

**Bloomberg Commodity Outlook – May 2019 Edition**  
*Bloomberg Commodity Index (BCOM)*

<b>Broad Market Outlook</b>	1
<b>Energy</b>	3
<b>Metals</b>	6
<b>Agriculture</b>	10
DATA	
<b>PERFORMANCE:</b>	13
Overview, Commodity TR, Prices, Volatility	
<b>CURVE ANALYSIS:</b>	17
Contango/Backwardation, Roll Yields, Forwards/Forecasts	
<b>MARKET FLOWS:</b>	20
Open Interest, Volume, COT, ETFs	
<b>PERFORMANCE</b>	23

# Commodities Near Favorable Inflection

- 17-year itch in the broad commodity market favors higher prices
- Commodity recovery appears similar to 2002
- Solid foundation, enduring outlook shine on metals vs. stocks
- Worst case for farmers vs. best for aggressive short hedge funds
- U.S.-led oversupply puts crude oil bear market in its early days

Note - Click on graphics to get to the Bloomberg terminal

Data and outlook as of April 30

Mike McGlone – BI Senior Commodity Strategist

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

## Commodities Gaining Favor vs. Elevated U.S. Equities, Greenback

Performance: April -0.4%, 2019 +5.9%, Spot +7.5%.  
 (Returns are total return (TR) unless noted)

(Bloomberg Intelligence) -- Broad commodities are gaining value, notably vs. the outperforming U.S. stock market -- a primary dollar tailwind and thus commodity headwind. A risk/reward inflection point is near, in our view. A definitive U.S.-China trade agreement, which we expect, should solidify the commodity foundation, notably agriculture (grains) and metals (base). Oversupplied crude oil appears elevated with U.S. equities -- their mean reversion potential is a primary broad commodity market risk. Yet, when U.S. equity outperformance subsides, commodities should gain support from a peak dollar.

Bullish energy momentum is at elevated potential of passing to agriculture. A rare grain-price growing season risk discount, record net shorts and low volatility elevates longer-term bottom potential. Metals should be primary beneficiaries of a peak dollar.

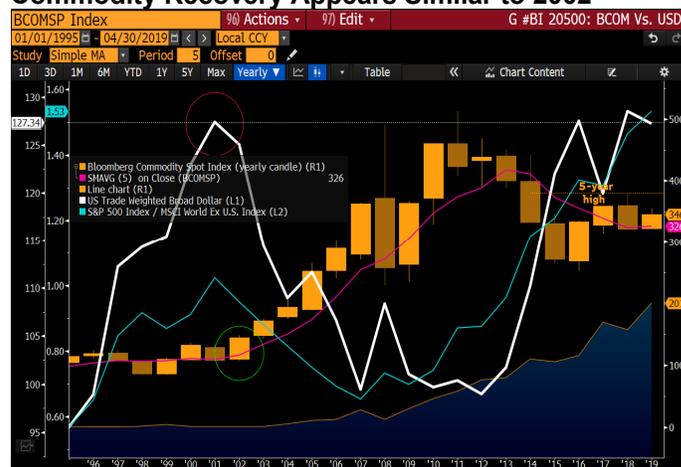
### Rhyming with 2002 Bottom

**17-Year Itch in the Broad Commodity Market Favors Higher Prices.** The potential for further recovery in this fourth year of the commodity bull market outweighs decline risks, in our view. Potential rhyme risks with a similar elevated dollar vs. a nascent commodity recovery condition from 2001-02 favors advancing commodity prices.

**Next Commodity Recovery Baby Step -- 2018 Highs.** The commodity market is poised to reach five-year highs in 2019, in our view. Having retraced about half of last year's range through April, the Bloomberg Commodity Spot Index is showing resilience, despite multi-decade

highs in the trade-weighted broad dollar. The setup is similar to 2002, when commodities launched into a substantial rally in the fourth year following the bottom as the U.S. dollar declined. A primary dollar pillar, the outperforming U.S. stock market vs. the world, peaked in 2001.

### Commodity Recovery Appears Similar to 2002



Rhyming with 17 years ago may be simplistic, but a firm commodity foundation is in place, notably vs. the U.S. stock market. Commodities typically benefit when equities advance in an expanding global economy. An inflection point appears near, where mean reversion-equity risks would pressure the dollar, supporting commodities.

### Increasing Commodity Mean

**The Unusual Is Required to End Nascent Commodity Bull Market.** The dip in the broad commodity market should refresh the bull trend. Forces that pressured the Bloomberg Commodity Spot Index to revisit its mean since the first Fed rate hike last year are unsustainable, in our view. Mean reversion in trade tension, the strong dollar and weak China PMI should offer greater potential.

# Bloomberg Commodity Outlook – May 2019 Edition

## Bloomberg Commodity Index (BCOM)

**A Dip in the Commodity Uptrend.** The unlikely is required to arrest what we view as a nascent broad commodity market recovery. Indicating relative resilience, the BCOM spot index is recovering from revisiting its mean since the Fed's first rate hike. It took a 16-year high in the trade-weighted broad dollar, and a three-year low in China PMI, to pressure the index back to this moving average in December. Some combination of easing U.S.-China trade tensions and mean reversion in these top commodity companions is the more likely scenario.

### Commodities Trend Is Up, Support Has Held



Sustaining multiyear highs in the dollar and similar lows in China PMI should be needed for the BCOM to break through this moving average support, which is in an upward trend. The forces that pressured broad commodities last year are less sustainable.

**Long-Term Commodity Drivers Turn Higher.** Limited upside in the dollar and downside in China's PMI support acceleration of the nascent bull market in commodities. Our graphic depicts the 20-quarter average of the Bloomberg Commodity Spot Index in early days of a bear-to-bull transition vs. the lowest quarter-end PMI level in a decade and a potential peak in the trade-weighted broad dollar from the 16-year high in 4Q. Indications from these top companions could get worse for commodities, but the longer-term mean-reversion potential appears to be more significant from such extremes.

In the history of the PMI since 2004, the annual correlation of the Bloomberg Commodity Index is about 0.70 vs. about a minus 0.70 reading to the dollar.

### China PMI & the Dollar, Prime for Mean Reversion



## MACRO PERFORMANCE

**Too Hot Oil, Patient Gold.** The limited sustainability of 4Q's mean reversion is our primary takeaway from this year's macroeconomic markets performance through April. WTI crude oil and the S&P 500 -- abnormally highly correlated the past 20 weeks -- topping the leader board with almost 40% and 20% gains appears too hot. The primary diversifier, gold, at the bottom of the performers is more likely to move higher, notably if the dollar doesn't. Unchanged gold is showing divergent strength vs. the primary recovery driver in 4Q -- increasing stock market volatility -- which has plunged in 2019.

### Too Hot Oil vs. Steady EM, Commodities & Gold

Security	Chg YTD %	Chg April	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Generic 1st 'CL' Future	+39.9%	+5.6%	+5.6%	-7.4%	28.7%
S&P 500 Total Return Index	+18.2%	+4.0%	+4.0%	+13.5%	28.6%
S&P 500 Index	+17.5%	+3.9%	+3.9%	+11.2%	23.6%
MSCI World ex USA Net Total Re	+13.3%	+2.6%	+2.6%	-2.9%	10.8%
MSCI Emerging Markets Net Tota	+12.6%	+2.4%	+2.4%	-4.7%	16.0%
Generic 1st 'HG' Future	+10.5%	-1.1%	-1.1%	-4.9%	11.8%
Bloomberg Commodity Spot Index	+7.5%	+1%	+1%	-7.0%	4.3%
Bloomberg Commodity Index Tota	+5.9%	-.4%	-.4%	-8.0%	-7%
Bloomberg Barclays U.S. Treasu	+2.3%	-2.3%	-2.3%	+5.8%	6.1%
Bloomberg Dollar Spot	+1.3%	+1%	+1%	+4.6%	-1.4%
Gold	+1%	-.7%	-.7%	-2.4%	1.2%
US Trade Wgt Broad Dollar Indx	--	+3%	+3%	+6.9%	2.9%

A reduction in U.S.-China trade tensions is the primary driver of this year's risk on performance and ending 2018 near the lower end of most ranges. Broad commodities and emerging markets appear on more steady upward trajectories. A peak dollar would be a tailwind.

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## SECTOR PERFORMANCE

**Sector Performance Supports Grains vs. Energy 2H.** Strong energy-sector performance vs. weak grains is at elevated risk of reversing rolls as 2019 advances, in our view. Oversupply, the predominant theme in both sectors, should be more enduring in energy, which appears too optimistic that OPEC and Russia production cuts and geopolitical support factors through April will prevail. The typical price premium for potential adverse Corn Belt weather is at a rare discount this year, on record managed-money net shorts and historically low implied volatility. Prices may drift lower, but risk vs. reward places plenty of risk on a substantial negative gamma-related rally.

### Weak Grains vs. Strong Energy Risk Reversal

Security	Chg YTD %	Chg April	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Energy Subindex Tota	+20.9%	+4.3%	+4.3%	-1.2%	17.5%
Bloomberg Industrial Metals Su	+9.0%	-3.4%	-3.4%	-9.6%	9.2%
Bloomberg All Metals Total Ret	+4.2%	-2.3%	-2.3%	-7.0%	3.5%
Bloomberg Livestock Subindex T	+2.2%	-2.3%	-2.3%	+11.2%	-6%
Bloomberg Precious Metals Subi	-9%	-9%	-9%	-4.7%	-3.8%
BBG Softs TR	-2.2%	-2.6%	-2.6%	-15.0%	-29.4%
Bloomberg Agriculture Subindex	-6.4%	-3.3%	-3.3%	-20.2%	-22.5%
Bloomberg Grains Subindex Tota	-9.4%	-3.9%	-3.9%	-22.4%	-22.4%

A U.S. grain-export-favorable trade deal with China is a prime potential catalyst, which we expect. Some normalization in favorable Corn Belt weather is completely unexpected -- elevating the risk.

## Energy (Index weight: 29% of BCOM)

Performance: April +4.3%, 2019 +20.9%, Spot +23.2%  
 \*Note index weights are the 2018 average.

### Limited Mean Reversion Rally Room

**U.S.-Led Oversupply Puts Crude Oil Bear Market in Its Early Days.** Geopolitics may cause the occasional spike, but we think there's more price risk for crude oil near the upper end of its range and with U.S.-led oversupply still the predominant theme. We expect continued jawboning vs. higher prices from President Donald Trump -- and the opposite when crude declines on OPEC and Russian action.

**U.S. Supply Issue Similar to Five Years Ago.** Rapidly increasing U.S. liquid-fuel production will keep pressure on West Texas Intermediate prices until 2021, based on our analysis of Energy Department estimates. With the 28-month rate of change in fuel production approaching 20% last year, there are similarities to 2014's price collapse. What's different this time is expected high-velocity production into 2020. In 2015, plunging prices helped to reduce U.S. output.

### Crude Oil to Remain Under Pressure Until 2021



Crude oil prices appear to be increasingly vulnerable. In 2016, prices didn't bottom until the rate of production dipped to 14%. It reached a nadir of about 10% in 2017. U.S. fuel production isn't expected to decline that much on a 28-month basis until 2021, but that could change with a pricing downturn.

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*Bloomberg Commodity Index (BCOM)*

**Crude Oil Limited Near Top End of Range.** The recent spike in oil prices is a likely catalyst to help fracture the unusually strong bond between crude and the stock market, potentially pressuring both. Our graphic depicts the WTI-to-S&P 500 20-week correlation at the peak from 2016, just as oil's bull run began. This strong correlation -- over 2x the norm of the past 20 years -- can't be sustained. Oversupplied crude has limited upside, while more -- and sustained -- cuts from major producers OPEC and Russia are needed to offset rapidly increasing U.S. supply. Price pumps due to geopolitics-related production cuts are typically shorter-term and encourage more U.S. supply.

### Extended Crude Prices and Correlation to Stocks



Nearing the upper end of the range since the 2014 decline, crude should have limited upside, particularly if the S&P 500 fails to sustain new highs.

### Key Pivot Points in Downward Trends Risk Lower.

WTI crude oil and Bitcoin have reached significant levels that are likely to transition to lower prices, in our view. Both face downward-sloping 52-week moving averages. Crude oil is showing failure despite bullish news, including the U.S. ending Iran sanction waivers. Meanwhile, Bitcoin is declining from good resistance on bad news: allegations against the primary stable coin, Tether. The first week of May should provide initial guidance for the remainder of 2019.

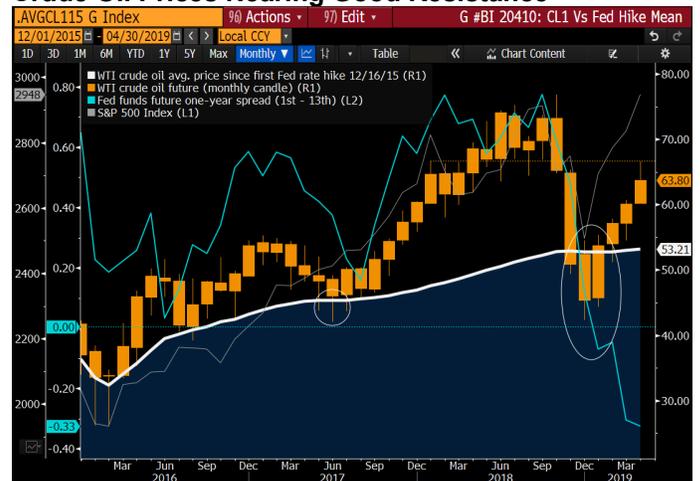
Unable to breach good resistance at about \$66 a barrel, oversupplied WTI would indicate a potential 2019 peak if it sustains below its mean of about \$62.50 on April 30. Bitcoin would indicate a similar high by lingering below \$4,900, the low since breaking out higher in the first week of April.

### Bitcoin & Crude Oil Need to Prove Strength



**Resistance Reinforces Crude-Oil's Gravity Pull.** WTI crude oil is at an elevated risk of returning to its mean since the first Fed rate hike, in our view. The breach of this moving average in November, after it marked support in 2017, was a key companion in the global risk-off trend that shifted Fed futures to expectations of easing. WTI appeared a bit too hot at \$66 a barrel on April 23 -- a key resistance and pivot since January 2018 -- vs. its \$53 mean. Despite record highs in the S&P 500, a close companion on the way down in 4Q, and elevated geopolitical issues supporting the market, U.S.-centered oversupply is weighing on crude oil prices.

### Crude Oil Prices Nearing Good Resistance



Absent further fuel from a rallying stock market and/or geopolitical related support, WTI should gravitate toward its lower mean, in our view.

### U.S. Fuel Production to Overtake Consumption.

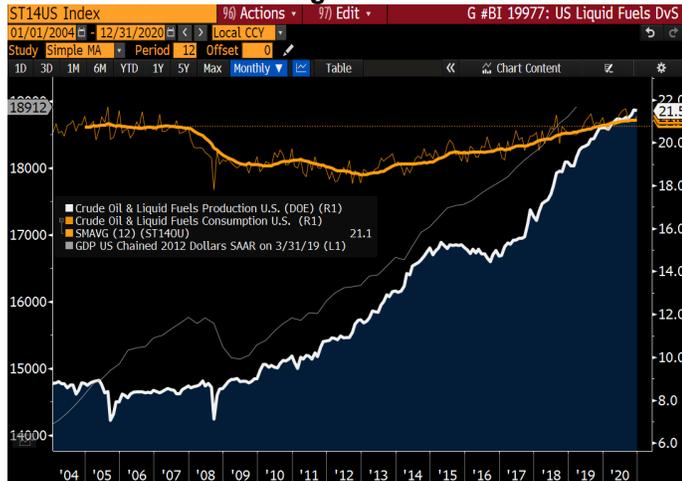
Rapidly increasing U.S. fuel production vs. flat consumption indicates an unleaded-gas market that should struggle to maintain rallies, in our view. Seemingly

## Bloomberg Commodity Outlook – May 2019 Edition

*Bloomberg Commodity Index (BCOM)*

unstoppable U.S. crude oil and liquid fuels output is facing off against almost stagnant domestic consumption, despite increasing GDP. In addition, the trend from the Department of Energy is revising production estimates higher, with current projections for output to exceed consumption in about a year.

### This is No Place for Long-Term Gasoline Bulls

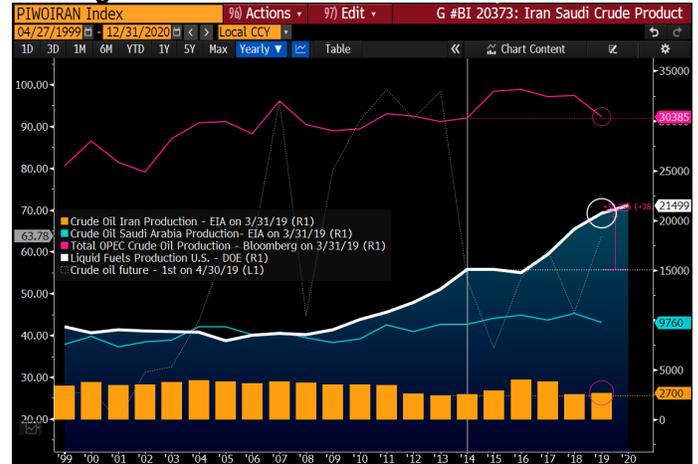


Since the end of 2007, consumption of U.S. crude oil and liquid fuels is flat despite an almost-20% increase in GDP, while production has more than doubled, with biofuels playing a big part. President Donald Trump last year announced that 10% ethanol (E10) blended in gasoline will be bumped to E15.

**Iran Production Appears as a Blip vs. U.S.** Rapidly increasing U.S. liquid-fuel production is a stiff headwind limiting WTI crude-oil's upside related to geopolitical tensions. Our graphic depicts how different it is now for the potential risk of the U.S. benchmark maintaining higher prices. Since 2014, OPEC, Iran and Saudi Arabia production is about the same vs. an increase of almost 6 million barrels a day (about 40%) through this end of this year in U.S. liquid fuel, based on Department of Energy projections.

In October, the 12-month rate-of-change of U.S. fuel production reached the highest since the distortions of the financial crisis. Since President Donald Trump took office in January 2017, liquid-fuel output has increased almost 33%, which is near the peak in the similar 28-month measure from 2014. It took plunging prices to cool that pace.

### Shifting the Balance - U.S. Fuel Production



**Gold vs. Crude Looking Similar to 2015.** Gold has returned to a good support zone vs. crude oil, with the typical drivers favoring the metal, in our view. The number of barrels of WTI crude vs. an ounce of gold is below 20 and the VIX is at a steep discount to its appreciating 200-day average, both of which support metal appreciation and oil depreciation. The echoes of 2015 are disconcerting. During a time of increasing stock-market volatility, albeit at a lesser velocity than today, the gold-to-crude oil ratio launched to the peak near 48 in 2016.

### Gold Enters Good Support Zone vs. Crude Oil



What's different this time favors a similar trajectory. The primary gold driver, the dollar, is about 10% above 2015 levels, with elevated mean-reversion risks near multiyear highs. Over the same time period, U.S. crude oil production has increased over 30% and the annual growth rate is greater than four years ago.

### Natural Gas Is Just Too Cold - The Futures Curve.

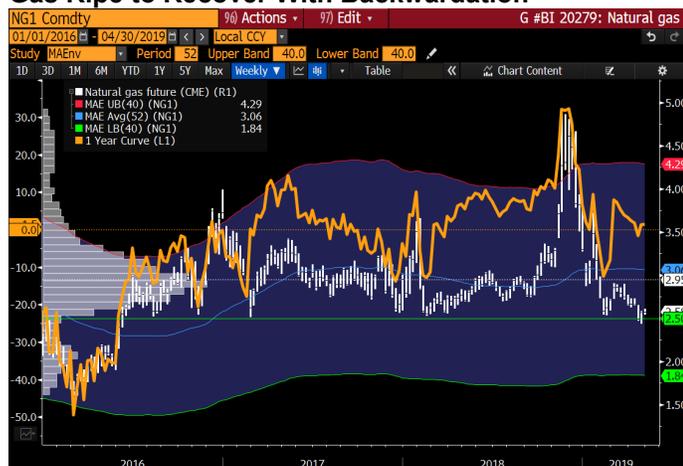
Natural gas prices are too cold, in our view, vs. a primary price indicator, the one-year curve. The persistent trend toward, and deeper into, backwardation in this demand vs. supply indicator has guided gas higher since the 2016

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low. Last year's extreme in the curve and spike in prices has been alleviated. The decline to near four-year lows and good support about \$2.50 MMBtu appears as an excessive retracement. Recovering towards the most-traded price area since 2016 centered near \$3 is likely in the shorter term.

### Gas Ripe to Recover With Backwardation



Revisiting resistance near \$3.50 should mark a normal rotation and would simply follow the bullish indication from the curve, close to 3.5% in backwardation on April 30. The average in the one-year curve since 2000 is near 11% in contango.

## PERFORMANCE DRIVERS

**Energy Mean Reversion Is Reaching Limits.** Mean reversion -- the primary factor in 2019 energy performance -- has limited pricing upside, in our view. Unleaded gas and WTI crude oil, the year's best performers through April, were the worst in 2018. WTI's average is about \$58 a barrel since the start of 2017. The \$45 range at the end of 2018 was perhaps too low, while \$64 on April 30 appears too extreme in an oversupplied market that's dominated by rapidly increasing U.S. production.

### Further Energy Sector Returns Should Be Limited

Security	Chg YTD %	Chg April	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Unleaded Gasoline Su	+40.7%	+11.1%	+11.1%	-5.3%	29.2%
Bloomberg WTI Crude Oil Subind	+38.7%	+6.6%	+6.6%	-4.4%	31.6%
Bloomberg Petroleum Subindex T	+34.8%	+7.1%	+7.1%	-2.8%	37.6%
Bloomberg Brent Crude Subindex	+34.6%	+7.4%	+7.4%	--	46.4%
Bloomberg Heating Oil Subindex	+25.8%	+5.5%	+5.5%	-5%	42.5%
BBG Energy Spot	+23.2%	+4.8%	+4.8%	-4.7%	17.9%
Bloomberg Energy Subindex Tota	+20.9%	+4.3%	+4.3%	-1.2%	17.5%
Bloomberg Natural Gas Subindex	-12.6%	-5.0%	-5.0%	-5.7%	-33.5%

Natural gas, 2019's worst performer after topping all others last year, is positioned for recovery. Its hangover

from the 4Q gamma squeeze appears to have reached an extreme, with prices declining to a three-year low in April. Persistent backwardation in one-year futures signals demand excess vs. supply and should continue to guide prices higher.

### Front Energy Futures to April 30

Ticker	Last	Chg YTD %	Chg MTD %	Chg QTD %	1 Yr Ago	2 Yrs Ago Pct	Chg 1Yr	Change 2 Year Percent
+ Generic 1st 'XB' Future	212.3	+60.4%	+12.0%	+12.0%	212.9	154.8	-3%	37.2%
+ Generic 1st 'CL' Future	63.9	+40.6%	+6.2%	+6.2%	68.6	49.3	-6.9%	29.5%
+ Generic 1st 'CO' Future	72.8	+35.3%	+6.4%	+6.4%	75.2	51.7	-3.2%	40.7%
+ Generic 1st 'HO' Future	208.1	+23.8%	+5.5%	+5.5%	216.7	150.4	-4.0%	38.4%
+ Generic 1st 'NG' Future	2.6	-12.4%	-3.2%	-3.2%	2.8	3.3	-6.8%	-21.4%

## Metals

**All** (Index weight: 35% of BCOM)

Performance: April -2.3%, 2019 +4.2%

**Industrial** (Index weight: 19.0% of BCOM)

Performance: April -3.4%, 2019 +9.0%, Spot +8.5%

**Precious** (Index weight: 16.1% of BCOM)

Performance: April -0.9%, 2019 -0.9%, Spot -0.6%

## Dwindling Bear-Food Supplies

**Solid Foundation, Enduring Outlook Shine on Metals vs. Stocks.** Metals are in a unique and favorable relative-value position vs. the U.S. stock market, in our view. When the primary remaining dollar pillar -- the outperforming U.S. stock market vs. the world -- subsides, highly greenback-negative-correlated metals will gain support. Precious should lead in a peaking dollar environment, but copper also has a strong history of performing well when the dollar is in decline. Unlike the high-risk V-shaped bottom in the S&P 500, the red metal has formed a more durable base.

Up about 55% since the first Fed rate hike vs. 44% for the S&P 500 total return, the nascent industrial metals rally appears much less extended than the decade-long equity bull market. Long-hibernating gold requires ever-increasing bear food -- a stronger dollar and lower stock market volatility -- to not break out higher.

## Bloomberg Commodity Outlook – May 2019 Edition

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### Broad Metals Vs. Peak Dollar

**Metals Bull Just Waiting on Dollar Peak to Break Into a Gallop.** Showing divergent strength vs. the dollar, the nascent broad metals bull is marking time until the eventual greenback peak, in our view. Progress in U.S.-China trade tensions is a likely bullish catalyst. The metals price drop in April and one last year on dollar strength and trade tensions are likely pause- and-refresh factors for the uptrend.

**Refreshed Metals Bull Hungers for Weak Dollar.** The metals market is looking ahead to an acceleration of the nascent bull when the extended dollar rally peaks, in our view. Despite the primary dollar driver -- the U.S. stock market vs. the world -- reaching new highs near the end of April, of the major greenback measures only the Dollar Index Spot joined in. More significant to metals and broad commodity prices -- the trade-weighted broad dollar and Bloomberg Dollar Indexes -- remain below last year's peaks. Absent worsening U.S.-China trade tensions, the metals bull market should continue.

### **Metals Showing Divergent Strength to Dollar**



Last year's 12.6% decline in the Bloomberg All Metals Total Return index, on the back of trade tensions and a strong dollar, should mark a healthy correction in the uptrend in place essentially since the first Fed rate hike late in 2015, in our view..

### Base Metals Bull, Pausing

**Industrial Metals Outlook Is Improving With Copper Foundation.** Peaking and bottoming earlier than most industrial metals and risk assets during last years swoon, recovering copper appears in a leadership role. We expect the nascent bull market, essentially in place since the first Fed rate-hike to accelerate.

**Copper Shows Bottoming and Leadership.** Copper is potentially bottoming in a similar fashion to three years ago, in our view. About a month after the first Fed rate hike, the red metal put in the low for the bear market and began the current bull trend. Last year was the most significant retracement, and copper appears back on the upward trajectory. A new higher base has been established at the average price since the August low at about \$2.77 a pound. This a key support area -- sustaining below would indicate weakness.

### **Copper Bottom Appears Similar to Three Years Ago**



Our graphic depicts copper peaking and bottoming ahead of broad base metals. Pressured last year by U.S.-China trade tensions and the strong dollar, copper bottomed in August and printed a double bottom with the global risk-off swoon early this year. It's unlikely the storm will return, and prices have formed an enduring base for new appreciation.

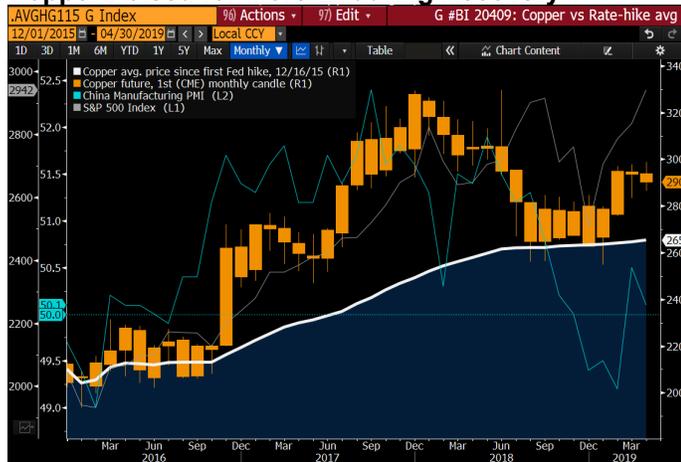
**More Time Building a Base Favors Copper.** Copper has built a foundation of support on its average price since the first rate hike in this cycle. Our graphic depicts the strong base copper prices have for further appreciation, but with a primary risk: some mean reversion in an elevated S&P 500. Six months of consolidation mostly above the \$2.65-a-pound mean marks the primary support line in the sand. Copper appears poised to continue the recovery and breach last year's highs, in our view.

Key rally companions -- the strong S&P 500 and recovering China Purchasing Managers index -- indicate copper is well-situated.

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## Copper Poised for More-Enduring Recovery



**Signs of Nascent Bull Market in Copper.** Copper's recovery looks healthy, with prices holding above the recently breached 52-week average and managed-money net positions still short. Our graphic depicts the healthy condition of copper's recovery as it migrates toward the upper end of the 2016-18 bull-market range, yet not overburdened with excessive speculative longs. Near the 2018 peak of \$3.32 a pound is the next target resistance mark. The 52-week mean near \$2.82 is the first good support level.

## Early Copper Recovery, Positions a Tailwind



Indications point to a nascent bull market. With just a bit more time above this mean, the 200-week should turn back up from an extended downtrend for the first time in 15 years. This long-term mean held support along with the bull market's halfway mark on last year's swoon related to U.S.-China trade tension.

## 2018 Copper Peak Appears as Unfinished Business.

The next key copper-price target resistance level is near last year's high, with the worst likely over for China's declining PMI. Our graphic indicates copper advancing ahead of what is likely a PMI bottom from near a decade

low. The midpoint of the 2011-16 bear market (\$3.30 a pound), which also marked last year's peak, should be the next speed bump for copper's price recovery. If China's PMI has bottomed, some similar but opposite mean reversion in the lofty dollar would be the final pillar to sustain copper above 2018's highs.

## Copper Bull Revived With Bottoming China PMI



U.S.-China trade tension and a plunging PMI coincided with 2018's decline in the yuan and sharp rise in the trade-weighted broad dollar. A bottoming PMI indicates a dollar peak. In the history of China PMI since 2005, the copper annual correlation of 0.89 is the highest among major commodities.

## Precious Rest for Exit Higher

**Increasing Gold Bear Food Required to Remain in Hibernation.** Sustained lower U.S. stock market volatility and dollar strength are required to keep the gold bull from exiting its cage, in our view. The metal being essentially unchanged in 2019 to April 29, despite the plunging CBOE S&P 500 Volatility Index (VIX) and recovering dollar, is a sign of divergent strength in gold.

## Gold Returns to First Good Support Test.

Gold should hold support near its mean since the first Fed rate hike, we believe. Almost \$1,260 an ounce is the average price since December 2015 vs. \$1,284 on April 30. If gold continues to do what it's been doing for most of the past three years, it will revisit the lower end of a narrowing cage. We view this as unlikely. Sustaining above this mean would be an initial sign of strength to poke through the upper end of the range.

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## Gold Poised to Hold Support at Rate-Cycle Mean



Despite a strong dollar pushing gold toward the lower end of its range last year, recovering stock-market volatility provided support. If the CBOE S&P 500 Volatility Index (VIX) has bottomed, it's a tailwind for gold. Our graphic depicts the VIX rate-hike-cycle mean recovering from about 13% in February 2018, a level close to the trough in the 2007 transition from rate hikes to cuts.

**Gold Fueled for Rally vs. Oversupplied Oil.** The fuel for a potential gold rally outweighs similar for crude oil, in our view. Back at its upward-sloping 100-week average, gold is near good support within a potentially explosive environment. The narrowest Bollinger Bands in almost two decades indicate a trend-ready market. Gold uncoiling upside potential typically outweighs downside risks, notably with the dollar looking vulnerable near a two-decade high. Crude oil about 8% above the same mean measure on April 30 appears too hot, notably amid rapidly increasing U.S. production and inventories.

## Gold Near First Support, Crude Appears a Bit Hot



Since the beginning of 2016, gold and crude oil are up about the same on an annual volatility-weighted basis.

Gold has gained about 20% vs. 70% for oil. Gold 260-day volatility near 9% is the lowest in about 20 years. Crude-oil volatility is about 3.5x that of gold.

## Limited VIX Downside Supports Gold Upside.

Conditions for the depressed VIX don't get much worse, which boosts our outlook for gold. Almost 29% below its 200-day average, the VIX is at the steepest discount to this mean in three years. U.S. stock-market volatility downside is limited, which is a tailwind for gold. Our graphic depicts the VIX recovering above this mean in October following a prolonged period below. Two months later, spot gold followed, crossing above its 200-day average.

With the VIX near multi-year lows below its 200-day average and gold still about 2% above, simple time-tested rules of mean reversion favor higher gold. The VIX mean is trending higher, and the current price is at a steep discount. Gold's mean is also trending up, and its price is approaching this support level.

## Buried VIX Portends Underlying Support for Gold



## PERFORMANCE DRIVERS

**High Beta Metals Should Continue to Lead.** Metals with high market sensitivity are leading the bull charge, indicative of a strengthening sector. Nickel, zinc and copper have the highest betas to the Bloomberg All Metals Index and are the best performers in 2019 to April 29. Dollar strength and little official progress with U.S.-China trade talks were headwinds on the month but should subside. The potential for a reversal of last year's extremes in these primary- metals' price-pressure factors outweighs risks of more of the same, in our view.

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## Industrial Metals Pause to Refresh, Precious Sleep

Security	Chg YTD %	Chg April	Chg QTD	Chg Pct	1Yr % Chg	2Yr % Chg
Bloomberg Zinc Subindex Total	+17.7%	-2.4%	-2.4%	-2.3%	18.3%	
Bloomberg Nickel Subindex Total	+14.1%	-6.0%	-6.0%	-10.8%	27.7%	
Bloomberg Copper Subindex Total	+10.7%	-1.1%	-1.1%	-5.7%	9.2%	
Bloomberg Industrial Metals Sub	+9.0%	-3.4%	-3.4%	-9.6%	9.2%	
Bloomberg All Metals Total Ret	+4.2%	-2.3%	-2.3%	-7.0%	3.5%	
Bloomberg Gold Subindex Total	+1%	-.8%	-.8%	-3.2%	.0%	
US Trade Wgt Broad Dollar Indx	--	+3%	+3%	+6.9%	2.9%	
Bloomberg Precious Metals Subi	-.9%	-.9%	-.9%	-4.7%	-3.8%	
Bloomberg Aluminum Subindex To	-3.6%	-6.6%	-6.6%	-20.1%	-6.2%	
Bloomberg Silver Subindex Total	-4.0%	-1.2%	-1.2%	-9.5%	-15.0%	

Silver, seen as a quasi-currency and leveraged gold, is the worst performer and should have the most upside potential with a dollar peak. For the past 20 years measured annually, the betas of nickel, zinc and copper to the All Metals index are; 1.78, 1.65 and 1.43. Gold was the lowest at 0.38 despite having the greatest weight.

## Agriculture (Index weight: 30% of BCOM)

Performance: April -3.3%, 2019 -6.4%, Spot -4.1%

### Grains (Index Weight: 24% of BCOM)

Performance: April -3.9%, 2019 -9.4%, Spot -6.8%

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

Performance: April -2.6%, 2019 -2.2, Spot -0.7%

## No Fear of Higher Prices

**Worst Case for Farmers vs. Best for Aggressive Short Hedge Funds.** The typical Corn Belt-production risk premium -- at a rare discount this year -- signals that grain and agriculture prices may have marked a bottom, in our view. Record net shorts in corn and soybeans, with multidecade-low implied volatility, should lay a price foundation with diminished trade tension and/or less-than-favorable weather.

## Ripening Grain Rally Risks

**Short Hedge Funds May Be Just What Farmers Need.** Extremely negative and passive sentiment may be what it takes to mark the bottom in grain prices and agriculture markets. Our graphic depicts combined managed-money net positions of the Bloomberg Grains Subindex constituents at the shortest in the database. Corn and soybeans are standouts, as short hedge funds position

for another exceptional Corn Belt production year and low expectations for a U.S.-China trade deal that would significantly boost grain exports.

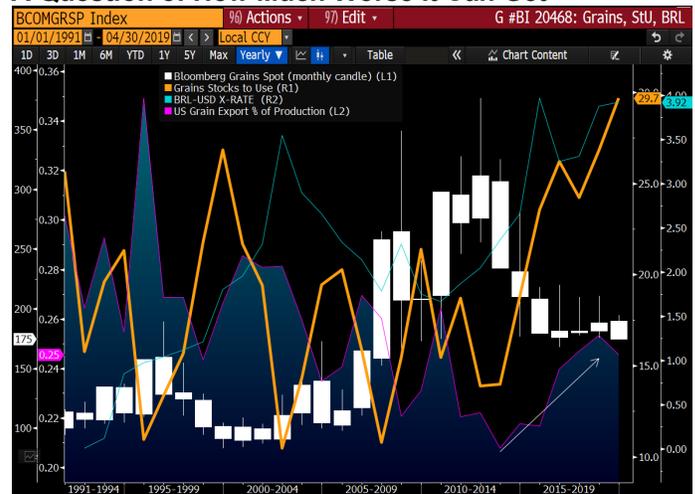
## Weather Premium? Positioned for a Discount



Such negative sentiment may be just what farmers need for price recovery. Grain options' implied volatility is the lowest for this period of the early growing season since 1994, indicating extreme complacency. Risks of a negative-related gamma rally are about as high as they get. A minor spark could be explosive.

**Fuel for Weaker Grain Prices Running Low.** Sustaining multidecade highs in stock-to-use and lows in the Brazilian real is necessary to keep grain prices down, in our view. Mean-reversion potential is among the more significant drivers. Improving yields on the back of favorable weather patterns and advancing technology, the strong dollar and U.S.-China trade tensions have elevated our measure of the average stocks-to-use of the Bloomberg Grains Subindex constituents to the highest in index history since 1991.

## A Question of How Much Worse It Can Get



# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

Our graphic depicts grain prices are at about the same level as the end of 2015, despite the sharp increase in stockpiles and a decline in the real. Increasing exports have been a primary pillar. Low prices have boosted exports to 25% of production vs. 22% four years ago. This is a primary metric that should benefit from less trade tension.

**Corn, Ham Likely More Expensive Next Year.** One of the best-performing major commodities this year, lean hogs, has reached initial resistance that we think will be a speed bump. Its primary feed source in the U.S., corn, is set to follow. Increasing exports to China should help hog prices breach the 2017 peak and, despite trade tensions with the U.S., conditions are better this time. Managed-money net hog positions are lower, while exports are higher and likely to jump.

## Extreme Corn Shorts & Some Pig Resistance

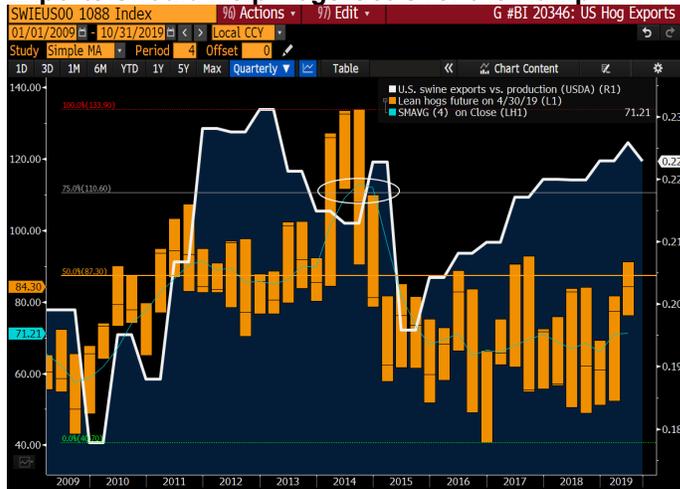


Corn is set to recover, partially on the back of extreme shorts -- it's the world's shortest major commodity. Corn managed-money net positions have never been more bearish in our database (2006). Rapidly increasing hog exports reduce demand for corn in the short term, but such a level of short positions leaves little room for less-than-favorable summer production conditions.

## Lean Hogs Set to Breach More Resistance.

Emphasizing potential further upside, the recent recovery in lean-hog prices has only returned the market to the halfway point of the 2014-16 decline. Increased U.S. exports could be inevitable as African swine fever in China reduces supply. Our graphic depicts the already-improving trend in the percentage of U.S. swine production exports, and it's set to accelerate. At about 22% currently, exports should top the all-time high of 23% of production, leaving the 2014-15 pivot price of \$1.11 a pound as initial resistance vs. 84 cents on April 30.

## Exports Should Help Hogs Get Over the Hump



Some back-and-fill should be expected from current levels, but conditions favor the market embarking on the upper end of the range. The four-quarter average price has turned higher and there appears to be little beyond higher prices that can stop a gain in exports-to-production.

## The World's Shortest Major Commodity – Corn.

Just a little normalization in favorable Corn Belt weather should go a long way to boost its price this year. Our graphic depicts corn marking the bottom of the list of managed-money net commodity positions, sorted by one-year change. Near the top, likely in anticipation of exports to China, are live cattle and lean hogs. Record long live-cattle net positions are less significant as they have little inverse correlation with prices.

## Hedge Funds Very Short Corn and Long Meat

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							
Live Cattle	154,550	1,916	9,391	55,024	68,291	139,159	16,195
Sugar	-29,666	14,812	70,400	1,294	9,706	132,204	-43,322
Lean Hogs	61,753	3,221	53,663	53,711	37,014	59,108	51,096
Platinum	22,773	-121	19,679	39,201	27,337	25,021	16,284
Aluminum (Post- MiFID II)	140,366	-2,383	-11,166	-891	6,477	18,227	
Nickel	42,230	-664	-1,792	12,113	13,772	5,041	22,602
Soybean Oil	-50,637	-16,717	-61,013	-19,271	865	2,089	-13,623
Gasoline	112,149	-2,996	20,247	62,018	59,033	752	91,654
Palladium	9,296	1	-3,505	-3,936	-3,919	-395	-12,401
Zinc (Pre MiFID II)	79,906	-1,121	-6,682	3,640	-471	-8,898	44,606
Aluminum (Pre- MiFID II)	163,475	6,307	-3,292	21,105	3,315	-10,481	115,362
Zinc (Post MiFID II)	55,924	-2,231	-3,439	8,596	19,412	-11,982	
wheat	-67,992	-4,916	5,514	-58,541	-50,988	-13,279	94,335
Coffee	-78,490	3,177	-1,300	-21,481	-22,144	-16,958	-69,721
Silver	-17,870	-7,032	-27,864	-53,431	-26,446	-22,567	-98,071
Copper (LME) (Post MiFID II)	18,092	-12,342	-12,340	614	-12,416	-28,762	
Copper (LME) (Pre MiFID II)	37,448	-917	-16,651	-27,111	-31,597	-34,385	25,052
Copper (CME)	-6,600	-9,926	-16,497	33,431	13,596	-44,099	-46,487
Heating Oil	4,043	382	520	1,098	1,667	-65,206	-20,556
Cotton	14,097	2,630	24,915	24,135	-1,906	-68,774	-82,499
HRW Wheat	-53,673	622	-2,293	-52,060	-56,108	-94,371	-36,440
Natural Gas	39,426	-32,914	-123,832	-175,107	-153,684	-118,720	-141,384
WTI Crude	314,387	11,021	102,070	184,796	196,786	-118,731	58,966
Soybean Meal	-19,429	-7,895	10,416	-26,321	-18,815	-124,850	-17,623
Soybean Meal	-22,328	-18,359	-80,074	-56,427	-79,277	-136,691	-187,609
Brent Crude	396,266	16,401	87,660	193,332	234,017	-216,220	38,000
Soybeans	-129,566	-38,166	-65,574	-106,652	-119,021	-299,660	-81,291
Corn	-322,215	-14,686	-60,889	-366,573	-420,027	-445,092	-125,958

## Bloomberg Commodity Outlook – May 2019 Edition

### Bloomberg Commodity Index (BCOM)

The corn setup for this growing season is looking like a potential mirror opposite of the over-optimism in 2018. Net positions reached a two-year long extreme in March, which aggravated selling pressure on very strong production, the rallying dollar and U.S.-China trade tensions.

### PERFORMANCE DRIVERS

**No Production-Risk Premium This Year.** Spot grain prices, already down about 6% in 2019 at this early stage of the growing season, leave little room for adverse weather. Mean-reversion-recovery risks are elevated, as evidenced by the near-8% decline in the Bloomberg Grains Subindex Total Return. The sharp rise in lean-hog prices on expectations of increasing exports, notably to China due to swine fever, is a short-term grain-price pressure as a primary demand source leaves the country.

#### Hogs & Wheat -- Top Gainer vs. Decliner

Security	Chg YTD %	↓	Chg April	Chg QTD Pct	1Yr % Chg	2Yr % Chg
Bloomberg Lean Hogs Subindex T	+6.7%		-2%	-2%	+11.8%	4.6%
Bloomberg Cotton Subindex Tota	+4.7%		-1.5%	-1.5%	-8.7%	1.2%
Bloomberg Sugar Subindex Total	+3.3%		-2.3%	-2.3%	-1.9%	-31.3%
Bloomberg Livestock Subindex T	+2.2%		-2.3%	-2.3%	+11.2%	-6%
Bloomberg Soybean Oil Subindex	-1.3%		-2.6%	-2.6%	-12.5%	-17.8%
Bloomberg Live Cattle Subindex	-1.5%		-3.8%	-3.8%	+8.9%	-6.3%
BBG Softs TR	-2.2%		-2.6%	-2.6%	-15.0%	-29.4%
BBG Soybean Meal TR	-4.8%		-3.0%	-3.0%	-25.8%	-11.0%
Bloomberg Agriculture Subindex	-6.4%		-3.3%	-3.3%	-20.2%	-22.5%
Bloomberg Soybeans Subindex To	-6.6%		-4.6%	-4.6%	-23.2%	-18.9%
Bloomberg Corn Subindex Total	-6.8%		-5%	-5%	-19.3%	-22.0%
Bloomberg Grains Spot Subindex	-7.3%		-2.5%	-2.5%	-15.1%	-5.0%
Bloomberg Grains Subindex Tota	-9.4%		-3.9%	-3.9%	-22.4%	-22.4%
Bloomberg Coffee Subindex Tota	-12.9%		-3.8%	-3.8%	-32.3%	-43.0%
Bloomberg Wheat Subindex Total	-15.2%		-6.9%	-6.9%	-22.5%	-23.4%
Bloomberg Kansas Wheat Subinde	-21.1%		-9.7%	-9.7%	-35.3%	-34.2%

April's 2%-plus grain-price decline is unusual for what is typically a good month for the grains, which make up almost 80% of the Bloomberg Agriculture Subindex.

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## [DATA on BI COMD](#)

### Performance - Overview

#### Key Metrics

Name	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	3 Yr % Change	5 Yr % Change
<b>Commodities</b>							
BCOM Index TR	-0.4	0.4	5.9	-8.0	-0.7	-2.0	-39.1
Energy Index	4.3	10.7	20.9	-1.2	17.5	14.2	-59.4
All Metals Index	-2.3	-1.4	4.2	-7.0	3.5	9.1	-6.0
Industrial Metals Index	-3.4	0.9	9.0	-9.6	9.2	24.2	-5.7
Precious Metals Index	-0.9	-4.0	-0.9	-4.7	-3.8	-7.1	-9.9
Ags & Livestock Index	-3.1	-7.0	-4.9	-15.6	-19.2	-24.8	-47.4
Livestock Index	-2.3	3.8	2.2	11.2	-0.6	3.3	-20.2
Agriculture Index	-3.3	-9.2	-6.4	-20.2	-22.5	-29.6	-51.8
Grains Index	-3.9	-11.1	-9.4	-22.4	-22.4	-34.3	-56.4
Softs Index	-2.6	-6.7	-2.2	-15.0	-29.4	-27.6	-52.7
BCOM EX Indices TR							
BCOM Index Roll Select TR	-0.7	-0.1	4.9	-9.5	-2.1	0.4	-34.5
BCOM Index Forwards TR							
BCOM Index ER	-0.6	-0.2	5.0	-10.1	-4.1	-5.8	-41.5
BCOM Index Spot	0.1	1.8	7.5	-7.0	4.3	11.6	-21.2
<b>Stocks</b>							
S&P 500 Index TR	4.0	9.5	18.2	13.5	28.6	51.6	73.3
<b>Bonds</b>							
Barclays U.S. Aggregate	-0.1	1.7	2.8	5.1	4.8	5.7	13.4
<b>Currencies</b>							
Bloomberg U.S. Dollar Spot Index	0.1	1.6	0.3	4.6	-1.4	3.5	19.0
US Dollar Index	0.2	2.0	1.4	6.2	-1.6	4.8	22.7
US Trade Weighted Broad Dollar	0.7	1.3	0.0	6.9	2.9	7.6	24.7

#### Historical

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>Commodities</b>										
BCOM Index TR	5.8%	-11.2%	1.7%	11.8%	-24.7%	-17.0%	-9.5%	-1.1%	-13.3%	16.8%
Energy Index	20.3%	-12.7%	-4.3%	16.3%	-38.9%	-39.3%	5.2%	-9.4%	-16.0%	-10.5%
All Metals Index	4.2%	-12.6%	20.8%	15.7%	-19.5%	-7.1%	-21.6%	2.9%	-11.5%	25.9%
Industrial Metals Index	9.3%	-19.5%	29.4%	19.9%	-26.9%	-6.9%	-13.6%	0.7%	-24.2%	16.2%
Precious Metals Index	-1.2%	-4.6%	10.9%	9.5%	-11.5%	-6.7%	-30.8%	6.3%	4.6%	42.7%
Ags & Livestock Index	-4.6%	-9.4%	-8.1%	0.9%	-16.1%	-6.0%	-12.6%	2.7%	-12.4%	33.9%
Livestock Index	2.4%	-1.7%	6.4%	-5.6%	-18.8%	11.6%	-3.5%	-3.5%	-2.3%	9.3%
Agriculture Index	-6.0%	-10.8%	-11.0%	2.1%	-15.6%	-9.2%	-14.3%	4.0%	-14.4%	38.5%
Grains Index	-9.0%	-5.5%	-11.3%	-5.9%	-19.4%	-9.4%	-16.9%	18.3%	-14.4%	30.3%
Softs Index	-2.4%	-22.3%	-14.8%	13.2%	-9.9%	-10.1%	-16.9%	-22.4%	-14.0%	59.9%
BCOM EX Indices TR										
BCOM Index Roll Select TR	5.0%	-11.7%	3.6%	14.6%	-23.4%	-15.2%	-9.1%	-0.4%	-8.8%	19.5%
BCOM Index Forwards TR										
BCOM Index ER	5.0%	-13.0%	0.7%	11.4%	-24.7%	-17.0%	-9.6%	-1.1%	-13.4%	16.7%
BCOM Index Spot	7.4%	-10.5%	7.6%	23.1%	-18.4%	-17.0%	-8.7%	3.7%	-8.1%	26.4%
<b>Stocks</b>										
S&P 500 Index TR	18.1%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%
<b>Bonds</b>										
Barclays U.S. Aggregate	2.8%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%	7.8%	6.5%
<b>Currencies</b>										
Bloomberg U.S. Dollar Spot Index	0.6%	3.1%	-8.5%	2.8%	9.0%	11.0%	3.3%	-0.7%	1.8%	-1.8%
US Dollar Index	1.5%	4.4%	-9.9%	3.6%	9.3%	12.8%	0.3%	-0.5%	1.5%	1.5%
US Trade Weighted Broad Dollar	-1.0%	7.2%	-6.0%	4.5%	10.7%	8.4%	2.8%	-1.4%	0.7%	-1.3%

## Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

### Performance – Commodity Total Returns

#### Key Metrics

Name	MTD % Change	3 Mth % Change	YTD % Change	1Y Yr % Change	2Y Yr % Change
<b>▼ BCOM Total Return Indices</b>					
Lean Hogs Index	-0.2	14.8	6.7	11.8	4.6
Live Cattle Index	-3.8	-2.7	-1.5	8.9	-6.3
Brent Crude Index	7.4	19.3	34.6	0.0	46.4
Heating Oil Index	5.5	11.7	25.8	-0.5	42.5
Platinum Index	4.6	8.1	11.5	-1.5	-6.5
Sugar Index	-2.3	-2.5	3.3	-1.9	-31.3
Zinc Index	-2.4	5.9	17.7	-2.3	18.3
Gold Index	-0.8	-2.9	0.1	-3.2	0.0
WTI Crude Index	6.6	17.7	38.7	-4.4	31.6
Gasoline Index	11.1	33.7	40.7	-5.3	29.2
Natural Gas Index	-5.0	-11.6	-12.6	-5.7	-33.5
Copper Index	-1.1	4.4	10.7	-5.7	9.2
Cotton Index	-1.5	1.4	4.7	-8.7	1.2
Silver Index	-1.2	-7.4	-4.0	-9.5	-15.0
Nickel Index	-6.0	-2.2	14.1	-10.8	27.7
Soybean Oil Index	-2.6	-9.0	-1.3	-12.5	-17.8
Corn Index	-0.5	-7.4	-6.8	-19.3	-22.0
Aluminum Index	-6.6	-7.0	-3.6	-20.1	-6.2
Wheat Index	-6.9	-17.6	-15.2	-22.5	-23.4
Soybeans Index	-4.6	-8.9	-6.6	-23.2	-18.9
Soybean Meal Index	-3.0	-5.0	-4.8	-25.8	-11.0
Coffee Index	-3.8	-16.4	-12.9	-32.3	-43.0
HRW Wheat Index	-9.7	-22.8	-21.1	-35.3	-34.2

#### Historical

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>▼ BCOM Total Return Indices</b>										
Gasoline Index	38.4%	-28.3%	2.8%	6.4%	-12.6%	-43.8%	1.9%	25.7%	14.5%	13.1%
WTI Crude Index	37.8%	-20.5%	5.1%	7.1%	-44.3%	-41.7%	6.8%	-11.8%	-3.6%	3.8%
Brent Crude Index	33.6%	-14.9%	14.2%	25.4%	-45.6%	-47.6%	7.2%	7.6%	16.8%	11.5%
Heating Oil Index	24.4%	-15.7%	15.0%	33.5%	-42.8%	-38.8%	0.4%	5.5%	10.7%	8.3%
Nickel Index	16.1%	-16.4%	25.6%	11.8%	-42.6%	7.3%	-20.1%	-10.2%	-24.7%	32.2%
Zinc Index	16.1%	-21.4%	29.7%	57.5%	-28.0%	3.5%	-7.0%	9.0%	-27.8%	-8.8%
Platinum Index	12.7%	-14.8%	3.0%	0.8%	-26.5%	-12.3%	-11.8%	8.7%	-21.8%	19.3%
Copper Index	10.4%	-21.2%	29.2%	15.7%	-25.1%	-16.6%	-8.8%	5.0%	-24.4%	29.5%
Lean Hogs Index	6.5%	-11.0%	2.8%	-2.9%	-26.1%	-4.4%	-2.0%	-2.9%	-4.6%	0.3%
Cotton Index	4.9%	-7.3%	12.5%	10.5%	3.0%	-21.2%	9.0%	-12.7%	-21.7%	98.2%
Sugar Index	3.2%	-26.1%	-25.4%	22.8%	-4.7%	-30.9%	-20.0%	-13.0%	-11.9%	24.0%
Soybean Oil Index	-0.2%	-19.2%	-7.0%	7.3%	-7.7%	-20.6%	-22.4%	-9.8%	-15.2%	33.8%
Gold Index	-0.2%	-2.8%	12.8%	7.7%	-10.9%	-1.7%	-28.7%	6.1%	9.6%	28.7%
Live Cattle Index	-1.0%	2.6%	9.1%	-7.4%	-14.3%	22.1%	-5.0%	-3.9%	-1.0%	15.0%
Aluminum Index	-1.9%	-16.9%	31.2%	9.7%	-22.9%	-3.1%	-20.7%	-4.0%	-21.7%	5.4%
Silver Index	-4.3%	-10.2%	5.8%	14.0%	-12.7%	-20.4%	-36.6%	7.1%	-10.1%	81.8%
Soybean Meal Index	-4.5%	-4.4%	-4.8%	18.1%	-18.0%	11.8%	20.0%	49.1%	-18.1%	38.9%
Soybeans Index	-5.9%	-11.7%	-8.1%	14.8%	-14.6%	-5.5%	10.5%	24.0%	-16.4%	34.9%
Corn Index	-7.0%	-4.6%	-12.1%	-9.8%	-19.2%	-13.3%	-30.3%	19.0%	1.1%	30.7%
Natural Gas Index	-11.8%	-0.1%	-36.4%	10.3%	-39.9%	-30.7%	5.0%	-30.6%	-47.1%	-40.6%
Coffee Index	-13.4%	-26.5%	-16.0%	-1.3%	-31.5%	37.8%	-30.5%	-41.6%	-11.2%	67.0%
Wheat Index	-14.0%	3.5%	-12.5%	-24.1%	-22.2%	-9.4%	-27.2%	9.8%	-34.0%	21.2%
HRW Wheat Index	-20.5%	-3.1%	-14.9%	-25.3%	-32.7%	-4.7%	-26.2%	5.6%	-22.9%	42.1%

## Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

### Performance – Prices

#### Key Metrics

Name	MTD % Change	3 Mth % Change	YTD % Change	11 Yr % Change	2 Yr % Change
▼ BCOM Single Commodity Price					
Palladium	3.2	3.7	10.6	44.1	67.9
Lean Hogs	8.9	49.9	38.3	27.1	25.9
Sugar	-4.3	-5.8	-0.3	4.1	-25.2
Live Cattle	-1.6	-0.8	-0.8	0.0	-10.3
Gasoline	12.0	55.8	60.4	-0.3	37.2
Platinum	4.6	8.2	11.6	-1.2	-6.2
Gold	-0.8	-2.8	0.4	-2.5	1.3
Gas Oil	5.0	8.8	24.5	-3.0	40.0
Brent Crude	6.4	17.6	35.3	-3.2	40.7
Heating Oil	5.5	10.8	23.8	-4.0	38.4
Copper (CME)	-1.1	4.1	10.5	-4.9	11.8
Copper (LME)	-1.2	4.1	7.6	-5.4	12.2
Zinc	-2.0	6.4	17.4	-6.8	11.5
Natural Gas	-3.3	-8.6	-12.5	-6.9	-21.5
WTI Crude	5.5	18.0	39.7	-7.5	28.6
Silver	-1.1	-7.0	-3.5	-8.7	-13.3
Soybean Oil	-2.8	-8.6	0.1	-9.1	-12.3
Corn	-0.9	-6.2	-5.8	-10.0	-1.3
Cotton	-2.1	2.1	5.2	-10.3	-5.3
Nickel	-6.0	-2.2	14.4	-10.7	29.1
Wheat	-8.6	-19.0	-16.8	-18.3	0.0
Soybeans	-4.9	-8.1	-4.7	-18.9	-11.0
Aluminum	-6.7	-6.7	-2.7	-21.7	-6.9
Coffee	-2.8	-13.3	-9.8	-23.9	-29.9
Soybean Meal	-3.4	-4.5	-3.3	-24.5	-5.0
HRW Wheat	-10.2	-22.6	-21.0	-25.5	-9.1

#### Historical

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
▼ BCOM Single Commodity Price										
Gasoline	60.6%	-26.4%	8.1%	31.4%	-11.7%	-48.5%	-0.9%	4.7%	9.5%	19.5%
WTI Crude	39.6%	-24.8%	12.5%	45.0%	-30.5%	-45.9%	7.2%	-7.1%	8.2%	15.1%
Lean Hogs	38.8%	-15.0%	8.5%	10.6%	-26.4%	-4.9%	-0.3%	1.7%	5.7%	22.3%
Brent Crude	35.4%	-19.5%	17.7%	52.4%	-35.0%	-48.3%	-0.3%	3.5%	13.3%	21.6%
Gas Oil	24.8%	-14.9%	19.8%	53.6%	-36.3%	-45.8%	1.9%	0.3%	21.2%	20.0%
Heating Oil	23.9%	-19.0%	21.8%	54.8%	-40.4%	-40.0%	1.1%	3.8%	15.4%	20.1%
Nickel	16.3%	-16.5%	27.5%	13.5%	-41.8%	9.0%	-18.6%	-9.2%	-24.2%	33.8%
Zinc	15.6%	-25.6%	30.1%	60.2%	-26.2%	6.0%	-0.5%	12.2%	-25.2%	-3.5%
Palladium	13.5%	12.8%	55.3%	21.6%	-29.6%	11.2%	2.1%	7.2%	-18.3%	96.5%
Platinum	12.1%	-14.8%	3.6%	1.1%	-26.2%	-11.8%	-10.9%	9.9%	-21.1%	21.5%
Copper (CME)	10.1%	-20.3%	31.7%	17.4%	-24.4%	-16.8%	-7.0%	6.3%	-22.7%	32.9%
Copper (LME)	7.2%	-17.4%	30.6%	17.3%	-25.8%	-13.9%	-6.8%	4.2%	-21.2%	31.2%
Cotton	5.4%	-8.2%	11.3%	11.6%	5.0%	-28.8%	12.6%	-18.1%	-36.6%	91.5%
Soybean Oil	0.5%	-16.7%	-3.9%	12.7%	-4.4%	-17.6%	-21.0%	-5.6%	-9.8%	43.1%
Gold	0.2%	-2.1%	13.7%	8.6%	-10.5%	-1.5%	-28.3%	7.0%	10.2%	29.7%
Sugar	-0.2%	-20.6%	-22.3%	28.0%	5.0%	-11.5%	-15.9%	-16.3%	-27.5%	19.2%
Aluminum	-1.0%	-19.3%	33.3%	12.5%	-17.9%	4.1%	-13.9%	2.5%	-18.8%	11.6%
Soybean Meal	-3.6%	-2.0%	-0.1%	18.4%	-27.5%	-16.7%	4.1%	35.9%	-16.4%	18.0%
Soybeans	-4.3%	-7.3%	-4.5%	14.4%	-14.5%	-22.3%	-7.5%	18.4%	-14.0%	34.0%
Silver	-4.6%	-9.4%	7.2%	15.8%	-11.5%	-19.5%	-35.9%	8.3%	-9.8%	83.7%
Corn	-6.2%	6.9%	-0.4%	-1.9%	-9.6%	-5.9%	-39.6%	8.0%	2.8%	51.7%
Live Cattle	-7.4%	1.9%	4.7%	-15.2%	-16.4%	21.5%	1.8%	8.9%	12.1%	25.9%
Coffee	-9.5%	-19.3%	-7.9%	8.2%	-23.9%	50.5%	-23.0%	-36.6%	-5.7%	76.9%
Natural Gas	-12.4%	-0.4%	-20.7%	59.3%	-19.1%	-31.7%	26.2%	12.1%	-32.1%	-20.9%
Wheat	-16.1%	17.9%	4.7%	-13.2%	-20.3%	-2.6%	-22.2%	19.2%	-17.8%	46.7%
HRW Wheat	-20.8%	14.4%	2.1%	-10.7%	-25.2%	-2.2%	-22.9%	15.9%	-15.7%	58.7%

## Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

### Performance – Volatility

Name	Current	% Change o...	WTD % Change	MTD % Change	1 Mth % Change	3 Mth % Change	YTD % Change	1 Yr % Change	2 Yr % Change	3 Yr % Change	5 Yr % Change
▼ BCOM 3M Implied Volatility											
Lean Hogs	41.6	3.9	3.9	11.1	11.1	42.4	46.7	79.5	85.9	127.8	113.4
Coffee	28.4	0.8	0.8	2.3	2.3	-2.0	10.8	21.6	0.4	-2.1	-48.1
Palladium	27.1	-3.3	-3.3	-12.8	-12.8	-4.1	3.7	10.6	13.4	-5.0	7.0
Unlead Gas	26.5	-0.5	-0.5	1.2	1.2	-23.8	-30.3	14.0	-4.5	-34.8	60.5
Brent Crude	26.3	-4.4	-4.4	-0.2	-0.2	-22.6	-38.5	11.9	-9.8	-35.0	63.7
Crude Oil	26.1	-5.0	-5.0	0.7	0.7	-25.9	-46.1	9.7	-8.7	-33.8	57.3
Wheat	24.6	0.2	0.2	20.0	20.0	18.6	29.8	-7.7	-3.0	-9.6	-13.1
HRW Wheat	24.5	-1.0	-1.0	16.2	16.2	13.6	24.1	-16.8	0.1	-7.7	-9.1
Nickel	23.6	0.0	0.0	-12.5	-12.5	-10.6	-21.2	-27.1	-15.8	-25.9	-25.5
Natural Gas	23.0	-3.4	-3.4	13.3	13.3	-1.5	-32.2	11.1	-28.6	-41.7	-21.7
Heating Oil	22.8	3.4	3.4	-2.2	-2.2	-24.3	-36.9	7.3	-12.6	-36.2	50.4
Gas Oil	22.6	2.0	2.0	-2.3	-2.3	-27.3	-47.6	-0.9	-18.1	-43.6	52.7
Corn	22.5	2.2	2.2	32.2	32.2	36.9	43.9	-12.1	-9.2	-22.4	-22.3
Sugar	21.8	1.4	1.4	-0.3	-0.3	-11.0	0.9	-11.5	-12.2	-27.1	0.7
Zinc	20.6	-8.5	-8.5	4.8	4.8	3.9	-15.3	-4.7	-29.0	-19.3	33.5
Cotton	17.9	-1.2	-1.2	-5.1	-5.1	-11.6	-9.5	-12.4	11.0	-4.2	-17.1
Platinum	17.9	2.6	2.6	10.2	10.2	7.8	3.5	19.9	13.7	-20.2	2.4
Aluminum	16.1	2.3	2.3	-7.9	-7.9	-12.6	-15.7	-47.5	-22.7	-3.3	-14.8
Soybean Meal	16.0	1.0	1.0	13.7	13.7	-0.1	9.7	-36.2	-22.8	-44.2	-33.4
Soybeans	16.0	0.8	0.8	26.0	26.0	2.4	18.2	-17.4	-11.4	-31.7	-27.2
Copper (COMEX)	15.6	-0.6	-0.6	-5.1	-5.1	-12.3	-13.2	-10.6	-18.5	-23.9	-12.0
Soybean Oil	15.4	1.2	1.2	14.6	14.6	5.3	7.5	1.0	-29.4	-23.6	-23.4
Live Cattle	15.0	-1.0	-1.0	5.4	5.4	14.2	16.9	-25.3	-19.9	-26.4	71.7
Copper (LME)	14.6	-3.0	-3.0	-4.1	-4.1	-20.0	-26.5	-18.4	-24.3	-5.6	0.3
Silver	14.0	-1.1	-1.1	-4.3	-4.3	-16.7	-28.9	-18.8	-27.4	-49.8	-37.4
Gold	8.5	-2.3	-2.3	-5.8	-5.8	-13.7	-31.5	-16.2	-24.2	-54.6	-39.9
▼ BCOM 60 Day Historical Volatility											
Lean Hogs	47.6	1.1	1.1	15.2	15.2	14.2	-20.7	-19.0	52.1	52.4	49.0
Palladium	37.1	6.7	6.7	9.9	9.9	32.3	37.7	24.3	75.3	19.1	98.9
Natural Gas	28.1	-1.7	-1.7	-50.6	-50.6	-72.3	-68.7	19.0	-28.0	-42.4	-54.1
Unlead Gas	27.5	-5.2	-5.2	-18.3	-18.3	-39.1	-36.3	-0.1	-12.6	-58.7	22.3
Coffee	26.7	-0.6	-0.6	8.7	8.7	-20.9	-29.1	45.7	19.0	-7.2	-55.8
Live Cattle	26.3	-0.3	-0.3	3.7	3.7	10.2	3.4	-18.2	14.9	58.1	74.3
HRW Wheat	26.3	-0.3	-0.3	3.7	3.7	10.2	3.4	-18.2	14.9	1.9	-3.8
Wheat	26.3	-0.2	-0.2	4.4	4.4	29.8	13.5	-15.1	10.4	1.3	-13.1
Sugar	24.8	11.0	11.0	-7.1	-7.1	-10.9	5.5	-12.6	-12.9	-39.0	-25.0
Zinc	24.0	-1.2	-1.2	14.2	14.2	-2.7	-7.6	7.0	-11.8	-21.2	52.4
Nickel Gas	22.3	-1.0	-1.0	-5.6	-5.6	12.7	11.0	-32.6	-24.2	-41.3	22.1
Crude Oil	22.0	-2.7	-2.7	-18.5	-18.5	-55.5	-51.9	-13.9	-4.2	-60.3	36.2
Platinum	20.9	0.0	0.0	2.0	2.0	13.8	16.1	27.3	22.6	-20.9	61.1
Cotton	19.9	-0.2	-0.2	-0.4	-0.4	-9.6	-14.3	-7.5	9.3	-1.5	-4.3
Gas Oil	18.8	0.6	0.6	-8.0	-8.0	-45.7	-40.7	-16.4	-13.2	-64.8	27.5
Brent Crude	18.7	-0.1	-0.1	-19.4	-19.4	-59.9	-57.7	-24.9	-13.1	-64.4	27.8
Corn	17.3	-0.2	-0.2	-3.8	-3.8	30.5	22.8	14.1	1.0	-11.9	-9.9
Heating Oil	16.0	-2.3	-2.3	-19.7	-19.7	-52.5	-48.2	-27.8	-14.6	-68.4	1.1
Copper (CME)	15.8	-0.2	-0.2	-12.3	-12.3	-31.1	-23.8	-20.6	-25.1	-25.8	0.1
Silver	15.2	0.3	0.3	0.0	0.0	-5.0	-17.5	-24.3	-5.8	-46.4	-30.0
Aluminum	15.1	-2.3	-2.3	-19.5	-19.5	-22.7	0.1	-58.1	2.4	-13.5	-16.3
Soybean Meal	14.4	0.3	0.3	5.7	5.7	14.5	-13.7	-37.1	0.0	-36.5	-24.8
Copper (LME)	13.7	-0.4	-0.4	-2.8	-2.8	-20.9	-19.1	-28.2	-35.5	-34.8	-17.4
Soybean Oil	13.7	1.8	1.8	-0.7	-0.7	-8.6	-11.8	-6.0	-32.4	-23.5	-27.8
Soybeans	12.0	0.3	0.3	-2.5	-2.5	-19.8	-32.7	-24.0	-8.2	-22.7	-31.2
Gold	10.1	0.0	0.0	1.2	1.2	16.5	-10.8	-18.7	0.5	-50.4	-25.1

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

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

### Key Metrics

Name	Current Position	1 Yr Ago	1 Yr Change	YTD Change	MTD Change	1 Mth Change	3 Mth Change	2 Yr Change
<b>1 Year Spread % of First Contract</b>								
BCOM	-4.6	-2.3	-2.3	0.3	-1.0	-1.0	0.3	-0.8
Sector								
Energy	1.4	6.2	-4.8	3.6	1.6	1.8	4.0	4.4
Industrial Metals	-0.7	-0.9	0.3	0.5	-0.2	-0.2	0.2	0.8
Precious Metals	-3.0	-3.1	0.1	0.1	0.0	0.0	0.1	-1.0
Livestock	-5.9	-9.1	3.2	-4.2	-8.4	-8.4	-0.6	-3.4
Agriculture	-10.2	-5.7	-4.5	-1.2	-1.2	-1.2	-1.7	-4.2
Single Commodities								
Zinc	7.0	1.1	6.0	3.6	1.4	1.4	2.5	7.2
Unleaded Gas	6.7	4.8	1.9	9.8	4.2	4.2	13.4	11.2
Brent Crude	6.6	8.1	-1.5	9.7	3.0	3.0	5.9	8.4
Crude Oil	4.7	9.0	-4.2	11.8	3.0	3.0	6.2	7.4
Palladium	1.4	1.5	0.0	-2.7	-1.1	-1.1	-2.1	1.6
Natural Gas	0.4	6.6	-6.2	2.4	-2.9	-2.9	4.3	-10.1
Gas Oil	0.2	4.4	-4.2	4.2	2.3	2.3	2.5	4.6
Heating Oil	0.1	3.3	-3.2	3.5	1.8	1.8	2.8	5.0
Cotton	-0.1	7.0	-7.1	2.8	-1.7	-1.7	1.2	-7.6
Copper (LME)	-0.6	-1.8	1.2	-0.6	-0.6	-0.6	0.1	0.5
Copper (CME)	-1.5	-3.3	1.9	-0.7	-0.7	-0.7	-0.5	0.7
Platinum	-1.8	-2.0	0.3	0.2	0.0	0.0	0.0	-0.6
Nickel	-2.6	-1.5	-1.1	0.6	-0.1	-0.1	-0.1	-0.1
Gold	-2.7	-2.9	0.2	0.2	0.0	0.0	0.1	-1.1
Silver	-3.4	-3.3	0.0	-0.1	0.1	0.1	0.1	-0.8
Soybean Meal	-4.3	8.4	-12.7	1.0	-0.5	-0.5	0.2	-2.8
Live Cattle	-5.6	-8.2	2.7	-10.7	-8.3	-8.3	-12.1	-10.2
Aluminum	-5.8	0.9	-6.7	-0.5	-1.0	-1.0	-1.2	-4.1
Lean Hogs	-6.2	-9.9	3.7	2.4	-8.6	-8.6	10.8	3.4
Soybean Oil	-7.0	-6.5	-0.5	-0.8	0.0	0.0	-1.6	-3.4
Soybean	-7.3	1.0	-8.2	-0.1	-1.2	-1.2	-1.6	-5.0
Thermal Coal	-8.9	7.1	-16.0	-16.4	0.0	0.9	-7.2	
Sugar	-12.3	-13.6	1.3	-3.0	-1.4	-1.4	-0.7	-8.3
Coffee	-14.0	-11.1	-2.9	2.0	2.3	2.3	2.2	-3.4
Corn	-14.5	-9.0	-5.5	-6.0	-1.3	-1.3	-6.2	-2.5
Wheat	-15.4	-11.2	-4.1	-5.4	-5.3	-5.3	-6.9	3.5
HRW Wheat	-20.8	-15.6	-5.2	-7.3	-5.0	-5.0	-9.3	-2.2

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	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>1 Year Spread % of First Contract</b>										
BCOM	-4.4	-5.0	-1.7	-2.2	-7.1	-4.4	0.3	-0.9	-2.0	2.3
Sector										
Energy	1.7	-2.2	4.3	0.4	-14.0	-11.3	3.5	-1.3	-2.5	-2.1
Industrial Metals	-0.7	-1.2	-0.8	-0.8	-1.5	-0.8	-1.8	-2.5	-2.1	0.5
Livestock	-1.1	-1.7	6.5	8.1	0.6	8.3	4.1	-0.7	-0.2	-1.8
Precious Metals	-3.1	-3.1	-2.3	-1.7	-1.0	-0.8	-0.7	-0.7	-0.7	-0.9
Agriculture	-11.1	-8.9	-5.9	-4.2	-5.5	-5.6	-1.5	-2.3	-1.8	12.2
Single Commodities										
Unleaded Gas	7.9	-3.2	4.7	2.8	1.0	-12.3	7.0	9.8	7.9	3.7
Zinc	6.7	3.4	3.4	0.2	-2.8	-1.4	-2.3	-4.5	-3.9	-1.7
Brent Crude	6.7	-3.1	6.3	-3.1	-22.1	-16.4	4.9	6.3	4.0	-0.4
Crude Oil	4.7	-7.1	5.0	-5.9	-20.4	-13.5	7.3	-1.3	1.4	-3.2
Live Cattle	3.9	5.2	6.3	13.3	8.1	7.0	2.5	-3.3	-4.5	-3.8
Natural Gas	1.5	-2.0	-3.7	-0.1	-22.6	-22.2	-3.2	-20.7	-29.9	-18.4
Palladium	1.4	4.1	1.5	-0.5	-0.2	-0.1	-0.5	-0.2	-0.4	0.0
Cotton	0.2	-2.9	6.1	1.7	-2.7	-8.6	6.7	-5.7	3.6	34.6
Gas Oil	-0.2	-4.0	6.2	-4.8	-23.8	-12.0	3.1	2.9	3.0	-4.2
Heating Oil	-0.5	-3.4	5.9	-4.5	-24.5	-4.5	3.2	2.1	2.1	-3.4
Copper (LME)	-0.6	0.0	-1.3	-0.3	0.3	1.6	1.1	-0.7	-0.3	2.7
Copper (CME)	-1.4	-0.8	-1.8	-0.8	-1.1	-0.2	1.3	-1.1	-0.8	2.5
Platinum	-1.8	-2.0	-1.4	-1.1	-0.4	-0.4	-0.5	-0.7	-1.0	-0.5
Nickel	-2.6	-3.1	-2.0	-1.9	-1.4	-1.1	-1.8	-1.4	-0.1	1.1
Gold	-2.7	-2.9	-2.2	-1.5	-0.5	-0.3	-0.4	-0.7	-0.9	-0.9
Silver	-3.4	-3.3	-2.5	-2.0	-1.4	-1.2	-0.9	-0.7	-0.5	-0.9
Soybean Meal	-3.7	-5.3	-3.4	-0.4	-5.7	9.8	19.9	12.5	-2.4	9.9
Aluminum	-5.7	-5.3	-2.3	-1.0	-2.7	-3.1	-7.5	-5.0	-5.2	-2.3
Lean Hogs	-6.2	-8.6	6.7	2.9	-7.0	9.6	5.7	2.0	4.2	0.2
Soybean Oil	-7.1	-6.2	-1.1	-1.2	-3.1	-0.9	-3.8	-2.8	-1.6	-0.9
Soybean	-7.1	-7.2	-3.3	0.4	-2.0	0.9	13.1	7.7	-1.2	5.9
Thermal Coal	-8.5	7.5	5.4	18.4	14.0	1.7	1.9	-8.3	-6.2	11.2
Wheat	-14.2	-10.0	-15.5	-17.1	-10.5	-5.0	-7.2	-6.9	-12.4	-8.7
Coffee	-14.3	-16.0	-10.9	-9.2	-8.4	-7.4	-11.2	-11.5	-4.9	6.1
Corn	-15.0	-8.5	-12.1	-10.5	-9.5	-8.1	-9.2	12.7	7.2	9.4
Sugar	-18.7	-9.3	-3.5	4.8	0.9	-13.1	-8.2	-5.5	-0.3	26.0
HRW Wheat	-20.5	-13.5	-19.1	-16.1	-14.9	-6.3	-5.5	-5.7	-7.9	-3.1

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## Curve Analysis – Gross Roll Yield

### Key Metrics

Name	Current 1Yr Yld	Yld 6 Months Ago	Yld 1 Yr Ago	Change from 1 Yr Ago	Yld 2 Yr Ago	Change from 2 Yr Ago
<b>▼ 1 Year Gross Yield</b>						
<b>▼ Sector Roll Yield</b>						
BCOM	-1.0	-2.0	-4.1	3.1	-8.3	7.3
BCOM Precious Metals	-0.7	-0.7	0.5	-1.2	-3.0	2.3
BCOM Industrial Metals	1.9	0.0	-2.1	4.0	-3.9	5.8
BCOM Agriculture		-7.7	-8.1			
BCOM Grains	-7.2	-10.6	-15.0	7.8	-8.1	0.8
BCOM Livestock	-2.5	-0.7	-0.1	-2.4	4.3	-6.8
BCOM Softs	-6.0	-4.8	-2.9	-3.1	-5.9	-0.1
BCOM Energy	4.6	1.7	-3.2	7.8	-17.8	22.4
<b>▼ Commodities Roll Yield</b>						
Aluminum	1.3	2.0	-1.5	2.9	-3.1	4.4
Brent Crude	6.3	8.5	3.5	2.7	-11.3	17.6
Coffee	-9.5	-7.1	-9.4	-0.1	-8.5	-1.0
Copper (CME)	-0.8	-1.6	-1.6	0.8	-4.6	3.8
Corn	-10.3	-11.3	-15.9	5.6	-7.9	-2.3
Cotton	0.9	3.4	5.2	-4.3	-7.6	8.5
Crude Oil	3.1	6.2	-1.4	4.4	-14.9	18.0
Gas Oil	4.8	3.3	2.4	2.4	-7.5	12.3
Gold	-0.6	-0.6	-0.5	0.0	-3.0	2.4
Heating Oil	3.0	2.6	0.7	2.3	-8.7	11.7
Lean Hogs	-17.1	-2.1	-4.5	-12.6	-3.2	-14.0
HRW Wheat	-11.6	-16.4	-26.6	15.0	-16.5	4.8
Natural Gas	1.2	-10.1	-14.3	15.4	-49.3	50.5
Nickel	-0.1	-5.2	-1.5	1.4	-3.0	3.0
Platinum	0.0	-0.1	-0.7	0.7	-3.0	3.0
Silver	-0.8	-0.8	-0.8	0.0	-2.9	2.1
Soybean	-4.6	-4.1	-5.7	1.1	-1.7	-2.9
Soybean Meal	-1.3	-2.3	-5.9	4.6	-1.2	-0.1
Soybean Oil	-2.6	-2.6	-3.9	1.3	-4.0	1.4
Sugar	-8.5	-6.4	-3.4	-5.1	-9.2	0.7
Unlead Gas	-2.1	1.1	-1.1	-1.0	-9.2	7.2
Wheat	-6.9	-15.0	-28.8	21.9	-13.1	6.3
Zinc	6.9	2.0	1.4	5.5	-3.7	10.7

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

### Historical

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>▼ 1 Year Gross Yield</b>										
<b>▼ Sector Roll Yield</b>										
BCOM Energy	2.9	3.6	-7.7	-32.5	-12.6	1.6	-5.1	-11.7	-11.0	-13.8
BCOM Industrial Metals	1.0	0.7	-3.0	-2.0	-1.8	-2.1	-3.9	-3.3	-2.2	-4.1
BCOM Precious Metals	-0.7	-0.7	-0.2	-1.1	-0.6	-0.4	-0.5	-0.9	-0.6	-1.1
BCOM	-1.0	-0.7	-5.9	-11.4	-6.3	0.0	-0.9	-4.7	-6.6	-9.5
BCOM Livestock	-2.5	1.8	0.5	0.2	1.1	-0.2	-4.5	-9.8	-12.3	-14.8
BCOM Softs	-6.0	-4.5	-4.2	-5.6	-7.4	-12.5	-4.9	0.9	9.0	0.5
BCOM Grains	-7.4	-10.1	-10.7	-7.0	-4.7	0.7	8.2	3.6	-5.8	-12.6
BCOM Agriculture	-7.7	-7.1	-8.0	-6.1	-4.1	-1.0	4.9	1.9	-1.9	-9.6
<b>▼ Commodities Roll Yield</b>										
Zinc	4.6	4.2	-3.1	-2.7	-2.5	-4.6	-8.8	-3.1	-3.0	-5.3
Gas Oil	4.1	3.9	-0.9	-22.7	-11.0	-1.6	2.1	7.4	2.1	-12.3
Heating Oil	2.9	3.4	-6.4	-25.3	-3.0	1.1	-1.3	1.0	-2.9	-11.7
Brent Crude	2.8	4.7	-4.9	-27.7	-23.3	0.3	6.9	4.2	8.3	-12.5
Crude Oil	2.3	4.4	-7.3	-38.2	-14.0	4.3	-0.3	-4.5	-9.7	-11.3
Cotton	2.3	0.9	1.0	-1.1	-2.1	7.7	-3.6	5.2	15.5	14.3
Nickel	1.5	0.1	-0.6	-1.7	0.5	-2.9	-2.3	-1.0	-1.7	-1.6
Natural Gas	1.5	0.3	-14.0	-52.6	-19.8	0.8	-22.3	-42.7	-13.8	-16.1
Live Cattle	1.2	0.6	4.4	7.8	2.0	0.6	-6.8	-12.8	-12.5	-12.2
Aluminum	0.3	2.4	-3.2	-2.9	-6.0	-9.1	-8.4	-6.2	-3.3	-6.0
Platinum	0.0	0.0	-1.1	-0.4	-0.2	-0.5	-0.8	-1.2	0.9	-2.7
Copper (CME)	-0.7	-1.0	-3.5	-1.6	-0.7	0.3	-1.7	-1.3	-0.1	-3.6
Gold	-0.7	-0.7	-0.3	-0.9	-0.4	-0.2	-0.4	-0.9	2.9	-1.0
Silver	-1.0	-0.8	0.1	-1.8	-1.2	-0.9	-0.7	-1.1	4.5	-5.1
Soybean Meal	-1.5	-2.3	-4.8	-0.5	9.6	28.7	16.5	13.0	-1.3	20.7
Soybean Oil	-3.2	-2.5	-2.9	-5.4	-3.2	-2.9	-1.3	-4.2	-4.2	-8.5
Soybean	-3.7	-4.4	-3.0	0.2	-0.2	17.0	18.5	5.5	-1.8	0.5
Unlead Gas	-4.8	-0.6	-4.0	-27.2	1.1	4.7	1.3	18.9	4.5	-6.9
Sugar	-5.7	-5.4	-3.2	-5.2	-9.9	-19.5	-4.1	3.1	18.7	4.6
Wheat	-7.4	-14.3	-18.0	-10.9	-1.9	-7.0	-5.1	-9.4	-14.6	-23.8
Coffee	-8.6	-7.2	-9.2	-9.7	-7.8	-12.6	-7.2	-5.0	-3.4	-8.5
Corn	-9.8	-11.5	-12.4	-7.9	-9.6	-7.4	9.4	10.8	0.4	-20.9
HRW Wheat	-10.9	-17.5	-17.8	-14.7	-7.6	-2.5	-3.3	-4.1	-7.6	-9.9
Lean Hogs	-16.7	4.1	-8.2	-13.6	0.3	0.6	-1.7	-4.5	-9.6	-23.8

**Bloomberg Commodity Outlook – May 2019 Edition**  
*Bloomberg Commodity Index (BCOM)*

**Curve Analysis – Forwards / Forecasts**  
**Spread %**

Name	4/2019	3/2019	2/2019	1/2019	12/2018	11/2018	10/2018	9/2018	8/2018	7/2018	6/2018	5/2018
▼ 1 Yr Spread ((Forward-Forecast)/ Forecast												
▼ Energy												
Natural Gas Spread %	-8.5	-4.4	-2.6									
WTI Crude Spread %	1.8	-1.9	-3.3	-8.9	-2.8	-3.1	-0.9	2.4	1.2	2.6	6.1	4.3
Brent Crude Spread %	0.6	-2.5	-1.6	-8.0	-1.1	-1.8	1.3	4.1	3.8	5.7	7.1	8.9
ULS Diesel Spread %	-5.2		-4.3	-12.6	-1.5	-0.8	1.7	2.2	1.1	0.2	8.4	9.6
Unleaded Gasoline Spread %	-5.7	-2.5	-5.5	-17.4	-2.0	-1.8	-1.4	2.8	-0.1	-0.3	-0.1	1.4
▼ Soft												
Sugar Spread %	-3.2	-0.1	4.8	2.9	-3.0	-1.2	3.3	-3.6	-2.0	-5.8	-2.3	0.7
Coffee Spread %	-13.8	-11.0	-15.1	-10.3	-9.2	-5.8	-4.8	-6.8	-9.0	-5.6	-5.6	-2.5
Cotton Spread %	-1.9	-2.3	-5.7	-2.5	-1.2	-1.7	-2.8	-2.5	-1.9	3.1	-0.2	9.9
▼ Industrial Metals												
Copper Spread % (LME)	-0.6	-2.5	-0.9	-6.0	-0.8	-1.1	-1.9	-1.7	-3.4	-5.2	-2.9	-1.3
Aluminum Spread %	-6.4	-5.6	-4.8	-4.8	-0.8	-1.5	-1.5	-1.0	0.6	-0.4	0.2	3.9
Zinc Spread %	0.2	2.0	0.0	-2.2	-2.2	-2.5	-2.9	-4.9	-7.2	-7.3	-4.2	-0.4
Nickel Spread %	-3.8	-0.3	1.8	-1.7	-3.9	-3.8	-3.4	-3.1	-0.8	1.9	8.4	10.8
▼ Precious Metals												
Gold Spread %	-1.5	0.9	3.7	3.8	0.0	-0.5	-0.3	-1.7	-1.7	-2.5	-2.2	0.3
Silver Spread %	-5.2	-4.7	-1.2	1.6	-1.2	-1.8	-2.4	-4.3	-4.5	-2.5	-4.1	-2.3
▼ Grain												
Corn Spread %	-3.5	-1.1	-2.3	1.1	-1.2	-2.3	-3.2	-3.4	-5.1	-3.5	-5.9	2.4
Soybeans Spread %	-5.3	-3.6	-3.3	-1.8	-2.7	-2.6	-3.4	-3.3	-5.4	-7.1	-8.0	0.6
Wheat Spread %	-8.6	-5.3	-5.1	4.3	-0.7	-2.3	-2.5	-1.4	1.0	5.2	0.0	10.3

**Data Set**

Name	4/2019	3/2019	2/2019	1/2019	12/2018	11/2018	10/2018	9/2018	8/2018	7/2018	6/2018	5/2018
▼ Data Set												
▼ 1 Yr Spread												
▼ Energy												
Natural Gas Forward	2.74	2.87	2.92	2.94	3.15	3.24	3.00	2.98	2.93	2.91	2.97	2.94
Natural Gas Forecast	3.00	3.00	3.00									
WTI Crude Forward	62.0	59.1	58.0	55.1	64.4	64.9	67.4	68.6	67.8	67.6	68.2	66.7
WTI Crude Forecast	60.9	60.3	60.0	60.5	66.3	67.0	68.0	67.0	67.0	65.9	64.3	64.0
Brent Crude Forward	68.9	65.9	65.8	61.5	71.7	72.4	75.0	76.2	75.1	74.3	74.8	74.6
Brent Crude Forecast	68.5	67.6	66.9	66.9	72.5	73.7	74.0	73.2	72.3	70.3	69.8	68.5
ULS Diesel Forward	2.05	1.99	2.02	1.91	2.09	2.11	2.18	2.19	2.17	2.14	2.14	2.17
ULS Diesel Forecast	2.16		2.12	2.19	2.13	2.13	2.14	2.14	2.14	2.14	1.98	1.98
Unleaded Gasoline Forward	1.83	1.72	1.67	1.54	1.93	1.94	2.00	2.06	2.03	2.03	2.01	2.04
Unleaded Gasoline Forecast	1.94	1.76	1.76	1.87	1.97	1.97	2.03	2.01	2.04	2.04	2.01	2.01
▼ Soft												
Sugar Forward	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.11	0.12	0.12	0.12	0.13
Sugar Forecast	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13
Coffee Forward	0.95	0.98	1.02	1.09	1.04	1.08	1.09	1.06	1.08	1.13	1.16	1.21
Coffee Forecast	1.10	1.10	1.21	1.21	1.15	1.15	1.15	1.13	1.19	1.20	1.23	1.24
Cotton Forward	0.75	0.75	0.73	0.75	0.81	0.82	0.82	0.82	0.84	0.87	0.84	0.89
Cotton Forecast	0.77	0.77	0.77	0.77	0.82	0.83	0.84	0.84	0.86	0.85	0.85	0.81
▼ Industrial Metals												
Copper Forward (LME)	6,387	6,351	6,472	6,138	6,510	6,530	6,484	6,506	6,486	6,568	6,778	6,884
Copper Forecast (LME)	6,425	6,515	6,531	6,531	6,562	6,603	6,610	6,615	6,712	6,929	6,980	6,977
Aluminum Forward	1,843	1,906	1,927	1,928	2,113	2,117	2,124	2,139	2,180	2,169	2,204	2,268
Aluminum Forecast	1,970	2,020	2,025	2,025	2,130	2,150	2,158	2,161	2,168	2,178	2,200	2,182
Zinc Forward	2,779	2,813	2,708	2,648	2,860	2,856	2,853	2,832	2,835	2,875	3,062	3,186
Zinc Forecast	2,774	2,758	2,707	2,707	2,925	2,930	2,939	2,978	3,055	3,100	3,196	3,200
Nickel Forward	12,487	12,834	12,990	12,389	13,019	13,041	13,181	13,348	13,662	13,919	14,445	14,650
Nickel Forecast	12,983	12,875	12,766	12,603	13,552	13,552	13,651	13,778	13,774	13,660	13,323	13,219
▼ Precious Metals												
Gold Forward	1,295	1,306	1,331	1,330	1,268	1,263	1,263	1,253	1,258	1,269	1,283	1,317
Gold Forecast	1,315	1,294	1,284	1,282	1,268	1,270	1,268	1,275	1,280	1,301	1,312	1,313
Silver Forward	15.17	15.26	15.90	16.15	15.60	15.52	15.54	15.50	15.59	16.02	16.30	16.61
Silver Forecast	16.00	16.00	16.09	15.90	15.78	15.80	15.92	16.20	16.31	16.43	16.99	17.00
Platinum Forecast	878	869	900	900	885	887	885	885	903	925	945	953
Palladium Forecast	1,280.9	1,246.9	1,148.8	1,120.0	1,000.0	995.8	992.1	978.6	975.9	987.0	1,009.5	1,004.8
▼ Grain												
Corn Forward	3.7	3.8	3.8	4.0	3.7	3.6	3.6	3.6	3.6	3.7	3.7	4.0
Corn Forecast	3.8	3.9	3.9	3.9	3.7	3.7	3.7	3.8	3.8	3.9	3.9	3.9
Soybeans Forward	8.7	9.1	9.3	9.4	9.1	9.1	9.0	9.1	9.0	9.2	9.3	10.2
Soybeans Forecast	9.2	9.4	9.6	9.6	9.4	9.4	9.3	9.4	9.5	9.9	10.1	10.2
Wheat Forward	4.5	4.7	4.8	5.3	5.0	4.9	4.9	4.9	5.1	5.2	4.9	5.2
Wheat Forecast	4.9	5.0	5.1	5.1	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.8

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## Market Flows – Open Interest

### Key Metrics

Name	Current	MTD % Change	3 Mth % Change	YTD % Change	11 Yr % Change	2 Yr % Change	2 Year High
▼ Open Interest (Aggregate - 1,000s)							
▼ Single Commodities							
HRW Wheat	327	-1.8	9.7	11.6	30.3	22.0	342
Coffee	328	-6.3	6.5	20.6	28.1	59.2	357
Lean Hogs	318	12.0	48.6	50.7	25.2	45.2	318
Live Cattle	420	-5.4	8.3	13.5	20.0	-1.2	455
Wheat	472	-4.5	1.3	8.5	4.2	0.0	581
Silver	197	515.6	12.6	13.2	3.7	-1.5	244
Copper (CME)	249	192.9	12.7	14.2	3.3	0.8	338
Soybean Oil	488	2.7	-2.4	2.5	-2.0	19.9	606
Platinum	76	-7.3	-7.3	-7.3	-3.8	13.4	94
Aluminum	487	5.9	-0.2	3.0	-4.1	-4.3	547
Palladium	23	666.7	-14.8	-11.5	-4.2	-34.3	40
Corn	1,629	-10.9	-3.7	3.0	-4.4	21.6	2,007
Gas Oil	985	8.1	4.3	20.6	-6.8	9.8	1,138
Unlead Gas	422	148.2	8.2	3.4	-7.9	4.2	501
Heating Oil	401	120.3	9.3	8.7	-8.0	-4.8	491
Copper (LME)	159	2.6	-4.2	-1.2	-10.7	-18.5	219
Nickel	148	-3.3	-0.7	5.7	-10.8	-0.7	188
Soybean Meal	455	-0.4	-1.5	6.1	-11.3	26.4	538
Zinc	167	-6.7	14.4	17.6	-11.6	-13.9	225
Brent Crude	2,222	-5.2	-4.9	3.0	-13.2	-7.9	2,704
Gold	428	231.8	-5.1	-3.4	-13.7	-9.9	598
Natural Gas	1,231	95.4	17.9	1.2	-14.4	-16.6	1,700
Sugar	849	-6.7	-7.0	-3.1	-14.8	9.3	1,062
Soybean	720	-0.8	4.1	8.4	-15.6	12.0	976
Crude Oil	2,143	9.5	4.4	1.8	-18.7	-2.1	2,714
Cotton	211	-7.5	-9.1	-0.9	-21.3	-16.6	322

### Historical

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
▼ Open Interest (Aggregate - 1,000s)										
▶ BCOM	14,441	13,665	14,620	12,978	11,965	10,881	11,033	10,367	9,282	10,206
▼ Sector										
▶ Energy	7,451	7,072	7,928	7,097	6,057	5,033	5,346	4,980	4,230	4,262
▶ Agriculture	5,556	5,239	5,168	4,493	4,563	4,211	4,090	3,876	3,418	4,399
▶ Industrial Metals	1,206	1,134	1,354	1,319	1,178	1,224	1,104	1,006	1,159	1,105
▶ Livestock	741	581	572	501	431	481	591	578	552	534
▶ Precious Metals	729	724	786	667	673	620	613	658	585	783
▼ Single Commodities										
Brent Crude	2,250	2,158	2,322	2,159	2,031	1,513	1,443	1,285	886	873
Crude Oil	2,150	2,105	2,458	2,064	1,671	1,468	1,616	1,473	1,328	1,430
Corn	1,687	1,582	1,540	1,236	1,334	1,237	1,203	1,128	1,151	1,549
Natural Gas	1,229	1,216	1,448	1,243	957	939	1,291	1,165	1,011	772
Gas Oil	984	817	865	802	700	435	477	512	458	619
Sugar	834	876	753	805	879	836	830	754	559	613
Soybean	740	664	705	632	646	599	576	546	460	629
Soybean Oil	495	476	444	372	384	355	340	306	273	358
Aluminum	484	473	520	541	551	595	539	495	682	546
Wheat	472	435	523	448	368	371	411	456	384	492
Soybean Meal	458	429	376	329	402	341	262	212	194	192
Gold	429	443	472	416	415	372	380	428	419	585
Unlead Gas	426	408	387	400	355	332	239	282	277	267
Live Cattle	425	370	333	306	265	266	327	329	317	327
Heating Oil	411	369	449	429	342	346	279	263	269	301
Coffee	330	272	218	191	172	160	142	144	105	140
HRW Wheat	329	293	330	239	193	132	154	158	139	219
Lean Hogs	316	211	239	194	166	215	264	248	235	207
Copper (CME)	250	218	280	224	166	160	167	147	121	167
Cotton	210	213	279	242	185	178	172	171	152	207
Silver	201	174	194	164	168	151	132	141	106	136
Zinc	165	142	200	184	167	182	184	166	148	135
Copper (LME)	159	161	203	209	146	155	132	130	143	196
Nickel	149	140	150	160	148	132	81	69	65	61
Platinum	75	82	83	63	65	64	62	60	42	39
Palladium	24	26	37	24	24	33	39	29	18	23

# Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

## Market Flows – Commitment of Traders

### Key Metrics

Name	Current	5 Day Change	1 Mth Change	3 Mth Change	YTD Change	1 Yr Change	2 Yr Change
▼ Net - Managed Money Total/Disagg							
▼ Single Commodities							
Live Cattle	154,550	1,916	9,391	55,024	68,291	139,159	16,195
Sugar	-29,666	14,812	70,400	1,294	9,706	132,204	-43,322
Lean Hogs	61,753	3,221	53,663	53,711	37,014	59,108	51,096
Platinum	22,773	-121	19,679	39,201	27,337	25,021	16,284
Aluminum (Post- MiFID II)	140,366	-2,383	-11,166	-10,627	6,477	18,227	
Nickel	42,230	-664	-1,792	12,113	13,772	5,041	22,602
Soybean Oil	-50,637	-16,717	-61,013	-19,271	865	2,089	-13,623
Gasoline	112,149	-2,996	20,247	62,018	59,033	752	91,654
Palladium	9,296	1	-3,505	-3,936	-3,919	-395	-12,401
Zinc (Pre MiFID II)	79,906	-1,121	-6,682	3,640	-471	-8,898	44,606
Aluminum (Pre- MiFID II)	163,475	6,307	-3,292	21,105	3,315	-10,481	115,362
Zinc (Post MiFID II)	55,924	-2,231	-3,439	5,670	19,412	-11,982	
Wheat	-67,992	-4,916	5,514	-58,541	-50,988	-13,279	94,335
Coffee	-78,490	3,177	-1,300	-21,481	-22,144	-16,958	-69,721
Silver	-17,870	-7,032	-27,864	-53,431	-26,446	-22,567	-98,071
Copper (LME) (Post MiFID II)	18,092	-12,342	-12,340	-10,282	-12,416	-28,762	
Copper (LME) (Pre MiFID II)	37,448	-917	-16,651	-27,111	-31,597	-34,385	25,052
Copper (CME)	-6,600	-9,926	-16,497	33,431	13,596	-44,099	-46,487
Heating Oil	4,043	382	520	1,098	1,667	-65,206	-20,556
Cotton	14,097	2,630	24,915	24,135	-1,906	-68,774	-82,499
HRW Wheat	-53,673	622	-2,293	-52,060	-56,108	-94,371	-36,440
Natural Gas	39,426	-32,914	-123,832	-175,107	-153,684	-118,720	-141,384
WTI Crude	314,387	11,021	102,070	184,796	196,786	-118,731	58,966
Soybean Meal	-19,429	-7,895	10,416	-26,321	-18,815	-124,850	-17,623
Gold	-22,328	-18,359	-80,074	-56,427	-79,277	-136,691	-187,609
Brent Crude	396,266	16,401	87,660	193,332	234,017	-216,220	38,000
Soybeans	-129,566	-38,166	-65,574	-106,652	-119,021	-299,660	-81,291
Corn	-322,215	-14,686	-60,889	-366,573	-420,027	-445,092	-125,958

### Historical

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
▼ Net - Managed Money Total/Disagg	298,205.0	911,257.0	1.2M	1.8M	107,932.0	1.1M	835,105.0	791,313.0	637,042.0	1.6M
▶ BCOM										
▶ Sector										
▶ Energy	866,271.0	528,452.0	1.1M	1.0M	95,835.0	278,790.0	623,230.0	258,739.0	230,666.0	224,236.0
▶ Livestock	216,303	110,998	136,667	147,051	24,525	117,295	137,611	110,898	104,018	133,520
▶ Precious Metals	-8,129	74,176	124,419	101,310	-239	153,310	70,026	171,032	134,710	232,650
▶ Agriculture	-737,571	-59,133	-449,709	225,844	-75,733	383,375	-1,048	281,653	188,257	962,170
▶ Industrial Metals		302,863	437,560	423,576	90,351	218,292	35,635	14,988	-4,018	39,105
▼ Single Commodities										
Brent Crude	396,266	162,249	561,284	454,585	163,672	115,571	136,611	125,397	81,537	
WTI Crude	314,387	117,601	411,972	307,909	100,797	199,388	270,386	134,834	192,466	217,046
Live Cattle	154,550	86,259	82,710	92,516	11,081	80,102	96,771	59,569	68,105	104,412
Aluminum (Post- MiFID II)	140,366	133,889								
Gasoline	112,149	53,116	79,450	50,091	28,391	44,226	54,637	64,383	61,288	67,205
Lean Hogs	61,753	24,739	53,957	54,535	13,444	37,193	40,840	51,329	35,913	29,108
Zinc (Post MiFID II)	55,924	36,512								
Natural Gas	39,426	193,110	-52,446	174,043	-161,686	-53,308	134,994	-89,820	-124,269	-96,119
Platinum	22,773	-4,564	-4,210	8,223	9,052	17,898	14,689	29,228	11,379	22,793
Copper (LME) (Post MiFID II)	18,092	30,508								
Cotton	14,097	16,003	102,402	76,052	51,307	11,005	43,288	25,828	6,683	40,645
Palladium	9,296	13,215	25,815	12,742	8,690	19,970	15,660	16,769	5,212	13,034
Heating Oil	4,043	2,376	81,824	33,541	-35,339	-27,087	26,602	23,945	19,644	36,104
Copper (CME)	-6,600	-20,196	99,520	72,131	-25,964	-4,455	35,635	14,988	-4,018	39,105
Silver	-17,870	8,576	-7,105	39,098	6,282	17,051	5,573	23,113	6,200	26,836
Soybean Meal	-19,429	-614	31,257	19,537	-40,843	54,132	57,931	41,489	-15,232	40,129
Gold	-22,328	56,949	109,919	41,247	-24,263	98,391	34,104	101,922	111,919	169,987
Sugar	-29,666	-39,372	-73,056	138,442	165,810	-66,824	-25,626	19,000	43,792	141,534
Soybean Oil	-50,637	-51,502	3,406	85,522	60,895	35,047	-46,649	-42,424	-2,103	56,961
HRW Wheat	-53,673	2,435	-34,422	9,085	-14,975	24,999	8,022	23,619	9,128	49,108
Wheat	-67,992	-17,004	-145,735	-108,927	-83,120	20,481	-71,468	-11,899	-29,252	36,542
Coffee	-78,490	-56,346	-57,846	12,706	-15,181	25,385	-8,417	-23,076	2,905	36,182
Soybeans	-129,566	-10,545	-69,091	107,075	-63,515	39,446	136,683	109,007	23,683	164,287
Corn	-322,215	97,812	-206,624	-113,648	-136,111	239,704	-94,812	140,109	148,653	396,782
Copper (LME) (Pre MiFID II)		37,448	69,045	67,384	9,065	25,215				
Aluminum (Pre- MiFID II)		163,475	160,160	145,790	71,738	118,175				
Nickel		42,230	28,458	57,232	15,372	29,631				
Zinc (Pre MiFID II)		79,906	80,377	81,039	20,140	49,726				

## Bloomberg Commodity Outlook – May 2019 Edition

Bloomberg Commodity Index (BCOM)

### Market Flows – ETF Flows (quarterly)

Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>ETFs (\$ Billion AUM)</b>										
<b>Total ETF Assets Under Management (\$ ...)</b>	130.02	135.96	141.73	120.33	86.90	101.21	110.90	195.26	171.14	166.46
<b>Precious Metals</b>	106.51	109.30	109.98	90.30	62.95	77.79	84.93	164.56	142.19	130.39
Gold	94.84	96.79	95.36	76.91	51.78	62.75	68.70	143.55	120.89	105.90
Silver	8.42	9.02	10.11	9.41	7.24	8.64	10.60	16.18	16.38	18.41
Platinum	1.70	1.92	2.39	2.26	2.22	3.32	3.46	2.48	2.49	2.83
Palladium	0.86	0.83	1.28	1.07	1.24	2.30	1.40	1.37	1.32	2.12
Precious Metals Basket	0.59	0.65	0.70	0.57	0.40	0.64	0.68	0.92	1.07	1.13
Other	0.10	0.09	0.15	0.08	0.06	0.13	0.10	0.06	0.02	
<b>Broad Commodity</b>	13.38	16.26	17.20	14.78	10.84	14.55	17.70	19.57	18.21	19.74
Energy	7.26	7.34	11.13	12.25	10.71	5.39	4.61	6.70	5.78	9.63
Industrial Metals	1.50	1.25	1.63	1.17	0.64	1.09	1.02	1.27	0.99	1.38
Agriculture	1.37	1.78	1.78	1.82	1.74	2.37	2.61	3.10	3.89	5.22
Livestock	0.01	0.03	0.01	0.02	0.02	0.03	0.03	0.06	0.08	0.10
<b>ETFs Fund Flows (\$ Billion)</b>										
<b>Total ETF Fund Flows (\$ Billion)</b>	-2.75	0.75	8.73	23.49	10.67	3.31	-40.94	19.41	1.63	16.32
Industrial Metals	0.29	-0.05	0.05	0.33	-0.14	0.18	-0.17	0.26	-0.14	0.18
Agriculture	0.01	-0.09	0.32	0.12	-0.14	-0.21	0.03	-0.84	-0.58	-0.54
Livestock	0.00	0.00	-0.03	0.01	-0.01	-0.02	-0.04	-0.05	0.03	-0.02
Precious Metals	-0.56	3.60	8.60	22.61	-3.83	-2.45	-36.86	17.69	5.93	14.94
Broad Commodity	-0.84	0.30	0.99	2.39	0.85	1.64	-0.60	0.50	-1.04	2.18
Energy	-1.65	-3.01	-1.20	-1.97	13.94	4.17	-3.30	1.85	-2.57	-0.42
<b>DELTA WEIGHTED:</b>										
<b>ETFs (\$ Billion AUM) (DW)</b>										
<b>Total ETF Assets Under Management (\$ ...)</b>	134.78	138.14	146.21	123.02	88.64	101.61	110.16	197.38	171.69	168.43
<b>Precious Metals</b>	107.57	110.51	111.21	91.00	62.94	77.80	85.03	166.20	142.69	131.34
Gold	99.86	102.01	101.00	82.54	55.90	67.72	74.56	153.96	129.87	117.13
Silver	4.46	5.01	5.74	4.50	3.10	3.67	4.83	7.40	7.90	8.10
Platinum	1.69	1.92	2.39	2.24	2.21	3.28	3.39	2.42	2.44	2.85
Palladium	0.86	0.83	1.28	1.07	1.24	2.30	1.40	1.37	1.32	2.12
Precious Metals Basket	0.62	0.68	0.73	0.61	0.43	0.70	0.75	0.99	1.14	1.15
Other	0.07	0.07	0.08	0.04	0.06	0.13	0.10	0.06	0.02	
<b>Broad Commodity</b>	13.67	16.62	17.44	14.80	10.87	14.55	17.70	19.57	18.21	19.75
Energy	10.61	7.84	13.98	14.13	12.28	5.72	3.72	7.20	5.84	10.62
Industrial Metals	1.51	1.27	1.66	1.19	0.68	1.06	0.99	1.20	0.90	1.35
Agriculture	1.41	1.87	1.91	1.90	1.85	2.46	2.69	3.16	3.96	5.27
Livestock	0.01	0.03	0.01	0.02	0.02	0.03	0.03	0.06	0.08	0.10
<b>ETFs Fund Flows (\$ Billion) (DW)</b>										
<b>Total ETF Fund Flows (\$ Billion)</b>	-3.72	-0.37	11.40	19.59	20.77	8.97	-42.11	21.45	1.50	16.50
Industrial Metals	0.29	-0.03	0.02	0.30	-0.04	0.20	-0.11	0.27	-0.16	0.13
Agriculture	0.02	-0.14	0.40	0.12	-0.10	-0.20	0.10	-0.86	-0.50	-0.59
Livestock	0.00	0.00	-0.03	0.01	-0.01	-0.02	-0.04	-0.05	0.03	-0.02
Precious Metals	-0.68	4.13	8.75	22.83	-3.35	-1.85	-36.12	18.57	5.76	14.43
Broad Commodity	-0.94	0.48	1.16	2.38	0.85	1.64	-0.60	0.50	-1.04	2.18
Energy	-2.41	-4.80	1.10	-6.05	23.41	9.20	-5.34	3.02	-2.59	0.37

# PERFORMANCE: Bloomberg Commodity Indices

## Composite Indices

\* Click hyperlinks to open in Bloomberg

Index Name	Ticker	2019									
		Apr	YTD	1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
Bloomberg Commodity ER	<a href="#">BCOM</a>	-0.63%	5.03%	-10.07%	-5.78%	-41.53%	-27.13%	-4.08%	-10.42%	-15.57%	406.82%
Bloomberg Commodity TR	<a href="#">BCOMTR</a>	-0.42%	5.88%	-8.03%	-1.97%	-39.06%	-23.71%	36.84%	114.57%	409.56%	5597.22%
Bloomberg Commodity Spot	<a href="#">BCOMSP</a>	0.05%	7.48%	-7.00%	11.60%	-21.22%	30.80%	256.02%			
Bloomberg Roll Select	<a href="#">BCOMRST</a>	-0.71%	4.95%	-9.46%	0.38%	-34.45%	-10.23%	191.21%			
1 Month Forward	<a href="#">BCOMF1T</a>	-0.55%	6.17%	-7.60%	0.22%	-35.18%	-13.32%	140.10%			
2 Month Forward	<a href="#">BCOMF2T</a>	-0.58%	6.13%	-5.04%	4.93%	-32.00%	-10.84%	191.99%			
3 Month Forward	<a href="#">BCOMF3T</a>	-0.66%	5.94%	-6.88%	3.37%	-31.54%	-8.55%	201.69%			
4 Month Forward	<a href="#">BCOMF4T</a>	-0.53%	6.08%	-6.74%	6.21%	-28.10%	-0.70%				
5 Month Forward	<a href="#">BCOMF5T</a>	-0.42%	6.24%	-6.43%	6.85%	-27.40%	-0.38%				
6 Month Forward	<a href="#">BCOMF6T</a>	-0.42%	6.17%	-5.75%	8.05%	-25.92%	1.68%				
Energy	<a href="#">BCOMENTR</a>	4.29%	20.91%	-1.23%	14.15%	-59.42%	-61.42%	-28.56%	49.61%		
Petroleum	<a href="#">BCOMPETR</a>	7.07%	34.83%	-2.79%	29.17%	-52.27%	-25.06%	150.30%			
Agriculture	<a href="#">BCOMAGTR</a>	-3.34%	-6.41%	-20.20%	-29.65%	-51.82%	-30.69%	-35.33%	-25.05%	22.46%	1414.53%
Grains	<a href="#">BCOMGRTR</a>	-3.89%	-9.44%	-22.43%	-34.28%	-56.44%	-42.04%	-46.00%	-50.76%	-33.82%	398.70%
Industrial Metals	<a href="#">BCOMINTR</a>	-3.42%	8.99%	-9.59%	24.16%	-5.69%	11.39%	145.34%			
Precious Metals	<a href="#">BCOMPRTR</a>	-0.88%	-0.86%	-4.66%	-7.05%	-9.85%	31.32%	263.92%	217.34%	305.32%	
Softs	<a href="#">BCOMSOTR</a>	-2.63%	-2.22%	-14.96%	-27.59%	-52.72%	-29.01%	-53.28%	-31.88%	54.21%	2681.78%
Livestock	<a href="#">BCOMLITR</a>	-2.33%	2.25%	11.24%	3.31%	-20.25%	-13.27%	-44.86%	-7.98%		
Ex-Energy	<a href="#">BCOMXETR</a>	-2.71%	-0.44%	-11.43%	-9.37%	-30.23%	-2.54%	39.86%			
Ex-Petroleum	<a href="#">BCOMXPET</a>	-2.95%	-1.73%	-10.38%	-10.73%	-38.22%	-28.44%				
Ex-Natural Gas	<a href="#">BCOMXNGT</a>	-0.05%	7.59%	-8.74%	-0.10%	-33.34%	-3.13%				
Ex-Agriculture	<a href="#">BCOMXAGT</a>	0.67%	11.17%	-2.76%	11.90%	-33.60%	-24.07%				
Ex-Grains	<a href="#">BCOMXGRT</a>	0.17%	8.96%	-5.13%	5.77%	-35.19%	-22.27%				
Ex-Industrial Metals	<a href="#">BCOMXIMT</a>	0.26%	5.14%	-7.85%	-7.25%	-44.68%	-31.96%				
Ex-Precious Metals	<a href="#">BCOMXPMT</a>	-0.34%	7.20%	-8.63%	-1.18%	-43.81%	-31.44%				
Ex-Softs	<a href="#">BCOMXSOT</a>	-0.27%	6.48%	-7.51%	0.00%	-38.25%	-24.43%				
Ex-Livestock	<a href="#">BCOMXLIT</a>	-0.30%	6.13%	-9.17%	-2.49%	-40.20%	-24.53%				
Ex-Agriculture & Livestock	<a href="#">BCOMXALT</a>	0.95%	12.08%	-4.06%	12.25%	-35.18%	-25.52%				
Bloomberg Dollar Spot	<a href="#">BBDXY</a>	0.10%	0.31%	4.61%	3.47%	19.01%	11.03%				
S&P 500 Total Return	<a href="#">SPXT</a>	4.05%	18.25%	13.49%	51.58%	73.32%	316.02%	223.64%	1715.94%		
US Aggregate	<a href="#">LBUSTRUU</a>	0.03%	2.97%	5.29%	5.82%	13.55%	44.07%	151.13%	488.49%	1605.41%	
US Treasury	<a href="#">LUATTRUU</a>	-0.28%	1.83%	4.77%	2.98%	10.37%	29.11%	132.82%	434.79%	1462.36%	
US Corporate	<a href="#">LUACTRUU</a>	0.54%	5.71%	6.50%	10.42%	19.24%	85.17%	194.77%	628.14%	2037.57%	
US High Yield	<a href="#">LF98TRUU</a>	1.42%	8.78%	6.74%	24.89%	26.67%	162.89%	272.91%	938.48%		

## Single Commodity Indices

Index Name	Ticker	2019									
		Apr	YTD	1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
Natural Gas	<a href="#">BCOMNGTR</a>	-5.02%	-12.57%	-5.66%	-27.92%	-79.22%	-94.93%	-99.21%			
Low Sulfur Gas Oil	<a href="#">BCOMGOT</a>	4.54%	25.42%	1.26%	52.23%	-42.87%	3.19%	404.78%			
WTI Crude	<a href="#">BCOMCLTR</a>	6.59%	38.74%	-4.42%	21.42%	-61.13%	-48.93%	54.78%	271.19%		
Brent Crude	<a href="#">BCOMCOT</a>	7.44%	34.56%	0.00%	41.69%	-52.51%	-2.73%	472.31%			
ULS Diesel	<a href="#">BCOMHOTR</a>	5.47%	25.82%	-0.49%	40.52%	-41.66%	-0.93%	249.25%	430.76%		
Unleaded Gasoline	<a href="#">BCOMRBTR</a>	11.08%	40.71%	-5.29%	13.30%	-46.36%	30.27%	392.70%	787.99%		
Corn	<a href="#">BCOMCNTR</a>	-0.49%	-6.80%	-19.25%	-34.05%	-58.81%	-48.34%	-80.47%	-84.71%	-79.59%	-33.72%
Soybeans	<a href="#">BCOMSYTR</a>	-4.61%	-6.65%	-23.22%	-26.08%	-41.37%	23.82%	202.03%	195.55%	232.37%	3508.46%
Wheat	<a href="#">BCOMWHTR</a>	-6.88%	-15.25%	-22.46%	-42.61%	-65.16%	-76.88%	-89.21%	-92.43%	-87.55%	-33.65%
Soybean Oil	<a href="#">BCOMBOTR</a>	-2.56%	-1.26%	-12.53%	-25.04%	-45.09%	-50.47%	-33.64%	-39.27%	-22.98%	2571.76%
Soybean Meal	<a href="#">BCOMSMT</a>	-3.05%	-4.79%	-25.79%	-17.52%	-25.51%	127.84%	1075.18%			
HRW Wheat	<a href="#">BCOMKWT</a>	-9.66%	-21.06%	-35.32%	-50.23%	-75.51%	-77.34%	-79.00%			
Copper	<a href="#">BCOMHGTR</a>	-1.13%	10.72%	-5.73%	22.41%	-9.09%	22.74%	329.12%	635.40%		
Aluminium	<a href="#">BCOMALTR</a>	-6.57%	-3.59%	-20.09%	4.41%	-11.39%	-22.70%	-19.31%			
Zinc	<a href="#">BCOMZSTR</a>	-2.41%	17.68%	-2.33%	57.78%	42.77%	62.46%	91.79%			
Nickel	<a href="#">BCOMNITR</a>	-6.02%	14.14%	-10.76%	25.76%	-37.25%	-7.64%	283.31%			
Gold	<a href="#">BCOMGCTR</a>	-0.77%	0.13%	-3.16%	-2.81%	-3.87%	35.31%	302.75%	229.07%	371.41%	
Silver	<a href="#">BCOMSITR</a>	-1.22%	-3.98%	-9.50%	-19.19%	-26.78%	8.83%	137.57%	118.12%	36.19%	
Sugar	<a href="#">BCOMSBTR</a>	-2.33%	3.33%	-1.91%	-33.98%	-54.91%	-42.77%	35.73%	46.23%	-43.24%	129.12%
Coffee	<a href="#">BCOMKCTR</a>	-3.81%	-12.90%	-32.30%	-42.84%	-72.35%	-66.73%	-92.04%	-89.55%	-69.90%	
Cotton	<a href="#">BCOMCTTR</a>	-1.47%	4.68%	-8.69%	19.79%	-10.52%	75.81%	-66.35%	-28.13%	258.54%	1271.40%
Live Cattle	<a href="#">BCOMLCTR</a>	-3.79%	-1.51%	8.87%	12.89%	-0.13%	6.64%	10.07%	103.58%	650.79%	3821.24%
Lean Hogs	<a href="#">BCOMLHTR</a>	-0.15%	6.68%	11.83%	-12.69%	-47.27%	-41.83%	-82.80%	-79.68%		

## PERFORMANCE: Bloomberg Commodity Roll Select Indices

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

Index Name	Ticker	2019		1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
		Apr	YTD								
BCOM Roll Select	<a href="#">BCOMRST</a>	-0.71%	4.95%	-9.46%	0.38%	-34.45%	-10.23%	191.21%			
Roll Select Agriculture	<a href="#">BCOMRAGT</a>	-3.54%	-6.70%	-19.16%	-25.50%	-48.90%	-21.00%	20.72%			
Roll Select Ex-Ags & Livestock	<a href="#">BBURXALT</a>	0.41%	10.55%	-6.39%	14.52%	-29.05%	-10.45%				
Roll Select Grains	<a href="#">BCOMRGRT</a>	-4.16%	-9.32%	-21.16%	-29.40%	-53.81%	-35.17%	6.22%			
Roll Select Softs	<a href="#">BCOMRSOT</a>	-2.72%	-3.61%	-15.46%	-27.58%	-51.82%	-15.88%	-14.87%			
Roll Select Livestock	<a href="#">BCOMRLIT</a>	0.00%	5.98%	6.18%	-7.60%	-24.03%	-4.59%	65.34%			
Roll Select Energy	<a href="#">BCOMRENT</a>	3.19%	17.69%	-5.07%	19.32%	-49.91%	-43.23%	186.77%			
Roll Select Ex-Energy	<a href="#">BCOMRXET</a>	-2.58%	-0.41%	-11.68%	-7.99%	-28.54%	5.55%	136.99%			
Roll Select Petroleum	<a href="#">BCOMRPET</a>	5.84%	29.94%	-3.78%	36.48%	-42.36%	-0.56%	602.27%			
Roll Select Industrial Metals	<a href="#">BCOMRINT</a>	-3.36%	8.78%	-10.72%	24.15%	-5.18%	17.64%	263.31%			
Roll Select Precious Metals	<a href="#">BCOMRPRT</a>	-0.90%	-0.91%	-4.77%	-6.85%	-9.45%	32.48%	278.98%			

## Single Commodity Roll Select Indices

Index Name	Ticker	2019		1-Year	3-Year	5-Year	10-Year	20-Year	30-Year	40-Year	50-Year
		Apr	YTD								
Natural Gas RS	<a href="#">BCOMRNGT</a>	-5.38%	-12.14%	-12.67%	-23.88%	-70.70%	-88.04%	-86.58%			
Low Sulfur Gas Oil RS	<a href="#">BCOMRGOT</a>	4.55%	25.42%	2.05%	49.02%	-39.19%	3.07%	423.10%			
WTI Crude RS	<a href="#">BCOMRCLT</a>	5.24%	32.94%	-4.31%	32.81%	-46.19%	-13.60%	598.68%			
Brent Crude RS	<a href="#">BCOMRCOT</a>	6.38%	28.87%	-2.93%	43.04%	-43.62%	5.97%	785.12%			
ULS Diesel RS	<a href="#">BCOMRHOT</a>	5.47%	25.82%	-1.40%	37.37%	-41.59%	-5.66%	446.89%			
Unleaded Gasoline RS	<a href="#">BCOMRRBT</a>	7.85%	32.36%	-4.96%	32.29%	-33.34%	50.87%	676.64%			
Corn RS	<a href="#">BCOMRCNT</a>	-1.20%	-5.31%	-15.92%	-28.24%	-55.18%	-42.02%	-61.72%			
Soybeans RS	<a href="#">BCOMRSYT</a>	-4.61%	-6.33%	-20.07%	-13.89%	-32.01%	47.08%	356.33%			
Wheat RS	<a href="#">BCOMRWHT</a>	-7.30%	-17.34%	-26.61%	-46.59%	-68.64%	-75.11%	-64.41%			
Soybean Oil RS	<a href="#">BCOMRBOT</a>	-2.60%	-1.24%	-13.17%	-25.15%	-43.32%	-44.71%	-2.78%			
Soybean Meal RS	<a href="#">BCOMRSMT</a>	-3.20%	-4.74%	-21.44%	-6.63%	-17.18%	162.09%	1510.00%			
HRW Wheat RS	<a href="#">BCOMRKWT</a>	-9.66%	-22.65%	-35.87%	-48.92%	-74.47%	-74.97%	-49.76%			
Copper RS	<a href="#">BCOMRHGT</a>	-0.98%	10.81%	-6.69%	23.59%	-8.72%	29.24%	508.39%			
Aluminium RS	<a href="#">BCOMRALT</a>	-6.25%	-3.44%	-20.80%	3.47%	-11.01%	-18.10%	20.71%			
Zinc RS	<a href="#">BCOMRZST</a>	-2.77%	16.55%	-5.75%	55.78%	41.72%	71.12%	198.29%			
Nickel RS	<a href="#">BCOMRNIT</a>	-6.08%	13.90%	-10.67%	26.08%	-35.83%	-1.66%	511.50%			
Gold RS	<a href="#">BCOMRGCT</a>	-0.77%	0.09%	-3.22%	-2.51%	-3.43%	36.03%	307.99%			
Silver RS	<a href="#">BCOMRSIT</a>	-1.30%	-4.04%	-9.73%	-19.14%	-26.36%	11.29%	167.61%			
Sugar RS	<a href="#">BCOMRSBT</a>	-2.24%	0.91%	-6.00%	-36.85%	-55.08%	-33.27%	188.73%			
Coffee RS	<a href="#">BCOMRKCT</a>	-4.30%	-13.19%	-31.86%	-42.34%	-70.93%	-62.42%	-86.78%			
Cotton RS	<a href="#">BCOMRCTT</a>	-1.20%	4.18%	-4.63%	24.73%	-8.29%	119.44%	-41.70%			
Live Cattle RS	<a href="#">BCOMRLCT</a>	-3.79%	-1.63%	5.33%	7.10%	-6.60%	12.64%	88.94%			
Lean Hogs RS	<a href="#">BCOMRLHT</a>	6.19%	20.09%	4.73%	-27.80%	-48.22%	-31.90%	6.55%			

## BCOM Constituent Weights

[BCOM Index MEMB <GO>](#)

\* Click hyperlinks to open in Bloomberg

Group	Commodity	Ticker	Apr 2019 Contrib to Return %	Apr 30 2019 Weight %	Mar 29 2019 Weight %	Apr 2019 Weight% Change	2019 Target Weight
Energy	Natural Gas	<a href="#">NG</a>	-0.39	7.24	7.36	↓ (0.13)	8.26%
	Low Sulfur Gas Oil	<a href="#">QS</a>	0.12	2.94	2.80	↑ 0.14	2.62%
	WTI Crude	<a href="#">CL</a>	0.56	9.56	8.99	↑ 0.57	7.66%
	Brent Crude	<a href="#">CO</a>	0.58	8.79	8.21	↑ 0.59	7.34%
	ULS Diesel	<a href="#">HO</a>	0.12	2.42	2.29	↑ 0.13	2.16%
	Gasoline	<a href="#">XB</a>	0.32	3.28	3.04	↑ 0.24	2.29%
	<b>Subtotal</b>			<b>1.31</b>	<b>34.23</b>	<b>32.69</b>	<b>↑ 1.54</b>
Grains	Corn	<a href="#">C</a>	-0.04	5.32	5.24	↑ 0.09	5.89%
	Soybeans	<a href="#">S</a>	-0.27	5.30	5.50	↓ (0.19)	6.03%
	Wheat	<a href="#">W</a>	-0.19	2.48	2.65	↓ (0.17)	3.14%
	Soybean Oil	<a href="#">BO</a>	-0.08	2.89	2.94	↓ (0.05)	3.10%
	Soybean Meal	<a href="#">SM</a>	-0.10	3.06	3.12	↓ (0.07)	3.44%
	HRW Wheat	<a href="#">KW</a>	-0.10	0.97	1.05	↓ (0.09)	1.29%
	<b>Subtotal</b>			<b>-0.77</b>	<b>20.03</b>	<b>20.51</b>	<b>↓ (0.48)</b>
Industrial Metals	Copper	<a href="#">HG</a>	-0.10	7.68	7.77	↓ (0.09)	7.32%
	Aluminum	<a href="#">LA</a>	-0.29	4.00	4.24	↓ (0.24)	4.41%
	Zinc	<a href="#">LX</a>	-0.09	3.47	3.60	↓ (0.14)	3.21%
	Nickel	<a href="#">LN</a>	-0.18	2.83	3.00	↓ (0.18)	2.71%
	<b>Subtotal</b>			<b>-0.66</b>	<b>17.97</b>	<b>18.62</b>	<b>↓ (0.65)</b>
Precious Metals	Gold	<a href="#">GC</a>	-0.11	11.63	11.75	↓ (0.12)	12.24%
	Silver	<a href="#">SI</a>	-0.05	3.52	3.55	↓ (0.03)	3.89%
	<b>Subtotal</b>			<b>-0.16</b>	<b>15.15</b>	<b>15.30</b>	<b>↓ (0.15)</b>
Softs	Sugar	<a href="#">SB</a>	-0.08	2.93	2.97	↓ (0.05)	3.15%
	Coffee	<a href="#">KC</a>	-0.09	2.14	2.17	↓ (0.03)	2.48%
	Cotton	<a href="#">CT</a>	-0.02	1.43	1.44	↓ (0.02)	1.42%
	<b>Subtotal</b>			<b>-0.19</b>	<b>6.49</b>	<b>6.59</b>	<b>↓ (0.09)</b>
Livestock	Live Cattle	<a href="#">LC</a>	-0.15	3.61	3.77	↓ (0.15)	4.09%
	Lean Hogs	<a href="#">LH</a>	-0.01	2.51	2.52	↓ (0.01)	1.85%
	<b>Subtotal</b>			<b>-0.16</b>	<b>6.13</b>	<b>6.29</b>	<b>↓ (0.16)</b>
<b>Total</b>			<b>-0.63</b>	<b>100.00</b>	<b>100.00</b>		<b>100.00%</b>

# BLOOMBERG INTELLIGENCE: COMMODITY DASHBOARDS

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

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

## Crude Oil Production: BI OILS <GO>

View	12 Ann	Growth	None	2015	2014	2013	2012	2011
<b>IEA World Crude Oil Demand and Supply</b>								
Demand (**BPD)								
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	18.3	18.7	18.4	18.6
Europe				6.0	6.1	6.3	6.5	6.2
Non-OECD				47.9	46.9	45.7	44.6	43.1
Asia				47.7	46.9	45.7	44.8	43.5
Europe				0.7	0.7	0.7	0.7	0.7
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	6.1	7.0	7.8	7.5
Africa				4.1	3.9	3.8	3.8	3.6
<b>Total World Crude Oil Demand</b>				<b>93.5</b>	<b>92.5</b>	<b>91.8</b>	<b>90.6</b>	<b>89.5</b>

## Natural Gas Production: BI NGAS <GO>

	Current	Prev Week	1 Week % Chg	1 Week % Chg	Prev Year
<b>Natural Gas Inventories</b>					
US Working Storage (BCF)					
East	559.00	581.00	-22.00	-3.79	356.00
West	244.00	239.00	4.00	1.70	164.00
Producing	576.00	548.00	28.00	5.11	376.00
<b>Total</b>	<b>1,479.00</b>	<b>1,467.00</b>	<b>12.00</b>	<b>0.82</b>	<b>896.00</b>
Net Injections/Withdrawals					
Consensus (Bloomberg Survey)	1,474.00	1,463.00	11.00	0.75	901.00
Demand 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
<b>Total</b>	<b>269.29</b>	<b>269.28</b>	<b>-0.99</b>	<b>-0.37</b>	<b>136.46</b>

## Precious Metal Mining: BI PMET <GO>

Key Indicators	Latest
Avg Gold Spot Price	1,220
Known ETF Gold Hold	52,128
IMF Global Gold Reser	1,036
Sales Growth (YoY)	-8.90
EBITDA Margin (%)	70.89
T12M Sales Growth (%)	83
Return on Equity (%)	2.91
Est P/E Current Yr	61.79
Price/Book	1.84

## Agricultural Chemicals: BI AGCH <GO>

Key Indicators	Latest
Agricultural Price Ind	1.25
U.S. Farm Net Cash In	0.40
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>

Key Indicators	Latest
China GDP YoY (%)	7.30
YTD Copper Surplus/	-201.15k
Major Exch Copper Inv	599.9%
Sales Growth (YoY)	-1.59
EBITDA Margin (%)	26.52
T12M Sales Growth (%)	-2.59
Return on Equity (%)	2.71
Est P/E Current Yr	17.46
Price/Book	1.09

## Aluminum: BI ALUM <GO>

Key Indicators	Latest
China Industrial Prod	7.60
Global Primary Alumi	4.28%
Global Primary Alumi	4.17%
Sales Growth (YoY)	2.18
EBITDA Margin (%)	8.70
T12M Sales Growth (%)	1.46
Return on Equity (%)	4.95
Est P/E Current Yr	15.05
Price/Book	1.38

## COMMODITY CHEAT SHEET FOR THE BLOOMBERG PROFESSIONAL® SERVICE

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

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Global commodity prices	<a href="#">GLCO</a>
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Calendar of commodity events	<a href="#">ECO17</a>
Commodity arbitrage calculator	<a href="#">CARC</a>
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Commodity futures overview	<a href="#">CMBQ</a>
Security finder	<a href="#">SECF</a>
Commodity data contributors & broker	<a href="#">CDAT</a>
Contract table menu	<a href="#">CTM</a>
Seasonality chart	<a href="#">SEAG</a>
Commodity curve analysis	<a href="#">CCRV</a>
Commodity fair values	<a href="#">CFVL</a>
Commodity price forecasts	<a href="#">CPFC</a>
Commitments of Traders Report	<a href="#">COT</a>
Commodity maps	<a href="#">BMAP</a>
Commodity options monitor	<a href="#">OMON</a>
Commodities charts	<a href="#">COSY</a>
Commodity Investors menu	<a href="#">CMNV</a>
US exchange traded product fund flows	<a href="#">ETF</a>

### Commodity Indices

Index description	<a href="#">BCOM Index DES</a>
Index constituent weights	<a href="#">BCOM Index MEMB</a>
Listed index futures	<a href="#">BCOM Index CT</a>
Option volatility surface	<a href="#">BCOM Index OVDV</a>
Seasonality chart	<a href="#">BCOMNG Index SEAG</a>
Commodity index futures movers	<a href="#">FMV</a>
Commodity index ranked returns	<a href="#">CRR</a>

### Weather

Global weather database	<a href="#">WETR</a>
US snow monitor	<a href="#">SNOW</a>
EU weather & utility models	<a href="#">EUMM</a>

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

### Metals

Top metal news	<a href="#">METT</a>
Precious metal dashboard	<a href="#">BI PMETG</a>
Base metals dashboard	<a href="#">BI BMET</a>
Metals prices and data	<a href="#">MINE</a>
Precious metals prices and rates	<a href="#">MTL</a>
Metals Bulletin	<a href="#">MB</a>
COMEX inventories	<a href="#">COMX</a>
LME monitor	<a href="#">LME</a>
LME implied volatilities	<a href="#">LMIV</a>
LME warehouse inventories	<a href="#">LMEI</a>

### Agriculture

Top agriculture news	<a href="#">YTOP</a>
Agriculture calendar	<a href="#">AGRI</a>
Agriculture spot prices	<a href="#">AGGP</a>
Agriculture supply & demand	<a href="#">AGSD</a>
Crop calendar	<a href="#">CCAL</a>

## 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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