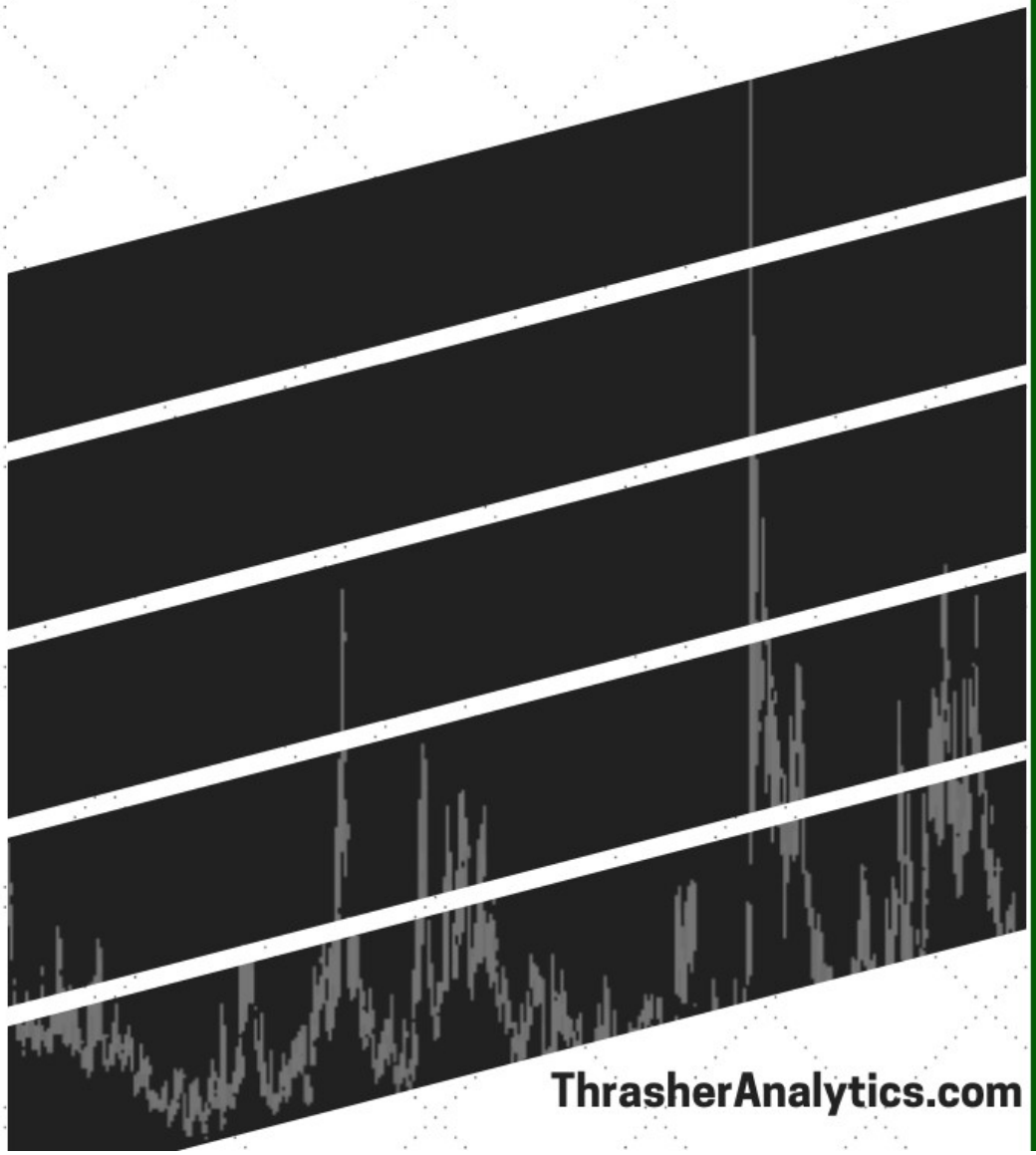
THRASHER
ANALYTICS



WEEKLY RESEARCH & ANALYSIS

ThrasherAnalytics.com

Thrasher Analytics Market Dashboard

Sector Rotation: Sept.	
Technology	XLK
Communication	XLC
Consumer Disc.	XLY

Notable Breadth Data:	
SPX >50MA	70.89%
SPX >200MA	59.80%
Nasdaq >50MA	61.17%
Nasdaq >200MA	78.64%

Fixed Income Rotation: Q3	
Muni Bond	MUB
High Yield Corp.	HYG

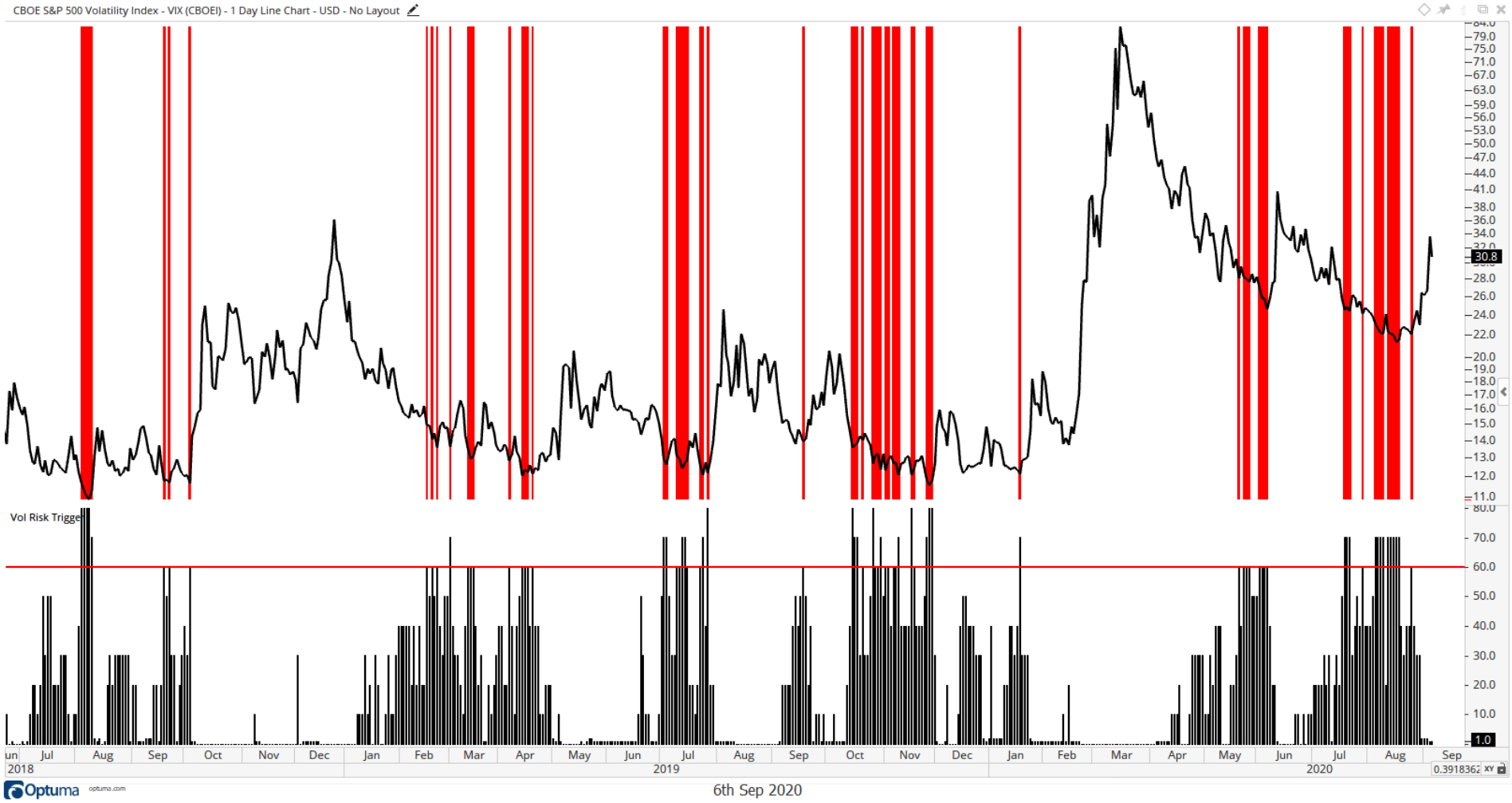
Index & Sector Adaptive Trend	Up Trend	Down Trend
SPX	X	
QQQ	X	
XLF		X
XLY	X	
XLK	X	
XLV	X	
XLU		X
XLP	X	
XLI	X	
XLRE	X	
XLE		X
XLB	X	

Daily Sentiment Index	% Bullish	5-day MA
S&P 500	66%	79%
Nasdaq 100	67%	81%
Nikkei	72%	76%
VIX	40%	33%
10yr Treasury	71%	60%
5yr Treasury	67%	61%
CRB Index	55%	66%
Gold	61%	65%
U.S. Dollar	29%	21%

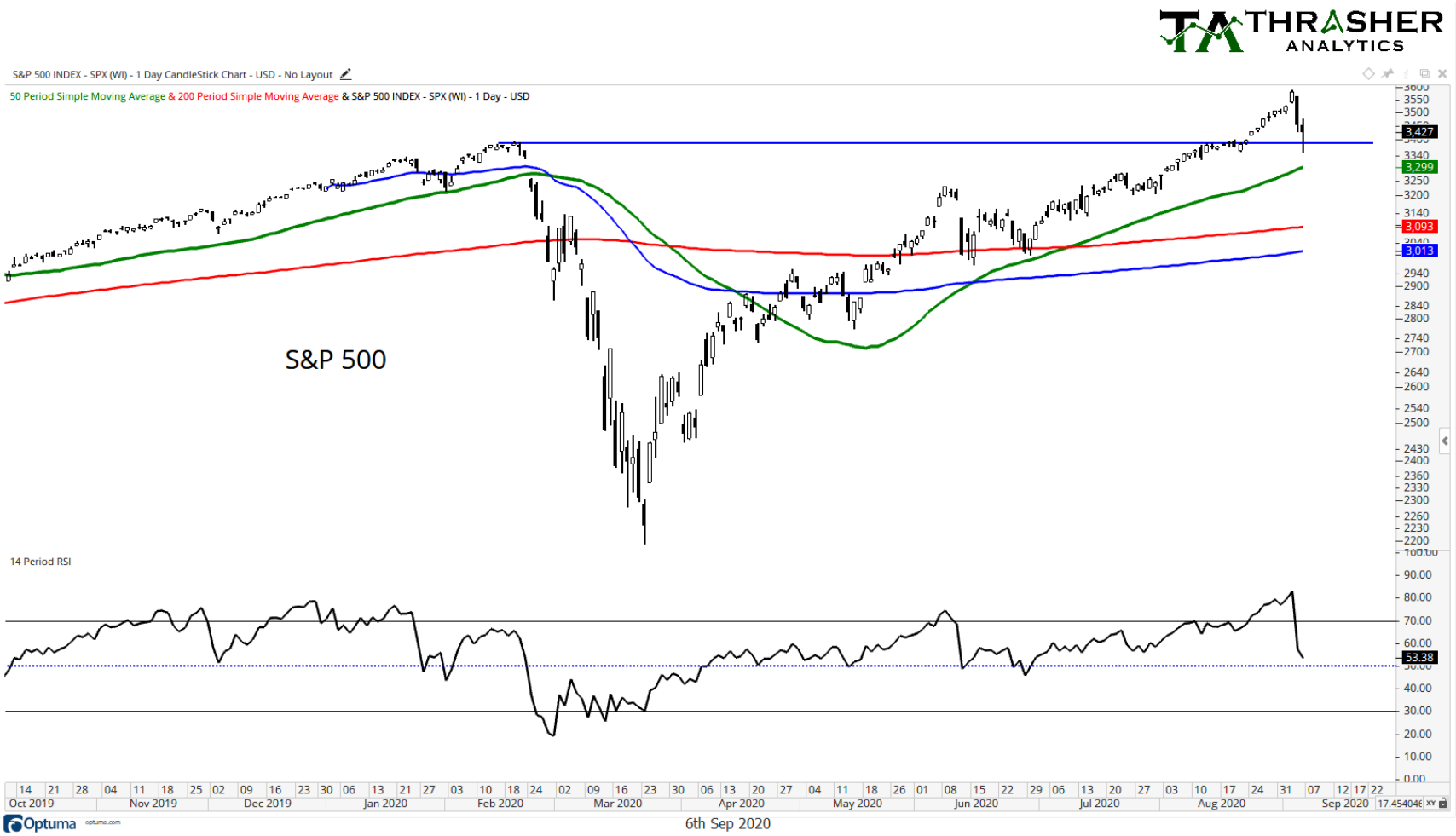
**Green<25% Red>80%*

source: trade-futures.com

Sector	> 50MA	> 200MA	1wk Perf	1mo Perf	3mo Perf	12mo Perf
SPDR Materials Select Sector Fund ETF	True	True	0.73%	5.86%	10.46%	13.19%
SPDR Utilities Select Sector Fund ETF	True	False	0.51%	-2.40%	-1.74%	-6.87%
SPDR Financial Select Sector Fund ETF	True	False	-0.28%	5.37%	-0.04%	-5.99%
SPDR Consumer Staples Select Sector Fund ETF	True	True	-0.35%	3.52%	9.98%	6.36%
SPDR Real Estate Select Sector Fund ETF	True	False	-0.88%	0.11%	1.43%	-9.6%
SPDR Industrial Select Sector Fund ETF	True	True	-1.21%	7.80%	7.9%	2.85%
SPDR Health Care Select Sector Fund ETF	True	True	-2.13%	-0.42%	4.07%	17.28%
SPDR Consumer Discretionary Select Sector Fund ETF	True	True	-2.24%	6.78%	14.81%	22.36%
SPDR Communication Services Select Sector ETF	True	True	-2.8%	5.52%	13.11%	23.58%
SPDR Technology Select Sector Fund ETF	True	True	-4.09%	4.13%	19.54%	47.83%
SPDR Energy Select Sector Fund ETF	False	False	-4.31%	-5.86%	-16.46%	-39.88%



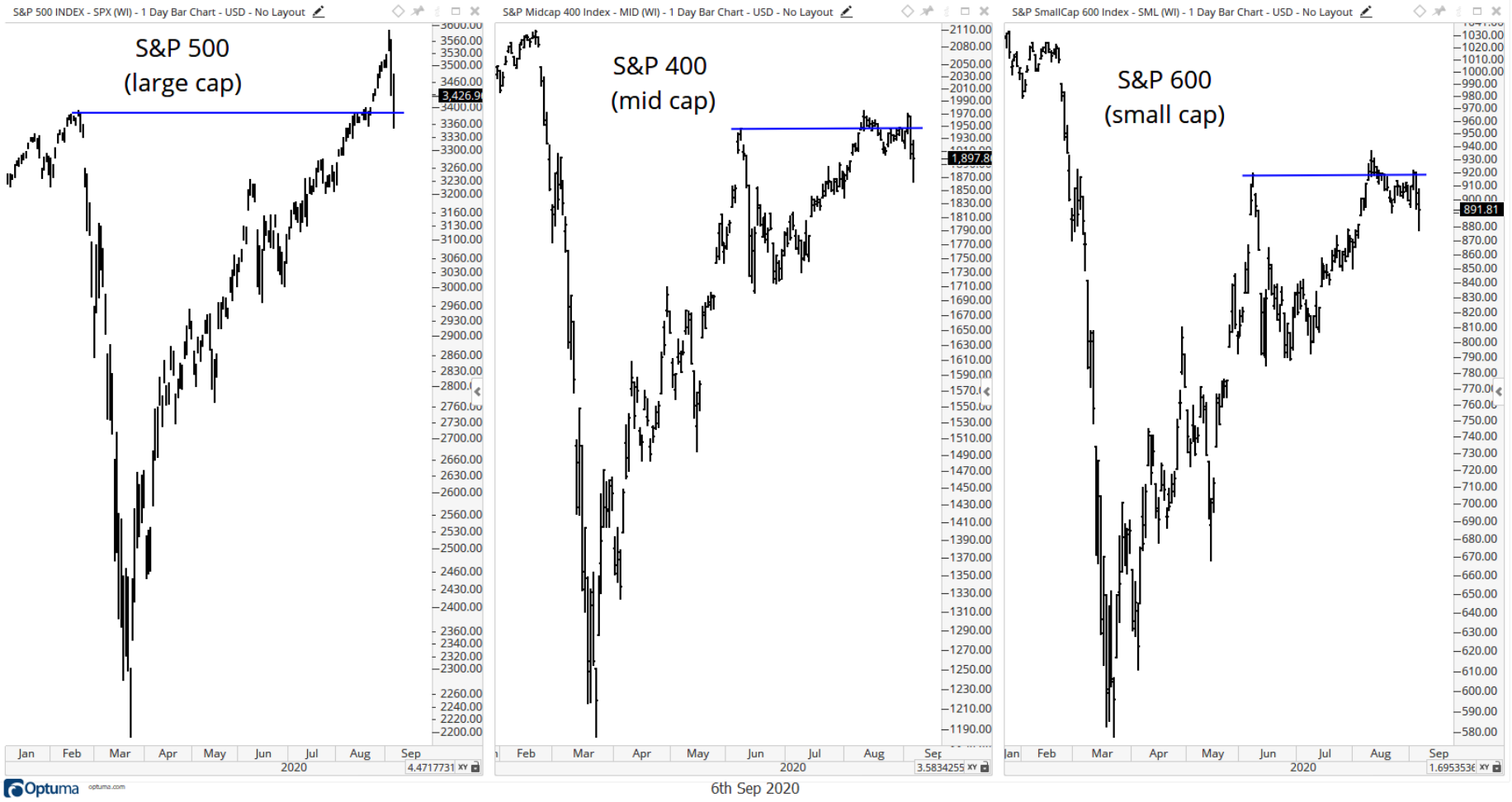
After a slow crawl higher, volatility began to have a larger move last week as equities started to sell-off. Spot VIX rose a little over 10 points to its highest level since June. Many traders were caught off guard by the starting of a spike higher, even though the signs were clear as dispersion narrowed and correlation rose, both past warning signs of a possible expansion of volatility. While VIX moved lower on Friday, it's DSI score actually ticked higher, rising to 40% bullish, suggesting some more bullishness towards volatility even if it ticked down.



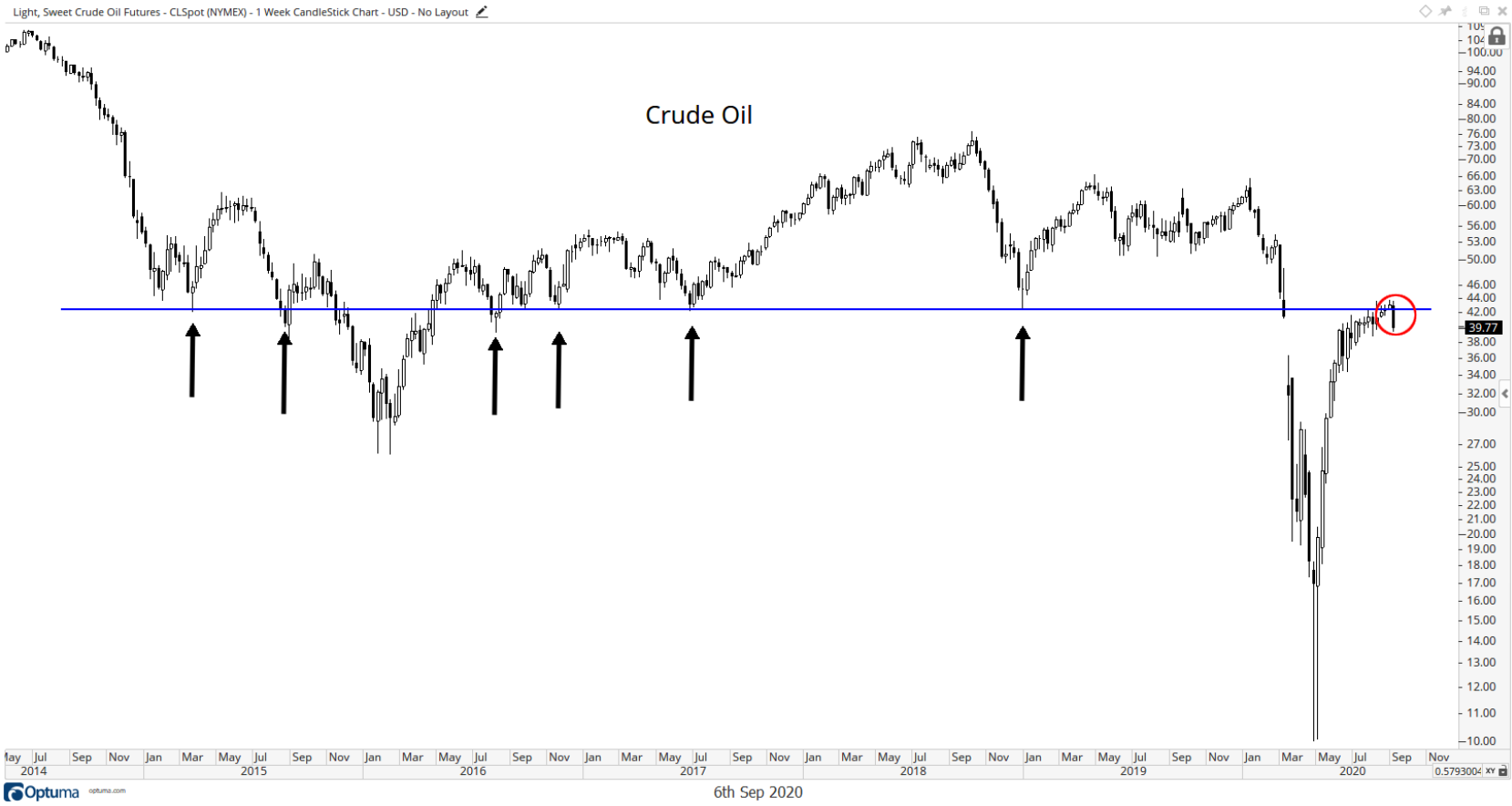
The S&P 500 dropped nearly 7% in just two days, recovering a bit on Friday to finish down roughly 4.5% off its all-time high. Trading on Friday saw a move below 3400 and the critical February high, which brough tin some buyers and pushed price back above to close out the week right at the 20-day moving average and 27 above the early 2020 high. A close under 3400 would have been quite damaging as it'd introduce the chance for a false break out. Price still sits above the 50-day, 200-day and VWAP moving averages and the 14-day RSI comes off an extremely elevated 83 to 53, maintaining a bullish range.

Tech stocks led the way lower—just has they had led the way higher after accounting for 23% of the S&P 500 after the latest bubble-like advance. Google now faces antitrust issues with the Justice Department, pulling some air out of the impenetrable FAAMG balloon that's been assisted in blowing larger by the uncovering of a multi-billion dollar trade by Softbank in a handful of tech stock call options.

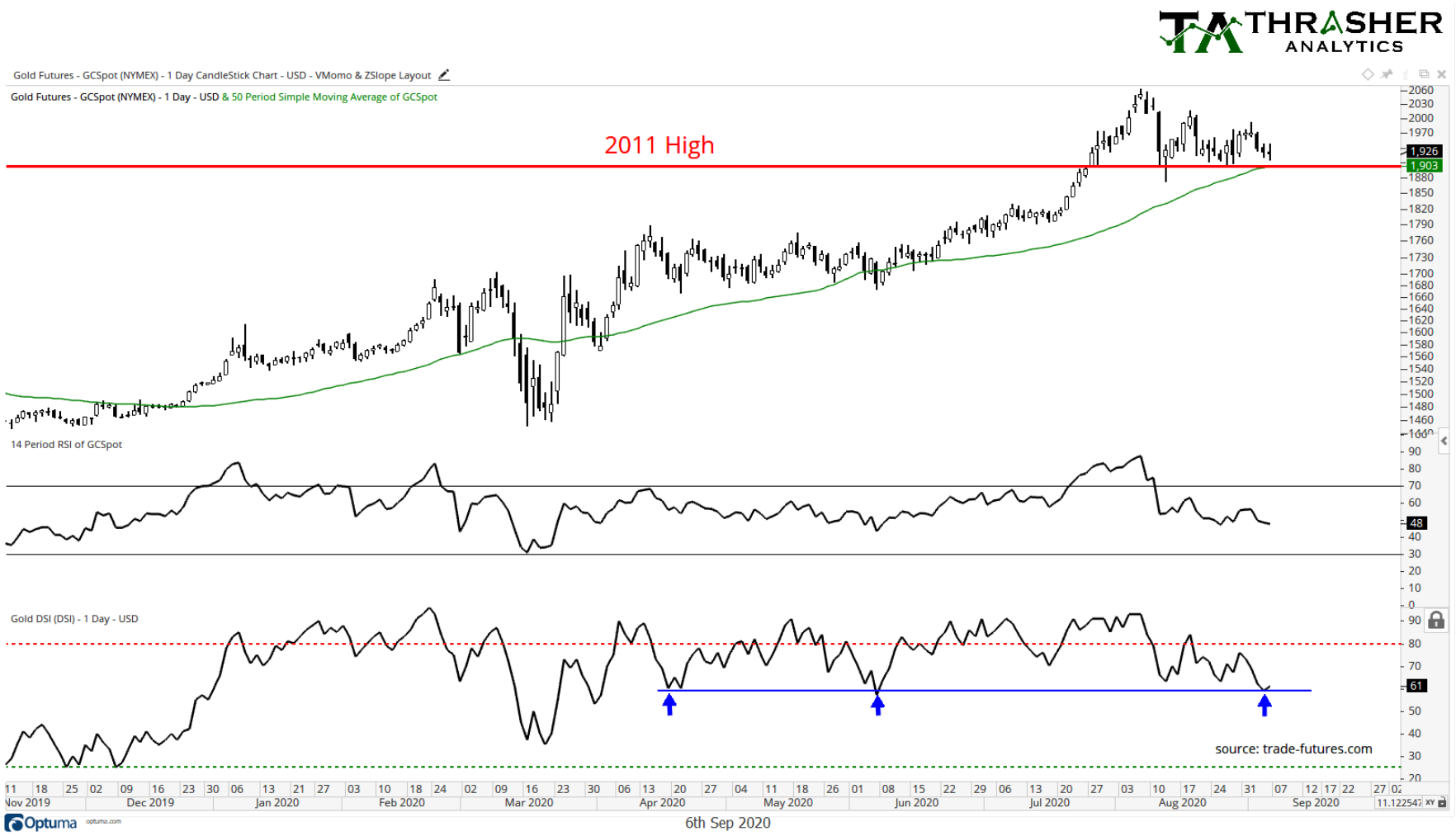
No major earnings this week. The focus likely to be on PTON, CHWY, and WORK as they act as a barometer for online retailing/work-from-home. Economic activity will be quiet as well until jobless claims and some inflation data on Thursday.



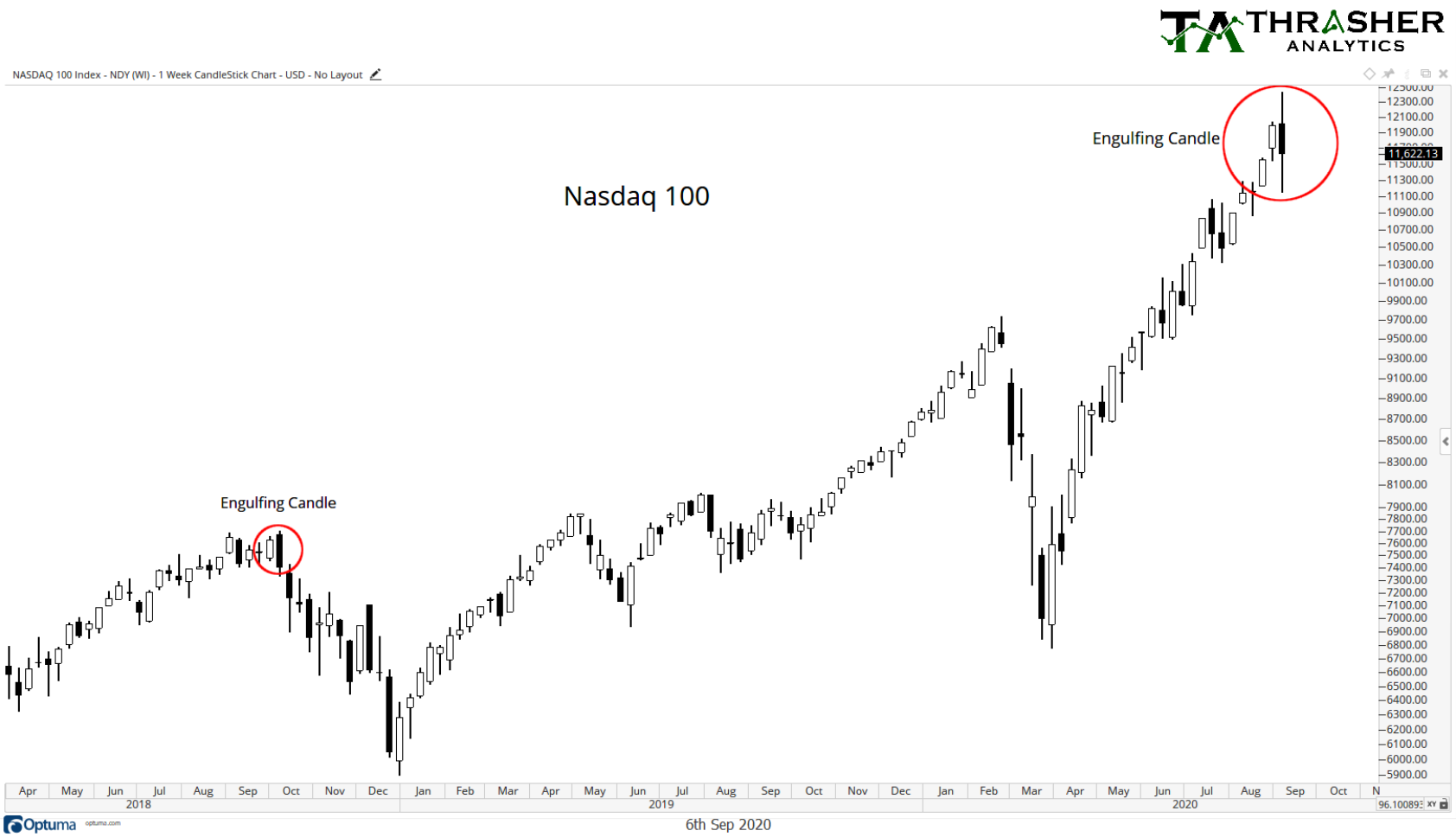
Small and Mid Cap stocks continued their decline last week, being joined by large caps towards the end of the week. SPX tested the Feb. high intraday on Friday while S&P 400 and S&P 600 move further below their June highs. These breakdowns in absolute performance (not to even speak of relative!) are a concern. If the economy was recovery or even if it was just investors being bullish on risky assets, we wouldn't see small and mid caps struggle like this. The latest leg higher in equities has been driven by a few tech stocks and that's made very clear by the chart above.



Crude oil continues to struggle at the $43 level, an area of resistance I've been highlighting for several weeks now. While the recovery off the negative price levels (something that is still weird to even write) has been strong, it was short lived. If demand was truly coming back to the market, then why has crude gone basically no where for almost a month and a half? Sellers still enters this market and is holding crude prices lower. Not even the threat of two hurricanes in the Gulf of Mexico could stoke interest in a supply drop in oil and send price higher.

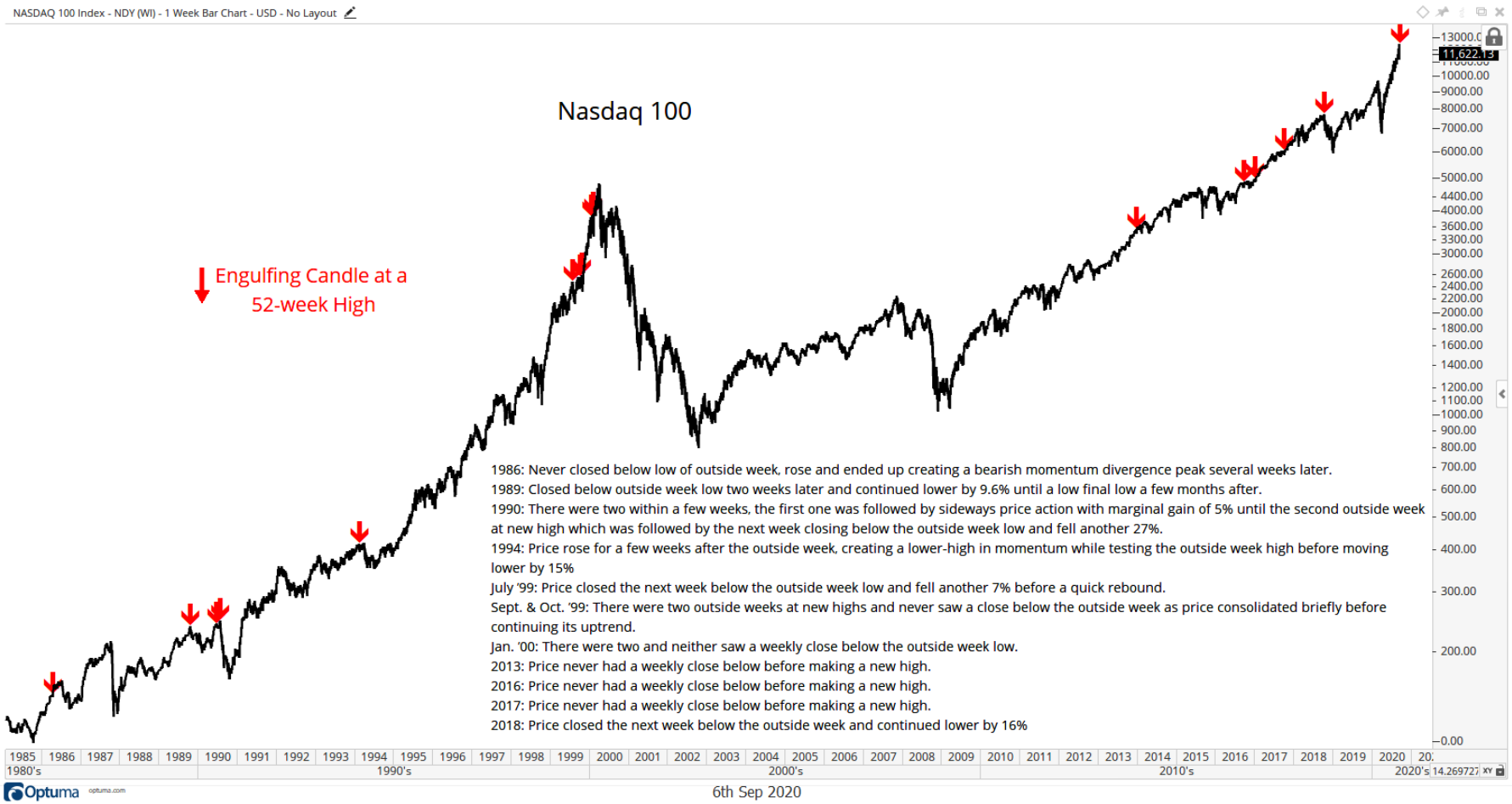


I last wrote about gold at what turned out to be the high in early August, noting the massive spread between gold and the U.S. dollar. That spread was critical in the past at marking turning points in gold price and it appears once again to have been keen to observe. Now we have gold consolidating just above the prior 2011 high and just above the 50-day moving average. The drop in stocks on Thursday and Friday didn't send investors chasing the shinny metal, so I continue to watch the '11 high at $1900 as a critical reference point for gold. Sentiment has fallen to 61% bullish, which has been a prior bottom since April, will this serve as a low in sentiment once again? We'll soon see.



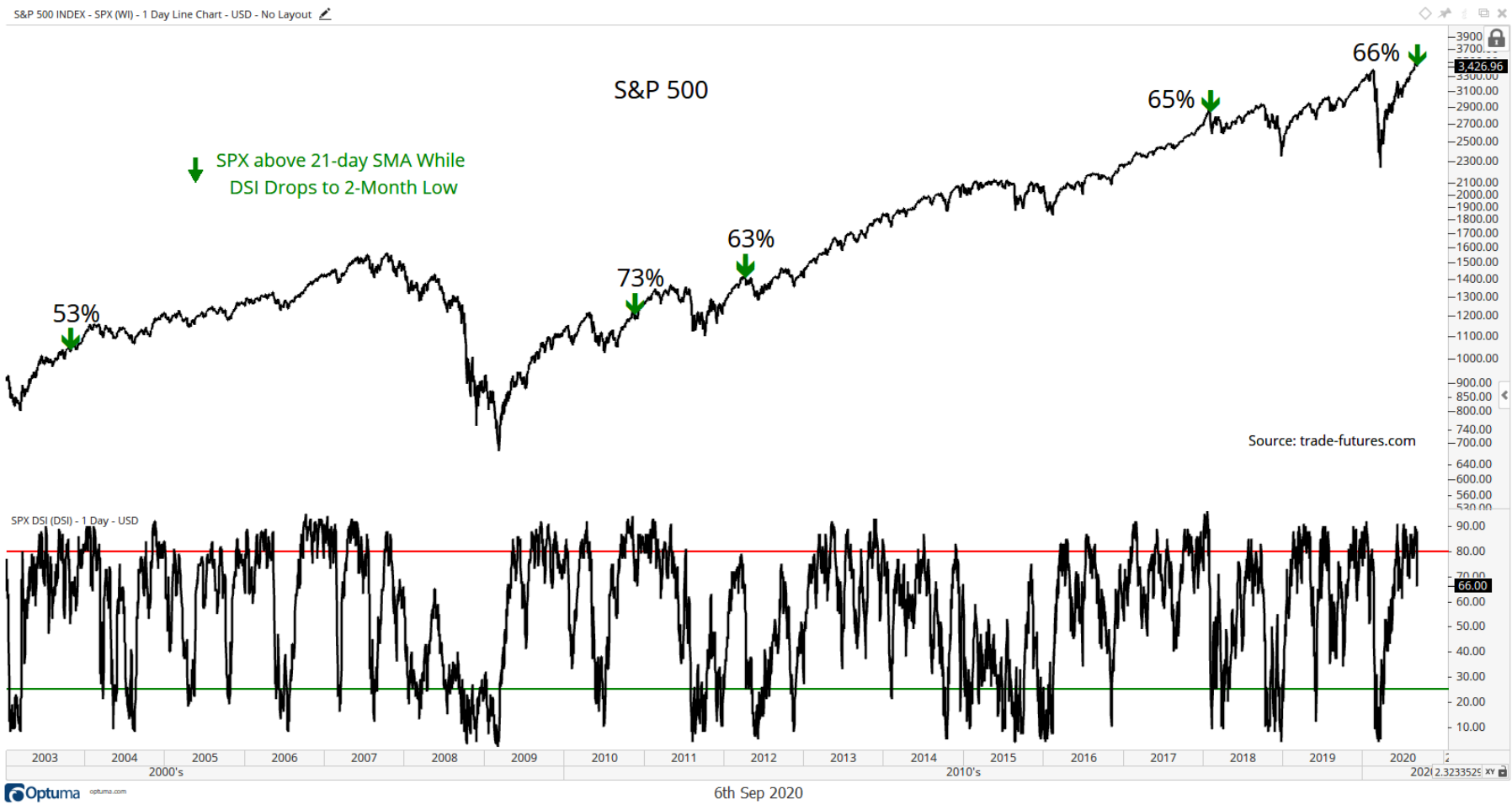
My good friend Adam Koos, CMT noted recently The Nasdaq 100 Index weekly chart developed a bearish engulfing candle last week, which occurs when the high and the low both exceed the prior candle's high and low while finishing lower on the week. It signifies a great deal of unrest within the price action, seeing an expansion in price volatility with a higher-high and lower-low all in a single week. This is not an overly uncommon candle pattern, but it's unique to see it happen while at a 52-week high. The last time this occurred was in Q4 2018 (as shown above), just before stocks sold off into year-end. Is this extremely bearish? Well it really depends on what happens next.

I count 17 times the Nasdaq 100 has had a bearish engulfing candle at a 52-week high, you can see all of them on the next page.



Like I said, it doesn't happen often, only five times in the last decade. We often saw price continue to move lower but not always. The key, it seems, was when the low of engulfing candle week (i.e. last week) was taken out on a closing basis in the following couple of weeks. If the low was not broken on a closing basis (the weekly close being key) then stocks continued to rally like they did in 2013, 2016, and 2017.

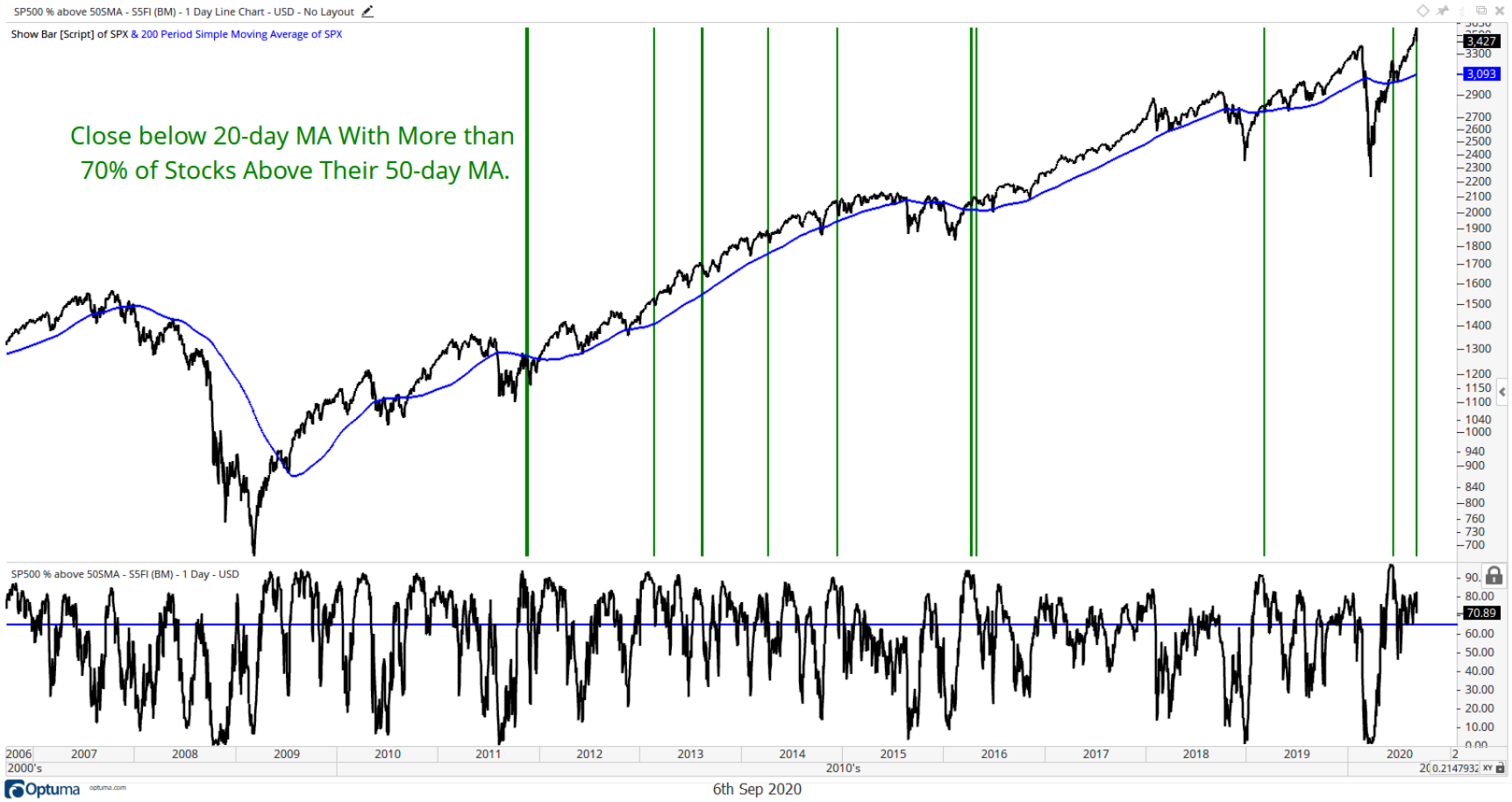
In the chart above I've given a brief descriptor for each of the occurrences, noting what price action did following each engulfing pattern.



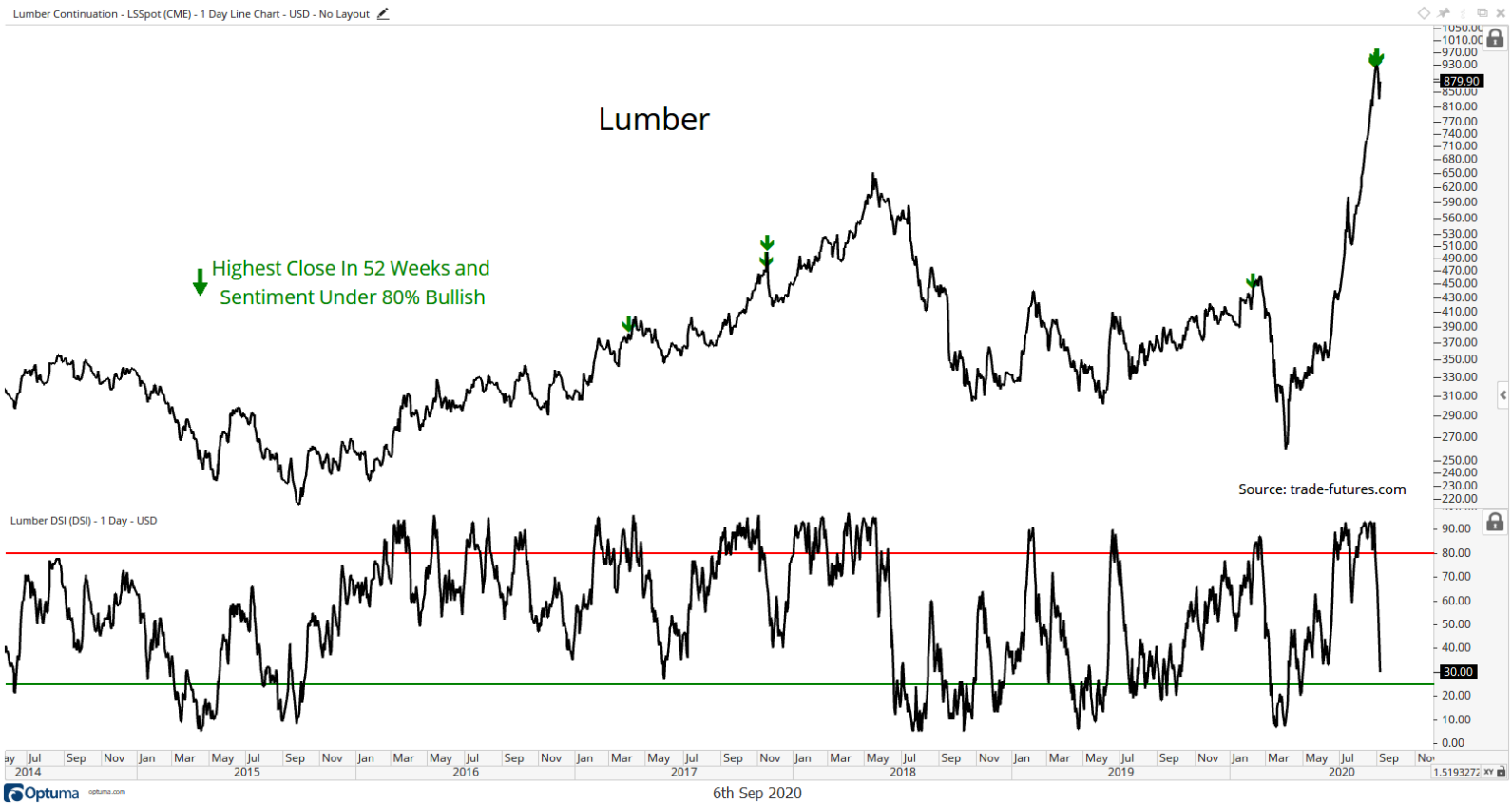
The DSI % Bullish for SPX dropped to a two-month low on Friday of 66%. This is not very common when the index is still above its 1-month moving average. In fact since 2003, it's occurred just four prior times. The most recent was after the start of the February correction in 2018, and before that in 2012, both with DSI scores similar to today (63% and 65%. The other two, which has sentiment scores either stronger (73% and 53%) both saw stocks continue higher.

The price action recently seems very similar to early 2018, I've made this comment several times in prior letters, so it wouldn't be a huge surprise to see the same run up mirror the response with a drop of 10-ish percent. We're about half way there already in just Thursday and Friday's declines.

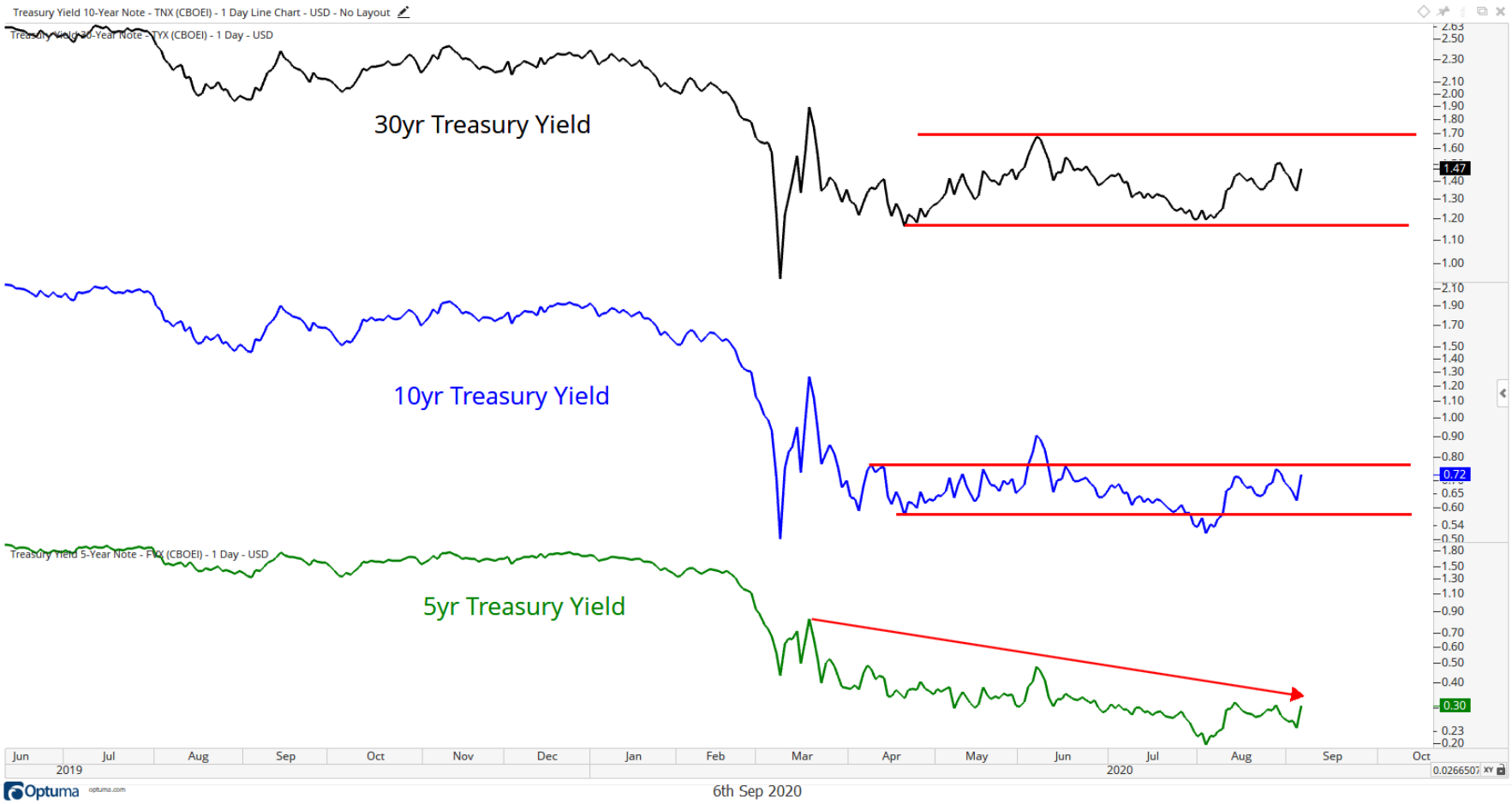
Price Drops But Breadth Remains Supportive



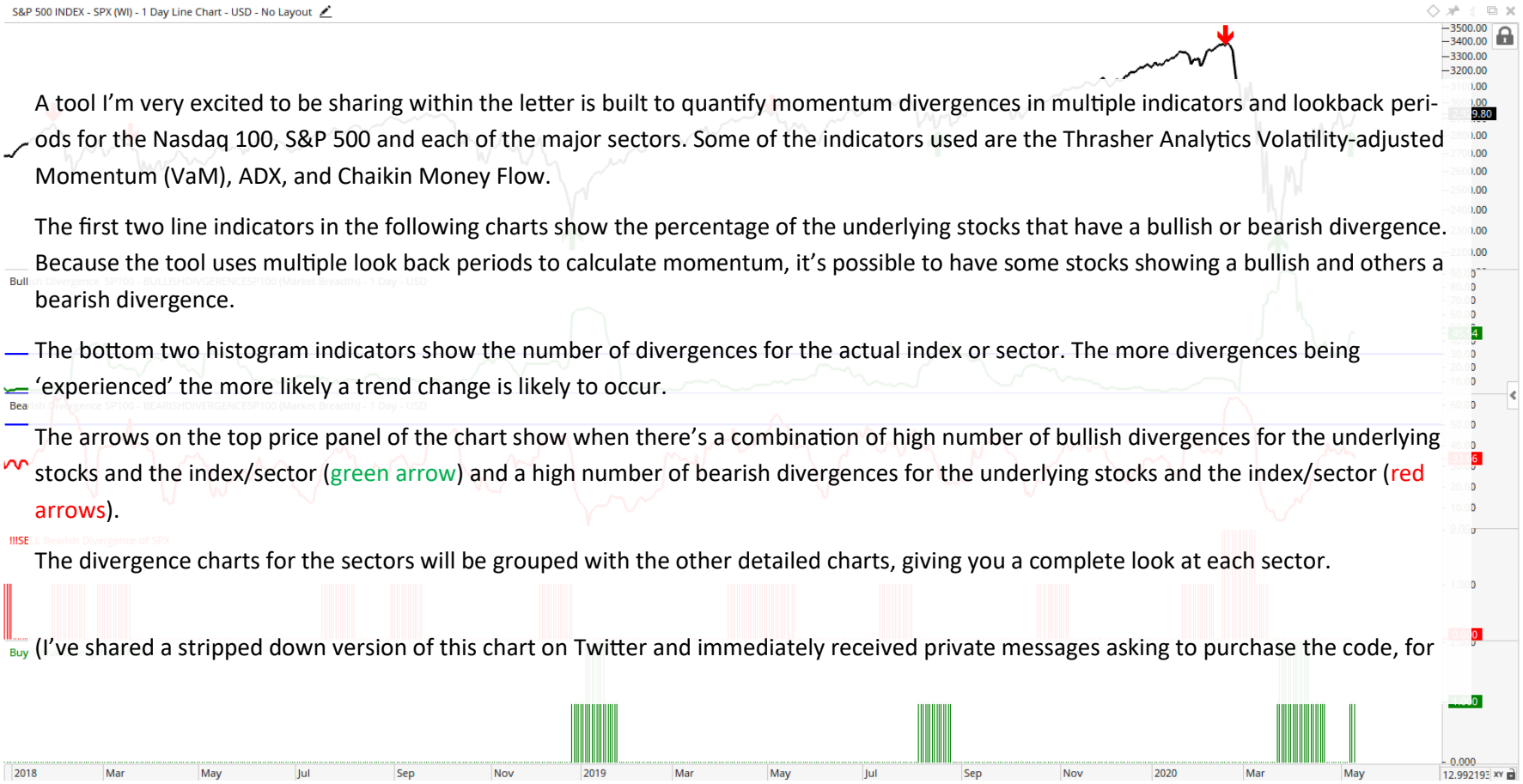
One positive note from last week's decline in price was the resilience in intermediate breadth. Above is a study showing when the S&P 500 has closed below its 20-day moving average but still has over 70% of stocks trading above their respective 50-day MA. When breadth has still be strong like this, the declines were much shorter-lived. Long-time readers may remember I categorize market declines in two camps: 1. lead by breadth breakdown (like earlier this year) and 2. led by froth in sentiment (like now). Sentiment-driven corrections often see much smaller drawdowns than those led by a breakdown in breadth. As you can see on the chart, we often see price hold above its 50-day moving average. It wasn't that price didn't continue lower, it often did, but the ultimate decline was short-lived. It's possible we see breadth break down and this goes from a sentiment-driven correction to one joined by a weakening in breadth, but that's not the picture we have right now so we can't assume that's what will happen. At this point, the selling appears to be a 'release' of excessively bullishness and momentum within the parameters of a defined long-term up trend, until proven otherwise.



Lumber prices have been on a rip higher, rising more than 110% above their 200-day moving average. After hitting a new high but with sentiment under 80%, prices have pulled back. Most interestingly, sentiment has taken a nose-dive going from a high of 93% to 30% by Friday. Sentiment moves fast!



While stocks moved lower on Thursday and Friday last week, bond yields ticked up. This caused frustration for 'balanced portfolio' traders as their bond allocations did not provide the protection they normally do in a equity decline. The 10-yr Yield is now at the high-end of its 2020 range with 5yr yield trying to end its decline and flatten out the yield curve a bit. We'll get PPI data on Thursday, which could have a continued impact on yield as well as a large auction of long-term debt this week to a market already choking on Treasury debt.



A tool I'm very excited to be sharing within the letter is built to quantify momentum divergences in multiple indicators and lookback periods for the Nasdaq 100, S&P 500 and each of the major sectors. Some of the indicators used are the Thrasher Analytics Volatility-adjusted Momentum (VaM), ADX, and Chaikin Money Flow.

The first two line indicators in the following charts show the percentage of the underlying stocks that have a bullish or bearish divergence. Because the tool uses multiple look back periods to calculate momentum, it's possible to have some stocks showing a bullish and others a bearish divergence.

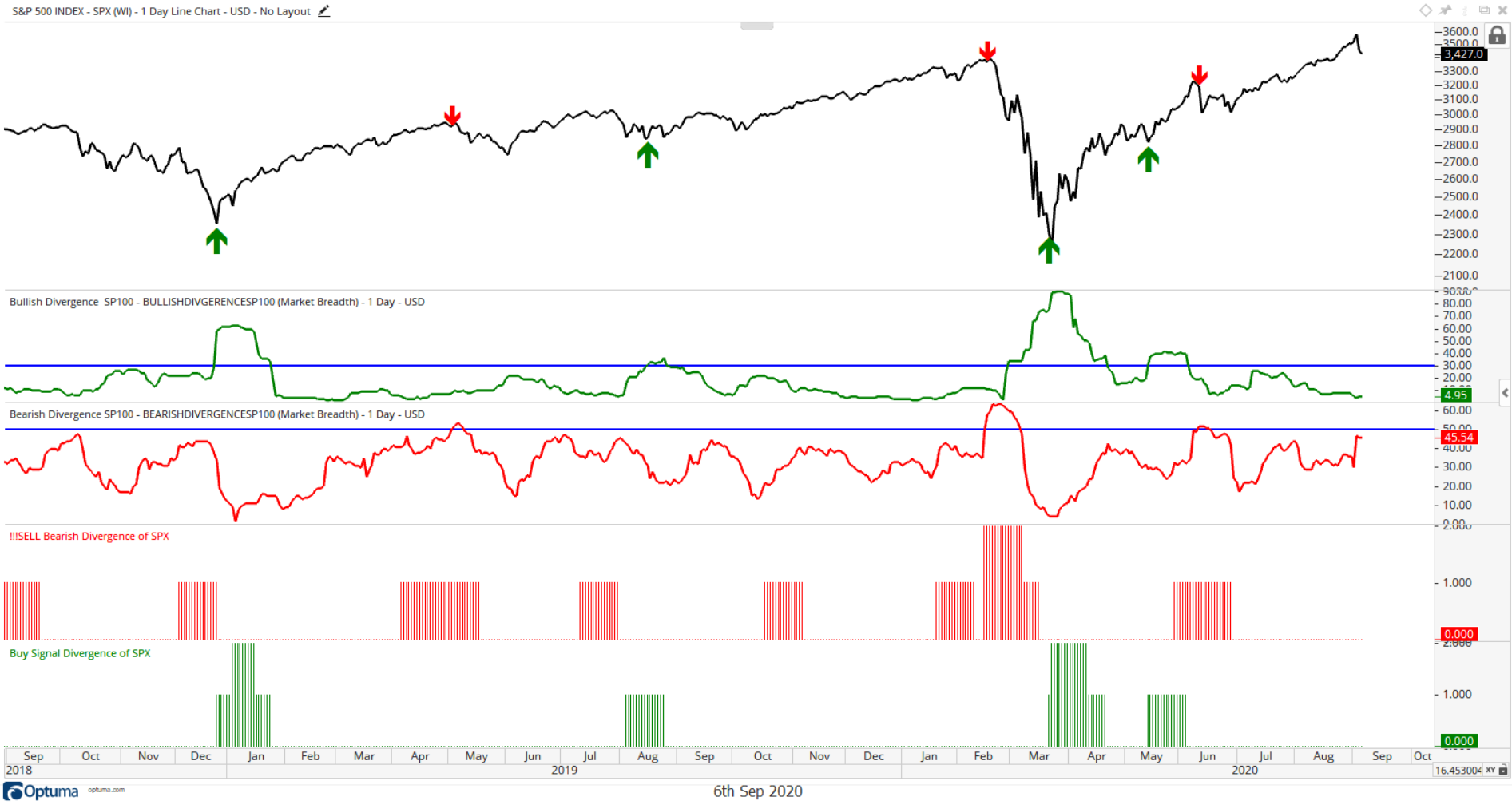
The bottom two histogram indicators show the number of divergences for the actual index or sector. The more divergences being 'experienced' the more likely a trend change is likely to occur.

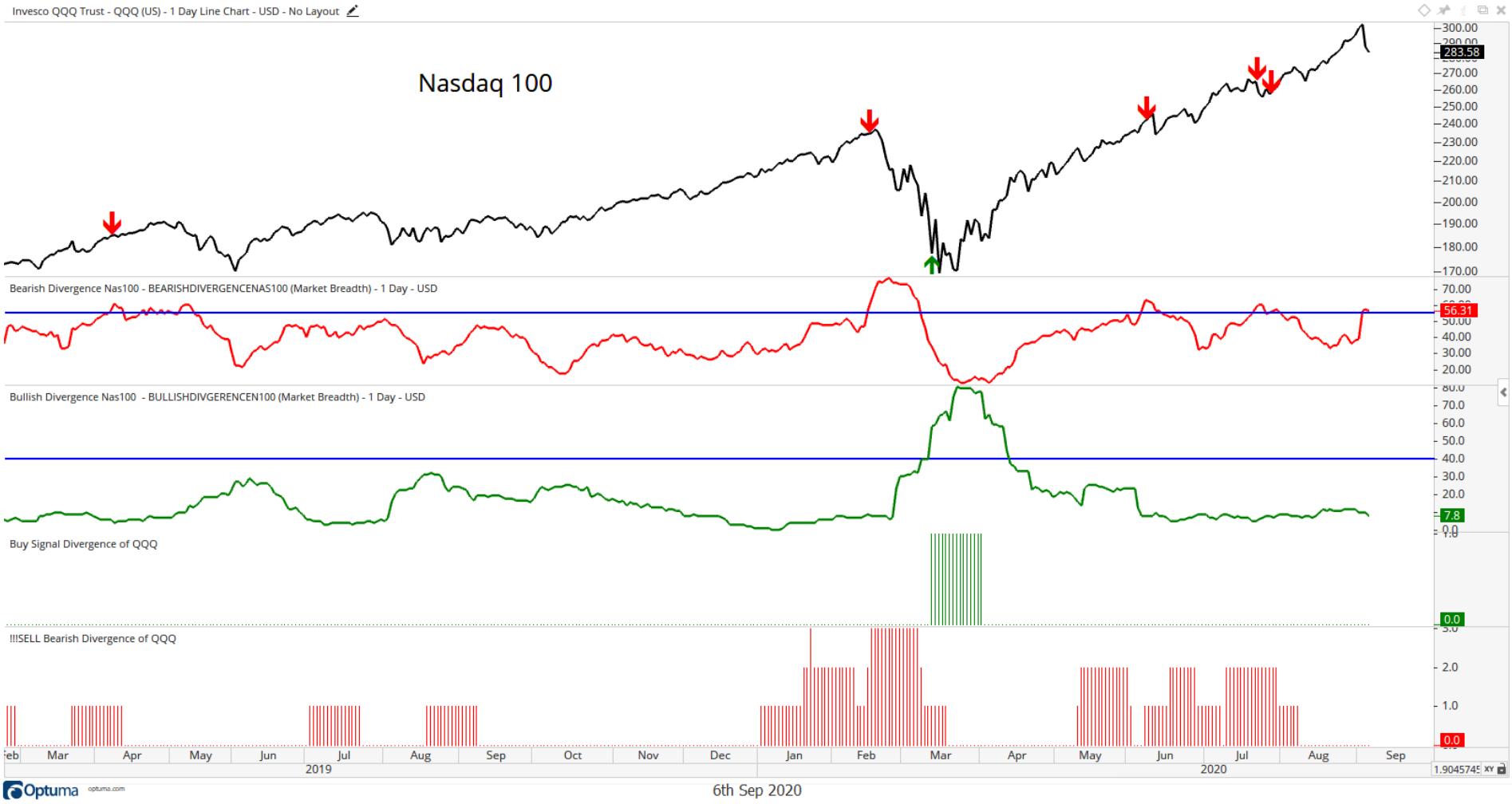
The arrows on the top price panel of the chart show when there's a combination of high number of bullish divergences for the underlying stocks and the index/sector (green arrow) and a high number of bearish divergences for the underlying stocks and the index/sector (red arrows).

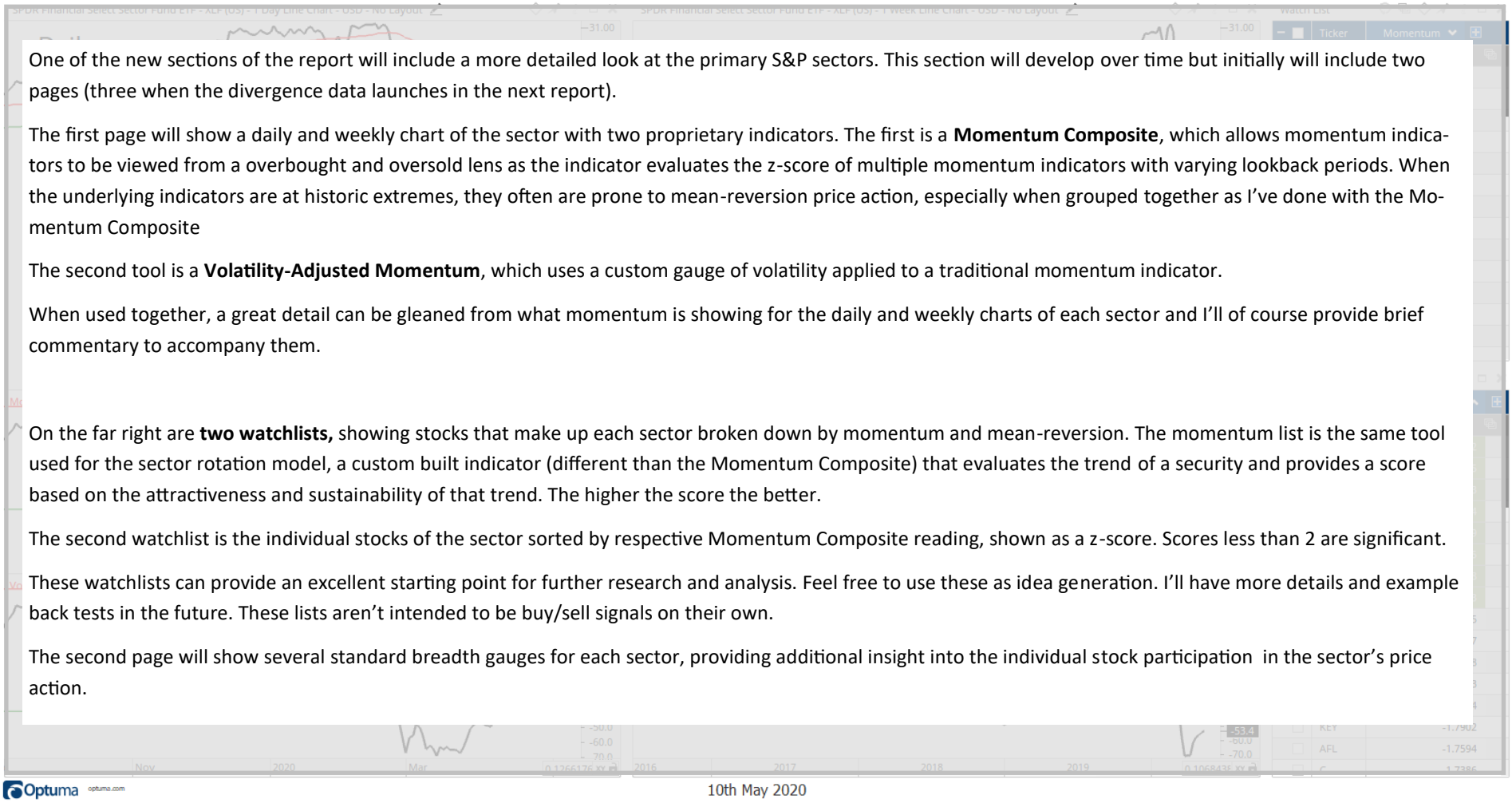
The divergence charts for the sectors will be grouped with the other detailed charts, giving you a complete look at each sector.

(I've shared a stripped down version of this chart on Twitter and immediately received private messages asking to purchase the code, for

Momentum Divergences–SPX




THRASHER ANALYTICS
Invesco QQQ Trust - QQQ (US) - 1 Day Line Chart - USD - No Layout
Nasdaq 100
Bearish Divergence Nas100 - BEARISHDIVERGENCENAS100 (Market Breadth) - 1 Day - USD
Bullish Divergence Nas100 - BULLISHDIVGERENCEN100 (Market Breadth) - 1 Day - USD
Buy Signal Divergence of QQQ
!!!SELL Bearish Divergence of QQQ
2019
2020
Optuma
6th Sep 2020



One of the new sections of the report will include a more detailed look at the primary S&P sectors. This section will develop over time but initially will include two pages (three when the divergence data launches in the next report).

The first page will show a daily and weekly chart of the sector with two proprietary indicators. The first is a **Momentum Composite**, which allows momentum indicators to be viewed from a overbought and oversold lens as the indicator evaluates the z-score of multiple momentum indicators with varying lookback periods. When the underlying indicators are at historic extremes, they often are prone to mean-reversion price action, especially when grouped together as I've done with the Momentum Composite

The second tool is a **Volatility-Adjusted Momentum**, which uses a custom gauge of volatility applied to a traditional momentum indicator.

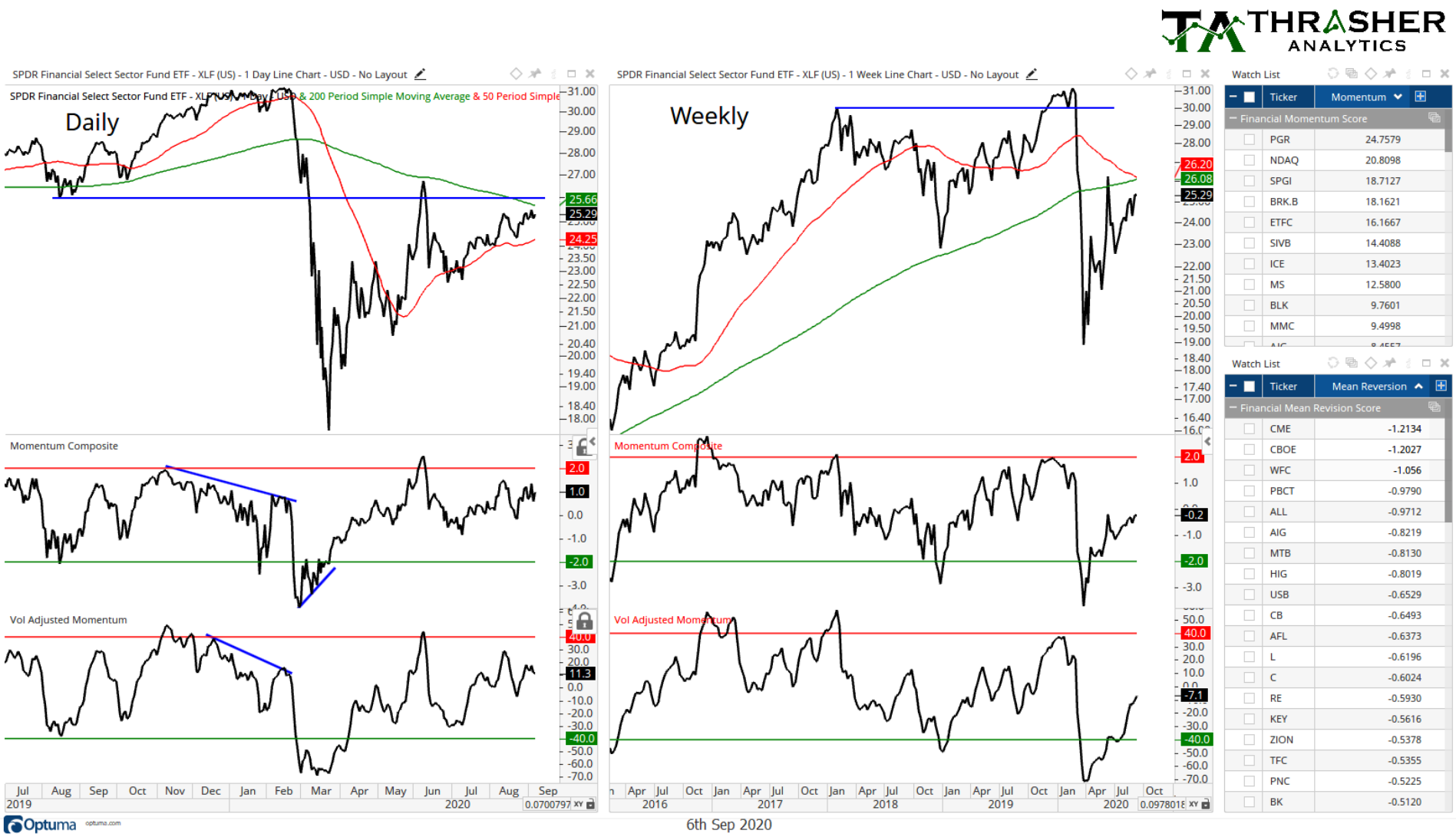
When used together, a great detail can be gleaned from what momentum is showing for the daily and weekly charts of each sector and I'll of course provide brief commentary to accompany them.

On the far right are **two watchlists,** showing stocks that make up each sector broken down by momentum and mean-reversion. The momentum list is the same tool used for the sector rotation model, a custom built indicator (different than the Momentum Composite) that evaluates the trend of a security and provides a score based on the attractiveness and sustainability of that trend. The higher the score the better.

The second watchlist is the individual stocks of the sector sorted by respective Momentum Composite reading, shown as a z-score. Scores less than 2 are significant.

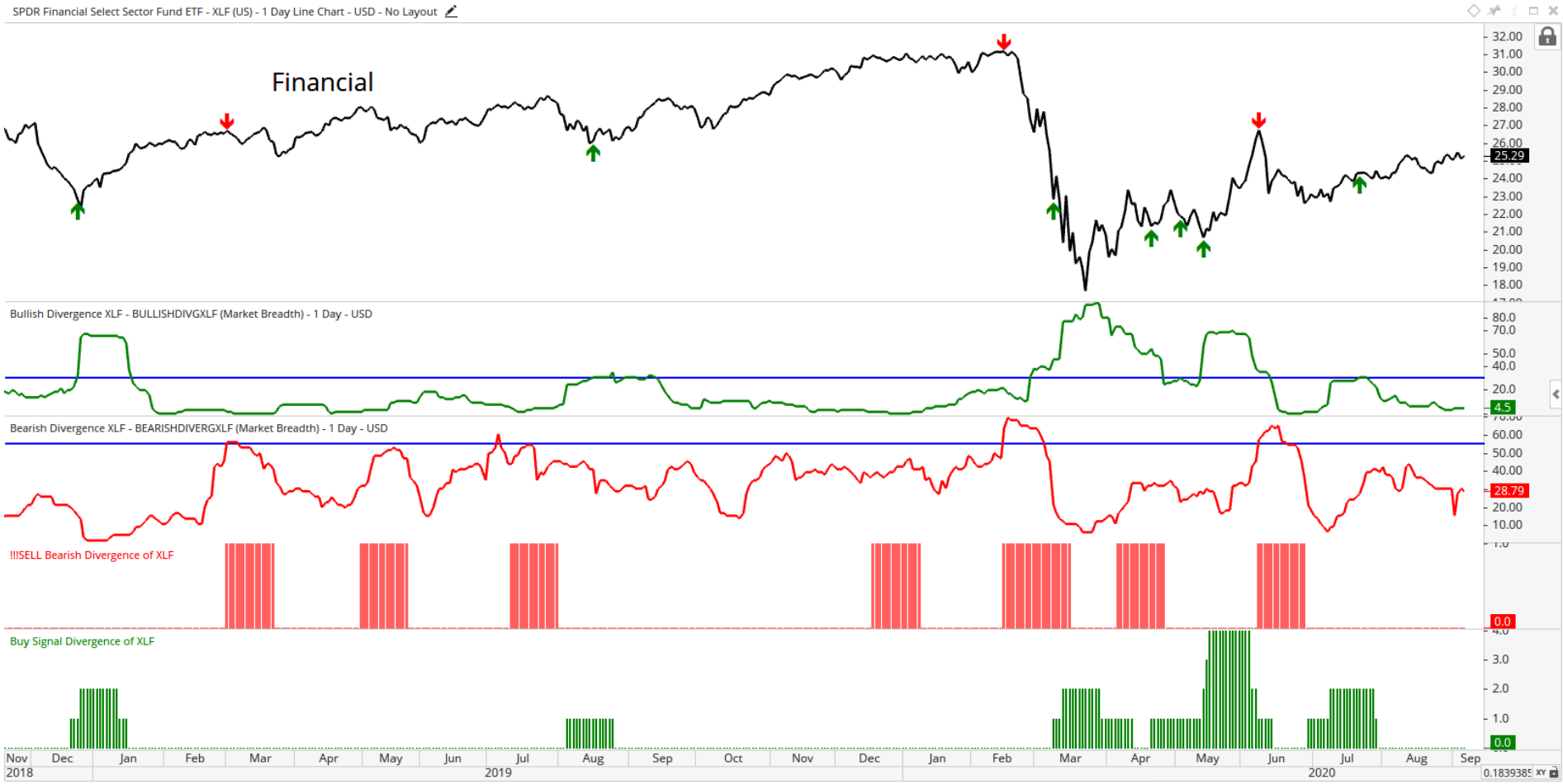
These watchlists can provide an excellent starting point for further research and analysis. Feel free to use these as idea generation. I'll have more details and example back tests in the future. These lists aren't intended to be buy/sell signals on their own.

The second page will show several standard breadth gauges for each sector, providing additional insight into the individual stock participation in the sector's price action.



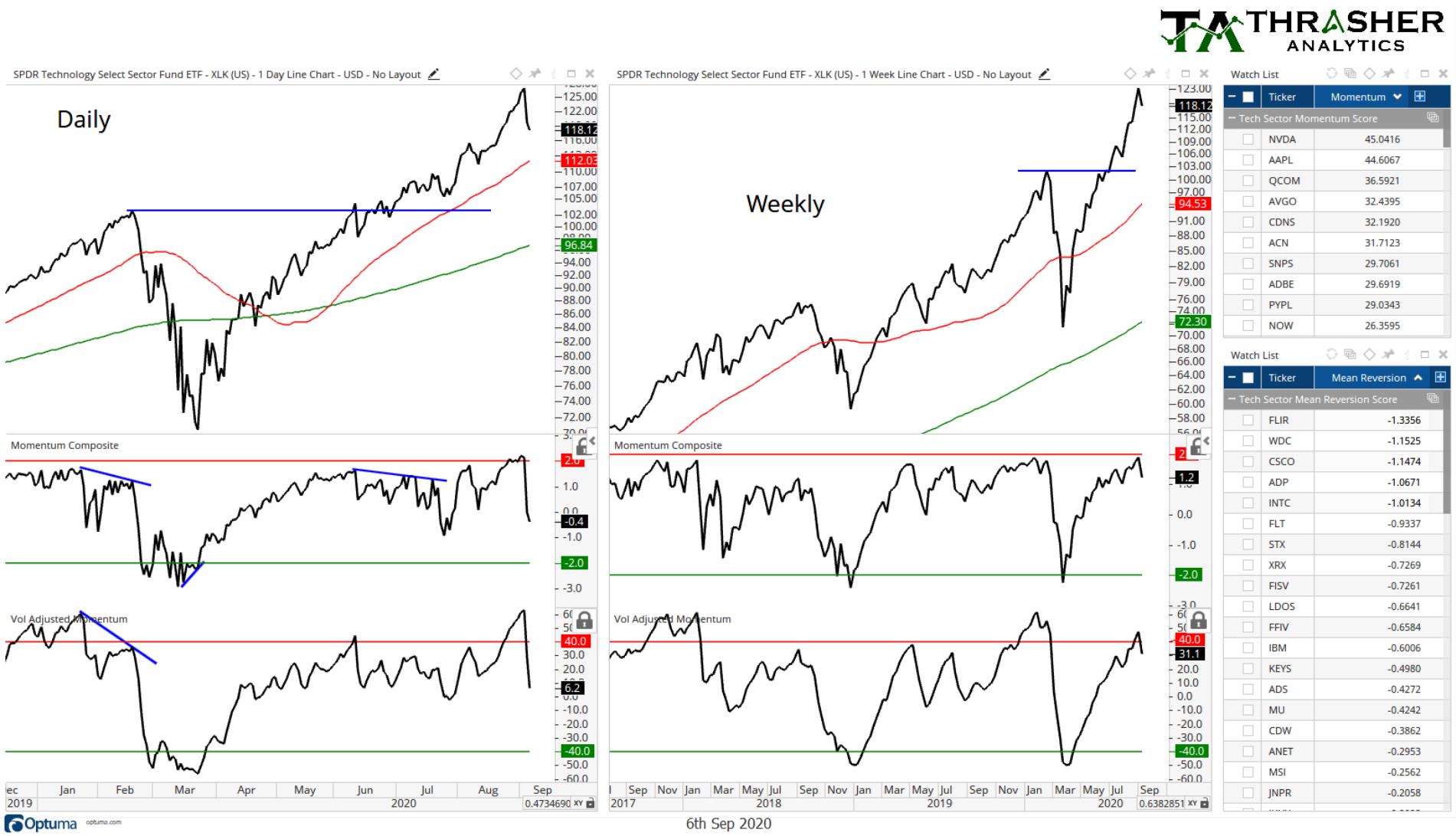
XLF has held above the 50-day MA but struggles to regain its 200-day MA.

% above 200-day MA is still rising but short-term breath hasn't improved.



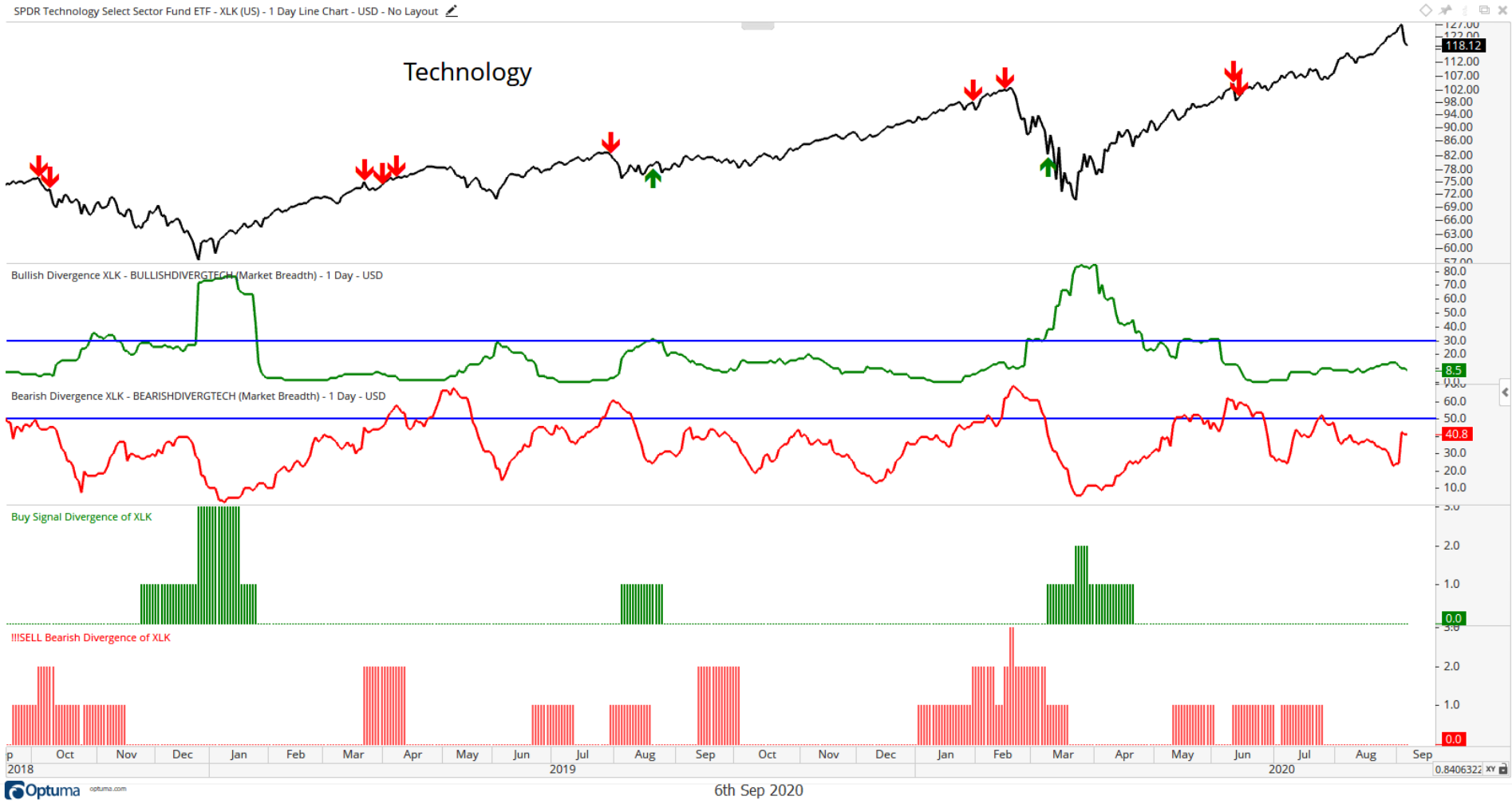
Optuma optuma.com

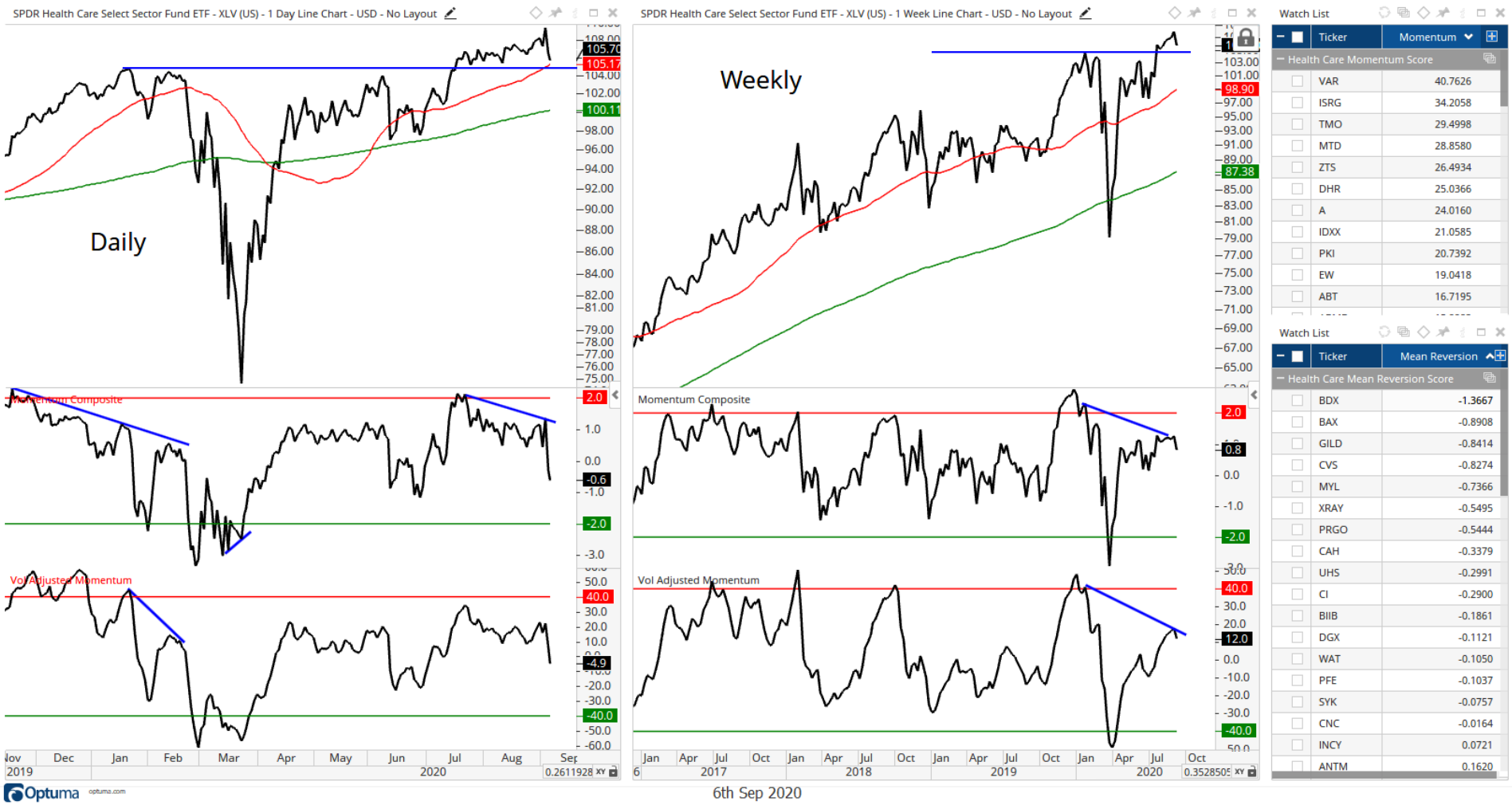
6th Sep 2020



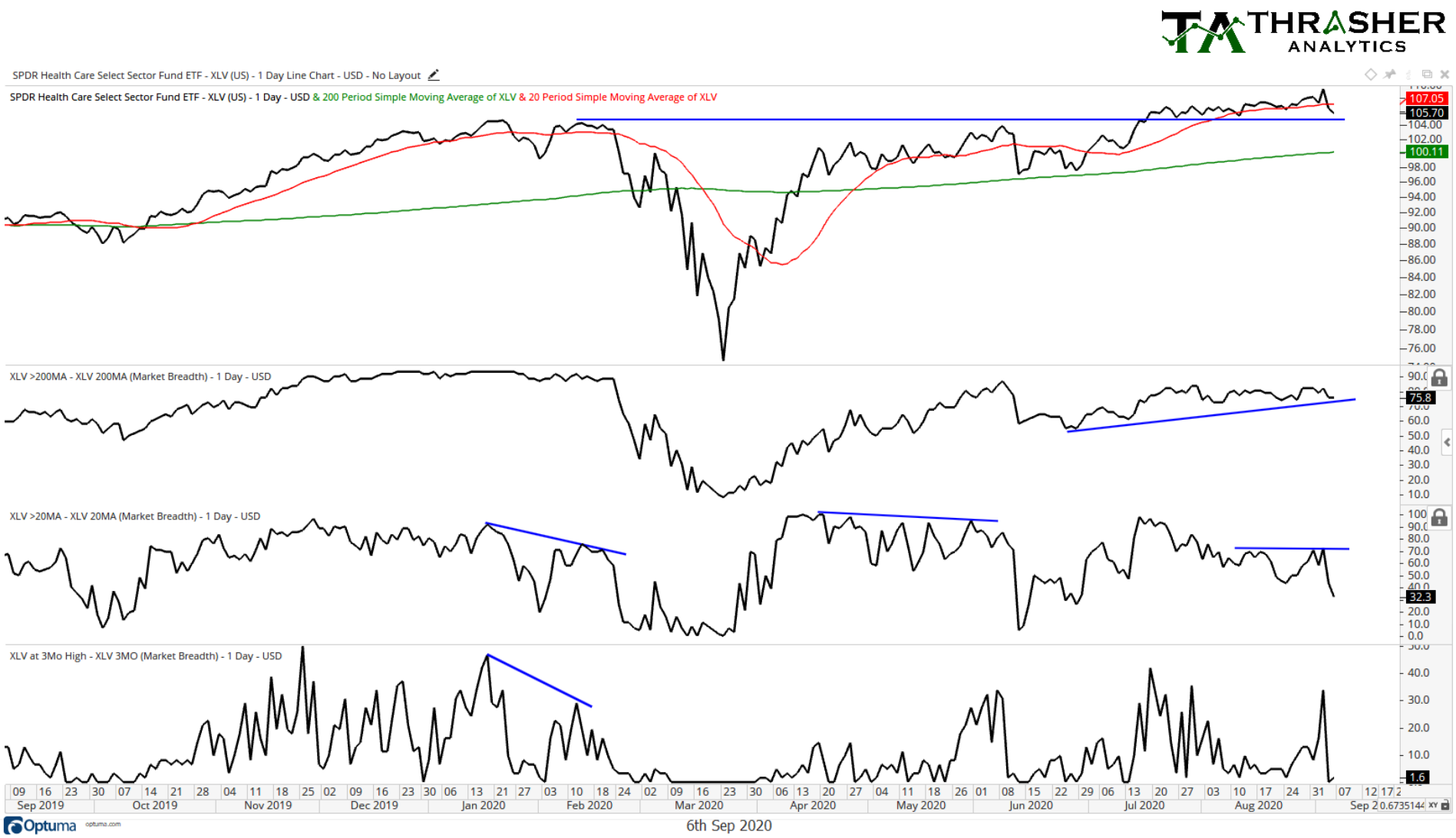
XLK has come down after being 'overbought' in momentum and VaM on both daily and partly weekly.

Declining % of tech stocks above the 200-day MA (top panel) with a ceiling on the % making 3-month high just under 30%. Breadth not looking great for tech.


SPDR Technology Select Sector Fund ETF - XLK (US) - 1 Day Line Chart - USD - No Layout
Technology
118.12
Bullish Divergence XLK - BULLISHDIVERGTECH (Market Breadth) - 1 Day - USD
8.5
Bearish Divergence XLK - BEARISHDIVERGTECH (Market Breadth) - 1 Day - USD
40.8
Buy Signal Divergence of XLK
0.0
!!!SELL Bearish Divergence of XLK
0.0
2018
2019
2020
Optuma
6th Sep 2020

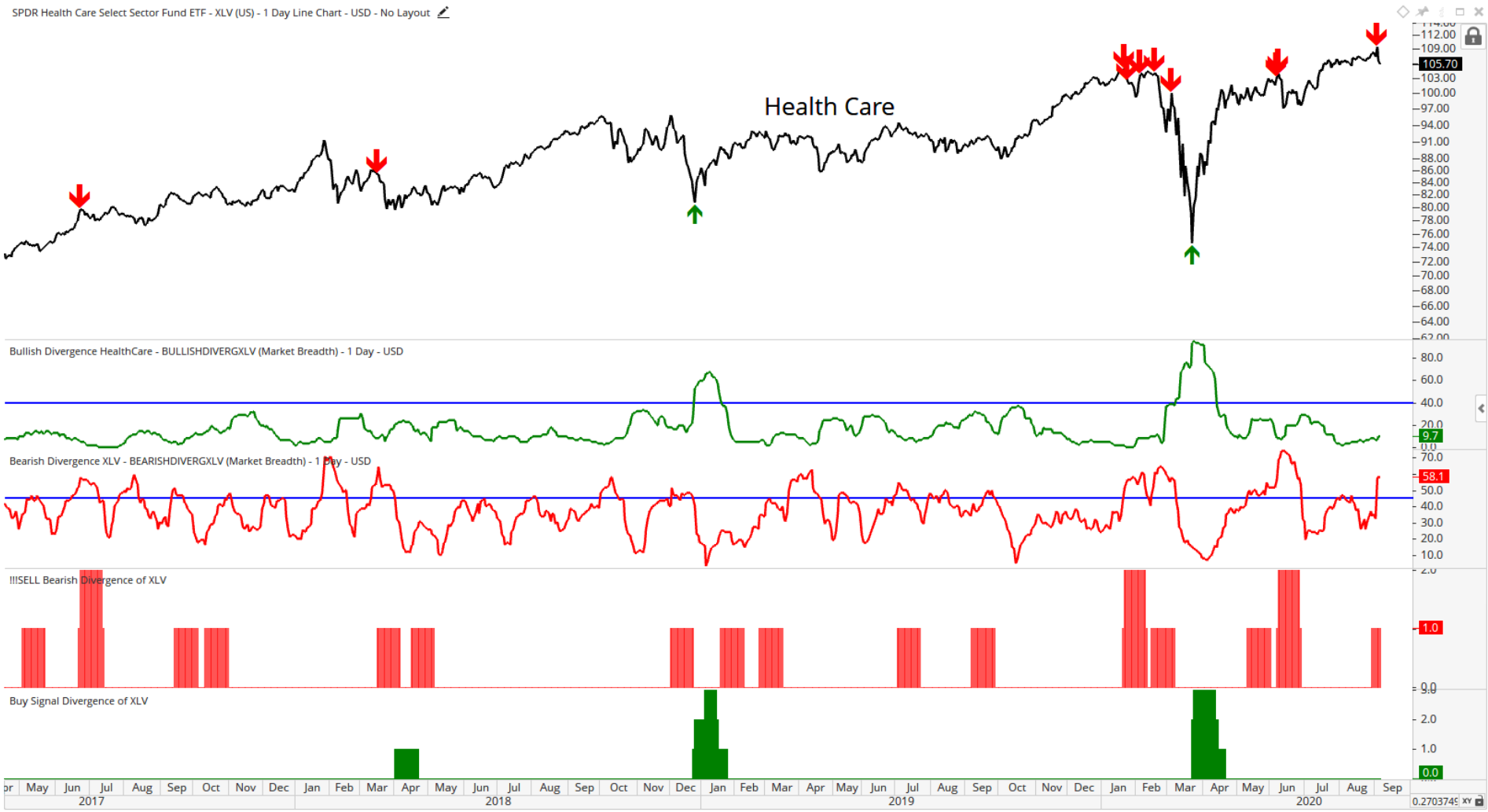


Momentum divergence with XLV on daily and weekly charts. Price nearing a test of the 2019 high.



Long-term breadth is still positive with short-term (% 20MA) moving lower.

Health Care Sector



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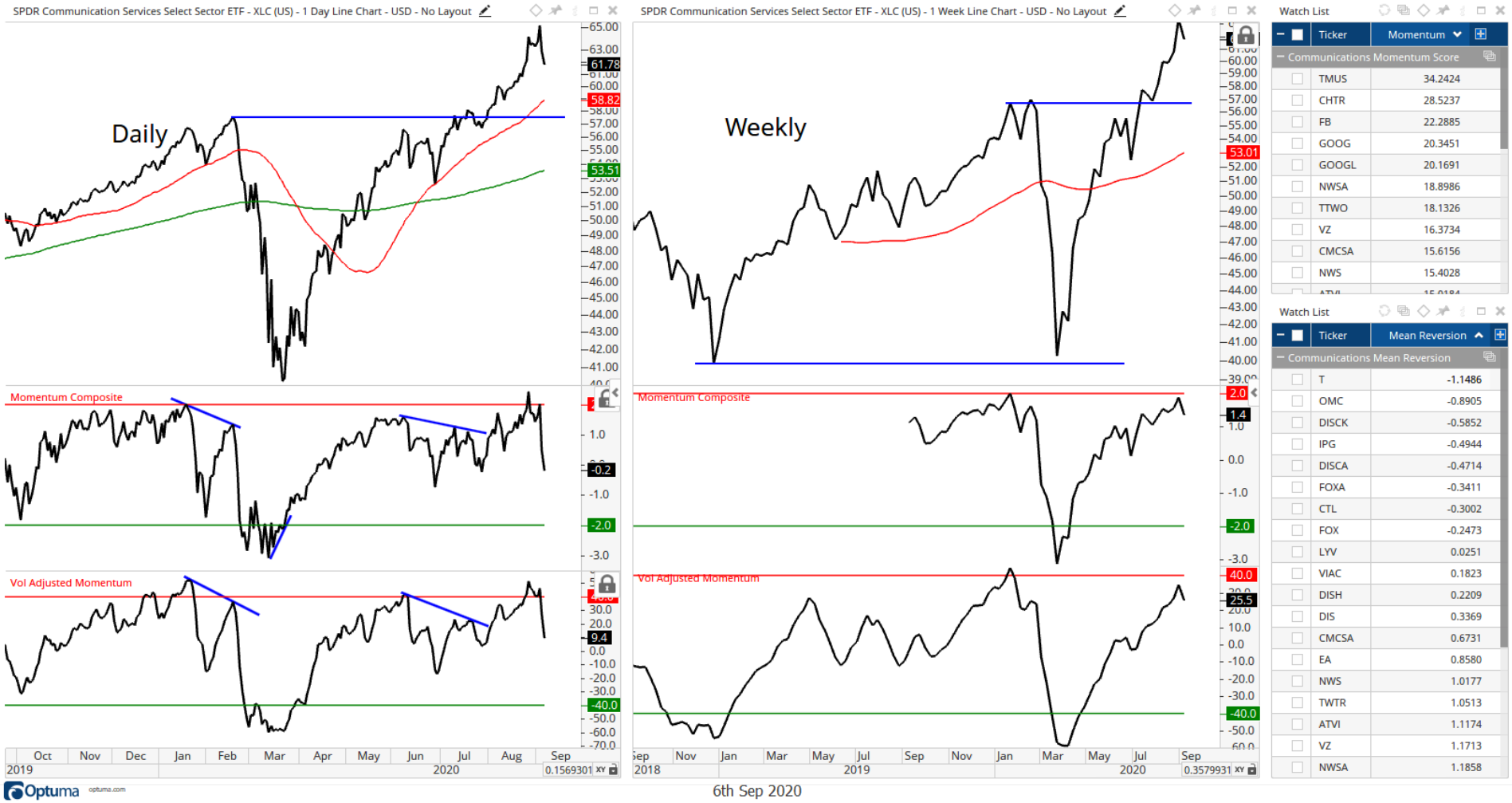
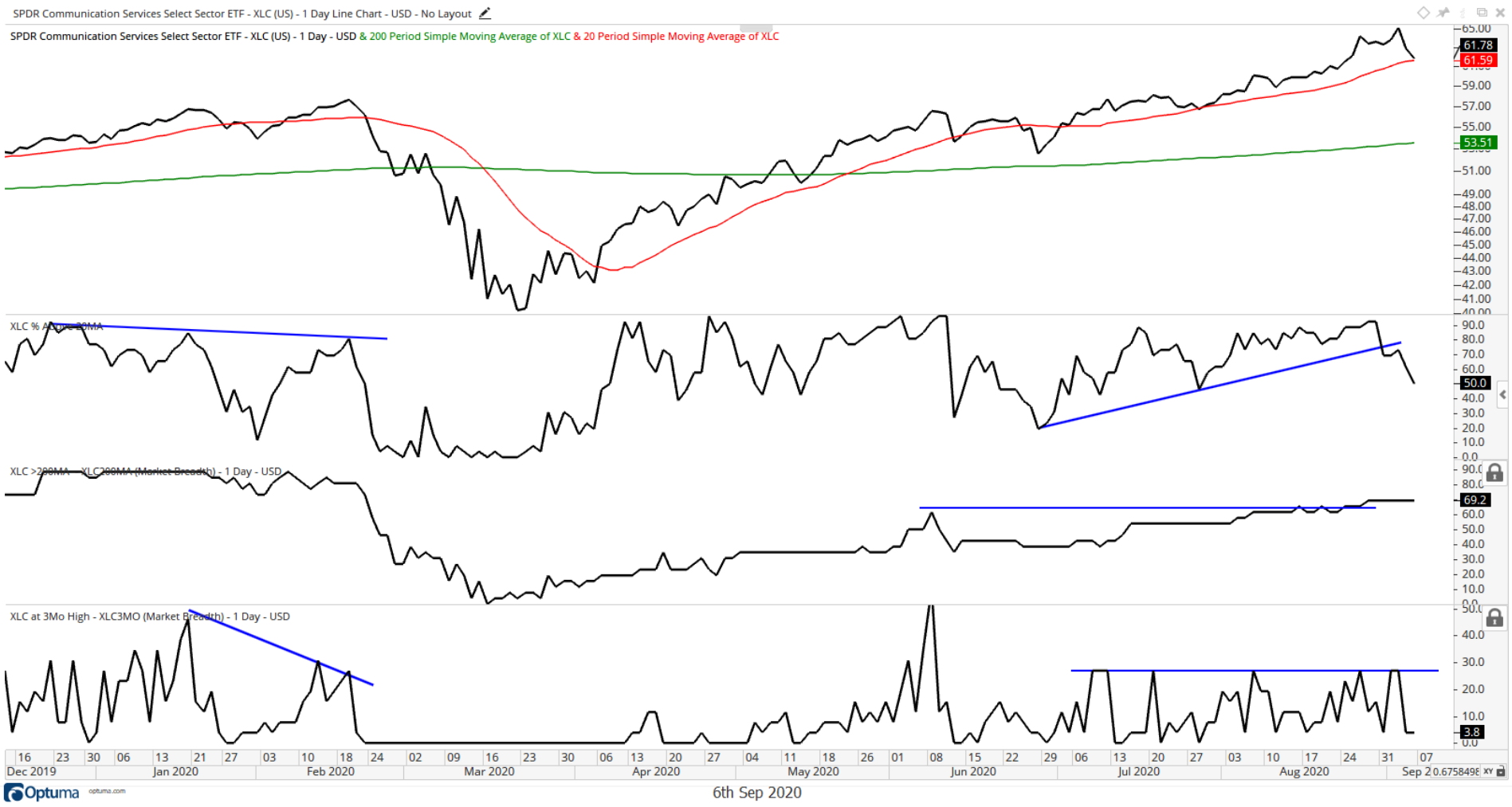
6th Sep 2020

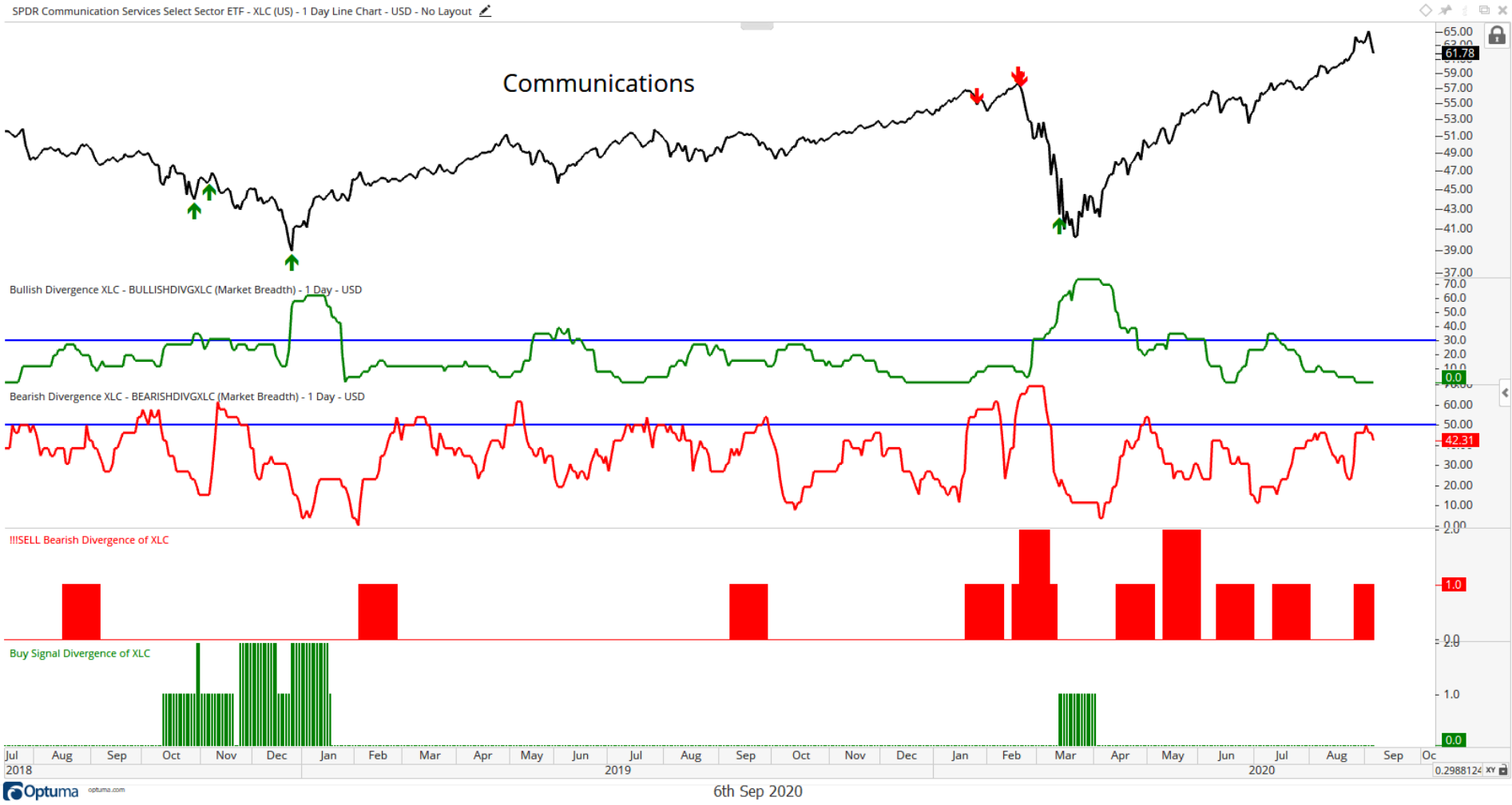


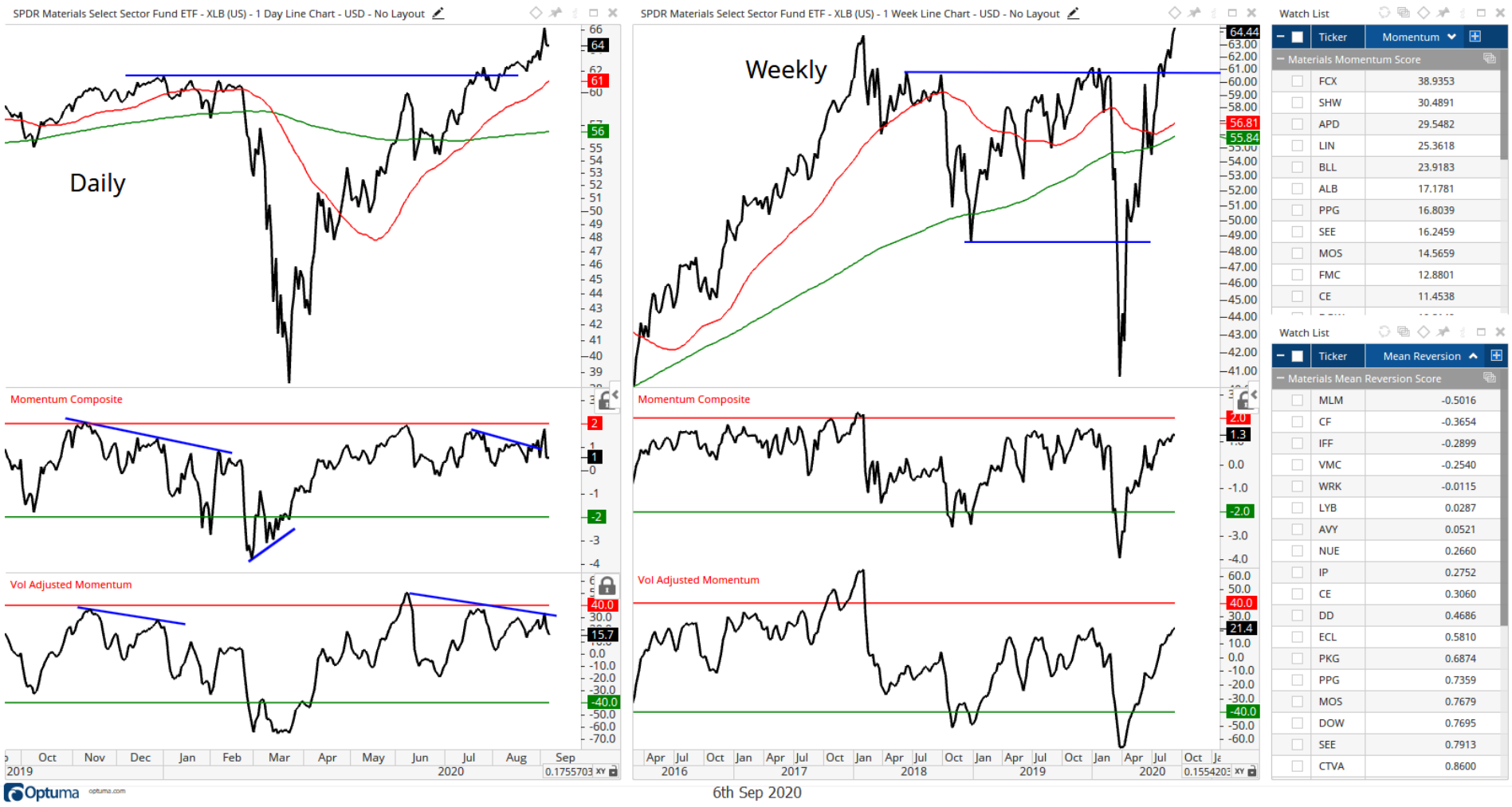
6th Sep 2020

XLC coming off 'overbought' with price moving near the 50-day MA.

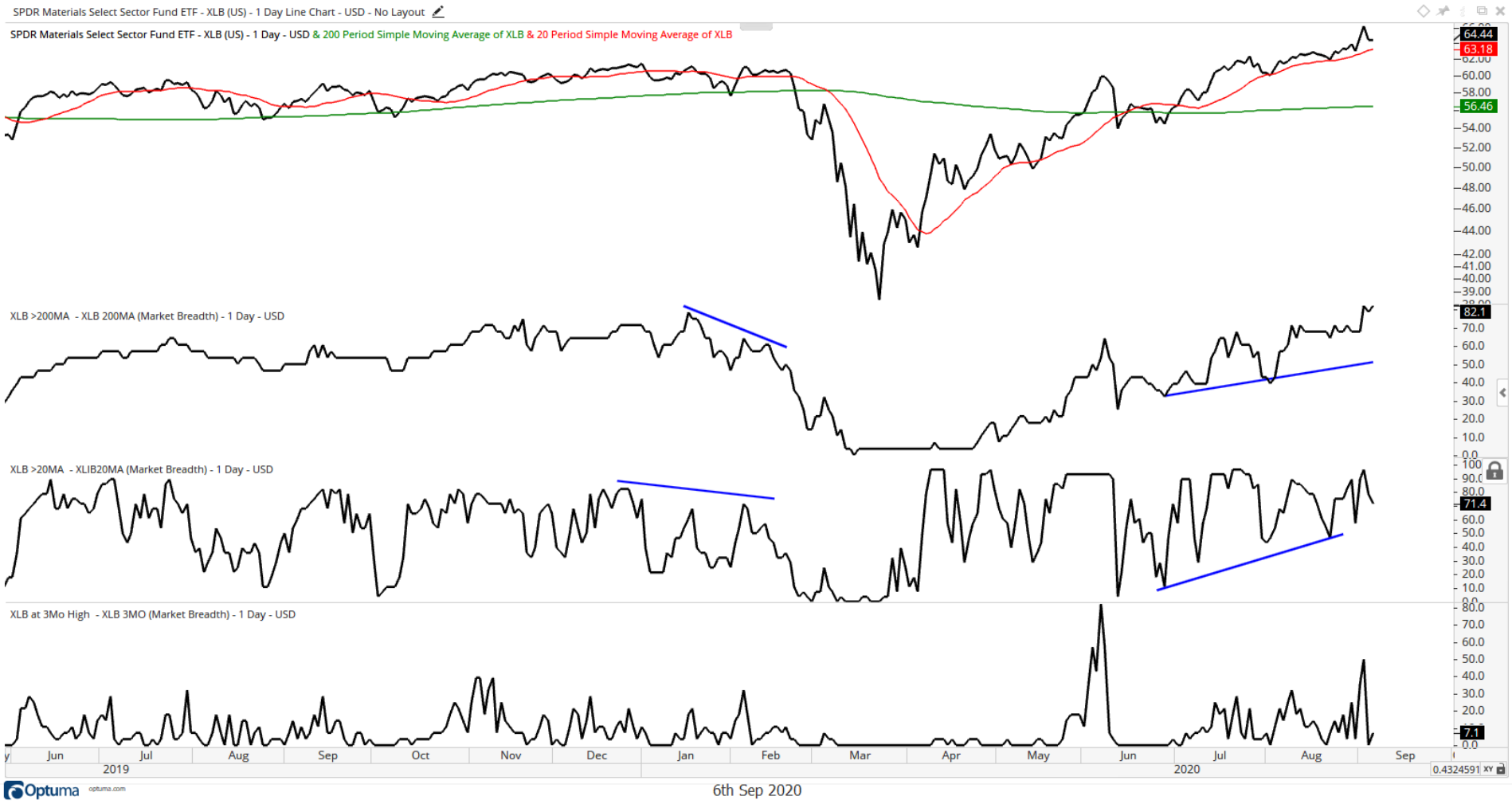


Drop in % 20-MA with a steady hold at % above 200MA and still no expansion in new 3-month highs.

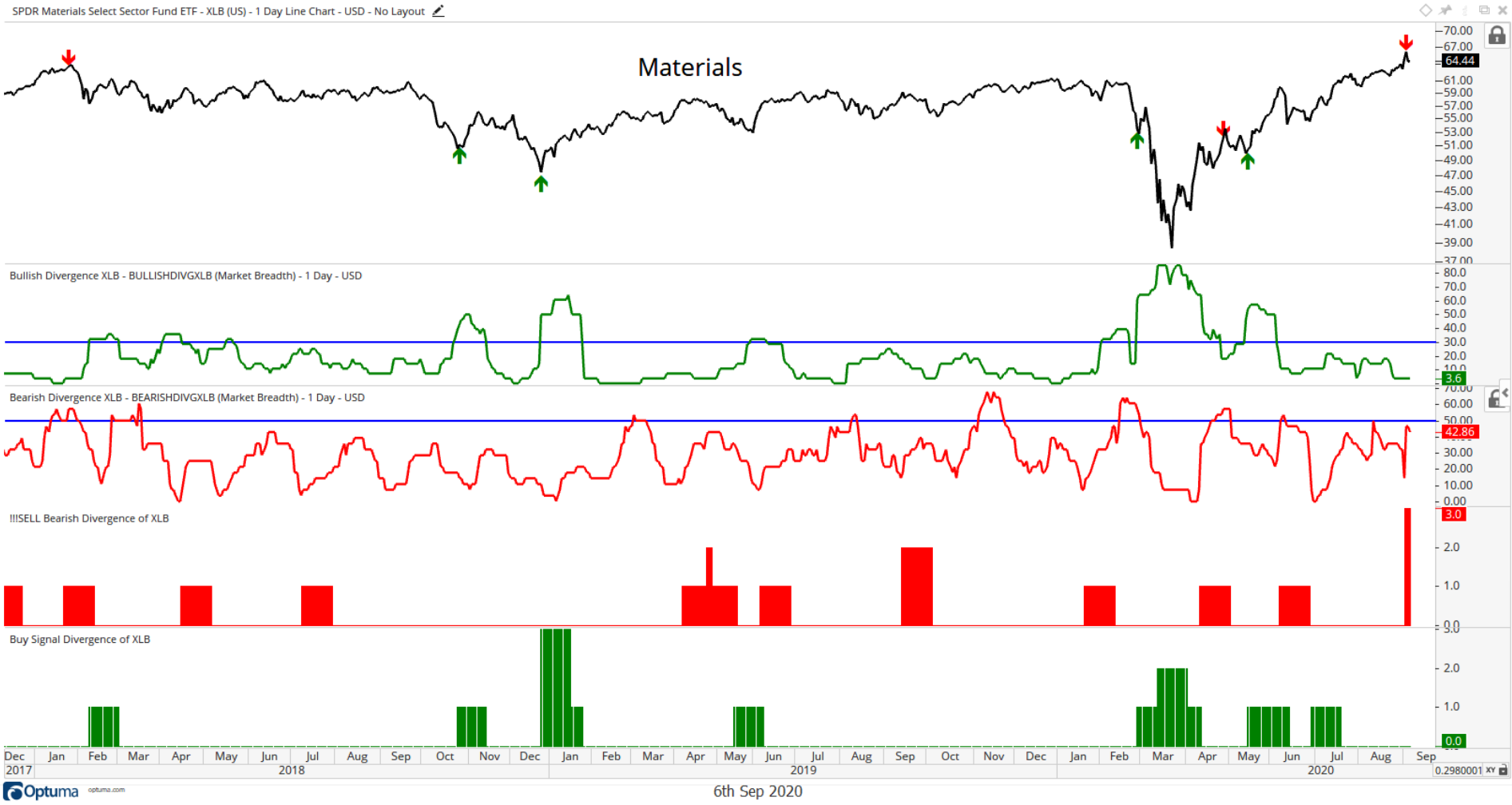

SPDR Communication Services Select Sector ETF - XLC (US) - 1 Day Line Chart - USD - No Layout
Communications
Bullish Divergence XLC - BULLISHDIVGXLC (Market Breadth) - 1 Day - USD
Bearish Divergence XLC - BEARISHDIVGXLC (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLC
Buy Signal Divergence of XLC
2018
2019
2020
Optuma
6th Sep 2020

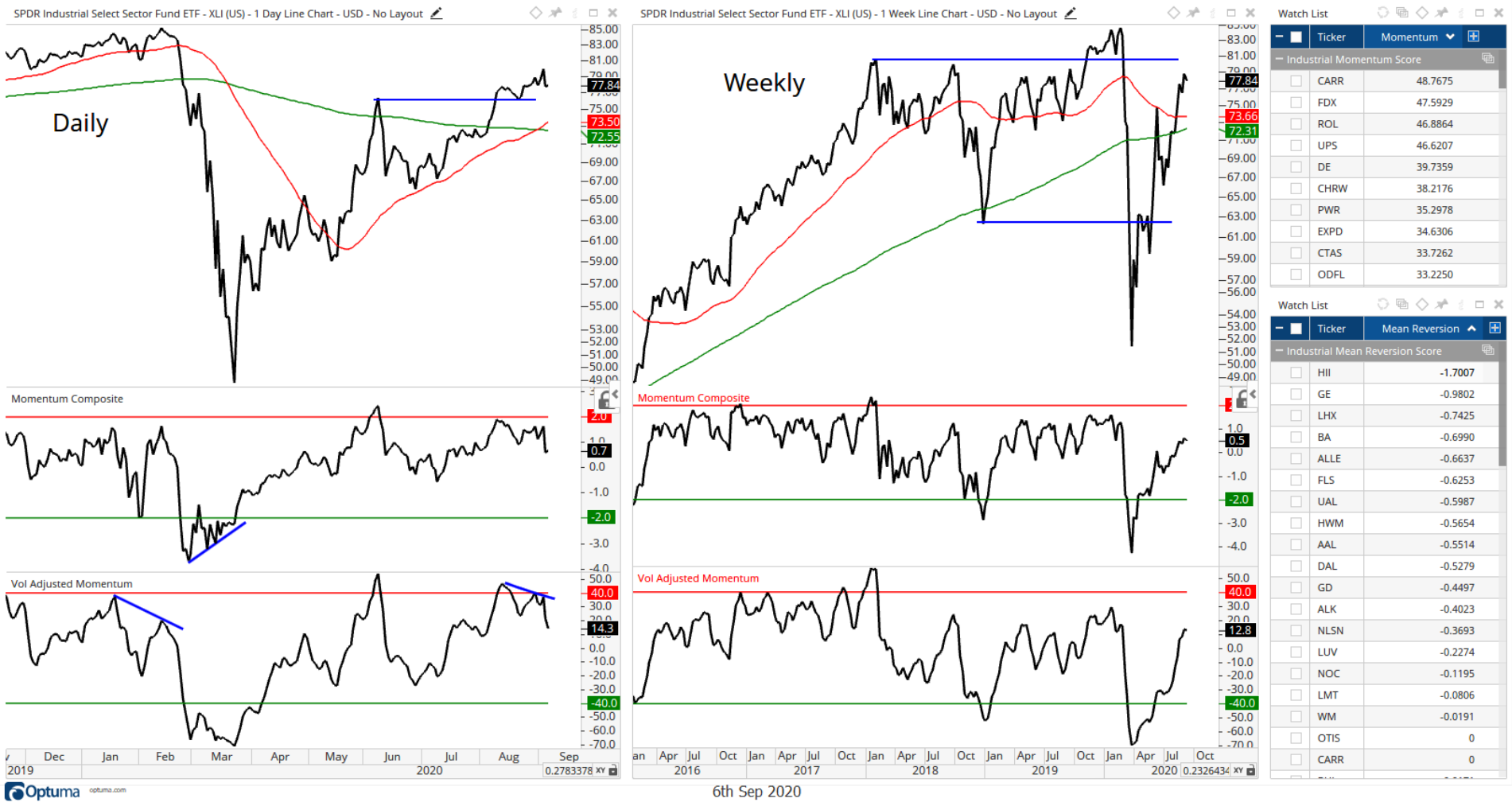


XLB has held its breakout but has bearish divergences on daily chart.



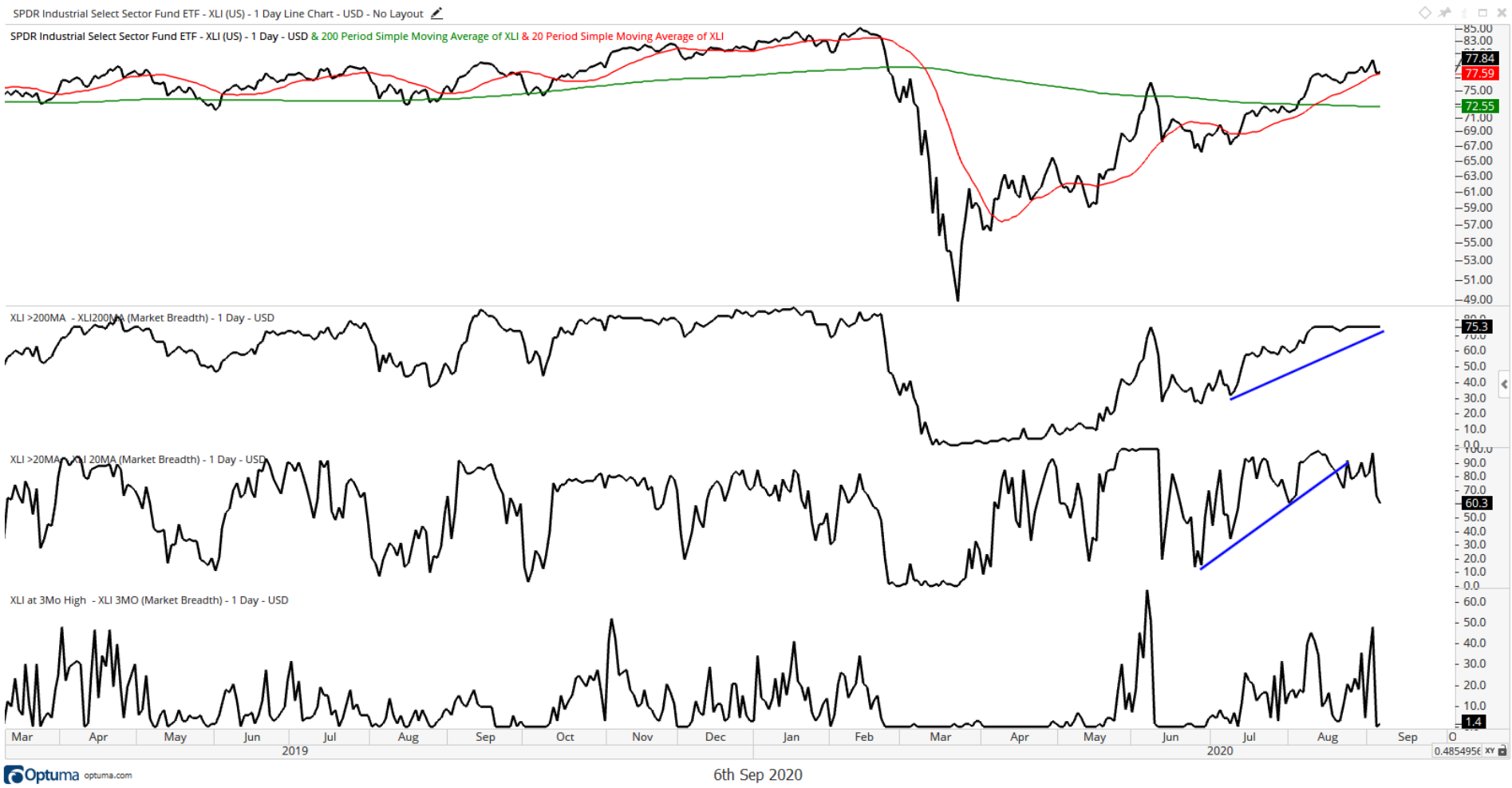
Breadth is positive for XLB.


THRASHER ANALYTICS
SPDR Materials Select Sector Fund ETF - XLB (US) - 1 Day Line Chart - USD - No Layout
Materials
Bullish Divergence XLB - BULLISHDIVGXLB (Market Breadth) - 1 Day - USD
Bearish Divergence XLB - BEARISHDIVGXLB (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLB
Buy Signal Divergence of XLB
2017
2018
2019
2020
Optuma
6th Sep 2020

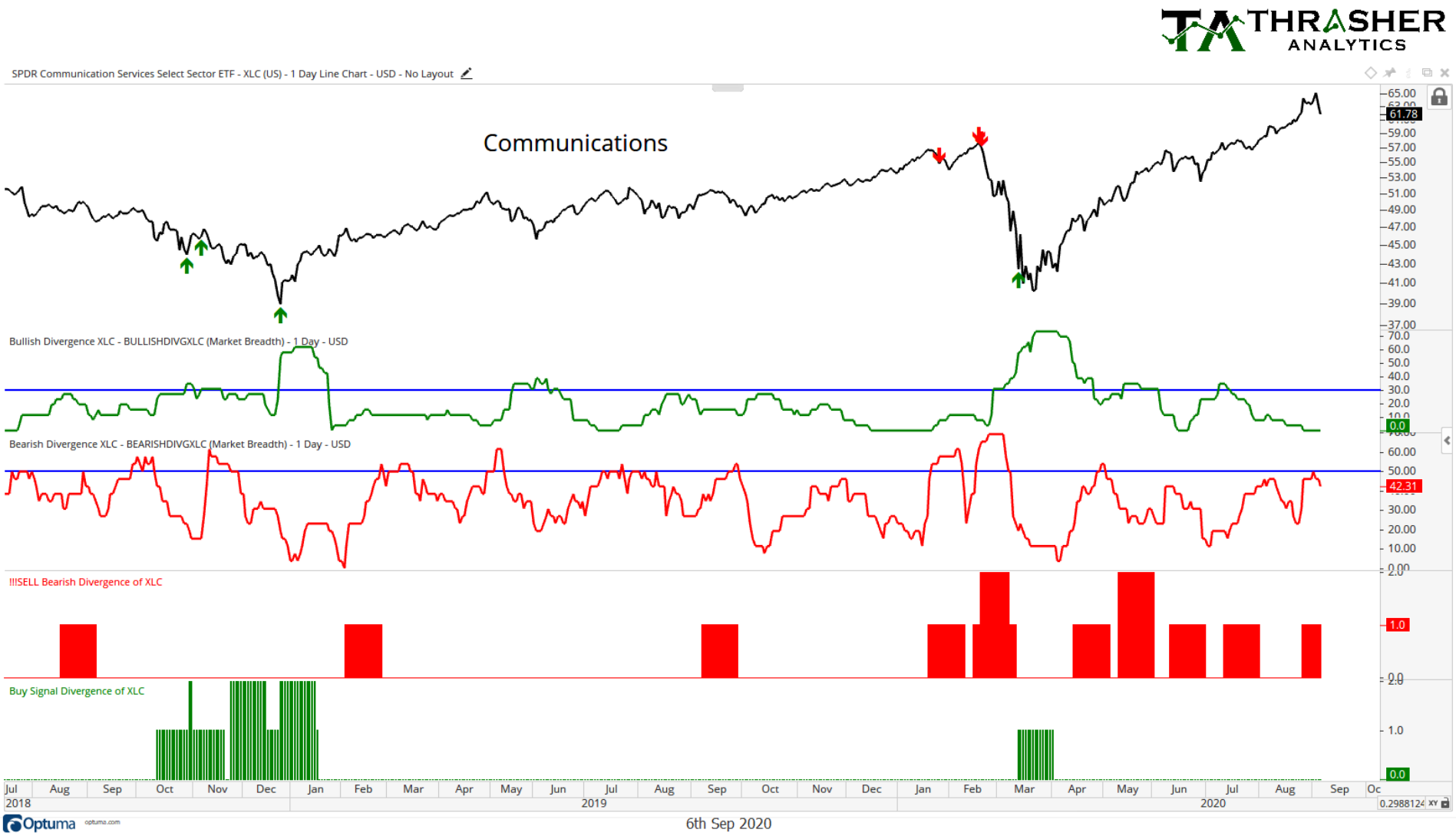


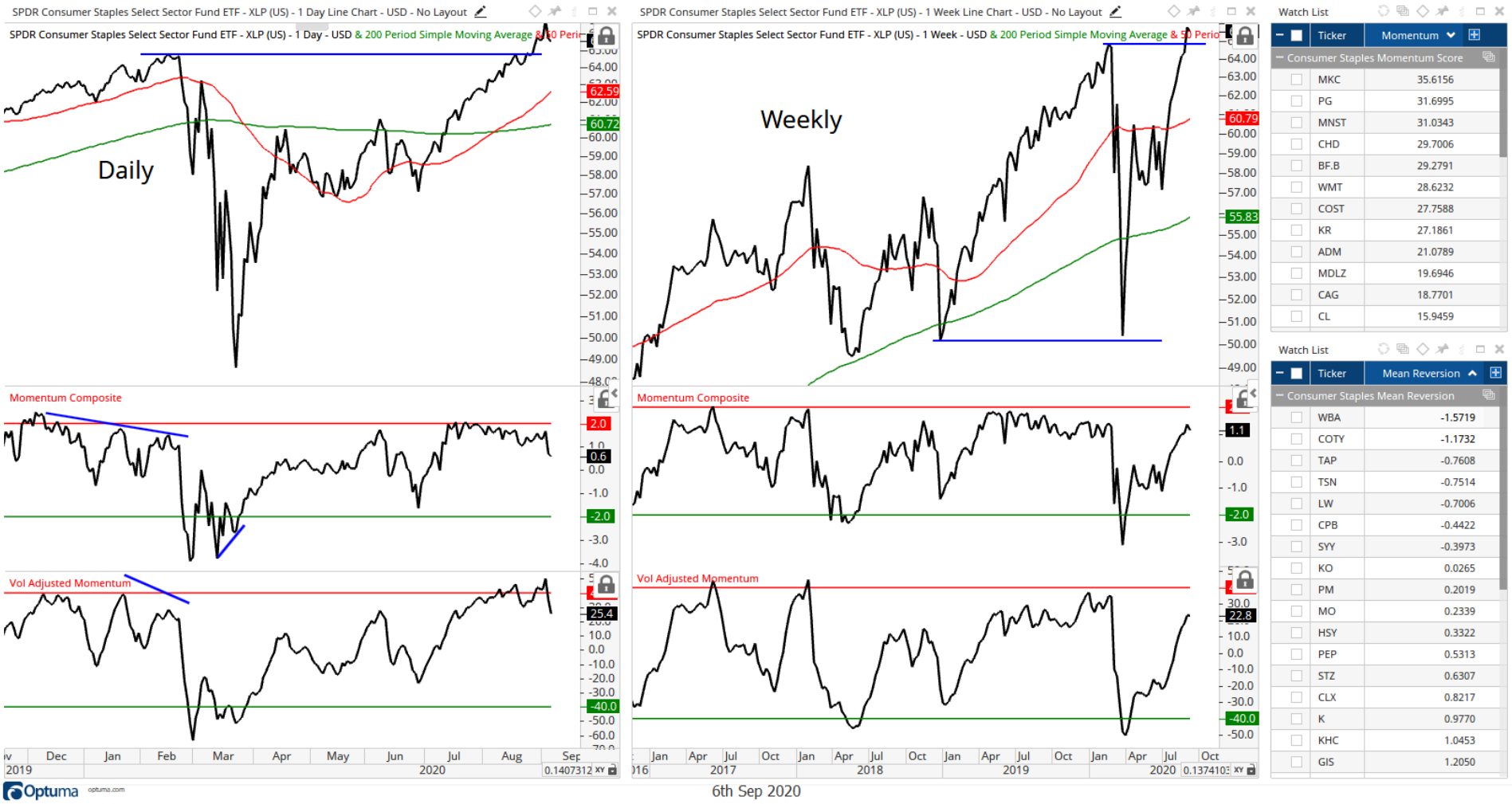
XLI with a bearish divergence in VaM

Industrial Sector



Breadth continues to track price trend with a breakdown in % above 20MA.


SPDR Communication Services Select Sector ETF - XLC (US) - 1 Day Line Chart - USD - No Layout
Communications
Bullish Divergence XLC - BULLISHDIVGXLC (Market Breadth) - 1 Day - USD
Bearish Divergence XLC - BEARISHDIVGXLC (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLC
Buy Signal Divergence of XLC
2018
2019
2020
Optuma
6th Sep 2020



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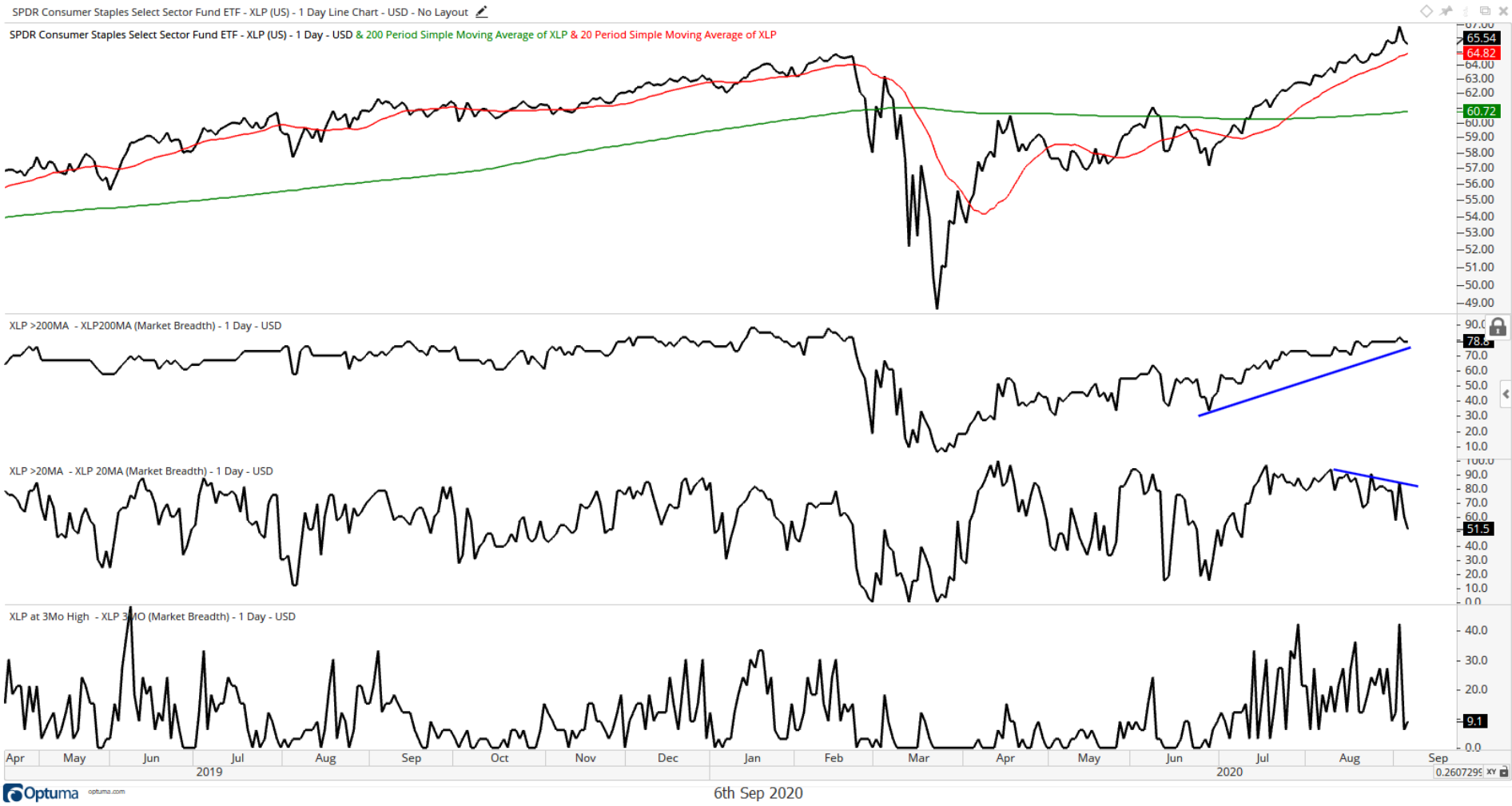
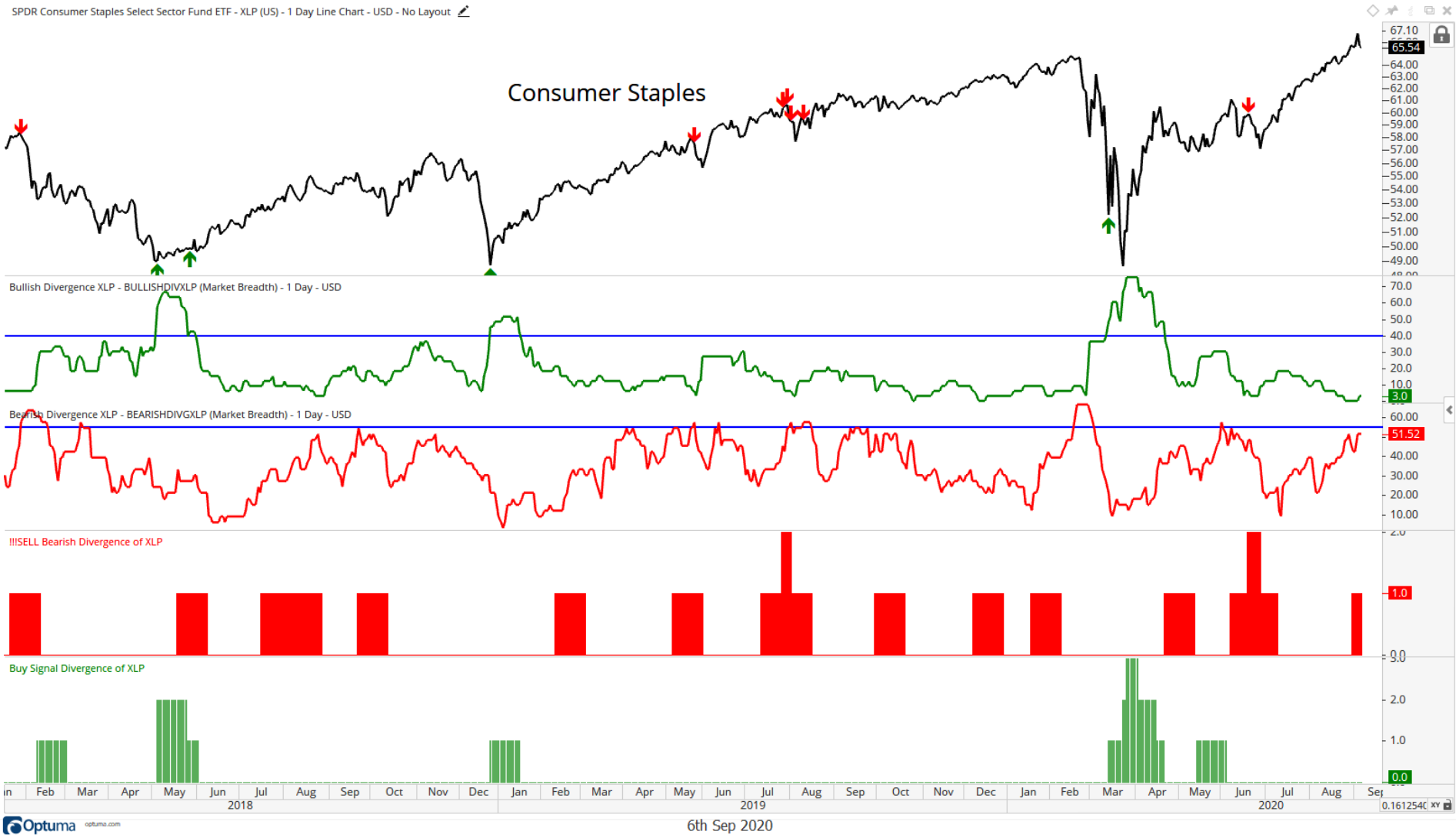
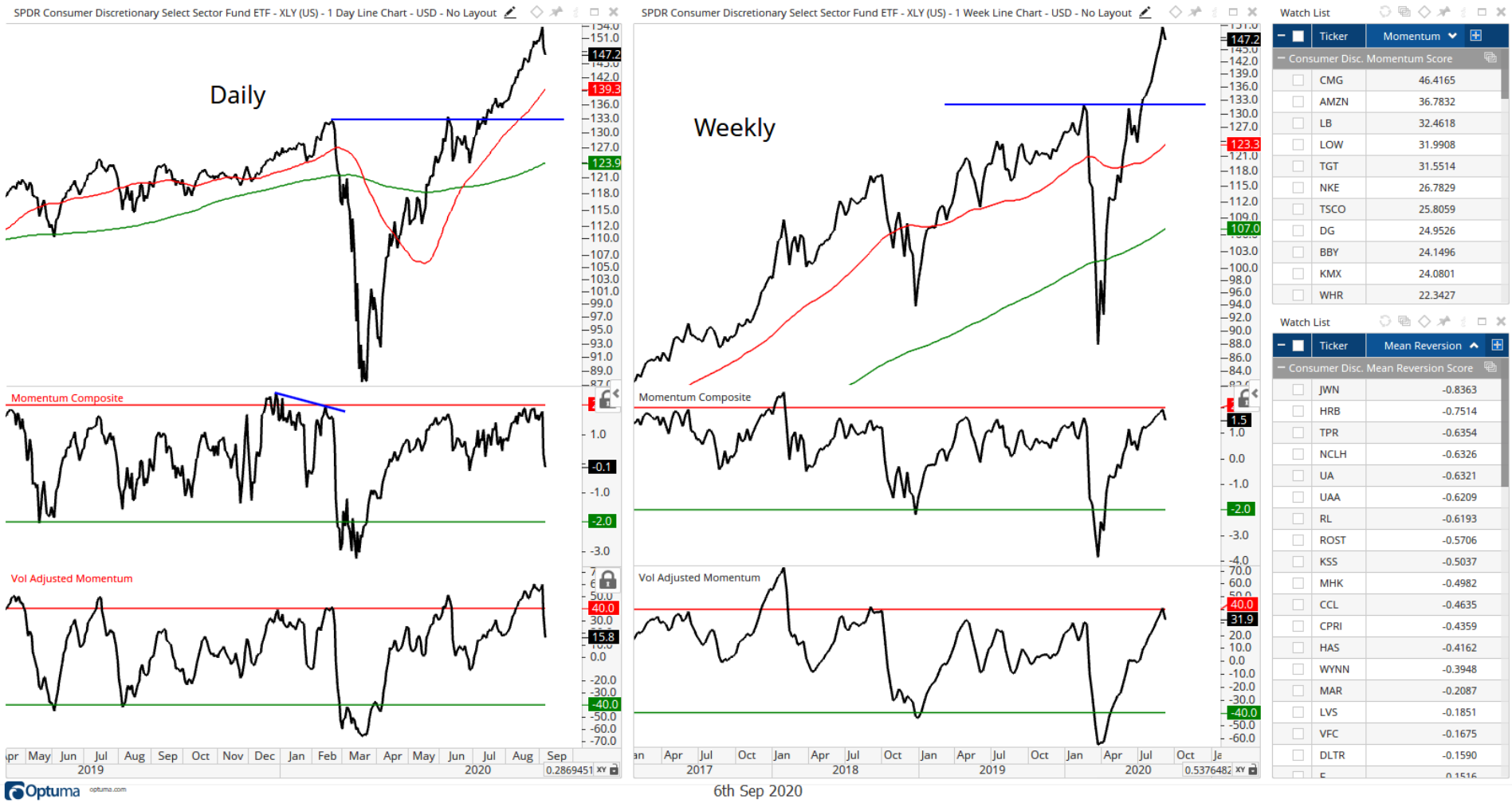
XLP holding its breakout with recent 'overbought 'VaM' and declining momentum.



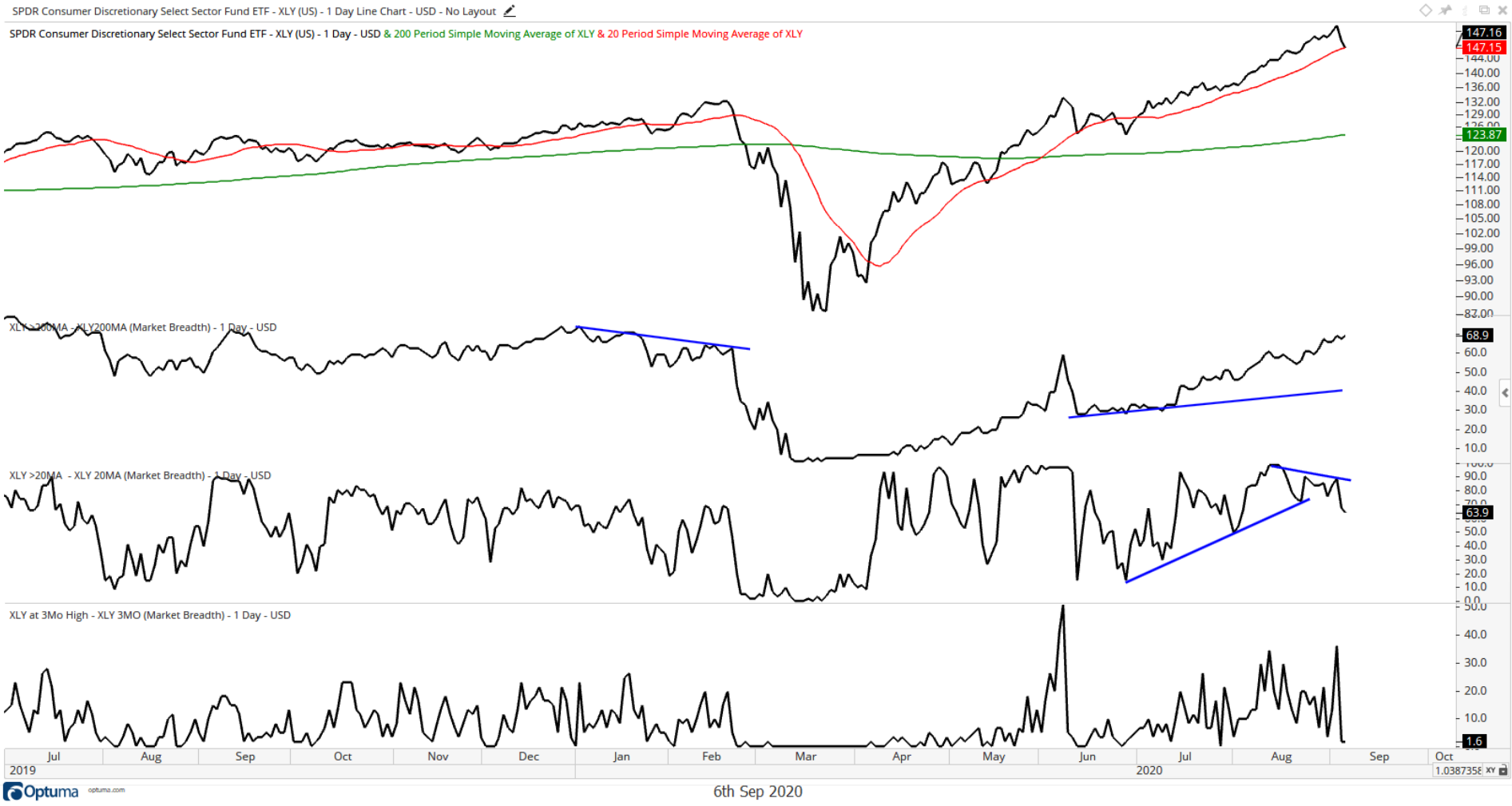
% 20MA breaking down with % 200MA still supportive.

Consumer Staples Sector



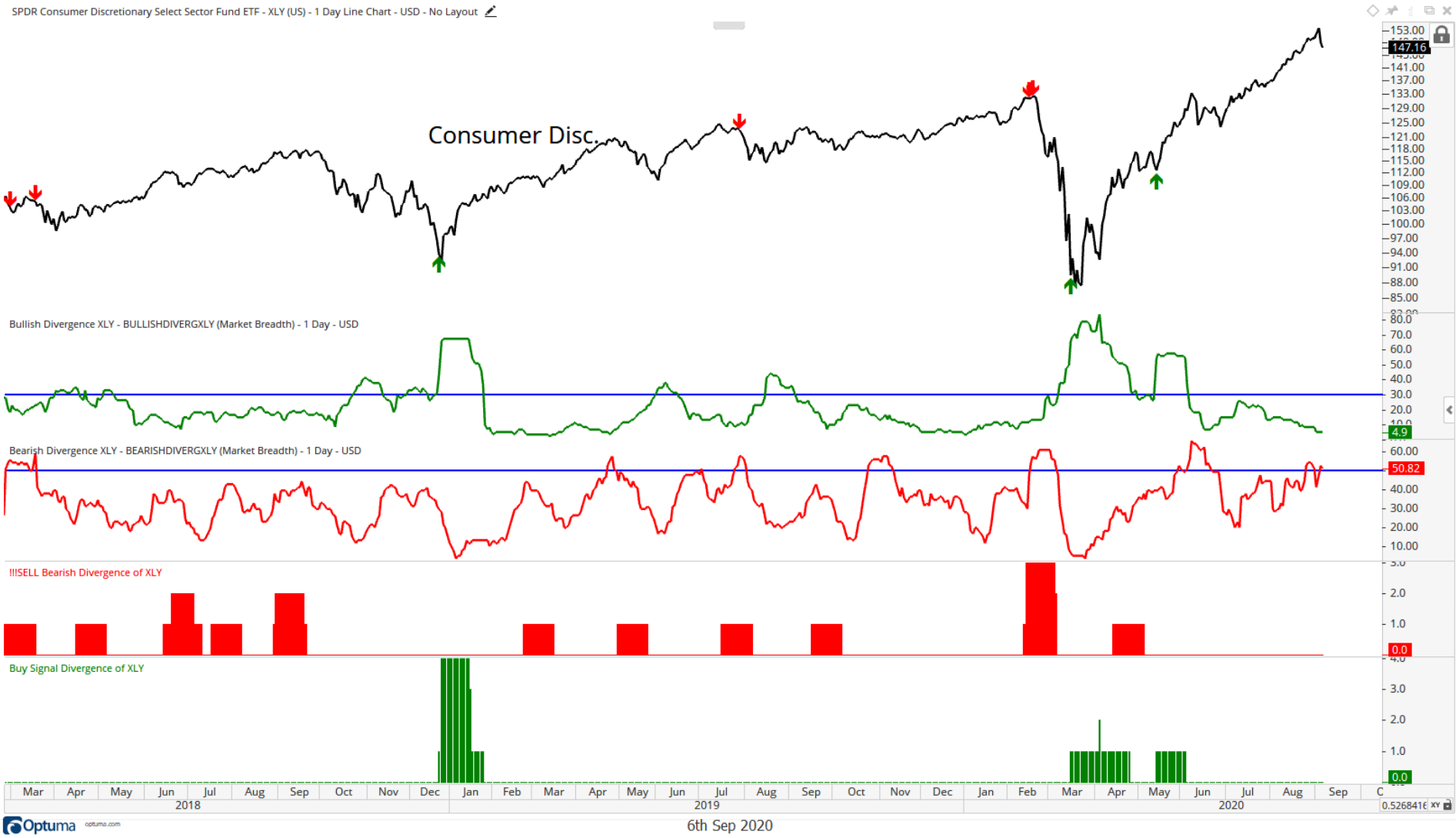


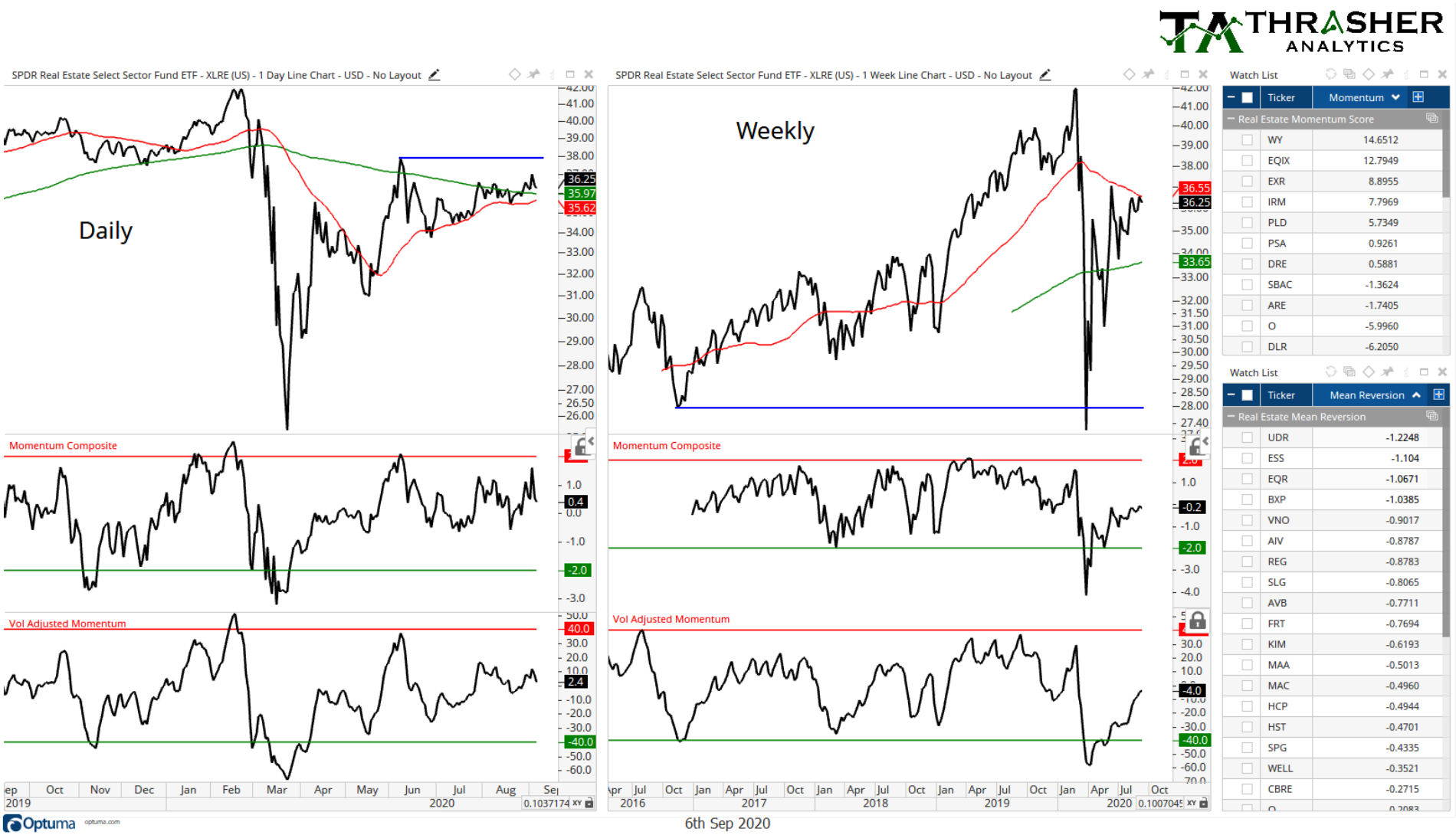
XLY coming off 'overbought' VaM and 'overbought' weekly charts.



Breadth diverged for %2MA but remains positive for %200MA.

Consumer Discretionary Sector





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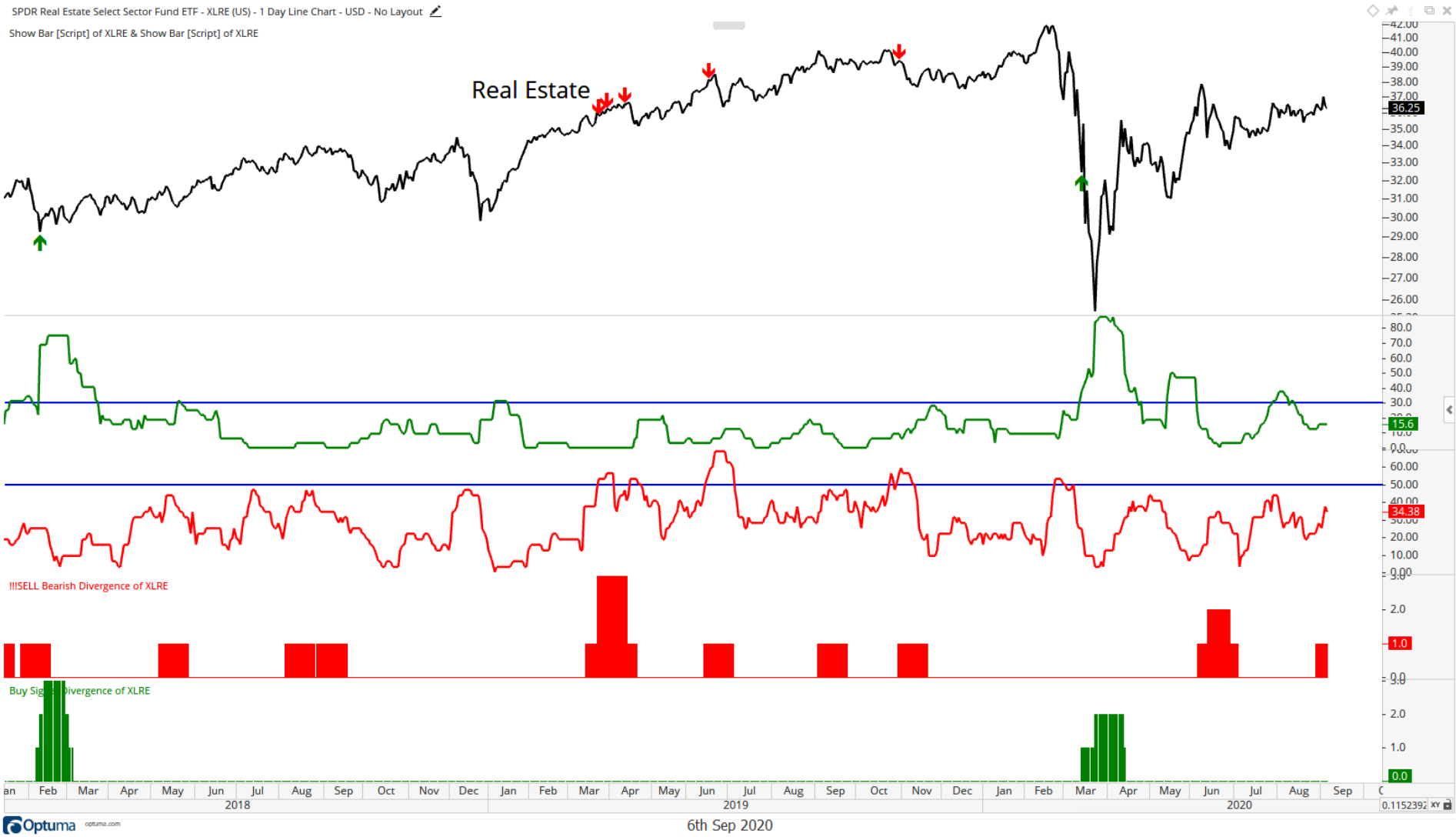
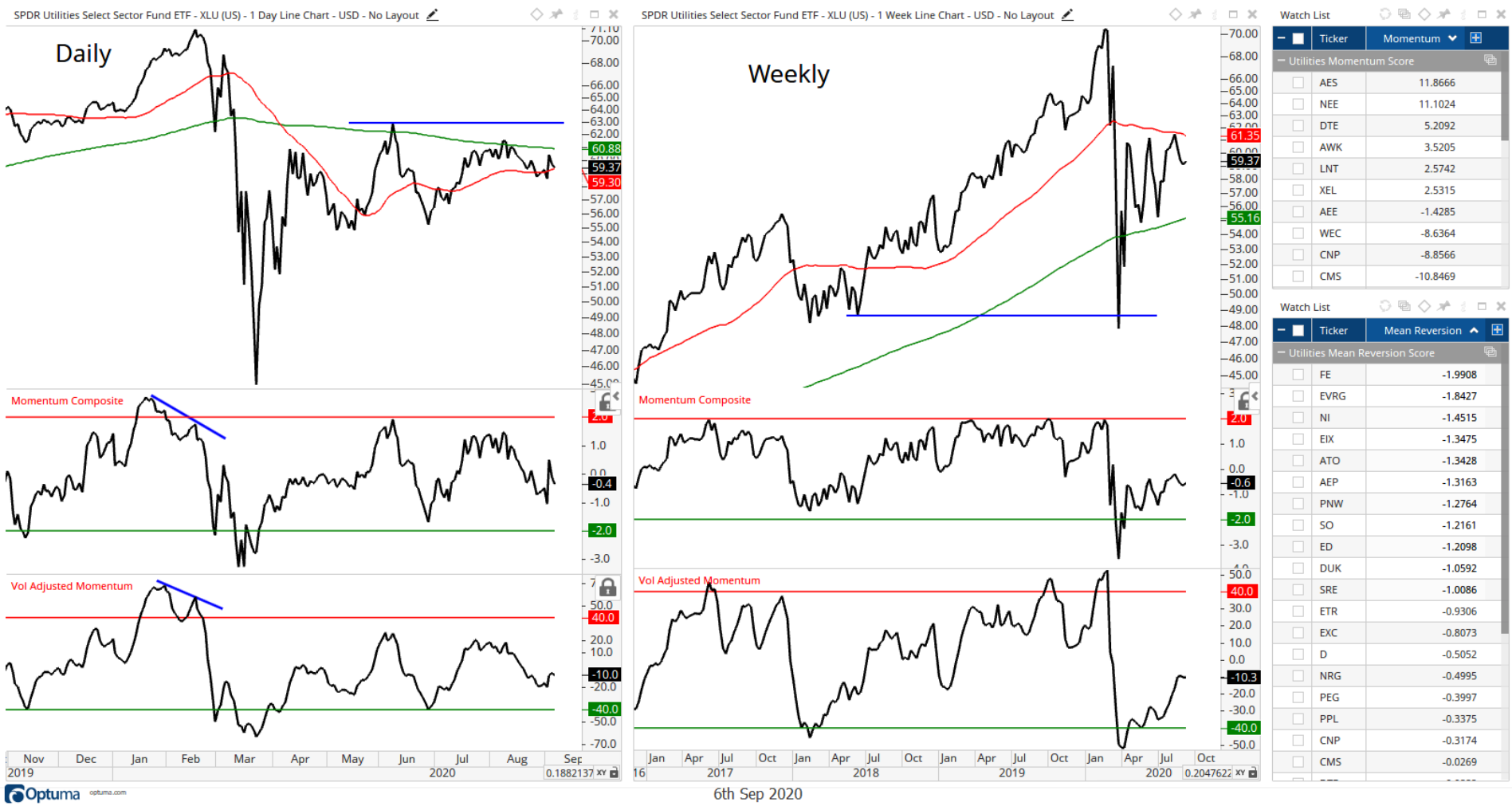
XLRE still under the June high.

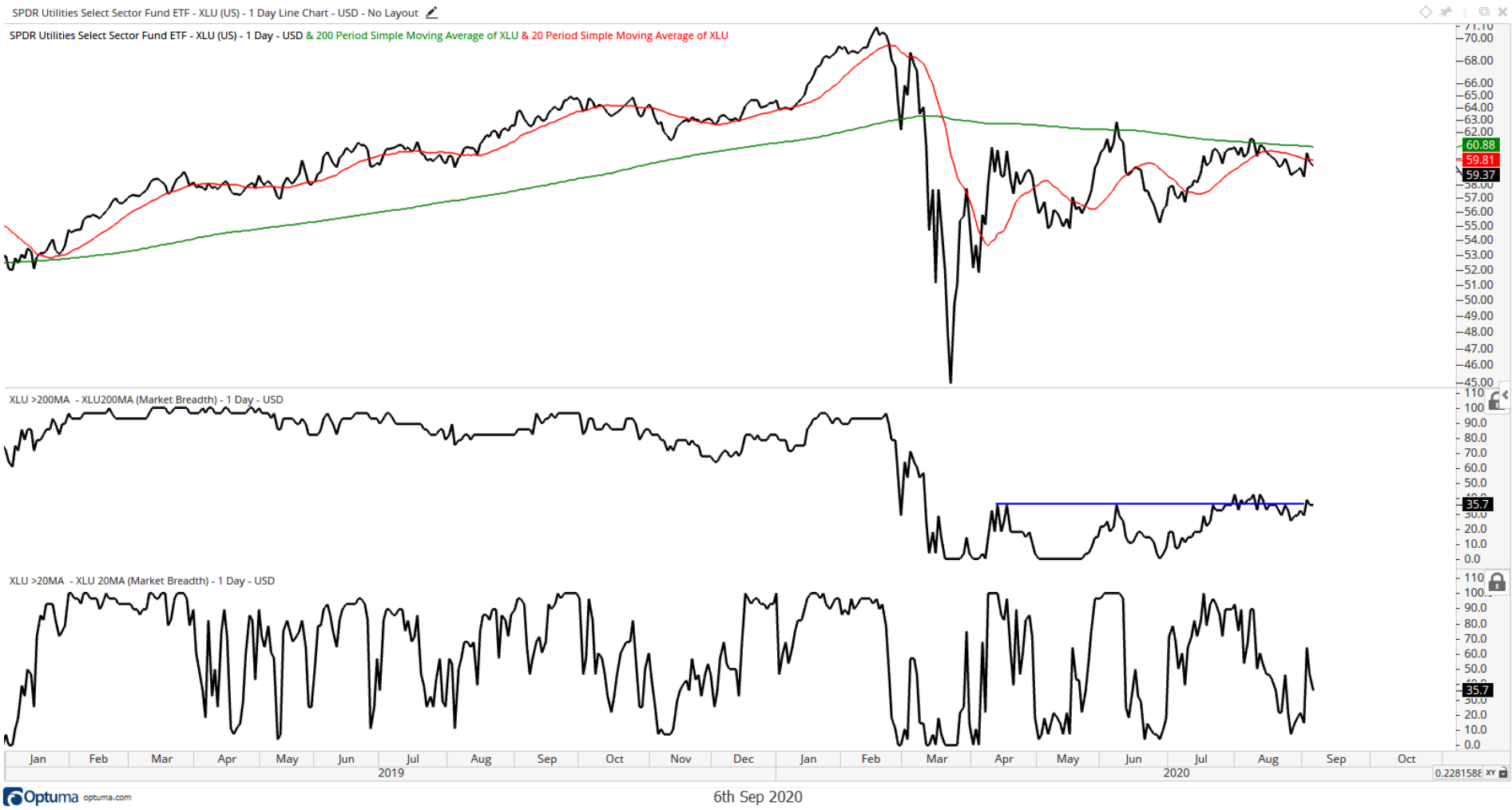
Breadth is supportive.

Real Estate Sector

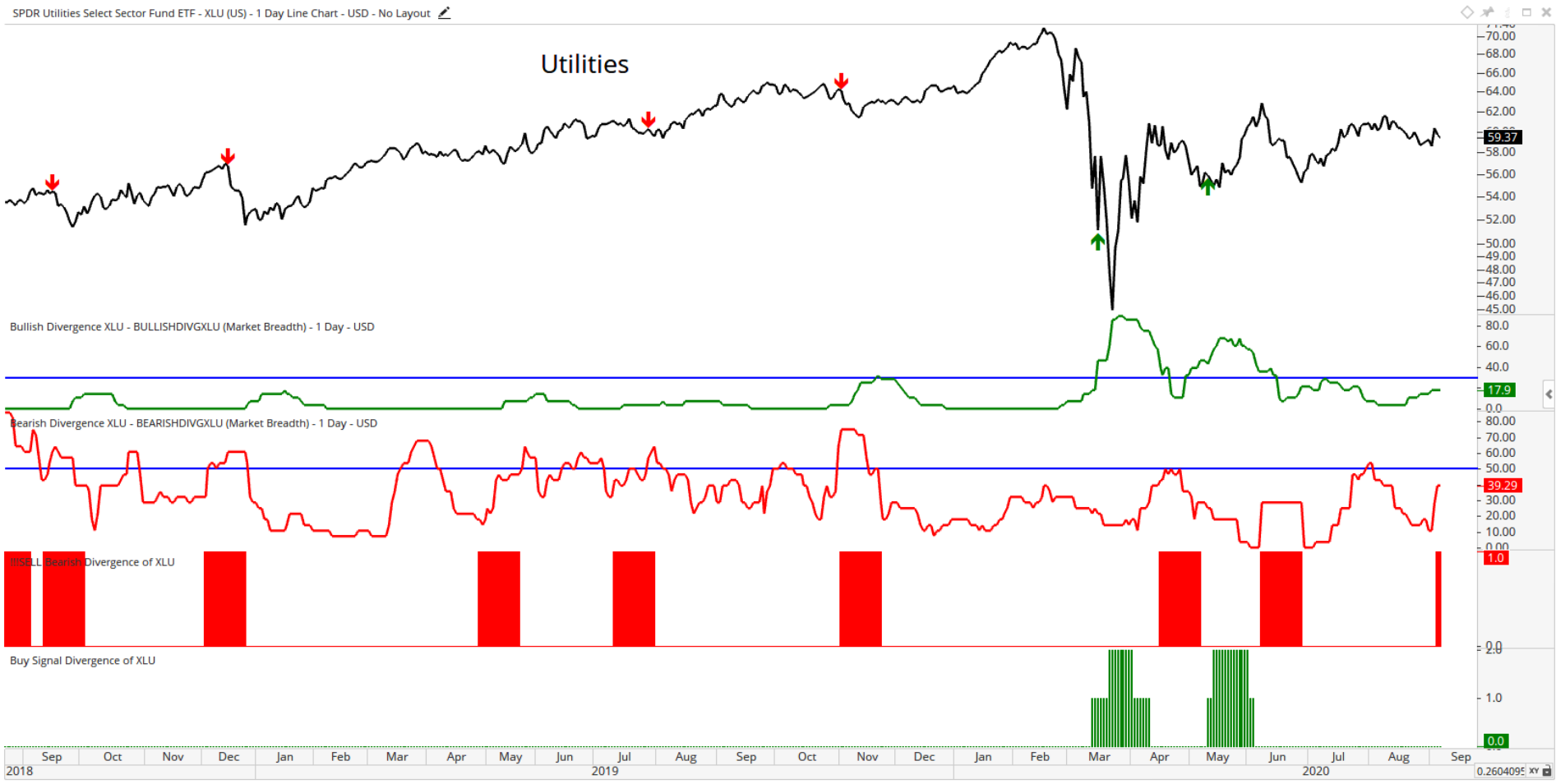




XLU failed at breaking its 200-day MA, coming back to rest above the 50-day MA.



Breadth still waiting to expand with price.


SPDR Utilities Select Sector Fund ETF - XLU (US) - 1 Day Line Chart - USD - No Layout
Utilities
Bullish Divergence XLU - BULLISHDIVGXLU (Market Breadth) - 1 Day - USD
Bearish Divergence XLU - BEARISHDIVGXLU (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLU
Buy Signal Divergence of XLU
2018
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Market	% Bullish	5MA	History
US Dollar DSI	29.00	20.8	
Lumber DSI	30.00	53.20	
VIX DSI	40.00	32.60	
Orange Juice DSI	41.00	35.00	
Sugar DSI	45.00	55.40	
Natural Gas DSI	50.00	44.00	
Heating Oil DSI	55.00	63.00	
CRB Index DSI	55.00	65.80	
Crude Oil DSI	58.00	64.80	
Corn DSI	60.00	57.40	
Gold DSI	61.00	64.80	
Cattle DSI	62.00	61.60	
Wheat DSI	65.00	71.40	
Silver DSI	65.00	71.00	
Cotton DSI	65.00	65.40	
SPX DSI	66.00	79.20	
Lean Hog DSI	66.00	55.00	

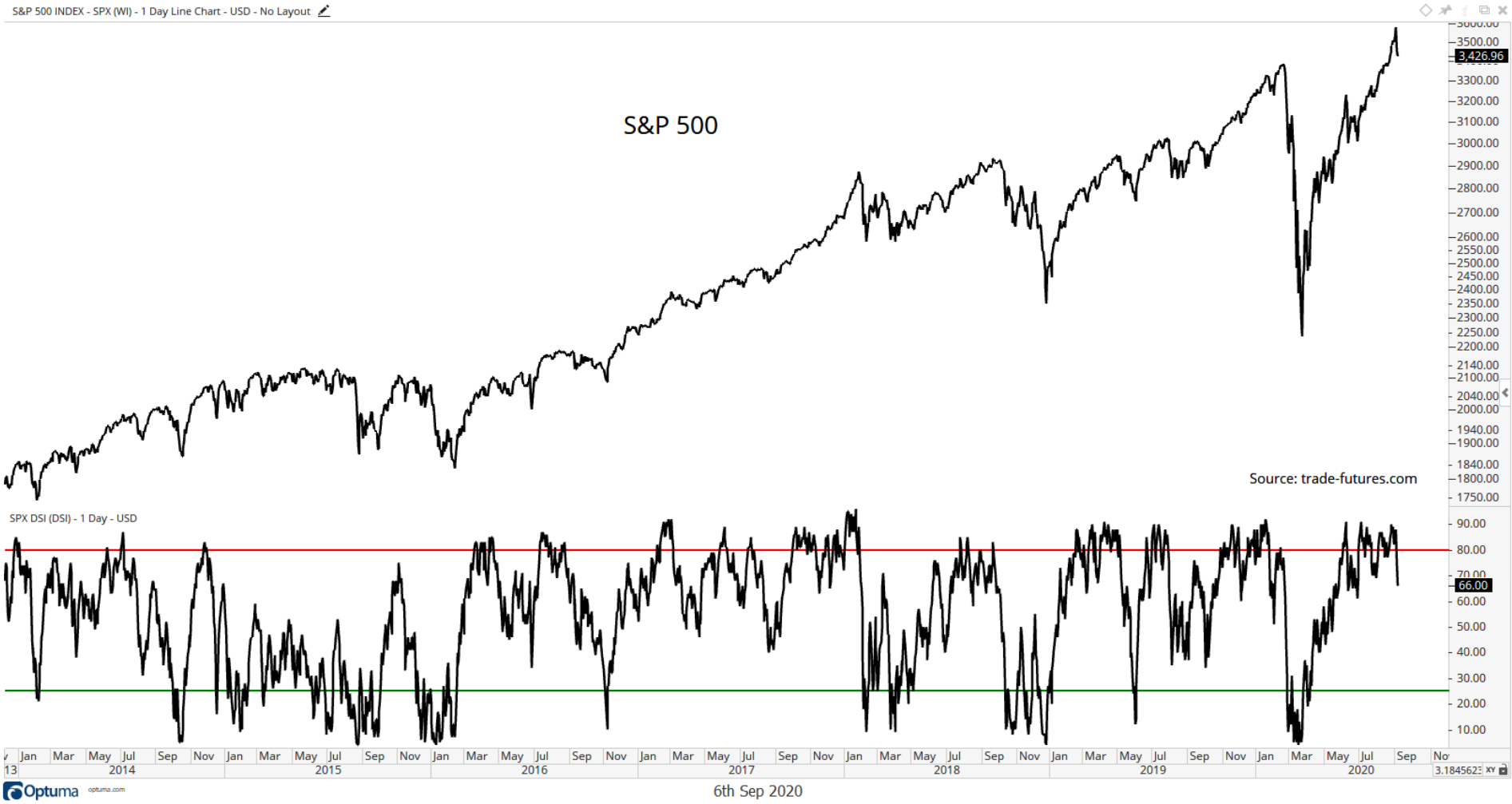
Code	% Bullish	5MA	History
Nasdaq DSI	67.00	81.4	
Gasoline DSI	67.00	73.60	
5YR DSI	67.00	60.80	
Platinum DSI	68.00	72.00	
Coffee DSI	68.00	62.80	
British Pound DSI	69.00	72.20	
Swiss Franc DSI	70.00	72.60	
EuroDollar DSI	71.00	71.00	
10Y DSI	71.00	59.80	
Nikkei DSI	72.00	75.60	
Cocoa DSI	73.00	81.6	
Euro DSI	74.00	75.40	
New Zealand Dollar DSI	75.00	76.80	
Australian Dollar DSI	76.00	79.60	
Copper DSI	79.00	78.20	
Mexican Peso DSI	82	78.40	
Palladium DSI	87	83	

Source: trade-futures.com

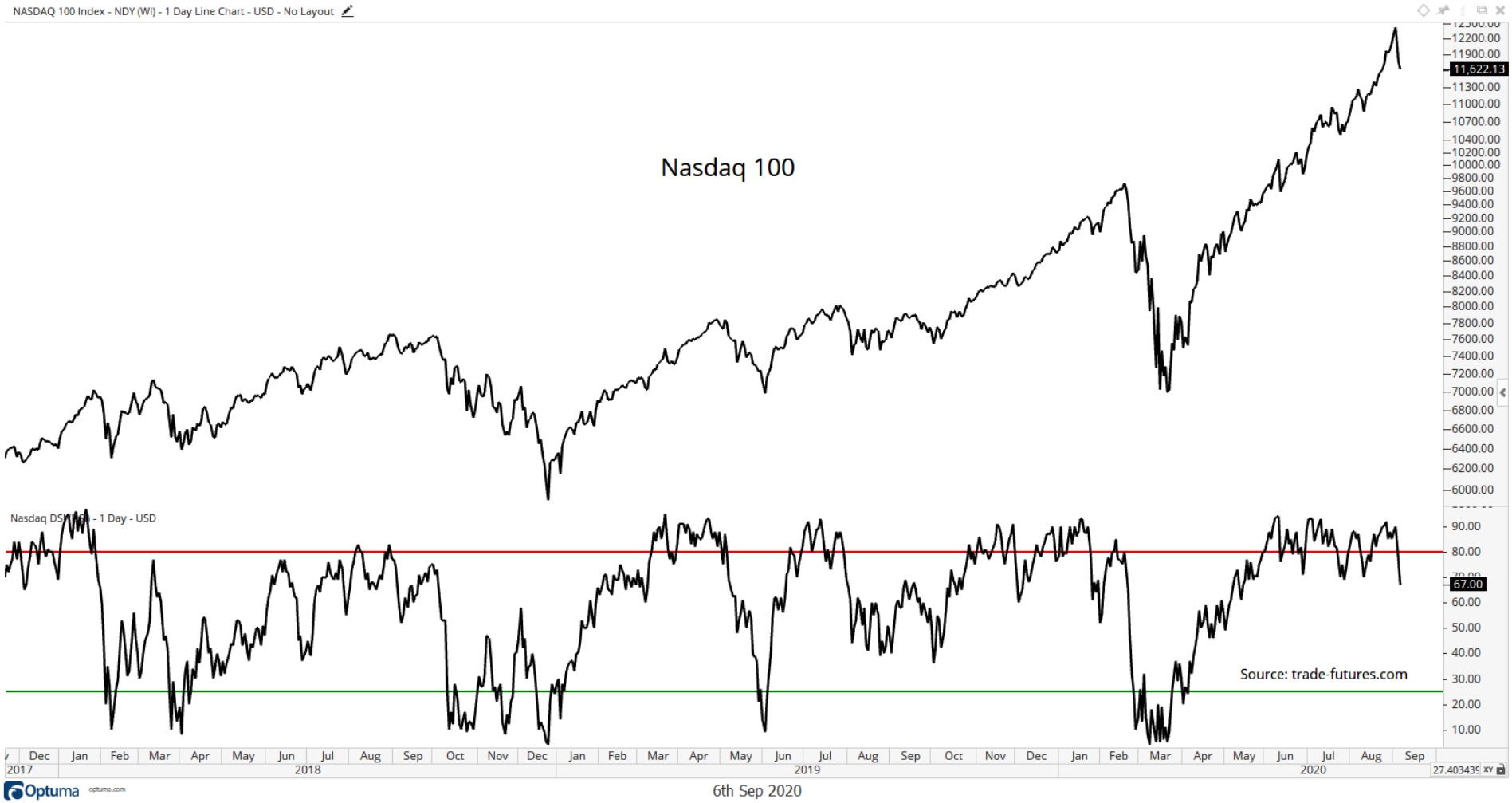
Above is the DSI score for each of the futures markets.

Daily Sentiment Index 10-year Treasury

Daily Sentiment Index S&P 500

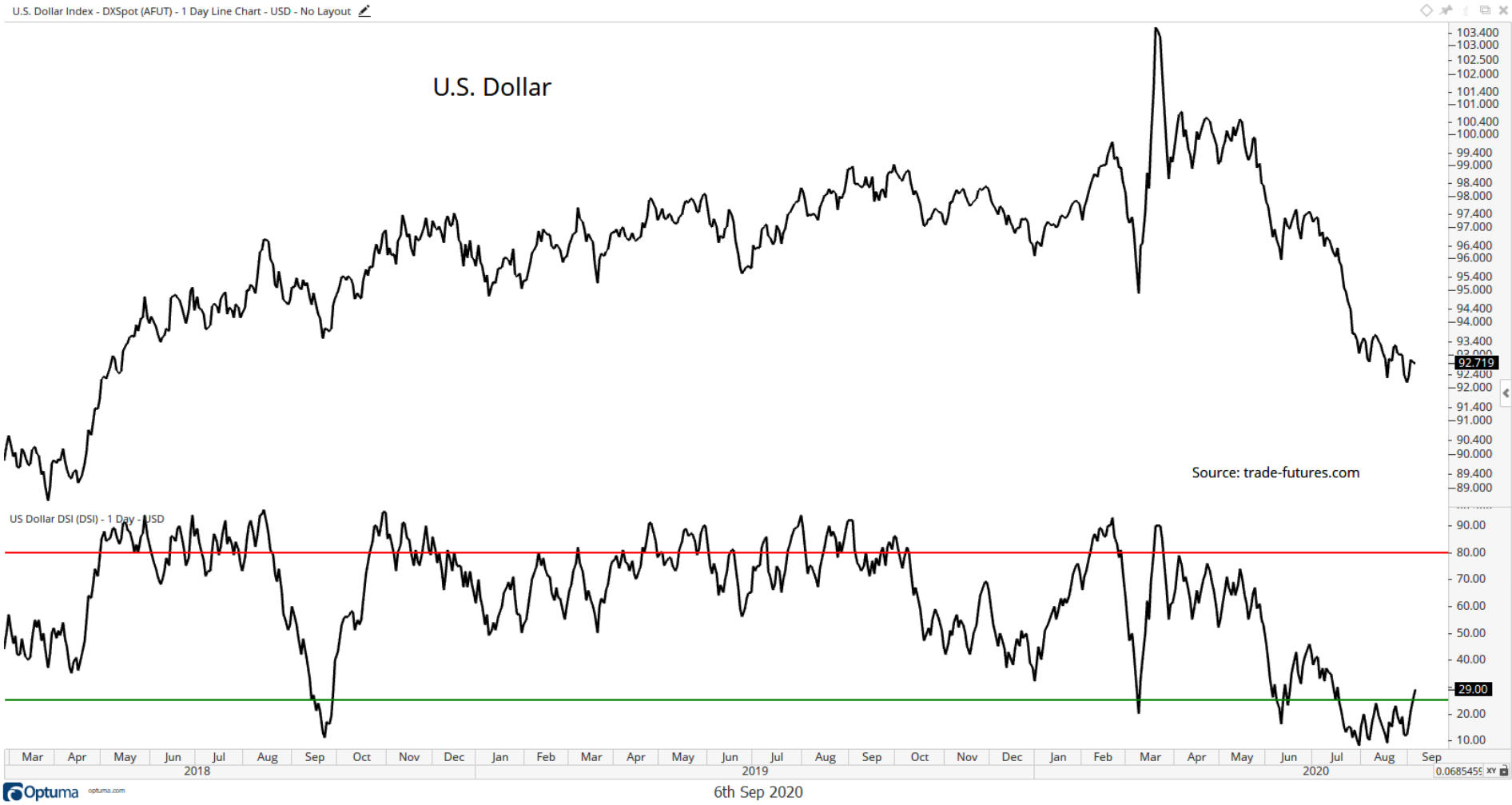


Daily Sentiment Index Nasdaq 100



Daily Sentiment Index Gold

Daily Sentiment Index U.S. Dollar



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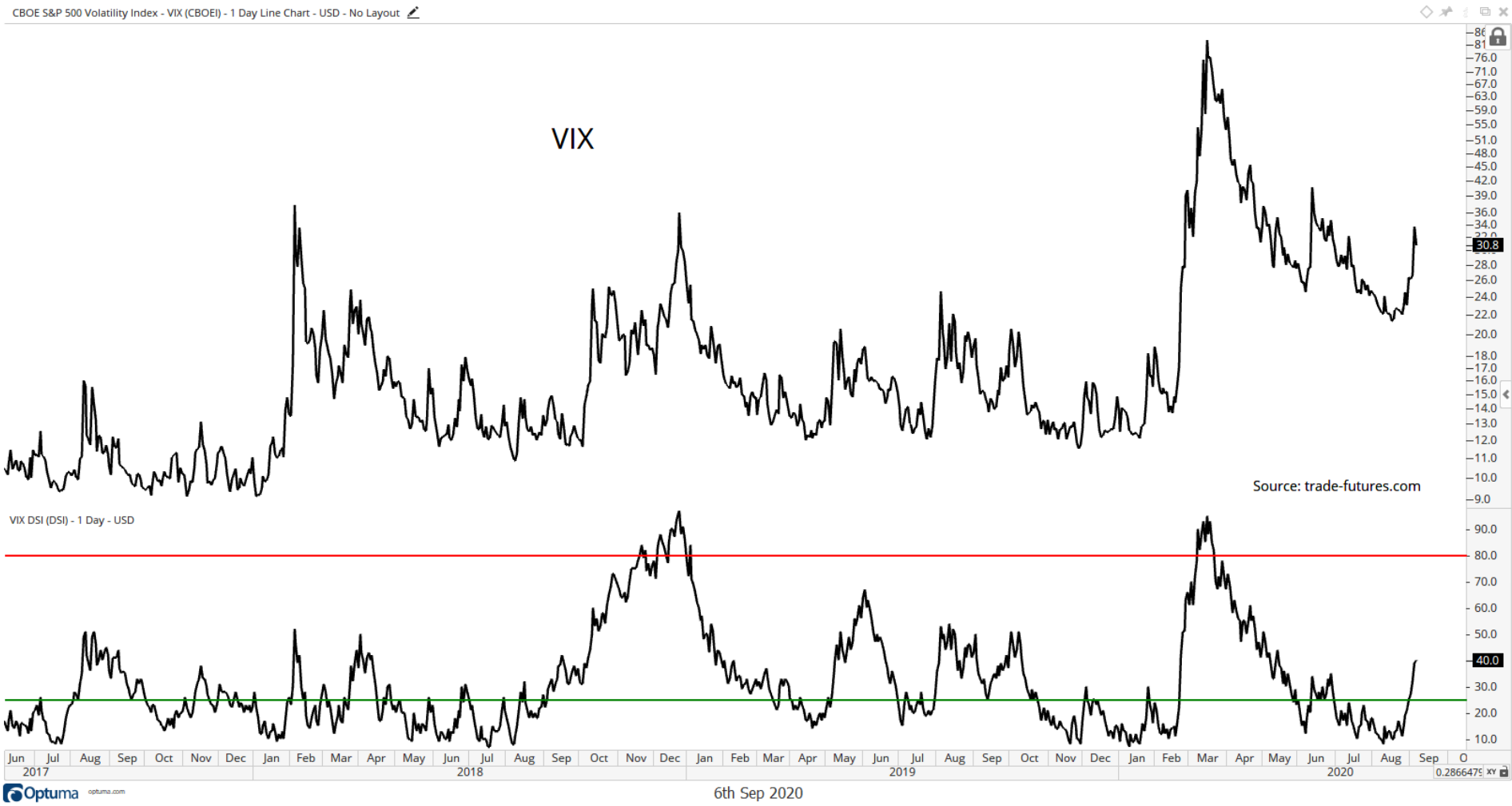
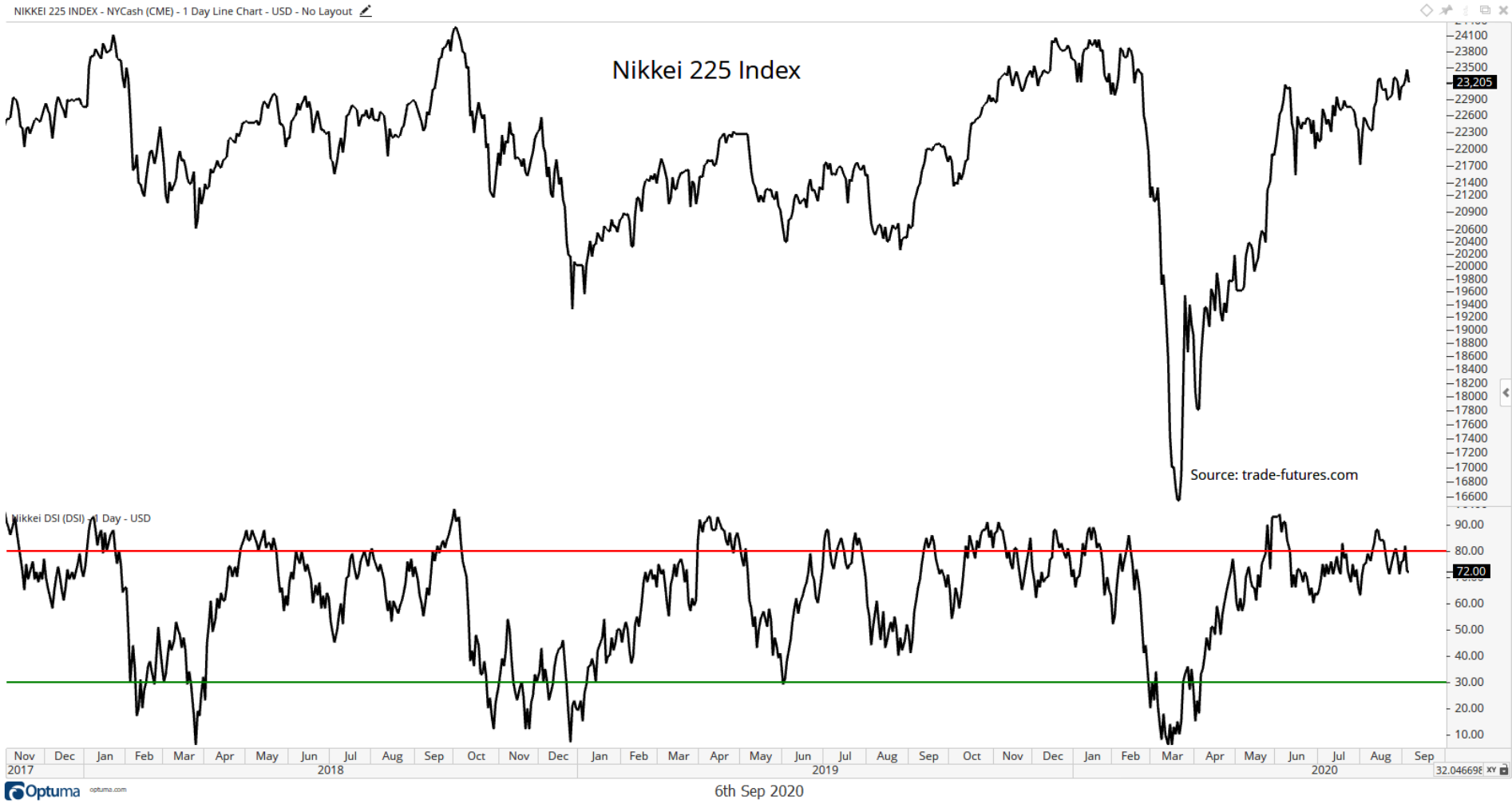
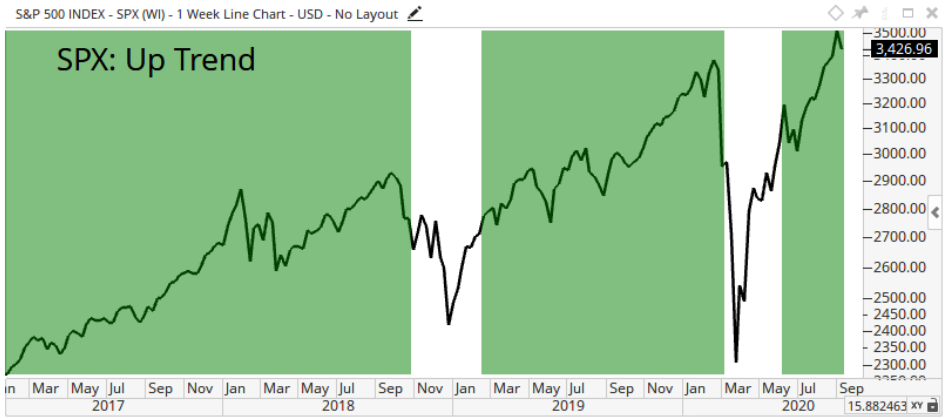
Daily Sentiment Index VIX

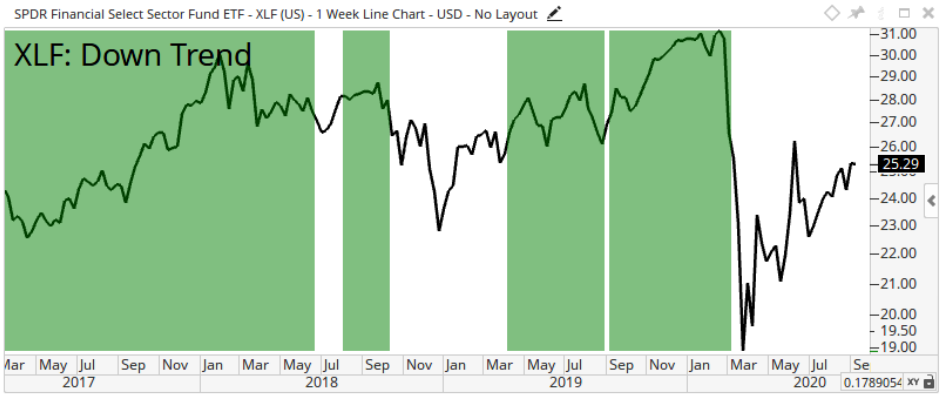


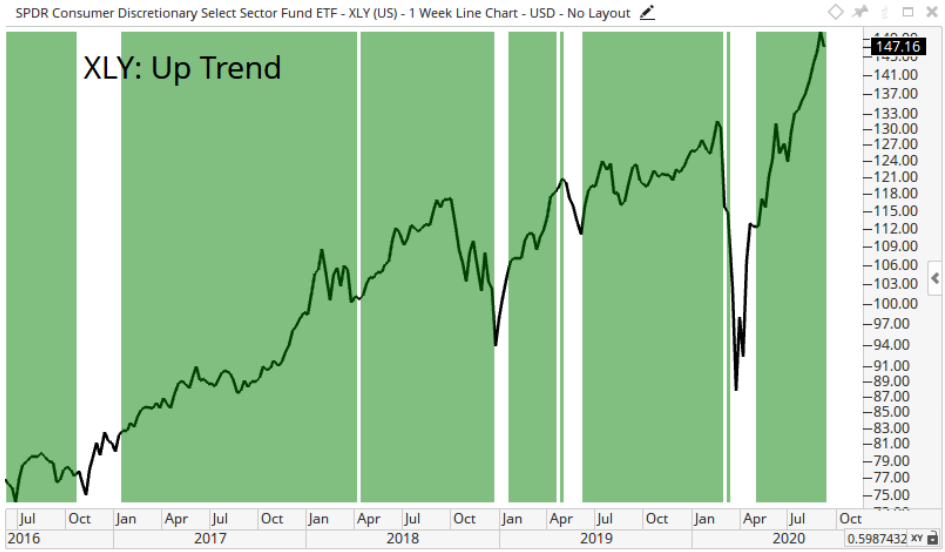
Daily Sentiment Index Nikkei 225



THRASHER ANALYTICS







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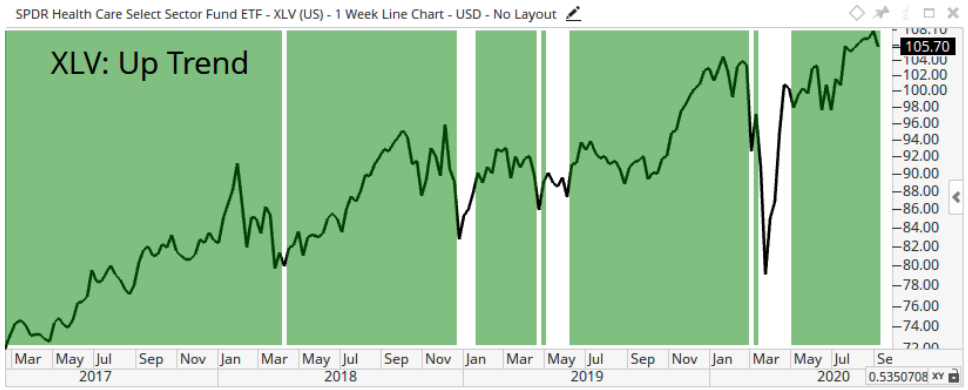
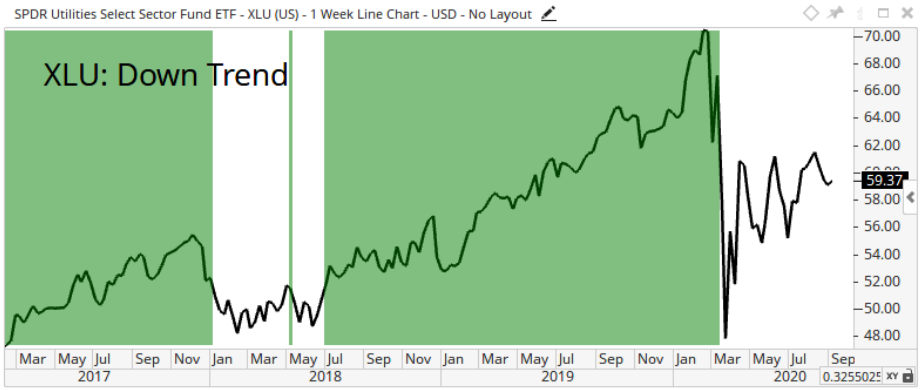
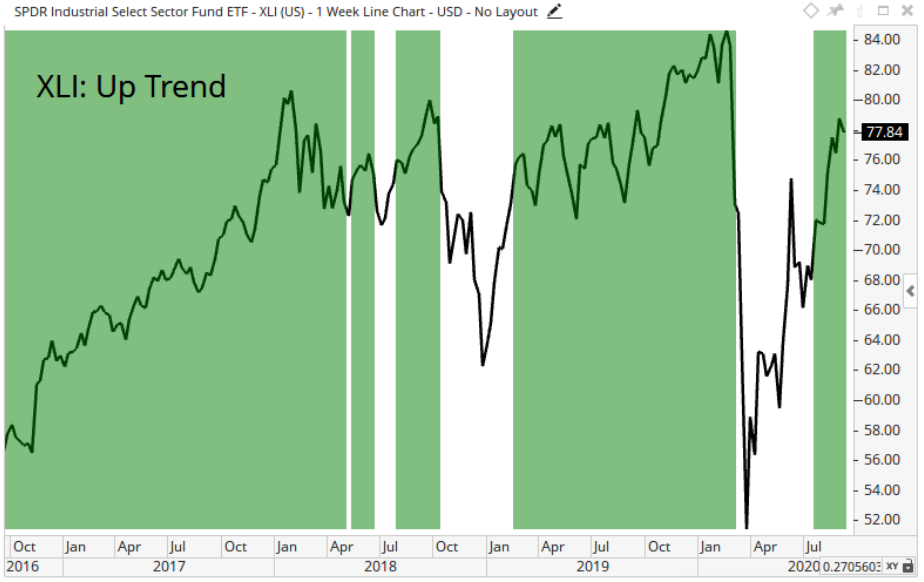
THRASHER ANALYTICS







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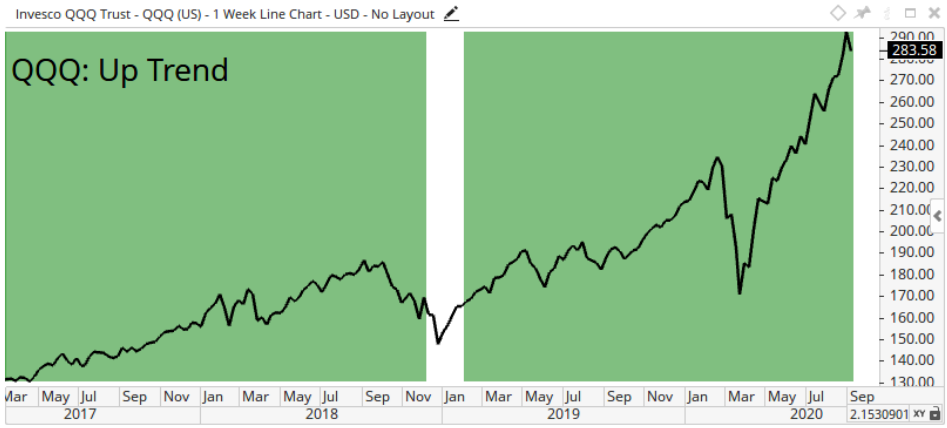

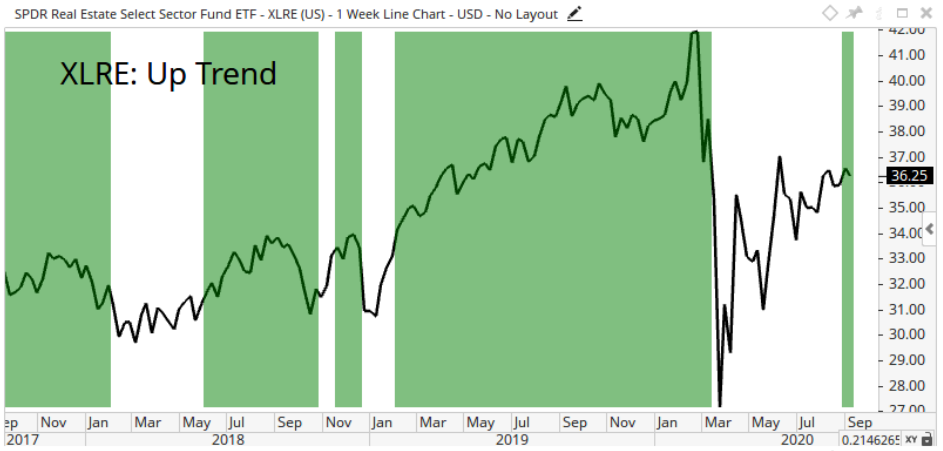

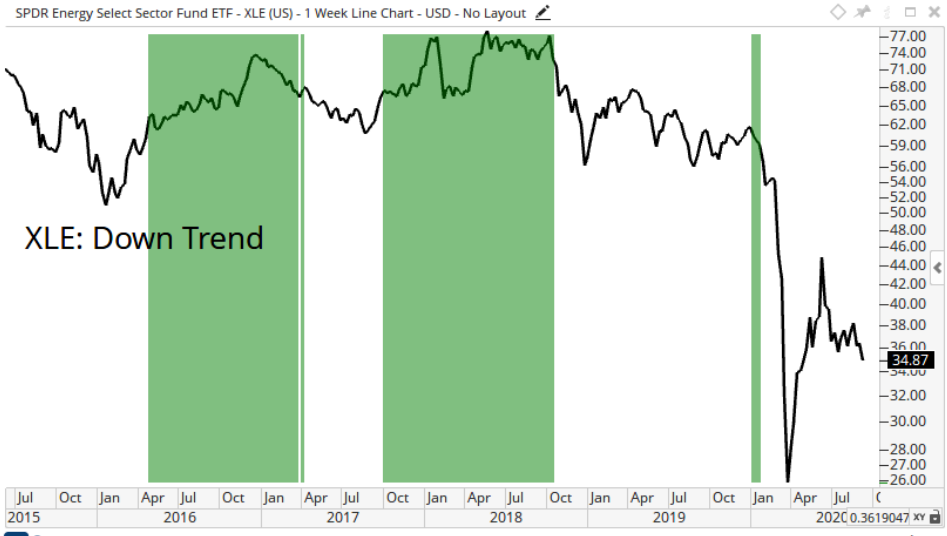

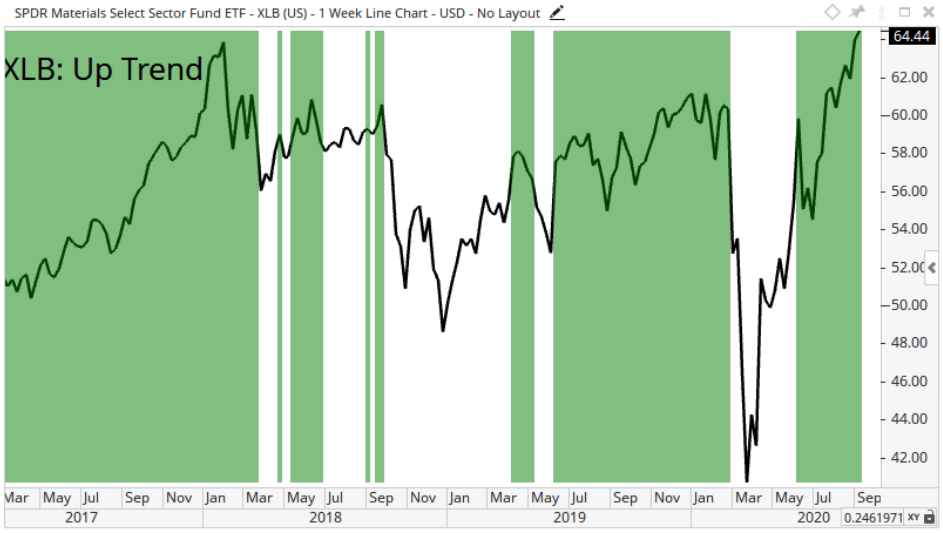

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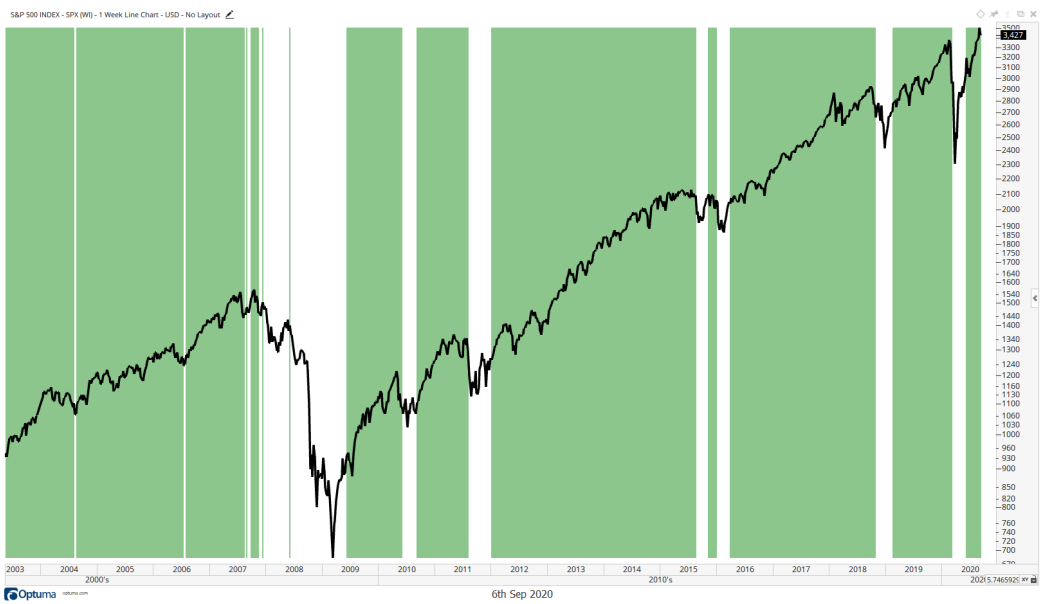
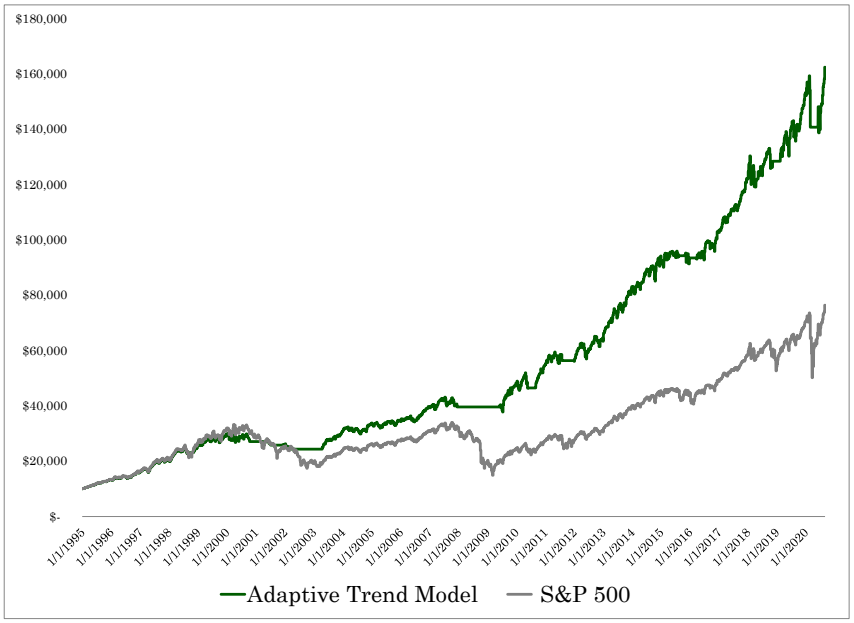
Trend-based analysis is a process built on the idea of enduring minor pullbacks in the anticipating of avoiding protracted drawdowns in financial markets. With a focus on stepping out of the market during large down trends, the Thrasher Analytics Adaptive Trend Model (TAATM) pursues to minimize the "whipsaws" 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.

Adaptive Trend Model



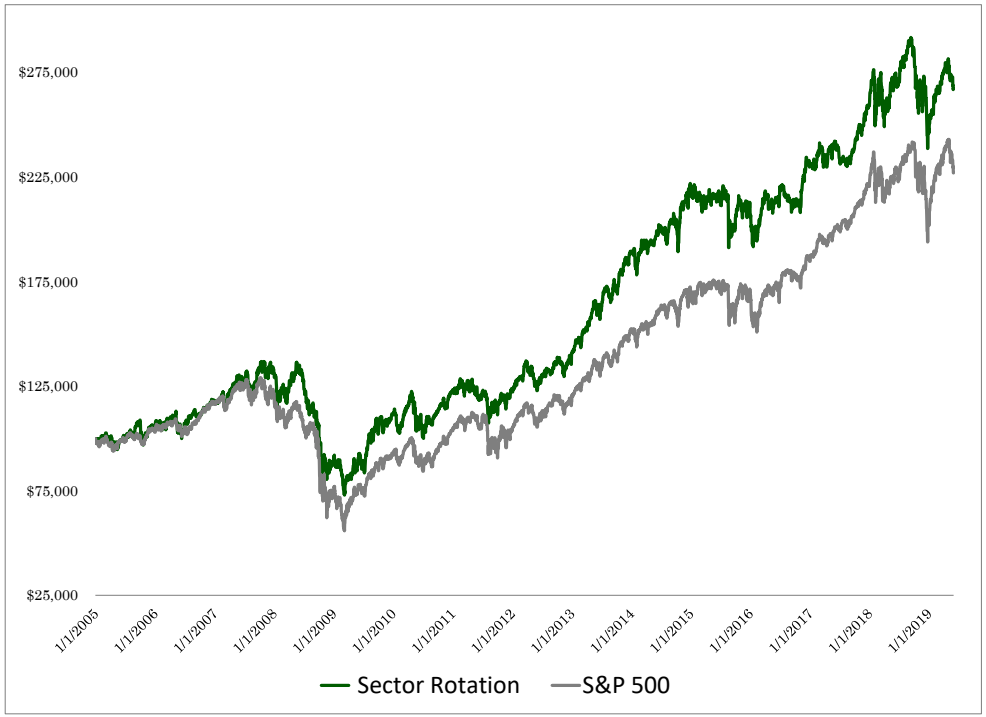


	Annualized Return	Annualized Volatility	Beta	Sharpe	Maximum Drawdown
Adaptive	12.1%	10.3%	0.46	0.92	19..9%
S&P 500	9.6%	15.7%	1	0.45	56.6%

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. Data through September 1, 2020

Please see complete disclosure for additional information.

Thrasher 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 Ratio	Maximum Drawdown
Sector Rotation	9.6%	15.0%	0.82	0.48	46.7%
S&P 500	8.4%	15.9%	1	0.37	56.6%

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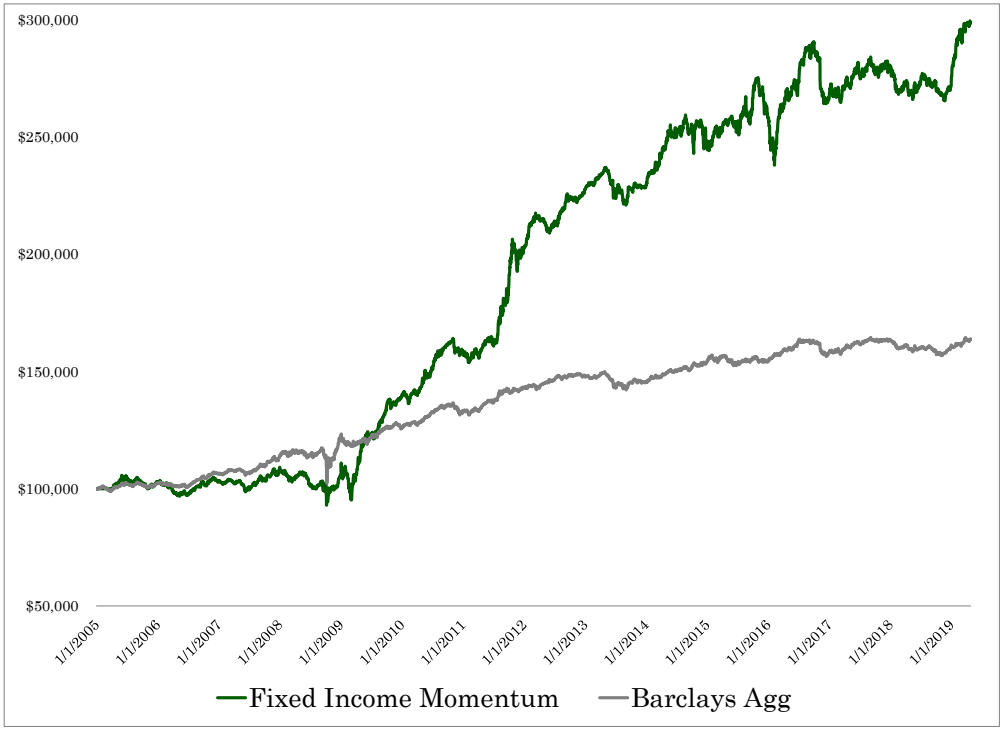
If equities are the speedboats in the sea of financial markets then fixed income securities are the tanker ships. While stocks can move violently in both directions, Thrasher Analytics research has shown that fixed income markets historically show consistent trends. Because of the tanker-like movements 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 Ratio	Maximum Drawdown
Fixed Income Momentum	8.3%	8.2%	1.04	0.7	14.9%
Barclays Agg	3.6%	3.7%	1	0.29	11.0%

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Trend (weekly)	Sector Rotation (monthly)	Fixed Income Momentum (quarterly)
Positive	XLK	MUB
	XLY	HYG
	XLC	

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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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