

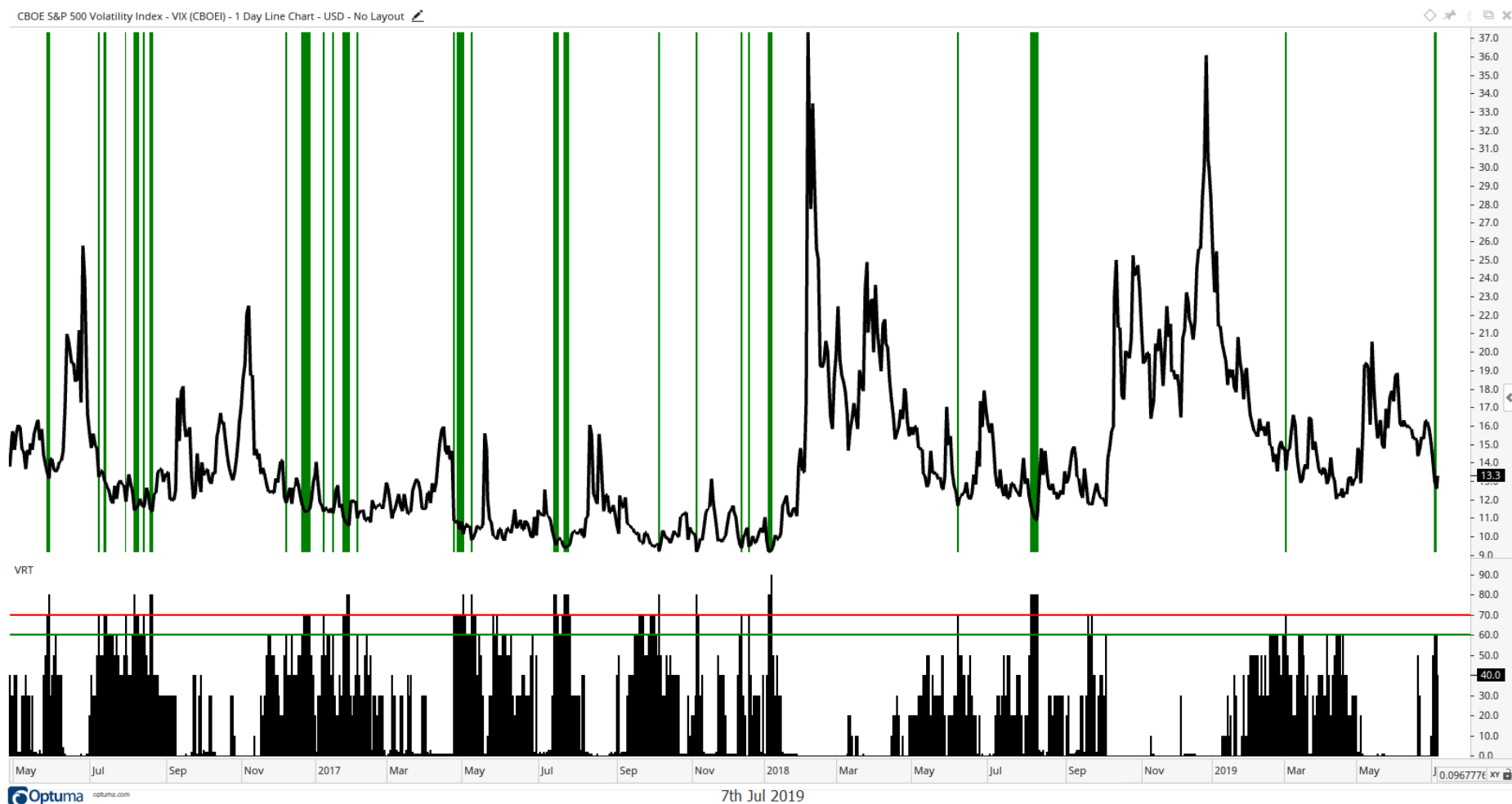
**BI-WEEKLY RESEARCH & ANALYSIS**

**ThrasherAnalytics.com**

1 Day - Watch List - No Layout

■	Sector	> 50MA	> 200MA	1wk Perf ▼	1mo Perf	3mo Perf	12mo Perf
✓	SPDR Real Estate Select Sector Fund ETF	True	True	2.56%	1.26%	3.17%	13.79%
✓	SPDR Technology Select Sector Fund ETF	True	True	2.45%	8.13%	5.31%	13.82%
✓	SPDR Communication Services Select Sector ETF	True	True	2.42%	8.15%	4.33%	0.86%
✓	SPDR Consumer Staples Select Sector Fund ETF	True	True	2.29%	3.36%	6.85%	14.1%
✓	SPDR Consumer Discretionary Select Sector Fund ETF	True	True	2.1%	7.18%	3.56%	11.2%
✓	SPDR Financial Select Sector Fund ETF	True	True	2.03%	4.07%	5.86%	6.1%
✓	SPDR Utilities Select Sector Fund ETF	True	True	1.76%	0.90%	4.44%	15.01%
✓	SPDR Health Care Select Sector Fund ETF	True	True	1.2%	4.62%	1.9%	10.57%
✓	SPDR Materials Select Sector Fund ETF	True	True	0.72%	4.56%	1.9%	1.31%
✓	SPDR Industrial Select Sector Fund ETF	True	True	0.12%	3.36%	0.65%	7.79%
✓	SPDR Energy Select Sector Fund ETF	False	False	-0.97%	5.36%	-6.69%	-16.11%

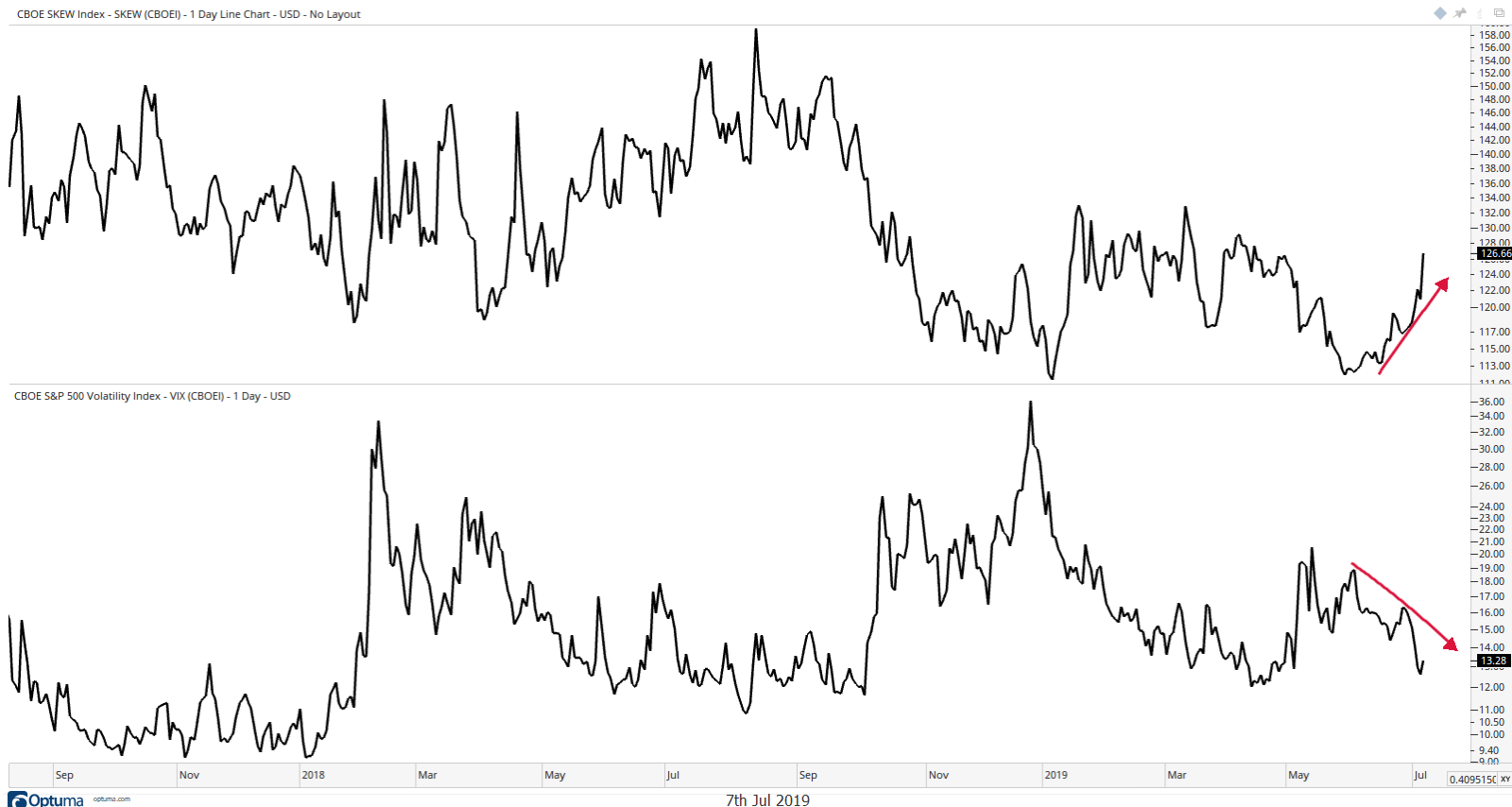
All the S&P sectors now have positive one month returns, with each, except for energy, finishing in the green last week.



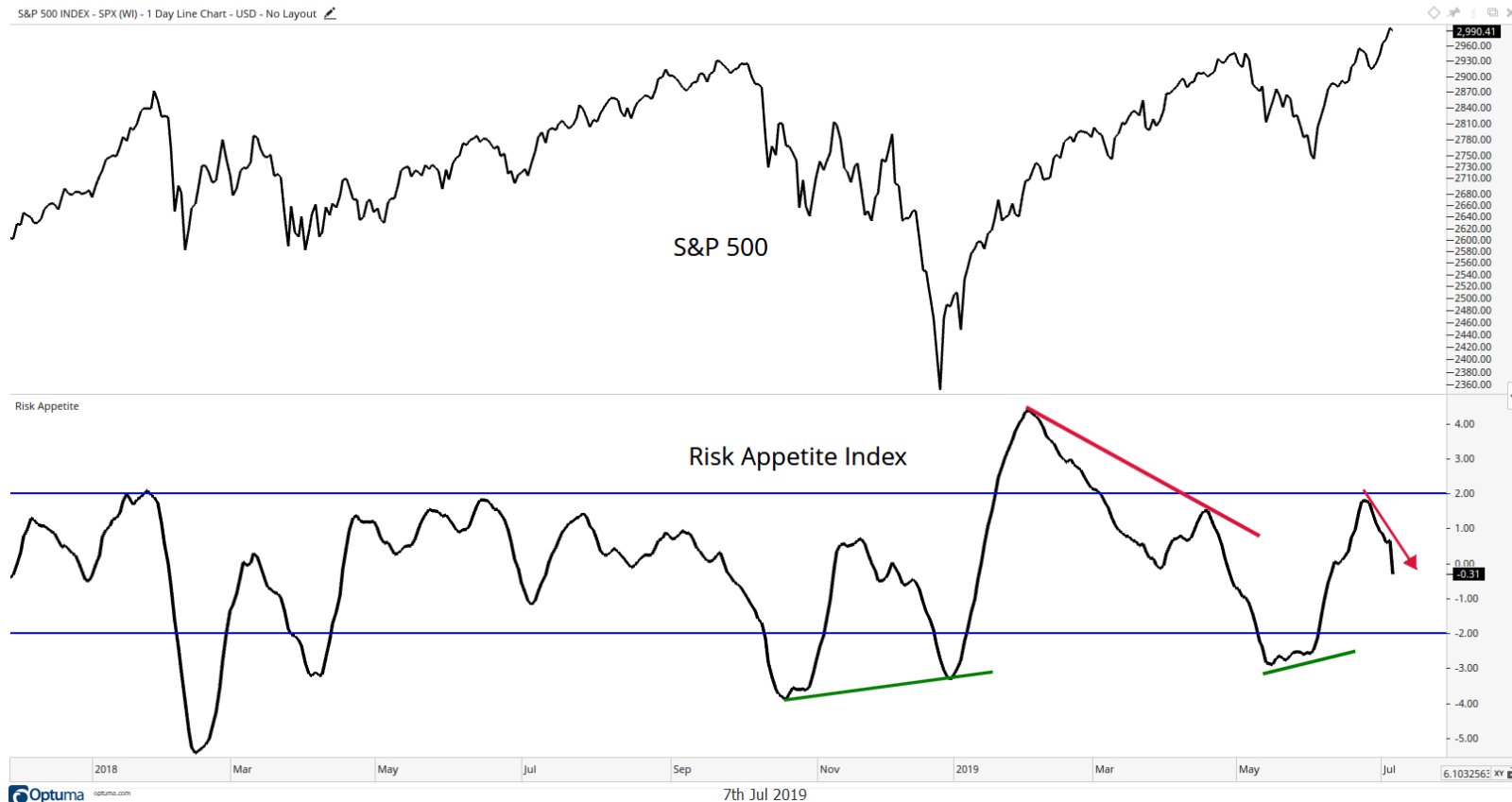
As I noted in one of my emails last week, the VRT produced a signal on Thursday. For the first time since prior to the Q4 sell-off, weekly volatility has begun to compress along with daily data. I won't spend too much time here since I just covered this chart and topic on Thursday, but I'll repeat that I think volatility is underpriced and hedges look attractive at these levels.



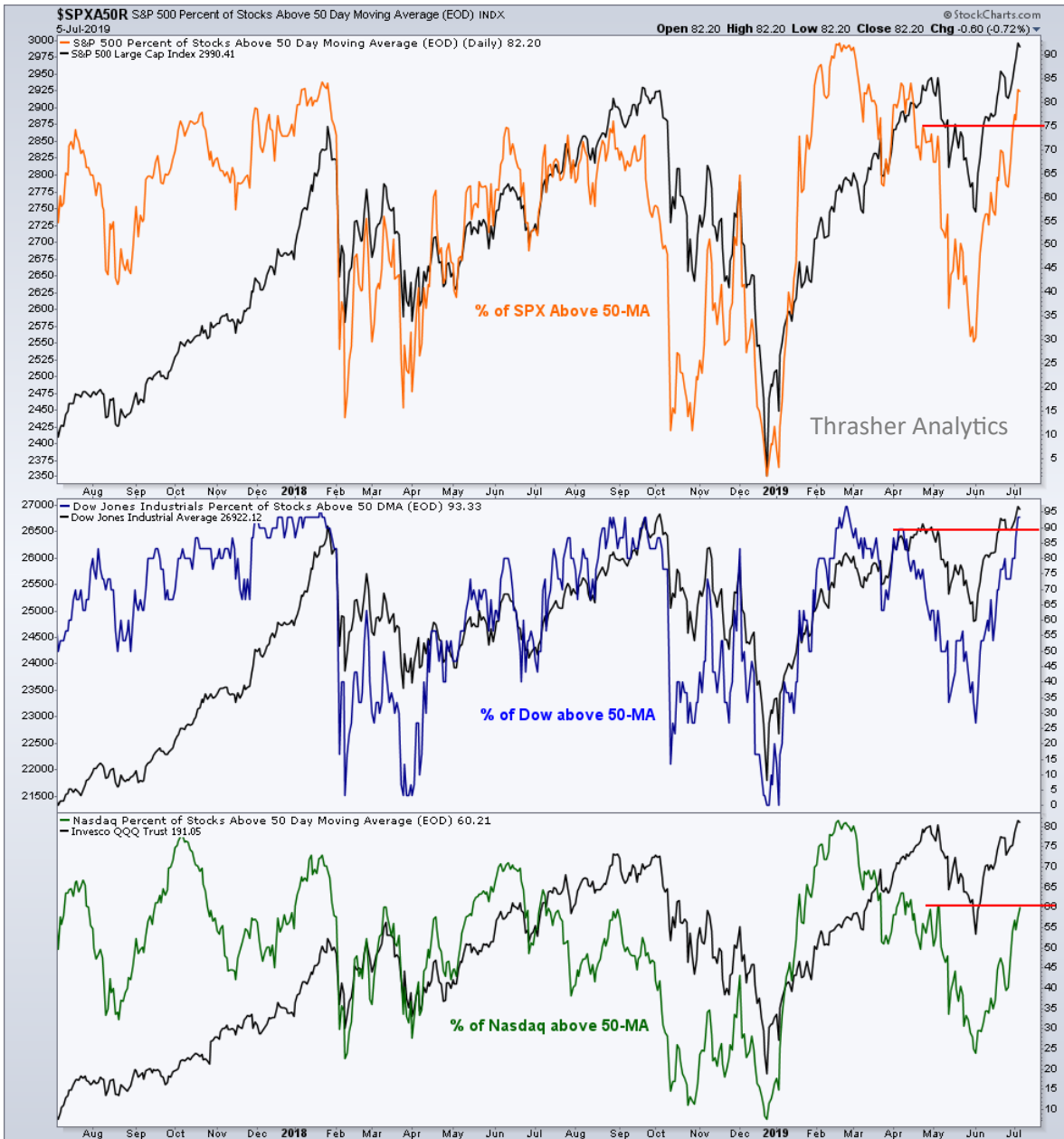
The S&P 500 set a new all-time high last week and received confirmation from the 14-day RSI, a positive sign for the current up trend. This week brings with it a whole host of data and potential price-moving catalyst—the biggest of which will be Fed Powell’s testimony before the House and Senate where a great deal of attention will be given to his read on the data (important after the strong jobs report last week) and the Fed’s plan for going forward with rate cuts.



I showed this chart last week but I wanted to share it again because I think it's important to the current market environment. Traders are bidding up OTM S&P 500 options. Readings above 100 in the SKEW Index indicate a larger weight being placed on left-tail of the distribution of S&P returns, indicating an expectation of larger 'tail risk' price events. The higher above 100 the index goes, the higher the expected 'tail risk' being priced into OTM options. Typically Skew and VIX have a fairly positive correlation, but as you can see in the chart above, it's not a perfect short-term correlation. With the focus of VIX being on closer to ATM options, it's not picking up OTM activity being reflected in the Skew Index. There's been several historical instances of Skew rising ahead of the VIX, but often the VIX plays "catch up", suggesting we see the VIX move higher in the coming weeks.



The Risk Appetite Index (RAI) rose steadily off the May low, confirming the ‘risk on’ environment of the market that led to the initial June new high. However, the RAI has begun to break down, making lower lows with the latest new high in the S&P 500. This suggests the latest leg up in stocks has been on a more defensive lean, not by the addition of beta or other gauges of risk-on behavior typically associated with a bullish advance in the equity index.



I previously showed the bearish divergences in breadth on this chart in a prior letter. Since then, the percentage of stocks above their 50-day Moving Averages has improved for all three major indices. The S&P and Dow have seen their levels from the prior equity highs taken out or met and the Nasdaq is just below its May high in % above 50-MA.

This is a positive improvement and a sign that we're seeing more participation in individual stocks.



The volume profile for the S&P 500 since the late-June dip has been supportive with more shares recently trading on up ticks in the index. While net volume hasn't fully recovered the June decline, since more shares were trading during that down period, the short-term up trend in net volume is a positive sign.



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.



Daily VaM is approaching 'overbought' status.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-Score.



Daily VaM is approaching 'overbought' status.





Daily VaM is approaching 'overbought' status.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Daily VaM is approaching 'overbought' status.



Daily VaM is approaching 'overbought' status.





Neutral readings for both VaM and Z-slope.





Neutral readings for both VaM and Z-slope.



Neutral readings for both VaM and Z-slope.



Daily VaM and z-slope are both coming off 'overbought' readings and the weekly VaM is 'overbought'. Gold is at risk of reverting lower.



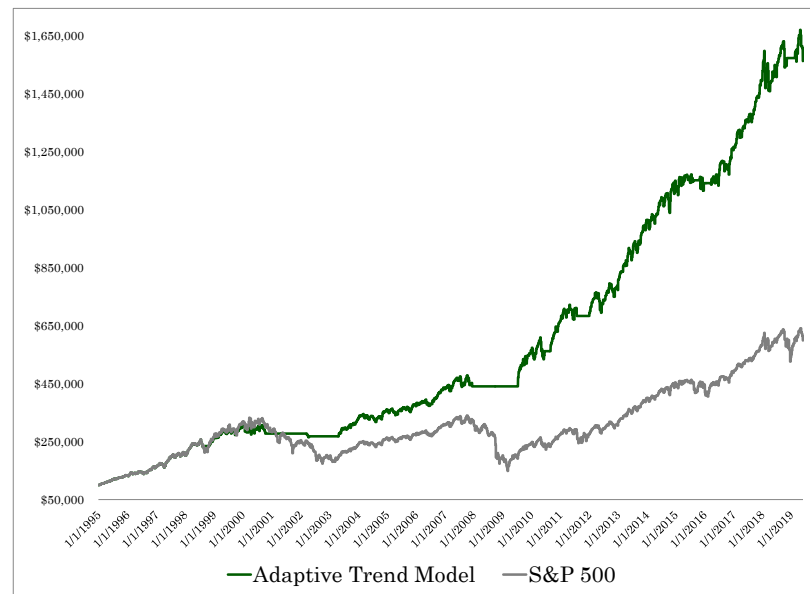
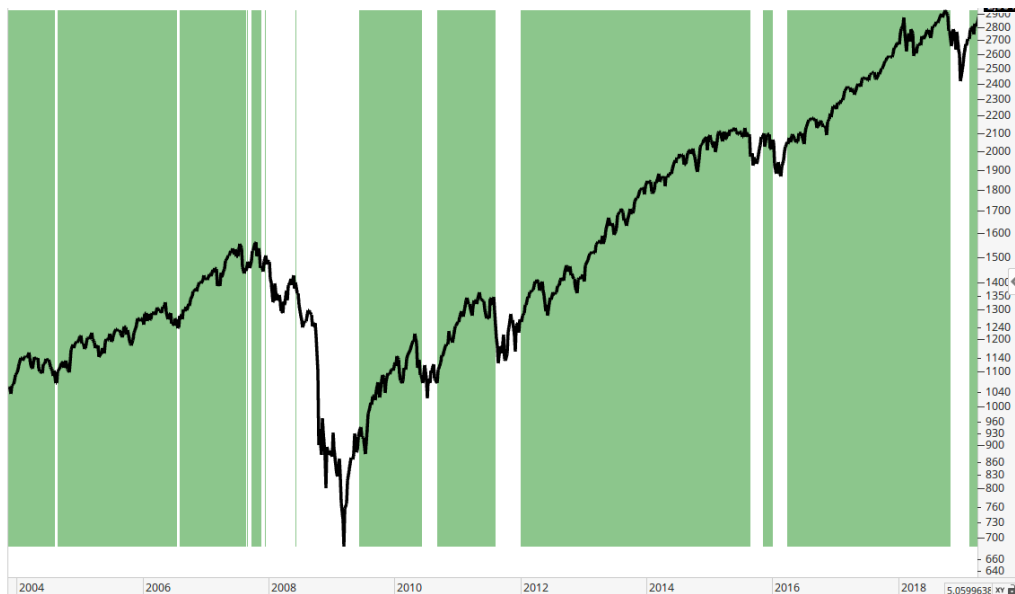
Neutral readings for both VaM and Z-slope.



Neutral readings for both daily VaM and Z-slope but weekly VaM and z-slope are both now 'overbought.'

**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.



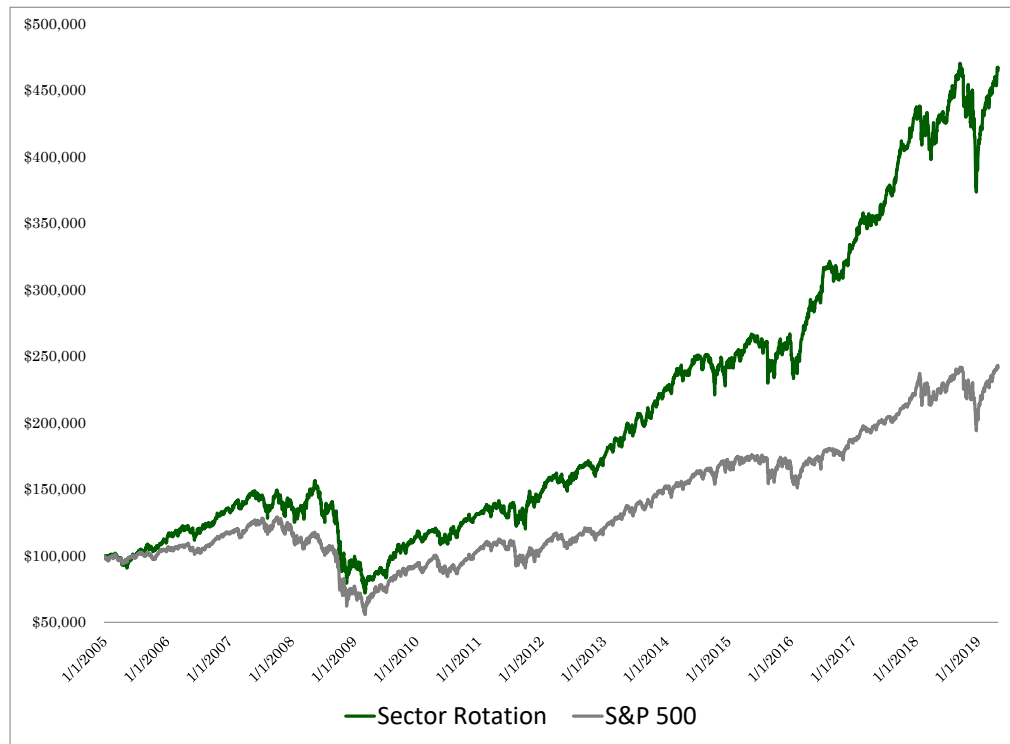
	<b>Annualized Return</b>	<b>Annualized Volatility</b>	<b>Beta</b>	<b>Sharpe Ratio</b>	<b>Maximum Drawdown</b>
<b>Adaptive Trend</b>	12.5%	10.3%	0.47	0.97	14.1%
<b>S&amp;P 500</b>	8.9%	15.3%	1	0.42	56.6%

*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.



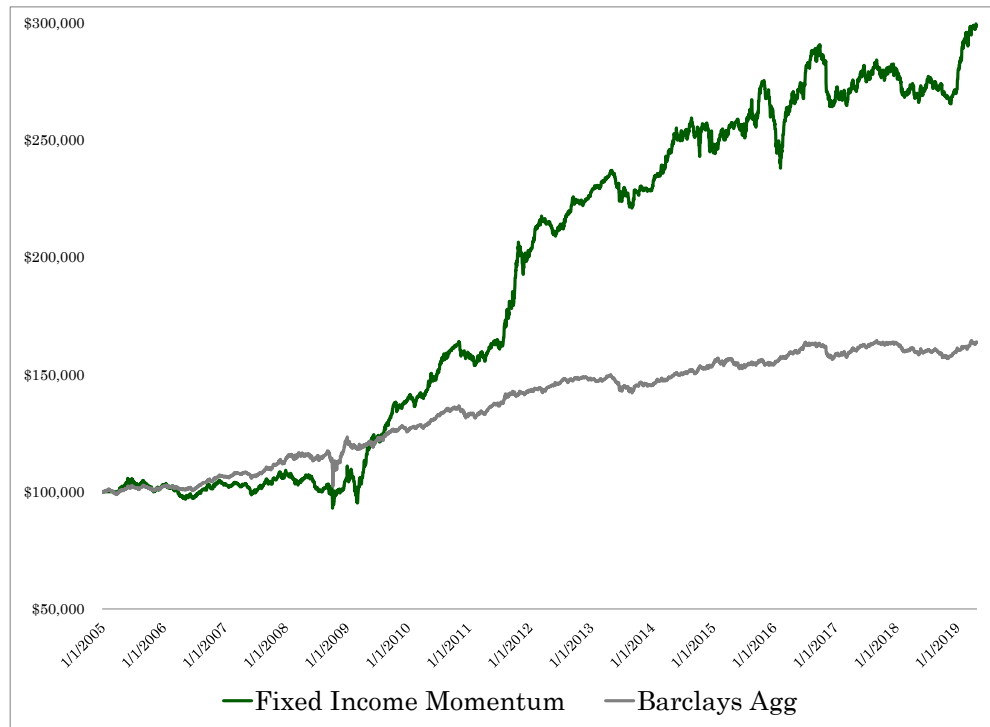


	<b>Annualized Return</b>	<b>Annualized Volatility</b>	<b>Beta</b>	<b>Sharpe Ratio</b>	<b>Maximum Drawdown</b>
<b>Sector Rotation</b>	12.7%	15.9%	0.96	0.64	53.9%
<b>S&amp;P 500</b>	7.5%	14.8%	1	0.34	56.6%

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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.

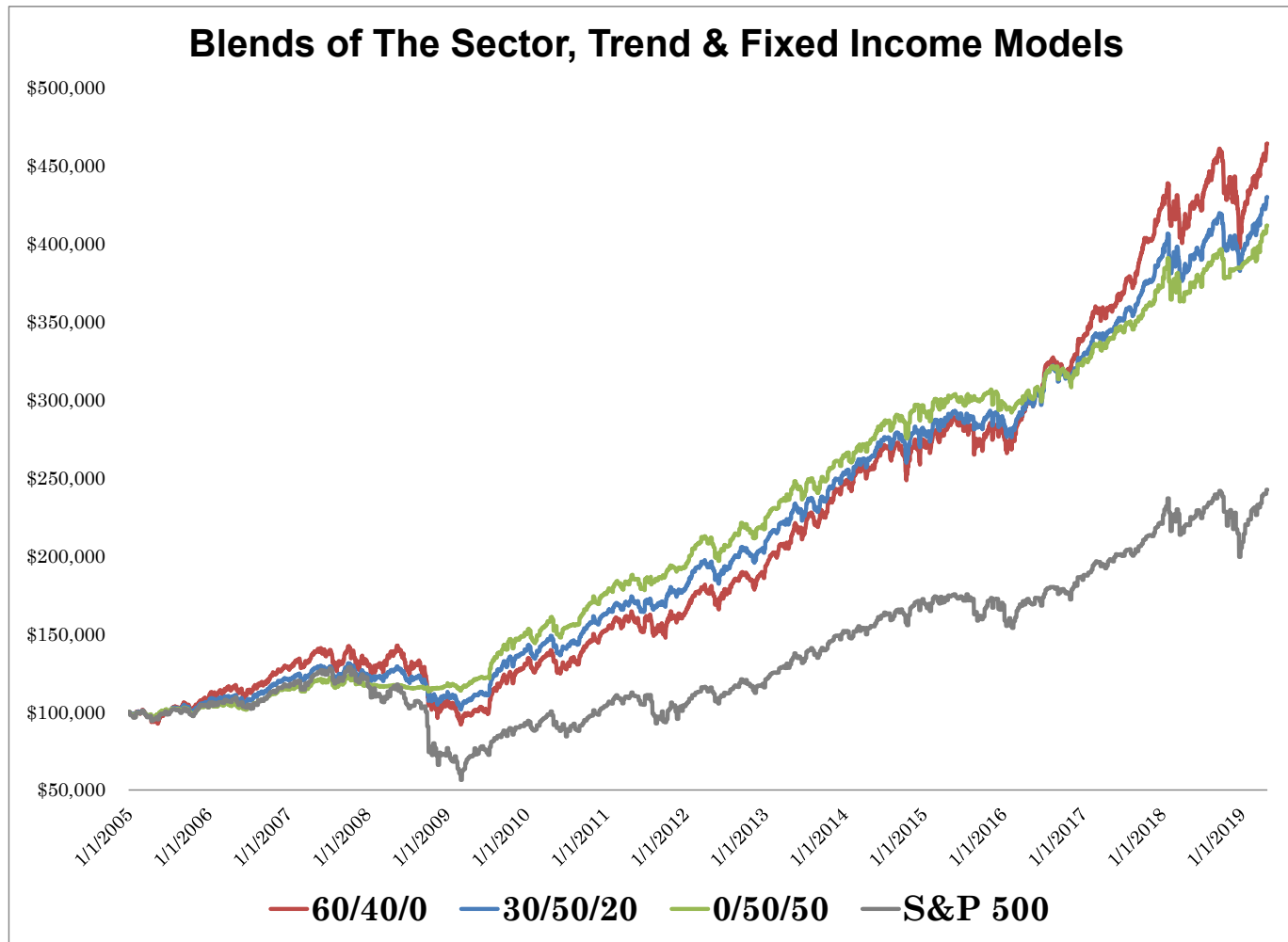


	<b>Annualized Return</b>	<b>Annualized Volatility</b>	<b>Beta</b>	<b>Sharpe Ratio</b>	<b>Maximum Drawdown</b>
<b>Fixed Income Momentum</b>	8.3%	8.2%	1.04	0.7	14.9%
<b>Barclays Agg</b>	3.6%	3.7%	1	0.29	11.0%

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**T**he 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.



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Trend	Sector Rotation	Fixed Income Momentum
Positive	XLRE	JNK
	XLU	AGG
	XLP	

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



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23rd Jun 2019

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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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