

Global Macro Overview Q4/2017

The Quarterly

Bloomberg

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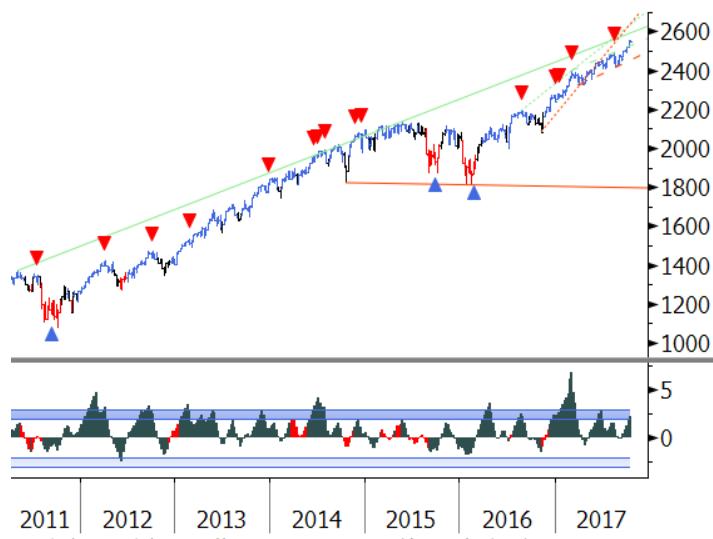
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Equity

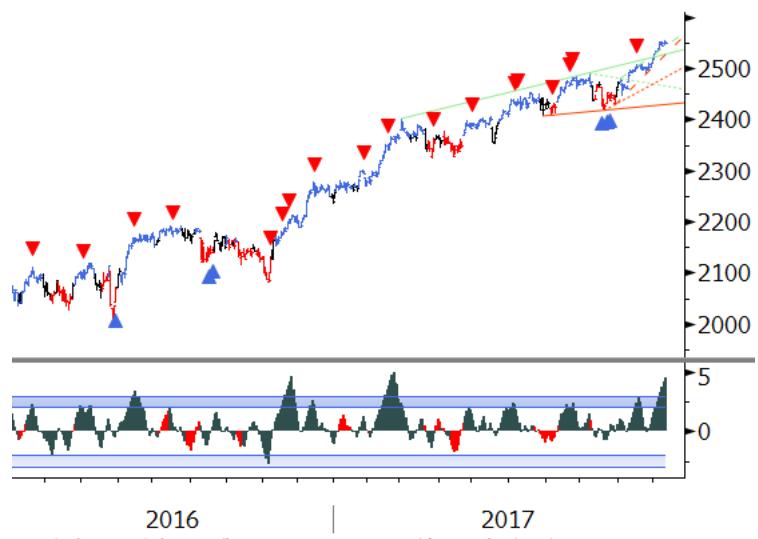
SPX W



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S&P 500 continues to surge higher to consecutive all-time highs. Recent Volstall marked a brief pause in the ascent but TEMA has remained bullish for the duration of the year.

SPX D



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Since the pullback in August that was punctuated by three Volstall signals the S&P has surged higher. TEMA is bullish and the Fisher is surging higher in unison with the price action.

SXXP W



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The STOXX Europe 600 has been more volatile than the S&P 500, giving multiple negative TEMA signals over the past two years. The recent pullback found support at the ascending trendline. TEMA is now bullish but the bearish trendline may provide some near term resistance.

SXXP D



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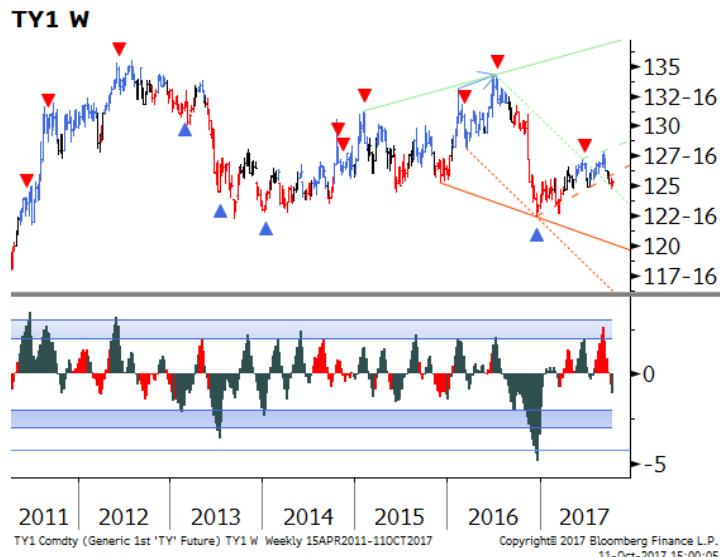
The daily chart of the STOXX Europe 600 has trended sharply higher since early September. The Fisher which peaked at an impressive 4.51 is now diverging with the advancing prices. The tight recent range looks continuation in nature.

Note: Blue/red signals are created by the Volstall indicator, and painted bars are from the triple moving average crossover. The lower panel displays the Fisher Transform with Squeeze. The trendlines have been automatically generated using the Automated Bloomberg Trendlines (ABT) study. Contact Maurizio Pietrini to be enabled. For more information see [Appendix](#).

By Oliver Woolf, CAIA, CMT, FRM, Eoghan Leahy, CAIA, CMT, MSTA, and Maurizio Pietrini, MSTA technical analysis specialists at Bloomberg LP. They can be reached at olwoolf@bloomberg.net, eleahy6@bloomberg.net and mpietrini1@bloomberg.net

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Rates



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The US 10 year which performed well over the summer months has now dropped sharply. TEMA is now bearish and the Fisher Transform is now in negative territory. The uptrend support trendline has also been broken.



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The daily chart of TY1 shows more clearly the sharp move lower in recent weeks that followed the firing of a volatility squeeze signal. The recent Volstall signal and bullish divergence on the Fisher Transform suggest downside momentum is waning.



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The Bund is has been consolidating sideways in a clear range since late 2016 failing to register a Fisher T. signal greater than +/-2 for the duration of 2017. TEMA has turned negative once more but range support still not broken.



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The daily chart of RX1 shows the choppy volatile range bound price action over the past two years. However in recent weeks the volatility has dropped sharply forming a Squeeze setup. This suggests a calm before a storm but does not give an indication of what direction the next sharp move will follow.

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FX

EUR W



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The Euro has surged higher since the turn of the year following several years of weakness. TEMA is bullish however a recent Volstall signal and sharp drop in the Fisher T. suggest momentum is weakening.

EUR D



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The daily Euro chart saw two Volstall signals mark the recent highs before a break of the uptrend support saw a sharp drop. Another Volstall market the low. TEMA now neutral. Potential right shoulder of a H&S pattern forming. Too early to draw significant conclusions.

GBP W



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Sterling continues to chop higher in a volatile uptrend. Recent weekly Volstall market the high. The sharp pullback found support at the uptrend and thus far TEMA remains bullish.

GBP D

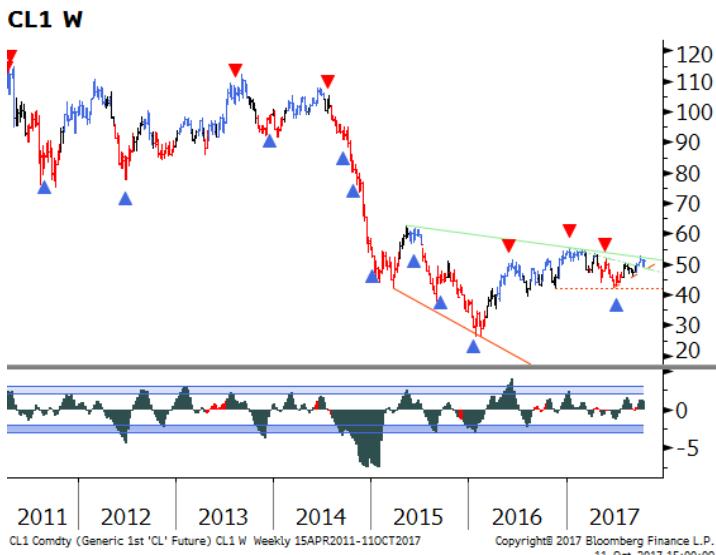


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Taking a closer look at the daily chart of Cable we can see that TEMA has turned negative as has the Fisher transform. Recent bounce looks counter trend. Downside risk prevails.

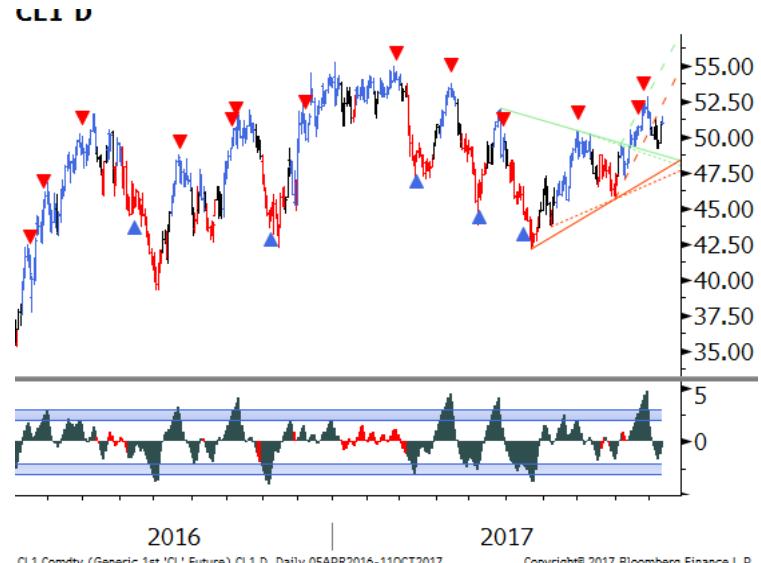
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Commodities



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Crude continues to trade in a sideways range oscillating around the 50 dollar level. TEMA is bullish but a break to new 52-week highs is needed before one can begin to get excited about significant upside.



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The daily chart looks like an advertisement for the Volstall study which has done an amazing job at marking turning points. Recent signal combined with sharp mean reversion in Fisher T. saw prices drop back into the 42-55 dollar range.



[Click for Best Performing HG1 Weekly Strategies](#)

Copper continues to drive higher since turning bullish in Q316. It has surged higher since the Squeeze signal fired in late July. Recent weekly Volstall market a high. Pullback was short lived as TEMA Remains bullish.



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Looking more closely at the daily chart and we can see that TEMA is bullish once more following a Squeeze signal firing on the 9th of October. A retest of the 52-week highs looks likely.

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Precious Metals



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Volstall continues to call turning points well with the recent signal in September marking a turning point. The recent pullback has turned the weekly TEMA neutral while the Fisher Transform has turned negative.



[Click for Best Performing XAG Weekly Strategies](#)

The weekly chart of Silver has been grinding sideways for almost two years now. TEMA is neutral and the Fisher T. is just below zero. No significant read-through at present.



[Click for Best Performing SPX Weekly Strategies](#)

Gold has bounced higher over the past week following a Volstall signal and bullish Fisher T. momentum divergence. TEMA is neutral once more. Long term uptrend from December '06 lows still intact.



[Click for Best Performing XAG Daily Strategies](#)

The daily chart of silver shows a very erratic volatile churn sideways. Volstall doing a good job of calling the turns. It market the recent high in September and gave several exhaustion signals early this month before the market bounced higher. TEMA neutral. Hard market to call at present.

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Implied Volatility

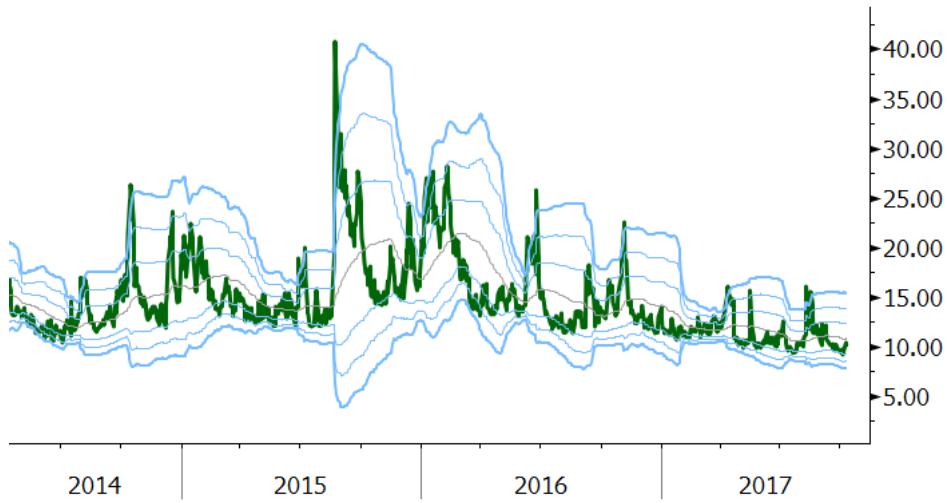
[Launch Chart](#)

The story of Q3 volatility was the equity selloff in August. The VIX spiked from 9 to 16, above its +3SD band.

The equity market recovered as the U.S. Dollar bottomed and volatility reset towards the 9-10 level.

The 60 period moving average is currently at 10.83 and moving sideways.

VIX INDEX D

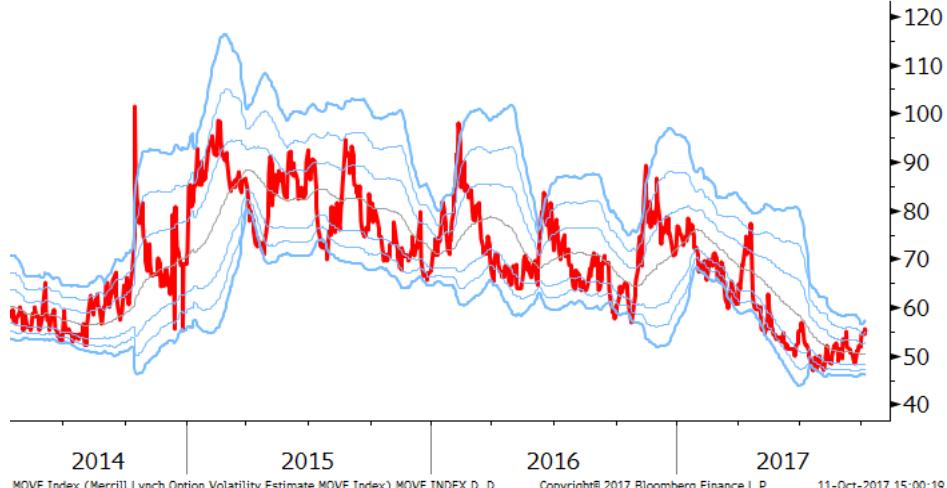


[Launch Chart](#)

Treasuries moved higher for most of Q3 until the U.S. Dollar bottomed.

Implied volatility has been directionless as the 60 period moving average is moving sideways.

MOVE INDEX D

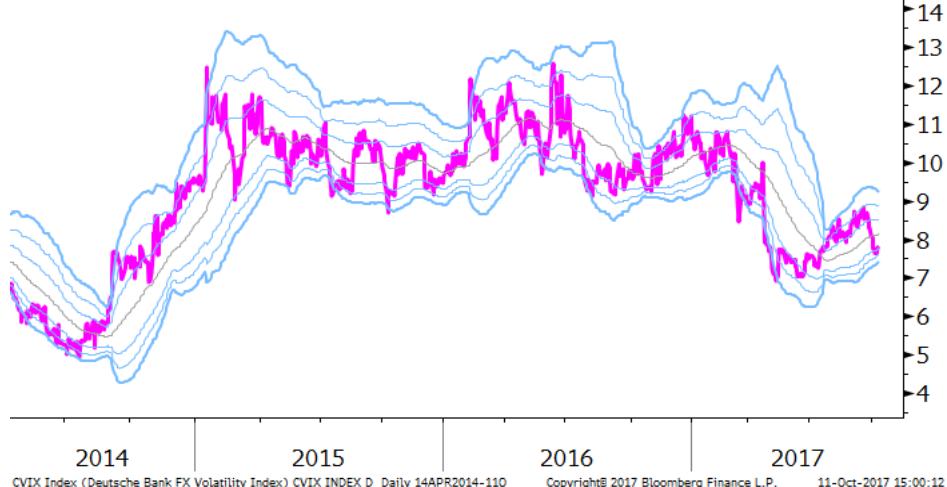


[Launch Chart](#)

Q3 was friendly to FX traders who were long volatility, as the U.S. Dollar continued its multi-month slide.

That was until the U.S. Dollar bottomed on Sept 8th and CVIX peaked 11 days later at its highest level since April.

CVIX INDEX D



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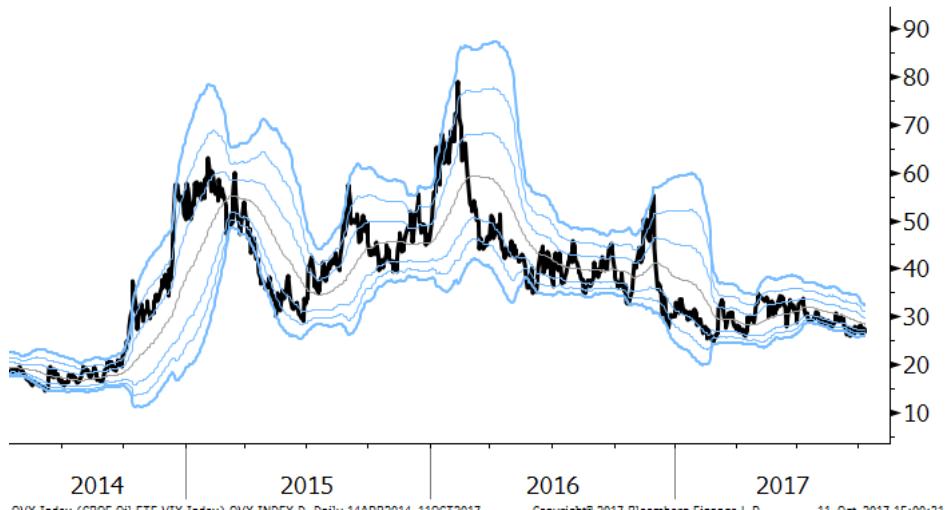
Implied Volatility

[Launch Chart](#)

WTI Crude Oil bottomed at the end of June and rallied during Q3, while implied volatility declined.

The 60 period moving average of volatility is sloping lower and the bands are contracting.

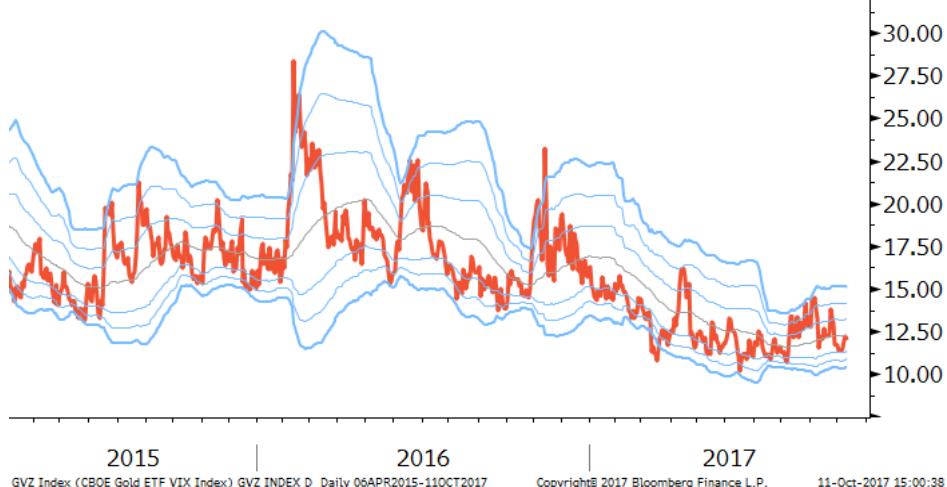
OVX INDEX D



[Launch Chart](#)

Gold bottomed in the beginning of Q3 and made a swing high in early September as the U.S. Dollar bottomed. Implied volatility is trending slightly higher and is currently between its -1 and +1 SD band.

GVZ INDEX D



[Launch Chart](#)

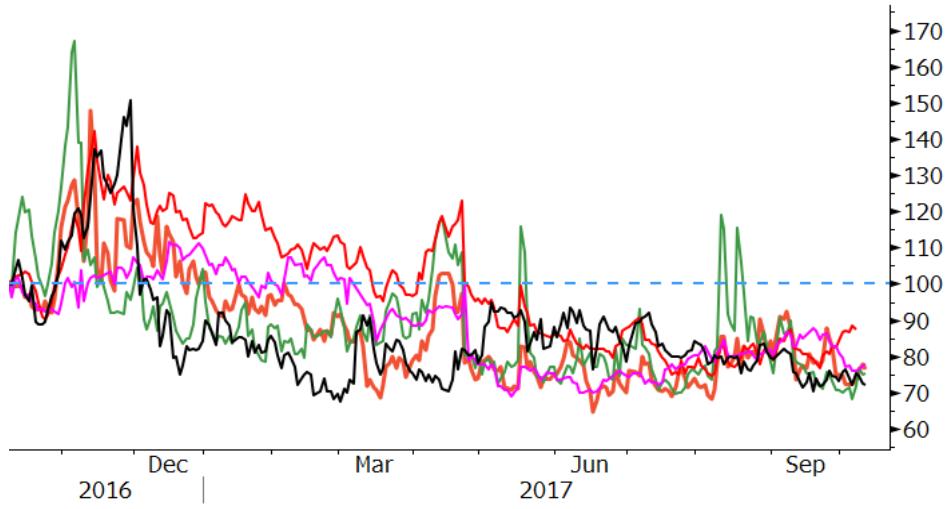
If you successfully timed the U.S. Dollar (no easy task!), you made money in Q3.

The early September bottoming of the U.S. Dollar's downtrend turned yields higher, which in turn hit bonds. Commodities like oil and gold liked the weak dollar and turned tail when dollar bears weakened.

Equities, after an August correction, pulled ahead and never looked back.

Overall, classic intermarket analysis and coincident implied volatility followed suit.

INTERMARKET VOLATILITY



Global Equity

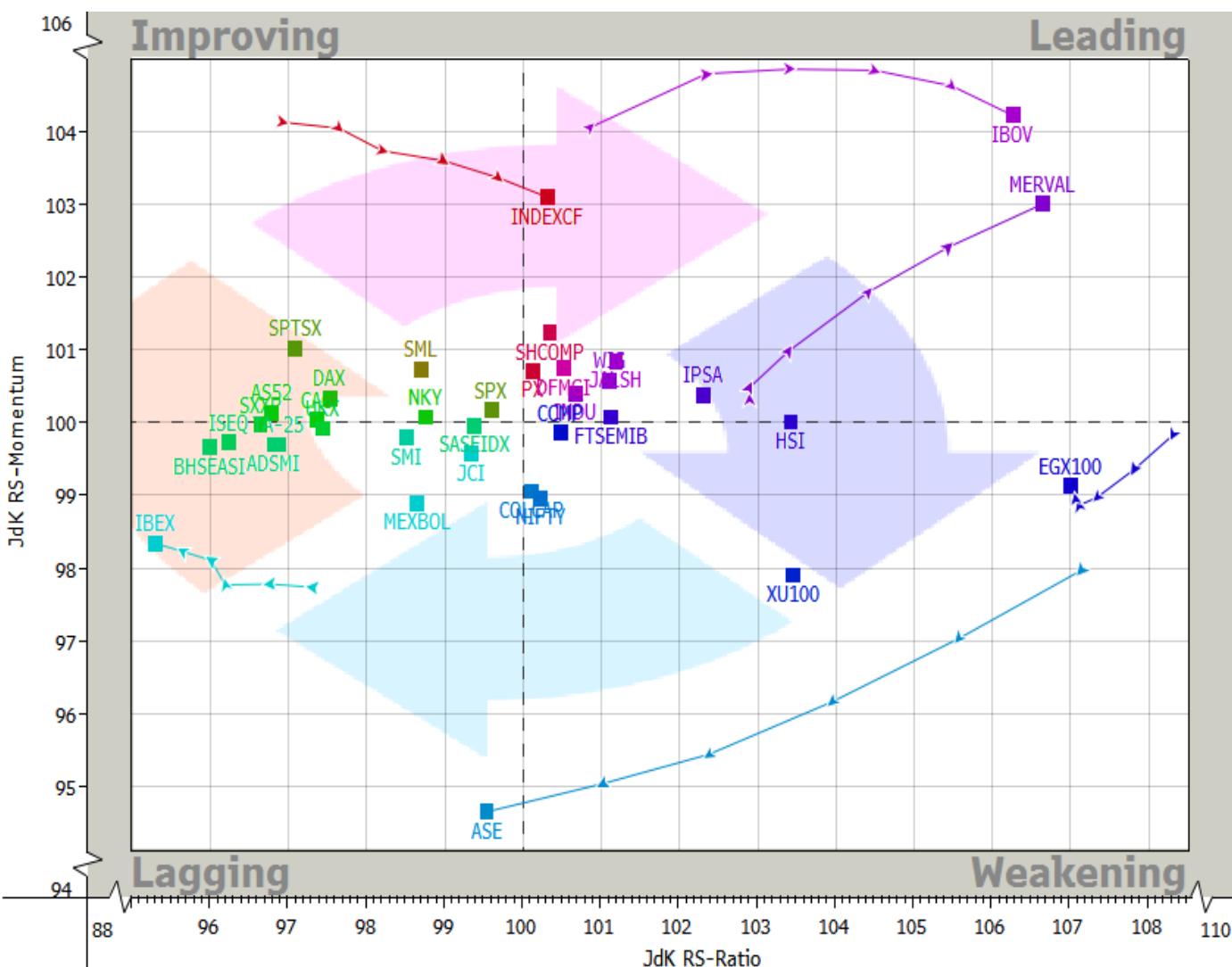
Relative Rotations of Global Equity Markets

[Click to Launch the Relative Rotation Graph](#)

Below is an analysis of Global Equity Indices versus the MSCI World Index using a Relative Rotation Graph (RRG) which can be found on the terminal by typing RRG <GO>. This function analyses the relative price performance and momentum versus a benchmark.

The majority of indices over the past quarter have performed closely in line and are clustering around the middle of the visualization suggesting a high level of correlation between major market indices.

The top right hand quadrant shows the global markets that are outperforming both in terms of relative price and momentum, here we see Brazil and Argentina leading the way with Russia joining the party. Egypt is beginning to show signs of weakness in the past few weeks having been the leading market over the test period. Meanwhile we can see significant relative weakness in both Greece and Spain who are the most notable laggards.



Note: The copyright on the visual format and all the components of Relative Rotation Graphs™, all its components and all information relating thereto are owned by RRG Research. RRG™, Relative Rotation Graphs™, JdK RS-Ratio™, JdK RS-Momentum™ are TradeMarks registered by RRG Research. For more information on relative rotation graphs, see <http://www.relativerotationgraphs.com>.

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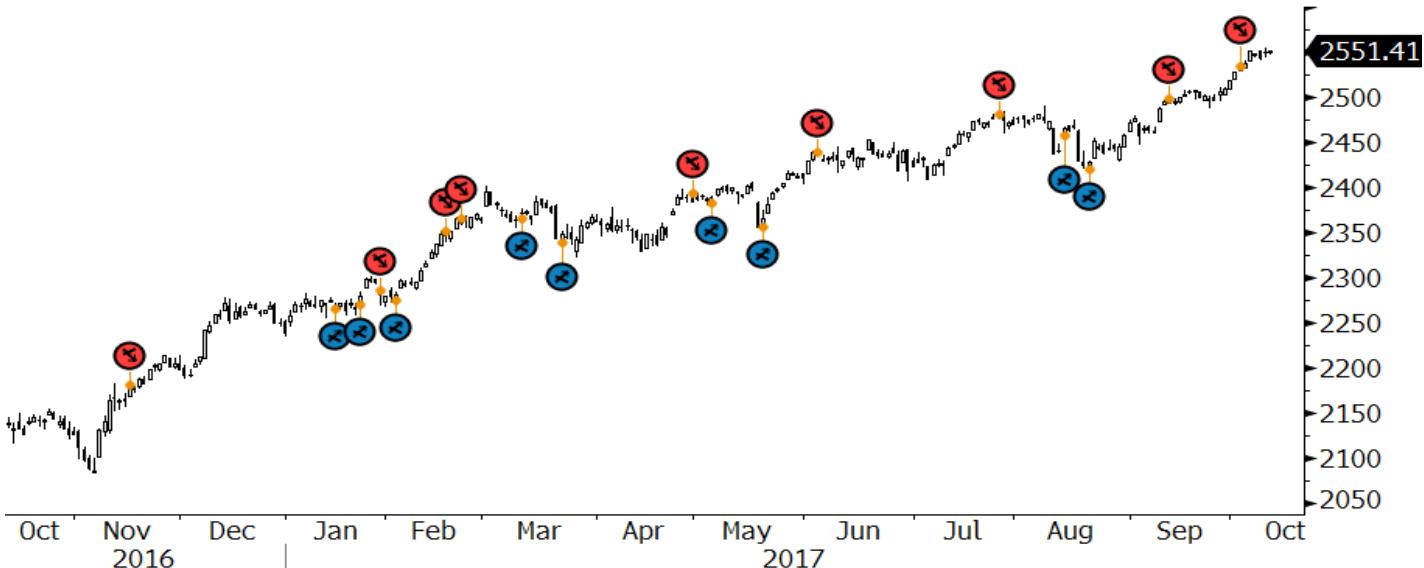
Global Market Breadth

The RSI Breadth Entry Trigger (rsiBET)

[Click to View Market Breadth](#)

Last quarter we introduced the RSI Breadth Entry Trigger (rsiBET) which is a market breadth study that endeavours to identify market sell offs in global equity indices. It analyses the percentage of stocks within an index that are registering an RSI reading below 30 on a daily timeframe and generates signals when a two sigma move occurs. This quarter we have programmed the inverse signal so that we can now identify overbought markets where the percentage of stocks with RSI readings above 70 is two standard deviations from a 20 day average.

rsiBET - OB/OS Signals - S&P 500 D



Using the screening tool available on the Trading Signals page ([TSIG <GO>](#)), it is possible to identify which global markets have registered rsiBET overbought and oversold signals over the past ten trading days.

The bullish (bearish) signals are generated when the percentage of stocks with RSI readings above 70 (below 30) spikes above two standard deviations from a 20 day average, then crosses back inside the two standard deviation bound.

Waiting for the reading to move back inside the two standard deviation level threshold helps protect against entering positions too soon.

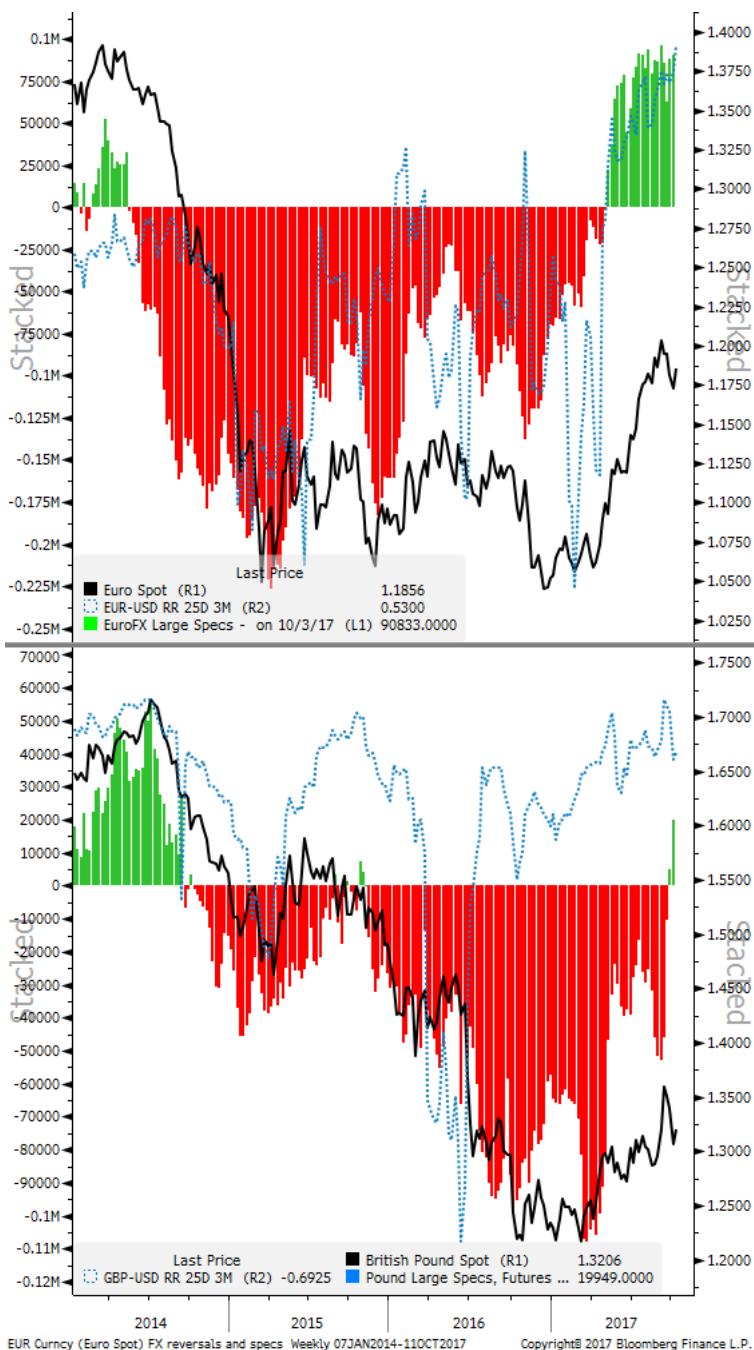
The bearish signals (red) are interesting but must be treated with caution. Visual analysis suggests the bearish signals are less reliable and appear much earlier than the bullish signals (blue). The reason for this is that market participants tend to take profits at different times but panic together.

Interestingly the Dow has just registered a bearish warning signal while the Nasdaq and S&P 500 did so last week.

October 2017											
Security	↑	#	11	10	09	08	06	05	04	03	02
31) ASE Index	2										
32) BHSEASI Index	2										
33) CAC Index	1										
34) CCMP Index	1										
35) DAX Index	1										
36) DFMGI Index	1										
37) EGX100 Index	2										
38) FTSEMIB Index	1										
39) IBEX Index	1										
40) INDU Index	1										
41) IPSA Index	2										
42) JALSH Index	1										
43) KSE100 Index	2										
44) Merval Index	1										
45) PX Index	1										
46) SMI Index	1										
47) SML Index	1										
48) SPX Index	1										
49) SXOP Index	1										
50) TA-25 Index	1										
51) UKX Index	2										
52) WIG Index	1										

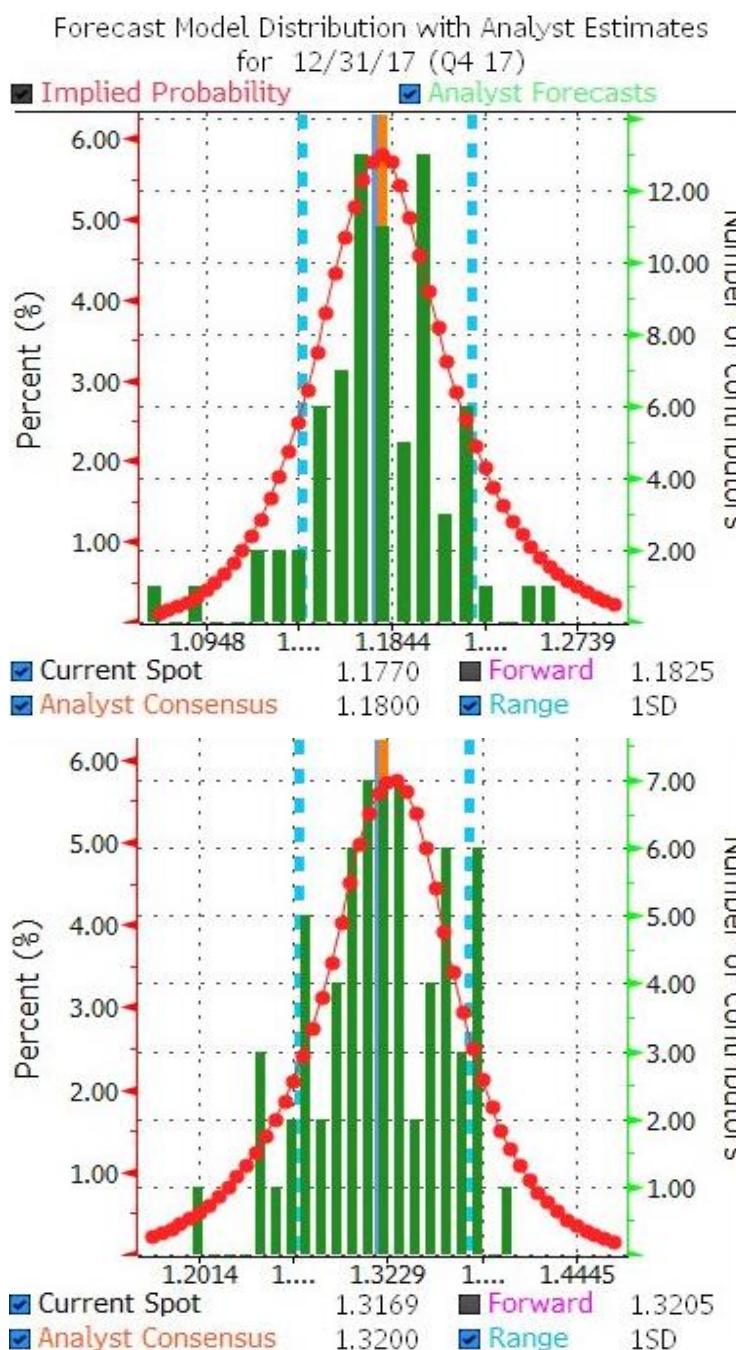
FX

Sentiment: Positioning, Implied Volatility, Implied Probability & Forecasts



Launch Chart

Despite a recent drop in the Euro the 3M 25D risk reversal has been climbing. The Euro net large speculator position is at its most positive since mid 2007. The Sterling net large speculator position has just become positive for the first time since 2014.



Launch the FX Rate Forecast Model

The end Q4 analyst consensus targets for both Euro and Sterling are marginally above their current spot levels. There is a slight skew on the right tail of the Euro implied probability curve suggesting speculative bets to the upside.

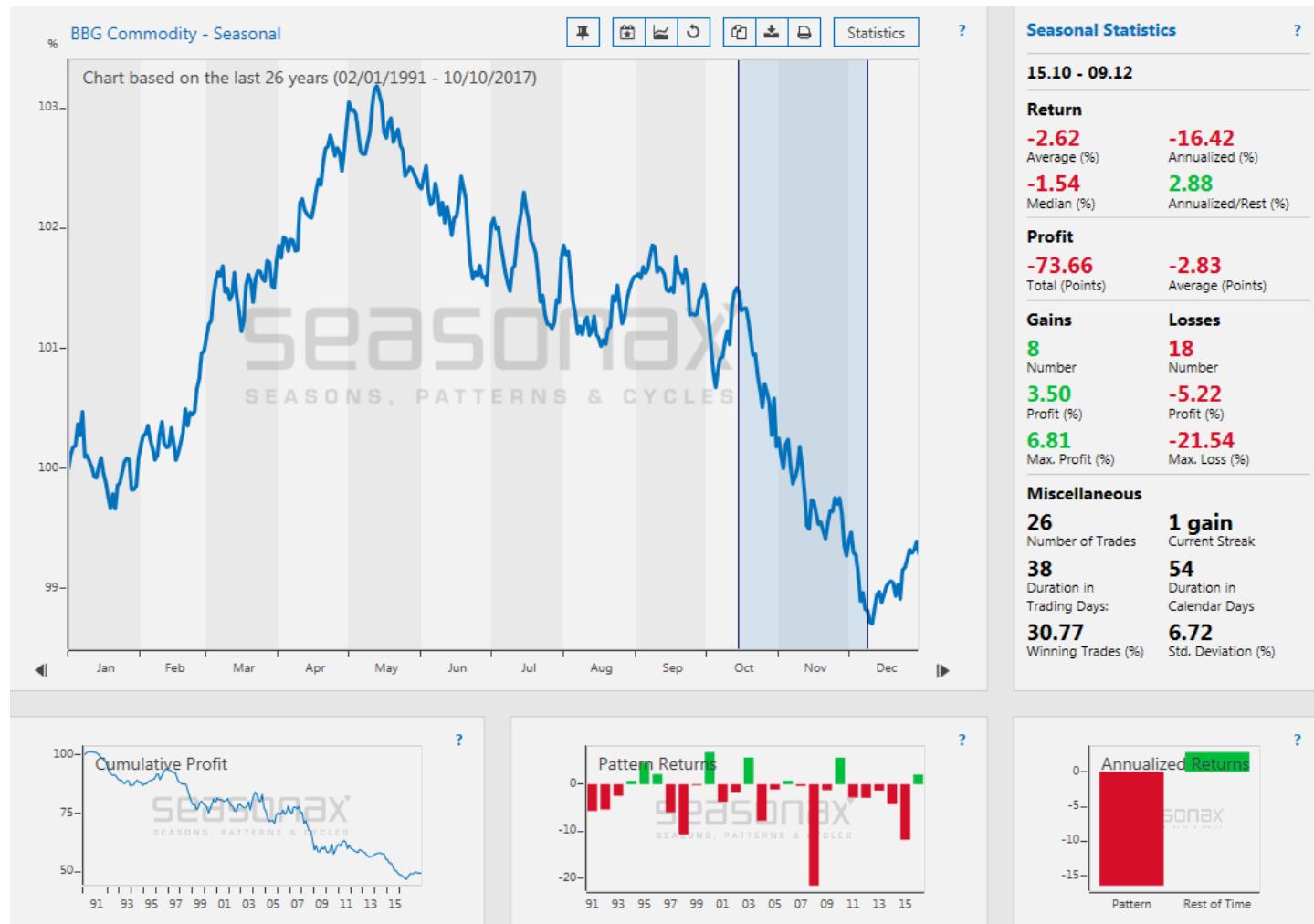
Commodities

APPS Portal: Seasonax for Seasonal Analysis of the Bloomberg Commodity Index (BCOM)

[Launch the Seasonax App](#)

The chart below exhibits a strong Q4 seasonal pattern in the Bloomberg Commodity Index using the Seasonax App which is available in the Bloomberg App Portal at [APPS<GO>](#).

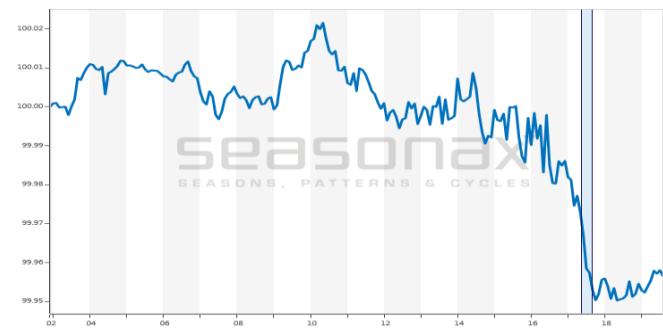
The main chart in the image below shows the average annual performance based on a log return. This chart seems to imply a strong seasonal downtrend for commodities in Q4. Selecting this period of the chart (highlighted in blue) provides analysis on a strategy that would have only invested during this period of the year. The statistics table on the right shows that this strategy would have seen a mean annual decline of 2.62% in the BCOM Index which becomes 16.42% annualised. And the hit ratio is over 2:1 as the Index declined 18 times versus 8 gains. These statistics are visually summarised in the charts below. The bottom left cumulative return chart highlights how steady this return would have been.



The App can also be used for intraday optimisation.

The chart on the right depicts the average intraday performance of the BCOM index over the last 137 trading days. The section selected in blue highlights a period of strong negative movement which is from 17:20 – 17:40. There have been 83 declines in this period to 53 gains and the annualised decline equates to 1.41%

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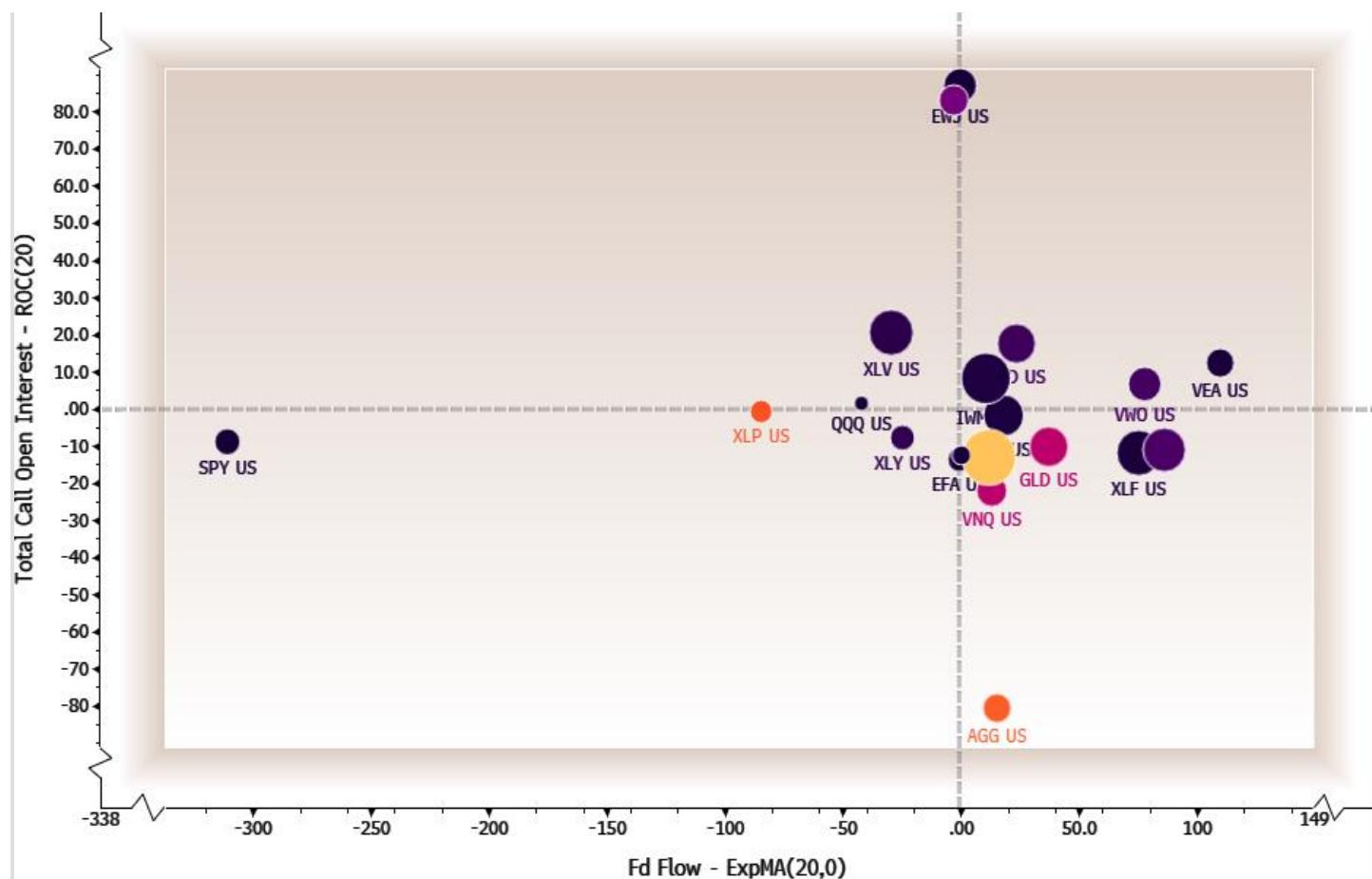


ETFs

Flows and Open Interest

Scan Global ETF Flows

In the scatter plot below we see that in relative terms the FTSE Developed Markets (VEA) leads the way over the last 20 trading days in terms of fund flows, followed by high yield (HYG), emerging markets (VWO) and financial (XLF). The small size of VEA may, however, indicate a higher degree of randomness in its performance. The Japanese ETF (EWJ) and the WisdomTree Hedged Europe (HEDJ) have both experienced a surge in call open interest. This is in contrast to the drop in speculation in U.S. bonds (AGG) which has also been one of the worst performers in the group as denoted by its orange colour. The large size of the energy ETF (XLE, yellow in centre) suggests that its recent rally has been pretty consistent and reliable.



The list of ETFs can be seen in the table on the right.

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Key

Study in Focus

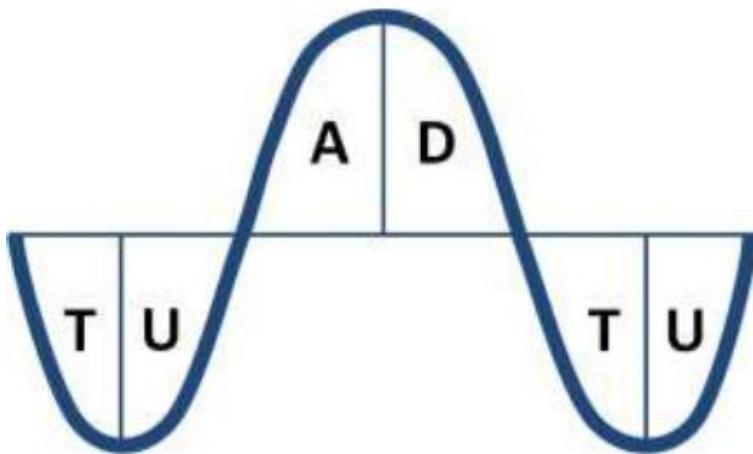
The Composite Momentum Oscillator (CMO)

The Composite Momentum Oscillator (CMO), created by Francesco Caruso aims to identify market turning and acceleration points, as well as overbought/oversold conditions.

Because of its construction, CMO can be applied on any time frame and on any time series, including spreads and ratios.

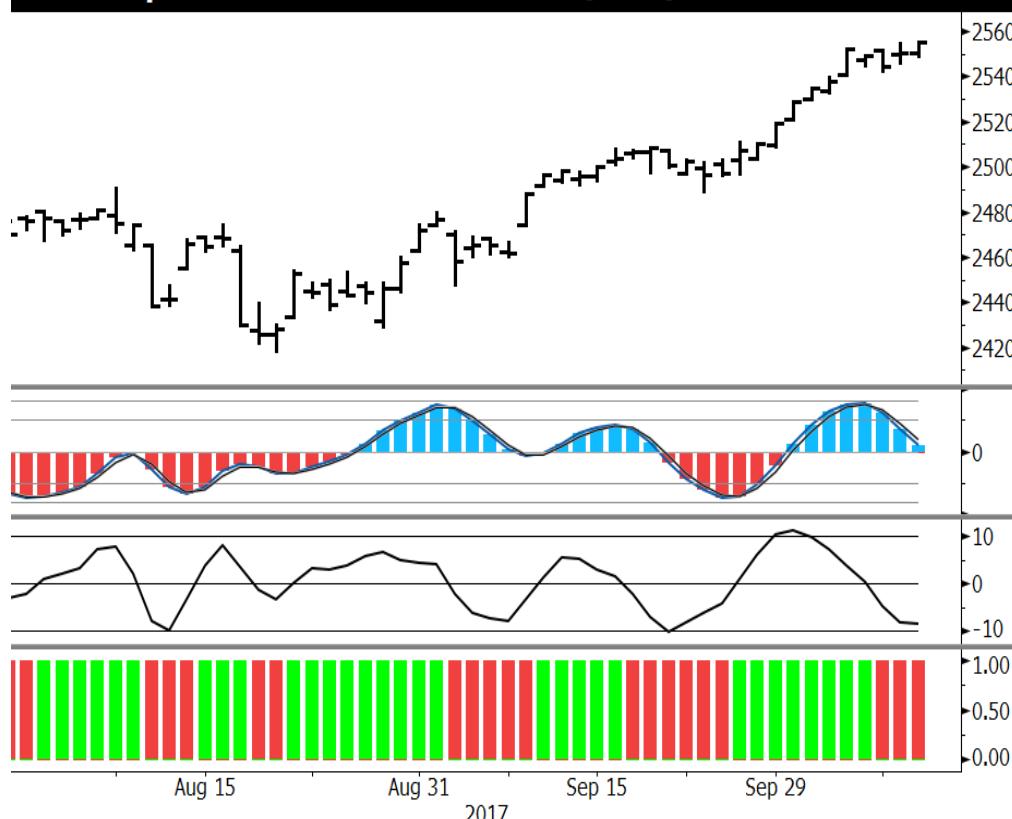
The main goal of CMO is to isolate the four possible cyclical positions for the indicator, which will have to be compared to the prevailing trend conditions in the timeframe analysed.

- **Phase UP** (U in the picture) sees the indicator below zero but rising, which would indicate accumulation in an uptrend or a corrective area of congestion in a downtrend.
- **Phase ADAVINCING** kicks in when the indicator crosses above the zero line and, depending on the prevailing trend conditions, could be the most profitable phase for traders
- **Phase DOWN** is defined by a declining, positive indicator. At this stage an uptrend sees a corrective, distribution phase. In case the overall environment is bearish, the DOWN phase should highlight opportunities to accumulate shorts.
- **Phase TERMINATING** tends to identify troughs in downtrends.



One great advantage of CMO is that multiple information about the trading environment is displayed in a concise and easily digestible manner. In particular the interaction of the position above/below the zero line as well the overall direction, in conjunction with stretched readings (between 50 and 80 and between -50 and -80) extreme readings (less than -80 or greater than 80). An example based on the DAX, an up trending security that has recently resumed the move, best highlights the indications provided by the CMO.

The Composite Momentum Oscillator (CMO)



On the 31st of August, on what eventually became the start of an up move, the CMO indicator created a low in extreme territory. This is visible in the second panel from the top, while the change of colour of the bottom panel indicates that there had been a change of direction for the oscillator.

At the same time the rate of change of the CMO itself, third panel from the top, was creating a traditional bullish divergence. The confluence of signals would have alerted the trader that a turning point was being formed.

The CMO is available on Bloomberg through individual permissioning by Maurizio Pietrini, who can be reached via Bloomberg message. From early 2018 the study will be on general release.

By Guido Riolo, MSTA, technical analysis specialist at Bloomberg LP. He can be reached at guidoriolo@bloomberg.net

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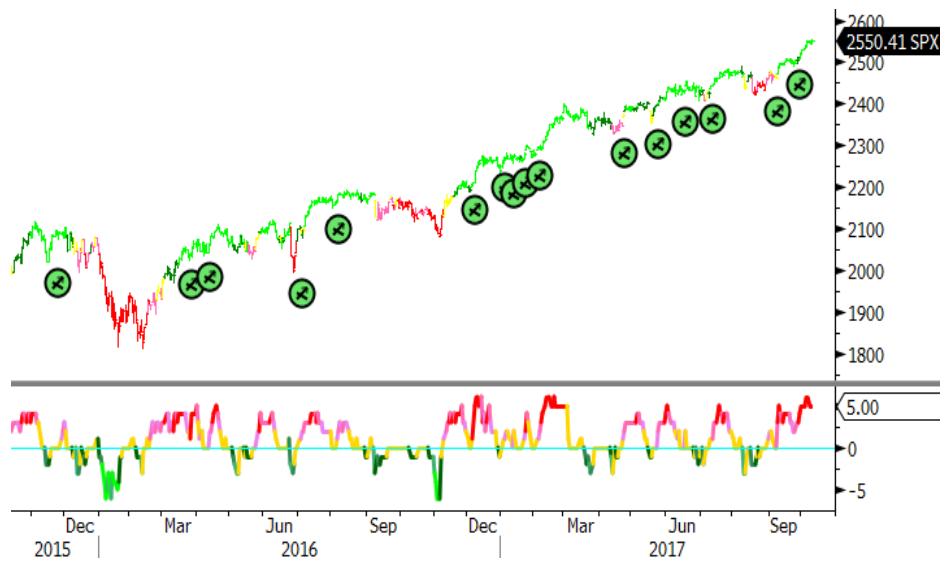
Quant Strategy

The Chameleon Studies

[Create Your Own Signals Here](#)

The chart (right) shows the daily price of the S&P 500 Index with the Chameleon Trend study in the upper panel. The Chameleon Trend study color codes a security's move through trends based on several technical criteria. The lower panel shows the Chameleon Oscillator applied to the price of the S&P 500 Index. This study is a blend of several momentum indicators whose readings cause the oscillator to change colors based on levels of overbought/oversold.

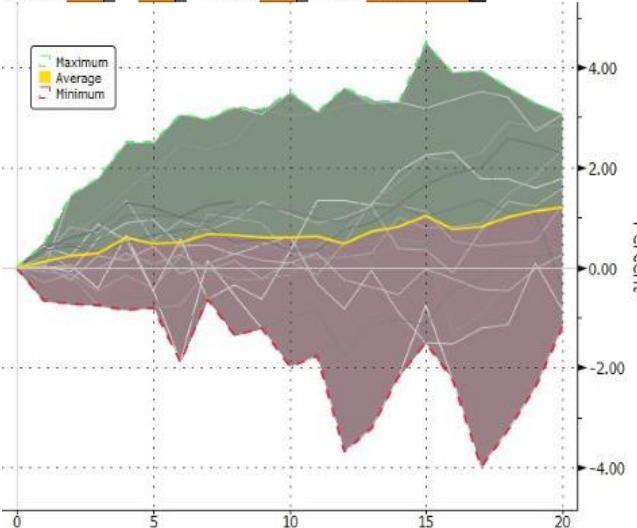
The green arrows, created in the {TSIG} function highlight when the oscillator has rallied off zero and price in the upper panel is strongly trending (green). The idea is to find actionable entry/re-entry points in an ongoing trend.



[Impact](#)

Impact - Offset Plot Return

Maximum Average Minimum



# of Events	Gain	Loss	Total			
Post-event Analysis (Event to Bar 20)						
Mean	1.70%	-0.81%	1.20%			
+1 Std Dev	2.74%	-0.41%	2.60%			
-1 Std Dev	0.66%	-1.22%	-0.20%			
Peak of Mean	1.70%	-1.29%	1.20%			
On Bar	20	17	20			
Max Change	4.49%					
On Bar	15					
Min Change	-4.00%					
On Bar	17					
Rules Used for Statistics						
<input checked="" type="checkbox"/> Rule - 1						

The Market Impact screen allows you to plot and statistically analyze how the price of a security varied after a signal/event. In this case, the signal is analyzed over a 2 year period.

The chart shows the trajectory of the price of the S&P 500 Index after each signal for 20 days. The statistics side panel allows you to further analyze price reaction to the signal at a given time after the event.

The mean return of the 12 gains 20 periods after the signal was 1.7% and the mean return of the 3 losses was -0.81%.

[Backtest and Optimise a Strategy Here](#)

This strategy was backtested in {BT} using the following rules to be consistent with the signal analysis.

1. Go long when the Chameleon Oscillator crosses above 1 AND the Chameleon Trend is painting bullish green.

2. Exit long 20 periods since trade entry.

The strategy had a % Winning Ratio of 88.89 and the Sortino Ratio was 1.73, higher than the 1.33 Sharpe Ratio.

By Alex Cole, technical analysis specialist at Bloomberg LP. He can be reached at alecole@bloomberg.net

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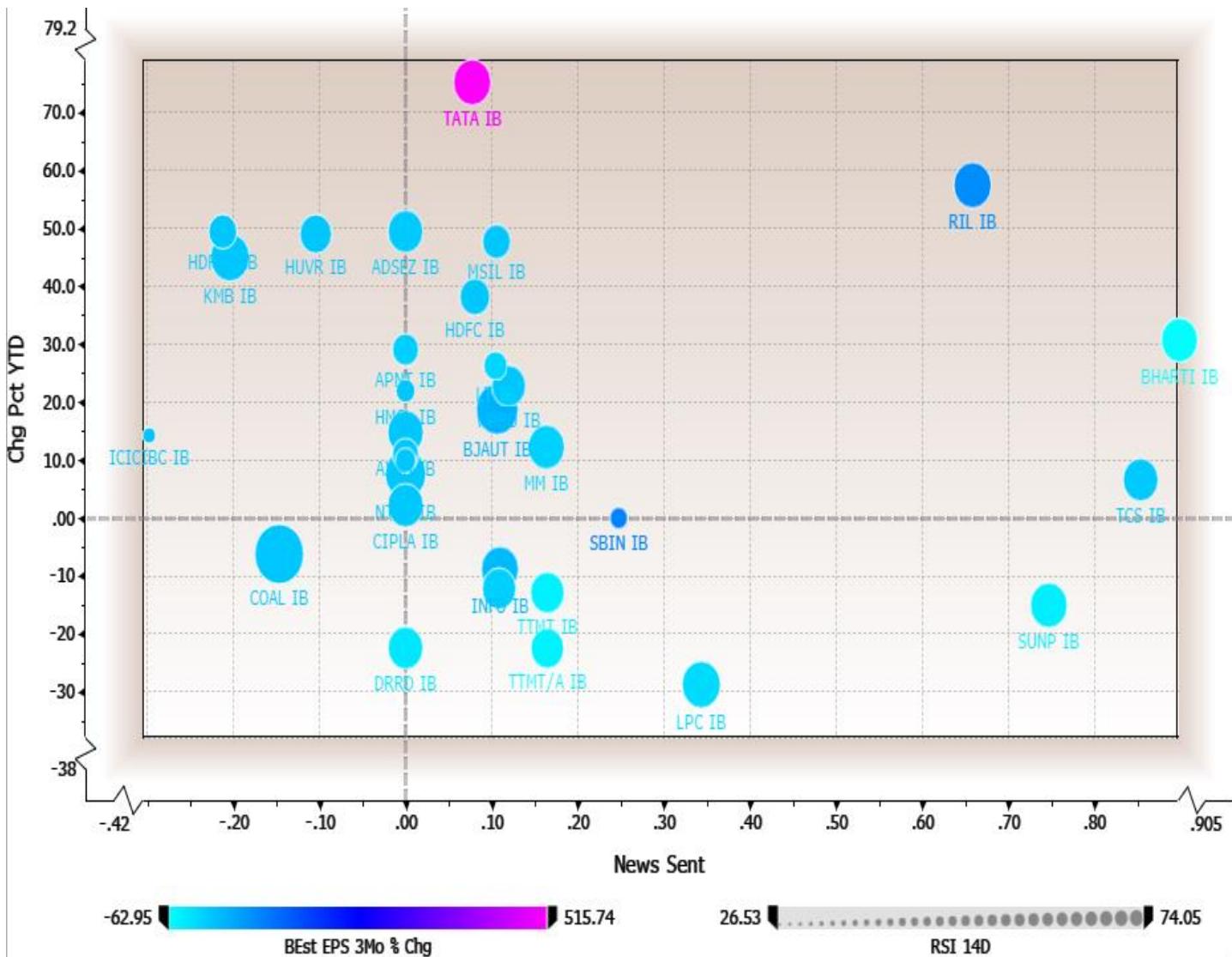
Spotlight on India

Visualizing Sensex Price, Earnings and News Sentiment

Despite the BSE SENSEX 30 up 20% YTD and almost all sell side firms positive on the outlook for the rest of the year, a scatter plot shows that analysts have cut their EPS estimates over a three month period for every single stock in the benchmark except Tata Steel.

The scatter plot was created on the GS <GO> page and exhibits the following fields:

1. X axis: News Sentiment (Positive/Negative)
2. Y axis: Price Change YTD Percent
3. Marker Color: Best EPS 3 month % Change (Blue if 3 month EPS estimate has been cut, and Pink if 3 month EPS estimate has been upgraded)
4. Marker Size: RSI 14 day, small if RSI at a lower reading and large if RSI at upper reading



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New This Quarter

Graphics Dashboard Enhancements

[Launch the Graphics Dashboard](#)

The Graphics Dashboard, [GD<GO>](#), now works for indices to provide a visual summary both of the index itself and the performance of its constituents. There are currently seven tiles which show:

- An intraday chart of the index
- Daily returns of the index
- Where the index is in its 52 week range
- The stocks that are most up/down in the index
- The stocks with the highest average volume at time (AVAT)
- A summary of aggregated statistics across the index
- Top sector movers

Clicking into any of the tiles will launch the relevant function to analyse that piece information in more detail.



The Graphics Dashboard can also be launched in Launchpad where there are a couple of additional advantages:

1. The Dashboard can be linked to a security worksheet so that you can just click on an index to immediately see the dashboard for that index.
2. **Coming Soon** Ability to link the Dashboard to a Launchpad Security Worksheet of equities. This will provide an aggregate summary of the securities in the Worksheet and will be dynamically linked so that when filtering the securities by any of the columns in the Worksheet, only those filtered securities will show in the Dashboard.

Appendix

Overview Section

- The red and blue signals in the Overview section are an indicator called Volstall. It's our own indicator created in [STDY<GO>](#). It uses the rate of change of the moving standard deviation of price to identify possible reversal points through decreasing momentum. A guide to [STDY<GO>](#) as well as a forum can be found in the red toolbar of the function.
- The bars are painted according to a triple exponential moving average crossover with averages of 4, 9 and 18. The blue and red Volstall signals and painted bars are created in the strategy events. From a chart, click on the events flag, "+Add Event," use browse option and then select option "17) Strategies & Studies."
- The indicator below the charts in the Overview section is the Fisher Transform with squeeze (an indicator outlined by John F. Carter). The indicator uses a Gaussian probability density function (Gaussian PDF) as opposed to a more traditional bell-shaped probability density function to calculate the position of the price compared with its range (see [TECH<GO>](#) for details). Squeeze signals are shown as red bars and occur when the Bollinger bandwidth is less than the Keltner bandwidth, signaling low directional volatility.
- The trendlines on the charts have been automatically generated using the Automated Bloomberg Trendlines (ABT) study. Contact Maurizio Pietrini to be enabled.

Volatility in Brief

- On the volatility charts, we have used Bollinger bands with a 60-period moving average with upside deviations of 1, 2, and 3. On the downside, we have used 1, 1.5 and 2 standard deviations from the average, to reflect the inherent skew in volatility indices.

Additional Charting Tools

- Seasonality can be found at [SG<GO>](#). Relative Rotation GraphsTM can be found at [RRG<GO>](#). Relative Rotation GraphsTM of Relative Rotation Graphs Limited. See www.RelativeRotationGraph.com. See [DOCS 2063266<GO>](#) for more information.

The scatter plot chart can be found on the terminal at [GS<GO>](#) and allows for the visualization of four unique sets of data.

More information on Bloomberg's Market Breadth indicators across 54 markets can be found on the terminal here: [DOCS 2068663<GO>](#).

Sentiment and positioning data can be located at [IPSP<GO>](#).

Implied probability FX forecasts are derived from FX options and can be found at [FXFM<GO>](#).

The commodities in this section are taken from the Bloomberg's [BCOM](#) Index, part of the Bloomberg Commodity Index

family, formerly known as the DJ-UBS. With reference to the selection of both the constituents and the calculation methodology, the design of the index embodies four key principles: economic significance, diversification, continuity and liquidity.

- The Seasonax App used in the Commodities section can be found in the Apps portal at [APPS<GO>](#).
- The Market Picture chart from the FX section can be applied to a security using [MKTP<GO>](#).
- Run [TSIG<GO>](#) to create custom trading signals and alerts.

Other Resources

- [CHART<GO>](#) is the homepage for Bloomberg charts and technical analysis with links to a variety of functions and resources including documents on Bloomberg's own proprietary studies.
- "Getting Started With Bloomberg Charts" at [DOCS 2069346<GO>](#) for an introduction to what is possible.
- "A Guide to Bloomberg Charts" at [DOCS 2065187<GO>](#) for a more thorough walk-through on how to use our charting and technical analysis functionality.
- DISCLAIMER — Read the full Bloomberg Tradebook disclaimer [here](#).

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