	-20%	-26%	-19%	-18%	-35%	-40%	-12%	-36%	-14%	5%	-4%	
	EURUSD	2%	4%	0%	3%	-1%	5%	6%	13%	13%	4%	10%	17%	17%	6%	8%	39%	35%	10%	24%	10%	-3%	5%	
	JPYUSD	-6%	-20%	-21%	-18%	-14%	4%	-8%	5%	-11%	-3%	3%	-13%	-1%	-7%	-16%	61%	35%	6%	-4%	-11%	-15%	-1%	
	CADUSD	11%	58%	56%	54%	44%	16%	19%	16%	34%	11%	14%	36%	37%	35%	36%	19%	39%	6%	37%	19%	3%	11%	
	MXNUSD	6%	48%	47%	43%	40%	19%	28%	17%	28%	21%	16%	23%	29%	28%	36%	-3%	16%	11%	35%	15%	-2%	2%	
	GBPUSD	1%	26%	25%	23%	25%	4%	9%	7%	16%	6%	8%	28%	22%	18%	19%	-2%	15%	-1%	22%	19%	3%	1%	
	AUDUSD	-1%	36%	35%	34%	31%	14%	23%	14%	31%	16%	15%	40%	42%	41%	36%	16%	38%	12%	42%	18%	6%	6%	
	CHFUSD	-1%	-6%	-9%	-8%	-10%	-1%	0%	8%	10%	-4%	7%	7%	11%	1%	1%	40%	35%	11%	16%	2%	-7%	1%	
	KRWUSD	5%	25%	23%	22%	20%	9%	17%	10%	23%	13%	8%	28%	23%	30%	29%	22%	40%	14%	38%	14%	1%	3%	
CNYUSD	0%	12%	12%	13%	8%	8%	7%	10%	11%	8%	9%	21%	16%	13%	15%	8%	19%	6%	22%	12%	5%	5%		
		5-Year																						
		Natural Gas	WTI Crude	Brent Crude	ULS Diesel	Unleaded Gasoline	Corn	Soybeans	Wheat	Soybean Oil	Soybean Meal	HRW Wheat	Copper	Aluminium	Zinc	Nickel	Gold	Silver	Sugar	Coffee	Cotton	Live Cattle	Lean Hogs	
Commodities	Natural Gas		15%	15%	15%	12%	10%	6%	7%	7%	4%	7%	0%	5%	1%	2%	-1%	1%	2%	2%	-2%	4%	5%	
	WTI Crude	15%		94%	90%	83%	12%	20%	7%	32%	11%	8%	36%	30%	25%	28%	14%	23%	15%	17%	18%	11%	10%	
	Brent Crude	15%	94%		96%	88%	12%	19%	7%	31%	11%	8%	33%	27%	23%	27%	11%	21%	13%	14%	17%	10%	9%	
	ULS Diesel	15%	90%	96%		85%	12%	20%	7%	30%	13%	9%	31%	26%	22%	25%	12%	21%	14%	14%	17%	8%	9%	
	Unleaded Gasoline	12%	83%	88%	85%		11%	17%	6%	29%	9%	8%	30%	25%	20%	22%	11%	20%	10%	9%	15%	8%	7%	
	Corn	10%	12%	12%	12%	11%		59%	67%	37%	54%	64%	11%	12%	8%	11%	13%	11%	13%	11%	15%	7%	6%	
	Soybeans	6%	20%	19%	20%	17%	59%		43%	61%	91%	40%	21%	19%	19%	11%	19%	15%	12%	17%	7%	5%	5%	
	Wheat	7%	7%	7%	7%	6%	67%	43%		27%	39%	95%	9%	8%	5%	10%	10%	11%	12%	14%	14%	6%	2%	
	Soybean Oil	7%	32%	31%	30%	29%	37%	61%	27%		31%	25%	28%	25%	27%	24%	16%	26%	10%	17%	20%	11%	7%	
	Soybean Meal	4%	11%	11%	13%	9%	54%	91%	39%	31%		36%	14%	12%	12%	10%	8%	13%	13%	7%	12%	3%	3%	
	HRW Wheat	7%	8%	8%	9%	8%	64%	40%	95%	25%	36%		8%	8%	5%	10%	9%	10%	10%	11%	13%	7%	2%	
	Copper	0%	36%	33%	31%	30%	11%	21%	9%	28%	14%	8%		63%	66%	57%	32%	46%	15%	15%	22%	9%	10%	
	Aluminium	5%	30%	27%	26%	25%	12%	19%	8%	25%	12%	8%	63%		64%	50%	26%	35%	13%	13%	16%	8%	10%	
	Zinc	1%	25%	23%	22%	20%	8%	19%	5%	27%	12%	5%	66%	64%		54%	27%	36%	15%	16%	14%	6%	11%	
	Nickel	2%	28%	27%	25%	22%	12%	19%	10%	24%	10%	10%	57%	50%	54%		19%	30%	16%	14%	19%	1%	6%	
	Gold	-1%	14%	11%	12%	11%	8%	11%	10%	16%	8%	9%	32%	26%	27%	19%		84%	8%	14%	10%	-1%	2%	
	Silver	1%	23%	21%	21%	20%	11%	19%	11%	26%	13%	10%	46%	35%	36%	30%	84%		12%	19%	15%	4%	3%	
	Sugar	2%	15%	13%	14%	10%	13%	15%	12%	10%	13%	10%	15%	13%	15%	16%	8%	12%		26%	12%	6%	5%	
	Coffee	2%	17%	14%	14%	9%	11%	12%	14%	17%	7%	11%	15%	13%	16%	14%	14%	19%	26%		12%	4%	7%	
	Cotton	-2%	18%	17%	17%	15%	15%	17%	14%	20%	12%	13%	22%	16%	14%	19%	10%	15%	12%	12%		4%	3%	
Live Cattle	4%	11%	10%	8%	8%	7%	7%	6%	11%	3%	7%	9%	8%	6%	1%	-1%	4%	6%	4%	4%		26%		
Lean Hogs	5%	10%	9%	9%	7%	6%	5%	2%	7%	3%	2%	10%	10%	11%	6%	2%	3%	5%	7%	3%	26%			
Equities	S&P 500 Total Return Index	0%	37%	36%	33%	31%	6%	13%	4%	17%	7%	6%	34%	27%	24%	27%	0%	13%	9%	7%	20%	11%	4%	
	S&P Energy	13%	67%	65%	62%	56%	10%	15%	6%	24%	7%	9%	37%	31%	26%	29%	10%	21%	14%	11%	20%	8%	5%	
	S&P Financial	-1%	32%	32%	29%	27%	4%	11%	2%	16%	5%	3%	34%	26%	24%	26%	-5%	9%	9%	7%	17%	11%	1%	
	S&P Health Care	-2%	20%	20%	18%	16%	3%	8%	1%	10%	5%	2%	21%	18%	15%	19%	-4%	6%	5%	4%	14%	9%	2%	
	S&P Consumer Discretionary	-3%	27%	27%	24%	23%	6%	11%	5%	13%	6%	6%	28%	21%	19%	24%	-5%	6%	6%</					

# CORRELATION: US CPI vs. BCOM Indices & Other Benchmarks

5-Year		US CPI Indices																
		All items	Core	Food	Food at home	Food away from home	Energy	Energy Commodities	Fuel Oil	Motor Fuel	Energy services	Electricity	Utility gas service	Commodities less food and energy	Services less energy services	Shelter	Medical care	Transportation
BCOM Composites	Bloomberg Commodity	60%	-10%	-2%	-2%	-4%	64%	62%	69%	62%	16%	-6%	34%	-24%	7%	3%	5%	15%
	Energy	67%	-15%	-2%	0%	-8%	76%	76%	78%	75%	16%	-2%	29%	-15%	-6%	-1%	-9%	4%
	Petroleum	73%	-3%	-7%	-5%	-8%	78%	79%	81%	79%	1%	-4%	6%	-6%	3%	-7%	-6%	12%
	Agriculture	22%	-10%	-1%	0%	0%	25%	24%	22%	25%	6%	-18%	28%	-35%	15%	6%	2%	24%
	Grains	13%	-9%	5%	6%	1%	14%	14%	12%	15%	-2%	-21%	19%	-27%	10%	-3%	0%	22%
	Industrial Metals	45%	7%	-4%	-3%	-5%	43%	40%	48%	39%	2%	5%	0%	5%	7%	0%	22%	3%
	Precious Metals	13%	10%	-3%	-5%	7%	6%	0%	21%	0%	13%	6%	16%	-7%	17%	10%	32%	0%
	Softs	24%	-12%	-9%	-10%	1%	29%	27%	25%	27%	25%	1%	40%	-39%	12%	23%	6%	14%
Livestock	9%	2%	30%	30%	12%	4%	3%	2%	3%	7%	-10%	23%	5%	2%	-27%	1%	16%	
BCOM Singles	Natural Gas	15%	-27%	10%	13%	-6%	24%	22%	21%	21%	39%	4%	60%	-24%	-17%	13%	-5%	-15%
	WTI Crude	68%	-3%	-2%	-1%	-3%	73%	74%	74%	74%	3%	-2%	8%	-9%	5%	-8%	-3%	13%
	Brent Crude	72%	-6%	-10%	-8%	-11%	78%	78%	82%	78%	2%	-3%	8%	-6%	0%	-8%	-7%	10%
	ULS Diesel	69%	-11%	-10%	-9%	-7%	75%	75%	85%	74%	3%	-3%	9%	-11%	-3%	-3%	-10%	6%
	Unleaded Gasoline	81%	3%	-8%	-5%	-11%	85%	86%	77%	86%	-8%	-10%	-1%	1%	6%	-3%	-14%	19%
	Corn	9%	-9%	5%	5%	2%	10%	11%	12%	11%	-2%	-21%	19%	-23%	7%	-1%	-4%	20%
	Soybeans	24%	-6%	-7%	-5%	-7%	25%	25%	24%	25%	-3%	-16%	13%	-30%	17%	0%	4%	24%
	Wheat	1%	-12%	17%	16%	10%	2%	2%	-8%	3%	-1%	-22%	21%	-25%	5%	-7%	2%	17%
	Soybean Oil	32%	13%	-16%	-16%	-5%	30%	28%	15%	29%	2%	-10%	14%	-3%	21%	10%	4%	31%
	Soybean Meal	18%	-9%	1%	3%	-3%	21%	22%	26%	22%	-5%	-15%	8%	-35%	16%	0%	1%	19%
	HRW Wheat	8%	-10%	21%	20%	8%	8%	6%	-2%	7%	12%	-12%	31%	-17%	2%	-12%	3%	18%
	Copper	47%	7%	-10%	-9%	-6%	45%	43%	52%	43%	-5%	6%	-12%	15%	0%	-12%	19%	-3%
	Aluminium	36%	2%	-1%	-3%	3%	33%	32%	33%	32%	-8%	-9%	-2%	-1%	3%	11%	7%	3%
	Zinc	37%	10%	-17%	-14%	-16%	35%	31%	42%	31%	9%	12%	4%	-1%	12%	7%	28%	4%
	Nickel	31%	7%	21%	23%	-4%	28%	24%	32%	24%	21%	10%	25%	-6%	13%	2%	21%	12%
	Gold	7%	10%	1%	-2%	11%	0%	-6%	16%	-6%	13%	5%	17%	-5%	15%	9%	30%	-1%
	Silver	24%	10%	-9%	-10%	0%	18%	12%	28%	12%	13%	8%	14%	-10%	19%	11%	30%	0%
	Sugar	16%	-12%	-28%	-30%	-2%	23%	23%	22%	23%	10%	-2%	18%	-35%	10%	11%	10%	11%
	Coffee	16%	-12%	23%	22%	11%	17%	13%	11%	13%	37%	8%	52%	-28%	4%	25%	-2%	1%
	Cotton	29%	6%	-14%	-12%	-13%	28%	25%	27%	25%	12%	-6%	27%	-18%	20%	14%	13%	27%
Live Cattle	14%	-1%	21%	21%	8%	12%	11%	11%	11%	3%	3%	3%	10%	-6%	-23%	7%	7%	
Lean Hogs	2%	4%	30%	29%	11%	-3%	-4%	-7%	-4%	9%	-15%	31%	1%	7%	-22%	-1%	16%	
Benchmarks	S&P 500 Total Return Index	38%	-31%	-12%	-10%	-10%	47%	45%	37%	46%	9%	10%	3%	-20%	-22%	-25%	-5%	-3%
	US Treasury	-55%	-1%	8%	3%	25%	-58%	-59%	-43%	-59%	7%	3%	8%	1%	-4%	-2%	18%	-14%
	USD IG Corporate	-10%	-15%	-1%	-5%	17%	-6%	-7%	5%	-8%	16%	6%	20%	-8%	-15%	-6%	7%	-13%
	USD HY Corporate	43%	-15%	-14%	-15%	0%	53%	52%	60%	52%	14%	4%	19%	-6%	-13%	-13%	-1%	-2%
Bloomberg U.S. Dollar Spot	-49%	-2%	2%	1%	2%	-48%	-45%	-41%	-45%	-11%	-1%	-19%	8%	-8%	3%	-2%	-16%	

20-Year		US CPI Indices																
		All items	Core	Food	Food at home	Food away from home	Energy	Energy Commodities	Fuel Oil	Motor Fuel	Energy services	Electricity	Utility gas service	Commodities less food and energy	Services less energy services	Shelter	Medical care	Transportation
BCOM Composites	Bloomberg Commodity	68%	5%	3%	7%	-13%	69%	67%	67%	66%	30%	-3%	40%	-1%	9%	1%	6%	19%
	Energy	68%	0%	8%	12%	-10%	72%	70%	70%	69%	37%	-2%	48%	-3%	5%	-1%	0%	13%
	Petroleum	72%	3%	7%	10%	-8%	76%	77%	72%	76%	22%	0%	28%	1%	6%	-1%	2%	16%
	Agriculture	29%	7%	-2%	-1%	-7%	27%	27%	25%	26%	4%	-4%	9%	-1%	9%	7%	4%	15%
	Grains	23%	7%	3%	3%	-3%	20%	20%	20%	20%	0%	-4%	4%	-1%	10%	9%	3%	11%
	Industrial Metals	43%	7%	-8%	-6%	-13%	44%	43%	42%	43%	12%	1%	14%	4%	6%	0%	9%	10%
	Precious Metals	29%	5%	0%	0%	1%	27%	24%	26%	24%	11%	7%	11%	4%	5%	-6%	15%	15%
	Softs	26%	2%	-10%	-8%	-14%	28%	27%	21%	27%	11%	-2%	16%	1%	0%	-3%	4%	17%
Livestock	14%	-4%	18%	22%	-7%	11%	9%	8%	9%	14%	7%	15%	-12%	7%	2%	7%	4%	
BCOM Singles	Natural Gas	36%	-6%	7%	12%	-13%	39%	33%	38%	32%	47%	-4%	61%	-4%	-2%	-2%	-6%	2%
	WTI Crude	67%	4%	8%	10%	-6%	71%	72%	69%	71%	21%	2%	26%	-1%	8%	1%	4%	16%
	Brent Crude	70%	5%	8%	10%	-8%	73%	75%	70%	74%	18%	1%	23%	2%	6%	-1%	2%	15%
	ULS Diesel	70%	0%	10%	12%	-5%	73%	73%	77%	72%	26%	1%	33%	0%	3%	-5%	0%	17%
	Unleaded Gasoline	79%	3%	4%	7%	-12%	83%	84%	67%	84%	20%	-4%	27%	5%	2%	-4%	-2%	15%
	Corn	22%	5%	6%	7%	-3%	19%	19%	20%	18%	3%	-4%	7%	3%	4%	5%	-5%	8%
	Soybeans	22%	6%	-3%	-2%	-8%	20%	21%	21%	20%	-1%	-1%	1%	-3%	12%	8%	3%	15%
	Wheat	15%	7%	3%	2%	5%	13%	13%	9%	13%	0%	-5%	3%	-4%	11%	11%	10%	3%
	Soybean Oil	30%	15%	-2%	-1%	-6%	25%	24%	23%	24%	4%	-3%	8%	4%	16%	12%	9%	15%
	Soybean Meal	16%	3%	-1%	0%	-6%	16%	17%	17%	17%	-1%	3%	-1%	-5%	8%	5%	0%	15%
	HRW Wheat	23%	8%	4%	3%	4%	21%	20%	15%	20%	6%	0%	9%	2%	8%	8%	11%	2%
	Copper	43%	10%	-10%	-8%	-10%	42%	43%	40%	42%	9%	0%	11%	10%	5%	-3%	8%	12%
	Aluminium	41%	5%	0%	3%	-9%	41%	39%	44%	39%	19%	2%	23%	1%	6%	4%	3%	8%
	Zinc	24%	6%	-21%	-19%	-16%	26%	26%	21%	26%	1%	-1%	2%	7%	3%	1%	5%	2%
	Nickel	32%	-4%	-5%	0%	-18%	35%	36%	30%	36%	5%	-1%	9%	-11%	4%	-2%	12%	7%
	Gold	27%	4%	5%	4%	6%	24%	22%	24%	22%	12%	10%	10%	2%	5%	-6%	14%	15%
	Silver	28%	6%	-7%	-6%	-7%	26%	24%	26%	24%	10%	2%	11%	5%	3%	-4%	15%	12%
	Sugar	18%	6%	-12%	-11%	-6%	19%	17%	13%	17%	11%	3%	13%	9%	0%	-3%	4%	13%
	Coffee	13%	4%	-1%	1%	-8%	13%	13%	8%	13%	3%	1%	6%	2%	-2%	2%	-3%	1%
	Cotton	27%	-7%	-6%	-3%	-18%	29%	29%	32%	28%	8%	-7%	13%	-1%	-7%	-10%	4%	18%
Live Cattle	20%	-7%	20%	24%	-8%	19%	17%	12%	17%	15%	11%	12%	-15%	8%	6%	10%	2%	
Lean Hogs	3%	-3%	12%	14%	-5%	2%	-1%	2%	-1%	10%	3%	12%	-8%	2%	-3%	4%	4%	

# CORRELATION: World CPI vs. BCOM Indices & Other Benchmarks

5-Year		CPI by Country																		
		US	China	Japan	Germany	UK	France	India	Brazil	Italy	Canada	South Korea	Australia	Mexico	Spain	Russia	Indonesia	Turkey	Netherlands	Switzerland
BCOM Composites	Bloomberg Commodity	60%	28%	24%	53%	60%	38%	35%	-65%	27%	22%	35%	63%	65%	46%	-64%	-15%	13%	42%	80%
	Energy	67%	42%	34%	63%	70%	43%	51%	-76%	32%	19%	37%	78%	75%	47%	-66%	13%	20%	57%	78%
	Petroleum	73%	57%	18%	83%	85%	68%	62%	-86%	59%	24%	57%	68%	76%	66%	-79%	-3%	36%	69%	65%
	Agriculture	22%	-2%	-21%	23%	26%	18%	21%	-21%	18%	-2%	12%	9%	28%	37%	-44%	-46%	-17%	16%	43%
	Grains	13%	0%	-38%	39%	35%	36%	43%	-30%	44%	-20%	18%	3%	37%	60%	-32%	-38%	-22%	44%	13%
	Industrial Metals	45%	-13%	51%	6%	11%	-9%	0%	-35%	-18%	8%	-6%	35%	36%	4%	-13%	4%	-1%	2%	68%
	Precious Metals	13%	14%	-35%	7%	12%	26%	-25%	14%	23%	35%	42%	-18%	-16%	19%	-21%	-78%	24%	-9%	-14%
	Softs	24%	-1%	20%	-22%	-8%	-22%	-36%	11%	-37%	36%	-2%	8%	-12%	-30%	-33%	-30%	9%	-45%	55%
Livestock	9%	21%	71%	23%	34%	17%	11%	-57%	6%	42%	24%	69%	57%	0%	-32%	33%	37%	15%	59%	
BCOM Singles	Natural Gas	15%	5%	52%	-2%	14%	-24%	8%	-24%	-35%	7%	-14%	68%	36%	-14%	-14%	42%	-13%	8%	69%
	WTI Crude	68%	53%	29%	76%	79%	61%	57%	-85%	50%	25%	50%	70%	76%	55%	-74%	9%	38%	62%	69%
	Brent Crude	72%	62%	14%	84%	88%	72%	61%	-85%	62%	27%	63%	68%	73%	67%	-81%	-9%	38%	69%	63%
	ULS Diesel	69%	61%	12%	89%	90%	76%	62%	-87%	67%	25%	65%	70%	76%	74%	-73%	-5%	37%	75%	56%
	Unleaded Gasoline	81%	62%	-4%	90%	91%	78%	69%	-78%	72%	22%	67%	61%	70%	81%	-80%	-23%	33%	81%	47%
	Corn	9%	11%	-59%	42%	40%	45%	39%	-17%	54%	-16%	31%	-3%	27%	66%	-22%	-50%	-16%	51%	-13%
	Soybeans	24%	4%	-8%	40%	36%	29%	44%	-48%	29%	-12%	9%	15%	45%	44%	-56%	-22%	-14%	30%	55%
	Wheat	1%	-33%	-29%	4%	-2%	-1%	27%	-1%	11%	-40%	-17%	-12%	17%	31%	4%	-19%	-44%	20%	0%
	Soybean Oil	32%	10%	-61%	9%	10%	15%	0%	19%	16%	-2%	18%	-31%	-20%	29%	-37%	-70%	-13%	2%	0%
	Soybean Meal	18%	-13%	9%	32%	24%	23%	39%	-52%	26%	-16%	-2%	12%	50%	37%	-34%	-4%	-15%	25%	45%
	HRW Wheat	8%	-7%	5%	31%	33%	20%	41%	-42%	25%	-15%	9%	36%	54%	45%	-20%	-7%	-20%	41%	38%
	Copper	47%	7%	31%	41%	39%	22%	34%	-56%	17%	-3%	13%	46%	54%	39%	-31%	4%	2%	40%	62%
	Aluminium	36%	-22%	43%	-20%	-13%	-29%	-25%	-5%	-37%	9%	-18%	15%	8%	-19%	11%	0%	-6%	-20%	48%
	Zinc	37%	-26%	44%	-11%	-10%	-24%	-17%	-19%	-34%	0%	-23%	12%	20%	-13%	-5%	3%	-11%	-18%	63%
	Nickel	31%	-7%	66%	9%	18%	-3%	4%	-45%	-13%	22%	3%	49%	47%	1%	-20%	10%	11%	2%	74%
	Gold	7%	18%	-34%	12%	17%	34%	-23%	8%	31%	39%	49%	-19%	-11%	22%	-24%	-77%	31%	-5%	-19%
	Silver	24%	2%	-31%	-6%	0%	5%	-27%	28%	1%	23%	25%	-13%	-26%	9%	-12%	-72%	6%	-17%	-1%
	Sugar	16%	21%	-25%	5%	11%	10%	-10%	5%	2%	21%	19%	-18%	-18%	0%	-54%	-59%	12%	-22%	26%
Coffee	16%	-12%	64%	-24%	-10%	-21%	-47%	-7%	-37%	55%	2%	35%	16%	-35%	-9%	-2%	26%	-41%	55%	
Cotton	29%	-14%	0%	-31%	-22%	-49%	-6%	35%	-54%	-23%	-42%	16%	16%	-27%	12%	30%	-41%	-19%	37%	
Live Cattle	14%	-8%	76%	3%	5%	2%	-13%	-38%	-4%	34%	7%	47%	46%	-12%	17%	41%	30%	1%	23%	
Lean Hogs	2%	41%	36%	34%	48%	24%	31%	-52%	14%	33%	31%	60%	44%	13%	-68%	7%	27%	22%	71%	
Benchmarks	S&P 500 Total Return Index	38%	-4%	44%	32%	27%	7%	43%	-60%	1%	-25%	-15%	44%	59%	20%	-15%	50%	-15%	33%	66%
	US Treasury	-55%	-11%	10%	-28%	-19%	-13%	-27%	10%	-10%	14%	-2%	-14%	-2%	-33%	0%	-19%	8%	-39%	-12%
	USD IG Corporate	-10%	2%	1%	1%	3%	12%	-9%	-16%	11%	16%	11%	-9%	14%	-8%	-29%	-37%	7%	-24%	12%
	USD HY Corporate	43%	29%	-23%	31%	32%	33%	18%	-33%	27%	1%	23%	-1%	19%	26%	-46%	-36%	-7%	12%	30%
	Bloomberg U.S. Dollar Spot	-49%	-46%	-1%	-39%	-52%	-31%	-24%	35%	-18%	-31%	-41%	-47%	-28%	-30%	80%	38%	-18%	-23%	-69%

20-Year		CPI by Country														
		US	China	Japan	Germany	UK	France	India	Brazil	Canada	South Korea	Australia	Mexico	Russia	Turkey	Switzerland
BCOM Composites	Bloomberg Commodity	78%	45%	2%	54%	18%	69%	-34%	21%	67%	20%	35%	4%	-14%	5%	67%
	Energy	75%	28%	8%	49%	4%	63%	-41%	32%	68%	19%	39%	19%	0%	20%	69%
	Petroleum	80%	40%	5%	57%	17%	72%	-36%	24%	66%	17%	36%	12%	-4%	10%	71%
	Agriculture	46%	64%	9%	49%	38%	54%	0%	7%	39%	27%	13%	-13%	-33%	-16%	34%
	Grains	42%	62%	6%	53%	34%	54%	-4%	3%	34%	19%	15%	-16%	-27%	-17%	28%
	Industrial Metals	51%	21%	-4%	23%	9%	34%	-22%	-8%	32%	-6%	14%	-10%	-10%	-10%	42%
	Precious Metals	40%	33%	-31%	26%	39%	49%	0%	-8%	29%	18%	22%	-32%	-20%	-31%	35%
	Softs	31%	34%	6%	17%	29%	27%	4%	14%	35%	31%	4%	5%	-26%	0%	28%
Livestock	38%	33%	22%	31%	0%	28%	-34%	18%	37%	0%	16%	5%	-20%	6%	20%	
BCOM Singles	Natural Gas	53%	12%	27%	25%	-14%	32%	-36%	35%	55%	24%	26%	28%	3%	26%	46%
	WTI Crude	79%	38%	9%	55%	15%	70%	-37%	23%	65%	16%	35%	16%	1%	12%	73%
	Brent Crude	81%	38%	0%	59%	23%	72%	-34%	17%	66%	16%	36%	13%	-1%	11%	73%
	ULS Diesel	81%	46%	3%	60%	22%	75%	-36%	27%	69%	18%	41%	5%	-10%	2%	70%
	Unleaded Gasoline	77%	39%	-5%	55%	18%	69%	-30%	23%	65%	17%	31%	7%	-10%	8%	61%
	Corn	40%	58%	6%	49%	48%	47%	6%	-3%	35%	20%	18%	-11%	-20%	-14%	19%
	Soybeans	33%	56%	8%	43%	24%	50%	-3%	13%	25%	21%	6%	-17%	-34%	-18%	26%
	Wheat	38%	52%	2%	46%	15%	45%	-18%	1%	31%	-1%	19%	-24%	-19%	-22%	30%
	Soybean Oil	47%	56%	1%	48%	28%	59%	-2%	2%	34%	35%	15%	-22%	-29%	-16%	36%
	Soybean Meal	22%	45%	2%	38%	13%	40%	-16%	13%	20%	0%	15%	-20%	-34%	-20%	22%
	HRW Wheat	54%	53%	12%	55%	29%	54%	-15%	-6%	44%	14%	26%	-11%	-14%	-14%	45%
	Copper	54%	29%	-5%	29%	16%	42%	-17%	-10%	30%	-1%	16%	-12%	-14%	-17%	45%
	Aluminium	62%	25%	5%	33%	9%	44%	-29%	0%	47%	4%	20%	-6%	-5%	0%	54%
	Zinc	22%	0%	-1%	-4%	-4%	-1%	-13%	-15%	4%	-20%	-9%	-2%	-9%	-8%	10%
	Nickel	29%	2%	-17%	5%	-2%	20%	-29%	1%	27%	-20%	11%	-10%	0%	-6%	29%
	Gold	38%	33%	-34%	26%	38%	53%	-4%	-1%	32%	7%	31%	-41%	-20%	-40%	36%
	Silver	38%	30%	-22%	23%	34%	37%	1%	-16%	24%	28%	8%	-16%	-14%	-14%	30%
	Sugar	38%	13%	-19%	17%	15%	34%	-12%	27%	41%	20%	30%	-8%	-28%	-6%	34%
Coffee	20%	34%	41%	12%	27%	8%	6%	-1%	15%	28%	-29%	33%	-9%	13%	19%	
Cotton	18%	37%	-2%	2%	27%	13%	18%	10%	26%	3%	6%	-10%	-12%	-20%	10%	
Live Cattle	32%	29%	25%	23%	-7%	28%	-40%	24%	39%	1%	11%	2%	-10%	1%	17%	
Lean Hogs	32%	29%	11%	31%	7%	22%	-22%	11%	26%	-1%	20%	1%	-32%	5%	16%	

# CORRELATION: World GDP vs. BCOM Indices & Other Benchmarks

5-Year		GDP by Country																		
		US	China	Japan	Germany	UK	France	India	Brazil	Italy	Canada	South Korea	Australia	Mexico	Spain	Russia	Indonesia	Turkey	Netherlands	Switzerland
BCOM Composites	Bloomberg Commodity	21%	70%	20%	-17%	19%	-8%	61%	48%	-41%	61%	-5%	4%	14%	-48%	65%	8%	-13%	-56%	16%
	Energy	27%	61%	7%	-6%	27%	-12%	53%	61%	-34%	60%	3%	-3%	0%	-49%	64%	-3%	-10%	-69%	24%
	Petroleum	29%	73%	-4%	-18%	28%	-26%	70%	65%	-54%	55%	-13%	3%	15%	-72%	78%	-2%	-22%	-82%	14%
	Agriculture	-16%	47%	17%	-26%	16%	1%	44%	38%	-36%	43%	-2%	12%	0%	-37%	50%	12%	-11%	-25%	19%
	Grains	-31%	46%	5%	-39%	12%	-3%	41%	47%	-51%	29%	-5%	6%	-12%	-55%	48%	6%	-2%	-41%	14%
	Industrial Metals	30%	38%	29%	-9%	1%	7%	23%	7%	-2%	32%	-16%	-19%	27%	-6%	12%	9%	-3%	-22%	-9%
	Precious Metals	9%	45%	21%	-18%	-11%	-9%	46%	-4%	-44%	13%	-31%	27%	39%	-32%	36%	14%	-18%	-7%	-16%
	Softs	18%	24%	28%	11%	12%	8%	28%	3%	5%	39%	0%	21%	23%	12%	26%	14%	-21%	17%	15%
Livestock	33%	34%	7%	5%	26%	-6%	27%	29%	-15%	28%	-14%	0%	13%	-13%	30%	-3%	-17%	-45%	14%	
BCOM Singles	Natural Gas	17%	14%	28%	25%	10%	20%	-1%	23%	19%	43%	39%	-8%	-29%	20%	12%	-4%	19%	-13%	28%
	WTI Crude	31%	65%	-2%	-11%	30%	-23%	63%	62%	-43%	52%	-12%	1%	14%	-62%	71%	-3%	-22%	-78%	14%
	Brent Crude	30%	79%	1%	-20%	23%	-27%	77%	62%	-60%	57%	-13%	9%	20%	-74%	83%	-2%	-21%	-82%	10%
	ULS Diesel	29%	86%	5%	-22%	17%	-26%	81%	59%	-64%	56%	-12%	12%	23%	-77%	85%	-1%	-14%	-87%	6%
	Unleaded Gasoline	19%	83%	-2%	-26%	21%	-25%	79%	66%	-69%	54%	-18%	10%	15%	-85%	87%	-4%	-19%	-86%	10%
	Corn	-31%	57%	17%	-28%	-3%	2%	51%	41%	-59%	20%	-8%	22%	-9%	-59%	53%	3%	9%	-42%	4%
	Soybeans	-9%	37%	-5%	-37%	30%	-19%	36%	50%	-34%	46%	3%	-8%	-2%	-46%	51%	15%	-20%	-38%	24%
	Wheat	-47%	-2%	-8%	-36%	14%	15%	-11%	25%	-12%	7%	1%	-18%	-37%	-18%	-2%	-1%	7%	-7%	22%
	Soybean Oil	-15%	43%	22%	-11%	-1%	2%	49%	17%	-32%	33%	-10%	32%	19%	-34%	47%	14%	-8%	-4%	-2%
	Soybean Meal	-10%	18%	-18%	-45%	28%	-23%	13%	39%	-27%	26%	-1%	-27%	-4%	-36%	27%	14%	-16%	-35%	21%
	HRW Wheat	-20%	47%	13%	-35%	18%	12%	33%	45%	-36%	34%	-3%	-4%	-18%	-41%	38%	-4%	3%	-50%	16%
	Copper	20%	66%	27%	-19%	0%	-5%	51%	23%	-26%	47%	-16%	-7%	34%	-38%	43%	7%	3%	-49%	-13%
	Aluminium	27%	26%	44%	7%	-10%	18%	12%	-12%	10%	9%	-15%	-8%	21%	15%	-8%	7%	2%	1%	-19%
	Zinc	31%	0%	16%	-4%	3%	2%	-13%	-9%	22%	22%	-12%	-41%	21%	19%	-20%	17%	-2%	9%	0%
	Nickel	37%	26%	13%	-14%	11%	8%	15%	16%	-2%	27%	-13%	-24%	17%	-4%	13%	5%	-14%	-27%	5%
	Gold	9%	43%	16%	-19%	-11%	-13%	45%	-1%	-50%	6%	-36%	26%	40%	-36%	35%	13%	-21%	-10%	-16%
	Silver	8%	45%	29%	-16%	-11%	0%	44%	-10%	-29%	24%	-18%	24%	35%	-20%	32%	12%	-14%	2%	-14%
	Sugar	11%	29%	9%	-4%	8%	-13%	40%	14%	-19%	34%	-6%	25%	29%	-20%	43%	19%	-32%	6%	9%
	Coffee	26%	15%	29%	15%	10%	13%	10%	-4%	6%	18%	-13%	9%	19%	24%	5%	6%	-14%	6%	10%
	Cotton	-3%	17%	38%	22%	9%	34%	17%	-4%	38%	54%	46%	17%	-12%	32%	17%	6%	19%	21%	18%
Live Cattle	25%	19%	15%	10%	0%	9%	7%	-2%	-4%	-8%	-25%	-3%	19%	6%	-5%	-6%	8%	-32%	-13%	
Lean Hogs	26%	34%	-4%	-2%	41%	-18%	35%	49%	-19%	52%	2%	2%	1%	-27%	53%	0%	-36%	-37%	35%	
Benchmarks	S&P 500 Total Return Index	19%	21%	1%	0%	18%	2%	11%	34%	11%	28%	19%	-28%	-15%	-11%	12%	3%	7%	-42%	12%
	US Treasury	-17%	26%	33%	10%	-19%	29%	32%	4%	-11%	0%	-13%	56%	28%	2%	23%	-2%	0%	3%	-16%
	USD IG Corporate	-9%	3%	-1%	-16%	13%	-10%	13%	16%	-22%	-14%	-11%	25%	-1%	-14%	14%	1%	-46%	0%	2%
	USD HY Corporate	23%	-7%	-28%	-27%	35%	-50%	-1%	17%	-30%	-1%	-5%	-31%	-23%	-27%	7%	15%	-40%	-6%	15%
	Bloomberg U.S. Dollar Spot	-24%	-56%	-11%	12%	-25%	17%	-57%	-39%	34%	-65%	-1%	-14%	-15%	41%	-66%	-9%	35%	31%	-22%

20-Year		GDP by Country											
		US	China	Japan	Germany	UK	France	Canada	South Korea	Australia	Mexico	Spain	Switzerland
BCOM Composites	Bloomberg Commodity	40%	48%	12%	29%	31%	34%	53%	3%	2%	39%	32%	39%
	Energy	35%	17%	6%	9%	23%	22%	39%	3%	-3%	22%	32%	23%
	Petroleum	37%	29%	7%	14%	25%	21%	44%	6%	-2%	27%	24%	29%
	Agriculture	9%	49%	1%	22%	12%	15%	38%	-15%	2%	29%	-1%	21%
	Grains	2%	44%	-1%	13%	6%	10%	32%	-13%	5%	21%	-5%	15%
	Industrial Metals	48%	66%	27%	50%	39%	50%	50%	15%	6%	48%	41%	60%
	Precious Metals	11%	62%	1%	23%	7%	10%	30%	6%	2%	23%	-8%	20%
	Softs	18%	31%	3%	29%	17%	21%	34%	-11%	-3%	35%	5%	22%
Livestock	44%	15%	20%	27%	35%	34%	23%	6%	14%	31%	31%	39%	
BCOM Singles	Natural Gas	27%	-5%	3%	0%	13%	19%	19%	-13%	-8%	11%	39%	11%
	WTI Crude	37%	28%	7%	13%	24%	21%	43%	8%	0%	25%	27%	28%
	Brent Crude	38%	33%	6%	16%	25%	23%	49%	11%	0%	29%	21%	32%
	ULS Diesel	33%	30%	5%	11%	21%	15%	41%	3%	-6%	25%	18%	27%
	Unleaded Gasoline	39%	29%	10%	19%	28%	27%	50%	4%	-4%	33%	18%	32%
	Corn	-5%	28%	-6%	7%	-10%	5%	19%	-19%	4%	14%	-17%	6%
	Soybeans	8%	38%	1%	8%	12%	8%	36%	-11%	5%	26%	-6%	14%
	Wheat	1%	50%	4%	24%	16%	13%	32%	-4%	-2%	14%	10%	22%
	Soybean Oil	10%	55%	-2%	14%	13%	11%	32%	-14%	9%	18%	8%	15%
	Soybean Meal	-2%	25%	1%	7%	6%	5%	30%	-2%	-6%	22%	-13%	15%
	HRW Wheat	8%	57%	0%	27%	18%	18%	37%	-5%	-4%	21%	12%	24%
	Copper	42%	68%	23%	47%	34%	42%	49%	13%	3%	47%	31%	54%
	Aluminium	48%	51%	20%	44%	34%	48%	43%	6%	6%	40%	47%	54%
	Zinc	48%	51%	36%	54%	38%	51%	40%	12%	5%	53%	41%	60%
	Nickel	47%	56%	29%	44%	43%	52%	53%	28%	12%	41%	42%	54%
	Gold	2%	62%	2%	15%	4%	-4%	22%	12%	-3%	14%	-15%	12%
	Silver	24%	56%	1%	34%	12%	32%	40%	-3%	7%	34%	6%	33%
	Sugar	7%	21%	0%	14%	5%	4%	18%	-11%	-18%	18%	0%	9%
	Coffee	27%	26%	4%	19%	13%	25%	25%	-10%	13%	38%	11%	32%
	Cotton	15%	24%	9%	36%	17%	27%	40%	1%	-9%	30%	1%	25%
Live Cattle	46%	22%	18%	27%	34%	39%	26%	8%	17%	33%	35%	37%	
Lean Hogs	30%	7%	19%	19%	29%	19%	14%	1%	8%	21%	17%	31%	

# COMMITMENT OF TRADERS: Commodity Futures & Options, Money Managers

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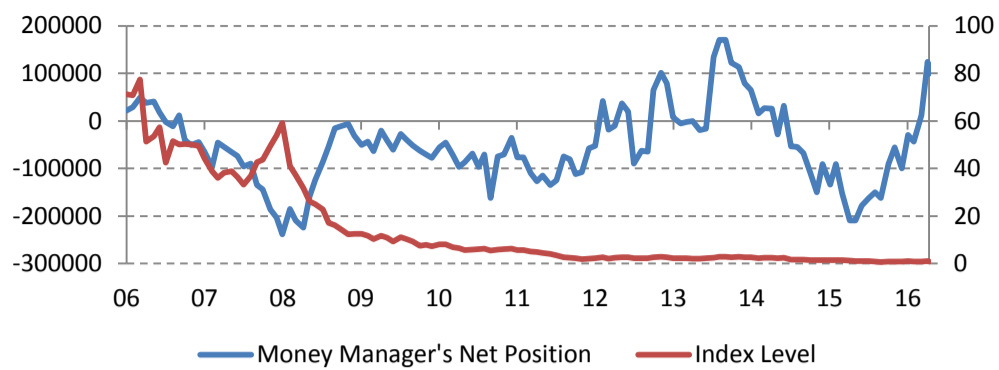
Group	Commodity	End-Nov Net Position	End-Oct Net Position	Notional Change (\$m) using end-Nov price	End-Nov Notional (\$m)
Energy	Natural Gas	<a href="#">27,556</a>	<a href="#">137,031</a>	↓ -3,670	924
	WTI Crude	<a href="#">188,324</a>	<a href="#">268,189</a>	↓ -3,949	9,311
	Brent Crude	<a href="#">292,764</a>	<a href="#">376,710</a>	↓ -4,237	14,776
	ULS Diesel	<a href="#">3,359</a>	<a href="#">12,356</a>	↓ -594	222
	Gasoline	<a href="#">17,013</a>	<a href="#">40,730</a>	↓ -1,485	1,065
	Total			↓ -13,933	26,297
Grains	Corn	<a href="#">-60,394</a>	<a href="#">-68,962</a>	↑ 144	-1,017
	Soybeans	<a href="#">113,644</a>	<a href="#">98,605</a>	↑ 776	5,865
	Wheat	<a href="#">-114,222</a>	<a href="#">-123,387</a>	↑ 174	-2,173
	Soybean Oil	<a href="#">95,533</a>	<a href="#">115,154</a>	↓ -433	2,109
	Soybean Meal	<a href="#">19,377</a>	<a href="#">14,488</a>	↑ 155	613
	HRW Wheat	<a href="#">10,905</a>	<a href="#">5,405</a>	↑ 108	213
	Total			↑ 924	5,611
Industrial Metals	Copper	<a href="#">76,346</a>	<a href="#">-16,694</a>	↑ 6,098	5,004
	Aluminum	<a href="#">169,882</a>	<a href="#">152,244</a>	↑ 759	7,314
	Zinc	<a href="#">76,584</a>	<a href="#">71,591</a>	↑ 336	5,149
	Nickel	<a href="#">56,116</a>	<a href="#">60,423</a>	↓ -285	3,717
	Total			↑ 6,907	21,185
Precious Metals	Gold	<a href="#">121,235</a>	<a href="#">151,807</a>	↓ -3,579	14,194
	Silver	<a href="#">42,846</a>	<a href="#">40,679</a>	↑ 178	3,515
	Total			↓ -3,402	17,709
Softs	Sugar	<a href="#">176,851</a>	<a href="#">257,536</a>	↓ -1,790	3,924
	Coffee	<a href="#">50,722</a>	<a href="#">50,651</a>	↑ 4	2,806
	Cotton	<a href="#">80,553</a>	<a href="#">68,030</a>	↑ 454	2,918
	Total			↓ -1,333	9,648
Livestock	Live Cattle	<a href="#">58,059</a>	<a href="#">34,994</a>	↑ 1,022	2,572
	Lean Hogs	<a href="#">31,931</a>	<a href="#">26,669</a>	↑ 107	652
	Total			↑ 1,129	3,224
<b>Total</b>			↓ -9,707	83,673	

## HISTORICAL CORRELATION: BCOM Indices vs. Money Manager Positions

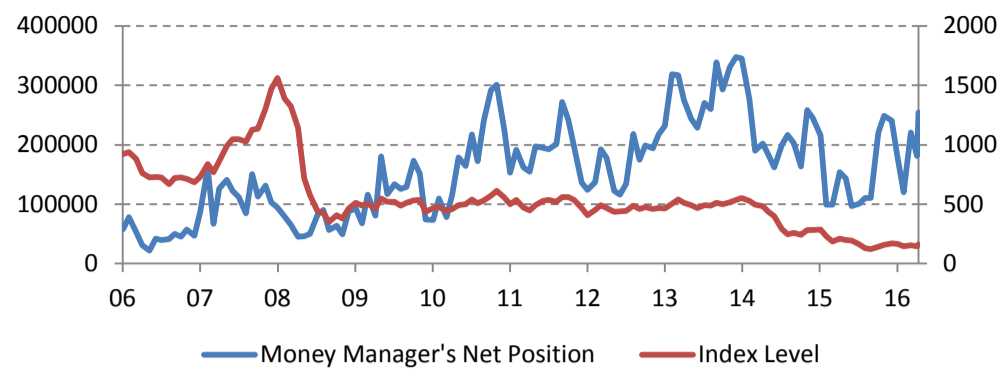
Group	Commodity	Long Position		Short Position		Net Position	
		1-Year	5-Year	1-Year	5-Year	1-Year	5-Year
Energy	Natural Gas	30%	27%	-35%	-36%	43%	46%
	WTI Crude	18%	28%	-55%	-50%	57%	53%
	Brent Crude	36%	27%	-59%	-43%	54%	40%
	ULS Diesel	2%	22%	-46%	-35%	41%	42%
	Gasoline	46%	30%	-48%	-23%	61%	41%
Grains	Corn	54%	52%	-53%	-51%	56%	61%
	Soybeans	55%	62%	-48%	-55%	62%	70%
	Wheat	63%	52%	-67%	-63%	71%	67%
	Soybean Oil	49%	48%	-71%	-63%	68%	66%
	Soybean Meal	56%	55%	-63%	-45%	71%	63%
	HRW Wheat	8%	19%	-44%		47%	50%
Industrial Metals	Copper	27%	46%	-60%	-59%	59%	61%
	Aluminum	42%		-14%		46%	
	Zinc	55%		-10%		77%	
	Nickel	17%		-39%		51%	
Precious Metals	Gold	84%	68%	-53%	-58%	83%	71%
	Silver	59%	48%	-39%	-49%	63%	58%
Softs	Sugar	55%	49%	-60%	-59%	62%	64%
	Coffee	67%	46%	-67%	-64%	76%	66%
	Cotton	54%	58%	-47%	-48%	61%	62%
Livestock	Live Cattle	36%	23%	3%	-4%	26%	18%
	Lean Hogs	2%	12%	0%	-11%	2%	8%

# COMMITMENT OF TRADERS: Money Manager Net Positions vs. BCOM Levels

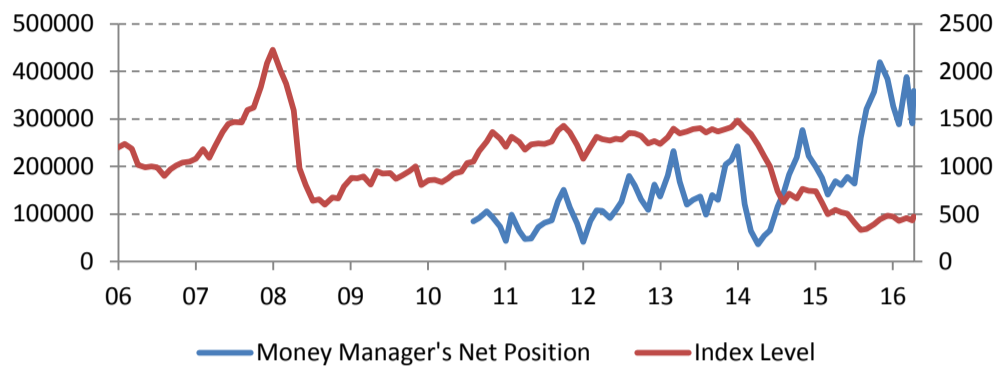
## Natural Gas



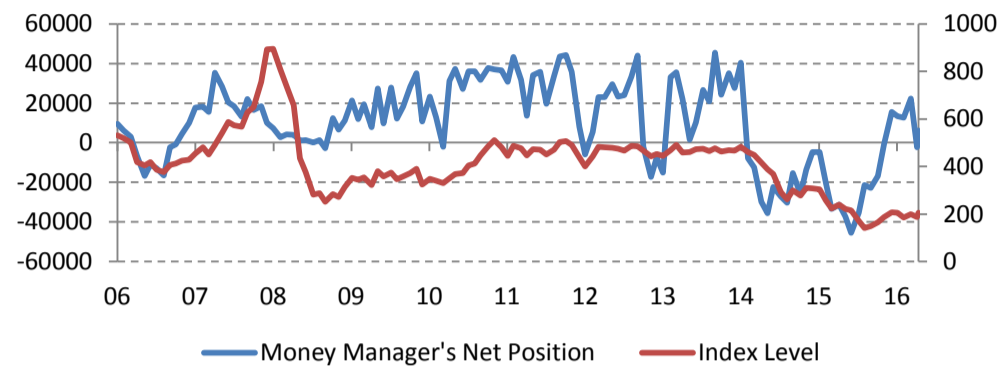
## WTI Crude



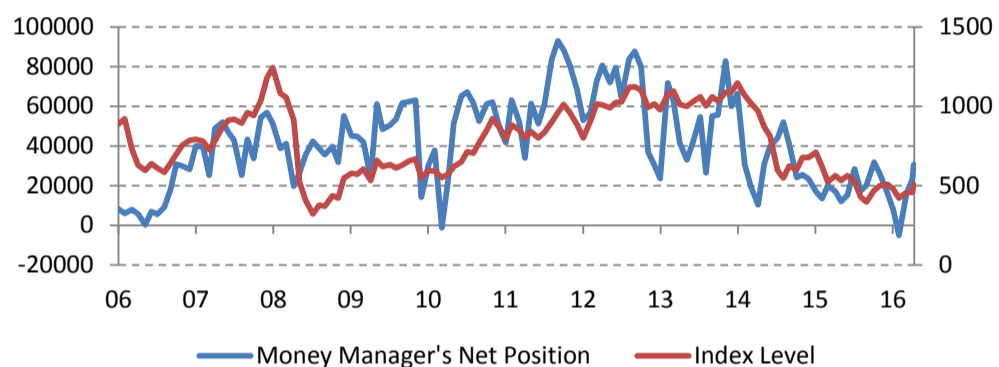
## Brent Crude



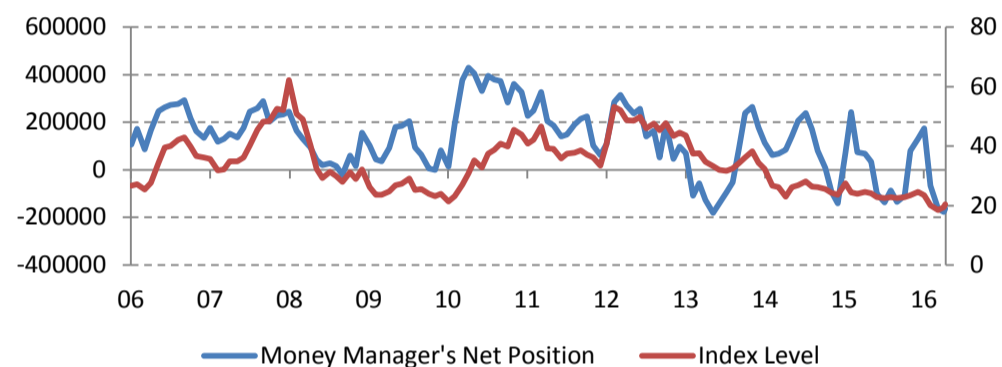
## ULS Diesel



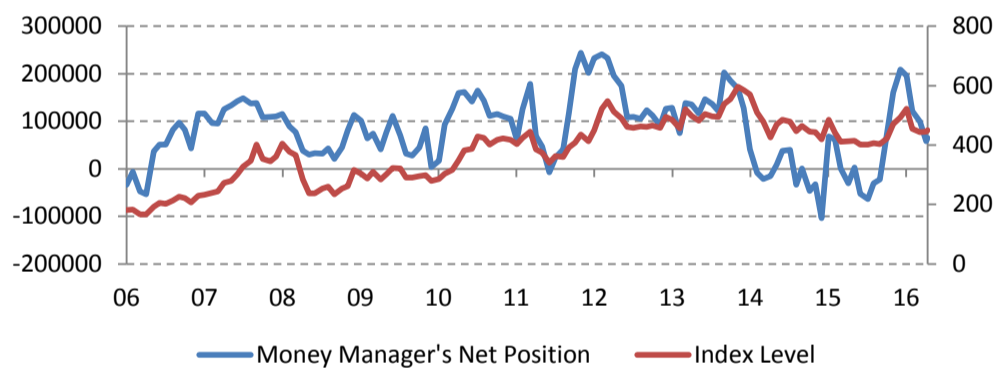
## Gasoline



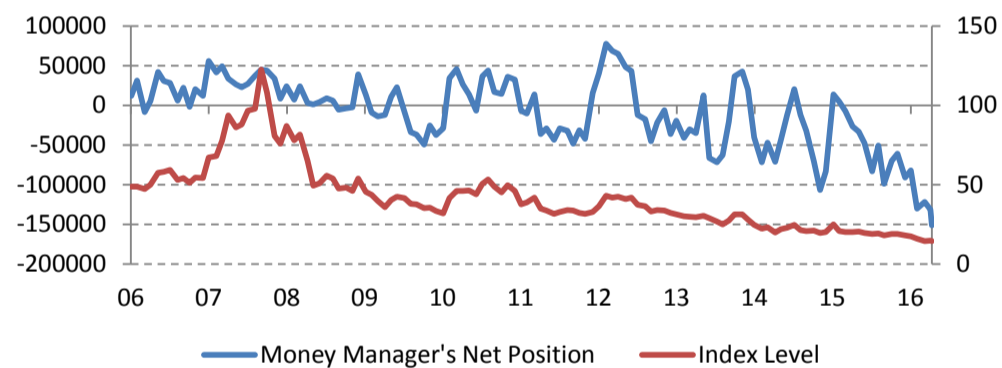
## Corn



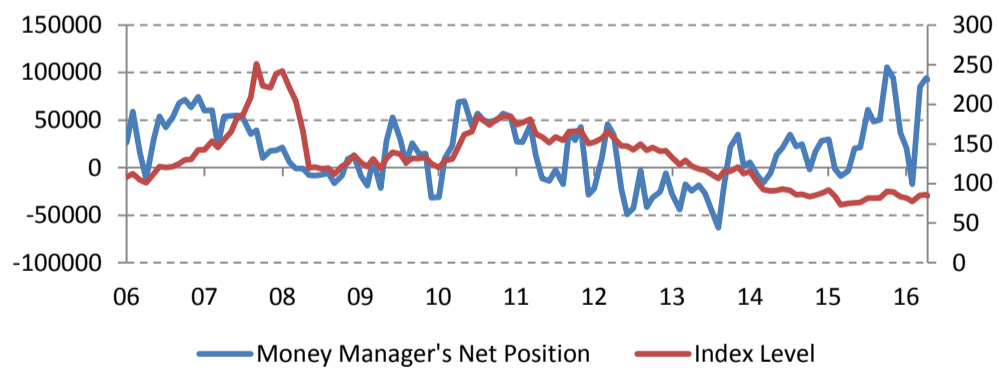
## Soybeans



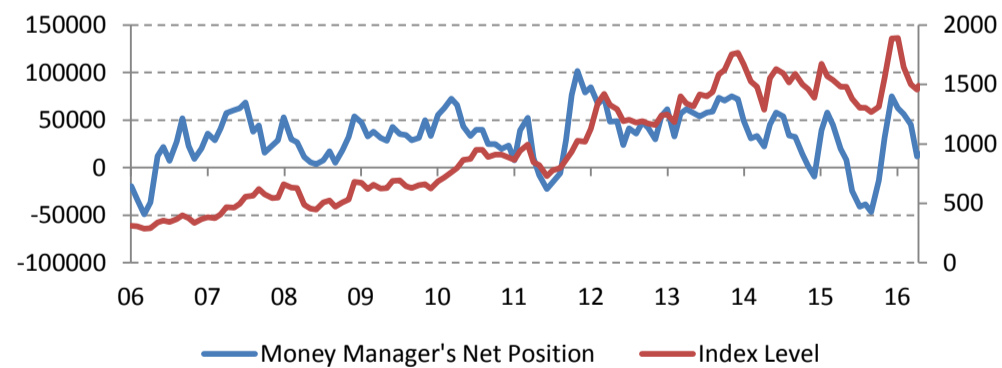
## Wheat



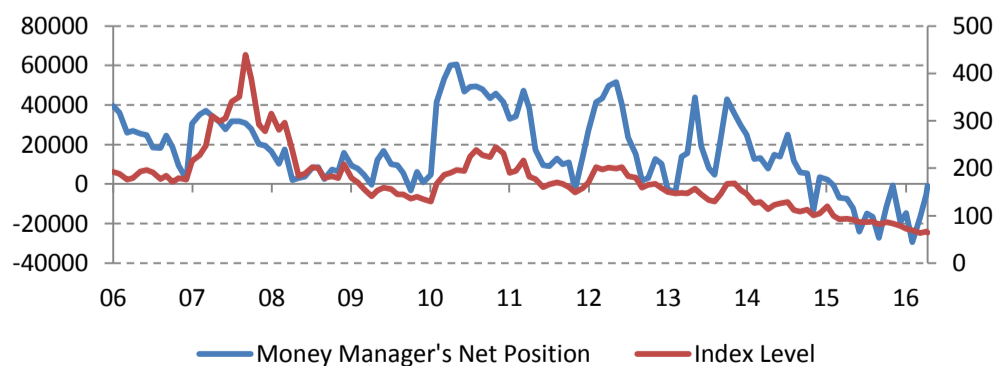
## Soybean Oil



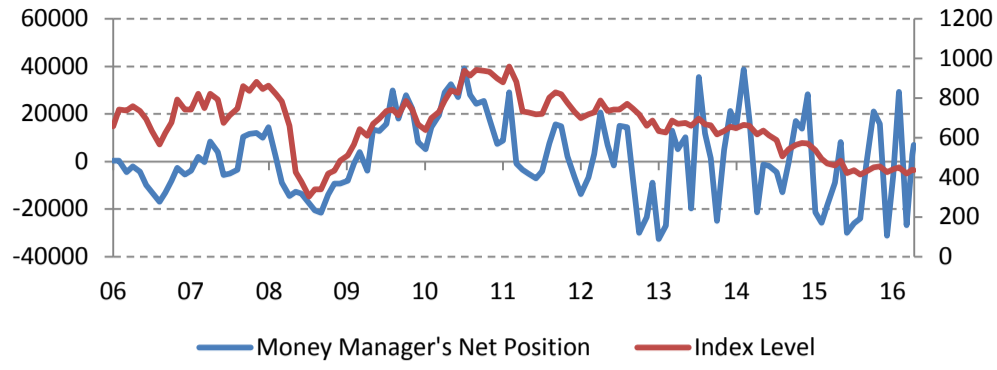
## Soybean Meal



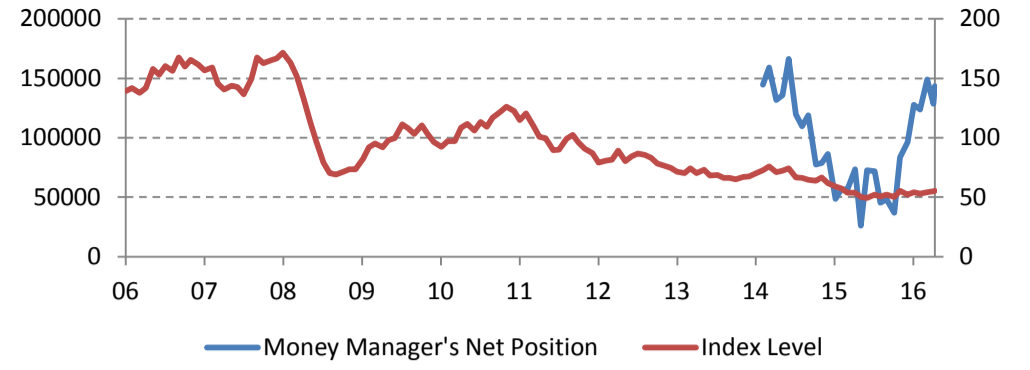
## HRW Wheat



### Copper



### Aluminum



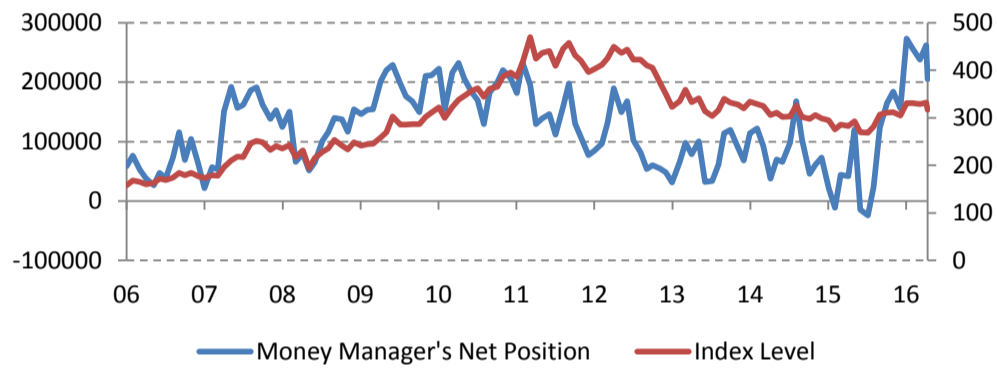
### Zinc



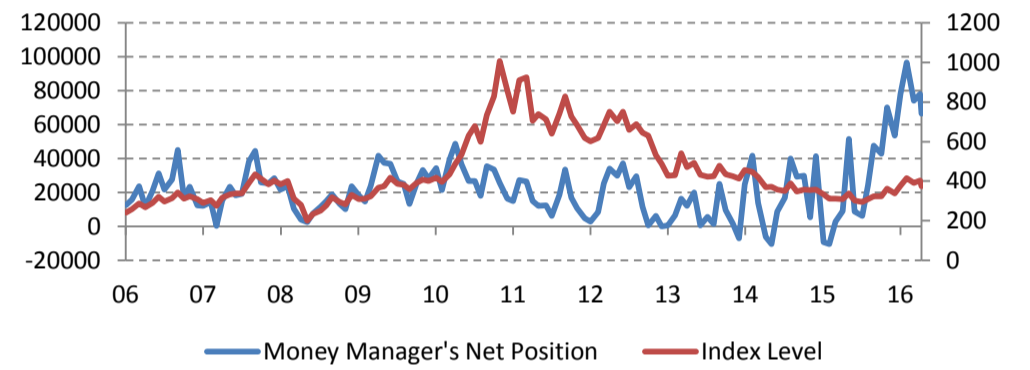
### Nickel



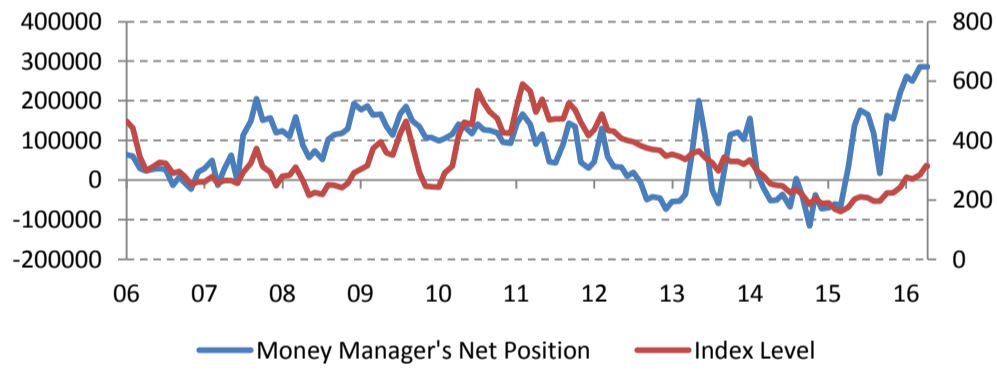
### Gold



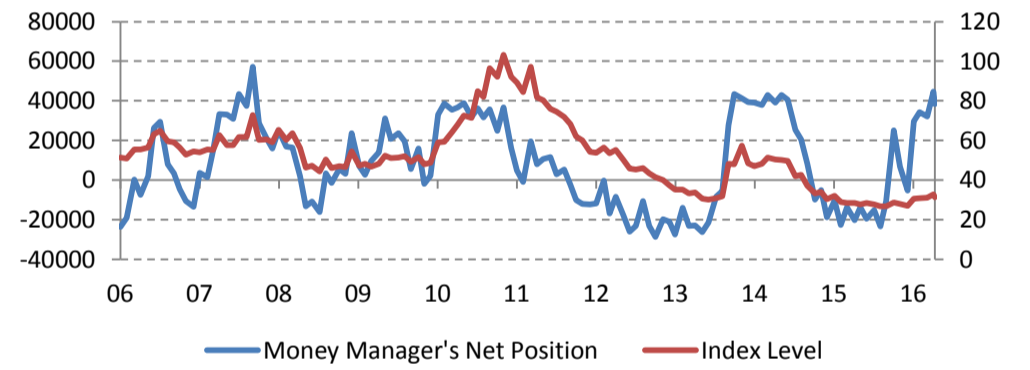
### Silver



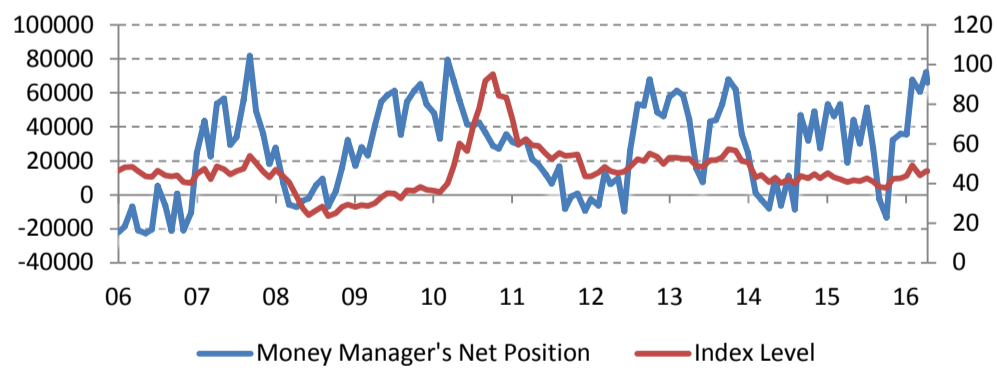
### Sugar



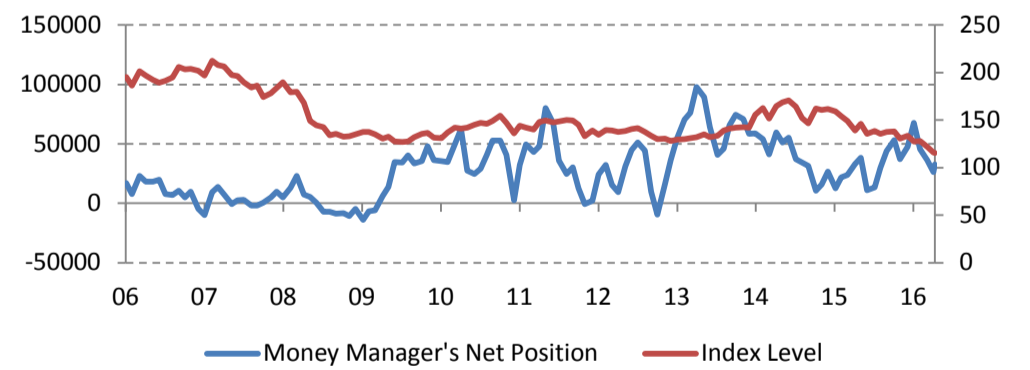
### Coffee



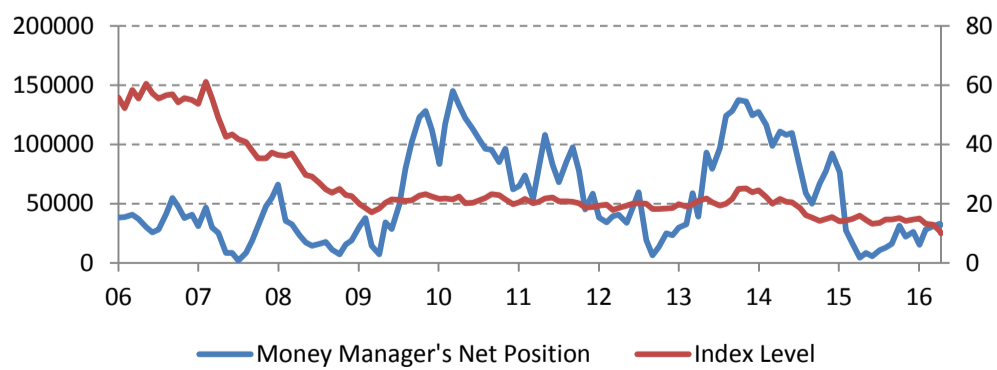
### Cotton



### Live Cattle



### Lean Hogs



## COMMODITY INVENTORY & SALES

[ECO17 <GO>](#)

\* [Click hyperlinks to open in Bloomberg](#)

Group	Inventory/Sales	Ticker	Unit	End-Nov	End-Oct	Change (%)
Energy	DOE Natural Gas Total Inventory	<a href="#">DOENUST1</a>	bcf	4,045	3,909	↑ 3%
	DOE Crude Oil Total Inventory	<a href="#">DOESCRUD</a>	mm barrels	488	468	↑ 4%
	DOE Cushing Oklahoma Crude Oil Total Stocks	<a href="#">DOESCROK</a>	mm barrels	62	58	↑ 5%
	DOE Distillate Fuel Oil Total Inventory	<a href="#">DOESDIST</a>	mm barrels	154	152	↑ 1%
	DOE Motor Gasoline Total Inventory	<a href="#">DOESTMGS</a>	mm barrels	226	226	↑ 0%
Grains	USDA Corn Total Export Sales	<a href="#">SALECNUM</a>	thousand MT	1,689	799	↑ 111%
	USDA Soybeans Total Export Sales	<a href="#">SALESYBN</a>	thousand MT	1,899	2,045	↓ -7%
	USDA All Wheat Total Export Sales	<a href="#">SALEWEAL</a>	thousand MT	713	673	↑ 6%
	USDA Soybean Oil Total Export Sales	<a href="#">SALESYOL</a>	thousand MT	26	25	↑ 7%
	USDA Soybean Cake Meal Total Export Sales	<a href="#">SALESCML</a>	thousand MT	224	147	↑ 53%
Industrial Metals	Comex Copper Total Inventory	<a href="#">COMXCOPR</a>	thousand short ton	78	72	↑ 8%
	LME Copper Total Inventory	<a href="#">NLSCA</a>	thousand MT	235	326	↓ -28%
	LME Primary Aluminum Total Inventory	<a href="#">NLSAH</a>	thousand MT	2,155	2,144	↑ 1%
	LME Zinc Total Inventory	<a href="#">NLSZS</a>	thousand MT	443	451	↓ -2%
	LME Nickel Total Inventory	<a href="#">NLSNI</a>	thousand MT	367	362	↑ 1%
Precious Metals	Comex Gold Total Inventory	<a href="#">COMXGOLD</a>	mm ounces	10	11	↓ -5%
	Comex Silver Total Inventory	<a href="#">COMXSILV</a>	mm ounces	179	173	↑ 3%
Softs	USDA All Upland Cotton Total Export Sales	<a href="#">SALECNUA</a>	thousand bales	299	129	↑ 131%
Livestock	USDA Cattle Slaughter Estimates Daily	<a href="#">SLGTCATT</a>	thousand heads	116	116	↑ 0%
	USDA Hogs Slaughter Estimates Daily	<a href="#">SLGTHOGS</a>	thousand heads	441	460	↓ -4%

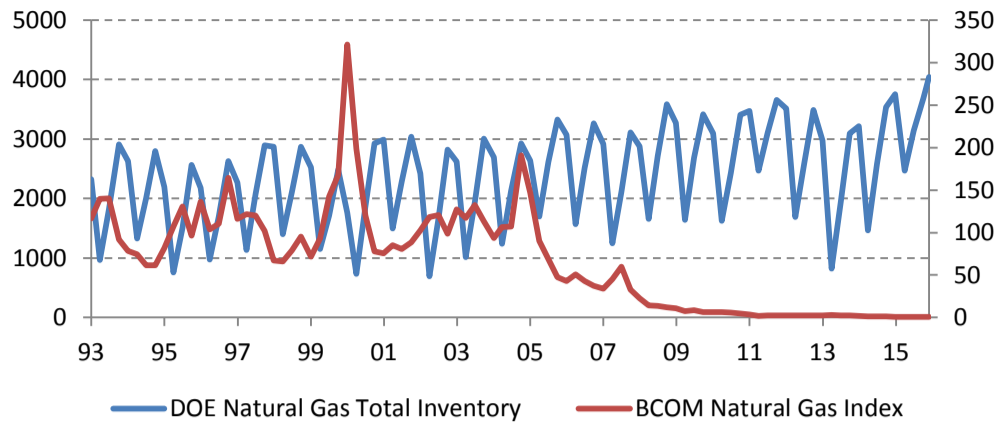
## HISTORICAL CORRELATION: Inventory & Sales vs. BCOM Indices

Group	Inventory/Sales	BCOM Index	1-Year	5-Year
Energy	DOE Natural Gas Total Inventory	BCOM Natural Gas Index	67%	-24%
	DOE Crude Oil Total Inventory	BCOM WTI Crude Index	9%	-93%
	DOE Cushing Oklahoma Crude Oil Total Stocks	BCOM WTI Crude Index	-18%	-79%
	DOE Distillate Fuel Oil Total Inventory	BCOM ULS Diesel Index	-66%	-80%
	DOE Motor Gasoline Total Inventory	BCOM Unleaded Gasoline Index	-58%	-53%
Grains	USDA Corn Total Export Sales	BCOM Corn Index	1%	-42%
	USDA Soybeans Total Export Sales	BCOM Soybeans Index	35%	-9%
	USDA All Wheat Total Export Sales	BCOM Wheat Index	-31%	16%
	USDA Soybean Oil Total Export Sales	BCOM Soybean Oil Index	-19%	-8%
	USDA Soybean Cake Meal Total Export Sales	BCOM Soybean Meal Index	13%	9%
Industrial Metals	Comex Copper Total Inventory	BCOM Copper Index	41%	10%
	LME Copper Total Inventory	BCOM Copper Index	-4%	25%
	LME Primary Aluminum Total Inventory	BCOM Aluminium Index	-78%	75%
	LME Zinc Total Inventory	BCOM Zinc Index	-31%	26%
	LME Nickel Total Inventory	BCOM Nickel Index	-85%	-74%
Precious Metals	Comex Gold Total Inventory	BCOM Gold Index	70%	81%
	Comex Silver Total Inventory	BCOM Silver Index	8%	-71%
Softs	USDA All Upland Cotton Total Export Sales	BCOM Cotton Index	15%	-12%
Livestock	USDA Cattle Slaughter Estimates Daily	BCOM Live Cattle Index	-29%	-16%
	USDA Hogs Slaughter Estimates Daily	BCOM Lean Hogs Index	6%	-14%

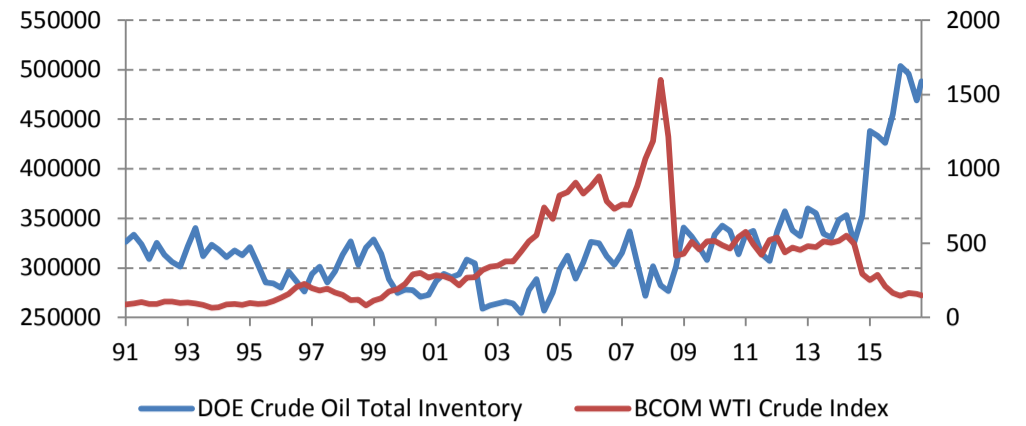


# COMMODITY INVENTORY & SALES vs. BCOM INDICES

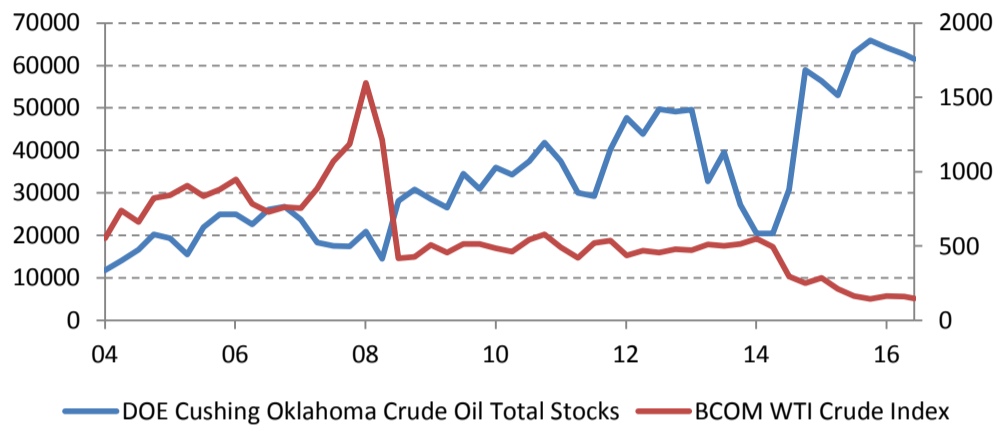
## Natural Gas



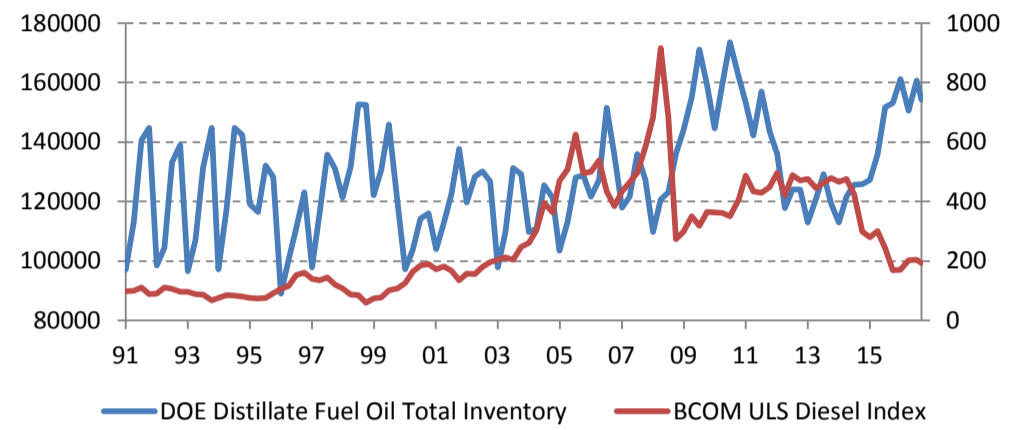
## WTI Crude



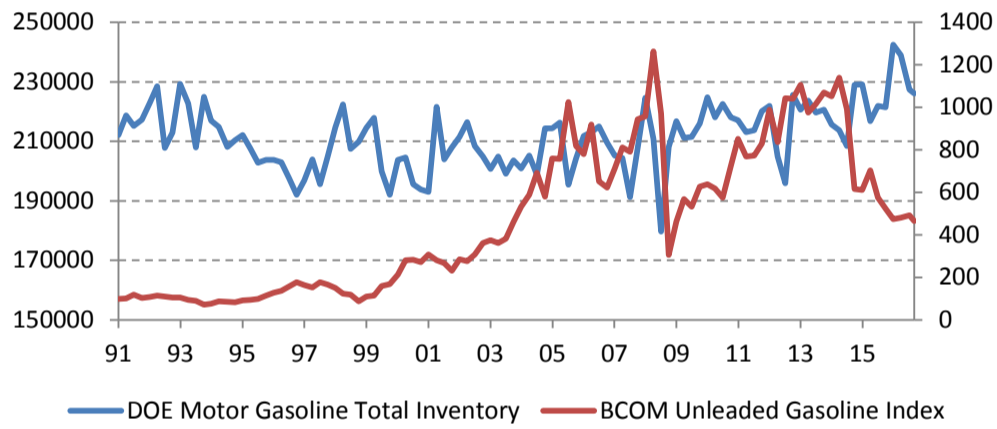
## WTI Crude



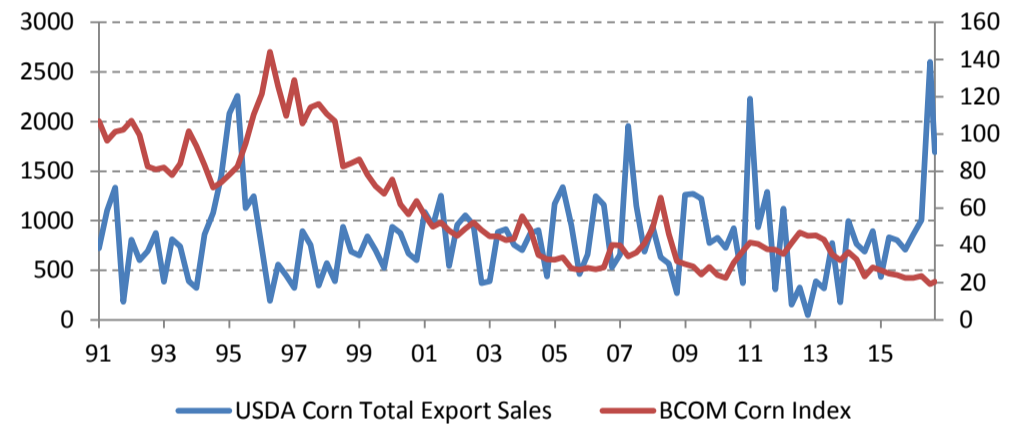
## ULS Diesel



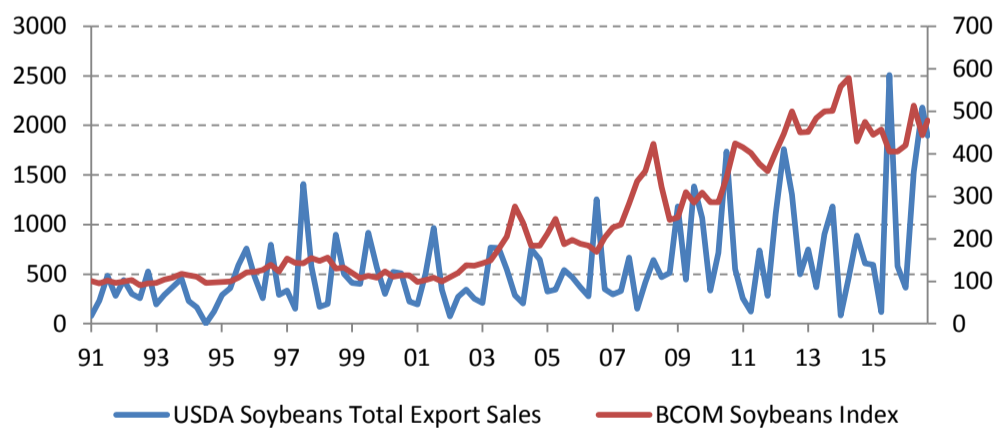
## Gasoline



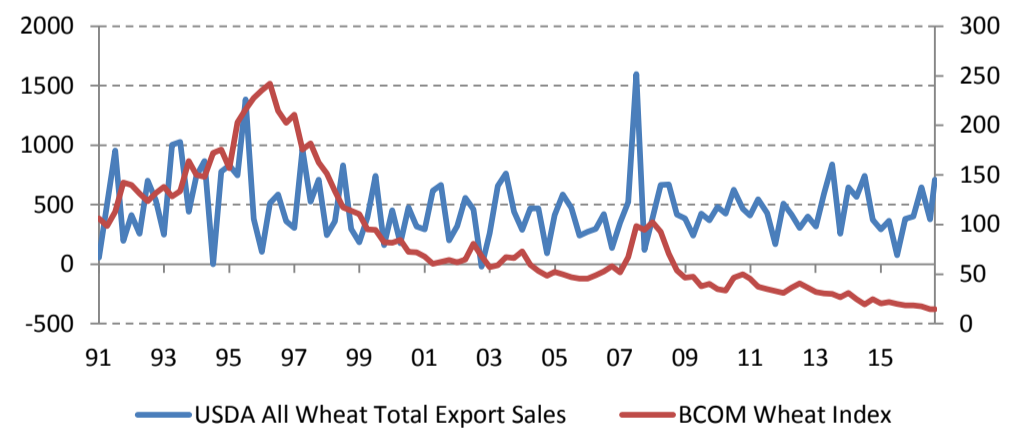
## Corn



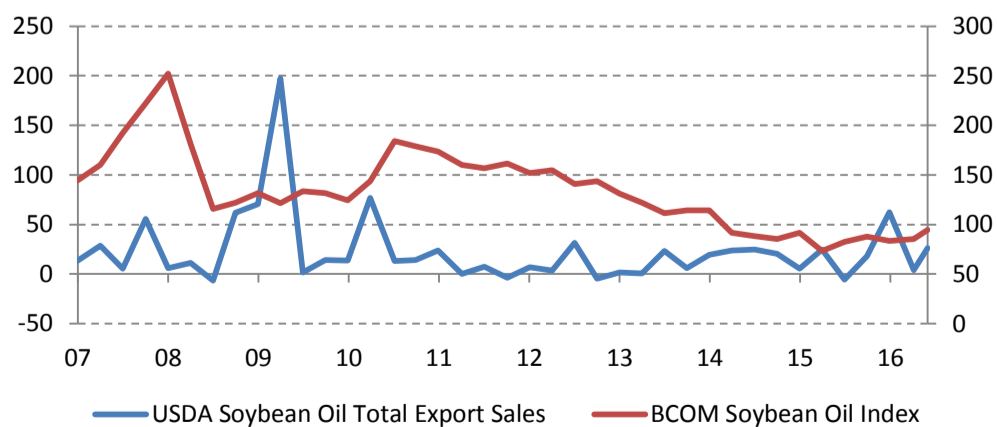
## Soybeans



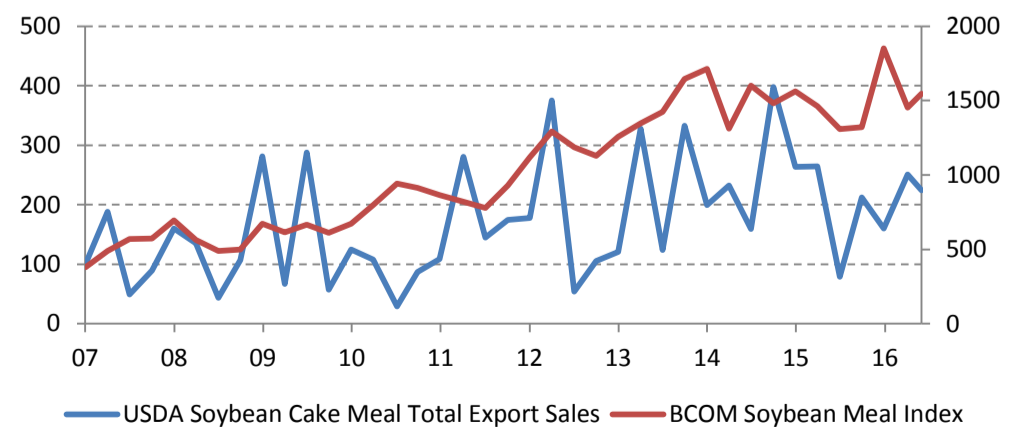
## Wheat



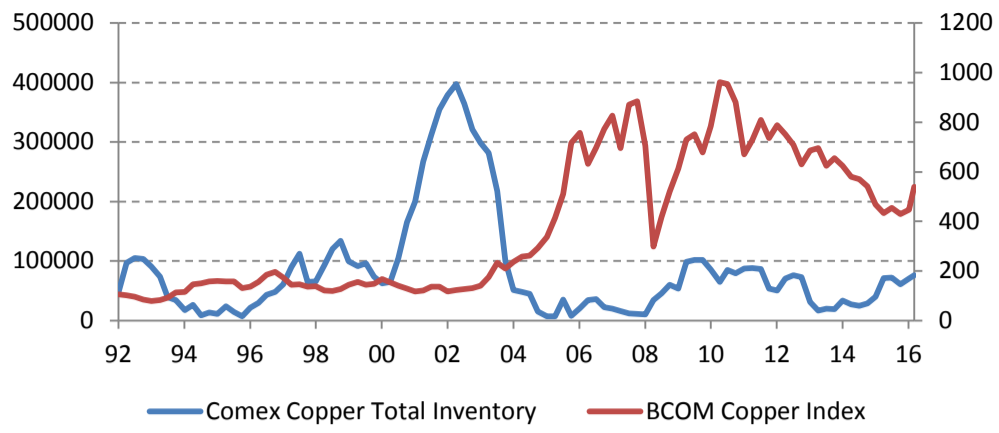
## Soybean Oil



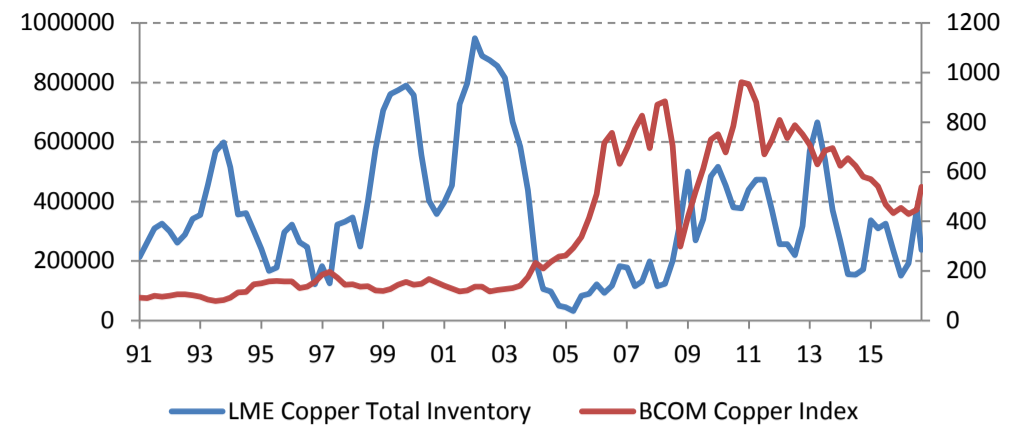
## Soybean Meal



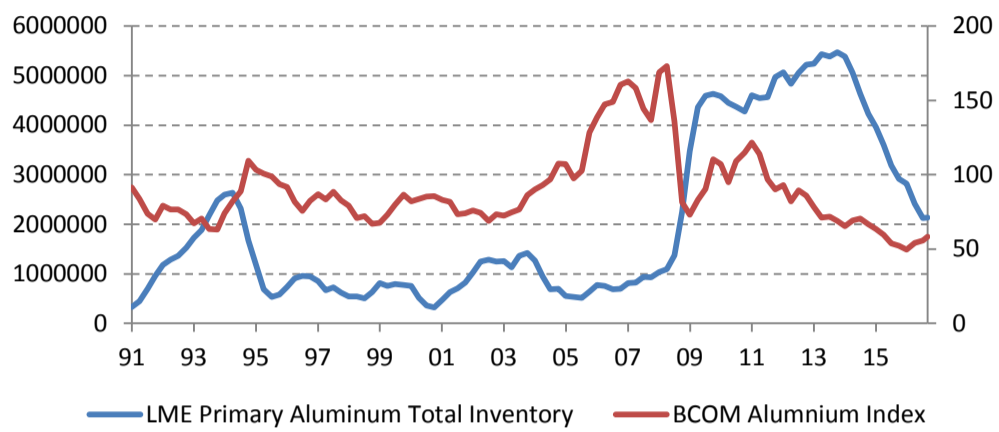
### Copper



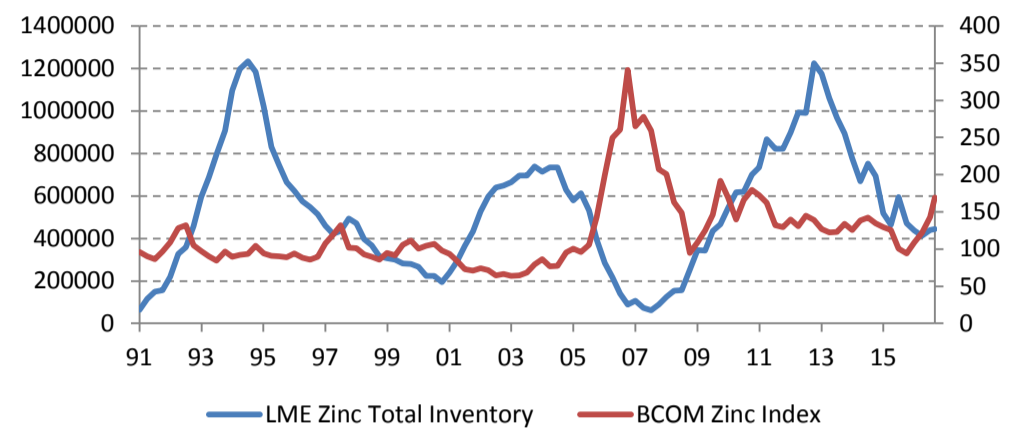
### Copper



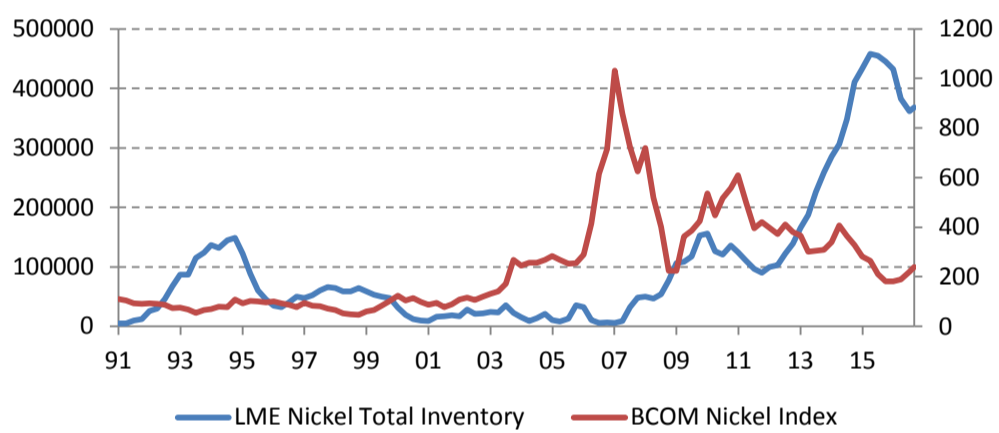
### Aluminum



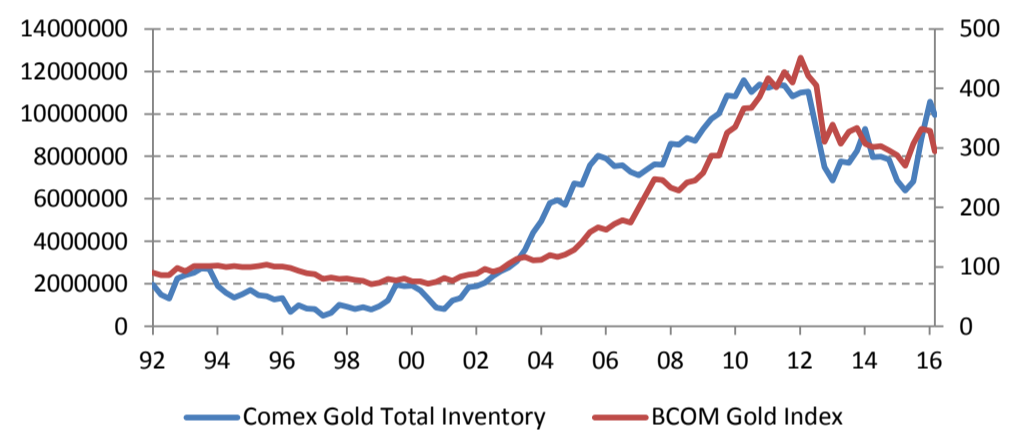
### Zinc



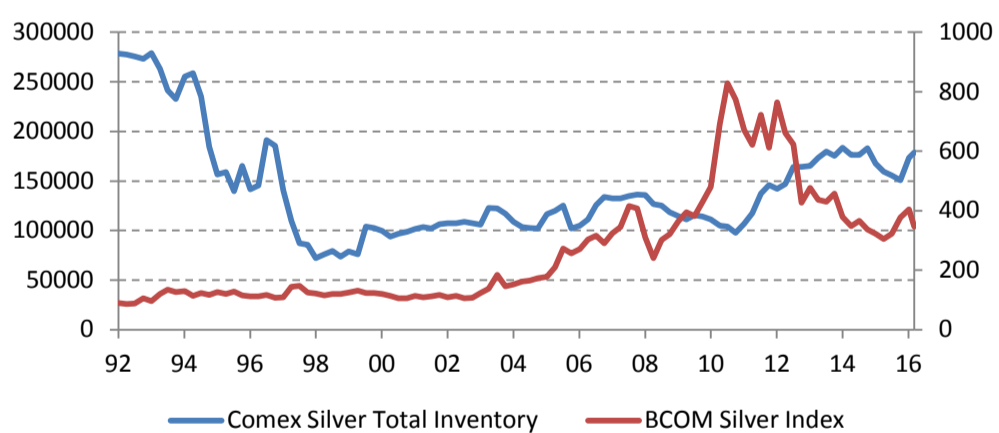
### Nickel



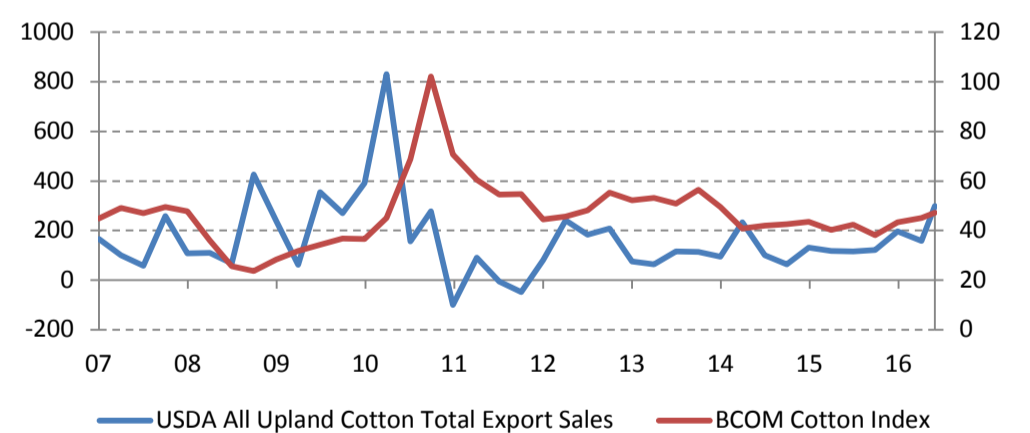
### Gold



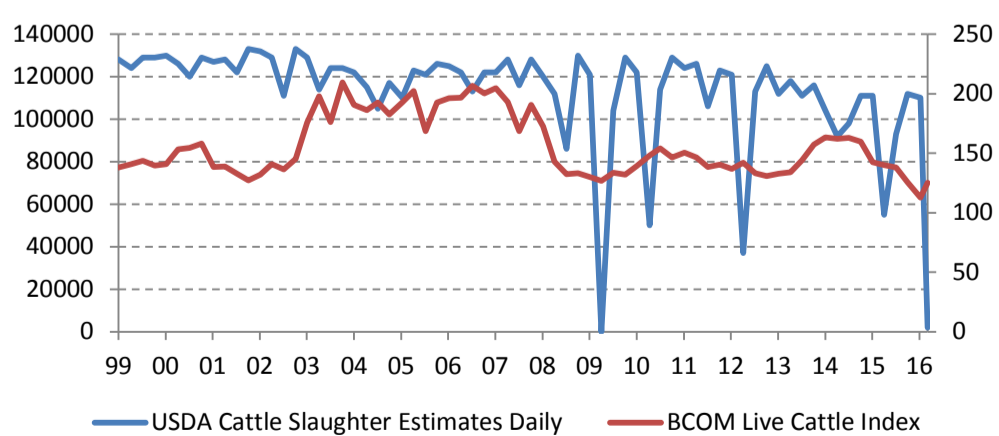
### Silver



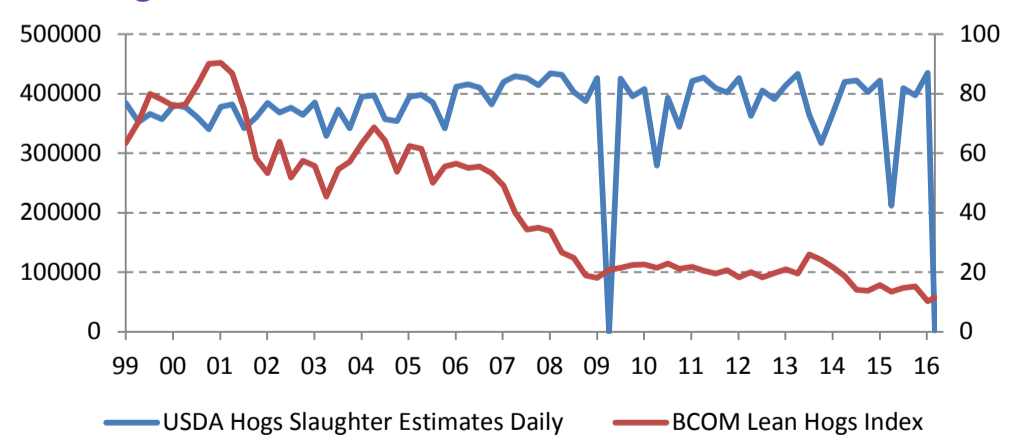
### Cotton



### Live Cattle



### Lean Hogs



## COMMODITY FUND FLOWS FOR US-LISTED ETPs

[XLTP XETFM <GO>](#)

Report Period: 31 Oct 2016 - 30 Nov 2016

Sector	Net Flows (\$m)	Beginning Fund Market Cap (\$m)	% of Funds Market Cap
Broad Based	-125.1	6,684.5	-1.9%
Energy	807.0	8,271.7	9.8%
Agriculture	-93.1	1,565.0	-5.9%
Livestock	3.8	28.2	13.5%
Industrial Metals	29.0	336.8	8.6%
Precious Metals	-3,705.7	59,104.5	-6.3%
Commodity	-3,084.1	75,990.8	-4.1%

### Top 10 Creations

\* [Click hyperlinks to open in Bloomberg](#)

Name	Ticker	Net Flows (\$m)	Beginning Fund Market Cap (\$m)	% of Funds Market Cap
United States Oil Fund LP	<a href="#">USO US</a>	600.7	2,882.1	20.8%
VelocityShares 3x Long Crude ETN	<a href="#">UWTI US</a>	208.4	1,110.0	18.8%
ProShares Ultra Bloomberg Crude Oil	<a href="#">UCO US</a>	175.5	762.7	23.0%
PowerShares Optimum Yield Dive	<a href="#">PDBC US</a>	72.8	381.3	19.1%
United States Natural Gas Fund LP	<a href="#">UNG US</a>	67.4	570.2	11.8%
VelocityShares 3x Long Natural Gas ETN	<a href="#">UGAZ US</a>	45.7	334.4	13.7%
PowerShares DB Base Metals Fund	<a href="#">DBB US</a>	27.2	236.2	11.5%
PowerShares DB Oil Fund	<a href="#">DBO US</a>	18.5	411.4	4.5%
VelocityShares 3x Inverse Natural Gas ETN	<a href="#">DGAZ US</a>	15.0	80.6	18.6%
iPath Bloomberg Copper Subindex Total Return ETN	<a href="#">JJC US</a>	9.0	41.9	21.4%

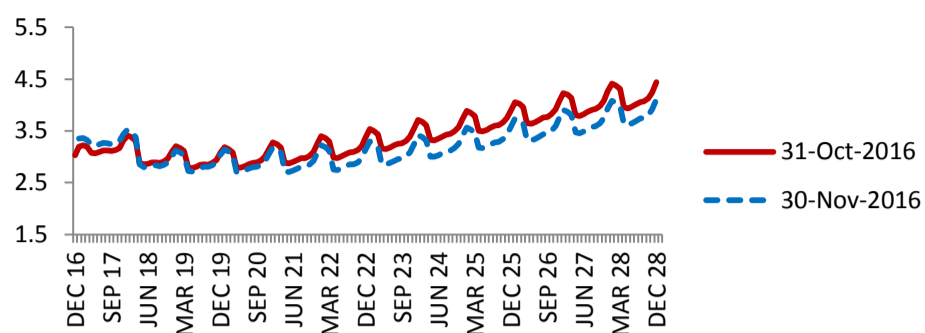
### Top 10 Redemptions

Name	Ticker	Net Flows (\$m)	Beginning Fund Market Cap (\$m)	% of Funds Market Cap
SPDR Gold Shares	<a href="#">GLD US</a>	-2,215.5	38,740.3	-5.7%
iShares Gold Trust	<a href="#">IAU US</a>	-1,113.8	9,498.1	-11.7%
iShares Silver Trust	<a href="#">SLV US</a>	-246.3	6,447.8	-3.8%
VelocityShares 3x Inverse Crude ETN	<a href="#">DWTI US</a>	-219.2	393.2	-55.7%
iShares Commodities Select Strategy ETF	<a href="#">COMT US</a>	-144.6	321.4	-45.0%
ProShares UltraShort Bloomberg Crude Oil	<a href="#">SCO US</a>	-88.1	227.9	-38.6%
PowerShares DB Precious Metals Fund	<a href="#">DBP US</a>	-53.3	234.1	-22.8%
First Trust Global Tactical Commodity Strategy Fund	<a href="#">FTGC US</a>	-51.8	225.1	-23.0%
PowerShares DB Agriculture Fund	<a href="#">DBA US</a>	-28.6	788.0	-3.6%
PowerShares DB Energy Fund	<a href="#">DBE US</a>	-26.4	200.6	-13.2%

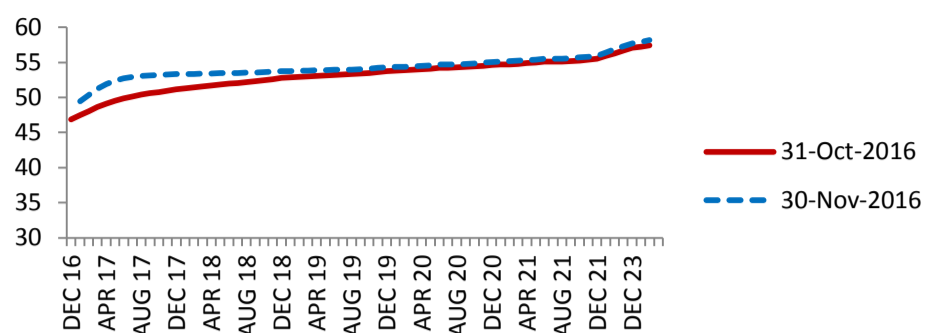
# COMMODITY FUTURES TERM STRUCTURE

## ENERGY GROUP

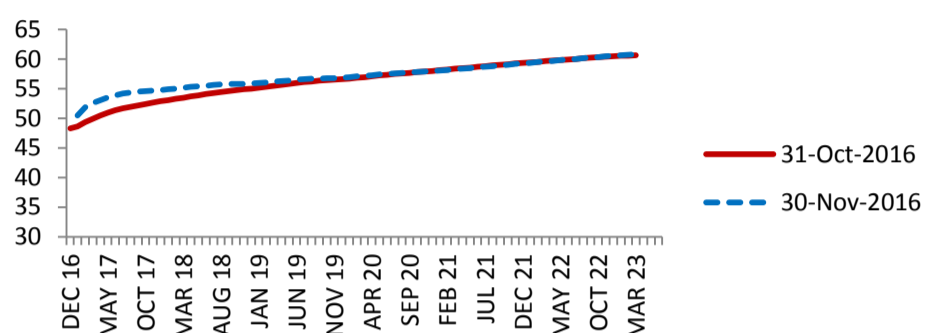
### Natural Gas



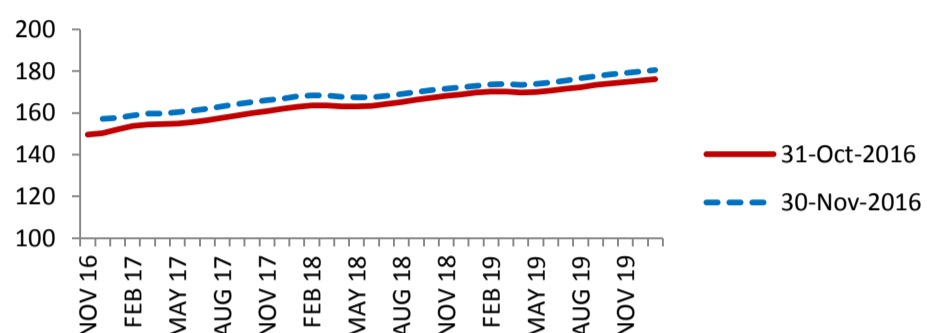
### WTI Crude



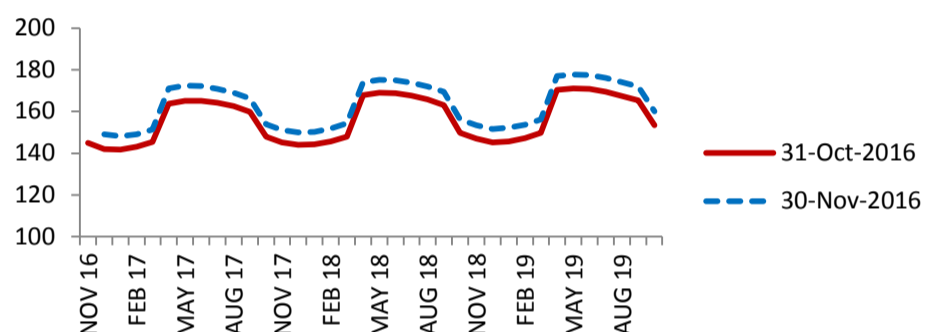
### Brent Crude



### ULS Diesel

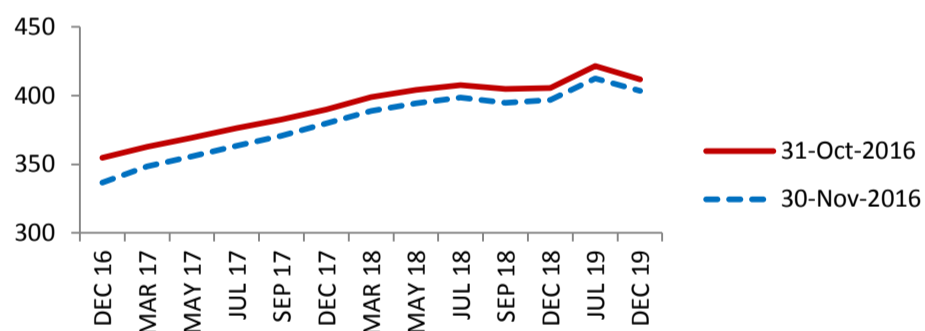


### Unleaded Gasoline

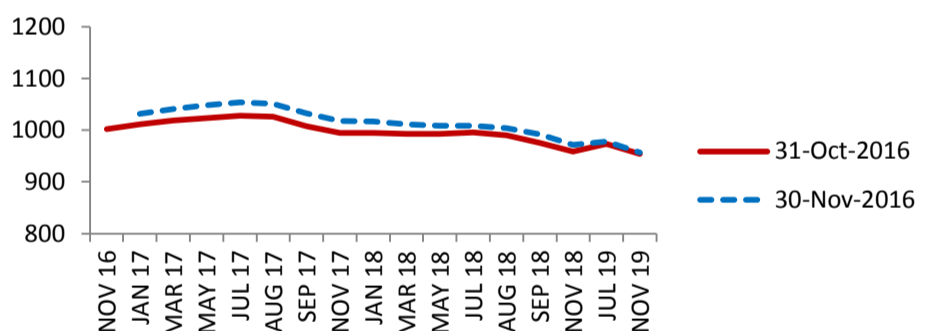


## GRAINS GROUP

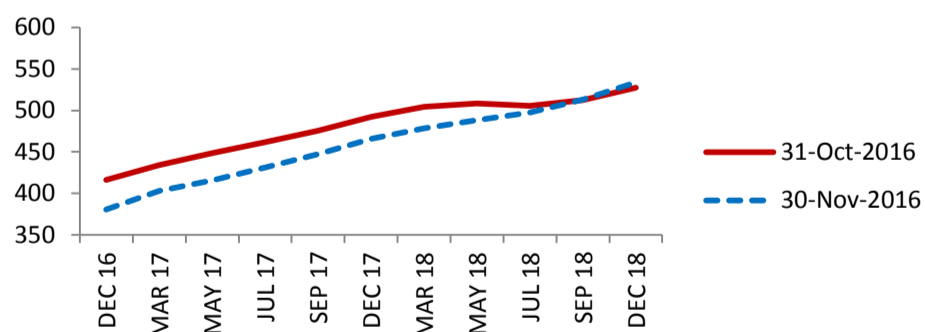
### Corn



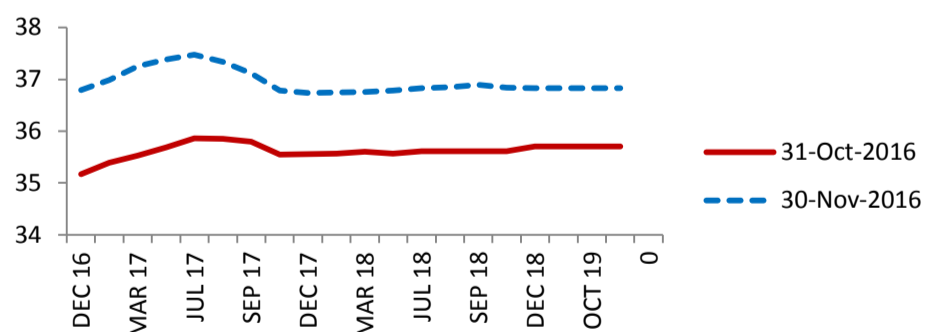
### Soybeans



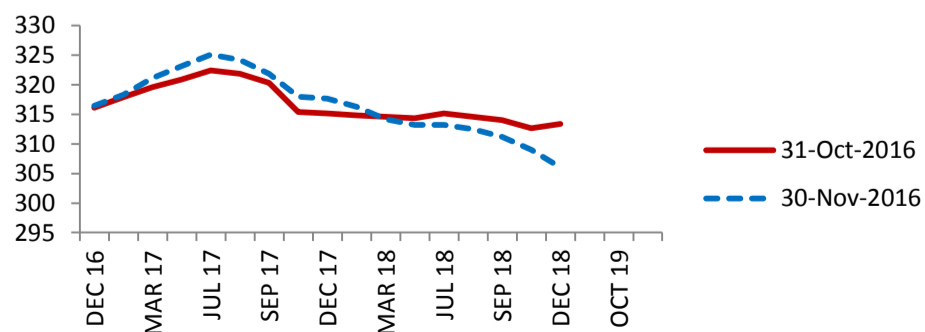
### Wheat



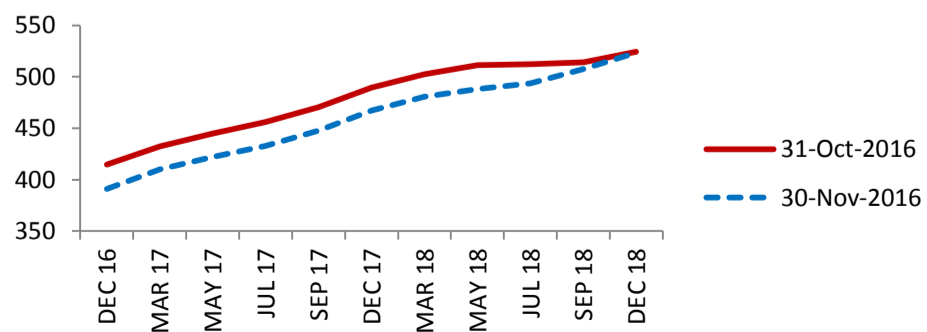
### Soybean Oil



### Soybean Meal

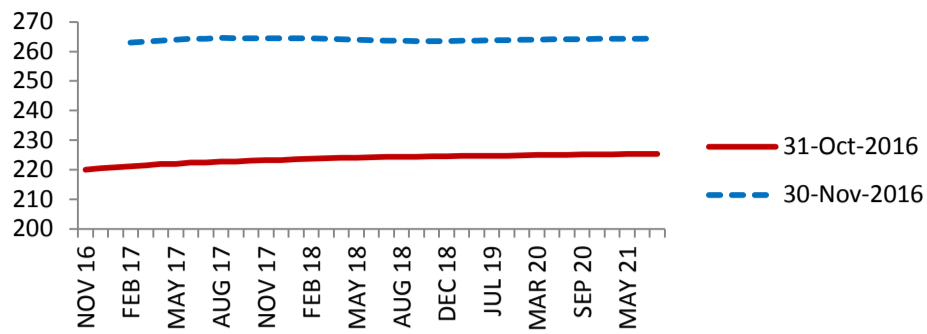


### HRW Wheat

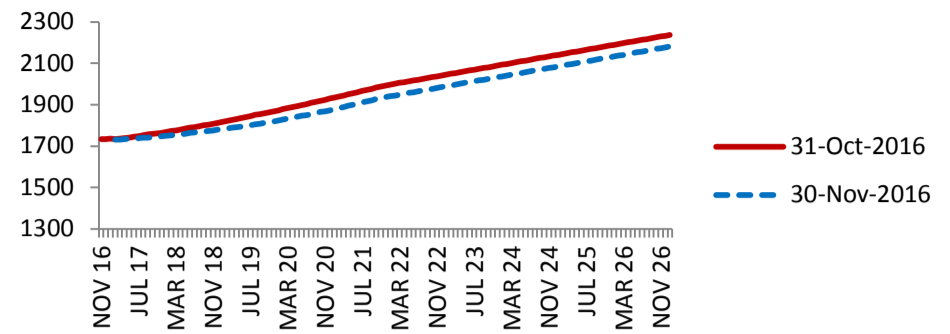


## INDUSTRIAL METALS GROUP

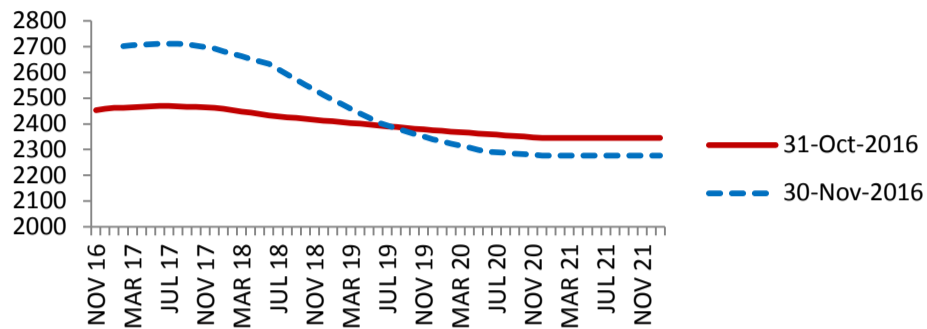
### Copper



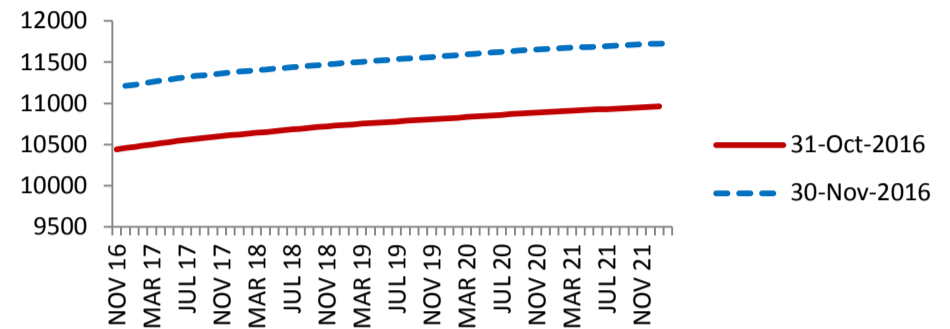
### Aluminum



### Zinc

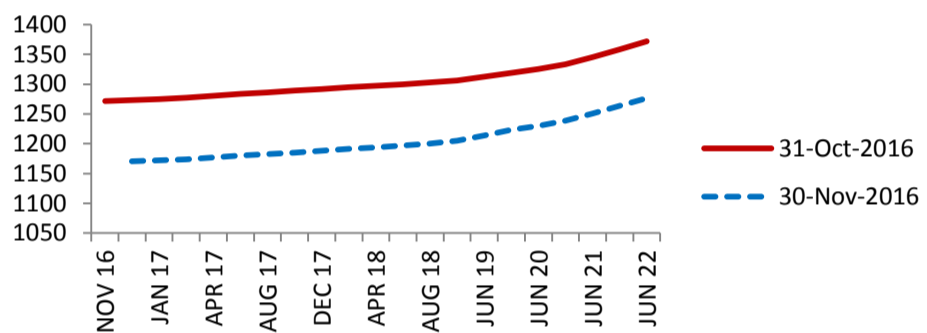


### Nickel

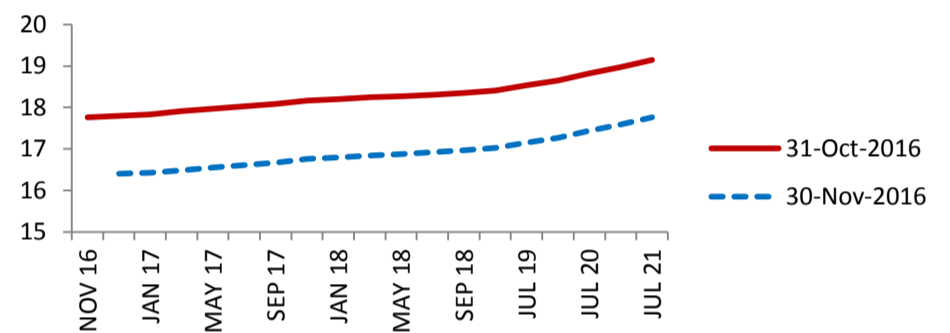


## PRECIOUS METALS GROUP

### Gold

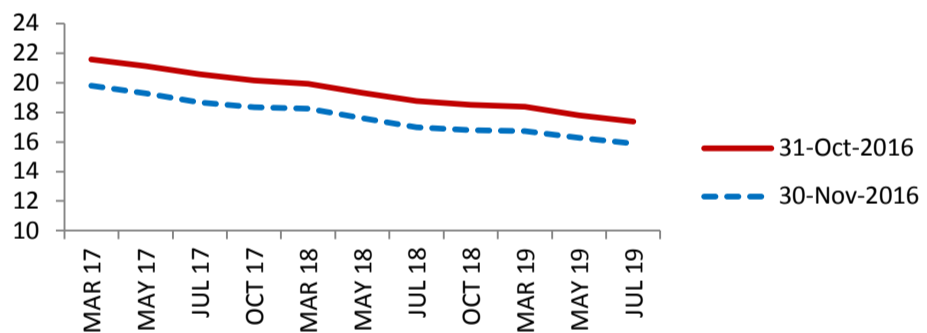


### Silver

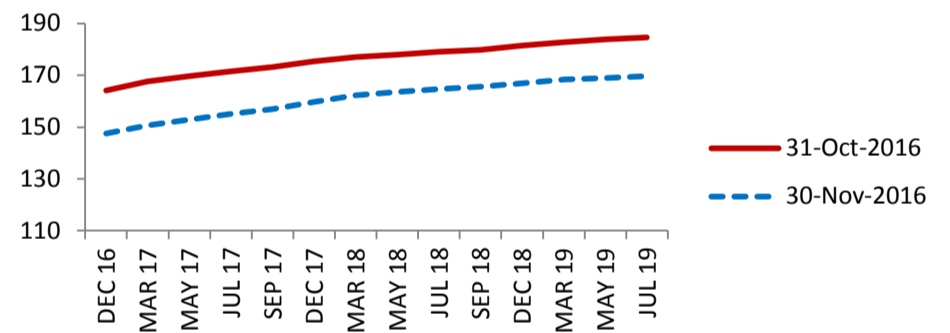


## SOFTS GROUP

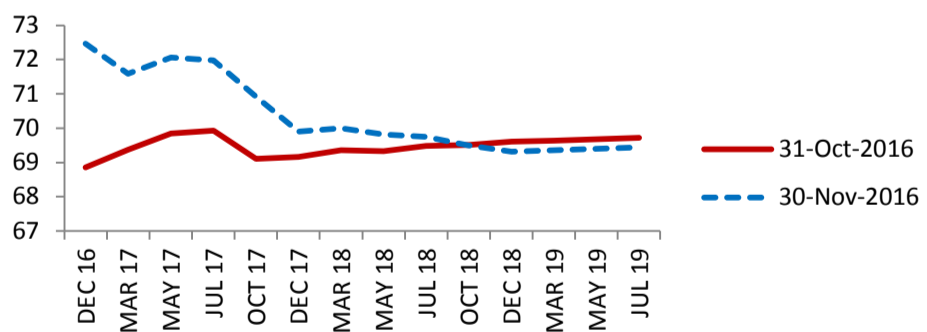
### Sugar



### Coffee

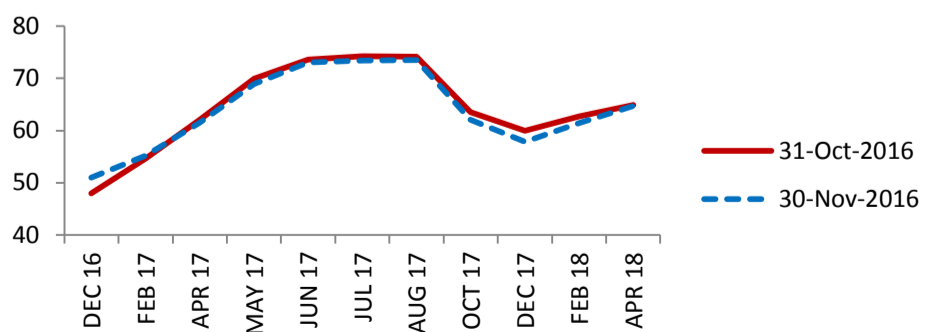


### Cotton

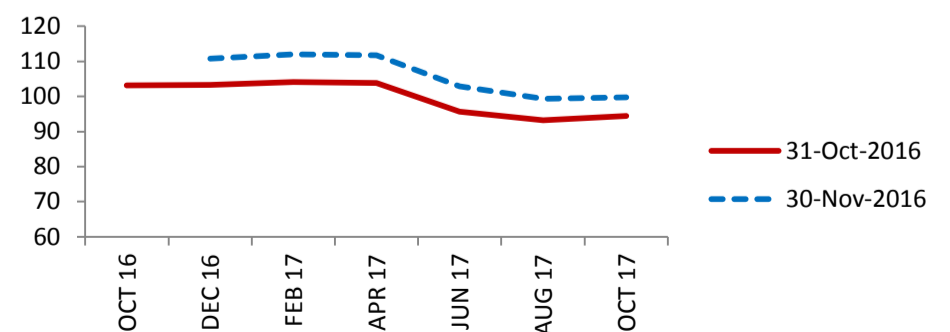


## LIVESTOCK GROUP

### Lean Hogs



### Live Cattle



# BLOOMBERG INTELLIGENCE: COMMODITY DASHBOARDS

**BI <GO>** \* Click hyperlinks to open in Bloomberg

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
<b>North America</b>					
OECD	45.6	45.6	46.1	45.9	46.4
United States	24.2	24.1	24.1	23.6	24.0
Canada	19.2	19.0	18.8	18.7	18.9
Chile	2.4	2.4	2.4	2.4	2.3
Mexico	0.3	0.3	0.3	0.3	0.3
Latin America	2.0	2.0	2.0	2.1	2.1
Europe	18.4	18.5	18.7	18.4	18.6
Pacific	6.0	8.1	8.3	8.5	8.2
<b>Non-OECD</b>	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
<b>Total World Crude Oil Demand</b>	<b>93.5</b>	<b>92.5</b>	<b>91.8</b>	<b>90.6</b>	<b>89.5</b>

## Natural Gas Production: BI NGAS <GO>

Category	Current	Prev Week	1 Week % Chg	1 Week % Chg	Prev Year
<b>Natural Gas Inventories</b>					
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
<b>Total</b>	<b>1,479.00</b>	<b>1,467.00</b>	<b>12.00</b>	<b>0.82</b>	<b>896.00</b>
Net Injections/Withdrawals	12.00	-42.00	54.00	452.07	-57.00
Consensus (Bloomberg Survey)	1,474.00	1,463.00	11.00	0.75	901.00
<b>Domestic Working Storage (BCF)</b>					
East	219.76	219.77	-0.01	-0.00	113.79
West	49.53	49.52	-0.01	-0.00	22.76
<b>Total</b>	<b>269.29</b>	<b>269.28</b>	<b>-0.01</b>	<b>-0.01</b>	<b>136.46</b>

## Precious Metal Mining: BI PMET <GO>

Indicator	Value
Avg Gold Spot Price	1,220
Known ETF Gold Hold	52,128
IMF Global Gold Reser	1,036
Sales Growth (YoY)	-8.90
EBITDA Margin (%)	70.89
T12M Sales Growth (%)	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	92.40
U.S. Corn Price Future	3.60
Sales Growth (YoY)	2.63
EBITDA Margin (%)	15.30
EPS Growth (YoY)	-11.17
ROIC (%)	7.83
Est P/E Current Yr	15.00
Price/Book	1.00

## Copper: BI COPP <GO>

Indicator	Value
China GDP YoY (%)	7.30
YTD Copper Surplus/Deficit	201.15k
Major Exch Copper Inv	599.9%
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	4.28M
Global Primary Alumi	4.17M
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

The data provided in this report can be easily accessed on the Bloomberg Professional® service along with numerous news and analytical tools to help you stay on top of the commodity markets.

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Calendar of commodity events	<a href="#">ECO17</a>
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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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