

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

November Pause Should Refresh

- November's pause sets up a more favorable 2018 foundation
- Base metals retracing some gains offset by strong energy is a healthy rotation
- Industrial metals retracement supports a more favorable base for 2018
- Energy is a bit elevated similar to 1H, but backwardation shows improvement
- Lowly and compressed agriculture offers the greatest mean-reversion potential
- 2018 Outlook: Broad commodities are most favorable foundation this millennium

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Commodities Greet December With Improving Foundation for 2018

Performance: November -0.5%, YTD -1.2, Spot 4.3%.
(returns are total return (TR) unless noted)

(Bloomberg Intelligence) -- November's pause sets up a more favorable foundation for commodities in 2018. Levels that supported the Bloomberg Commodity Index in 2012-14 should be in play as target resistance in 2018 -- about 12% above end-of-November levels. A potential peak dollar would be a key driver, but absent a weak buck, favorable broad-commodity demand vs. supply should keep the market supported. Metals, retracing some gains recently, are on firmer ground for continued leadership.

Near the upper end of three-year ranges, energy's risks are similar to the 1H flush, though backwardation indicates the extent that the market has improved. Agriculture remains the lowly wildcard, also offering the greatest mean-reversion potential to catch up with the performance of other sectors.

[Outlook - December & 2018](#)

Consolidation and Rotation in November Refreshing Commodities. "Pause to refresh" is likely the best way to describe November's commodity market. Industrial metals retracing some gains, offset by strong energy, signals a healthy rotation. The improving commodity foundation indicates increasing total returns that appear set to trade places with bond-market returns.

Broad Commodities Are Most Favorable Foundation This Millennium. Unless primary broad-commodity drivers reverse favorable trends, price appreciation should accelerate. Demand in excess of supply appears in its early days, with prices recovering from multiyear

declines. A potential greenback peak should be a game changer for dollar-based commodities.

Commodity Foundation Firming for 2018. Primary pillars of commodity-price appreciation -- demand vs. supply and the dollar -- are the most supportive in this millennium. The U.S. trade-weighted broad dollar appears to be in the early days of peaking from the 14-year high reached at the end of 2016. Bloomberg Intelligence analysis of the primary demand vs. supply drivers shows the ratio trending positively, above par and at the highest level in six years.

Potential Peak Dollar, Demand Exceeds Supply



The annual correlation between the dollar and Bloomberg Commodity Spot Index is minus 0.63 in the past 20 years. The beta is minus 2.2. Indicating demand exceeding supply and improved total returns, the weighted average of one-year futures curves at 1.9% contango is the narrowest in three years.

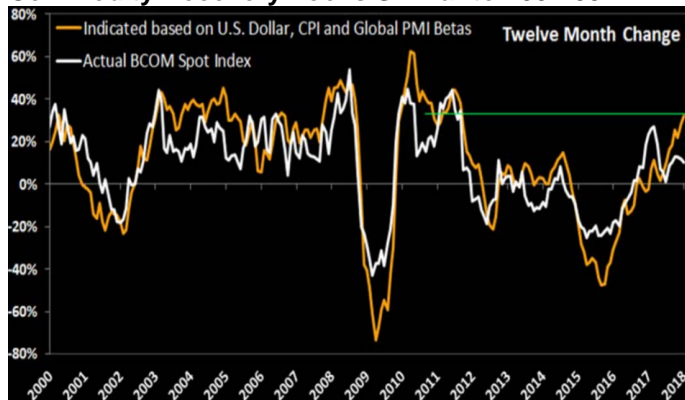
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Broad Commodity Drivers Mimic 2002-03 Rebound.

The commodity-market backdrop heading into 2018 is similar to 2002-03's recovery, in the aftermath of the internet bubble and subsequent slowdown. Following prolonged price pressure that coincided with a stronger dollar and weaker consumer-price and global purchasing-manager indexes, macro drivers shifted favorably. In November 2002, the sum of monthly betas of the three commodity drivers indicated a Bloomberg Commodity Spot Index 12-month average increase near 25% vs. an actual 27% advance in the BCOM.

Commodity Recovery Looks Similar to 2002-03



The annual change of the Bloomberg Commodity Index (BCOM) 12-month average nearing the end of November is less than half the 29% indicated by the same macro drivers. A reversal of dollar weakness is likely the greatest immediate risk. A continuation of current trends supports higher commodity prices.

2018 Commodity Resistance: 2012-14 Support. The Bloomberg Commodity Spot Index is on track to revisit support levels breached in 2014 with crude oil's collapse. A foundation is building. In 2017, the most significant correction in the recovery briefly dipped below the 52-week average toward the end of 1H. This higher-trending average should provide good initial support in 2018. Following the sharp recovery in 2016, consolidation in 2017 is the base that shouldn't be breached for the bullish case. The BCOM mean and median near 336 is good support.

This level is about 4% below the Nov. 30 close. About 12% higher would revisit support levels that held from 2012-14. A normal recovery continuation in 2018 should revisit 2012-14 lows; the stronger bullish case closes above. Sustaining below the 2017 mean would be a failure.

BCOM Building a Base for Higher Levels



Macro Focus -- Commodities Set to Extend Gains.

Unless the dollar recovers, commodity performance should continue to improve relative to other major asset classes. Up 0.4% in November (supported by the dollar's decline), the Bloomberg Commodity Spot Index's 4.3% gain in 2017 should mark the onset of recovery. Continuing the weak-dollar trend should support commodity performance relative to stocks and bonds. The one-year spot commodity return, the same as U.S. Treasury bonds, appears set to widen favoring commodities.

Commodities Inching Off Bottom Performance

Security	Chg YTD %	Chg Nov.	Chg QTD	Chg Pct	1Yr % Chg	2Yr % Chg
S&P 500 Total Return Index	+20.5%	+3.1%	+5.5%	+22.9%	32.8%	
MSCI World Net Total Return US	+20.1%	+1.6%	+3.5%	+23.0%	26.8%	
Bloomberg Barclays U.S. Treasu	+7.3%	+1.1%	+1.0%	+6.7%	8.9%	
Bloomberg Barclays US Corporat	+7.1%	-3%	+1%	+9.1%	22.3%	
Bloomberg Commodity Spot Index	+4.3%	+4%	+3.3%	+6.7%	26.2%	
Bloomberg Commodity Index Tota	-1.2%	-5%	+1.7%	+5%	7.0%	
Bloomberg Dollar Spot	-8.2%	-1.5%	+3%	-7.3%	-6.0%	

Inflation appears to have started catching up with the trend in U.S. interest-rate hikes, which is unlikely to stall absent greater stock-market volatility. Flattening futures curves and backwardation in energy indicate demand exceeding supply and increasing total returns.

SECTOR PERFORMANCE

Energy Catching Metals Is Broadly Supportive.

Rotation is positive in the commodity market, with energy catching up to metals. Down about 4% in November vs. up 2% for energy, industrial metals' retracement likely sets the group on a firmer foundation for 2018 amid favorable demand vs. supply. A less favorable energy balance that's subject to supply cuts but supported by

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backwardation should continue to improve total returns, which have been hampered by steep contango the past few years. Spot gains should be limited near \$60 a barrel in WTI crude oil.

Energy Catch-Up May Be Limited in Short Term

Security	Chg YTD %	Chg Nov.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Industrial Metals Su	+18.5%	-4.2%	+1.4%	+12.5%	46.9%
Bloomberg All Metals Total Ret	+13.5%	-2.5%	+4%	+9.2%	32.7%
Bloomberg Precious Metals Subi	+7.7%	-3%	-1.0%	+5.3%	16.9%
Bloomberg Livestock Subindex T	+7.1%	-5.9%	+4.0%	+17.8%	5.2%
Bloomberg Energy Subindex Tota	-7.9%	+2.3%	+4.8%	+4%	-4.2%
Bloomberg Grains Subindex Tota	-9.5%	-4%	-2.9%	-10.1%	-17.0%
Bloomberg Agriculture Subindex	-9.7%	+4%	-5%	-11.7%	-8.7%

Energy, up 10% on a spot basis over the past year vs. 14% for industrial metals, emphasizes a key difference in roll costs -- metals typically have the lowest. If backwardation persists, energy total returns should increase and roll yields may turn positive.

BCOM Attribution -- Metals Offset Energy, Ags.

Energy backwardation indicates a continued reversal for one of the Bloomberg Commodity Index's (BCOM) primary attribution drags. Subtracting almost 310 bps from BCOM total returns in 2017 as of Nov. 30 is less than half the level of sector drag at 1H's end. Metals remain the stalwarts of total return, contributing 400 bps (310 industrial, 90 precious). Indicating the improving trend, metals' total contribution at the end of 1H was about 180 bps. Livestock has been good for about 40 bps.

Energy Inches Back Near Positive, Following Metals

Name	Start % Wgt	End % Wgt	Avg % Wgt	Tot Rtn	CTR
BCOM_SB (Exclusion: Cash)	100.0	100.0	100.0	-2.1	-2.1
Base Metals	16.9	19.7	18.9	17.5	3.1
Precious Metals	13.3	15.6	16.1	6.8	0.9
Livestock	4.2	6.3	6.2	6.2	0.8
Energy	38.8	30.2	29.0	-8.7	-3.1
Agriculture	26.8	28.2	29.8	-10.5	-3.4
Port Wgt					
18.94	Base Metals			3.10	
16.13	Precious Metals			0.94	
6.22	Livestock			0.39	
28.96	Energy			-3.11	
29.75	Agriculture			-3.39	

Agriculture is still the main drag, subtracting 340 bps. Rolling into steep contango is the primary cause. In 2017, the average of the one-year curves reached the steepest in a decade. At the end of November, the BCOM Agriculture Subindex Total Return is down 9.7% vs. 1.8% spot.

BCOM Forwards and Roll Select

Ticker	Ticker	YTD Change %	Chg Nov.	Chg 6M Pct	Chg 1Yr Pct	Chg 2 Year Percent
+ BBG Cmnty Spot	BCOMSP	+4.3%	+4%	+6.7%	+6.7%	26.2
+ BBGCI-F5T	BCOMF5T	+2.7%	--	+5.7%	+4.3%	15.1
+ BBGCI-F6T	BCOMF6T	+2.7%	--	+5.4%	+4.3%	15.7
+ BBGCI-F4T	BCOMF4T	+2.2%	-1%	+5.2%	+3.8%	15.0
+ BBG Cmnty 3 M Fwd TR	BCOMF3T	+1.4%	+2%	+5.2%	+3.0%	11.7
+ BBG RollSelectT	BCOMRST	+8%	-3%	+4.3%	+2.6%	12.0
+ BBG Cmnty 2 M Fwd TR	BCOMF2T	+8%	-2%	+4.7%	+2.7%	11.1
+ BBG Cmnty 1 M Fwd TR	BCOMF1T	-2%	-3%	+4.6%	+1.6%	9.5
+ BBG Commodity TR	BCOMTR	-1.2%	-5%	+4.0%	+5%	7.0
+ BBG Commodity	BCOM	-2.1%	-6%	+3.5%	-3%	5.7

Front Energy Futures

Ticker	Last	Chg YTD %	Chg MTD %	Chg QTD %	1 Yr Ago	2 Yrs Ago	Chg Change Pct 1Yr 2 Year Percent
+ Generic 1st 'CO' Future	63.6	+11.9%	+3.6%	+10.5%	50.5	44.6	+26.0% 42.5%
+ Generic 1st 'HO' Future	189.3	+11.1%	+4%	+4.5%	157.1	133.7	+20.5% 41.6%
+ Generic 1st 'CL' Future	57.4	+6.8%	+5.5%	+11.0%	49.4	41.7	+16.0% 37.7%
+ Generic 1st 'XB' Future	172.8	+3.8%	-2.9%	+7.6%	149.1	135.9	+15.9% 27.2%
+ Generic 1st 'NG' Future	3.0	-18.6%	+4.7%	+8%	3.4	2.2	-9.7% 35.5%

One-Year Futures Curves

Name	Current Position	1 Yr Ago	1 Yr Change	YTD Change
1 Year Spread % of First Contract				
BCOM	-2.9	-4.0	1.0	-0.7
Sector				
Livestock	2.6	-1.7	4.3	-5.6
Energy	2.0	-5.7	7.8	4.6
Industrial Metals	-1.5	-0.7	-0.8	-0.7
Precious Metals	-2.3	-1.8	-0.5	-0.6
Agriculture	-6.2	-3.9	-2.3	-2.0
Single Commodities				
Cotton	5.8	3.5	2.2	4.1
Unleaded Gas	5.2	-1.3	6.5	2.4
Brent Crude	5.0	-6.1	11.2	8.1
Crude Oil	4.7	-7.9	12.6	10.6
Live Cattle	4.2	9.9	-5.8	-9.1
Gas Oil	1.9	-7.3	9.2	6.7
Zinc	1.9	-0.1	1.9	1.7
Heating Oil	1.7	-6.5	8.2	6.2
Palladium	1.4	-0.5	1.9	1.9
Lean Hogs	1.0	-13.4	14.4	-2.0
Soybean Oil	-0.8	0.1	-0.9	0.4
Platinum	-1.2	-1.2	0.0	0.0
Copper (LME)	-1.2	-0.1	-1.1	-0.9
Soybean Meal	-1.4	-0.4	-1.0	-0.9
Gold	-2.0	-1.5	-0.6	-0.5
Soybean	-2.2	1.5	-3.6	-2.5
Nickel	-2.3	-1.5	-0.8	-0.4
Copper (CME)	-2.4	-0.9	-1.5	-1.6
Silver	-2.5	-2.2	-0.4	-0.6
Aluminum	-3.3	-0.9	-2.5	-2.3
Sugar	-3.9	8.0	-11.9	-8.7
Natural Gas	-6.3	-5.2	-1.1	-6.2
Coffee	-9.6	-8.3	-1.3	-0.5
Corn	-13.3	-12.8	-0.5	-2.8
Wheat	-19.9	-22.3	2.5	-2.8
HRW Wheat	-21.0	-19.4	-1.6	-4.9

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).

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Energy (Index weight: 29% of BCOM.

Performance: November +2.3%, YTD -7.9%, Spot +0.0%)

*Note index weights are the YTD average

More of Same Risks in Improving Energy Market

Deja Vu All Over Again -- November Signs Reinforce Energy Risks. A key 2018 takeaway from November's energy market is that mean-reversion risks should be similar to 2017, albeit at higher levels. More-of-the-same support factors -- political unrest in Saudi Arabia and OPEC and Russia production cuts -- will likely be necessary to sustain \$60-a-barrel WTI crude oil. U.S. production is set to exceed most expectations, based on the history of commercial hedging. Demand vs. supply trends and backwardation indicate a much-improved market.

Natural gas may have the most potential upside, at least in the short term, pricing in a risk premium for a cold winter. WTI is taking back some ground that was lost to Brent crude, though increasing dependence on supply cuts isn't the best foundation to sustain higher prices.

Elevated Crude Oil Reversion Risks

Love-Hate Trend in Energy Total Returns Risks a Continuation. Up for a fourth consecutive month in November, the Bloomberg Energy Subindex Total Return risks a retracement period similar to 1H. Demand vs. supply and the weak dollar are supportive, but nearing \$60 a barrel in WTI crude oil offers much greater risk for new longs than the declared "bear market" in June.

Enthusiastic Crude Oil Vulnerable Early in 2018. Favorable crude-oil demand vs. supply trends are supportive for prices in 2018, but record net longs may limit the upside, similar to 1H17. Combined WTI crude oil, Brent, gasoline and diesel open interest has never been higher, nor have managed-money net positions been longer, with curves steeper in backwardation. Above the February peak, net positions show plenty of longs on board. Momentum remains higher, yet concentration in Brent indicates elevated risks in the seaborne benchmark.

Bloomberg Intelligence's analysis of crude oil demand vs. supply at the highest ratio in four years and one-year futures curves 5% in backwardation vs. 8% contango a year ago provide a strong bullish indication. Similar to

February-March, however, petroleum futures may need another shakeup.

Elevated Crude Oil Net Positions May Limit Upside



Crude-Oil Rush Increases 2018 Flush Risks. WTI crude oil is poised to continue range-trading higher in 2018. Appreciation above \$60 a barrel may be limited, however, as should depreciation below \$50. The 2015 June-July consolidation period represents good resistance, while the 2017 mean is likely a support level. At risk of repeating the flush-and-recovery trend since 2016, oil is nearing good resistance into the November OPEC meeting. Indicating a substantial pickup in U.S. production, commercial shorts have gone parabolic to new records.

WTI Again Nears Good Resistance at Year-End



Accordingly, most U.S. production estimates are likely to be raised, adding pressure on the market. Typically, commercial shorts equate to about a third of current production. Sustaining above the 2015 high of \$62.58 is unlikely. The 2017 average is \$50.14, a good support level.

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U.S. Crude Oil Production on Verge of a Surge.

Record highs in WTI crude oil commercial short positions portend similar for U.S. production. Commercial shorts typically hedge expected production. With the recent WTI crude spurt above \$50 a barrel, shorts have reached 1.4 million contracts, up almost 80% in two years. If history is a guide, expect similar in production. The correlation of DOE estimates of domestic crude oil production to changes in commercial shorts on a 24-month lagged basis is near 0.75 (since 2010) vs. 0.38 to coincident measures.

WTI Crude Oil Commercial Shorts Go Parabolic



Current production is near 9.3 million barrels a day (b/d). The peak in April 2015 was 9.6 million, when production was increasing more than 30% on a 24-month basis. The recent surge in commercial hedging indicates production near 12 million b/d in two years, well above DOE estimates.

Surging U.S. Fuel Exports Reduce Net Supply. Rapidly increasing U.S. liquid-fuel exports are reducing net supply, but that could change with a production surge. The 2000-01 economic slowdown is the most recent example of a similar decline in net domestic supply. Crude oil bottomed in November 2001 as supply continued to decline and demand increased. Imports made up much of the difference then. Two years ago, U.S. liquid-fuel production less exports peaked near 11 million barrels a day. Currently it's about 9.6 million.

Long restricted, U.S. crude oil exports are on a tear, supported by attractive prices (vs. Brent) and the declining dollar. Export capacity constraints and a potential supply surge on the back of the parabolic increase in WTI crude oil commercial shorts may stall the net-supply downtrend.

Surging Exports Offsetting New Domestic Supply



Known & Unknown Support Gas

Unknown Supports Natural Gas Short Term, Fundamentals Longer. Another warm North American winter would pressure natural gas; that unknown is a support. Still down about 19% in 2017, the front future is poised to revisit the year-end level of about \$3.72 a MMBtu. A more normal winter should sustain it above. Futures curves in backwardation indicate demand exceeding supply.

Caged Natural Gas Favors Upside Breakout. The technical setup for natural gas is similar to four years ago, when front-contract prices surged 92% from the low in November 2013 to 2014's peak. The coldest winter in New York in a century helped then, though there are similarities to today's environment of an extremely compressed range and scant winter-weather premium. December 2013 was the last time that the natural gas 52-week Bollinger Bands were as narrow. A key difference this time is the favorable picture painted by the futures curve

Compressed Natural Gas Likely to Continue Higher



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Indicating demand exceeding supply, the natural gas one-year futures curve has averaged 0.4% in backwardation in 2017 vs. 8.9% contango in 2013. In 2011, when prices were about halved from a similar compression, the average was 15.8% contango. About a third higher or lower is \$4 a MMBtu or \$2.

PERFORMANCE DRIVERS

Mean Reversion Supports WTI Crude, Natural Gas.

Continued normalization in energy commodities favors WTI crude oil and natural gas. The Bloomberg WTI Crude Oil Subindex was the best performer in November, increasing 5.3%. WTI remains low historically relative to Brent crude, particularly in a weak-dollar environment with parabolic U.S. exports. Natural gas is poised to reprice in a cold-weather risk premium as it did a year ago, before it plunged on an exceptionally warm North American winter.

WTI Crude Oil, Natural Gas Lead November Gainers

Security	Chg YTD %	Chg Nov.	Chg QTD	Chg Pct	1Yr % Chg	2Yr % Chg
Bloomberg Brent Crude Subindex	+6.4%	+3.0%	+11.0%	+15.1%	9.8%	
Bloomberg Heating Oil Subindex	+6.2%	+1.0%	+5.2%	+15.5%	15.3%	
Bloomberg Unleaded Gasoline Su	--	+1.1%	+10.6%	+10.9%	2.2%	
BBG Energy Spot	--	+2.1%	+7.1%	+10.1%	38.0%	
Bloomberg WTI Crude Oil Subind	-3%	+5.3%	+10.1%	+6.4%	-9.1%	
Bloomberg Energy Subindex Tota	-7.9%	+2.3%	+4.8%	+4%	-4.2%	
Bloomberg Natural Gas Subindex	-34.0%	+1%	-8.5%	-26.6%	-26.9%	

Demand vs. supply indicates a more normal winter may put in a longer-term bottom in gas. Trends in futures-market hedging indicate a surprise in 2018 should be U.S. crude oil production exceeding expectations -- OPEC and Russia cuts will likely need to do the same to support the market.

Open Interest Sorted Highest to Lowest

Name	Current	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change
Open Interest (Aggregate - 1,000s)					
Single Commodities					
Crude Oil	2,508	0.6	11.6	22.3	24.2
Brent Crude	2,438	-0.4	7.4	12.9	11.5
Corn	1,516	-3.3	15.3	22.7	22.6
Natural Gas	1,427	4.2	10.4	14.8	23.7
Gas Oil	871	-4.4	-6.4	8.6	4.7
Soybean	743	11.6	13.8	17.6	3.1
Sugar	706	-1.9	-15.5	-12.3	-14.1
Aluminum	517	3.2	2.2	-4.4	-0.6
Wheat	510	-6.4	16.4	13.8	14.9
Gold	489	-7.4	-9.1	17.6	20.4
Soybean Oil	459	0.9	9.8	23.4	8.0
Heating Oil	428	-1.2	8.1	-0.2	10.3
Soybean Meal	413	4.3	6.4	25.5	12.2
Unlead Gas	409	1.5	0.7	2.3	12.1
Live Cattle	380	8.0	20.3	24.2	31.5
HRW Wheat	310	-1.3	12.7	29.7	26.5
Copper (CME)	268	-10.7	-18.5	19.6	16.5
Lean Hogs	253	-2.7	2.4	30.4	16.1
Cotton	243	4.7	7.5	0.4	-4.7
Copper (LME)	197	-2.5	-2.5	-5.7	-5.7
Coffee	194	-18.8	-1.5	1.6	4.3
Silver	190	-3.1	3.8	15.9	21.0
Zinc	189	2.2	-5.5	2.7	1.6
Nickel	148	8.0	-5.7	-7.5	-9.8
Platinum	77	0.0	2.7	22.2	10.0
Palladium	35	6.1	0.0	45.8	34.6

Commitment of Traders – Net Managed Money Total/Disaggregated

Name	Current	5 Day Change	1 Mth Change	3 Mth Change	YTD Change	1 Yr Change
Net - Managed Money Total/Disagg						
Single Commodities						
Brent Crude	526,240	-11,317	32,101	107,328	71,655	233,476
WTI Crude	343,840	-5,872	124,763	69,399	35,931	155,516
Gold	177,066	-3,944	2,055	-2,471	135,819	55,831
Aluminum	143,831	-1,456	-13,880	-3,635	-1,959	-24,897
Live Cattle	123,535	-8,295	22,769	42,360	31,019	65,476
Gasoline	92,960	-6,886	30,198	53,370	42,869	75,947
Copper (CME)	81,072	1,151	-26,641	-39,103	8,941	4,726
Zinc	77,032	3,394	2,159	5,672	-4,007	1,055
Natural Gas	72,849	-2,448	8,157	-11,345	-101,194	45,293
Heating Oil	72,432	0	12,118	40,114	38,891	69,073
Copper (LME)	64,863	2,295	-2,642	-13,514	-2,521	-7,934
Silver	64,420	-3,596	913	27,891	25,322	21,574
Lean Hogs	63,990	-9,243	1,713	-17,159	9,455	32,059
Cotton	52,051	10,023	3,369	22,455	-24,001	-28,502
Soybean Oil	47,664	-9,011	22,739	1,634	-37,858	-47,869
Nickel	29,713	-3,239	-8,693	-5,217	-27,519	-27,067
Palladium	23,418	-82	-442	-776	10,676	11,006
Soybeans	20,144	-2,406	-48,024	34,543	-86,931	-93,500
Soybean Meal	15,909	9,603	-5,218	41,484	-3,628	-3,468
Platinum	4,661	1,817	4,082	-8,637	-3,562	-3,870
Sugar	947	23,934	103,619	118,709	-137,495	-175,904
HRW Wheat	-20,741	-10,317	-16,079	-55,350	-29,826	-31,646
Coffee	-47,229	-2,375	-6,718	-47,514	-59,935	-97,951
Wheat	-108,666	-90	-30,974	-74,430	261	5,556
Corn	-210,466	20,090	-39,782	-250,268	-96,818	-150,072

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Metals

All (Index weight: 35.1% of BCOM).

Performance: November -2.5% (YTD +13.5%)

Industrial (Index weight: 19.0% of BCOM).

Performance: Nov. -4.2%, YTD +18.5%, Spot +20.2%)

Precious (Index weight: 16.1% of BCOM).

Performance: November -0.3%, YTD +7.7%, Spot +8.8%)

Metals in November Add Some 2018 Risk Premium

Metals Add Some Risk Premium, Supporting 2018 Appreciation. Lower industrial vs. higher precious metals in November is indicative of increasing broad-market risks, but likely price-supportive in 2018. Consolidating and retracing some of the sharp 2H gains builds a better base-metals foundation. Ending 2017 without some price-normalization risks is akin to what energy did at the end of 2016 -- it simply rallied too quickly toward the upper end of its range. Extremely compressed gold prices portend a breakout soon, as up is the path of least resistance.

If the greenback has peaked, all dollar-based commodities should continue to benefit with metals in the lead. Up 13.5% in 2017, the Bloomberg All Metals Total Return Index is about 6% behind the S&P 500 yet still ahead in this higher-rate cycle. Metals may have a more solid foundation.

All Metals Outlook – Consolidate Gains

Gold Up vs. Base Metals Down Increases Risk Premium for 2018. Relative values may signal optimism for metals in 2018. Gold up vs. most other metals down on a monthly basis is generally coincident with an increase in financial-market volatility, which has been notably absent in 2017. Combined, metals are on sound footings for 2018, particularly if the dollar has peaked.

Metals Set for a Three-Peat in 2018. Favorable demand vs. supply conditions portend a third consecutive strong year of gains for the Bloomberg All Metals Total Return Index in 2018. Analysis of the combined demand vs. supply catalysts for base and industrial metals indicates a ratio well above par, last exceeded 12 years ago. Unless the majority of these key drivers abruptly reverse course,

annual percentage gains in the mid-teens in 2016-17 through Nov. 30 are likely to continue.

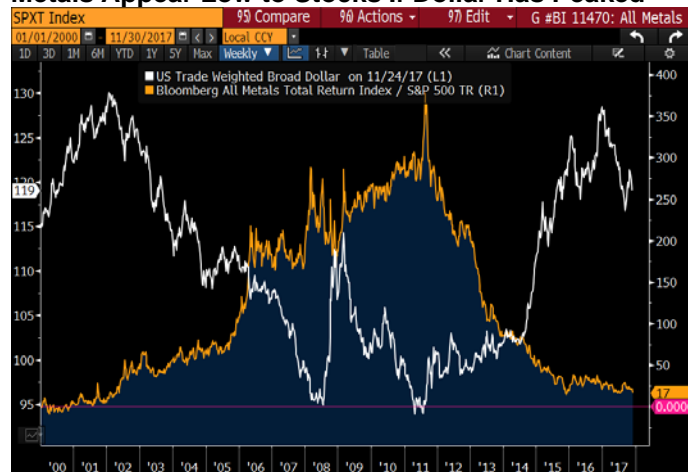
Base, Precious Metals' Favorable Demand vs. Supply



Demand vs. supply analysis for industrial metals utilizes World Bureau of Metal Statistics consumption and production estimates for copper, aluminum, nickel and zinc. For precious metals, the reciprocal of the 20-day vs. 200-day moving average on the U.S. Dollar Spot Index is used.

Metals Favored vs. Stocks With Weak Buck. The dollar is a primary return differentiator between the Bloomberg All Metals Total Return Index and S&P 500 TR. Stocks are ahead of metals in 2017 by about 6% through Nov. 30, but stocks are vulnerable vs. metals unless the dollar recovers. Since 1991, when the dollar is down 5% or more on a 12-month basis, metals have outperformed stocks by almost nine percentage points (23.6% vs. 15.1%).

Metals Appear Low to Stocks If Dollar Has Peaked



Accentuating the metals boost in weak-dollar environments, since 1991, stocks have outperformed by

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5.5 points annualized (10% vs. 4.5%) as the U.S. trade-weighted dollar has increased about 2% on average. Metals are up 35% vs. 34% for stocks in the current rate-hike cycle.

Precious Metals Ripe to Move

Narrowest Monthly Gold Range in Two Decades Portends Breakout. The metal that often benefits the most when it declines added to 2017 gains in November and is compressing for more. Stalled ahead of another expected Fed interest-rate hike in December, gold rarely finds such a narrow range. It should break out soon, up being the path of least resistance with a peak dollar.

Gold Is Ripe to Escape Its Cage Soon. Prices just don't get as compressed as they did for gold in November, indicating a breakout soon. Higher remains the path of least resistance with a potential peak dollar. The February 1999 low-to-high range of 2.1% was the last month that spot gold traded within a tighter cage than 2.7% in November. Sustaining outside of the spot range of \$1,266-\$1,299 an ounce should spark some follow-through flows, though there appears to be better support below than resistance above, especially if the dollar remains weak.

Coiled Gold Ripening for Breakout



Essentially the dollar reciprocal, gold rarely declines with the U.S. trade-weighted broad dollar. The negative correlation is 0.72 on a 20-year annual basis. Up about 12% in 2017 vs. a 7% decline in the dollar is very near the historical beta relationship, minus 1.9.

Range-Bound Gold Ripens for a Break Higher. The gold-price recovery should continue in 2018. Indicating good support and a potential sustained recovery, the 50-, 100- and 200-week moving averages have turned positive, converging near \$1,250 an ounce. Key support, then resistance near \$1,400, in 2013 appears in play this time around unless primary drivers shift negative. A

potential peak dollar has helped to propel the industrial metals to the midpoint of the 2011-15 bear market. Near \$1,420 would represent a similar apex for gold.

Gold Appears to Be Forming a Foundation



A strong dollar and continued decline in stock-market volatility that's already near record lows is a combination that would pressure gold, though both are unlikely. A steady to lower dollar with some normalization of volatility for equities should accelerate the gold-price recovery.

Industrial Metals Building a Base

Industrial Metals Pullback Building Supportive Base for 2018. Keeping with the trend in industrial metals, the November pullback supports a base for 2018. Despite a 4.2% retreat in November, the Bloomberg Industrial Metals Subindex Total Return in 2017 is 18.5%. Still ahead of the S&P 500 by 12 percentage points in this rate-hike cycle, metals should continue to perform well.

Continued Range Trading Supports Base Metals.

Having breached 2014's high, industrial metals are poised to revisit 2011's. Still trading within the range established in 2007-09, the Bloomberg Industrial Metals Spot Subindex appears to be rotating toward the upper end of the 10-year bell-curve pattern. Good target resistance should come in near 2011's high, about 30% above current levels. If industrial metals sustain today's recovery pace, it would take about two years to return to the 2011 peak.

September lows should approximate initial support, about 3% below the Nov. 30 level. A bit stretched above most moving averages, industrial metals may require a period of consolidation before resuming the uptrend. Sustaining below the 12-month mean would be an indication of weakness.

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Base Metals Rotating Back Up on the Bell Curve



Three Industrial Metals Pillars Stay Strong. It's rare when the three primary industrial-metals supports trend favorably above their neutral thresholds. The first annual decline in the U.S. trade-weighted broad dollar in five years is the final pillar, joining increasing demand vs. supply and global purchasing managers' indexes. The last time the three metals companions held above their positive thresholds was 2004-05. Yet, even in that positive period for metals performance, global PMI was already in decline from the 2004 peak.

Weak Dollar a Final Metals Pillar



The U.S. trade-weighted broad dollar's 12-month rate of decline, 3%, is the most extreme since 2011. Global PMI is also the greatest in six years. BI's analysis of combined World Bureau of Metal Statistics demand vs. supply for copper, aluminum, nickel and zinc shows the highest ratio since 2005.

Time Correction May Be Worst Case for Copper. The copper uptrend should continue in 2018, but better relative-value levels are likely if recent history is a guide.

In 2017, the most significant correction of the recovery bottomed at the 40-week moving average. The June low was about the same level as the initial breakout higher a year ago. Correcting over time, the metal then resumed the rally. Highs of 2H14 and the midpoint of the 2011-16 bear market near \$3.30 a pound are likely to hold initial copper resistance.

Copper Trends Higher, Yet Due for Consolidation



Currently at \$2.81, the rapidly increasing 40-week moving average is support. It's also near the sharp 4% higher close from July 25. Almost 11% above the 40-week mean is a bit rich, but less so than the September peak as time appears on copper's side.

Aluminum May Revisit Upper End of Bell Curve.

Priced at the midpoint of the 2011-15 bear market, aluminum is poised to revisit the upper end of its trading range. Initial target resistance in 2018 is likely near the 2012 high of \$2,235 a ton. Consolidation at the previous bear-market median since August established a base for higher prices. From February-August, aluminum did the same until bumping into the rapidly increasing 32-week moving average and responding higher. Since June 2016, the 32-week mean has acted as good trendline support.

Sustaining below this mean (currently \$2,011) would be necessary to indicate weakness. Up 25% in 2017 -- double the pace of 2016 -- aluminum is poised to continue higher, yet with some volatility.

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Consolidating Aluminum Appears to Be Building Base



PERFORMANCE DRIVERS

Metals Signal 2018 Market May Not Be as Rosy.

Precious metals up and industrials down indicates a less-rosy financial market landscape in 2018. Position squaring also appears at play, with the hottest 2017 performers among November's biggest decliners, including zinc and aluminum down about 4%. Gold, the month's leader despite an imminent interest-rate hike in December, is supported by re-weakening in the dollar. Both appear to be pricing in a bit more risk-premium potential.

Adding Risk Premium, Gold Up, Base Metals Down

Security	Chg YTD %	Chg Nov.	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Zinc Subindex Total	+23.1%	-3.5%	+6%	+17.1%	99.0%
Bloomberg Copper Subindex Total	+19.8%	-1.7%	+3.2%	+14.0%	44.5%
Bloomberg Industrial Metals Subindex Total	+18.5%	-4.2%	+1.4%	+12.5%	46.9%
Bloomberg Aluminum Subindex Total	+18.4%	-5.4%	-2.9%	+15.8%	34.9%
Bloomberg All Metals Total Return	+13.5%	-2.5%	+4%	+9.2%	32.7%
Bloomberg Gold Subindex Total	+9.9%	+3%	-8%	+7.8%	17.8%
Bloomberg Nickel Subindex Total	+9.4%	-9.8%	+5.7%	-2.7%	21.1%
Bloomberg Precious Metals Subindex Total	+7.7%	-3%	-1.0%	+5.3%	16.9%
Bloomberg Silver Subindex Total	+1.5%	-1.8%	-1.6%	-1.5%	13.5%

The biggest laggard in 2017, silver, may have the most upside mean-reversion potential in 2018, especially if 2017 trends in the dollar and industrial metals are sustained. A peak greenback and metals bull market appear to be in the early stages.

Agriculture (Index weight: 30% of BCOM.

Performance: November +0.4%, YTD -9.7%, Spot -1.8)

Grains (Index Weight: 24% of BCOM.

Performance: November -0.4%, YTD -9.5%, Spot +1.0%)

Softs (Weight: 6% of BCOM.

Performance: November +2.5%, YTD -16.1%, Spot -11.9%)

Agriculture Market Outlook, Compressed for December

Increasingly Compressed Agriculture Market Awaits Next Catalyst. Recovering slightly from U.S. harvest pressure in November, agriculture prices face a key test in December. If the Bloomberg Agriculture Spot Index can sustain a gain in the last month of 2017, it would be the first December gain since 2011 and indicate a potential longer-term bottom. If not, the trend is likely to remain the same, with prices drifting lower on rapidly increasing supply. A two-decade extreme narrow trading range in the grains indicates a potential breakout soon, historically favoring higher prices.

Sugar, the largest drag on 2017, appears in the early stage of bottoming. Other signs of strength come from soybean meal, up 4.2% in November on a total-return basis. Peak U.S. grain production is increasingly a reality until higher prices offer an incentive for more supply.

December and 2018 Outlook

Agriculture Enters Hibernation Season Within a Very Narrow Range.

Entering the winter months, agriculture may be showing small signs of recovery, up 0.4% this month. The Bloomberg Agriculture Spot Index hasn't rallied in December since 2011. This year-end may be a key test within the most compressed grains price range in two decades.

Drift Lower, Spike Higher Risks in Caged Grains.

The narrowest 12-month trading range in 24 years and the lowest sustained prices in seven favor a breakout higher in the grains. June 1993 is the only month ever in Bloomberg Grains Spot Subindex history (since 1991) that the 12-month Bollinger Bands' were tighter than in 2017. By the end of 1993, the index was about a third higher. Very narrow range-bound and downward drifting grain price periods typically precede sharp rallies. The

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longer and lower they are, the more explosive the recovery.

Extremely Compressed, Low Grains Ripe to Recover



Exceptionally strong global production is the primary pressure factor. History indicates the cyclical nature of grain demand and supply is price driven. Sustained lows generally lead to higher prices in corn, soybeans and wheat. It may be more of a matter of time for such improvement to happen.

Potential Peak Corn, Soybeans and Wheat Ending Stocks vs. Dollar. Potential peaks in U.S. grains' ending stocks and the dollar are price positive. The latest November World Agricultural Supply and Demand Estimates (WASDE) from the USDA are likely to show ending stocks peaking from 2016. Relative to global demand, U.S. stocks have been declining since 1999.

Peaks in Grain Ending Stocks, Greenback? Both U.S. grain ending stocks and the dollar appear to be peaking from multiyear highs, with the opposite implication for prices. In 2016, combined corn, soybean and wheat stocks reached the highest in the USDA database since 1990. The monthly measure, which peaked just above 4 billion bushels, appears similar to the 2000 high at 3.8 billion. Two years later, the U.S. trade-weighted broad dollar also peaked as the grain markets commenced an extended bull market to the 2012 peak, supported by biofuel demand.

USDA November WASDE for U.S. grain ending stocks shows weaken in 2017 (about 4%) for the first time since 2012, despite another good year of output. The decline in wheat production and continuing shift away from corn planting to soybeans and strong exports are helping to reduce inventories.

U.S. Grains Stocks and Dollar May Be Peaking



Grain Stocks Trending Down vs. Global Demand. U.S. grain stocks-to-global use may be peaking similar to 1999 and 2005, supporting prices. Illustrating the growing global market, the trend in U.S. stocks relative to global demand remains down, despite the recent high in U.S. ending stocks in the USDA database since 1990. A peak similar to the previous two in the past 20 years may have occurred in 2016-17. Global grain demand is running almost 10% above the five-year average, the highest since 1981, based on combined USDA corn, soybean and wheat data.

Declining U.S. Grain Stocks-to-Global Use



Measuring domestic grain ending stocks on a standalone basis risks missing the rapidly increasing size of the broad market. A bigger market requires greater stocks. Global grains stocks-to-use, near 24%, appears to be peaking at a 16-year high as the U.S. portion continues to decline.

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More Soybeans, Less Corn Equal Production Down, Prices Up. A unique situation is developing in the U.S. grain market that may not be resolved until prices advance. Increasing soybean production is likely to continue at the expense of corn and wheat, reducing total output in bushels until something shifts farms' incentive -- higher prices a primary suspect.

Declining Production Supports Grain Prices. Reduced U.S. grain production should continue until prices increase. The November USDA WASDE report shows U.S. grain output down about 4% in 2017, the steepest annual decline since 2012. The main culprit isn't weather, but reduced corn and wheat planting that favors soybeans, which are the easiest grain to store and the most profitable and widely exported.

U.S. Grain Output May Decline Until Prices Gain



Corn is 70% of production in bushels, but declining rapidly vs. soybeans in dollars. In 2017, soybeans are expected to be the greatest percentage of grains' dollar value of production in the WASDE database since 1990, near 44%. The five percentage-point difference vs. corn (49%) has never been less.

More Soybeans Mean Less Grain Production. Positive net soybean revenue vs. negative for corn and wheat favors more bean production, reducing the total for grains until higher prices shift incentives. They're easier to store and produce more net revenue, and the soybean one-year curve recently reached the steepest contango in nine years. Incentive to produce soybeans is high, as is the ability and profit motive to store. Reduced total grain production frees up storage space. An acre of soybeans producing about 50 bushels can put out 175 for corn.

The one-year soybean futures curve near 2% contango compares with a 10-year average just above 3% backwardation. BI analysis of USDA data and current prices shows U.S. soybean net revenue near \$8 an acre in 2017 vs. minus \$74 for corn and \$120 for wheat.

Soybeans Still Profitable, Not Corn = Lower Supply



Softs Outlook December and 2018

Soft Commodities on Verge of Sustained Recovery With Sugar. As goes sugar, so goes the Bloomberg Softs Subindex -- both may have bottomed. Flattening futures curves and price-recovery indications favor a continuation of the sugar rally since 2015's nadir. A potential peak dollar supports a recovery in soft commodities.

Right-Shoulder Support in Soft Commodities. Soft commodities appear to be at the start of an upswing. Under pressure with the stronger dollar since the 2011 peak, the Bloomberg Softs Spot Subindex seems to be bottoming with a potential peak greenback. The index, which includes sugar, cotton and coffee, may be forming a bottomed-out head-and-shoulders pattern, with the 2014 and 2017 lows marking the shoulder support levels. Sugar is the primary driver of the soft commodities, which all march to very unique demand vs. supply trends.

Soft Commodities May Be Bottoming With Peak Dollar



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Sugar appears to be bottoming in a fashion similar to the 2015 low, yet from higher levels, indicating the potential for a more sustained uptrend. It'll need to remain above 17 cents a pound -- likely the key resistance level -- to signal something beyond a range-bound market.

Sugar Ripening to Revisit 17-Cent Handle. Raw-sugar futures appear to have bottomed. Initial target resistance of about 17 cents a pound approximates the top of the breakdown consolidation area of April-May and the 100-week moving average. This mean, which turned higher in 2016, marked good resistance in the 2013-15 bear market. The shorter-term 26-week mean looks to be in the early stage of its low, similar to 2015. That was the last period where the 26-week average dipped more than the current 17% below the 100-week reading.

Sugar Looks to Be Bottoming



In 2015, the disparity between the averages peaked at 21%. Additional support is indicated from the flattening one-year futures curve. At 3.4% in contango, it's much improved from the two-year peak of 14% in August. In 2015, the one-year curve averaged 9.6% in contango.

PERFORMANCE DRIVERS

Ag's Rays of Recovery in Sugar, Soybean Meal. Lowly agriculture may be turning attention to sugar for recovery guidance. The biggest single commodity drag on the ags in 2017, sugar appears to have bottomed, as evidenced by 7.2% recovery in 4Q through Nov. 30, reducing the 2017 retreat to about 26% in the Bloomberg Sugar Subindex Total Return. Grains are showing slow post-harvest recovery, up 2% in November on a spot basis for a 1% gain on the year. Rolling into steep contango remains the greater issue, as evidenced by 2017's minus 9.5% total return.

Lowly Sugar, Soybeans Recover in November

Security	Chg YTD %	Chg Nov.	Chg QTD	1Yr % Chg	2Yr % Chg
Bloomberg Live Cattle Subindex	+12.1%	-5.0%	+3.7%	+16.2%	7.3%
Bloomberg Livestock Subindex T	+7.1%	-5.9%	+4.0%	+17.8%	5.2%
Bloomberg Cotton Subindex Tota	+4.1%	+6.3%	+6.3%	+2.8%	16.3%
Bloomberg Lean Hogs Subindex T	-2%	-7.8%	+4.7%	+19.6%	2.0%
BBG Soybean Meal TR	-8%	+4.2%	+2.9%	-2.6%	8.4%
Bloomberg Soybeans Subindex To	-4.8%	+2%	+9%	-8.4%	6.9%
Bloomberg Soybean Oil Subindex	-5.0%	-3.0%	+2.8%	-11.6%	5.8%
Bloomberg Grains Subindex Tota	-9.5%	-4%	-2.9%	-10.1%	-17.0%
Bloomberg Agriculture Subindex	-9.7%	+4%	-5%	-11.7%	-8.7%
Bloomberg Corn Subindex Total	-10.9%	-8%	-3.3%	-10.0%	-22.5%
Bloomberg Wheat Subindex Total	-11.4%	-5%	-7.0%	-10.2%	-33.5%
Bloomberg Kansas Wheat Subinde	-14.2%	-3%	-6.1%	-12.4%	-36.4%
Bloomberg Coffee Subindex Tota	-14.6%	+1%	-2.1%	-22.2%	-10.7%
BBG Softs TR	-16.1%	+2.5%	+3.5%	-19.2%	-2.5%
Bloomberg Sugar Subindex Total	-25.9%	+2.4%	+7.2%	-26.9%	-7.0%

Reaching the steepest one-year average grain-curve contango in about a decade in 2017 may be indicative of a trough in negative roll yields and prices. Soybean meal, representing the majority of the crush, is up 4.2% in November and nearly unchanged on the year. It may be a leading indicator of recovery.

Livestock Looks Like a Bottom Similar to 2009. A cyclical recovery appears to be emerging for livestock prices. Similar to 2009, the 52-week moving average looks to have bottomed. There are two key differences this time -- the aftermath of a prolonged downturn, and a favorable shift in futures curves. Indicating demand that exceeds supply, the average of one-year live cattle and lean hogs curves is 2.6% in backwardation. Target resistance should come in at levels akin to the 2011-13 consolidation period, when the curve averaged 1.4% in contango.

Livestock's Early Recovery Days



About 10% above the Nov. 30 level, this area marked the top in 2016. The 52-week mean appears to be turning higher, catching up with the same mean on the one-year futures curve. Initial support should approximate the 52-week average, about 5% lower.

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DATA on BI COMD

Performance - Overview

Key Metrics

Name	% Change on Day	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	3 Yr % Change	5 Yr % Change
Commodities										
BCOM Index TR	-0.8	-1.5	-0.5	-0.5	1.5	-1.2	0.5	7.0	-23.2	-39.2
Energy Index	-1.3	-0.9	2.3	2.3	8.5	-7.9	0.4	-4.2	-49.0	-59.0
All Metals Index	-0.8	-3.2	-2.5	-2.5	-3.2	13.5	9.2	32.7	3.4	-24.6
Industrial Metals Index	-0.8	-4.3	-4.2	-4.2	-2.4	18.5	12.5	46.9	-0.6	-17.0
Precious Metals Index	-0.7	-1.8	-0.3	-0.3	-4.3	7.7	5.3	16.9	5.0	-35.2
Ags & Livestock Index	-0.5	-0.1	-0.8	-0.8	0.8	-6.8	-7.6	-6.4	-23.1	-37.7
Livestock Index	-1.4	0.4	-5.9	-5.9	7.7	7.1	17.8	5.2	-21.9	-11.3
Agriculture Index	-0.3	-0.3	0.4	0.4	-0.5	-9.7	-11.7	-8.7	-23.7	-42.2
Grains Index	0.0	-0.2	-0.4	-0.4	-1.7	-9.5	-10.1	-17.0	-30.6	-51.4
Softs Index	-1.2	-0.4	2.5	2.5	0.1	-16.1	-19.2	-2.5	-21.1	-36.3
BCOM EX Indices TR										
BCOM Index Roll Select TR	-0.8	-1.4	-0.3	-0.3	1.4	0.8	2.6	12.0	-17.7	-33.4
BCOM Index Forwards TR										
BCOM Index ER	-0.9	-1.5	-0.6	-0.6	1.2	-2.1	-0.3	5.7	-24.1	-40.0
BCOM Index Spot	-0.9	-1.5	0.4	0.4	3.2	4.3	6.7	26.2	-3.1	-22.3
Stocks										
S&P 500 Index TR	0.9	1.8	3.1	3.1	7.6	20.5	22.9	32.8	36.4	107.7
Bonds										
Barclays U.S. Aggregate	-0.2	-0.2	0.0	0.0	-0.4	3.2	3.4	5.6	6.7	10.5
Currencies										
Bloomberg U.S. Dollar Spot Index	0.0	0.4	-1.5	-1.5	0.9	-8.2	-7.3	-6.0	5.1	18.0
US Dollar Index	-0.2	0.2	-1.7	-1.7	0.3	-9.1	-8.4	-7.2	5.2	16.0
Pound Index	0.7	1.7	0.7	0.7	5.0	2.7	1.7	-17.5	-13.6	-10.8

Historical

Name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Commodities										
BCOM Index TR	-0.4%	11.8%	-24.7%	-17.0%	-9.5%	-1.1%	-13.3%	16.8%	18.9%	-35.6%
Energy Index	-6.7%	16.3%	-38.9%	-39.3%	5.2%	-9.4%	-16.0%	-10.5%	-5.3%	-47.3%
All Metals Index	14.4%	15.7%	-19.5%	-7.1%	-21.6%	2.9%	-11.5%	25.9%	60.2%	-33.3%
Industrial Metals Index	19.5%	19.9%	-26.9%	-6.9%	-13.6%	0.7%	-24.2%	16.2%	80.0%	-48.3%
Precious Metals Index	8.4%	9.5%	-11.5%	-6.7%	-30.8%	6.3%	4.6%	42.7%	29.2%	-4.1%
Ags & Livestock Index	-6.3%	0.9%	-16.1%	-6.0%	-12.6%	2.7%	-12.4%	33.9%	7.9%	-27.1%
Livestock Index	8.6%	-5.6%	-18.8%	11.6%	-3.5%	-3.5%	-2.3%	9.3%	-15.1%	-28.4%
Agriculture Index	-9.4%	2.1%	-15.6%	-9.2%	-14.3%	4.0%	-14.4%	38.5%	13.7%	-27.5%
Grains Index	-9.5%	-5.9%	-19.4%	-9.4%	-16.9%	18.3%	-14.4%	30.3%	-1.6%	-26.3%
Softs Index	-15.1%	13.2%	-9.9%	-10.1%	-16.9%	-22.4%	-14.0%	59.9%	44.2%	-28.4%
BCOM EX Indices TR										
BCOM Index Roll Select TR	1.6%	14.6%	-23.4%	-15.2%	-9.1%	-0.4%	-8.8%	19.5%	23.1%	-29.8%
BCOM Index Forwards TR										
BCOM Index ER	-1.2%	11.4%	-24.7%	-17.0%	-9.6%	-1.1%	-13.4%	16.7%	18.7%	-36.6%
BCOM Index Spot	5.2%	23.1%	-18.4%	-17.0%	-8.7%	3.7%	-8.1%	26.4%	41.2%	-28.9%
Stocks										
S&P 500 Index TR	19.5%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%	-37.0%
Bonds										
Barclays U.S. Aggregate	3.2%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%	5.9%	5.2%
Currencies										
Bloomberg U.S. Dollar Spot Index	-8.2%	2.8%	9.0%	11.0%	3.3%	-0.7%	1.8%	-1.8%	-4.8%	8.9%
US Dollar Index	-8.8%	3.6%	9.3%	12.8%	0.3%	-0.5%	1.5%	1.5%	-4.2%	6.0%
Pound Index	10.9%	-30.3%	-5.7%	-4.3%	3.9%	8.7%	-0.5%	-6.6%	17.3%	-45.5%

Bloomberg Commodity Index (BCOM)

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Performance – Commodity Total Returns

Key Metrics

Name	% Change on Day	WTD % Change	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
■ BCOM Total Return Indices							
Zinc Index	-0.1	-2.5	-3.5	1.4	23.1	17.1	99.0
Copper Index	-0.1	-4.0	-1.7	-1.5	19.8	14.0	44.5
Aluminum Index	-1.0	-4.0	-5.4	-4.0	18.4	15.8	34.9
Live Cattle Index	-1.3	0.3	-5.0	8.1	12.1	16.2	7.3
Gold Index	-0.7	-1.1	0.3	-3.5	9.9	7.8	17.8
Nickel Index	-3.6	-7.7	-9.8	-6.2	9.4	-2.7	21.1
Brent Crude Index	0.2	-1.3	3.0	19.7	6.4	15.1	9.8
Heating Oil Index	-1.4	-2.9	1.0	10.8	6.2	15.5	15.3
Cotton Index	-0.8	1.2	6.3	2.6	4.1	2.8	16.3
Platinum Index	0.1	-0.3	2.6	-5.7	3.8	3.0	12.1
Silver Index	-0.5	-3.6	-1.8	-6.5	1.5	-1.5	13.5
Gasoline Index	-0.2	-2.8	1.1	9.7	0.0	10.9	2.2
Lean Hogs Index	-1.6	0.6	-7.8	7.2	-0.2	19.6	2.0
WTI Crude Index	0.2	-2.6	5.3	18.7	-0.3	6.4	-9.1
Soybean Meal Index	-0.2	0.2	4.2	8.6	-0.8	-2.6	8.4
Soybeans Index	-0.7	-0.7	0.2	3.5	-4.8	-8.4	6.9
Soybean Oil Index	-0.6	-0.7	-3.0	-3.7	-5.0	-11.6	5.8
Corn Index	0.6	0.2	-0.8	-3.9	-10.9	-10.0	-22.5
Wheat Index	-0.4	-0.4	-0.5	-4.0	-11.4	-10.2	-33.5
HRW Wheat Index	0.0	-0.1	-0.3	-4.6	-14.2	-12.4	-36.4
Coffee Index	-2.8	0.8	0.1	-3.0	-14.6	-22.2	-10.7
Sugar Index	0.1	-2.4	2.4	1.2	-25.9	-26.9	-7.0
Natural Gas Index	-4.8	3.8	0.1	-11.2	-34.0	-26.6	-26.9

Historical

Name	2017↓	2016	2015	2014	2013	2012	2011	2010	2009	2008
■ BCOM Total Return Indices										
Zinc Index	23.2%	57.5%	-28.0%	3.5%	-7.0%	9.0%	-27.8%	-8.8%	98.3%	-51.0%
Copper Index	20.0%	15.7%	-25.1%	-16.6%	-8.8%	5.0%	-24.4%	29.5%	130.0%	-53.1%
Aluminum Index	19.6%	9.7%	-22.9%	-3.1%	-20.7%	-4.0%	-21.7%	5.4%	33.8%	-40.1%
Live Cattle Index	13.5%	-7.4%	-14.3%	22.1%	-5.0%	-3.9%	-1.0%	15.0%	-9.8%	-26.2%
Nickel Index	13.4%	11.8%	-42.6%	7.3%	-20.1%	-10.2%	-24.7%	32.2%	54.9%	-56.2%
Gold Index	10.7%	7.7%	-10.9%	-1.7%	-28.7%	6.1%	9.6%	28.7%	22.9%	3.9%
Heating Oil Index	7.7%	33.5%	-42.8%	-38.8%	0.4%	5.5%	10.7%	8.3%	20.5%	-47.2%
Brent Crude Index	6.2%	25.4%	-45.6%	-47.6%	7.2%	7.6%	16.8%	11.5%	28.6%	-51.2%
Cotton Index	5.0%	10.5%	3.0%	-21.2%	9.0%	-12.7%	-21.7%	98.2%	30.1%	-42.8%
Platinum Index	3.7%	0.8%	-26.5%	-12.3%	-11.8%	8.7%	-21.8%	19.3%	54.0%	-38.2%
Silver Index	2.1%	14.0%	-12.7%	-20.4%	-36.6%	7.1%	-10.1%	81.8%	47.6%	-25.4%
Lean Hogs Index	1.4%	-2.9%	-26.1%	-4.4%	-2.0%	-2.9%	-4.6%	0.3%	-22.5%	-31.9%
Gasoline Index	0.2%	6.4%	-12.6%	-43.8%	1.9%	25.7%	14.5%	13.1%	74.7%	-61.4%
WTI Crude Index	-0.4%	7.1%	-44.3%	-41.7%	6.8%	-11.8%	-3.6%	3.8%	4.4%	-53.2%
Soybean Meal Index	-0.6%	18.1%	-18.0%	11.8%	20.0%	49.1%	-18.1%	38.9%	34.7%	-8.6%
Soybeans Index	-4.2%	14.8%	-14.6%	-5.5%	10.5%	24.0%	-16.4%	34.9%	22.9%	-21.2%
Soybean Oil Index	-4.4%	7.3%	-7.7%	-20.6%	-22.4%	-9.8%	-15.2%	33.8%	14.2%	-36.5%
Wheat Index	-11.0%	-24.1%	-22.2%	-9.4%	-27.2%	9.8%	-34.0%	21.2%	-26.0%	-38.5%
Corn Index	-11.5%	-9.8%	-19.2%	-13.3%	-30.3%	19.0%	1.1%	30.7%	-10.1%	-21.9%
Coffee Index	-12.1%	-1.3%	-31.5%	37.8%	-30.5%	-41.6%	-11.2%	67.0%	10.3%	-26.2%
HRW Wheat Index	-14.2%	-25.3%	-32.7%	-4.7%	-26.2%	5.6%	-22.9%	42.1%	-23.8%	-36.5%
Sugar Index	-25.9%	22.8%	-4.7%	-30.9%	-20.0%	-13.0%	-11.9%	24.0%	86.3%	-19.9%
Natural Gas Index	-30.7%	10.3%	-39.9%	-30.7%	5.0%	-30.6%	-47.1%	-40.6%	-51.6%	-37.1%

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Performance – Prices

Key Metrics

Name	% Change on Day	WTD % Change	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
■ BCOM Single Commodity Price							
Palladium	-0.3	1.3	2.8	8.0	47.3	30.4	85.7
Zinc	-0.1	-2.7	-4.3	0.8	23.6	17.7	104.1
Copper (LME)	0.0	-3.5	-1.2	-0.4	22.0	15.9	46.4
Copper (CME)	0.2	-3.9	-1.8	-1.1	21.6	16.2	49.0
Aluminum	-1.0	-4.1	-5.3	-3.3	20.0	17.3	40.8
Brent Crude	0.7	-0.5	3.6	21.4	11.9	26.0	42.5
Heating Oil	-1.5	-3.1	0.4	7.7	11.1	20.5	41.6
Nickel	-3.6	-7.8	-9.8	-5.9	10.8	-1.4	24.6
Gold	-0.6	-1.0	0.3	-3.4	10.6	8.8	19.6
Gas Oil	-1.6	-2.2	0.2	9.4	10.2	23.2	31.6
WTI Crude	0.1	-2.7	5.5	21.5	6.8	16.0	37.7
Cotton	-0.6	3.9	9.7	5.0	6.2	3.6	22.4
Platinum	0.4	0.0	2.8	-5.4	4.8	3.8	13.4
Gasoline	-0.1	-3.3	-2.9	-19.2	3.8	15.9	27.2
Soybean Meal	-0.2	0.2	4.1	10.3	3.7	2.6	14.0
Live Cattle	-0.5	1.1	-4.6	13.8	3.3	8.3	-7.8
Silver	-0.6	-3.7	-2.0	-6.4	2.4	-0.2	16.5
Wheat	-1.7	-1.6	-2.2	-0.2	0.3	7.6	-11.0
HRW Wheat	0.3	0.0	-0.5	1.4	-1.0	5.9	-9.3
Soybeans	-0.7	-0.8	1.2	5.3	-1.1	-4.5	11.9
Soybean Oil	-0.6	-0.6	-2.9	-2.8	-1.9	-8.3	16.0
Lean Hogs	-1.2	1.6	-5.5	4.7	-2.8	26.0	10.0
Corn	0.8	-0.1	-1.2	-0.1	-2.9	1.5	-6.4
Coffee	-2.5	1.2	1.0	-1.4	-7.8	-14.4	8.0
Natural Gas	-4.8	7.5	4.5	-0.5	-18.8	-9.8	35.3
Sugar	0.1	-2.4	2.3	4.7	-22.7	-23.9	1.0

Historical

Name	2017 ↓	2016	2015	2014	2013	2012	2011	2010	2009	2008
■ BCOM Single Commodity Price										
Palladium	47.8%	21.6%	-29.6%	11.2%	2.1%	7.2%	-18.3%	96.5%	116.7%	-50.1%
Zinc	23.6%	60.2%	-26.2%	6.0%	-0.5%	12.2%	-25.2%	-3.5%	113.5%	-49.6%
Copper (LME)	21.9%	17.3%	-25.8%	-13.9%	-6.8%	4.2%	-21.2%	31.2%	141.1%	-54.2%
Copper (CME)	21.4%	17.4%	-24.4%	-16.8%	-7.0%	6.3%	-22.7%	32.9%	137.3%	-53.6%
Aluminum	21.3%	12.5%	-17.9%	4.1%	-13.9%	2.5%	-18.8%	11.6%	45.6%	-36.0%
Nickel	15.0%	13.5%	-41.8%	9.0%	-18.6%	-9.2%	-24.2%	33.8%	58.8%	-55.4%
Brent Crude	11.6%	52.4%	-35.0%	-48.3%	-0.3%	3.5%	13.3%	21.6%	70.9%	-51.4%
Heating Oil	10.8%	54.8%	-40.4%	-40.0%	1.1%	3.8%	15.4%	20.1%	50.7%	-46.8%
Gold	10.4%	8.6%	-10.5%	-1.5%	-28.3%	7.0%	10.2%	29.7%	24.0%	5.5%
Gas Oil	10.1%	53.6%	-36.3%	-45.8%	1.9%	0.3%	21.2%	20.0%	51.9%	-50.1%
Cotton	6.9%	11.6%	5.0%	-28.8%	12.6%	-18.1%	-36.6%	91.5%	54.2%	-27.9%
WTI Crude	6.2%	45.0%	-30.5%	-45.9%	7.2%	-7.1%	8.2%	15.1%	77.9%	-53.5%
Platinum	5.0%	1.1%	-26.2%	-11.8%	-10.9%	9.9%	-21.1%	21.5%	55.9%	-38.7%
Gasoline	3.8%	31.4%	-11.7%	-48.5%	-0.9%	4.7%	9.5%	19.5%	103.6%	-59.3%
Live Cattle	3.8%	-15.2%	-16.4%	21.5%	1.8%	8.9%	12.1%	25.9%	0.0%	-10.5%
Soybean Meal	3.8%	18.4%	-27.5%	-16.7%	4.1%	35.9%	-16.4%	18.0%	4.5%	-9.4%
Silver	1.9%	15.8%	-11.5%	-19.5%	-35.9%	8.3%	-9.8%	83.7%	49.1%	-24.3%
Wheat	1.8%	-13.2%	-20.3%	-2.6%	-22.2%	19.2%	-17.8%	46.7%	-11.3%	-31.0%
Soybeans	-1.1%	14.4%	-14.5%	-22.3%	-7.5%	18.4%	-14.0%	34.0%	6.9%	-18.9%
Lean Hogs	-1.4%	10.6%	-26.4%	-4.9%	-0.3%	1.7%	5.7%	22.3%	7.1%	5.2%
HRW Wheat	-1.7%	-10.7%	-25.2%	-2.2%	-22.9%	15.9%	-15.7%	58.7%	-14.9%	-31.0%
Soybean Oil	-1.9%	12.7%	-4.4%	-17.6%	-21.0%	-5.6%	-9.8%	43.1%	21.2%	-31.9%
Corn	-4.0%	-1.9%	-9.6%	-5.9%	-39.6%	8.0%	2.8%	51.7%	1.8%	-10.6%
Coffee	-7.8%	8.2%	-23.9%	50.5%	-23.0%	-36.6%	-5.7%	76.9%	21.3%	-17.7%
Natural Gas	-18.0%	59.3%	-19.1%	-31.7%	26.2%	12.1%	-32.1%	-20.9%	-0.9%	-24.9%
Sugar	-22.2%	28.0%	5.0%	-11.5%	-15.9%	-16.3%	-27.5%	19.2%	128.2%	9.1%

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Performance – Volatility

Name	Current	% Change on Day	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
BCOM 3M Implied Volatility									
Natural Gas	45.0	1.1	3.9	7.2	5.3	36.6	22.1	2.1	-0.6
Nickel	38.0	4.2	20.8	26.3	42.9	15.6	9.4	17.5	30.5
Cotton	19.8	1.1	-2.2	16.3	19.2	0.1	4.0	-9.7	14.8
Live Cattle	17.5	-1.2	-5.0	0.4	10.0	-23.1	-3.4	-13.7	-21.4
Aluminum	16.9	-10.8	-9.4	-8.8	-8.5	-1.5	-4.2	-13.0	-54.6
Unlead Gas	23.5	3.4	3.1	2.2	-5.3	-19.6	-6.4	-29.5	-36.6
Lean Hogs	22.8	-2.1	-6.6	3.1	2.6	-26.1	-6.5	-16.2	-22.4
Soybean Oil	17.8	0.8	2.6	1.5	1.2	-5.4	-8.5	-25.2	-13.5
HRW Wheat	19.9	2.5	3.8	10.9	19.5	-3.7	-10.5	0.4	-6.6
Wheat	19.7	2.2	3.3	7.4	18.2	-4.3	-11.1	-6.1	-7.9
Coffee	24.8	3.1	4.3	3.7	-0.5	-4.5	-16.6	-14.3	-23.7
Crude Oil	23.7	1.7	4.2	2.2	5.6	-20.1	-16.9	-46.4	-42.0
Brent Crude	23.7	-4.1	1.2	1.5	-1.4	-13.8	-18.8	-45.9	-40.1
Palladium	23.8	0.2	5.7	-7.2	-5.1	-2.3	-20.1	-15.5	-27.0
Heating Oil	21.4	-3.5	2.3	-0.9	-3.8	-13.1	-21.2	-44.3	-38.0
Soybean Meal	17.1	-1.2	7.3	15.0	13.3	3.2	-21.3	-27.1	-12.5
Copper (COMEX)	18.3	2.2	1.9	-0.3	0.1	-11.0	-24.2	-31.6	-28.4
Soybeans	12.7	1.7	-0.5	10.1	7.1	-12.1	-24.8	-34.8	-24.5
Gas Oil	21.5	-3.2	-3.2	0.1	-4.0	-12.4	-25.2	-46.7	-37.5
Corn	14.2	8.0	1.9	4.2	6.2	-22.8	-28.2	-21.8	-21.1
Sugar	21.5	0.7	-1.4	0.4	-2.1	-18.7	-28.6	-20.0	-27.5
Platinum	14.5	7.3	6.4	-0.9	-10.3	-9.5	-31.6	-27.5	-40.1
Zinc	19.0	-9.5	-1.4	-25.3	-23.0	18.999M	-33.7	-55.9	-43.2
Gold	9.7	0.7	-3.3	-6.5	0.0	-23.8	-33.9	-34.0	-35.3
Silver	16.5	-1.1	-5.0	-6.4	0.9	-26.9	-35.1	-32.1	-35.6
Copper (LME)	13.6	-20.7	-22.7	-36.5	-21.9	-27.3	-35.3	-57.4	-64.2
Name	Current	% Change on Day	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change
BCOM 60 Day Historical Volatility									
Cotton	20.5	2.1	-2.6	-9.4	-9.6	-30.4	19.7	-3.0	12.3
Nickel Gas	37.7	0.4	3.1	8.3	12.6	49.7	18.8	17.0	8.7
Sugar	28.4	-0.8	-5.8	-13.7	-14.4	-16.0	9.1	2.5	-27.0
Live Cattle	22.1	0.1	-0.1	-8.6	-9.5	-34.9	1.4	-6.7	-15.8
HRW Wheat	22.1	0.1	-0.1	-8.6	-9.5	-34.9	1.4	-6.7	-17.1
Aluminum	15.8	2.6	3.6	0.2	-13.6	-1.4	-1.1	-2.7	-18.1
Copper (CME)	19.1	0.2	3.4	5.5	4.5	21.6	-13.6	-7.3	-21.7
Copper (LME)	18.9	0.3	3.5	3.4	2.9	29.8	-18.5	-8.4	-17.8
Coffee	23.2	1.1	1.9	-6.1	-7.0	-19.1	-19.5	-16.1	-29.5
Soybean Meal	17.5	0.1	-5.0	-10.0	-11.1	-25.1	-22.2	-23.9	6.6
Palladium	20.9	-3.0	-13.1	-12.9	-13.0	14.6	-22.4	-24.0	-39.0
Soybeans	13.3	-0.2	-4.4	-8.6	-9.7	-35.8	-23.0	-27.5	-12.7
Gold	11.0	1.4	-1.0	4.5	6.3	9.5	-23.6	-22.7	-25.2
Wheat	20.9	-1.0	-5.4	-15.6	-16.8	-40.3	-23.8	-21.7	-19.8
Unlead Gas	23.8	1.3	-51.3	-59.1	-59.1	-14.7	-26.5	-34.5	-43.4
Natural Gas	39.5	1.5	6.1	10.7	24.7	30.3	-30.6	-19.6	-11.7
Corn	15.2	0.0	-0.4	-21.4	-22.5	-41.6	-33.4	-36.7	-22.8
Silver	19.0	2.8	1.9	13.3	13.8	-5.2	-35.1	-31.8	-26.4
Zinc	23.0	-0.5	-1.8	-12.7	-13.8	6.4	-35.2	-26.5	-28.5
Gas Oil	20.4	0.3	-2.8	-2.8	-3.1	-9.8	-37.6	-37.5	-33.1
Heating Oil	19.7	1.5	1.2	-14.0	-14.4	-20.2	-38.0	-41.0	-39.2
Platinum	15.8	1.1	0.4	25.8	29.1	-6.9	-38.5	-25.7	-29.3
Crude Oil	22.2	0.7	-0.6	-10.2	-10.3	-22.5	-39.1	-41.4	-46.0
Soybean Oil	14.4	-0.1	-1.2	-0.2	-0.7	-20.1	-42.5	-45.1	-35.3
Brent Crude	20.7	0.5	-1.4	-8.9	-9.1	-18.7	-43.2	-42.3	-48.7
Lean Hogs	33.1	0.2	-1.0	-33.4	-31.9	-35.4	-45.2	-44.9	-17.2

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

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

Key Metrics

Name	Current Position	1 Yr Ago	1 Yr Change	YTD Change	MTD Change	1 Mth Change	3 Mth Change	2 Yr Change
1 Year Spread % of First Contract								
BCOM	-2.9	-4.0	1.0	-0.7	-0.2	0.0	0.6	3.5
Sector								
Livestock	2.6	-1.7	4.3	-5.6	-4.8	-1.4	5.4	2.8
Energy	2.0	-5.7	7.8	4.6	0.1	-0.2	-0.8	17.0
Industrial Metals	-1.5	-0.7	-0.8	-0.7	-1.0	-1.0	-0.4	0.1
Precious Metals	-2.3	-1.8	-0.5	-0.6	-0.2	-0.3	-2.4	-1.4
Agriculture	-6.2	-3.9	-2.3	-2.0	2.0	1.9	2.8	-0.2
Single Commodities								
Cotton	5.8	3.5	2.2	4.1	7.1	7.0	3.1	10.7
Unleaded Gas	5.2	-1.3	6.5	2.4	-2.5	-3.2	-10.4	3.7
Brent Crude	5.0	-6.1	11.2	8.1	0.7	0.7	6.8	21.0
Crude Oil	4.7	-7.9	12.6	10.6	2.1	2.6	9.7	21.9
Live Cattle	4.2	9.9	-5.8	-9.1	-3.4	0.1	6.0	-1.2
Gas Oil	1.9	-7.3	9.2	6.7	-0.8	-0.7	-1.5	16.0
Zinc	1.9	-0.1	1.9	1.7	-3.4	-3.7	-0.4	4.7
Heating Oil	1.7	-6.5	8.2	6.2	-0.8	-0.8	-2.2	17.4
Palladium	1.4	-0.5	1.9	1.9	0.3	0.4	0.8	1.8
Lean Hogs	1.0	-13.4	14.4	-2.0	-6.1	-2.8	4.7	6.7
Soybean Oil	-0.8	0.1	-0.9	0.4	0.4	0.4	1.4	2.9
Platinum	-1.2	-1.2	0.0	0.0	0.7	0.7	0.1	-0.7
Copper (LME)	-1.2	-0.1	-1.1	-0.9	-0.2	-0.1	0.1	-1.7
Soybean Meal	-1.4	-0.4	-1.0	-0.9	0.9	1.1	3.8	2.2
Gold	-2.0	-1.5	-0.6	-0.5	-0.1	-0.2	-4.4	-1.6
Soybean	-2.2	1.5	-3.6	-2.5	0.2	0.3	2.0	0.5
Nickel	-2.3	-1.5	-0.8	-0.4	-0.4	-0.1	-0.2	-0.8
Copper (CME)	-2.4	-0.9	-1.5	-1.6	-0.5	-0.5	-0.2	-1.0
Silver	-2.5	-2.2	-0.4	-0.6	-0.3	-0.3	-0.3	-1.2
Aluminum	-3.3	-0.9	-2.5	-2.3	-0.7	-0.7	-1.0	-0.7
Sugar	-3.9	8.0	-11.9	-8.7	2.0	1.5	6.5	-6.7
Natural Gas	-6.3	-5.2	-1.1	-6.2	1.6	0.0	-7.3	22.1
Coffee	-9.6	-8.3	-1.3	-0.5	1.5	1.5	-0.5	0.4
Corn	-13.3	-12.8	-0.5	-2.8	0.0	-0.2	1.6	-5.2
Wheat	-19.9	-22.3	2.5	-2.8	-0.4	-0.5	2.6	-6.8
HRW Wheat	-21.0	-19.4	-1.6	-4.9	1.6	1.5	4.1	-5.3

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).

Historical

Name	2017 ↓	2016	2015	2014	2013	2012	2011	2010	2009	2008
1 Year Spread % of First Contract										
BCOM	-2.7	-2.2	-7.1	-4.4	0.3	-0.9	-2.0	2.3	-4.1	-13.1
Sector										
Livestock	3.1	8.1	0.6	8.3	4.1	-0.7	-0.2	-1.8	-4.8	-10.4
Energy	2.2	-2.6	-18.7	-13.5	3.7	-0.1	-1.9	-4.3	-9.7	-30.2
Industrial Metals	-1.4	-0.8	-1.5	-0.8	-1.8	-2.5	-2.1	0.5	-2.3	-5.0
Precious Metals	-2.3	-1.7	-1.0	-0.8	-0.7	-0.7	-0.7	-0.9	-0.9	-0.6
Agriculture	-6.0	-4.2	-5.5	-5.6	-1.5	-2.3	-1.8	12.2	-0.3	-12.2
Single Commodities										
Cotton	6.0	1.7	-2.7	-8.6	6.7	-5.7	3.6	34.6	-2.6	-18.5
Brent Crude	5.2	-3.1	-22.1	-16.4	4.9	6.3	4.0	-0.4	-8.3	-35.3
Unleaded Gas	5.0	2.8	1.0	-12.3	7.0	9.8	7.9	3.7	-2.9	-30.8
Crude Oil	4.5	-5.9	-20.4	-13.5	7.3	-1.3	1.4	-3.2	-6.7	-35.1
Live Cattle	4.0	13.3	8.1	7.0	2.5	-3.3	-4.5	-3.8	-4.3	-5.6
Heating Oil	2.5	-4.5	-24.5	-4.5	3.2	2.1	2.1	-3.4	-8.0	-23.2
Gas Oil	2.3	-4.8	-23.8	-12.0	3.1	2.9	3.0	-4.2	-11.0	-25.1
Lean Hogs	2.2	2.9	-7.0	9.6	5.7	2.0	4.2	0.2	-5.3	-15.2
Zinc	1.9	0.2	-2.8	-1.4	-2.3	-4.5	-3.9	-1.7	-3.2	-7.0
Palladium	1.4	-0.5	-0.2	-0.1	-0.5	-0.2	-0.4	0.0	-0.3	-20.5
Soybean Oil	-0.9	-1.2	-3.1	-0.9	-3.8	-2.8	-1.6	-0.9	-5.3	-6.0
Copper (LME)	-1.2	-0.3	0.3	1.6	1.1	-0.7	-0.3	2.7	-0.9	-3.0
Platinum	-1.2	-1.1	-0.4	-0.4	-0.5	-0.7	-1.0	-0.5	-1.2	-54.1
Soybean Meal	-1.3	-0.4	-5.7	9.8	19.9	12.5	-2.4	9.9	9.5	-1.9
Soybean	-1.8	0.4	-2.0	0.9	13.1	7.7	-1.2	5.9	1.7	-4.1
Gold	-2.1	-1.5	-0.5	-0.3	-0.4	-0.7	-0.9	-0.9	-1.0	-0.9
Nickel	-2.3	-1.9	-1.4	-1.1	-1.8	-1.4	-0.1	1.1	-1.1	-3.0
Copper (CME)	-2.4	-0.8	-1.1	-0.2	1.3	-1.1	-0.8	2.5	-1.2	-2.6
Silver	-2.6	-2.0	-1.4	-1.2	-0.9	-0.7	-0.5	-0.9	-0.8	-0.4
Aluminum	-3.1	-1.0	-2.7	-3.1	-7.5	-5.0	-5.2	-2.3	-5.0	-9.5
Sugar	-4.2	4.8	0.9	-13.1	-8.2	-5.5	-0.3	26.0	21.9	-19.3
Natural Gas	-6.3	-0.1	-22.6	-22.2	-3.2	-20.7	-29.9	-18.4	-21.1	-31.6
Coffee	-9.7	-9.2	-8.4	-7.4	-11.2	-11.5	-4.9	6.1	-5.7	-10.8
Corn	-13.3	-10.5	-9.5	-8.1	-9.2	12.7	7.2	9.4	-8.5	-14.0
Wheat	-17.6	-17.1	-10.5	-5.0	-7.2	-6.9	-12.4	-8.7	-15.3	-12.5
HRW Wheat	-21.5	-16.1	-14.9	-6.3	-5.5	-5.7	-7.9	-3.1	-12.7	-10.6

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Curve Analysis – Gross Roll Yield

Key Metrics

Name	Current 1Yr Yld	Yld 6 Months Ago	Yld 1 Yr Ago	Change from 1 Yr Ago	Yld 2 Yr Ago	Change from 2 Yr Ago
1 Year Gross Yield						
Sector Roll Yield						
BCOM Livestock	1.8	5.1	0.2	1.6	1.0	0.8
BCOM Precious Metals	-0.8	-1.0	-1.2	0.3	-0.6	-0.2
BCOM Industrial Metals	-1.9	-1.9	-2.2	0.4	-1.8	-0.1
BCOM Softs	-4.0	-5.3	-5.9	1.9	-6.5	2.5
BCOM	-6.1	-8.0	-11.8	5.7	-4.9	-1.2
BCOM Agriculture	-9.7	-5.9	-6.7	-3.1	-4.8	-4.9
BCOM Energy	-13.6	-17.5	-30.0	16.4	-8.2	-5.4
Commodities Roll Yield						
Cotton	0.2	-4.5	-5.1	5.3	1.9	-1.7
Platinum	-0.7	-0.6	0.2	-0.9	-0.3	-0.3
Aluminum	-0.7	-2.4	-3.5	2.8	-6.0	5.3
Gold	-1.0	-1.0	-0.7	-0.3	-0.5	-0.5
Nickel	-1.0	-1.8	-2.0	1.0	-0.7	-0.3
Sugar	-1.4	-2.2	-5.4	4.0	-8.8	7.5
Silver	-1.5	-1.4	-2.3	0.9	-1.2	-0.3
Zinc	-1.6	-3.3	-3.5	1.8	-2.2	0.5
Gas Oil	-2.1	-6.1	-21.5	19.4	-8.2	6.1
Copper (CME)	-2.2	-2.3	-0.1	-2.1	0.3	-2.5
Soybean	-3.6	-0.9	0.3	-3.9	0.7	-4.4
Lean Hogs	-3.8	-7.6	-2.0	-1.8	-0.7	-3.1
Coffee	-4.8	-9.5	-11.4	6.6	-5.2	0.4
Soybean Meal	-5.1	-1.2	0.1	-5.2	14.2	-19.3
Heating Oil	-5.3	-9.5	-15.0	9.7	-1.5	-3.8
Soybean Oil	-5.3	-5.6	-3.9	-1.5	-2.6	-2.7
Unlead Gas	-6.4	-9.0	-16.3	9.9	-0.9	-5.5
Crude Oil	-9.4	-13.2	-32.2	22.8	-9.8	0.3
Corn	-9.9	-6.9	-5.9	-4.0	-11.8	1.9
Brent Crude	-13.3	-11.4	-20.8	7.5	-14.3	1.0
Wheat	-16.1	-10.9	-8.5	-7.6	0.7	-16.8
Natural Gas	-16.5	-34.2	-50.2	33.7	-12.4	-4.1
HRW Wheat	-16.8	-14.0	-13.0	-3.8	-5.2	-11.6

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

Historical

Name	2017 ↓	2016	2015	2014	2013	2012	2011	2010	2009	2008
1 Year Gross Yield										
Sector Roll Yield										
BCOM Precious Metals	0.5	-1.1	-0.6	-0.4	-0.5	-0.9	-0.6	-1.1	-1.1	-2.6
BCOM Livestock	-1.1	0.2	1.1	-0.2	-4.5	-9.8	-12.3	-14.8	-20.2	-22.5
BCOM Industrial Metals	-2.6	-2.0	-1.8	-2.1	-3.9	-3.3	-2.2	-4.1	-16.7	-3.3
BCOM Softs	-4.1	-5.6	-7.4	-12.5	-4.9	0.9	9.0	0.5	-24.7	-18.2
BCOM	-6.2	-11.4	-6.3	0.0	-0.9	-4.7	-6.6	-9.5	-21.8	-6.5
BCOM Agriculture	-9.7	-7.0	-4.7	0.7	8.2	3.6	-5.8	-12.6	-2.5	-7.8
BCOM Energy	-16.9	-32.5	-12.6	1.6	-5.1	-11.7	-11.0	-13.8	-51.8	-5.6
Commodities Roll Yield										
Live Cattle	8.6	8.0	1.0	-0.3	-6.8	-12.9	-11.1	-11.2	-10.9	-14.5
Zinc	-0.6	-2.7	-2.5	-4.6	-8.8	-3.1	-3.0	-5.3	-11.2	-2.6
Cotton	-0.7	-1.1	-2.1	7.7	-3.6	5.2	15.5	14.3	-24.1	-14.5
Aluminum	-0.7	-2.9	-6.0	-9.1	-8.4	-6.2	-3.3	-6.0	-13.6	-5.0
Platinum	-0.8	-0.4	-0.2	-0.5	-0.8	-1.2	0.9	-2.7	-6.2	-0.7
Gold	-1.0	-0.9	-0.4	-0.2	-0.4	-0.9	2.9	-1.0	-1.1	-1.6
Silver	-1.6	-1.8	-1.2	-0.9	-0.7	-1.1	4.5	-5.1	-1.5	-1.1
Copper (CME)	-1.8	-1.6	-0.7	0.3	-1.7	-1.3	-0.1	-3.6	-7.1	0.5
Gas Oil	-2.2	-22.7	-11.0	-1.6	2.1	7.4	2.1	-12.3	-20.5	-3.0
Nickel	-3.0	-1.7	0.5	-2.9	-2.3	-1.0	-1.7	-1.6	-7.3	-1.8
Soybean	-3.6	0.2	-0.2	17.0	18.5	5.5	-1.8	0.5	16.1	-2.2
Sugar	-3.6	-5.2	-9.9	-19.5	-4.1	3.1	18.7	4.6	-41.8	-28.3
Soybean Oil	-4.4	-5.4	-3.2	-2.9	-1.3	-4.2	-4.2	-8.5	-6.9	-4.3
Unlead Gas	-5.1	-27.2	1.1	4.7	1.3	18.9	4.5	-6.9	-16.9	-2.0
Soybean Meal	-5.2	-0.5	9.6	28.7	16.5	13.0	-1.3	20.7	30.2	0.4
Heating Oil	-5.3	-25.3	-3.0	1.1	-1.3	1.0	-2.9	-11.7	-25.3	-0.3
Coffee	-6.5	-9.7	-7.8	-12.6	-7.2	-5.0	-3.4	-8.5	-11.1	-8.5
Lean Hogs	-7.7	-13.6	0.3	0.6	-1.7	-4.5	-9.6	-23.8	-30.8	-38.1
Crude Oil	-9.7	-38.2	-14.0	4.3	-0.3	-4.5	-9.7	-11.3	-70.3	0.3
Corn	-11.2	-7.9	-9.6	-7.4	9.4	10.8	0.4	-20.9	-11.8	-11.0
Brent Crude	-13.3	-27.7	-23.3	0.3	6.9	4.2	8.3	-12.5	-55.6	-3.1
Wheat	-16.1	-10.9	-1.9	-7.0	-5.1	-9.4	-14.6	-23.8	-14.7	-7.1
HRW Wheat	-16.8	-14.7	-7.6	-2.5	-3.3	-4.1	-7.6	-9.9	-4.7	-4.7
Natural Gas	-17.8	-52.6	-19.8	0.8	-22.3	-42.7	-13.8	-16.1	-47.6	-11.8

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Curve Analysis – Forwards / Forecasts Spread %

Name	11/2017	10/2017	9/2017	8/2017	7/2017	6/2017	5/2017	4/2017	3/2017	2/2017	1/2017
1 Yr Spread ((Forward-Forecast)/ Fore...											
Energy											
WTI Crude Spread %	14.1	9.0	3.9	-4.4	-1.2	-8.5	-7.9	-6.2	-4.2	-0.5	-0.7
Brent Crude Spread %	17.4	15.2	7.2	0.3	-0.9	-7.1	-6.0	-4.7	-2.6	1.3	0.5
ULS Diesel Spread %	20.2	20.8	16.1	11.6	5.2	-7.1		-6.7	-3.9	1.2	-0.2
Unleaded Gasoline Spread %	7.9	12.1	2.7	11.9	-0.1	-7.2		-7.5	-3.3	-1.4	-0.5
Soft											
Sugar Spread %	-4.5	-7.0	-12.4	-11.0	-4.6	-12.6	-8.4	-7.0	-7.7	0.2	4.1
Coffee Spread %	-3.4	-7.7	-5.4	-5.0	0.3	-9.2	-9.1	-7.7	-3.2	-2.2	3.2
Cotton Spread %	2.8	-6.3	-5.9	-2.6	-4.6	-0.2	2.5	5.9	6.5	7.1	5.7
Industrial Metals											
Copper Spread % (LME)	10.5	13.3	8.0	17.8	11.0	2.2	-0.1	0.9	2.0	10.5	13.2
Aluminum Spread %	5.0	10.9	8.5	13.3	3.5	4.3	6.0	6.3	10.7	12.1	8.1
Zinc Spread %	11.5	16.5	13.0	15.4	4.5	2.4	-2.0	-1.1	4.2	10.2	13.7
Nickel Spread %	11.5	20.3	3.3	19.0	1.5	-5.4	-10.7	-10.2	-6.2	0.5	-9.1
Precious Metals											
Gold Spread %	1.9	1.3	2.1	5.6	3.0	0.1	1.4	1.4	0.7	1.1	-3.0
Silver Spread %	-4.0	-2.9	-3.4	1.9	-2.1	-4.0	-1.3	-1.7	5.8	6.9	-2.0
Grain											
Corn Spread %	-6.0	-4.8	-3.5	-5.8	2.4	1.8	1.7	0.4	1.5	2.8	1.5
Soybeans Spread %	1.8	0.2	0.1	-4.4	2.6	-1.3	-3.9	-1.9	-3.3	3.2	2.4
Wheat Spread %	-5.1	-5.4	1.3	-4.5	9.4	8.5	0.6	1.2	2.6	5.3	0.6

Data Set

Name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Data Set										
1 Yr Spread										
Energy										
Natural Gas Forward	3.18	3.72	2.34	2.89	4.23	3.35	2.99	4.34	5.57	5.62
WTI Crude Forward	57.3	53.7	37.0	53.3	98.4	91.8	98.8	91.4	79.4	44.6
WTI Crude Forecast	50.0	43.2	50.0	93.6	98.2	95.0	94.0	79.0	61.4	101.5
Brent Crude Forward	62.8	56.8	37.3	57.3	110.8	111.1	107.4	94.8	77.9	45.6
Brent Crude Forecast	53.2	44.9	54.0	100.0	108.0	111.9	110.7	80.0	62.0	99.1
ULS Diesel Forward	1.92	1.70	1.10	1.85	3.08	3.05	2.94	2.54	2.12	1.41
ULS Diesel Forecast	1.56	1.34	1.69	2.79	2.98	3.05	2.87	2.13		2.96
Unleaded Gasoline Forward	1.73	1.67	1.27	1.44	2.79	2.81	2.69	2.45	2.05	1.01
Unleaded Gasoline Forecast	1.55	1.39	1.64	2.65	2.86	2.95	2.91	2.12	1.47	2.49
Soft										
Sugar Forward	0.15	0.20	0.15	0.15	0.16	0.20	0.23	0.32	0.27	0.12
Sugar Forecast	0.16	0.18	0.13	0.17	0.18	0.22	0.27	0.21	0.17	0.13
Coffee Forward	1.30	1.37	1.27	1.67	1.11	1.44	2.27	2.40	1.36	1.12
Coffee Forecast	1.35	1.37	1.34	1.79	1.26	1.78	2.53	1.60	1.23	1.36
Cotton Forward	0.75	0.71	0.63	0.60	0.85	0.75	0.92	1.45	0.76	0.49
Cotton Forecast	0.73	0.65	0.64	0.76	0.84	0.79	1.34	0.90	0.60	0.67
Industrial Metals										
Copper Forward (LME)	6,740	5,526	4,713	6,349	7,373	7,913	7,595	9,644	7,352	3,049
Copper Forecast (LME)	6,100	4,826	5,575	6,871	7,334	7,958	8,855	7,460	5,100	6,973
Aluminum Forward	2,056	1,694	1,506	1,834	1,762	2,047	1,997	2,459	2,204	1,514
Aluminum Forecast	1,959	1,600	1,693	1,883	1,883	2,038	2,450	2,167	1,675	2,607
Zinc Forward	3,167	2,564	1,600	2,168	2,045	2,055	1,831	2,447	2,535	1,187
Zinc Forecast	2,840	2,043	1,961	2,170	1,930	1,963	2,210	2,192	1,641	1,905
Nickel Forward	11,473	9,975	8,788	15,088	13,843	17,008	18,731	24,715	18,467	11,629
Nickel Forecast	10,287	9,594	12,170	17,000	15,124	17,602	22,997	21,814	14,672	21,229
Precious Metals										
Gold Forward	1,282	1,152	1,060	1,184	1,202	1,676	1,567	1,421	1,096	884
Gold Forecast	1,258	1,262	1,165	1,265	1,420	1,677	1,575	1,211	960	872
Silver Forward	16.46	15.99	13.80	15.56	19.34	30.17	27.88	30.91	16.82	11.27
Silver Forecast	17.15	17.11	15.84	19.10	24.00	31.40	35.50	19.68	14.65	15.00
Platinum Forecast	951	1,000	1,076	1,390	1,514	1,556	1,752	1,616	1,184	1,575
Palladium Forecast	854.0	616.6	700.0	803.0	734.0	643.0	733.0	520.0	255.0	350.5
Grain										
Corn Forward	3.4	3.5	3.6	4.0	4.2	7.0	6.5	6.3	4.1	4.1
Corn Forecast	3.6	3.6	3.8	4.1	5.9	7.0	6.9	4.9	3.8	5.4
Soybeans Forward	9.9	10.0	8.7	10.2	13.1	14.2	12.0	13.9	10.4	9.7
Soybeans Forecast	9.8	9.9	9.5	12.4	14.0	14.7	13.5	10.5	10.4	12.4
Wheat Forward	4.2	4.1	4.7	5.9	6.1	7.8	6.5	7.9	5.4	6.1

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Market Flows – Open Interest

Key Metrics

Name	Current	MTD % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	2 Year High
Open Interest (Aggregate - 1,000s)							
Single Commodities							
Palladium	35	6.1	0.0	45.8	34.6	29.6	38
Live Cattle	380	8.0	20.3	24.2	31.5	36.7	432
HRW Wheat	310	-1.3	12.7	29.7	26.5	62.3	331
Crude Oil	2,508	0.6	11.6	22.3	24.2	51.8	2,691
Natural Gas	1,427	4.2	10.4	14.8	23.7	41.4	1,574
Corn	1,516	-3.3	15.3	22.7	22.6	17.2	1,726
Silver	190	-3.1	3.8	15.9	21.0	17.3	235
Gold	489	-7.4	-9.1	17.6	20.4	24.4	658
Copper (CME)	268	-10.7	-18.5	19.6	16.5	49.7	338
Lean Hogs	253	-2.7	2.4	30.4	16.1	25.9	282
Wheat	510	-6.4	16.4	13.8	14.9	40.1	581
Soybean Meal	413	4.3	6.4	25.5	12.2	-1.0	431
Unlead Gas	409	1.5	0.7	2.3	12.1	12.4	453
Brent Crude	2,438	-0.4	7.4	12.9	11.5	11.4	2,566
Heating Oil	428	-1.2	8.1	-0.2	10.3	22.3	470
Platinum	77	0.0	2.7	22.2	10.0	1.3	82
Soybean Oil	459	0.9	9.8	23.4	8.0	4.1	486
Gas Oil	871	-4.4	-6.4	8.6	4.7	21.0	1,009
Coffee	194	-18.8	-1.5	1.6	4.3	12.8	246
Soybean	743	11.6	13.8	17.6	3.1	7.5	896
Zinc	189	2.2	-5.5	2.7	1.6	9.3	224
Aluminum	517	3.2	2.2	-4.4	-0.6	-10.6	612
Cotton	243	4.7	7.5	0.4	-4.7	36.5	288
Copper (LME)	197	-2.5	-2.5	-5.7	-5.7	23.1	234
Nickel	148	8.0	-5.7	-7.5	-9.8	5.7	188
Sugar	706	-1.9	-15.5	-12.3	-14.1	-17.7	940

Historical

Name	2017 ↓	2016	2015	2014	2013	2012	2011	2010	2009	2008
Open Interest (Aggregate - 1,000s)										
BCOM	14,782	12,965	11,965	10,881	11,033	10,367	9,282	10,206	8,524	6,715
Sector										
Energy	8,074	7,084	6,057	5,033	5,346	4,980	4,230	4,262	3,712	3,290
Agriculture	5,140	4,493	4,563	4,211	4,090	3,876	3,418	4,399	3,447	2,352
Industrial Metals	1,310	1,319	1,178	1,224	1,104	1,006	1,159	1,105	1,016	861
Precious Metals	804	667	673	620	613	658	585	783	669	423
Livestock	632	501	431	481	591	578	552	534	443	369
Single Commodities										
Crude Oil	2,489	2,051	1,671	1,468	1,616	1,473	1,328	1,430	1,193	1,189
Brent Crude	2,438	2,159	2,031	1,513	1,443	1,285	886	873	728	595
Corn	1,573	1,236	1,334	1,237	1,203	1,128	1,151	1,549	1,002	810
Natural Gas	1,423	1,243	957	939	1,291	1,165	1,011	772	708	680
Gas Oil	871	802	700	435	477	512	458	619	545	410
Soybean	733	632	646	599	576	546	460	629	418	278
Sugar	704	805	879	836	830	754	559	613	834	357
Aluminum	511	541	551	595	539	495	682	546	487	474
Wheat	510	448	368	371	411	456	384	492	362	251
Gold	504	416	415	372	380	428	419	585	490	307
Soybean Oil	460	372	384	355	340	306	273	358	211	208
Heating Oil	434	429	342	346	279	263	269	301	304	225
Unlead Gas	420	400	355	332	239	282	277	267	235	191
Soybean Meal	413	329	402	341	262	212	194	192	162	116
Live Cattle	379	306	265	266	327	329	317	327	265	213
HRW Wheat	315	239	193	132	154	158	139	219	145	83
Copper (CME)	273	224	166	160	167	147	121	167	155	75
Lean Hogs	253	194	166	215	264	248	235	207	178	156
Cotton	237	242	185	178	172	171	152	207	187	126
Coffee	194	191	172	160	142	144	105	140	126	123
Copper (LME)	192	209	146	155	132	130	143	196	163	140
Zinc	186	184	167	182	184	166	148	135	149	125
Silver	186	164	168	151	132	141	106	136	124	86
Nickel	148	160	148	132	81	69	65	61	62	47
Platinum	78	63	65	64	62	60	42	39	33	18
Palladium	36	24	24	33	39	29	18	23	23	12

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Market Flows – Commitment of Traders

Key Metrics

Name	Current	5 Day Change	1 Mth Change	3 Mth Change	YTD Change	1 Yr Change	2 Yr Change
Net - Managed Money Total/Disagg							
Single Commodities							
Brent Crude	526,240	-11,317	32,101	107,328	71,655	233,476	348,295
WTI Crude	343,840	-5,872	124,763	69,399	35,931	155,516	247,319
Gasoline	92,960	-6,886	30,198	53,370	42,869	75,947	77,771
Heating Oil	72,432	0	12,118	40,114	38,891	69,073	117,804
Live Cattle	123,535	-8,295	22,769	42,360	31,019	65,476	117,913
Gold	177,066	-3,944	2,055	-2,471	135,819	55,831	191,721
Natural Gas	72,849	-2,448	8,157	-11,345	-101,194	45,293	251,018
Lean Hogs	63,990	-9,243	1,713	-17,159	9,455	32,059	52,956
Silver	64,420	-3,596	913	27,891	25,322	21,574	55,558
Palladium	23,418	-82	-442	-776	10,676	11,006	15,801
Wheat	-108,666	-90	-30,974	-74,430	261	5,556	-61,313
Copper (CME)	81,072	1,151	-26,641	-39,103	8,941	4,726	110,989
Zinc	77,032	3,394	2,159	5,672	-4,007	1,055	67,663
Soybean Meal	15,909	9,603	-5,218	41,484	-3,628	-3,468	40,175
Platinum	4,661	1,817	4,082	-8,637	-3,562	-3,870	-342
Copper (LME)	64,863	2,295	-2,642	-13,514	-2,521	-7,934	56,099
Aluminum	143,831	-1,456	-13,880	-3,635	-1,959	-24,897	71,196
Nickel	29,713	-3,239	-8,693	-5,217	-27,519	-27,067	21,499
Cotton	52,051	10,023	3,369	22,455	-24,001	-28,502	21,859
HRW Wheat	-20,741	-10,317	-16,079	-55,350	-29,826	-31,646	3,374
Soybean Oil	47,664	-9,011	22,739	1,634	-37,858	-47,869	26,129
Soybeans	20,144	-2,406	-48,024	34,543	-86,931	-93,500	73,069
Coffee	-47,229	-2,375	-6,718	-47,514	-59,935	-97,951	-27,664
Corn	-210,466	20,090	-39,782	-250,268	-96,818	-150,072	-110,658
Sugar	947	23,934	103,619	118,709	-137,495	-175,904	-175,075

Historical

Name	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Net - Managed Money Total/Disagg										
BCOM	1.6M	1.8M	107,932.0	1.1M	835,105.0	791,313.0	637,042.0	1.6M	1.1M	263,141.0
Sector										
Energy	1.1M	1.0M	95,835.0	278,790.0	623,230.0	258,739.0	230,666.0	224,236.0	185,192.0	38,894.0
Industrial Metals	396,511	423,576	90,351	218,292	35,635	14,988	-4,018	39,105	15,752	-17,586
Precious Metals	269,565	101,310	-239	153,310	70,026	171,032	134,710	232,650	252,599	118,482
Livestock	187,525	147,051	24,525	117,295	137,611	110,898	104,018	133,520	83,521	9,221
Agriculture	-250,387	225,844	-75,733	383,375	-1,048	281,653	188,257	962,170	594,114	119,945
Single Commodities										
Brent Crude	526,240	454,585	163,672	115,571	136,611	125,397	81,537			
WTI Crude	343,840	307,909	100,797	199,388	270,386	134,834	192,466	217,046	133,742	82,331
Gold	177,066	41,247	-24,263	98,391	34,104	101,922	111,919	169,987	197,560	100,925
Aluminum	143,831	145,790	71,738	118,175						
Live Cattle	123,535	92,516	11,081	80,102	96,771	59,569	68,105	104,412	49,281	16,394
Gasoline	92,960	50,091	28,391	44,226	54,637	64,383	61,288	67,205	50,763	42,337
Copper (CME)	81,072	72,131	-25,964	-4,455	35,635	14,988	-4,018	39,105	15,752	-17,586
Zinc	77,032	81,039	20,140	49,726						
Natural Gas	72,849	174,043	-161,686	-53,308	134,994	-89,820	-124,269	-96,119	-27,225	-85,920
Heating Oil	72,432	33,541	-35,339	-27,087	26,602	23,945	19,644	36,104	27,912	146
Copper (LME)	64,863	67,384	9,065	25,215						
Silver	64,420	39,098	6,282	17,051	5,573	23,113	6,200	26,836	26,631	11,742
Lean Hogs	63,990	54,535	13,444	37,193	40,840	51,329	35,913	29,108	34,240	-7,173
Cotton	52,051	76,052	51,307	11,005	43,288	25,828	6,683	40,645	61,292	5,638
Soybean Oil	47,664	85,522	60,895	35,047	-46,649	-42,424	-2,103	56,961	29,956	-7,171
Nickel	29,713	57,232	15,372	29,631						
Palladium	23,418	12,742	8,690	19,970	15,660	16,769	5,212	13,034	11,626	
Soybeans	20,144	107,075	-63,515	39,446	136,683	109,007	23,683	164,287	69,606	31,518
Soybean Meal	15,909	19,537	-40,843	54,132	57,931	41,489	-15,232	40,129	35,586	7,668
Platinum	4,661	8,223	9,052	17,898	14,689	29,228	11,379	22,793	16,782	5,815
Sugar	947	138,442	165,810	-66,824	-25,626	19,000	43,792	141,534	167,357	52,014
HRW Wheat	-20,741	9,085	-14,975	24,999	8,022	23,619	9,128	49,108	9,943	8,438
Coffee	-47,229	12,706	-15,181	25,385	-8,417	-23,076	2,905	36,182	23,630	-16,072
Wheat	-108,666	-108,927	-83,120	20,481	-71,468	-11,899	-29,252	36,542	-8,683	9,118
Corn	-210,466	-113,648	-136,111	239,704	-94,812	140,109	148,653	396,782	205,427	28,794

Bloomberg Commodity Index (BCOM)

Tables & Charts – November 2017 Edition

Market Flows – ETF Flows (annual)

Name	2017 ↓	2016	2015	2014	2013	2012	2011	2010	2009	2008
ETFs (\$ Billion AUM)										
▣ Total ETF Assets Under Management (\$..	141.03	121.69	88.16	102.27	112.11	196.85	172.88	167.30	114.18	55.24
▣ Precious Metals	107.99	90.28	62.91	77.71	84.91	164.65	142.34	130.62	80.85	43.07
▣ Broad Commodity	17.31	14.87	10.90	14.69	18.01	19.95	18.54	18.54	13.75	5.30
▣ Energy	11.75	13.07	11.48	5.81	4.94	7.19	6.31	10.43	13.02	4.69
▣ Agriculture	2.27	2.13	2.07	2.70	2.94	3.45	4.32	5.78	4.98	1.92
▣ Industrial Metals	1.70	1.29	0.75	1.29	1.24	1.49	1.19	1.77	1.41	0.11
▣ Livestock	0.03	0.05	0.04	0.06	0.08	0.12	0.18	0.16	0.17	0.15
ETFs Fund Flows (\$ Billion)										
▣ Total ETF Fund Flows (\$ Billion)	8.78	24.93	8.79	-0.95	-48.26	17.78	-1.59	18.40	43.69	17.20
▣ Precious Metals	8.58	23.77	-4.79	-6.73	-44.26	15.96	3.48	16.70	23.83	10.19
▣ Broad Commodity	0.66	2.51	0.06	1.63	-0.65	0.58	-1.90	2.49	8.41	1.45
▣ Agriculture	0.37	0.16	-0.13	-0.26	0.01	-0.80	-0.56	-0.52	2.61	0.43
▣ Industrial Metals	0.08	0.34	-0.18	0.19	-0.09	0.25	-0.09	0.15	0.73	0.04
▣ Livestock	-0.02	0.02	-0.01	-0.02	-0.01	-0.03	0.04	-0.04	0.02	0.14
▣ Energy	-0.89	-1.86	13.84	4.23	-3.27	1.82	-2.57	-0.39	8.09	4.94
DELTA WEIGHTED:										
ETFs (\$ Billion AUM) (DW)										
▣ Total ETF Assets Under Management (\$..	144.75	124.41	89.87	102.66	111.36	198.96	173.42	169.26	115.67	55.84
▣ Precious Metals	108.99	91.01	62.90	77.72	85.01	166.29	142.84	131.56	81.20	43.47
▣ Broad Commodity	17.53	14.89	10.93	14.70	18.01	19.95	18.54	18.55	13.76	5.30
▣ Energy	14.10	14.94	13.04	6.12	4.04	7.68	6.36	11.41	14.12	4.89
▣ Agriculture	2.39	2.21	2.17	2.80	3.02	3.51	4.40	5.83	5.03	1.92
▣ Industrial Metals	1.71	1.30	0.79	1.26	1.20	1.41	1.10	1.74	1.40	0.10
▣ Livestock	0.03	0.05	0.04	0.06	0.08	0.12	0.18	0.16	0.17	0.15
ETFs Fund Flows (\$ Billion) (DW)										
▣ Total ETF Fund Flows (\$ Billion)	11.13	21.13	18.53	4.62	-49.45	19.80	-1.68	18.79	44.85	18.20
▣ Precious Metals	8.54	24.03	-4.49	-6.14	-43.45	16.81	3.36	16.31	23.99	10.23
▣ Energy	1.30	-5.92	23.23	9.24	-5.31	3.01	-2.59	0.40	9.06	5.91
▣ Broad Commodity	0.84	2.50	0.06	1.63	-0.65	0.58	-1.90	2.49	8.41	1.45
▣ Agriculture	0.41	0.16	-0.09	-0.29	0.06	-0.81	-0.49	-0.53	2.63	0.43
▣ Industrial Metals	0.07	0.34	-0.17	0.19	-0.08	0.25	-0.09	0.15	0.74	0.04
▣ Livestock Index	-0.02	0.02	-0.01	-0.02	-0.01	-0.03	0.04	-0.04	0.02	0.14

Quarterly

Name	2017 Q4 ↓	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1	2015 Q4	2015 Q3	2015 Q2	2015 Q1
ETFs (\$ Billion AUM)												
▣ Total ETF Assets Under Management (\$..	139.44	139.21	134.61	132.26	120.60	143.71	136.00	114.16	88.16	95.46	106.11	106.82
▣ Precious Metals	106.43	107.58	103.06	101.11	89.99	111.94	104.14	86.87	62.91	69.27	75.88	77.92
▣ Broad Commodity	17.30	15.68	14.10	14.97	14.31	14.17	14.03	11.04	10.90	11.78	14.56	13.16
▣ Energy	11.72	12.15	13.80	12.53	13.01	14.21	14.59	13.51	11.48	11.24	11.87	12.30
▣ Agriculture	2.26	2.23	2.15	2.07	1.98	2.29	2.35	2.00	2.07	2.25	2.68	2.27
▣ Industrial Metals	1.70	1.54	1.46	1.54	1.27	1.08	0.86	0.72	0.75	0.87	1.08	1.12
▣ Livestock	0.03	0.03	0.04	0.04	0.05	0.03	0.03	0.03	0.04	0.04	0.05	0.05
ETFs Fund Flows (\$ Billion)												
▣ Total ETF Fund Flows (\$ Billion)	-0.64	-1.42	4.84	6.01	-9.64	8.04	9.56	16.97	2.26	0.71	-2.75	8.56
▣ Broad Commodity	0.79	-0.24	-0.28	0.40	0.19	0.46	1.57	0.29	0.53	-0.57	0.42	-0.33
▣ Industrial Metals	0.07	-0.07	-0.07	0.14	0.12	0.16	0.10	-0.05	-0.05	-0.09	0.06	-0.10
▣ Livestock	0.00	-0.01	-0.01	0.00	0.02	0.00	0.00	-0.01	0.00	0.00	0.00	-0.01
▣ Agriculture	0.00	0.21	0.06	0.11	-0.09	0.10	0.18	-0.03	-0.14	-0.10	0.25	-0.13
▣ Precious Metals	-0.01	1.91	2.56	4.14	-6.74	6.72	10.26	13.53	-2.83	-2.55	-0.73	1.31
▣ Energy	-1.48	-3.22	2.59	1.22	-3.14	0.59	-2.55	3.23	4.76	4.02	-2.74	7.81
DELTA WEIGHTED:												
ETFs (\$ Billion AUM) (DW)												
▣ Total ETF Assets Under Management (\$..	143.16	143.00	140.32	136.25	123.40	148.01	140.74	116.22	89.87	98.25	109.53	108.46
▣ Precious Metals	107.43	108.53	104.11	102.17	90.68	113.05	105.30	87.35	62.90	69.50	76.22	78.26
▣ Broad Commodity	17.53	15.88	14.31	15.14	14.33	14.20	14.06	11.06	10.93	11.81	14.56	13.16
▣ Energy	14.07	14.62	18.09	15.16	15.00	17.25	18.02	14.94	13.04	13.68	14.81	13.53
▣ Agriculture	2.39	2.37	2.28	2.17	2.06	2.38	2.44	2.09	2.17	2.37	2.82	2.35
▣ Industrial Metals	1.71	1.57	1.48	1.56	1.29	1.11	0.90	0.74	0.79	0.85	1.07	1.10
▣ Livestock	0.03	0.03	0.04	0.05	0.05	0.03	0.03	0.03	0.04	0.04	0.05	0.05
ETFs Fund Flows (\$ Billion) (DW)												
▣ Total ETF Fund Flows (\$ Billion)	-1.42	-4.32	8.33	8.55	-12.30	8.40	7.23	17.80	6.17	4.67	-3.21	10.90
▣ Broad Commodity	0.80	-0.27	-0.25	0.56	0.19	0.46	1.57	0.29	0.53	-0.57	0.42	-0.33
▣ Industrial Metals	0.07	-0.07	-0.07	0.15	0.12	0.16	0.10	-0.05	-0.05	-0.09	0.06	-0.09
▣ Precious Metals	0.06	1.72	2.71	4.06	-6.34	6.64	10.32	13.41	-2.81	-2.43	-0.57	1.32
▣ Livestock Index	0.00	-0.01	-0.01	0.00	0.02	0.00	0.00	-0.01	0.00	0.00	0.00	-0.01
▣ Agriculture	-0.01	0.20	0.08	0.13	-0.08	0.11	0.17	-0.04	-0.14	-0.09	0.26	-0.11
▣ Energy	-2.33	-5.90	5.87	3.66	-6.20	1.02	-4.93	4.19	8.65	7.85	-3.38	10.11

PERFORMANCE: Bloomberg Commodity Indices

Composite Indices

* Click hyperlinks to open in Bloomberg

Index Name	Ticker	2017									
		Nov	Oct	Q3	Q2	YTD	1-Year	3-Year	5-Year	10-Year	20-Year
Bloomberg Commodity ER	BCOM	-0.56%	2.05%	2.25%	-3.22%	-2.07%	-0.35%	-24.12%	-39.98%	-51.65%	-26.87%
Bloomberg Commodity TR	BCOMTR	-0.46%	2.14%	2.52%	-3.00%	-1.24%	0.54%	-23.18%	-39.18%	-49.91%	8.53%
Bloomberg Commodity Spot	BCOMSP	0.41%	2.90%	2.93%	-1.60%	4.33%	6.70%	-3.15%	-22.31%	0.78%	211.05%
Bloomberg Roll Select	BCOMRST	-0.32%	1.90%	2.73%	-2.57%	0.84%	2.57%	-17.69%	-33.44%	-32.54%	154.86%
1 Month Forward	BCOMF1T	-0.27%	2.08%	2.87%	-2.83%	-0.15%	1.60%	-20.36%	-34.92%	-40.03%	98.45%
2 Month Forward	BCOMF2T	-0.23%	2.07%	2.93%	-2.76%	0.76%	2.67%	-18.79%	-34.76%	-39.39%	134.01%
3 Month Forward	BCOMF3T	0.23%	1.98%	2.96%	-2.74%	1.40%	3.00%	-17.25%	-32.84%	-34.42%	152.42%
4 Month Forward	BCOMF4T	-0.09%	2.14%	3.00%	-2.53%	2.23%	3.85%	-13.41%	-29.55%	-27.33%	
5 Month Forward	BCOMF5T	0.04%	2.27%	3.19%	-2.42%	2.74%	4.28%	-12.82%	-30.14%	-26.20%	
6 Month Forward	BCOMF6T	-0.01%	2.23%	3.09%	-2.41%	2.67%	4.26%	-12.07%	-29.45%	-24.11%	
Energy	BCOMENTR	2.32%	2.46%	9.79%	-9.68%	-7.90%	0.42%	-48.98%	-59.05%	-84.91%	-56.68%
Petroleum	BCOMPETR	3.02%	6.40%	15.08%	-9.83%	3.22%	11.67%	-39.98%	-55.95%	-71.73%	48.28%
Agriculture	BCOMAGTR	0.40%	-0.92%	-6.07%	-0.40%	-9.70%	-11.74%	-23.69%	-42.16%	-33.57%	-46.39%
Grains	BCOMGRTR	-0.37%	-2.53%	-9.50%	4.46%	-9.51%	-10.11%	-30.56%	-51.45%	-46.62%	-56.81%
Industrial Metals	BCOMINTR	-4.15%	5.83%	9.87%	-1.19%	18.50%	12.52%	-0.61%	-17.04%	-34.14%	121.09%
Precious Metals	BCOMPRTR	-0.27%	-0.71%	2.30%	-3.18%	7.66%	5.33%	5.05%	-35.18%	40.76%	279.23%
Softs	BCOMSOTR	2.47%	1.04%	-0.71%	-14.25%	-16.12%	-19.21%	-21.07%	-36.30%	-23.93%	-58.61%
Livestock	BCOMLITR	-5.91%	10.57%	-7.54%	11.21%	7.11%	17.82%	-21.93%	-11.32%	-45.72%	-57.26%
Ex-Energy	BCOMXETR	-1.64%	1.99%	-0.21%	-0.22%	2.70%	0.35%	-10.98%	-31.16%	-19.41%	22.94%
Ex-Petroleum	BCOMXPET	-1.48%	0.97%	-0.57%	-1.16%	-2.19%	-2.64%	-20.26%	-36.18%	-45.86%	
Ex-Natural Gas	BCOMXNGT	-0.51%	3.03%	3.05%	-2.44%	2.39%	3.16%	-16.68%	-35.70%	-32.86%	
Ex-Agriculture	BCOMXAGT	-0.80%	3.38%	6.42%	-4.11%	2.70%	6.16%	-23.90%	-38.85%	-57.67%	
Ex-Grains	BCOMXGRT	-0.48%	3.14%	5.46%	-4.62%	0.76%	2.99%	-21.90%	-36.57%	-52.53%	
Ex-Industrial Metals	BCOMXIMT	0.49%	1.22%	0.82%	-3.40%	-5.23%	-2.08%	-27.46%	-43.34%	-54.69%	
Ex-Precious Metals	BCOMXPMT	-0.50%	2.69%	2.56%	-2.97%	-2.74%	-0.36%	-28.14%	-40.89%	-57.69%	
Ex-Softs	BCOMXSOT	-0.64%	2.21%	2.72%	-2.21%	-0.20%	2.06%	-23.80%	-39.77%	-52.61%	
Ex-Livestock	BCOMXLIT	-0.09%	1.62%	3.22%	-3.94%	-1.84%	-0.39%	-23.37%	-40.69%	-50.66%	
Ex-Agriculture & Livestock	BCOMXALT	-0.31%	2.73%	7.85%	-5.60%	2.18%	5.25%	-24.32%	-41.10%	-59.60%	
Bloomberg Dollar Spot	BBDXY	-1.46%	1.76%	-1.97%	-3.21%	-8.19%	-7.33%	5.12%	18.01%	22.09%	
S&P 500 Total Return	SPXT	3.07%	2.33%	4.48%	3.09%	20.49%	22.87%	36.42%	107.73%	121.99%	303.75%
US Aggregate	LBUSTRUU	-0.13%	0.06%	0.85%	1.45%	3.07%	3.21%	6.48%	10.29%	47.84%	166.01%
US Treasury	LUATTRUU	-0.14%	-0.12%	0.38%	1.19%	2.00%	1.89%	4.07%	5.71%	38.20%	147.82%
US Corporate	LUACTRUU	-0.15%	0.40%	1.34%	2.54%	5.46%	6.16%	11.20%	17.52%	72.02%	209.67%
US High Yield	LF98TRUU	-0.26%	0.42%	1.98%	2.17%	7.18%	9.16%	18.19%	34.10%	116.51%	272.39%

Single Commodity Indices

Index Name	Ticker	2017									
		Nov	Oct	Q3	Q2	YTD	1-Year	3-Year	5-Year	10-Year	20-Year
Natural Gas	BCOMNGTR	0.07%	-8.59%	-4.06%	-9.39%	-34.02%	-26.60%	-68.90%	-70.29%	-97.85%	-99.44%
WTI Crude	BCOMCLTR	5.25%	4.59%	11.19%	-10.48%	-0.26%	6.36%	-52.05%	-62.08%	-82.69%	-4.37%
Brent Crude	BCOMCOT	3.01%	7.79%	15.62%	-10.20%	6.39%	15.13%	-40.59%	-59.09%	-61.57%	226.20%
ULS Diesel	BCOMHOTR	1.02%	4.17%	21.29%	-7.25%	6.24%	15.49%	-30.42%	-50.89%	-57.55%	82.53%
Unleaded Gasoline	BCOMRBTR	1.12%	9.36%	14.79%	-10.31%	-0.01%	10.94%	-25.00%	-46.61%	-35.47%	226.65%
Corn	BCOMCNTR	-0.77%	-2.58%	-9.96%	0.76%	-10.92%	-9.99%	-33.68%	-63.59%	-50.71%	-85.18%
Soybeans	BCOMSYTR	0.20%	0.71%	1.68%	-0.69%	-4.82%	-8.37%	-6.56%	-4.39%	46.49%	171.15%
Wheat	BCOMWHTR	-0.48%	-6.55%	-19.45%	16.21%	-11.39%	-10.20%	-46.63%	-68.90%	-86.19%	-92.67%
Soybean Oil	BCOMBOTR	-2.97%	5.94%	-1.30%	2.82%	-4.99%	-11.58%	-6.96%	-42.62%	-54.15%	-36.89%
Soybean Meal	BCOMSMT	4.15%	-1.19%	1.75%	-1.66%	-0.80%	-2.59%	-5.54%	25.68%	204.45%	738.68%
HRW Wheat	BCOMKWT	-0.26%	-5.84%	-20.94%	18.09%	-14.17%	-12.41%	-57.72%	-72.35%	-82.80%	-81.67%
Copper	BCOMHGTR	-1.74%	5.04%	8.50%	1.40%	19.78%	14.03%	3.05%	-20.92%	-16.01%	289.42%
Aluminium	BCOMALTR	-5.42%	2.69%	8.61%	-2.71%	18.42%	15.82%	-8.35%	-24.38%	-53.23%	-23.28%
Zinc	BCOMZSTR	-3.53%	4.27%	14.88%	-0.83%	23.13%	17.14%	36.89%	35.89%	-14.34%	78.85%
Nickel	BCOMNITR	-9.81%	17.14%	11.32%	-6.69%	9.37%	-2.71%	-34.84%	-41.94%	-64.59%	207.36%
Gold	BCOMGCTR	0.25%	-1.02%	3.09%	-0.77%	9.86%	7.83%	6.27%	-27.64%	50.49%	295.62%
Silver	BCOMSITR	-1.76%	0.20%	0.04%	-9.48%	1.54%	-1.46%	1.32%	-53.72%	3.67%	182.28%
Sugar	BCOMSBTR	2.41%	4.64%	-1.34%	-18.58%	-25.85%	-26.94%	-19.15%	-51.58%	-24.29%	-33.04%
Coffee	BCOMKCTR	0.15%	-2.21%	-0.34%	-12.59%	-14.58%	-22.23%	-48.72%	-47.25%	-58.80%	-90.04%
Cotton	BCOMCTTR	6.27%	-0.01%	0.06%	-9.23%	4.10%	2.79%	18.87%	3.56%	10.37%	-72.00%
Live Cattle	BCOMLCTR	-4.99%	9.11%	-5.53%	8.84%	12.09%	16.24%	-14.05%	4.60%	-24.41%	-7.09%
Lean Hogs	BCOMLHTR	-7.76%	13.54%	-10.71%	14.70%	-0.18%	19.62%	-34.09%	-33.83%	-69.35%	-88.98%

PERFORMANCE: Bloomberg Commodity Roll Select Indices

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

Index Name	Ticker	2017					1-Year	3-Year	5-Year	10-Year	20-Year
		Nov	Oct	Q3	Q2	YTD					
BCOM Roll Select	BCOMRST	-0.32%	1.90%	2.73%	-2.57%	0.84%	2.57%	-17.69%	-33.44%	-32.54%	154.86%
Roll Select Agriculture	BCOMRAGT	0.23%	-0.78%	-5.08%	-0.23%	-7.65%	-9.41%	-21.61%	-40.27%	-18.68%	0.96%
Roll Select Ex-Ags & Livestock	BBURXALT	-0.37%	2.59%	7.81%	-4.76%	4.61%	7.93%	-16.23%	-33.15%	-43.39%	
Roll Select Grains	BCOMRGRT	-0.43%	-2.17%	-7.84%	4.69%	-6.65%	-7.34%	-27.19%	-50.72%	-35.51%	-14.73%
Roll Select Softs	BCOMRSOT	1.90%	0.83%	-1.90%	-15.05%	-16.80%	-19.15%	-22.76%	-31.89%	-1.53%	-23.36%
Roll Select Livestock	BCOMRLIT	-2.57%	7.67%	-7.93%	8.97%	8.43%	10.69%	-27.57%	-13.09%	-22.51%	45.94%
Roll Select Energy	BCOMRENT	1.86%	2.42%	9.42%	-8.01%	-3.89%	5.00%	-36.29%	-46.68%	-70.21%	132.72%
Roll Select Ex-Energy	BCOMRXET	-1.25%	1.68%	0.21%	-0.35%	3.85%	1.17%	-9.99%	-29.77%	-6.40%	114.81%
Roll Select Petroleum	BCOMRPET	2.44%	5.93%	13.37%	-7.77%	3.62%	11.86%	-28.52%	-45.90%	-48.38%	420.18%
Roll Select Industrial Metals	BCOMRINT	-3.71%	5.47%	10.22%	-1.09%	19.68%	13.73%	1.26%	-14.22%	-27.58%	236.31%
Roll Select Precious Metals	BCOMRPRT	-0.22%	-0.71%	2.29%	-3.17%	7.73%	5.35%	5.52%	-34.85%	41.38%	293.39%

Single Commodity Roll Select Indices

Index Name	Ticker	2017					1-Year	3-Year	5-Year	10-Year	20-Year
		Nov	Oct	Q3	Q2	YTD					
Natural Gas RS	BCOMRNGT	0.07%	-7.57%	-0.32%	-8.58%	-22.53%	-12.62%	-55.14%	-53.62%	-93.41%	-84.87%
WTI Crude RS	BCOMRCLT	4.47%	4.02%	10.68%	-8.84%	-0.12%	7.31%	-33.87%	-47.80%	-55.84%	426.49%
Brent Crude RS	BCOMRCOT	2.59%	7.79%	14.24%	-7.33%	7.77%	16.49%	-31.09%	-49.60%	-45.59%	471.88%
ULS Diesel RS	BCOMRHOT	1.39%	5.16%	15.07%	-7.86%	1.99%	10.95%	-28.86%	-49.11%	-50.86%	266.47%
Unleaded Gasoline RS	BCOMRRBT	-0.35%	6.40%	14.94%	-6.47%	4.02%	12.00%	-12.80%	-33.09%	-19.99%	537.64%
Corn RS	BCOMRCNT	-1.11%	-2.03%	-8.10%	1.02%	-8.22%	-7.26%	-29.81%	-62.76%	-41.72%	-70.36%
Soybeans RS	BCOMRSYT	0.55%	0.95%	2.81%	0.31%	-0.13%	-3.41%	0.21%	-0.35%	67.14%	271.62%
Wheat RS	BCOMRWHT	-0.59%	-6.29%	-17.16%	14.84%	-10.52%	-10.66%	-47.64%	-69.87%	-80.10%	-71.26%
Soybean Oil RS	BCOMRBOT	-2.95%	5.66%	-0.68%	2.57%	-4.59%	-10.54%	-5.10%	-40.55%	-46.66%	1.29%
Soybean Meal RS	BCOMRSMT	3.92%	-1.02%	2.88%	0.34%	2.88%	1.70%	-5.15%	28.18%	253.83%	890.01%
HRW Wheat RS	BCOMRKWT	-0.59%	-5.50%	-18.91%	17.37%	-12.46%	-10.76%	-54.29%	-71.10%	-77.19%	-52.51%
Copper RS	BCOMRHGT	-1.65%	5.04%	8.73%	1.27%	20.99%	15.29%	3.62%	-20.51%	-11.66%	459.54%
Aluminium RS	BCOMRALT	-4.96%	2.52%	9.65%	-2.28%	20.48%	17.80%	-4.22%	-18.22%	-46.41%	20.14%
Zinc RS	BCOMRZST	-1.86%	2.71%	14.55%	-0.61%	23.76%	17.92%	38.51%	40.49%	-2.13%	185.38%
Nickel RS	BCOMRNIT	-9.56%	16.66%	11.52%	-6.62%	9.72%	-2.32%	-33.90%	-40.32%	-61.29%	401.76%
Gold RS	BCOMRGCT	0.29%	-1.02%	3.07%	-0.77%	9.88%	7.83%	6.78%	-27.35%	50.42%	301.71%
Silver RS	BCOMRSIT	-1.73%	0.19%	0.09%	-9.36%	1.80%	-1.31%	1.85%	-53.23%	5.81%	213.88%
Sugar RS	BCOMRSBT	1.12%	3.67%	-3.87%	-19.59%	-27.53%	-27.29%	-23.38%	-45.57%	9.33%	43.70%
Coffee RS	BCOMRKCT	-0.09%	-2.27%	-0.60%	-12.45%	-14.91%	-22.20%	-47.62%	-46.17%	-52.46%	-81.72%
Cotton RS	BCOMRCTT	6.65%	0.92%	-0.53%	-10.76%	4.70%	2.91%	19.14%	8.03%	33.64%	-56.00%
Live Cattle RS	BCOMRLCT	-0.13%	4.76%	-6.31%	8.84%	13.17%	15.17%	-15.93%	0.43%	-6.17%	82.15%
Lean Hogs RS	BCOMRLHT	-7.20%	13.54%	-10.59%	9.01%	0.39%	2.83%	-42.99%	-32.73%	-46.26%	-21.53%

BCOM Constituent Weights

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Group	Commodity	Ticker	Nov 2017 Contrib to Return %	Nov 30 2017 Weight %	Oct 31 2017 Weight %	Nov 2017 Weight% Change	2018 Target Weight
Energy	Natural Gas	NG	0.00	7.02	7.05	↓ (0.03)	8.01%
	WTI Crude	CL	0.35	7.19	6.86	↑ 0.32	7.32%
	Brent Crude	CO	0.23	8.17	8.02	↑ 0.15	7.68%
	ULS Diesel	HO	0.04	4.05	4.03	↑ 0.02	3.67%
	Gasoline	XB	0.04	3.76	3.73	↑ 0.02	3.75%
	Subtotal			0.65	30.19	29.70	↑ 0.49
Grains	Corn	C	-0.06	7.05	6.88	↑ 0.17	6.13%
	Soybeans	S	0.01	5.54	5.55	↓ (0.02)	5.96%
	Wheat	W	-0.02	3.25	3.15	↑ 0.10	3.26%
	Soybean Oil	BO	-0.08	2.60	2.69	↓ (0.09)	2.75%
	Soybean Meal	SM	0.11	2.91	2.81	↑ 0.10	3.04%
	HRW Wheat	KW	0.00	1.13	1.09	↑ 0.03	1.30%
Subtotal			-0.05	22.47	22.18	↑ 0.29	22.44%
Industrial Metals	Copper	HG	-0.16	8.74	8.88	↓ (0.14)	7.16%
	Aluminum	LA	-0.30	5.21	5.53	↓ (0.33)	4.51%
	Zinc	LX	-0.12	3.11	3.24	↓ (0.13)	3.10%
	Nickel	LN	-0.28	2.63	2.93	↓ (0.30)	2.76%
	Subtotal			-0.86	19.69	20.59	↓ (0.90)
Precious Metals	Gold	GC	0.02	11.63	11.62	↑ 0.01	11.95%
	Silver	SI	-0.07	3.93	4.00	↓ (0.07)	3.67%
	Subtotal			-0.06	15.56	15.62	↓ (0.06)
Softs	Sugar	SB	0.05	2.36	2.32	↑ 0.04	3.54%
	Coffee	KC	0.00	2.05	2.00	↑ 0.05	2.61%
	Cotton	CT	0.08	1.36	1.29	↑ 0.08	1.45%
	Subtotal			0.13	5.77	5.60	↑ 0.17
Livestock	Live Cattle	LC	-0.21	4.14	4.18	↓ (0.04)	4.31%
	Lean Hogs	LH	-0.17	2.19	2.14	↑ 0.05	2.08%
	Subtotal			-0.38	6.33	6.32	↑ 0.01
Total			-0.56	100.00	100.00		100.00%

BLOOMBERG INTELLIGENCE: COMMODITY DASHBOARDS

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Crude Oil Production: BI OILS <GO>

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

Natural Gas Production: BI NGAS <GO>

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

Precious Metal Mining: BI PMET <GO>

Indicator	Value
Avg Gold Spot Price	1,228
Known ETF Gold Hold	52,128
IMF Global Gold Reser	1,038
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 Ratio	1.00

Copper: BI COPP <GO>

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

Aluminum: BI ALUM <GO>

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

COMMODITY CHEAT SHEET FOR THE BLOOMBERG PROFESSIONAL® SERVICE

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Commitments of Traders Report	COT
Commodity maps	BMAP
Commodity options monitor	OMON
Commodities charts	COSY
Commodity Investors menu	CMNV
US exchange traded product fund flows	ETF

Commodity Indices

Index description	BCOM Index DES
Index constituent weights	BCOM Index MEMB
Listed index futures	BCOM Index CT
Option volatility surface	BCOM Index OVDV
Seasonality chart	BCOMNG Index SEAG
Commodity index futures movers	FMV
Commodity index ranked returns	CRR

Weather

Global weather database	WETR
US snow monitor	SNOW
EU weather & utility models	EUMM

Energy

Top energy news	ETOP
Top oil news	OTOP
Crude Oil Production Dashboard	BI OILS
First Word oil	NI BFWOIL
News on oil inventories	TNI OIL INV
Oil Buyer's Guide newsletter	NI OGBRIEF
Pipes & Wires newsletter	NI PAWSBRIEF
Oil market analysis	BOIL
Nat gas spot prices	BGAS
Forward European utility markets	EUM
News on oil markets	NI OILMARKET
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OPEC production and prices	OPEC
Oil markets menu	OIL
Crude stored in tankers	NOON
Refinery outages	REFO
Oil's decline	EXTS
Oil versus inflation expectations	SWIF

Metals

Top metal news	METT
Precious metal dashboard	BI PMETG
Base metals dashboard	BI BMET
Metals prices and data	MINE
Precious metals prices and rates	MTL
Metals Bulletin	MB
COMEX inventories	COMX
LME monitor	LME
LME implied volatilities	LMIV
LME warehouse inventories	LMEI

Agriculture

Top agriculture news	YTOP
Agriculture calendar	AGRI
Agriculture spot prices	AGGP
Agriculture supply & demand	AGSD
Crop calendar	CCAL

BCOM QUICK FACTS

[Index Methodology](#)

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

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