THRASHER ANALYTICS

ThrasherAnalytics.com

1 Day - Watch List - No Layout

■ Sector	> 50MA	> 200MA	1wk Perf ⌄	1mo Perf	3mo Perf	12mo Perf
☑ SPDR Consumer Staples Select Sector Fund ETF	True	True	1.5%	0.37%	3.92%	10.27%
☑ SPDR Utilities Select Sector Fund ETF	True	True	0.84%	1.45%	4.96%	13.16%
☑ SPDR Real Estate Select Sector Fund ETF	True	True	0.49%	2.79%	5.37%	15.06%
☑ SPDR Technology Select Sector Fund ETF	False	True	-0.27%	-2.94%	3.01%	7.17%
☑ SPDR Health Care Select Sector Fund ETF	False	False	-0.93%	-1.77%	2.17%	-0.29%
☑ SPDR Industrial Select Sector Fund ETF	False	True	-1.49%	-5.43%	-1.8%	-2%
☑ SPDR Communication Services Select Sector ETF	False	True	-1.77%	-4.67%	-1.26%	-0.2%
☑ SPDR Materials Select Sector Fund ETF	False	True	-1.92%	-3.30%	2.98%	-2.38%
☑ SPDR Consumer Discretionary Select Sector Fund ETF	False	True	-2.03%	-6.78%	-0.78%	3.1%
☑ SPDR Financial Select Sector Fund ETF	False	False	-2.21%	-5.41%	-1.81%	-5.48%
☑ SPDR Energy Select Sector Fund ETF	False	False	-3.52%	-9.75%	-11.46%	-21.28%

With the U.S. equity market seeing continued weakness last week, with its largest one-day decline so far this year, three sectors were able to produce positive results. It happens that two of those sectors are two of the top sectors selected from the Thrasher Analytics Sector Rotation Model: Consumer Staples and Real Estate.
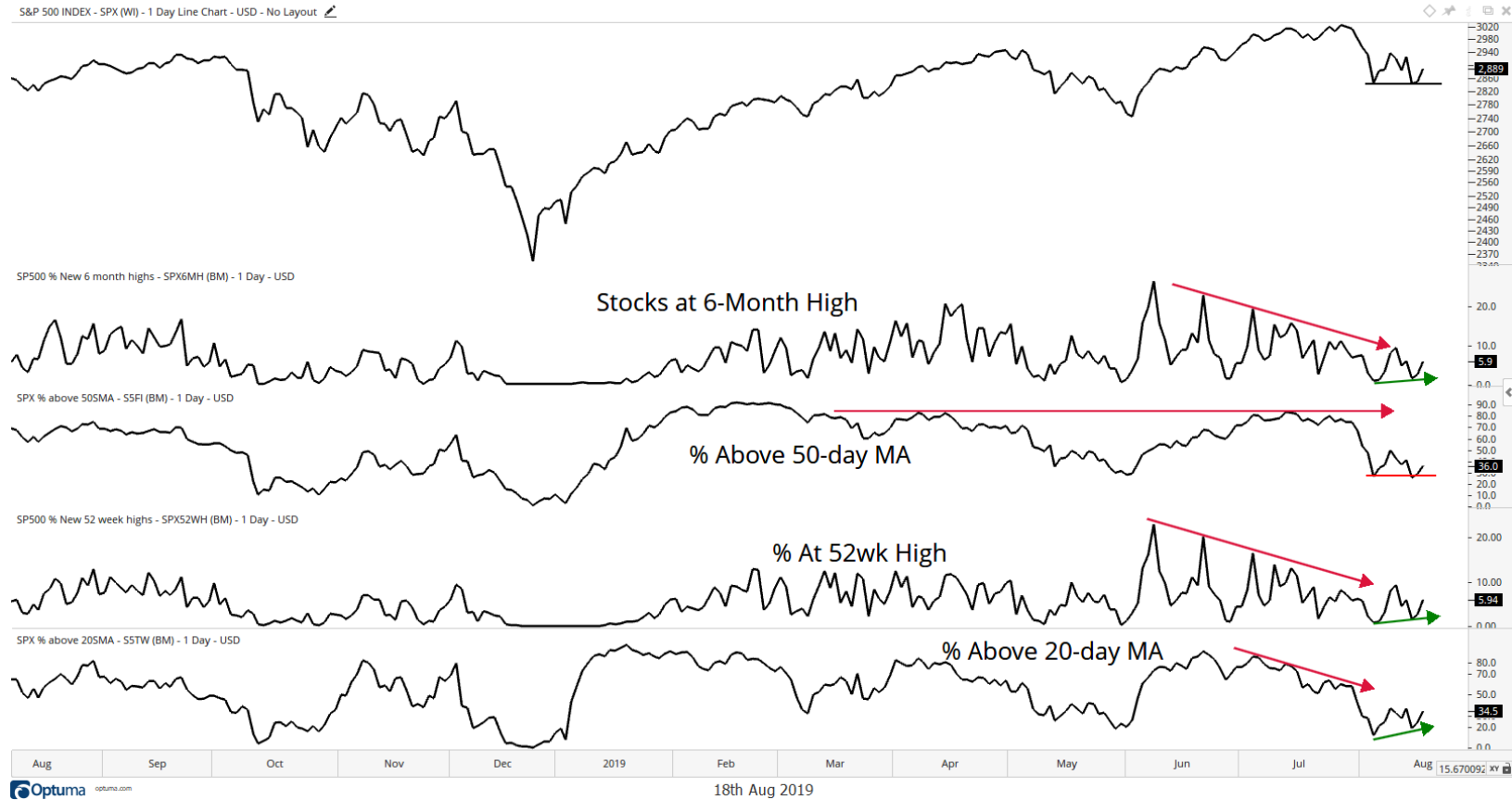
CBOE S&P 500 Volatility Index - VIX (CBOEI) - 1 Day Line Chart - USD - No Layout

Vol Risk Trigger

18th Aug 2019
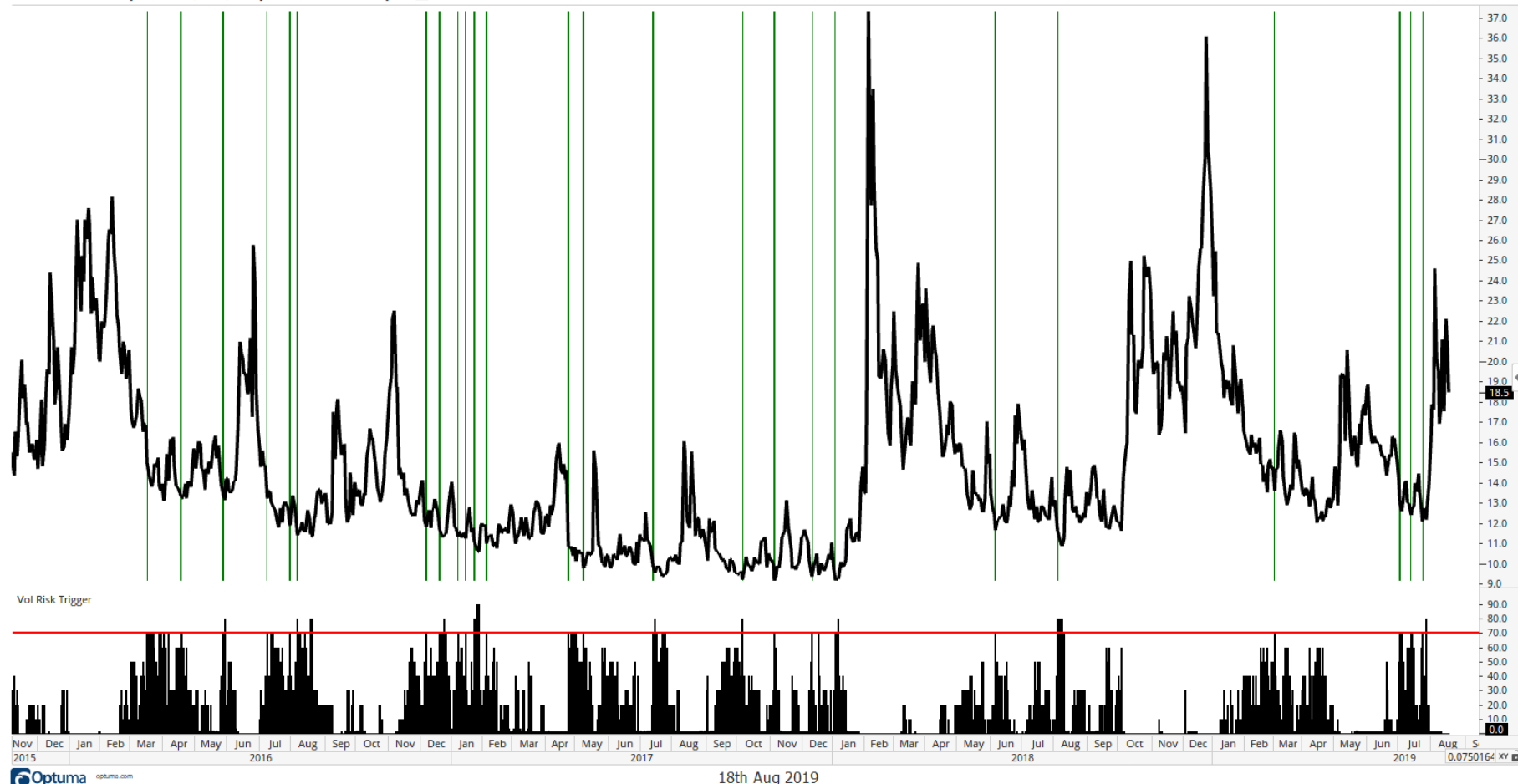
The Volatility Index remained in its recently created range of 23.5 and 17 this past week. The VRT is now in 'reset' mode after giving very timely signals back when volatility was under 13 ahead of this most recent spike higher. Most traders appear to have been caught off guard by the move in the VIX, fortunately the VRT gave ample notice that a spike was on the table.

We now have our range levels for the S&P 500. The intraday lows for August at 2825 and the September '18 and April '19 high just under 2950 have been the key levels for the daily equity chart. We finished out last week still under the 100-day and 50-day moving averages, however price has still yet to test or break below the much-watched 200-day MA. I'll be watching the above mentioned price levels as patience will now be key, letting the market whipsaw until we get a break.

S&P 500 INDEX - SPX (WI) - 1 Day Line Chart - USD - No Layout

Stocks at 6-Month High
SP500 % New 6 month highs - SPX6MH (BM) - 1 Day - USD

% Above 50-day MA
SPX % above 50SMA - S5FI (BM) - 1 Day - USD

% At 52wk High
SP500 % New 52 week highs - SPX52WH (BM) - 1 Day - USD

% Above 20-day MA
SPX % above 20SMA - S5TW (BM) - 1 Day - USD

18th Aug 2019

Going into the most recent high in U.S. indices, breadth had been contracting. This is something I've written extensively about in past letters. We've now had the S&P 500 test its initial closing low and with that test a few higher-highs in several breadth indicators have been produced. We saw a higher-high in the % of stocks above their 20-day moving average, stocks at 6-month highs and 52-week highs. The only breadth gauge to not bullish diverge was the % of stocks above their 50-day moving average, which saw a slight break below its most recent low.
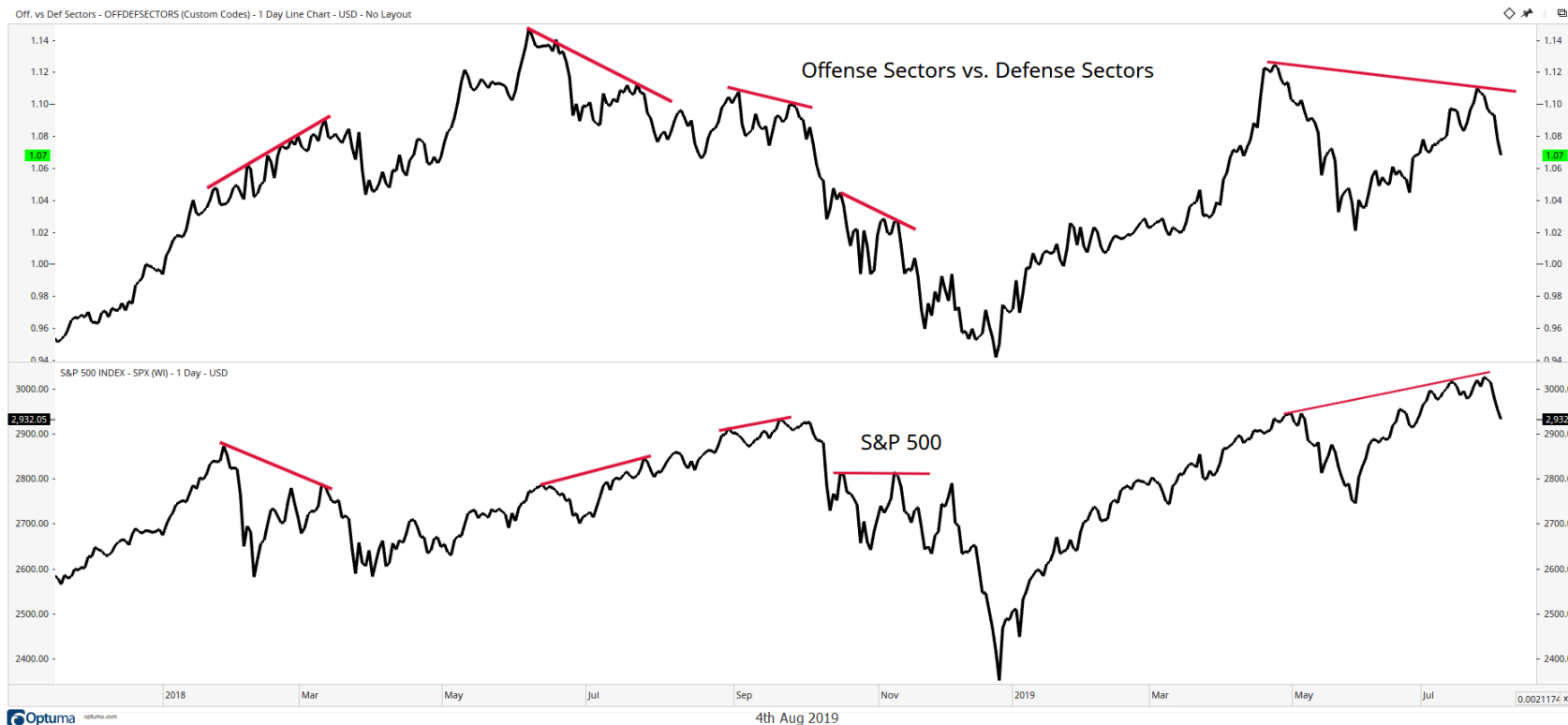
I showed this chart in my last letter, noting the divergence in sector leadership. Since then as the S&P moves lower, the defensive sectors have continued to hold the reigns, leading the offensive sectors in relative performance.

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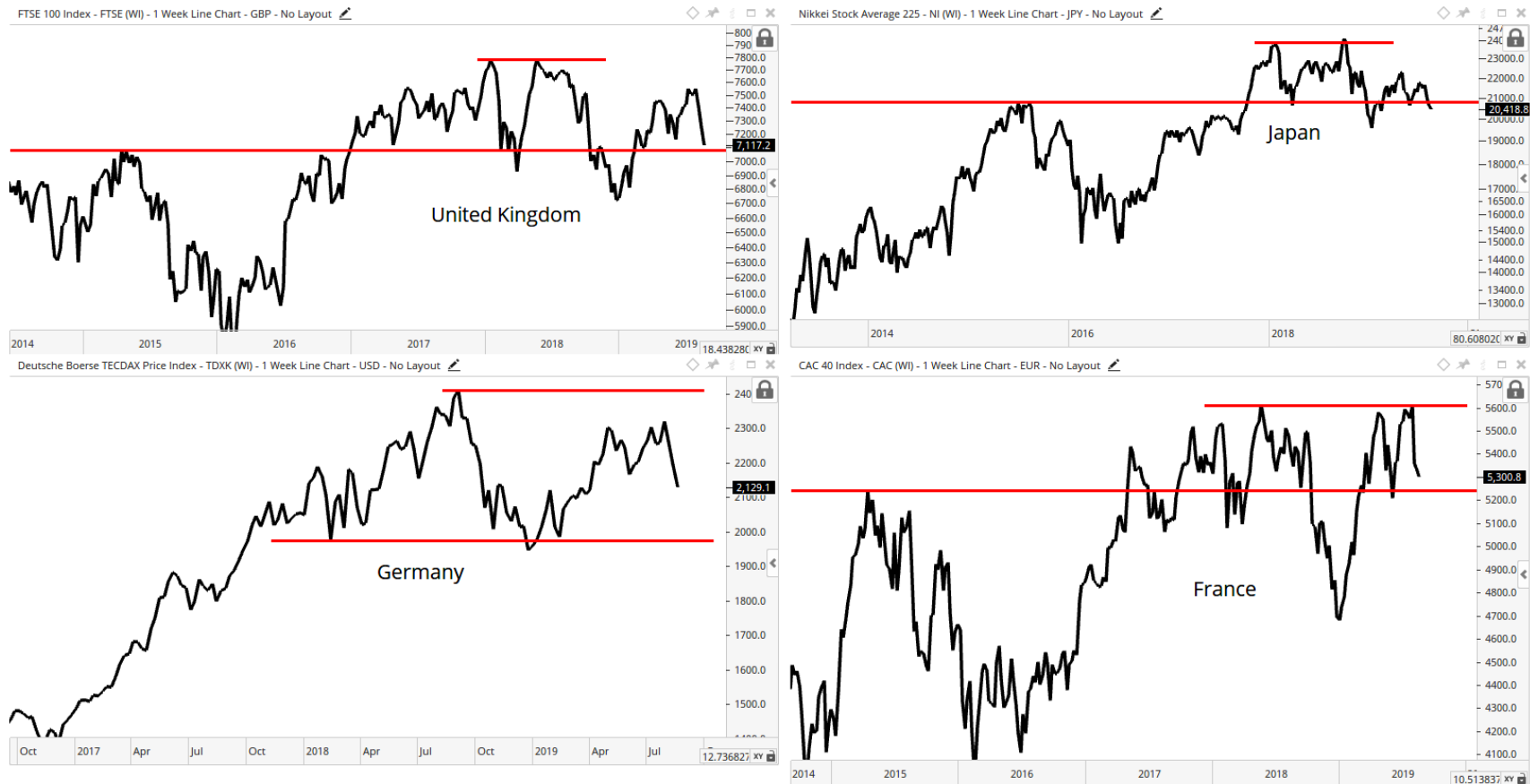
We still aren't seeing broad-based equity participation from the other major international markets. Japan has broken below its 2015 high and the UK is preparing to test its own 2015 high.
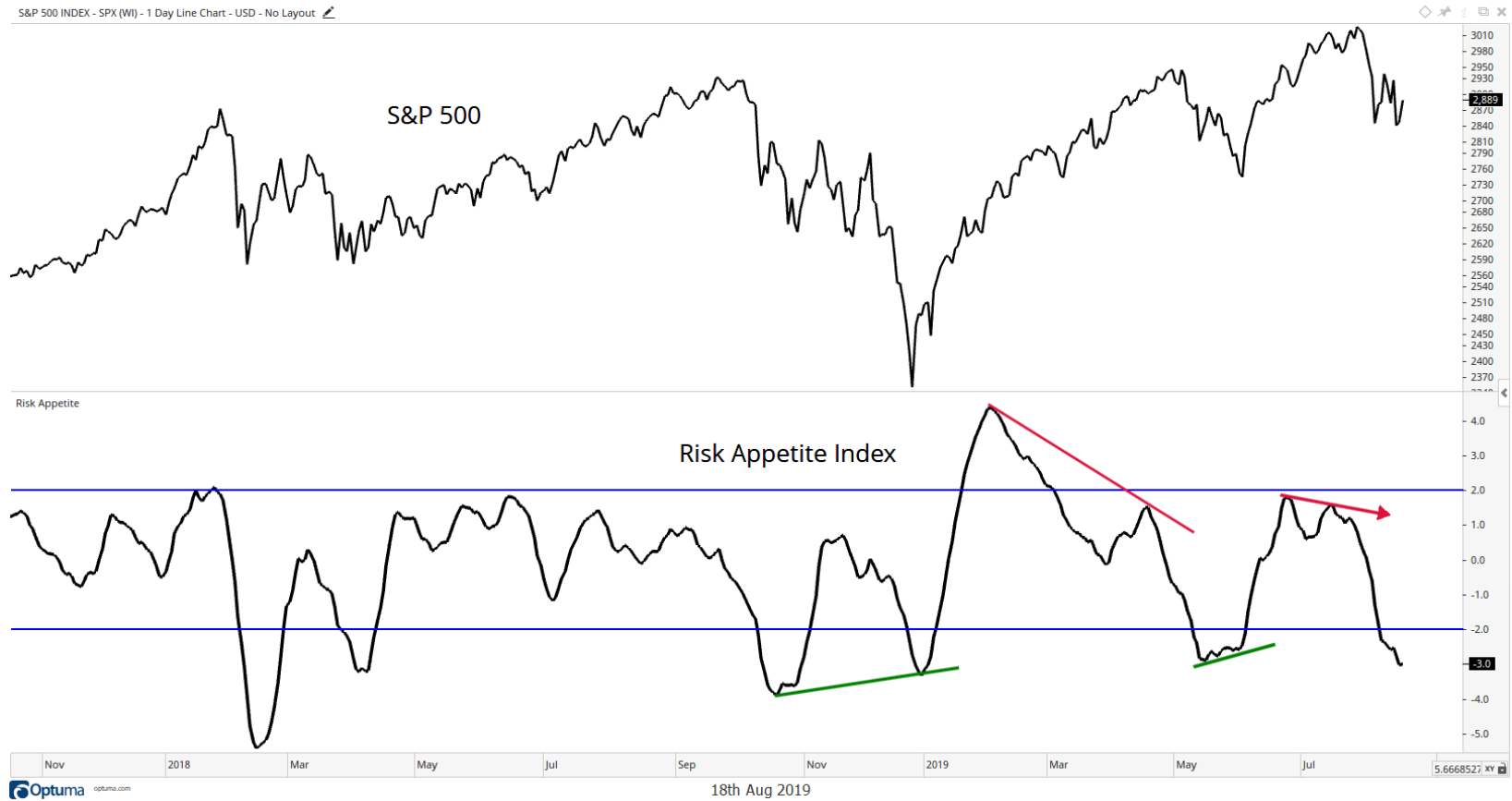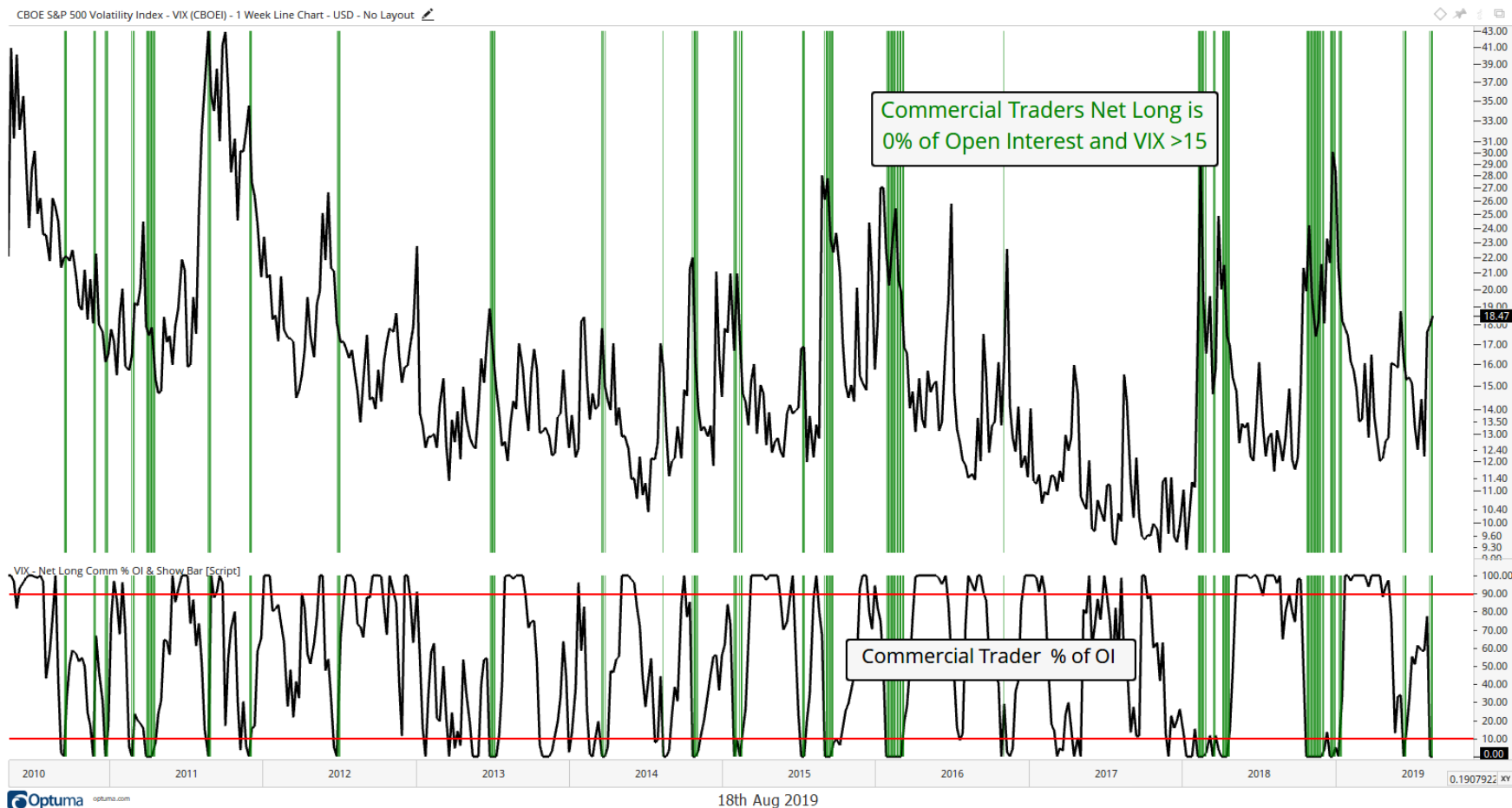
From a risk appetite perspective, the market still remains in 'risk off' mode with the RAI making a lower low. While the index is quite low, hitting levels we don't see very often, the snap-back rally has yet to take place as traders appear to remain defensive.

THRASHER ANALYTICS

We can see a better breakdown of the risk appetite ratios here. As the chart to the left shows, we have continuation in down trends for all four of the ratios.
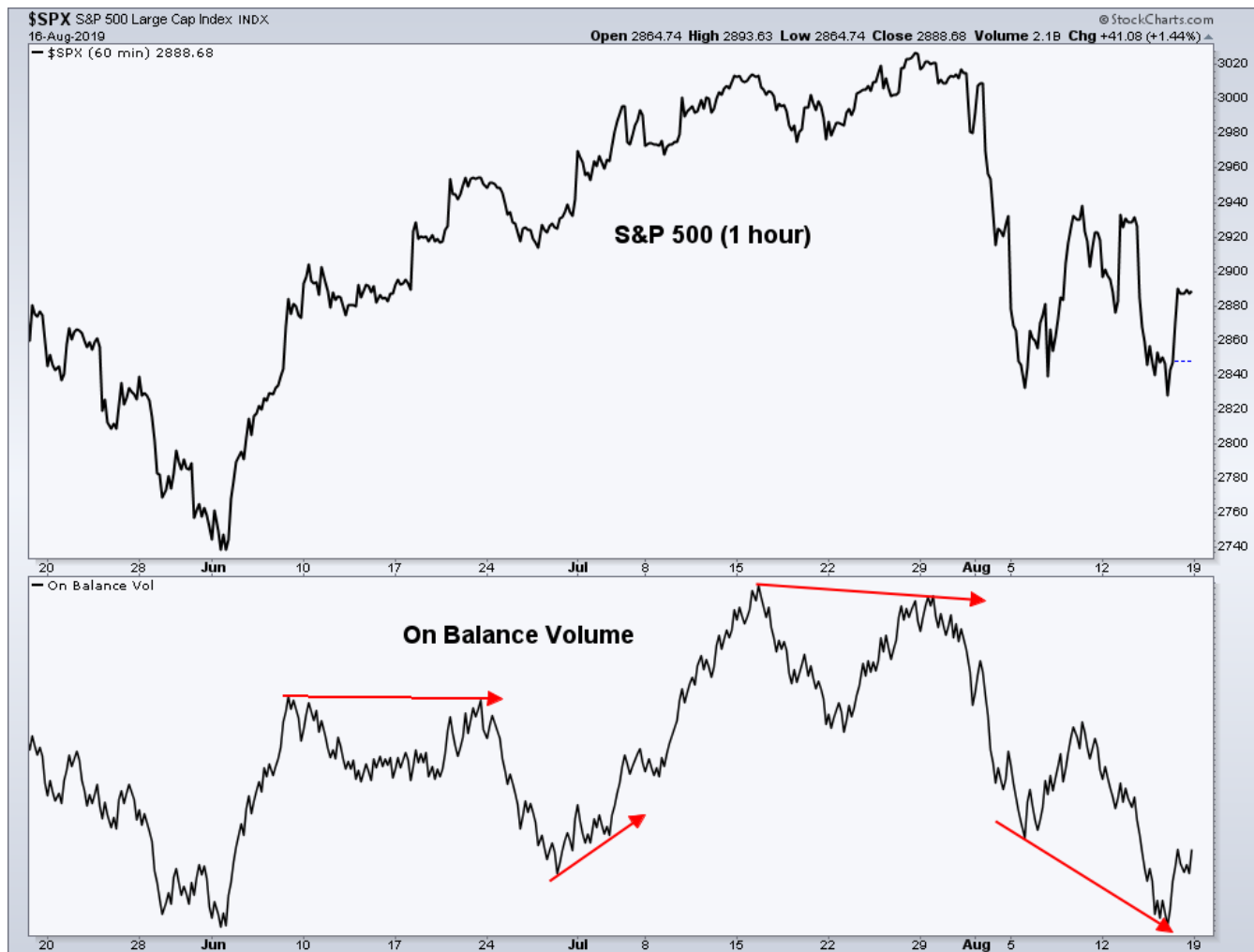
The volume profile for the S&P 500 showed continued preference for heavier selling on down ticks last week. A lower low was created by the On Balance Volume indicator even while the equity index held its initial low.

CBOE S&P 500 Volatility Index - VIX (CBOEI) - 1 Week Line Chart - USD - No Layout

Commercial Traders Net Long is
0% of Open Interest and VIX >15

VIX - Net Long Comm % OI & Show Bar [Script]

Commercial Trader % of OI

18th Aug 2019

With the latest run up in volatility, the COT report (with data through last Tuesday) shows that Commercial Traders net-long position makes up none of the current Open Interest. This is fairly common at peaks in volatility and is a good sign that a continued move higher in the VIX is less likely (unless we get some news-driven catalyst). I've marked green lines on the chart when the % of OI is at zero and the VIX is above 15.

Trends in relative performance for the major S&P sectors show a move higher for Tech, Health Care, Utilities, and Consumer Staples with the rest all continuing to under-perform the index.

THRASHER ANALYTICS

Figure 3: US share of global IG fixed income yield has reached 94%
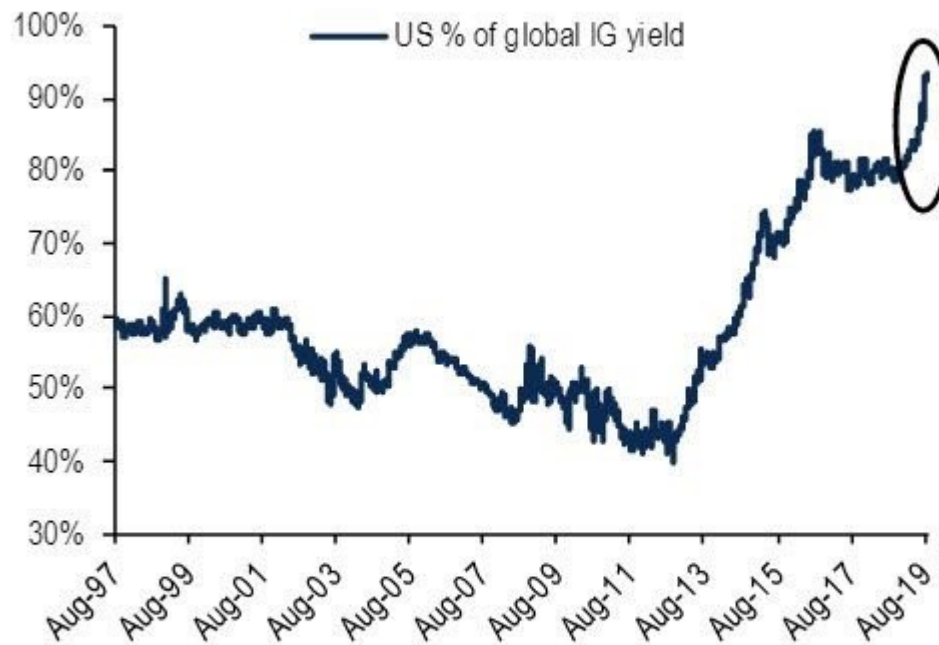
Note: Based on index eligible debt in the GBMI index.

Source: ICE Data Indices, LLC, BofA Merrill Lynch Global Research

The following chart comes from BofAML and shows the percent of the global investment grade yield that is made up of U.S. bonds. Having coming from a low of under 40% back in 2012, the U.S. now accounts for 94% of the IG yield! That's an astonishing figure and really shows how far we've come in the bond bull market with so many foreign bonds moving below zero yield.

Figure 20: Stock market performance across different presidencies
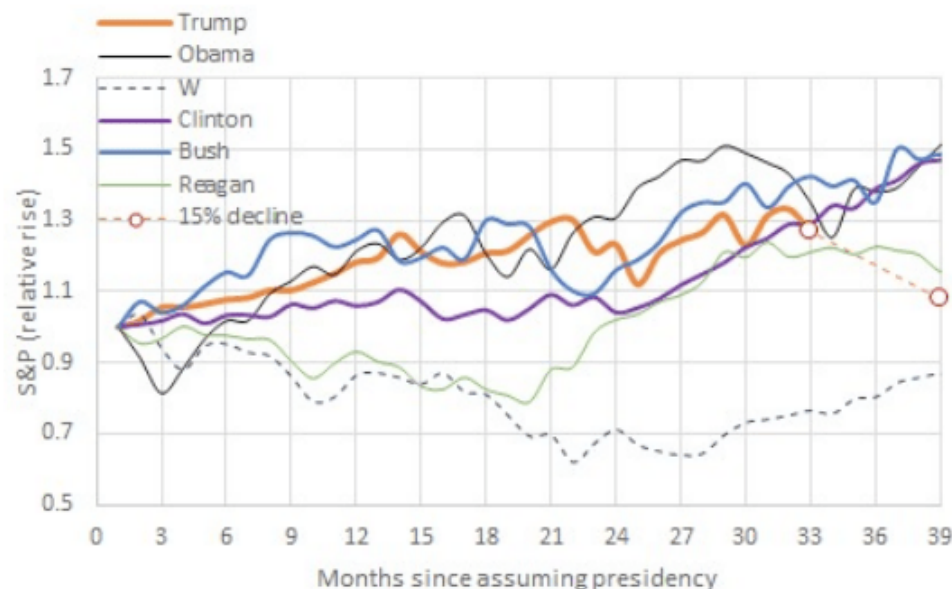
Source : Bloomberg Finance LP

There's no question that President Trump views the stock market has his preferred barometer of the success of his presidency. This is one potentially bullish catalyst for equities in that Trump's extremely sensitive to declines in the financial market. Aleksandar Kocic of Deutsche Bank noted the historical performance of the market by president, citing that the current trend "has been at best mediocre." This gives Trump little wiggle room to continue to press his bets that could send stocks further lower. Trump is keenly aware that it's near-impossible for an incumbent President to get reelected in dire economic and financial times. A further 15% decline in stocks (as shown in the chart) would make his equity trend the second worst of the last six presidents. That's not much of a track record to run on come 2020. This could cause the White House to attempt to stoke the economic short-term fires going into next year through whatever means necessary. This isn't something to base an investment thesis off of (at least in my opinion) but is something to be aware of.
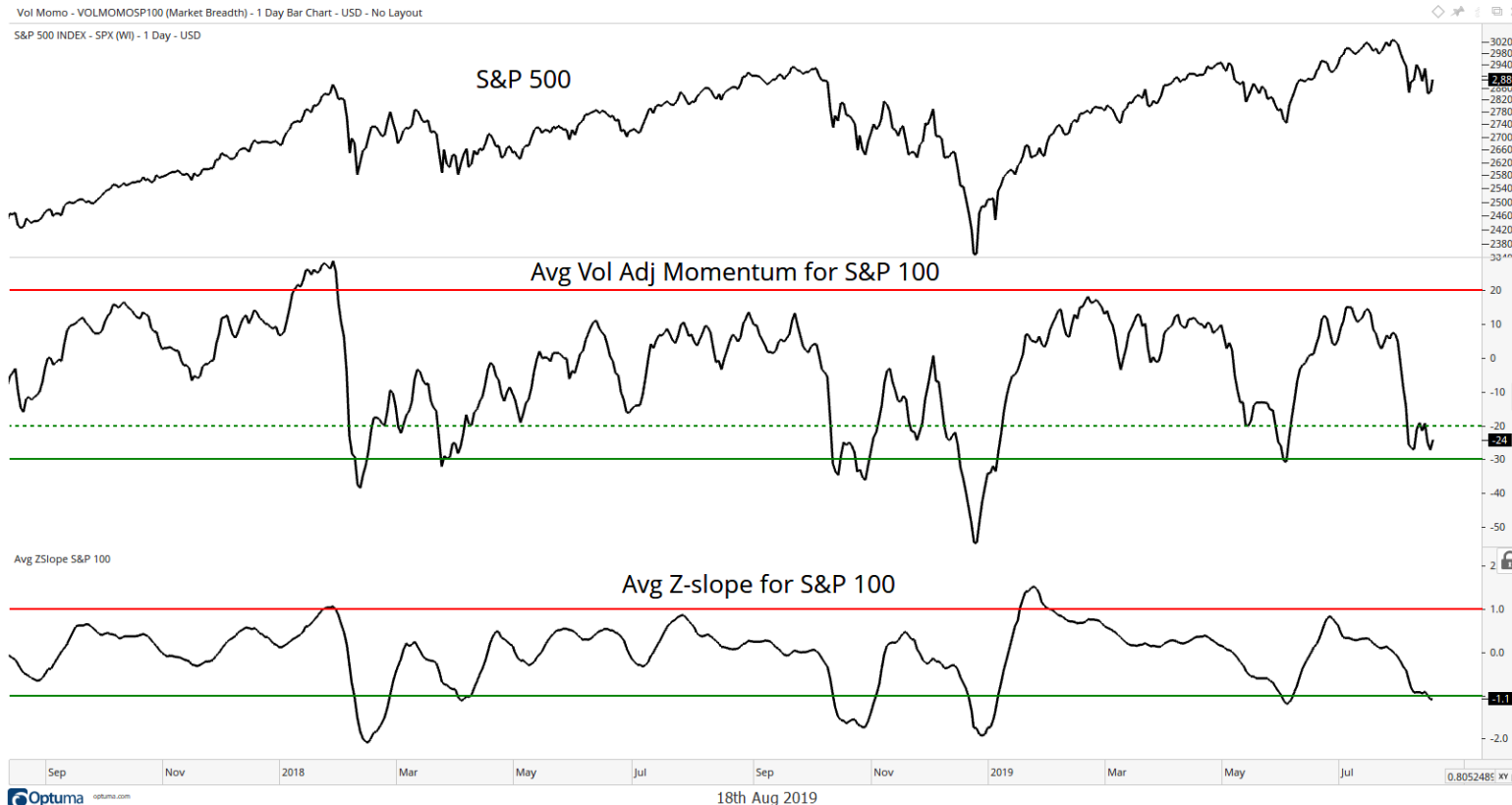
Above are the average Volatility Adjusted Momentum Indicator (VaM) and Z-slope scores for the S&P 100. I've shown just the S&P 100 because they are the most impactful to the overall S&P 500 index. The Average Z-Slope has broken below –1, which is a contrarian bullish development for stocks with the average VaM holding its prior low and still above the major 'oversold' level.

SPX: Up Trend

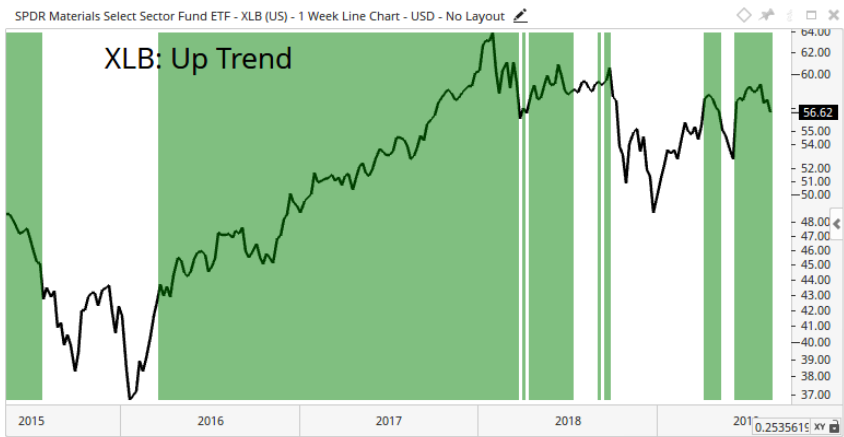XLF: Down Trend

XLY: Up Trend
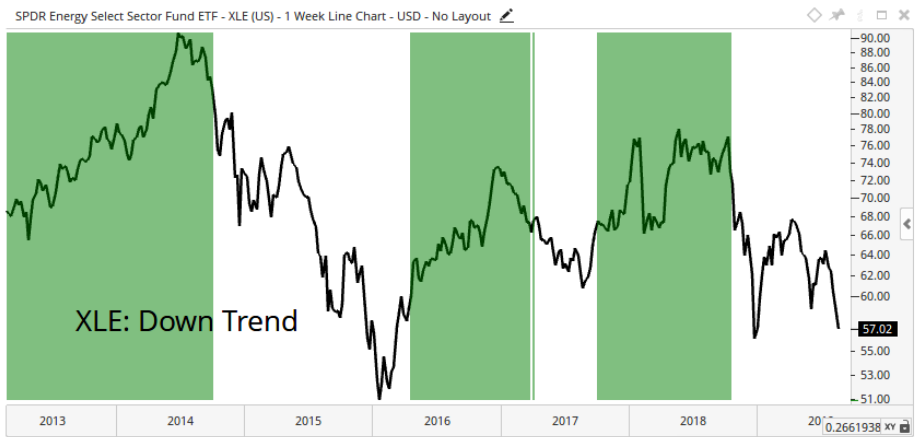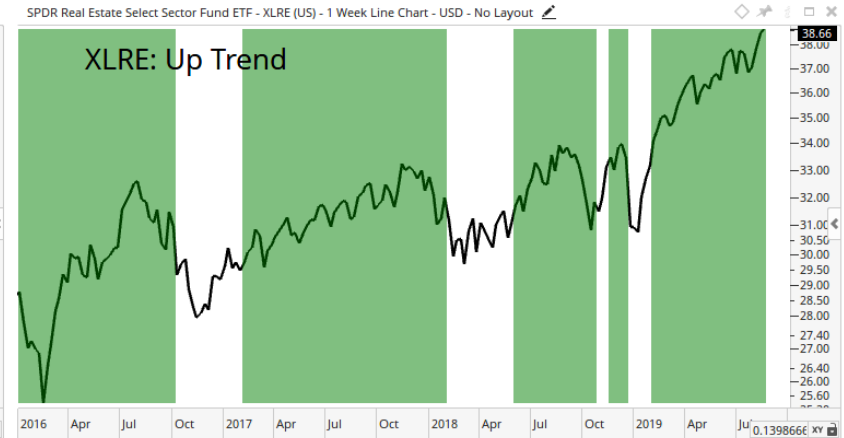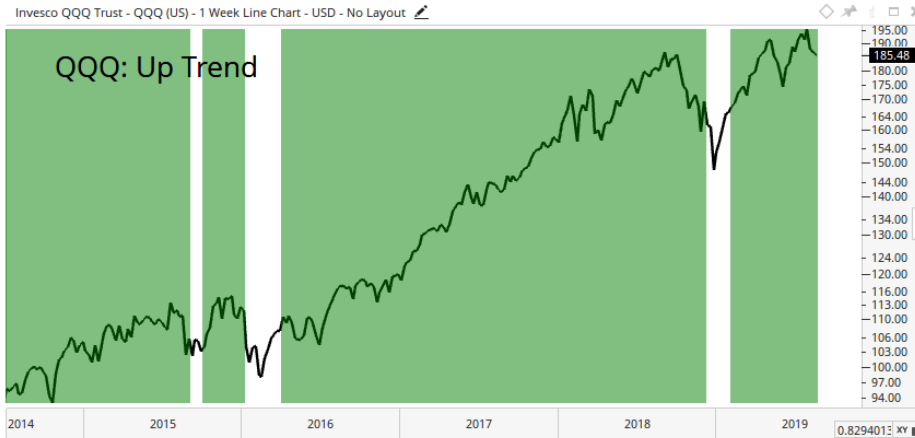
XLK: Up Trend
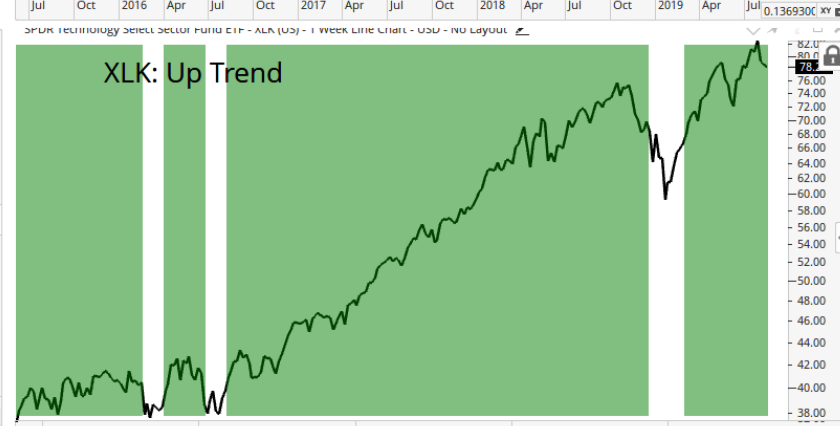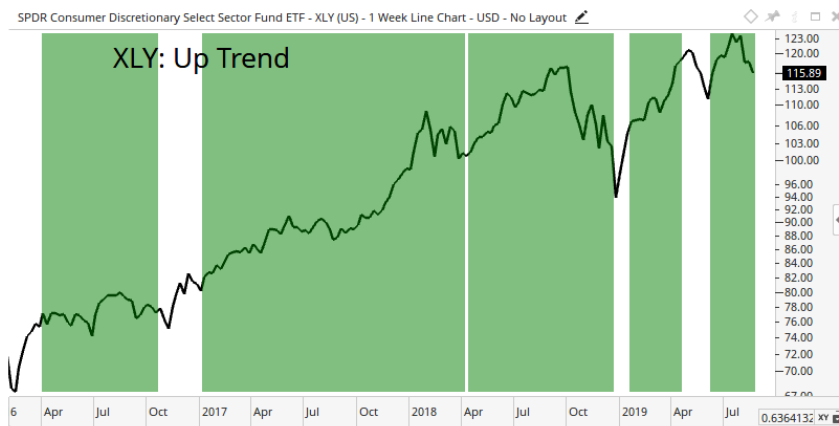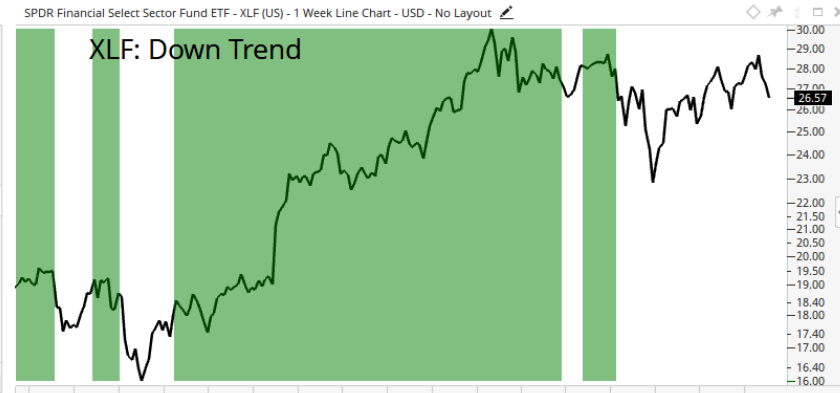
18th Aug 2019

SPX, XLY, and XLK are all in up trends with XLF in a down trend.
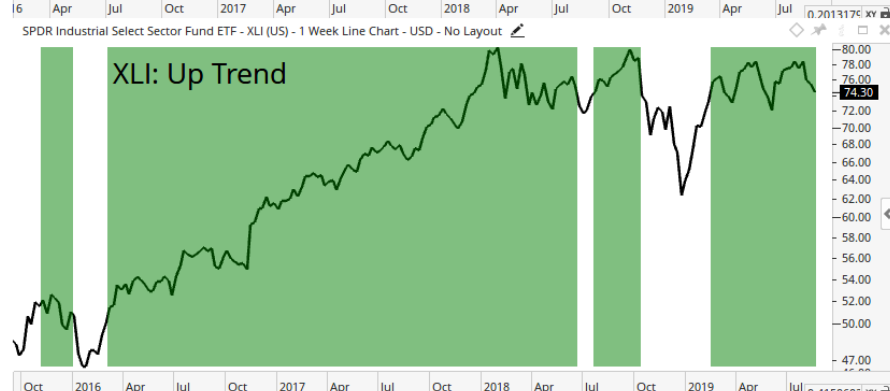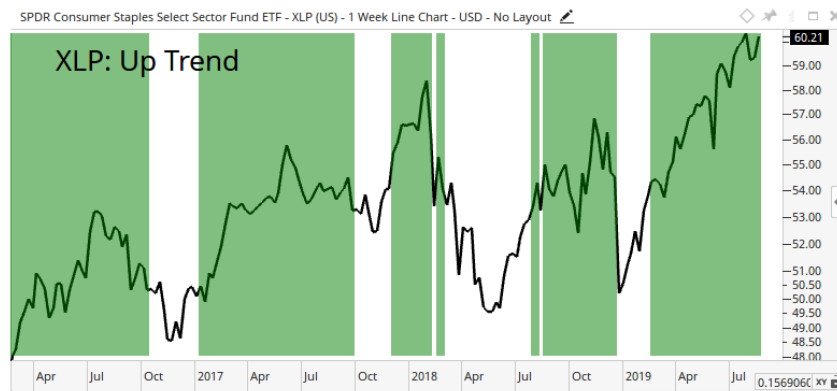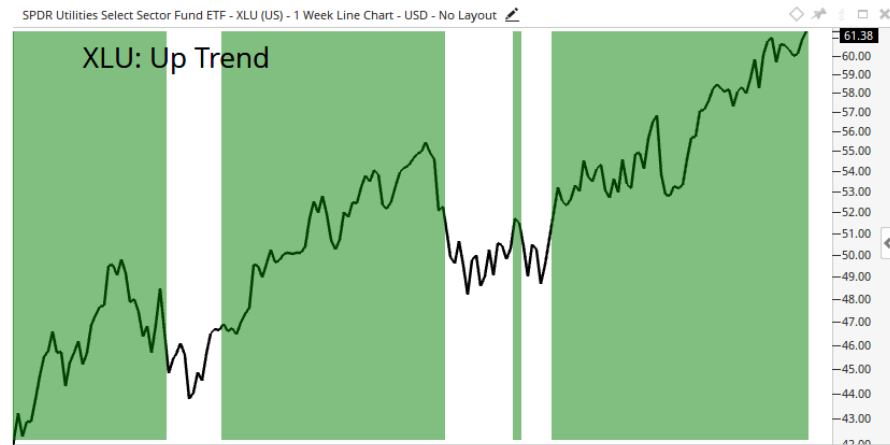
18th Aug 2019

XLV, XLU, XLP, and XLI are all in up trends.

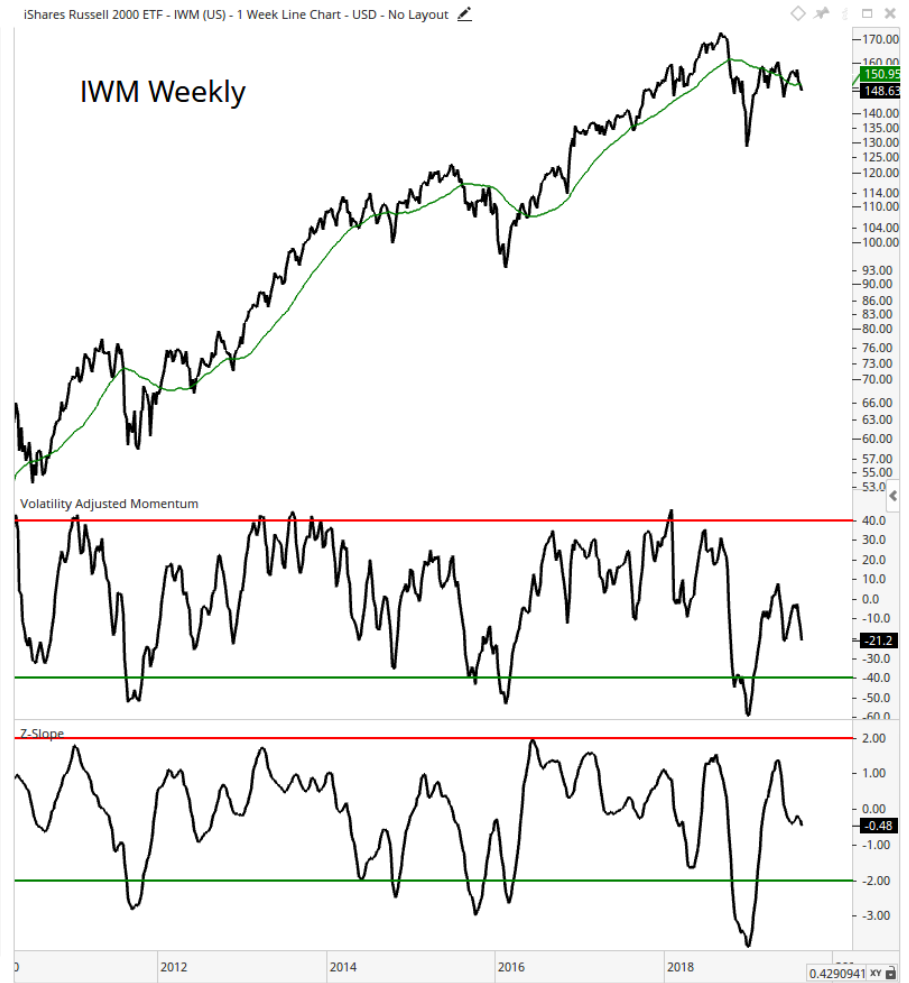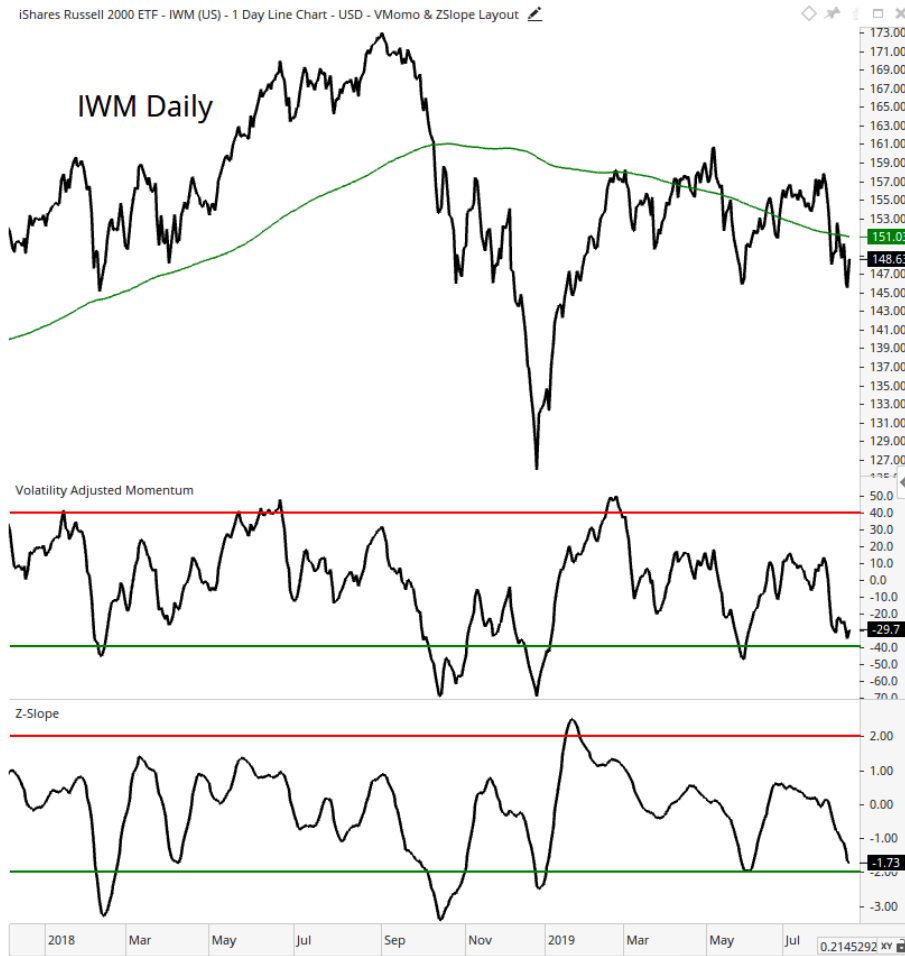QQQ, XLRE, and XLB are in up trends and XLE is in a down trend.

The following charts will become a regular installment for this, and future letters. Each page will include a daily and weekly chart with two indicators that are unique to Thrasher Analytics. With a focus on risk mitigation, the focus of these charts is on potential mean-reversion of each asset through the analysis of the two indicators described below.

Volatility-Adjusted Momentum (VaM: This is a spin on the traditional measures of momentum, taking into account the volatility of the underlying asset into the calculation. By adjusting for volatility we can get a better look at potential mean-reversion signals when risk/reward becomes unbalanced towards 40 as 'overbought' or –40 as 'oversold.'

Z-Slope: This indicator takes two lookback periods, one long and one short, for calculating the slope and evaluates the z-score of the difference. This provides insight into whether the current slope of the trend fits within the long-term price history of the security. If a z-score breaks above 2, then the slope has gotten to upward sloping compared to its history. And the opposite is true when we get readings below –2, that the downward sloping trend has gotten 'oversold' compared to the asset's price history.

SPX Daily

S&P 500 INDEX - SPX (WI) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

Volatility Adjusted Momentum

Z-Slope

SPX Weekly

S&P 500 INDEX - SPX (WI) - 1 Week Line Chart - USD - No Layout

Volatility Adjusted Momentum

Z-Slope

18th Aug 2019

Daily –Zslope has reached 'oversold' level.

IWM Daily

IWM Weekly

Volatility Adjusted Momentum

Z-Slope

Volatility Adjusted Momentum

Z-Slope

18th Aug 2019

Neutral readings for both VaM and Z-slope as they move close to 'oversold.'

QQQ Daily

QQQ Weekly

18th Aug 2019

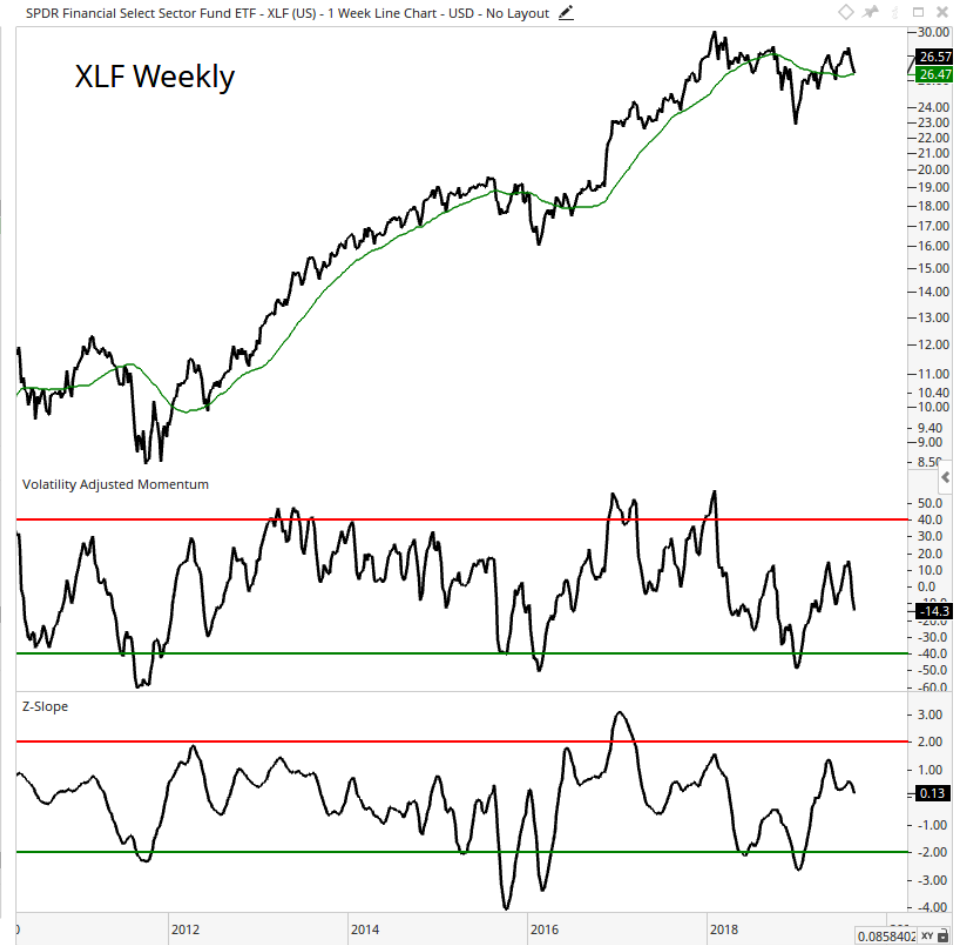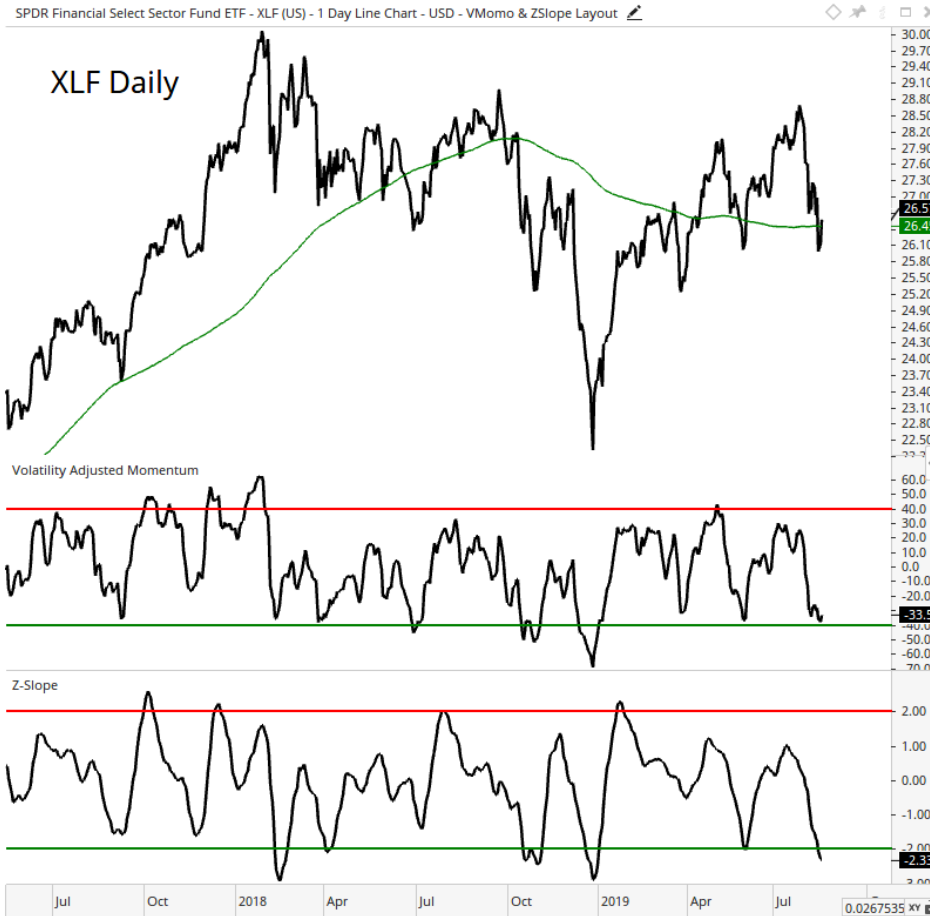Neutral readings for both VaM and Z-slope.

XLB

Neutral readings for both VaM and Z-slope.

XLE Daily
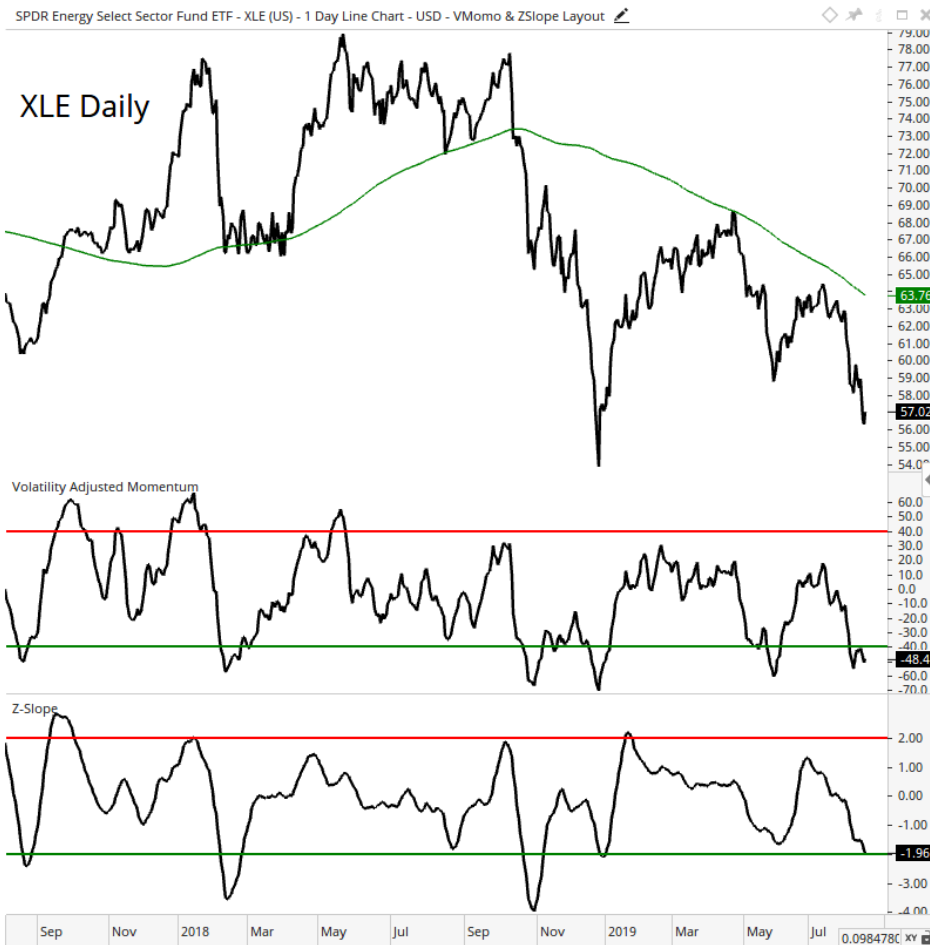
XLE Weekly

Daily VaM and Z-slope are 'oversold' along with the weekly VaM.

Neutral readings for both VaM and Z-Score.

XLF Daily

SPDR Financial Select Sector Fund ETF - XLF (US) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

Volatility Adjusted Momentum

Z-Slope

XLF Weekly

SPDR Financial Select Sector Fund ETF - XLF (US) - 1 Week Line Chart - USD - No Layout

Volatility Adjusted Momentum

Z-Slope

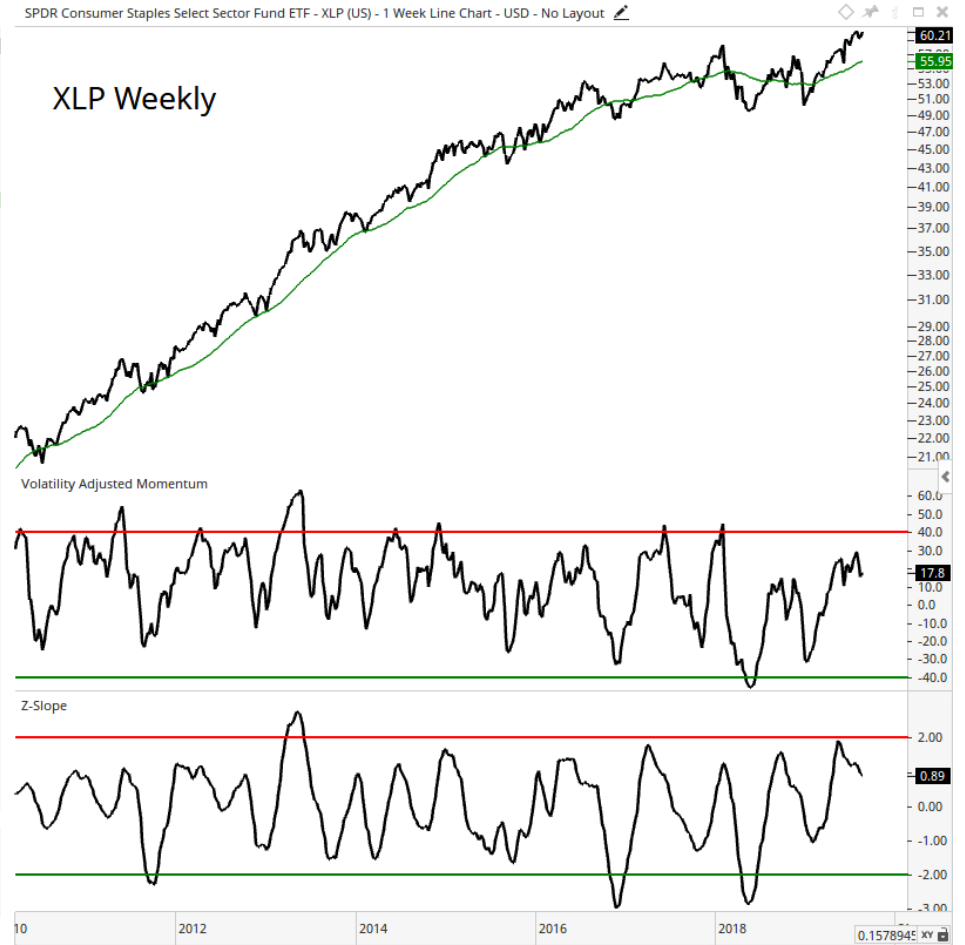18th Aug 2019

Daily Z-slope is 'oversold' with VaM close to being 'oversold.'

Neutral readings for both VaM and Z-slope.

XLI Daily

XLI Weekly

SPDR Industrial Select Sector Fund ETF - XLI (US) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

SPDR Industrial Select Sector Fund ETF - XLI (US) - 1 Week Line Chart - USD - No Layout

Volatility Adjusted Momentum

Z-Slope

18th Aug 2019

Neutral readings for both VaM and Z-slope.

XLP Daily

XLP Weekly
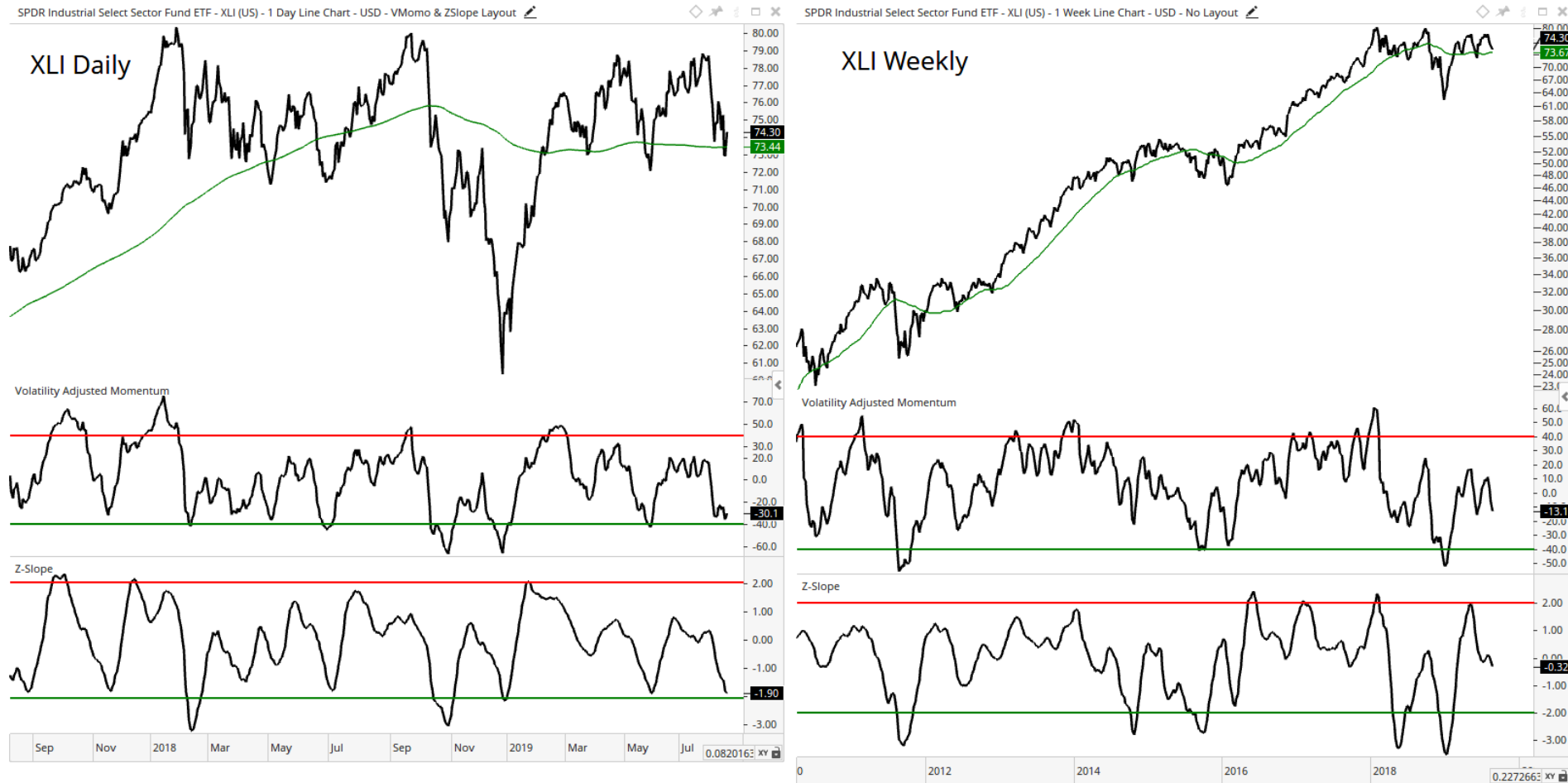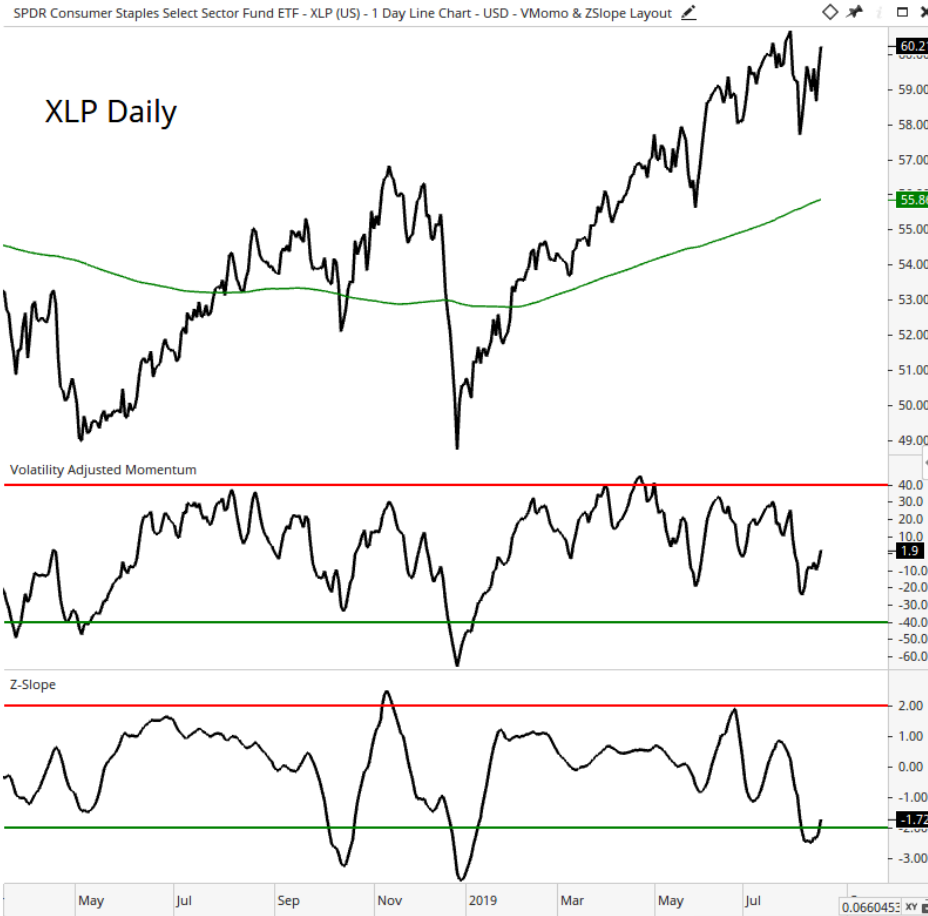
Neutral readings for both VaM and Z-slope after coming off 'oversold' level.

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SPDR Real Estate Select Sector Fund ETF - XLRE (US) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

XLRE Daily

Volatility Adjusted Momentum

Z-Slope

SPDR Real Estate Select Sector Fund ETF - XLRE (US) - 1 Week Line Chart - USD - No Layout
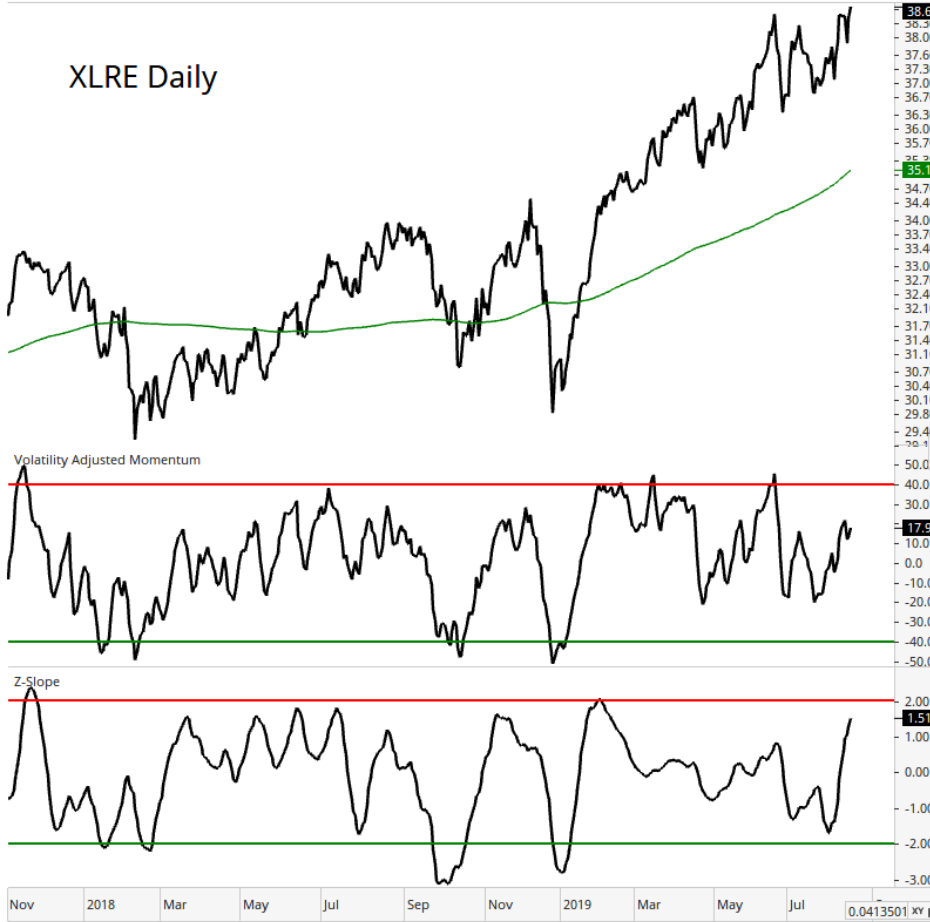
XLRE Weekly

Volatility Adjusted Momentum

Z-Slope

Optuma   optuma.com

18th Aug 2019

Neutral readings for both VaM and Z-slope.

XLU Daily

XLU Weekly

Neutral readings for both VaM and Z-slope.

SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

XLY Daily

Volatility Adjusted Momentum

Z-Slope

SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - 1 Week Line Chart - USD - No Layout

XLY Weekly

Volatility Adjusted Momentum

Z-Slope

18th Aug 2019

Neutral readings for both VaM and Z-slope.

XLV Daily

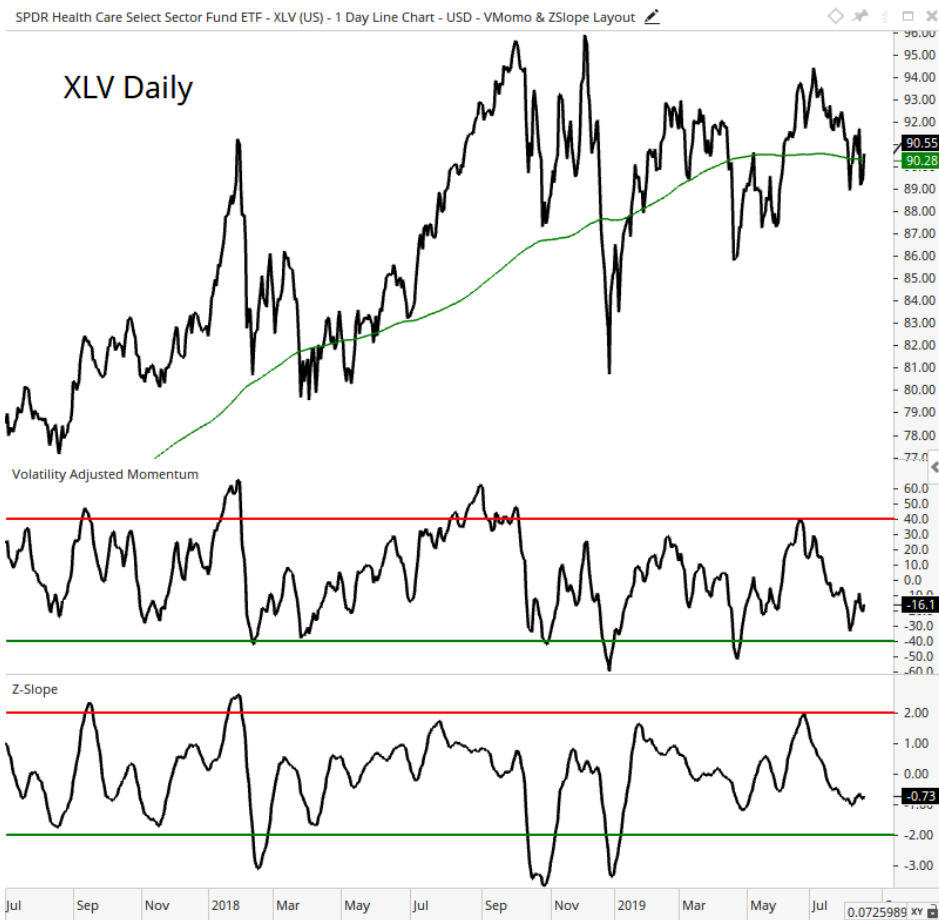SPDR Health Care Select Sector Fund ETF - XLV (US) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

Volatility Adjusted Momentum

Z-Slope

XLV Weekly

SPDR Health Care Select Sector Fund ETF - XLV (US) - 1 Week Line Chart - USD - No Layout

Volatility Adjusted Momentum

Z-Slope

18th Aug 2019

Neutral readings for both VaM and Z-slope.

Both daily VaM and Z-slope are 'oversold.'

EEM Daily

EEM Weekly

iShares MSCI Emerging Markets ETF - EEM (US) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

iShares MSCI Emerging Markets ETF - EEM (US) - 1 Week Line Chart - USD - No Layout

Volatility Adjusted Momentum
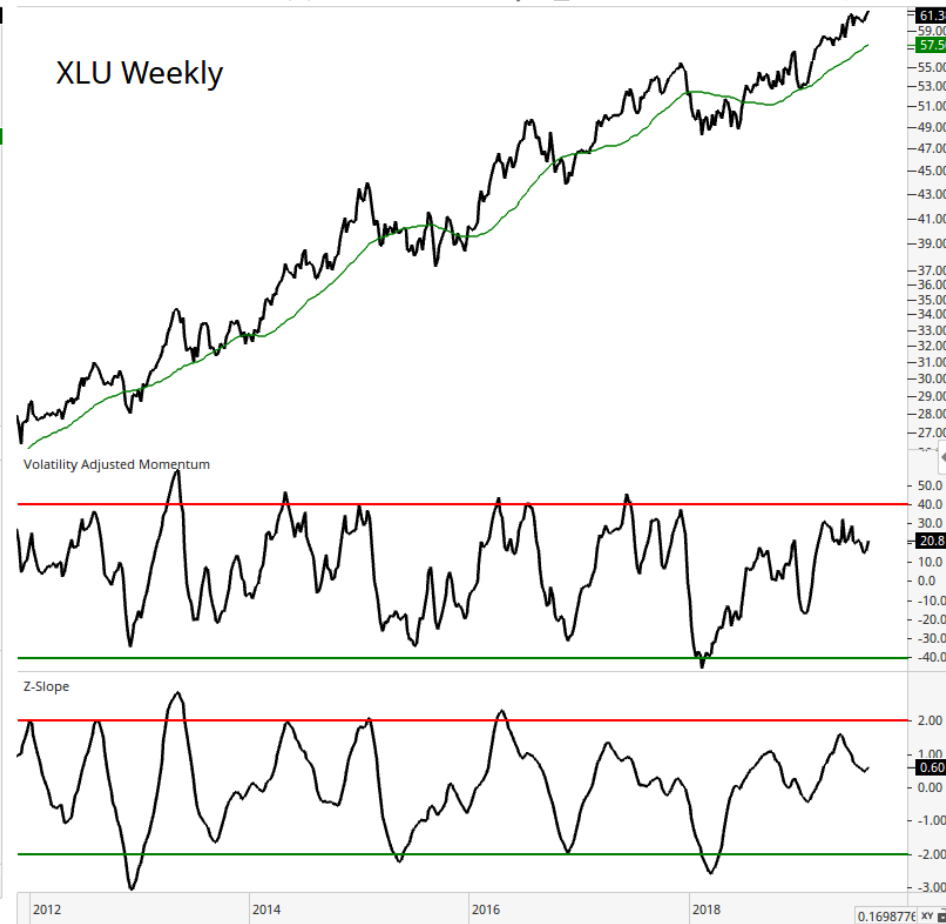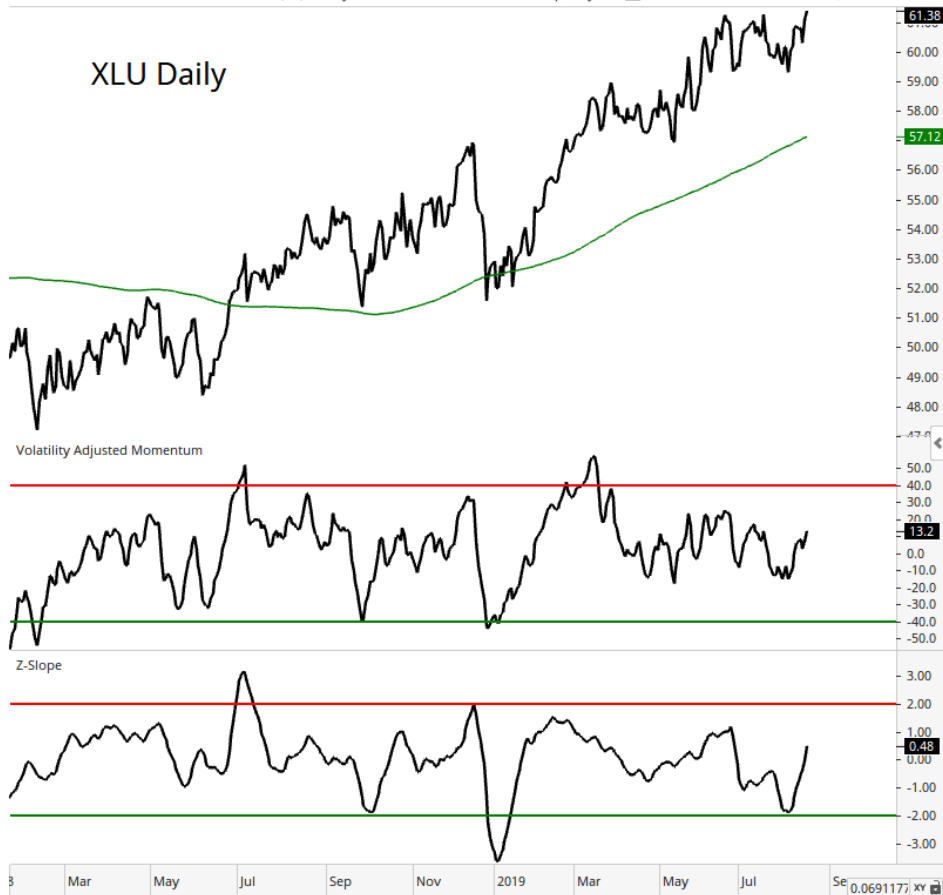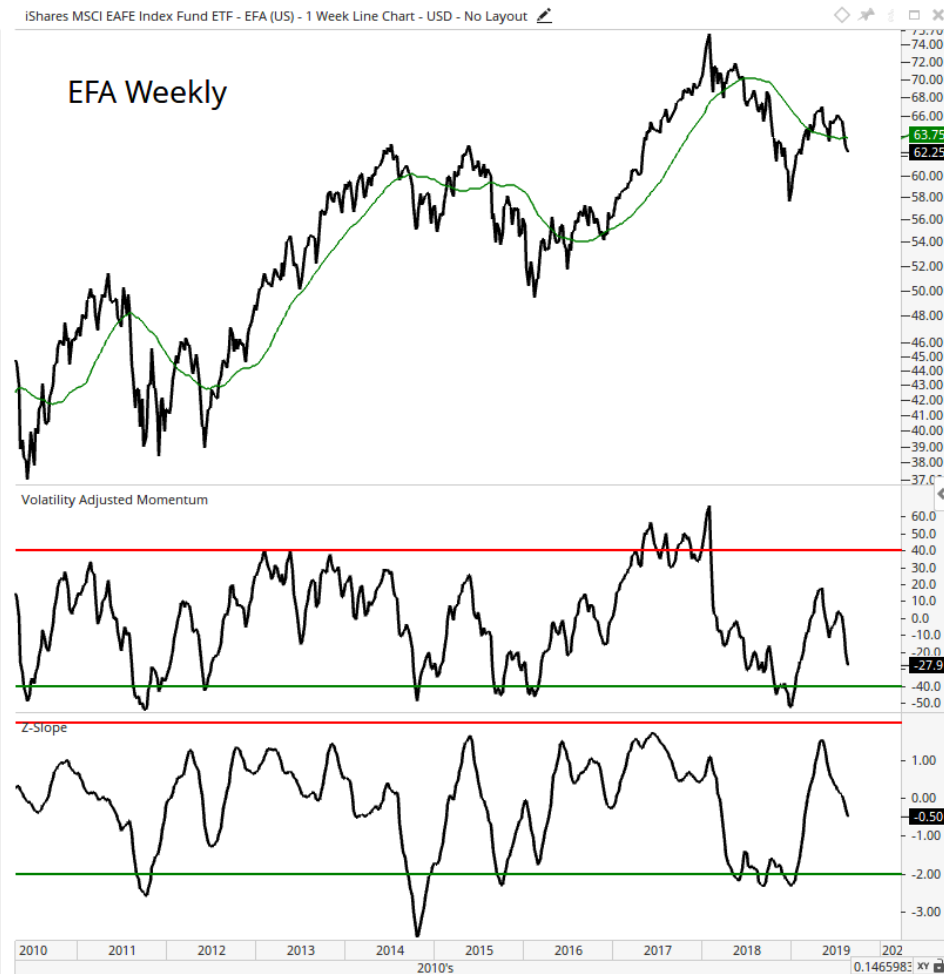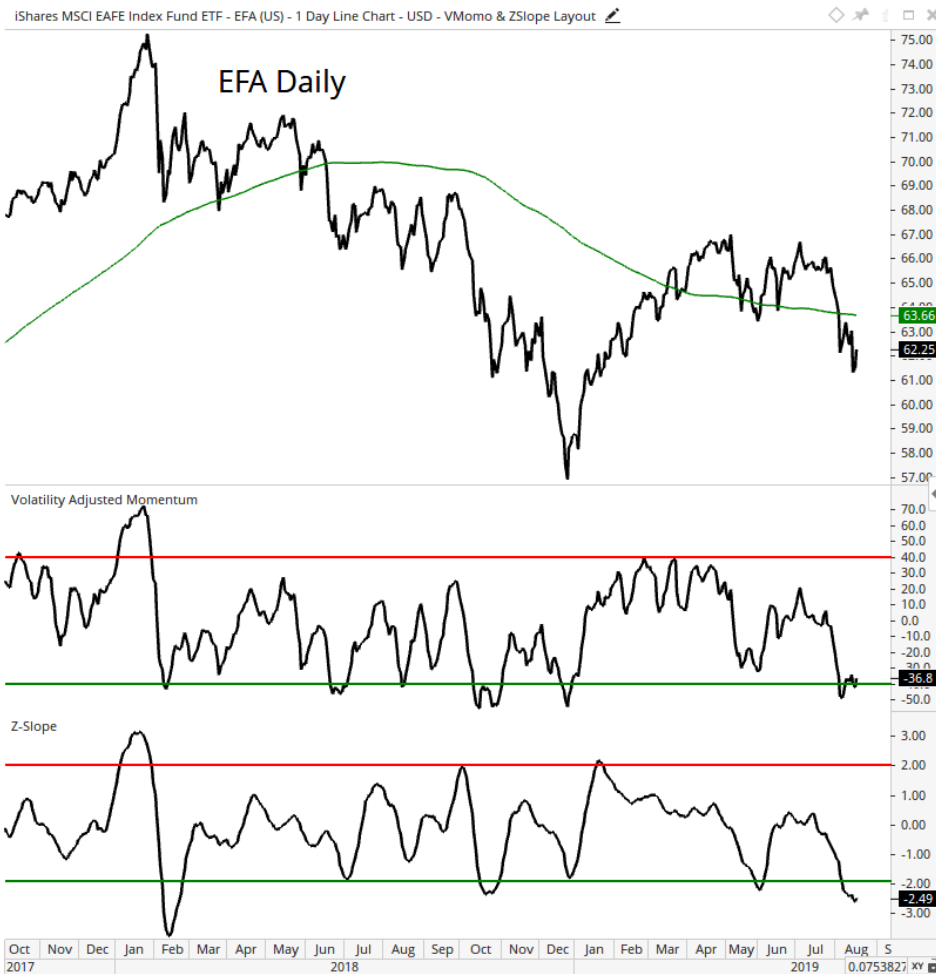
Z-Slope

18th Aug 2019

Daily VaM is 'oversold' with Z-slope close to 'oversold' level.

THRASHER ANALYTICS

U.S. Dollar Daily

U.S. Dollar Weekly
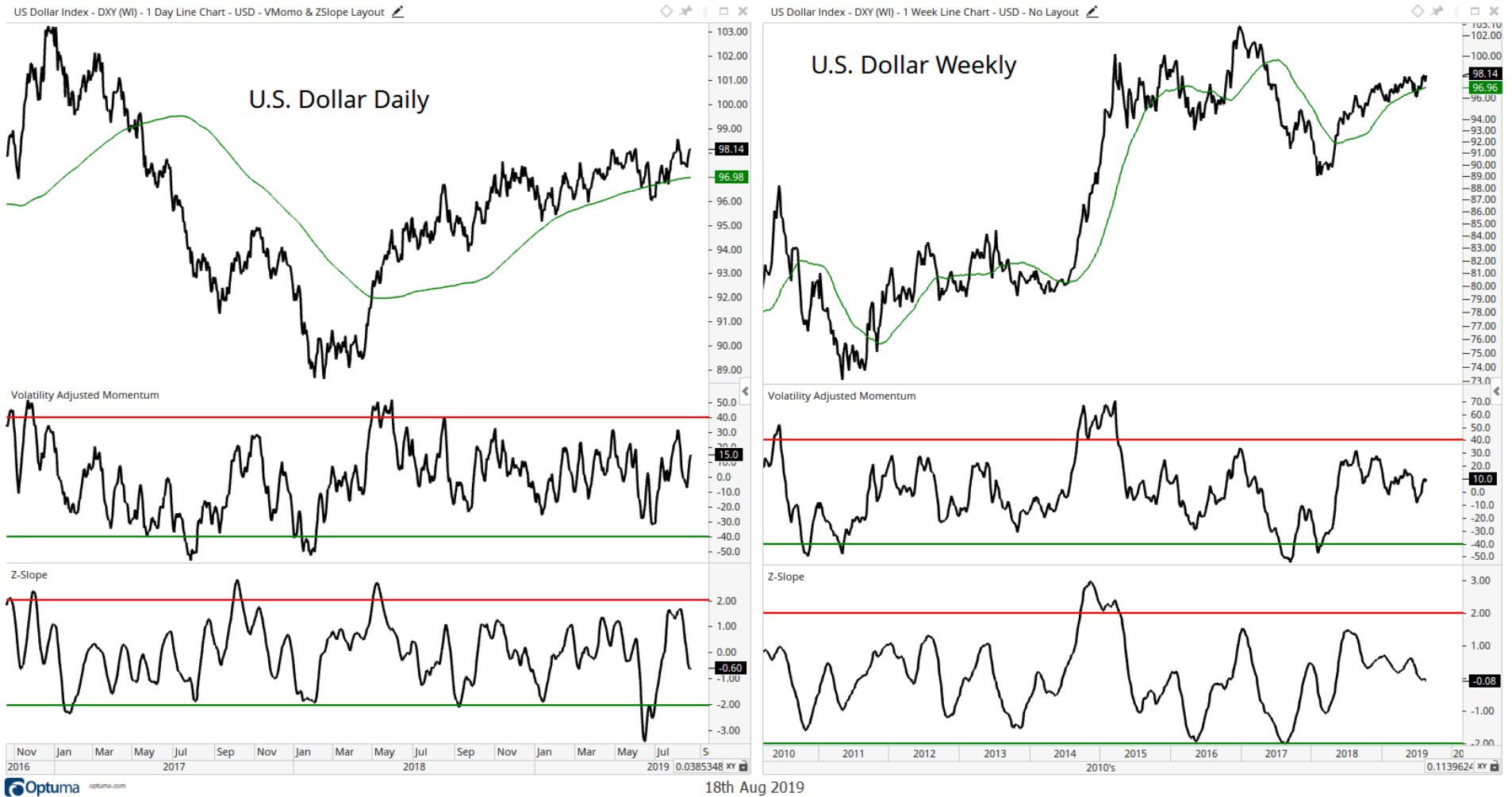
Neutral readings for VaM and daily Z-slope moving to 'overbought' level

18th Aug 2019

Gold is now 'overbought' for daily and weekly VaM and Z-slope indicators.

Oil Daily

Oil Weekly

Light, Sweet Crude Oil Futures - CL2Spot (Cmdty) - 1 Day Line Chart - USD - VMomo & ZSlope Layout

Light, Sweet Crude Oil Futures - CL2Spot (Cmdty) - 1 Week Line Chart - USD - No Layout

Volatility Adjusted Momentum

Z-Slope

18th Aug 2019

Neutral readings for both VaM and Z-slope.
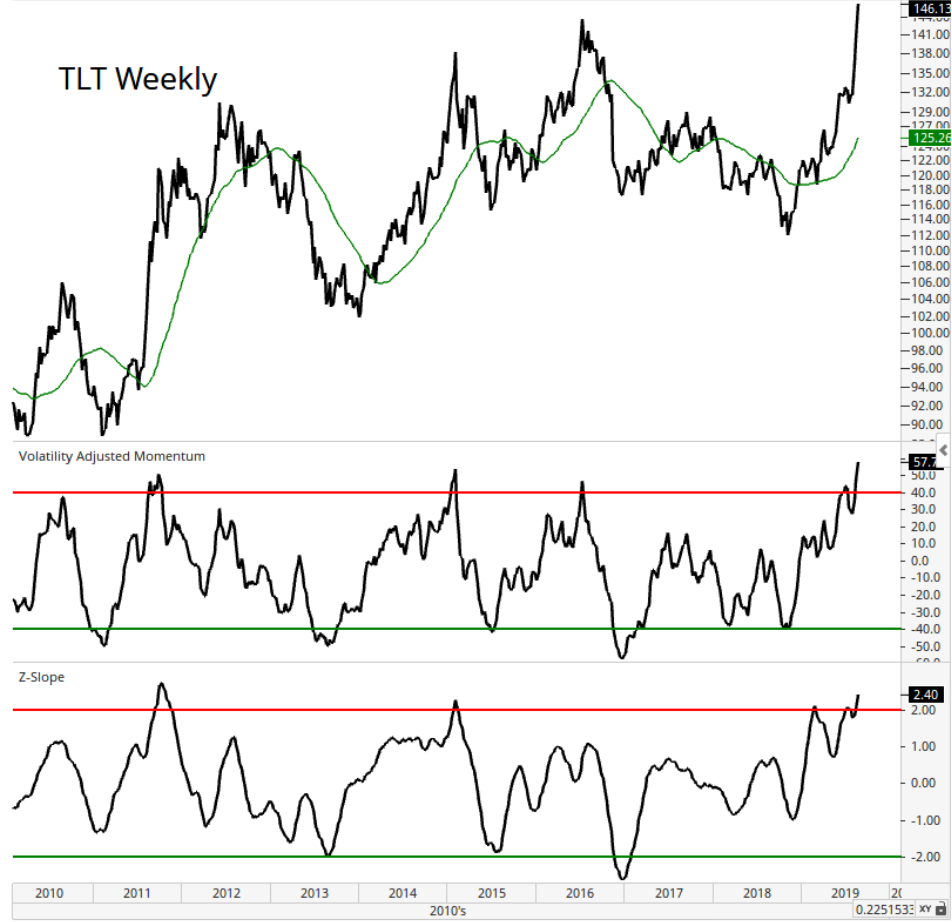
TLT is now 'overbought' for daily and weekly VaM and Z-slope indicators.

T rend-based analysis is a process built on the idea of enduring minor pullbacks in the anticipating of avoiding protracted drawdowns in financial markets. With a focus on stepping out of the market during large down trends, the Thrasher Analytics Adaptive Trend Model (TAATM) pursues to minimize the "whipsaws" of signals during highly volatile periods of market activity. To accomplish this, TAATM incorporates multiple look-back time periods and incorporates volatility gauges in its evaluation of the equity market's overall trend.

Thrasher Analytics analysis concludes the market's trend is led by the resulting trend of its individual stocks. This means, if the majority of stocks are trending in one direction, then the broad index will be persuaded to follow that trend as well. By incorporating the individual stock trends, volatility, and multiple time periods, the TAATM provides a data-focused look at the overall trend of the U.S. equity market.
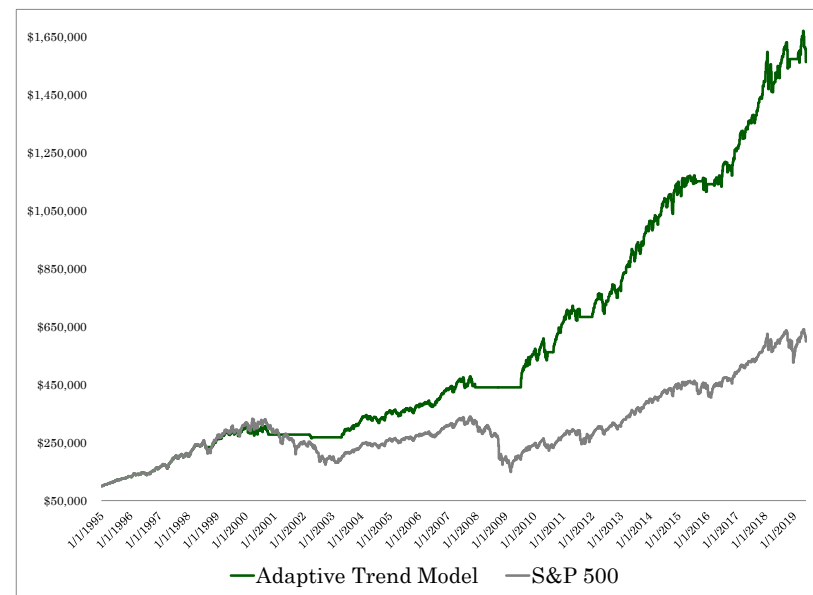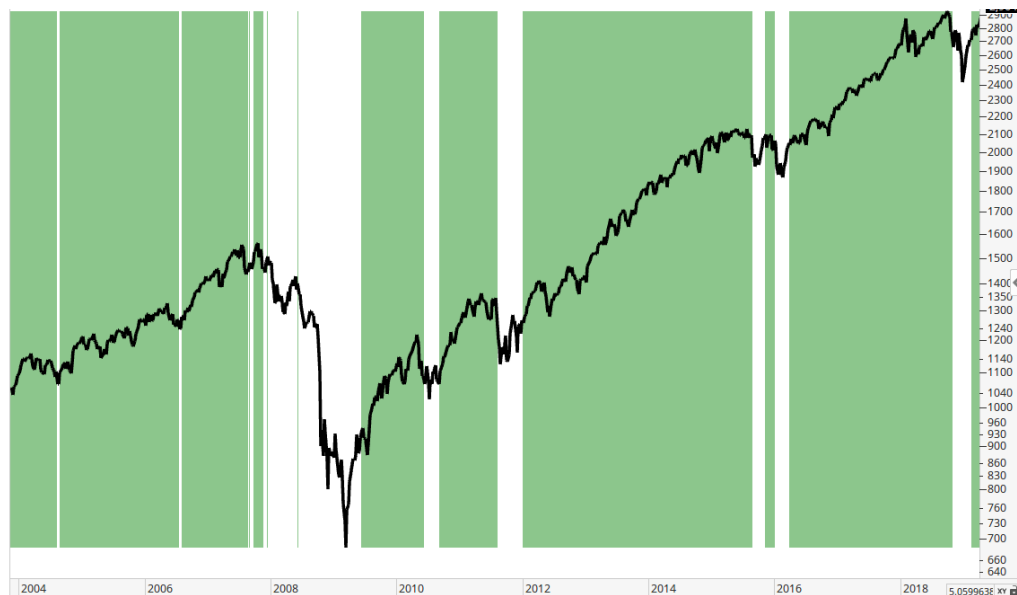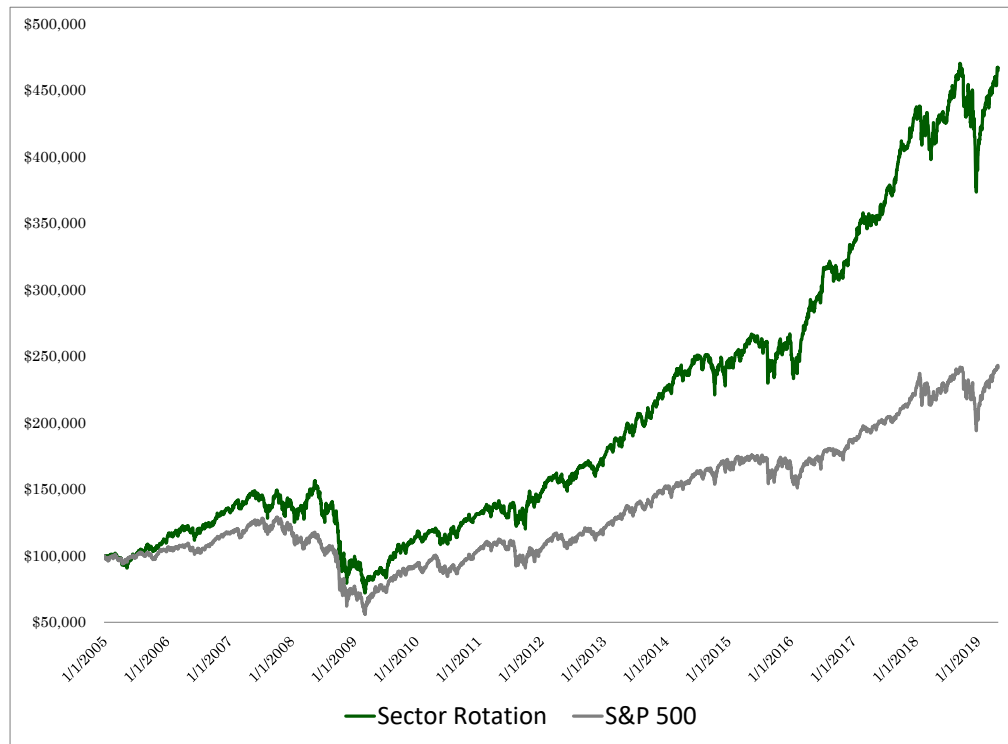
	Annualized Return	Annualized Volatility	Beta	Sharpe	Maximum Drawdown
Adaptive	12.5%	10.3%	0.47	0.97	14.1%
S&P 500	8.9%	15.3%	1	0.42	56.6%

Provided charts, data, and descriptions are a result of a back test using historical market data. No representation is being made that the use of this strategy or any system or data will generate profits. The results do not represent actual results and actual results may significantly differ from the theoretical returns being presented.

Please see complete disclosure for additional information.

T hrasher Analytics holds the belief, resulted from an in-depth examination of the performance of the primary S&P sectors, that they historically cycle through periods of strength and weakness. In order to move towards capturing the alpha from this rotation, a mean-reversion model is deployed with a monthly rebalance of the lowest scoring sectors. Using proprietary methods of systematic technical analysis, Thrasher Analytics sector rotation model focuses on equity sectors that are most heavily showing signs of volatility and trend exhaustion and likely to be exposed to a positive shift in investor sentiment. By pairing this mean reversion approach towards sectors with the Adaptive Trend Model for the broad index, a layer of risk management can be achieved through strategy diversification.
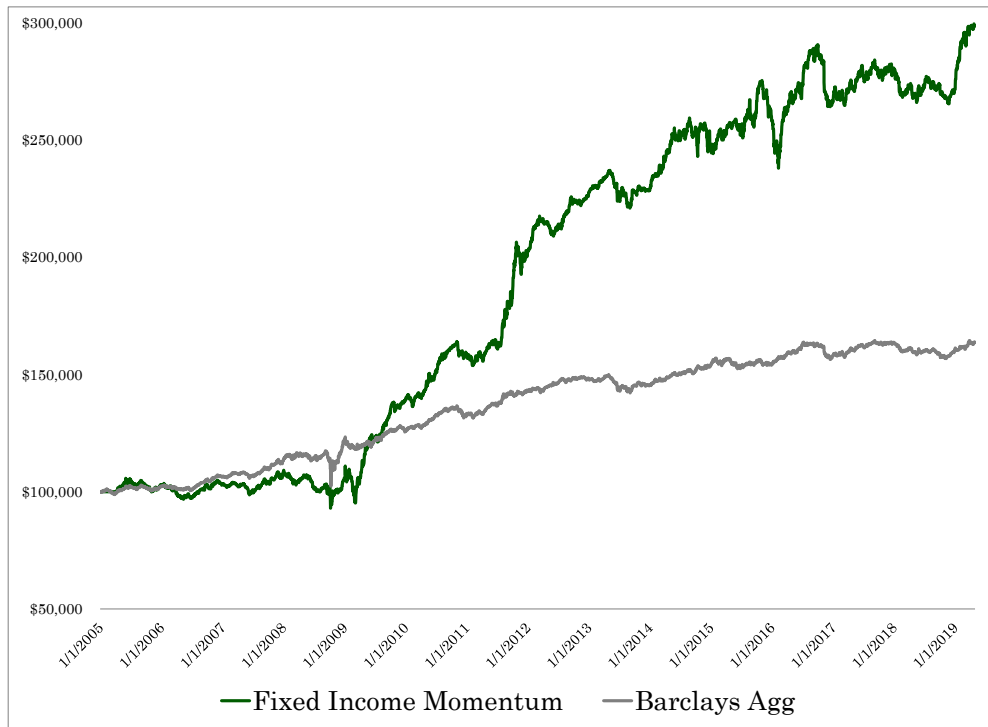
	Annualized Return	Annualized Volatility	Beta	Sharpe	Maximum Drawdown
Sector	12.7%	15.9%	0.96	0.64	53.9%
S&P 500	7.5%	14.8%	1	0.34	56.6%

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If equities are the speedboats in the sea of financial markets then fixed income securities are the tanker ships. While stocks can move violently in both directions, Thrasher Analytics research has shown that fixed income markets historically show consistent trends. Because of the tanker-like movements displayed by bonds, a quarterly rebalance method is used for the Thrasher Analytics Fixed Income Momentum Model, with a pursuit focusing on the strongest performing corners of the fixed income market. By evaluating the risk adjusted momentum of both long- and short-term momentum, the Fixed Income Momentum Model also incorporates a proprietary indicator that acts as a throttle of the momentum score of each fixed income ETF. This indicator penalizes those ETFs that have moved too high and too fast in short-term trading while still allowing overall positive momentum to be the guiding principle of the model.

	Annualized Return	Annualized Volatility	Beta	Sharpe	Maximum Drawdown
Fixed Income	8.3%	8.2%	1.04	0.7	14.9%
Barclays Agg	3.6%	3.7%	1	0.29	11.0%

Provided charts, data, and descriptions are a result of a back test using historical market data. No representation is being made that the use of this strategy or any system or data will generate profits. The results do not represent actual results and actual results may significantly differ from the theoretical returns being presented.

Please see complete disclosure for additional information.

The concept of diversification is not new to financial markets. While many market participants focus on the diversification of the underlying holdings. This procedure is can be vastly skewed during periods of high market turmoil, in which correlations across asset classes tend to historically rise. Thrasher Analytics believes in diversifying in strategy styles. By using multiple investment philosophies, specifically trend following, mean-reversion, and momentum, a blended model is created that has the ability to adapt to changing market environments and volatility. For example, when equity markets show a strong trend preference, the adaptive S&P 500 trend following component benefits but if there's a shift favoring a range-bound market the sector rotation strategy based on mean-reversion should provide favorable performance.
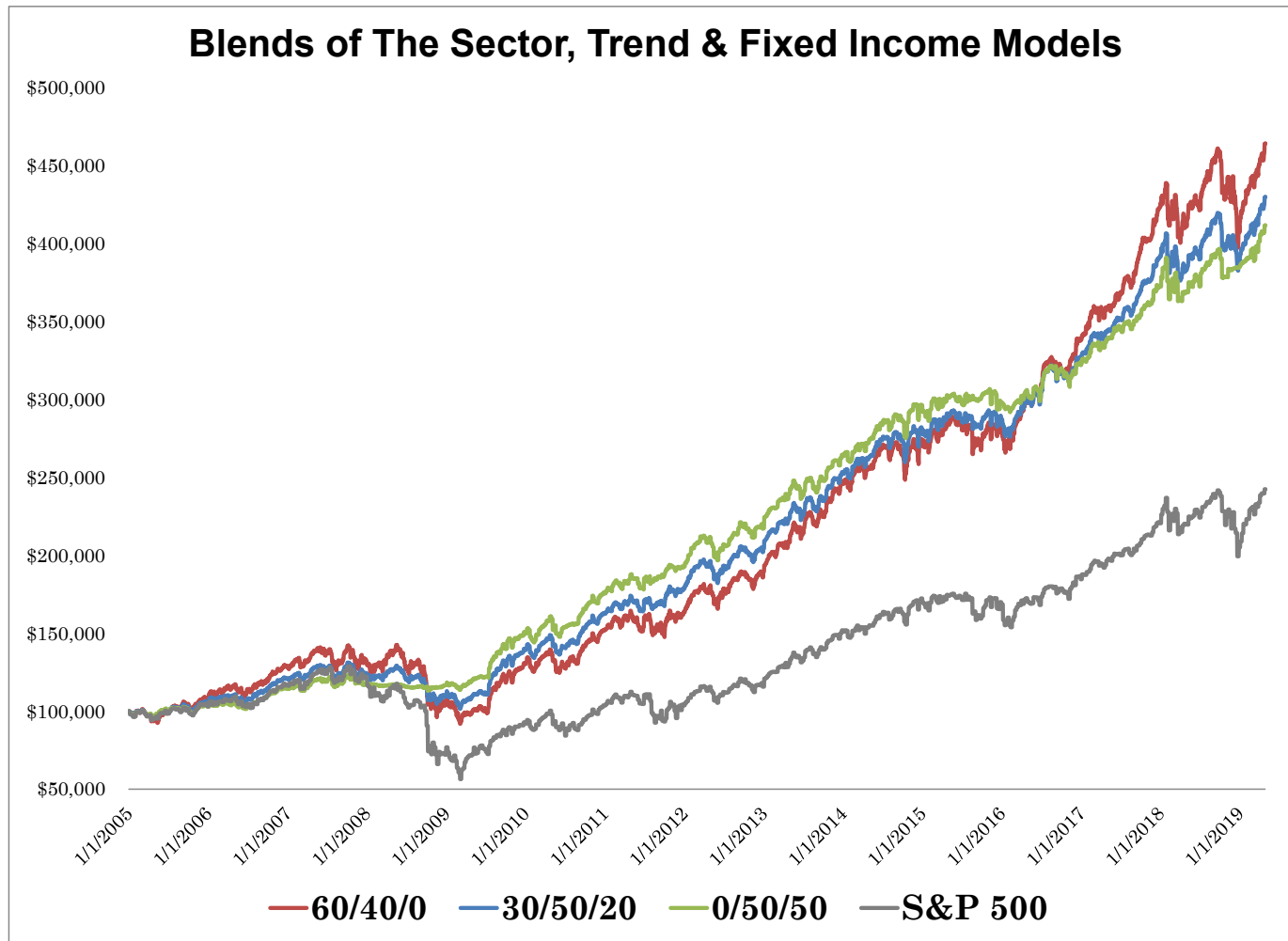
Blends of The Sector, Trend & Fixed Income Models

60/40/0   30/50/20   0/50/50   S&P 500

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Trend (weekly)	Sector Rotation	Fixed Income Momentum
Positive	XLRE	JNK
	XLV	AGG
	XLP	

Back Test Disclaimer:

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Back tested performance is NOT an indicator of future actual results. The results reflect performance of a strategy not [historically] offered to investors and do NOT represent returns that any investor actually attained. Back tested results are calculated by the retroactive application of a model constructed on the basis of historical data and based on assumptions integral to the model which may or may not be testable and are subject to losses.

Back tested performance is developed with the benefit of hindsight and has inherent limitations. Specifically, back tested results do not reflect actual trading or the effect of material economic and market factors on the decision-making process. Since trades have not actually been executed, results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity, and may not reflect the impact that certain economic or market factors may have had on the decision-making process. Further, back testing allows the security selection methodology to be adjusted until past returns are maximized. Actual performance may differ significantly from back tested performance.

 The models, results, and data shown assumes that the markets were sufficiently liquid to permit the types of trading used in the model. A $6.95 per trade transaction fee was assumed during the back tested period but the results give no consideration to the effect of taxes of any kind. Because the trades assumed in Thrasher Analytics' presentations have not actually been executed, the results shown may have under- or over-compensated for the impact, if any, of certain market factors such as lack of liquidity or the ability to obtain the execution prices that have been assumed. The models developed and presented by Thrasher Analytics LLC require an historical period of data for parameter estimation prior to the actual commencement of the period shown in the model and in the back tested results. No representation is being made that any account will or is likely to achieve profit or loss similar to those shown in this or any other content produced by Thrasher Analytics LLC.

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