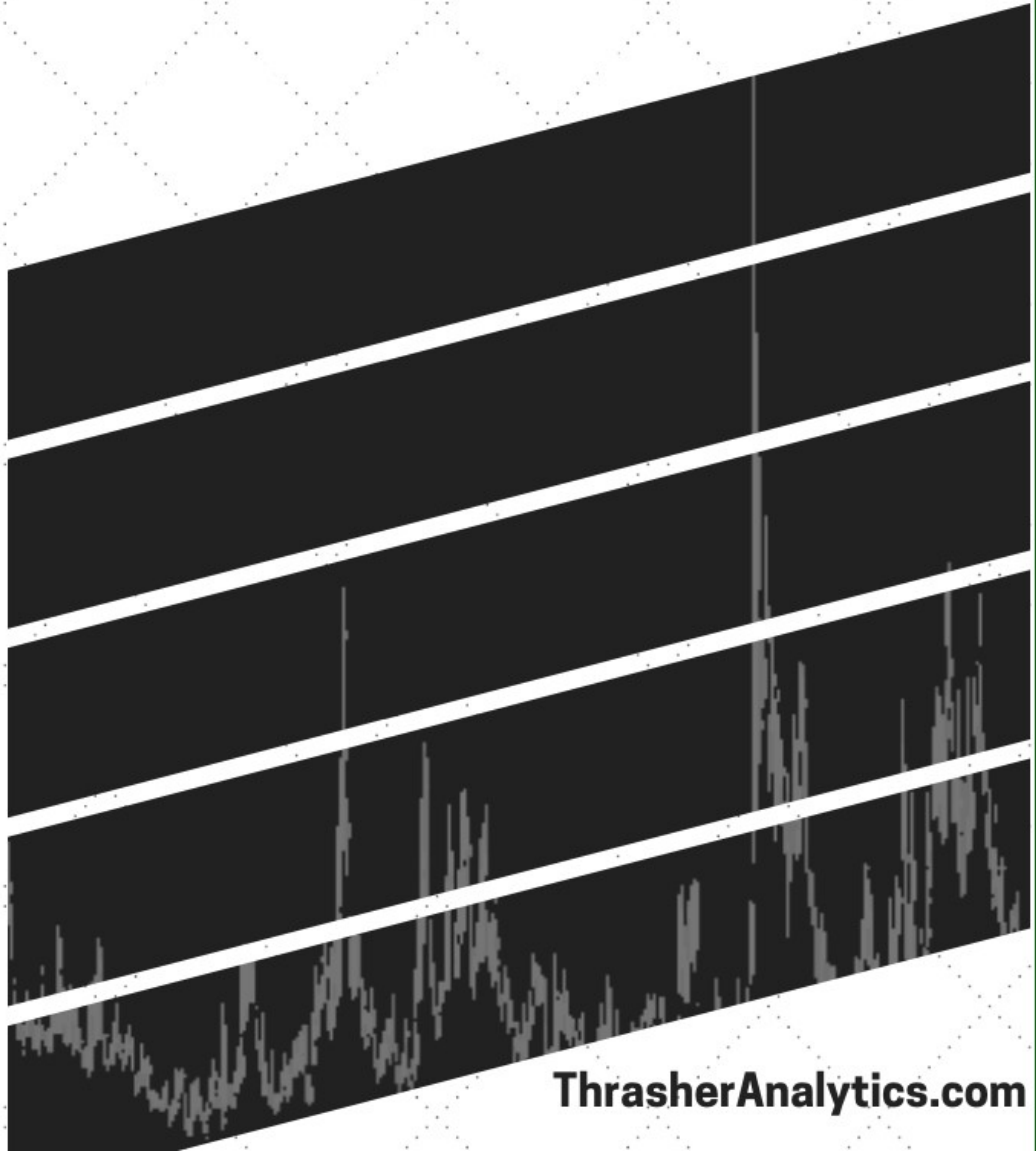




WEEKLY RESEARCH & ANALYSIS



ThrasherAnalytics.com

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

Notable Breadth Data:	
SPX >50MA	50.89%
SPX >200MA	56.83%
Nasdaq >50MA	34.95%
Nasdaq >200MA	72.82%

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

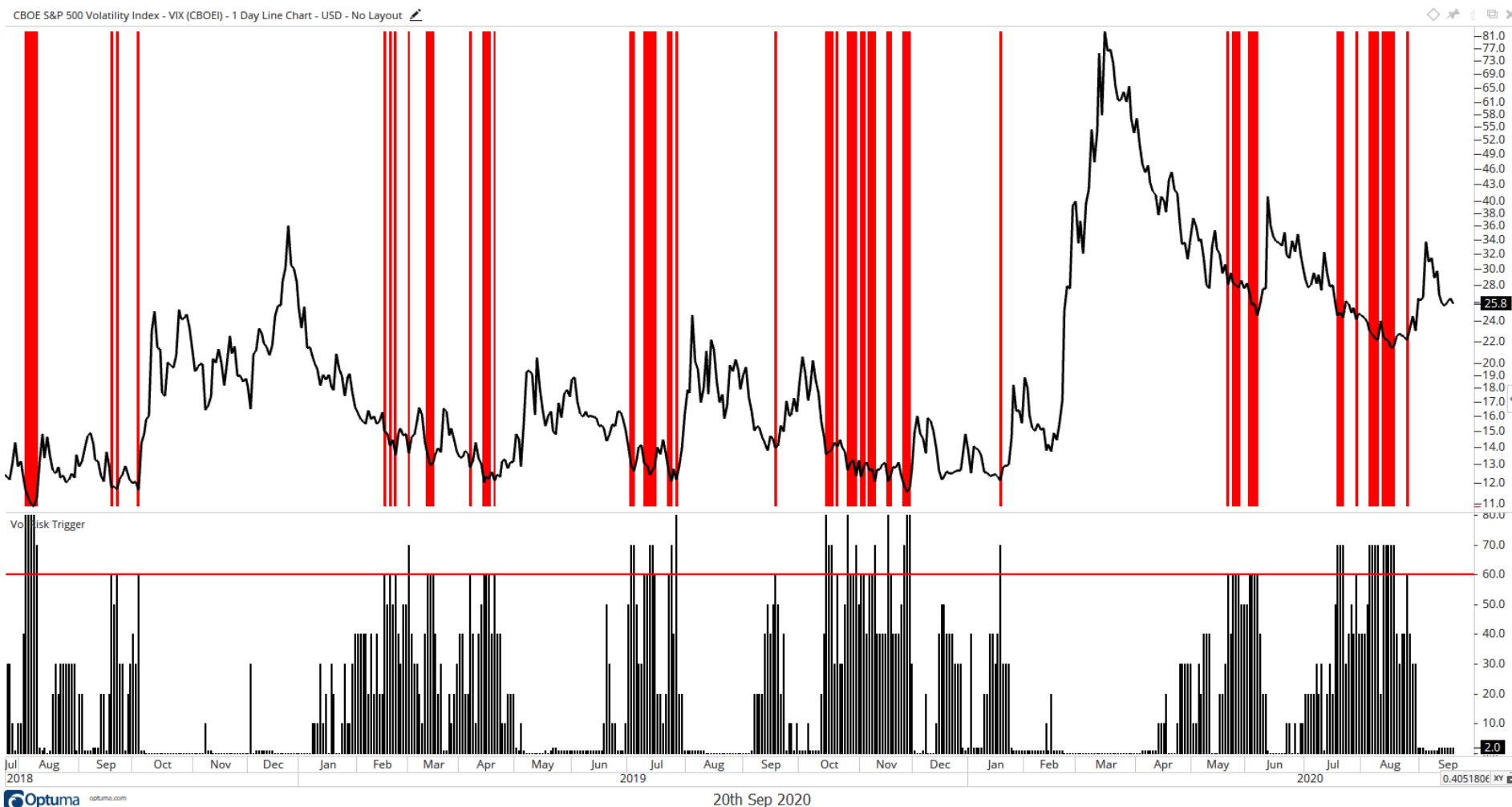
Index & Sector Adaptive Trend		
	Up Trend	Down Trend
SPX	X	
QQQ	X	
XLF		X
XLY	X	
XLK	X	
XLV	X	
XLU		X
XLP	X	
XLI	X	
XLRE	X	
XLE		X
XLB	X	

Daily Sentiment Index		
	% Bullish	5-day MA
S&P 500	49%	59%
Nasdaq 100	45%	56%
Nikkei	66%	72%
VIX	43%	37%
10yr Treasury	73%	75%
5yr Treasury	73%	74%
CRB Index	55%	53%
Gold	53%	58%
U.S. Dollar	35%	34%

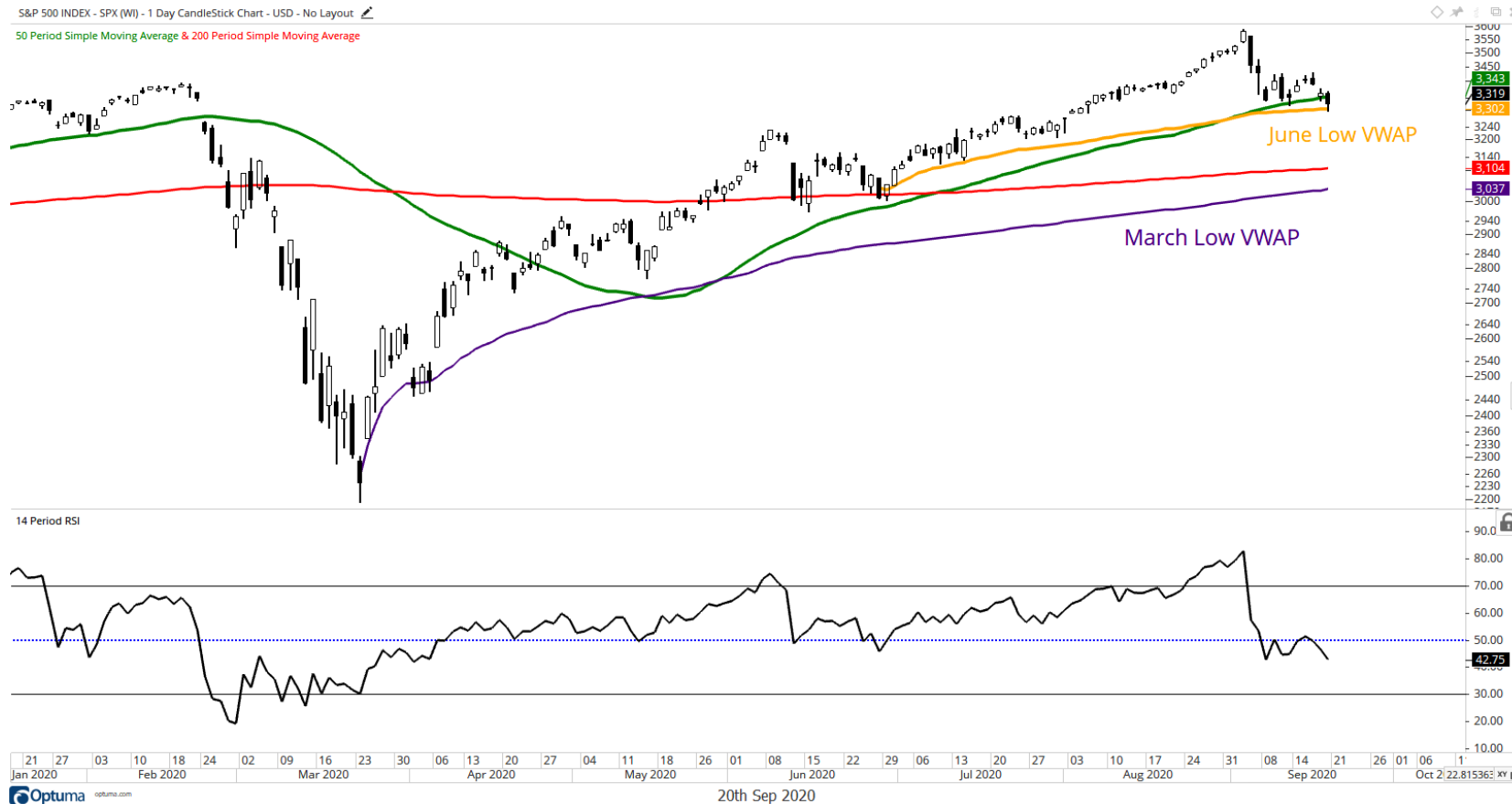
*Green < 25% Red > 80%

source: trade-futures.com

Sector	> 50MA	> 200MA	1wk Perf ▼	1mo Perf	3mo Perf	12mo Perf +
SPDR Energy Select Sector Fund ETF	False	False	3.03%	-10.35%	-16.35%	-45.75%
SPDR Industrial Select Sector Fund ETF	True	True	1.51%	2.64%	12.4%	-0.43%
SPDR Materials Select Sector Fund ETF	True	True	1%	4.90%	16.63%	12.02%
SPDR Health Care Select Sector Fund ETF	False	True	0.91%	-1.73%	5.76%	15.42%
SPDR Real Estate Select Sector Fund ETF	False	False	0.14%	-1.49%	-0.31%	-9.69%
SPDR Financial Select Sector Fund ETF	True	False	-0.12%	0.33%	2.24%	-13.46%
SPDR Utilities Select Sector Fund ETF	False	False	-0.7%	-2.52%	-1.07%	-8.29%
SPDR Technology Select Sector Fund ETF	False	True	-1.06%	-2.88%	8.56%	37.5%
SPDR Consumer Staples Select Sector Fund ETF	True	True	-1.48%	-1.68%	6.27%	4.62%
SPDR Consumer Discretionary Select Sector Fund ETF	True	True	-1.49%	-1.67%	12.08%	17.44%
SPDR Communication Services Select Sector ETF	False	True	-1.74%	-2.81%	5.48%	14.97%

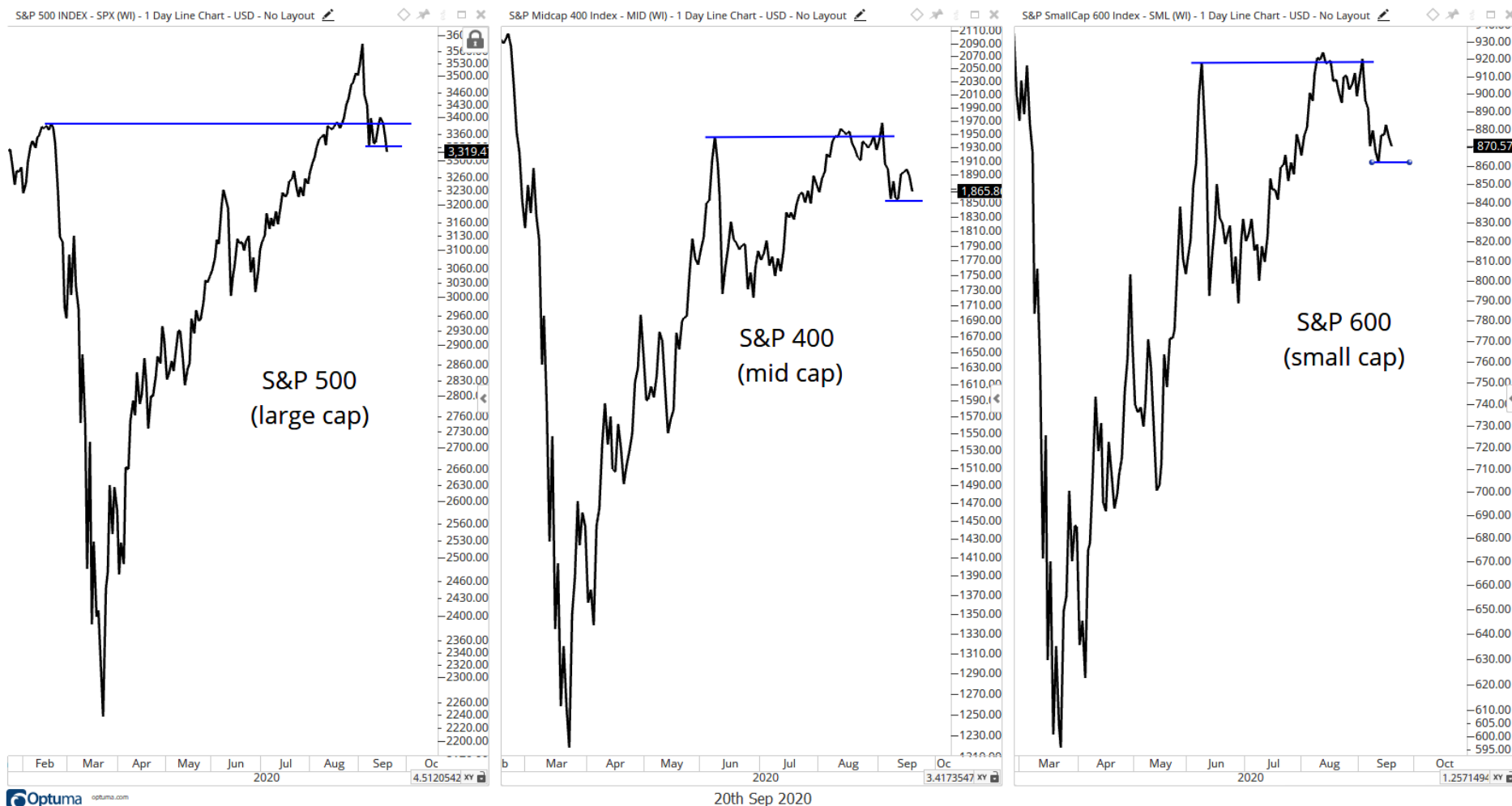


The VIX has consolidated briefly between 25 and 26.50 and we worked through Triple Witching option expiration last week. Many traders question why volatility hasn't confirmed the weakness in equities by making a higher high above 32. It's important to remember what VIX is a gauge of, 30-day volatility of the S&P 500, because volatility is already elevated, it's already showing an above-average expectation for increased price volatility within the equity index. Keep in mind, vol began moving higher well ahead of the weakness in stocks, so now we've started to see equities begin to 'respond' to the heightened expectation of wider daily swings in price. While VIX didn't see much action late last week, SKEW (measure of deep OTM options) did pop back near its highs, so the market is already expecting above-average swings which means in order to get significant upward moves in vol, then something more significant than a slow decline in equities will need to occur at this point.



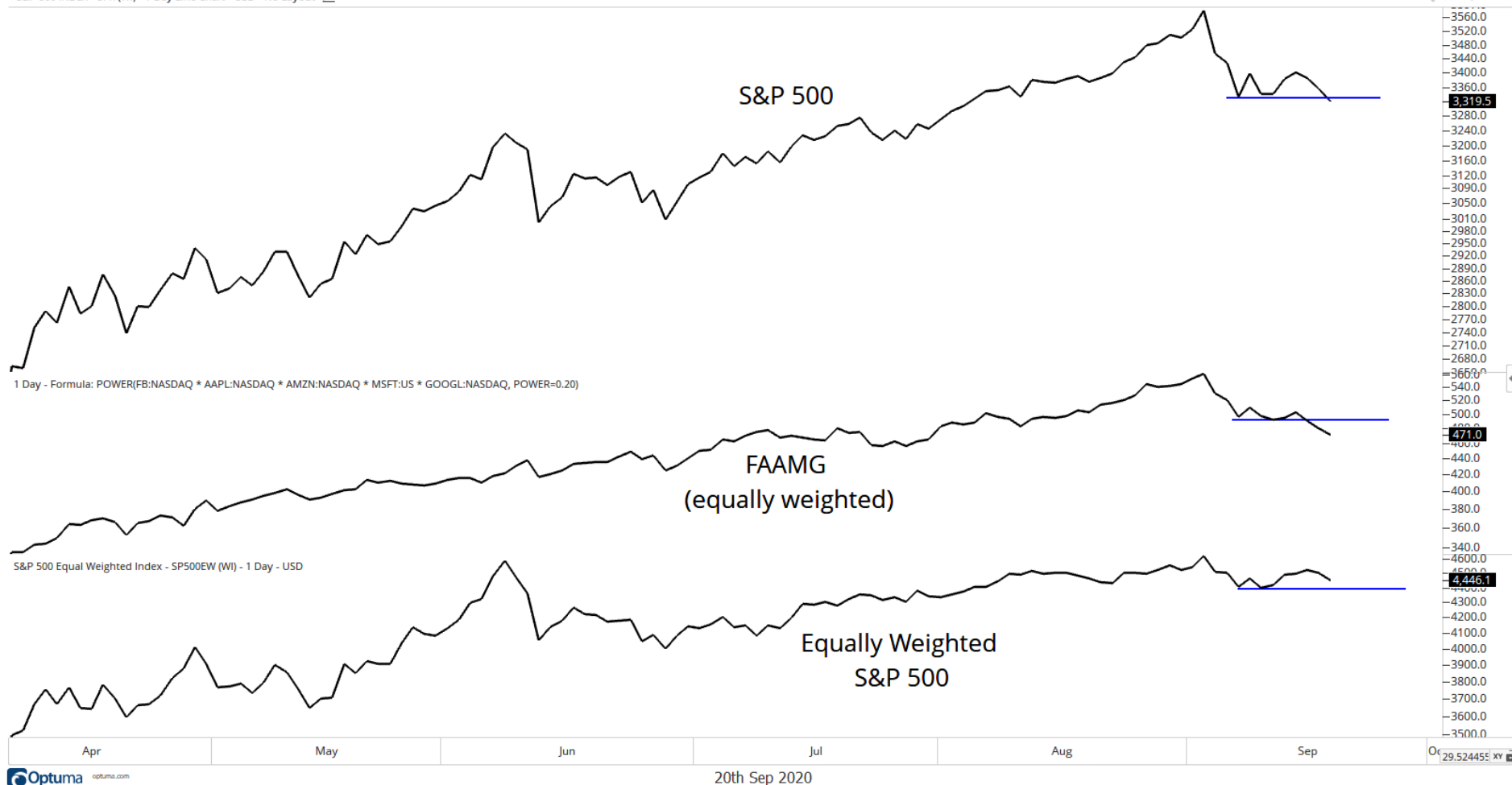
Stocks continued to weaken last week, closing out the week below the 50-day MA for the S&P 500. Friday’s low gave a kiss to the VWAP off the June low, the last period of weakness. Below these levels we have the 200-day moving average which is possible we see a test of if selling expands beyond just the FAAMG names and into the rest of the index (more on this later).

The extremely sad news of RBG passing will bring up a new battle in D.C. as Dems and GOP fight over when they should replace the arguably massive shoes of the late justice Ginsburg. I’m sure the stimulus package will get tied to this topic. Earnings are light this week but the Fed speaking schedule is not with Powell alone in the spotlight three times this week. The first Presidential debate is next week so that’s something to look forward to (kidding).

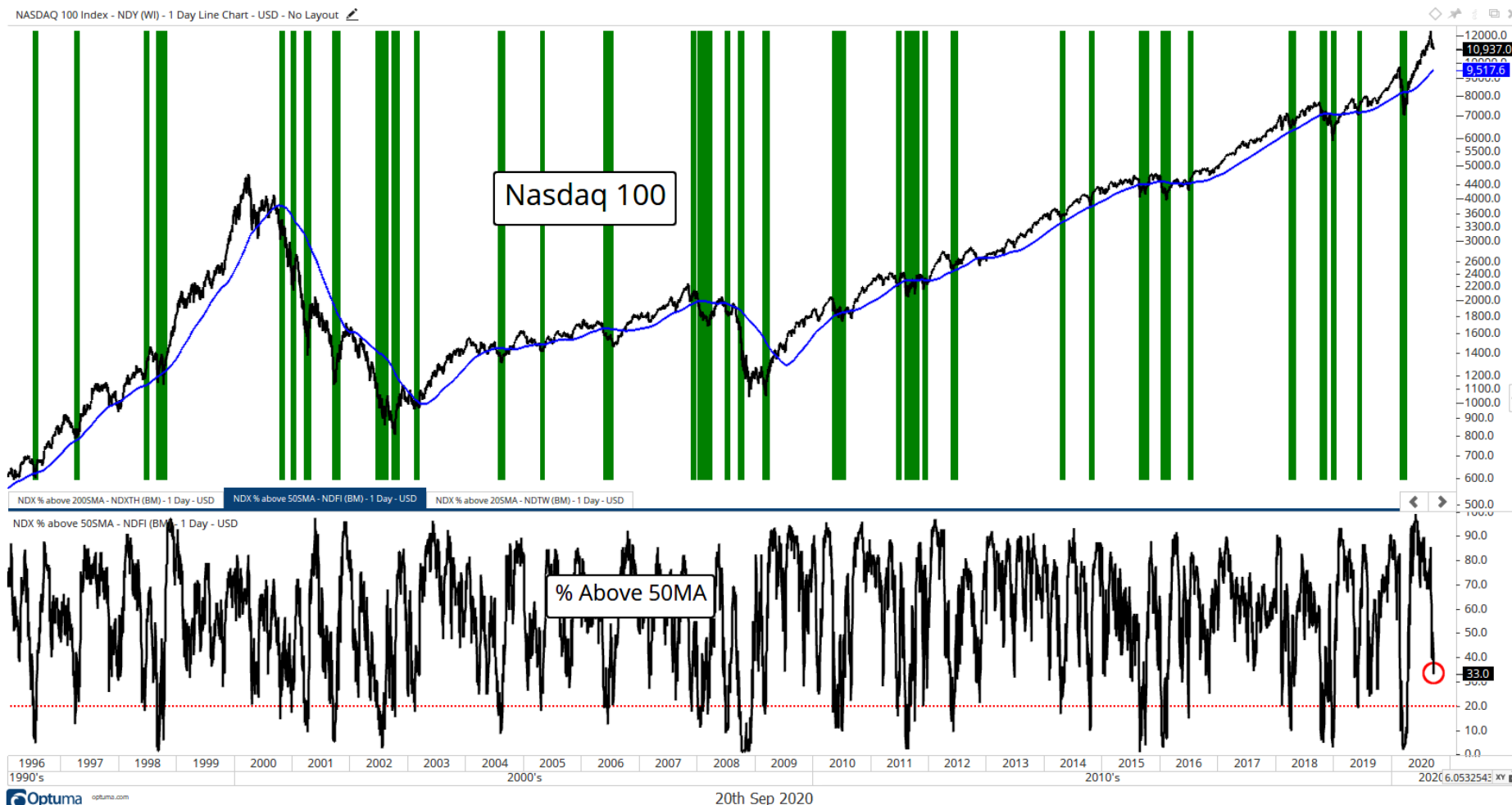


This chart continues to pop up with interesting observations. Mid and small caps lead in weakness ahead of the breakdown in large caps but now sellers have re-focused and are putting mega-caps in their sights. While the S&P 500 made a lower-low, the S&P 400 and S&P 600 did not. Just like the buying was focused on a select few names, the selling seems to be following the same script.

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

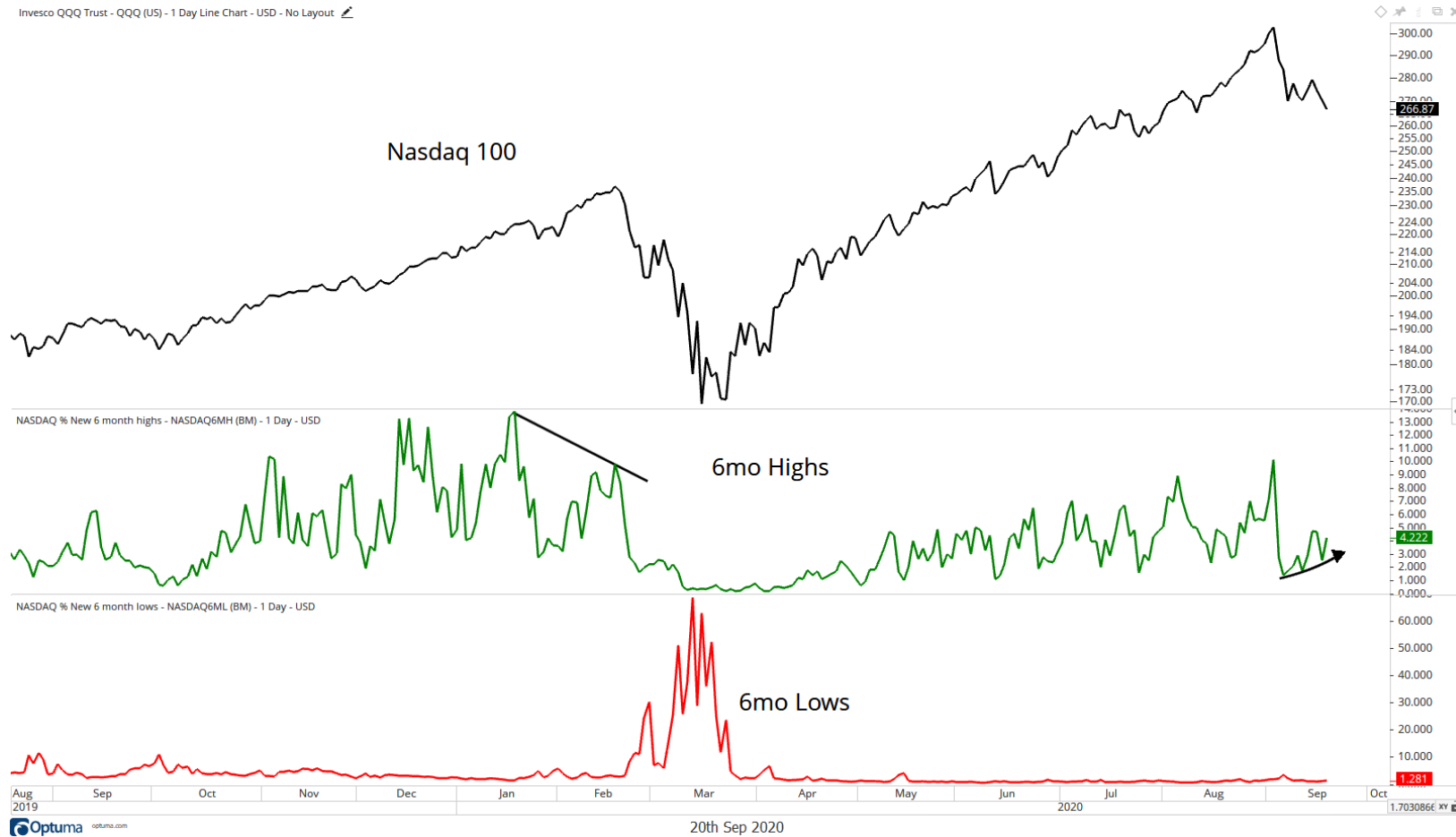


Another way we can look at the focused selling is the breakdown in the FAAMG Index (FB, AMZN, AAPL, MSFT, & GOOGL) compared to the equally weighted S&P 500. Both the cap-weighted SPX and FAAMG have made lower-lows but equal weight has not. This isn't a total surprise as the FAAMG stocks were some of the most extended to the upside and most ripe to return to earth. This could be a positive, if selling doesn't spread to the rest of the index then we could see enough bullish rotation to find new leaders but that's a tough order to fill considering the massive weight these handful of stocks make up the SPX by. We'll want to continue to watch if selling expands or stays within the FAAMG.



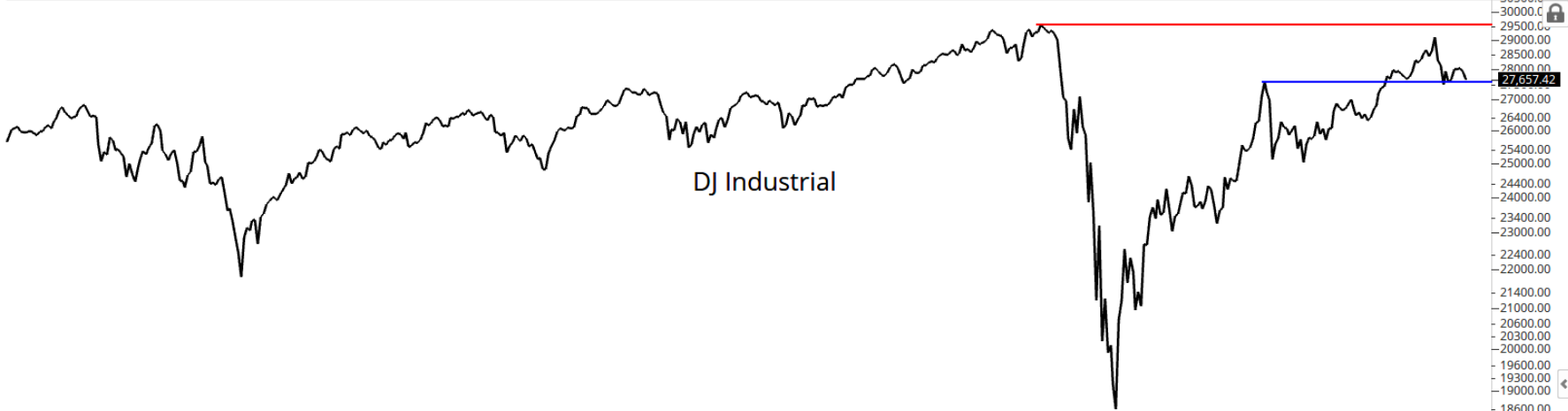
Right now 33% of the Nasdaq 100 is above its 50-day moving average. How low does this figure need to get to show real fear in the index based on the internals? Above I've drawn green lines when we break 20% and then the green line continues for a month. Getting to less than 20% of stocks above the 50-day MA has often been followed by the NDX testing/breaking the 200-day moving average. Will the 200-day break if we get to it? That's a topic for another day. Right now, I'm watching if we can hold above 20% in the internals, a move back to the 200-day would require an additional 15% decline. When the NDX has gotten 20+% above its 200-day MA, the only times it didn't eventually move back to test it was in 1998, 2003, and 2009. The last two were after major declines so maybe today's market resembles those periods but I wouldn't rule out a test of the 200-day MA if we do see the expansion in selling I discussed earlier.

Invesco QQQ Trust - QQQ (US) - 1 Day Line Chart - USD - No Layout

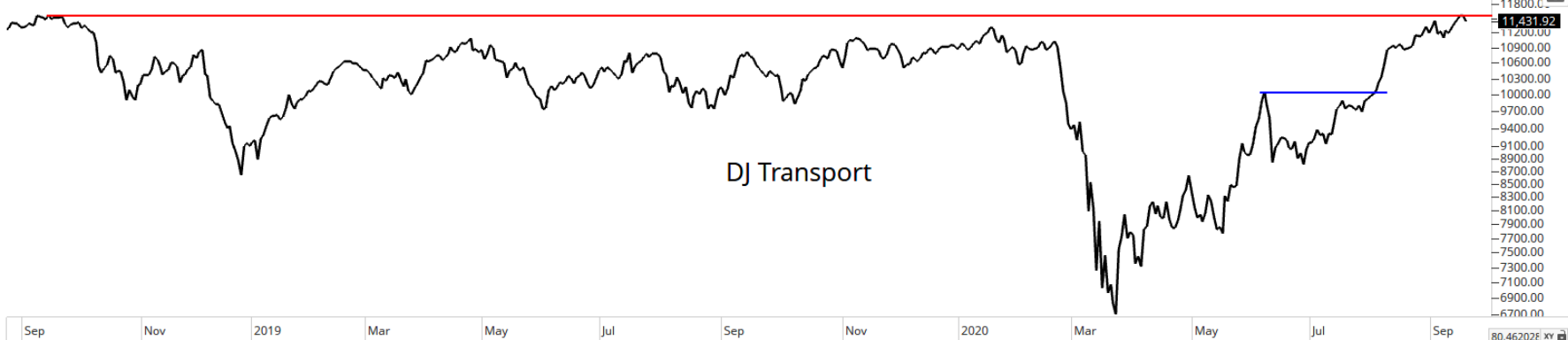


Because the selling has been so focused on the mega caps, we actually saw an uptick in 6-month highs in the Nasdaq 100 last week as the index itself made a lower-low. This is partially a result of the lookback period, 6 months begins to roll off the March crash period. The internal strength trying to come through is encouraging even if it's just 4% of the index, it's more than what we saw earlier this month.

Dow Jones Industrial Average - DJI (WI) - 1 Day Line Chart - USD - No Layout

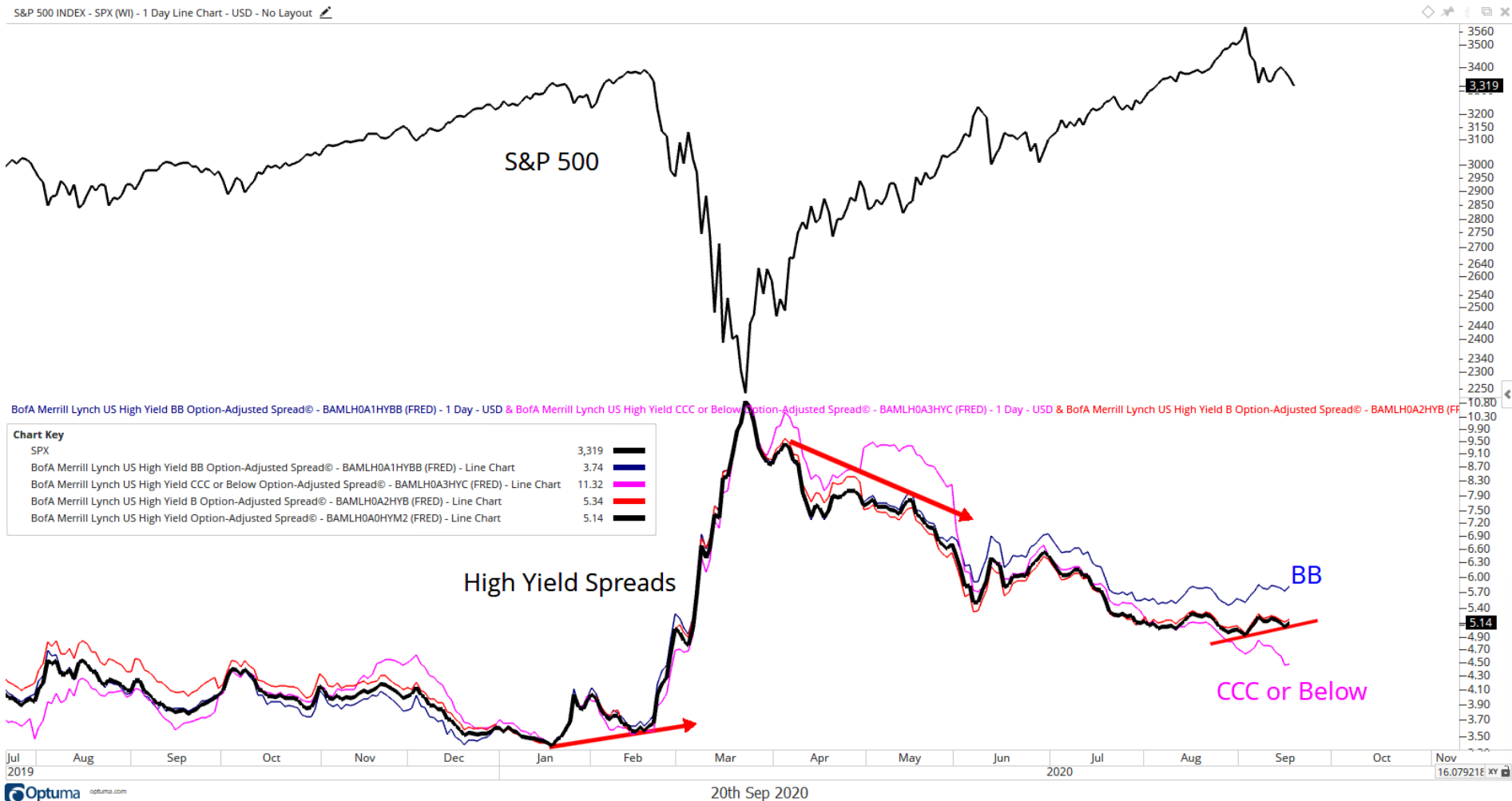


Dow Jones Transportation Average - DJT (WI) - 1 Day - USD



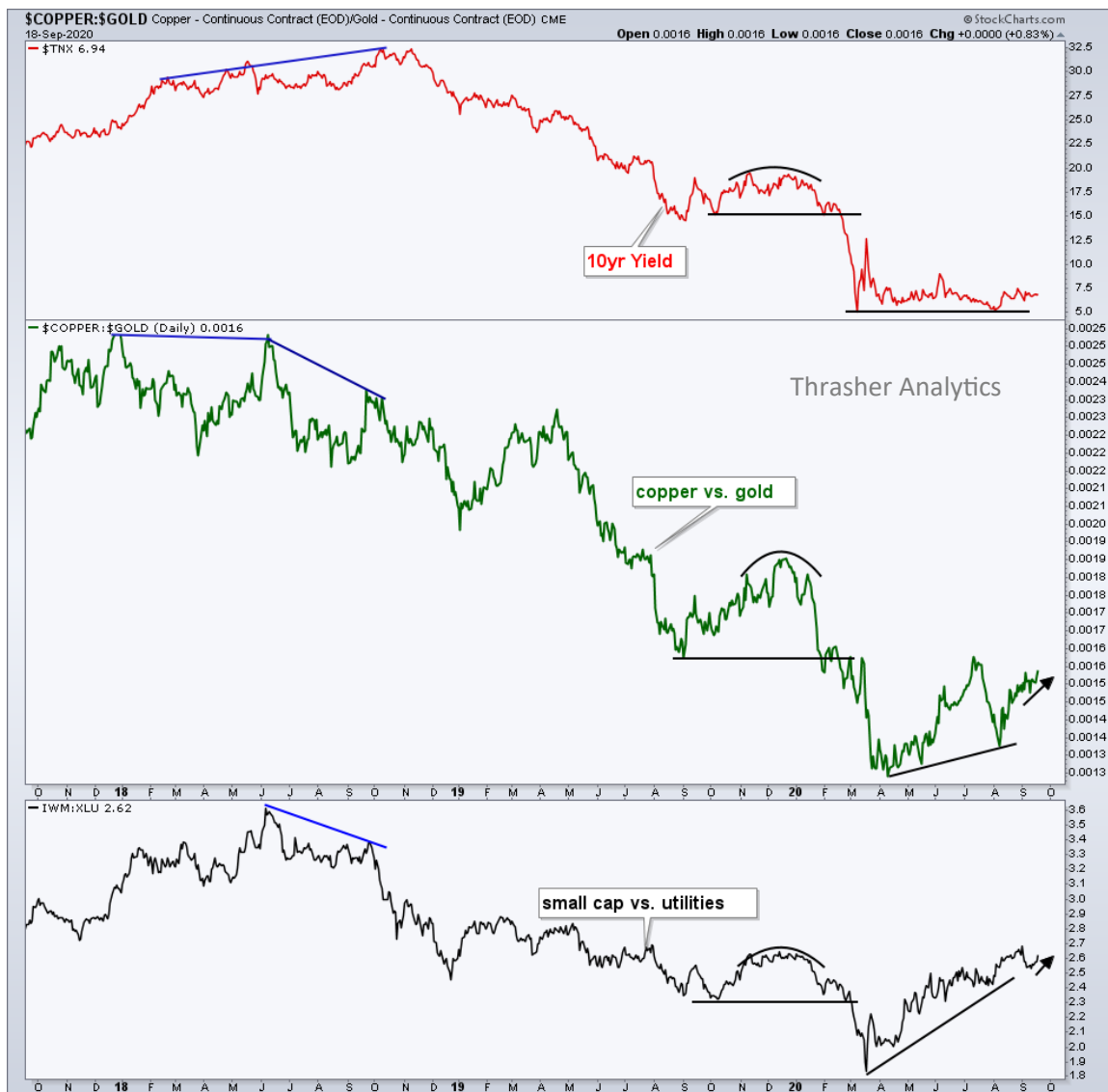
Sep Nov 2019 Mar May Jul Sep Nov 2020 Mar May Jul Sep 20th Sep 2020

The Dow Jones Transportation Average was close to making a break above the 2018 high, but selling on Thursday and Friday stopped the accomplishment from occurring. Meanwhile, the Dow Jones Industrial Average has yet to recover its prior 2020 high and is getting close to joining the S&P 400 and S&P 600 in losing the June high, closing just above on Friday.



An interesting trend is developing in corporate bond spreads. As equities sold-off over the last three weeks, spreads began to rise with fixed income markets responding to the perceived increase risk in the market. The black line in the second panel is the HY Spread Index with the other colors representing the various rating spreads. The BB's began to show the largest increase while CCC or Below (the junkiest of the junk) saw its spread continue lower. Part of the reason for this is energy bonds make up a large share of the CCC or Below, so since energy stocks did *okay* last week, their spreads didn't widen.

The main takeaway here is the fixed income market is responding to the risks shown in equities.



Two ratios I often refer to when looking for insight into trend reversals in the 10-year Yield are copper vs. gold and small caps vs. utilities. These both have been great barometers for fixed income. When copper is outperforming gold and small caps are trouncing utilities, it's often followed by a rise in Treasury yield. The opposite is also true which we saw an example back in 2018.

These two ratios began rising earlier this year, which marked the end of the decline in yield, holding 50bps when many commentators began calling for a negative 10yr rate.

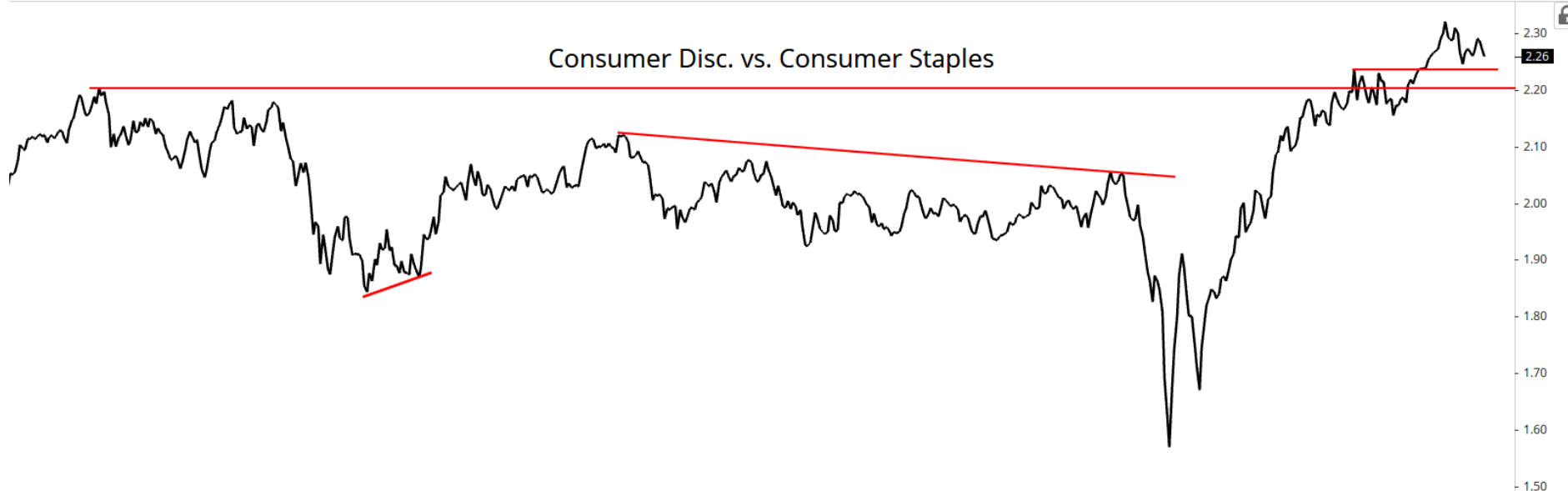
Once again, these ratios have strengthened and are starting to call for a higher 10yr yield. Utilities have looked awful lately and the strength in materials/ industrials has helped buoy copper demand.

THE S&P FROM SEPT19-26 - LAST 30 YRS			
YEAR	S&P PRICE ON		SEP19-26 PCTCHG
	SEPT19	SEPT 26	
1990	316.60	305.06	-3.64
1991	387.56	386.49	-0.28
1992	422.92	414.35	-2.03
1993	458.83	457.63	-0.26
1994	470.85	460.82	-2.13
1995	584.20	581.41	-0.48
1996	683.00	685.86	0.42
1997	950.51	945.22	-0.56
1998	1020.09	1044.75	2.42
1999	1335.42	1277.36	-4.35
2000	1459.90	1427.21	-2.24
2001	1016.10	1007.04	-0.89
2002	843.32	854.95	1.38
2003	1036.30	996.85	-3.81
2004	1128.55	1110.11	-1.63
2005	1231.02	1215.63	-1.25
2006	1318.31	1336.34	1.37
2007	1529.03	1525.42	-0.24
2008	1255.08	1213.27	-3.33
2009	1068.30	1044.38	-2.24
2010	1125.59	1148.67	2.05
2011	1204.09	1162.95	-3.42
2012	1461.05	1433.32	-1.90
2013	1722.34	1698.67	-1.37
2014	2010.40	1982.85	-1.37
2015	1958.03	1931.34	-1.36
2016	2139.12	2146.10	0.33
2017	2506.65	2496.84	-0.39
2018	2907.95	2905.97	-0.07
2019	3006.79	2977.62	-0.97
		#UP-DN =	6-24
		AVG%CHG=	-1.07
		MED%CHG=	-1.11

The table to the left comes from Wayne Whaley as shared by my friend Steve Deppe, CMT. It shows the bearish seasonality for the this week, which over the last thirty years has been positive just 6 times and produced an average return of -1.07%.

While we've already discussed the technical damage that's taken place in the mega caps and the broad indices, another week of selling may cause a shift in some short-term trends that brings in another tranche of sellers that have yet to hit the 'sell' button just yet and help move the indices back to the 200-day MA. We'll see if this seasonal pattern plays out once again this year.

XLY Div XLP - XLY/XLP (Custom Codes) - 1 Day Line Chart - USD - No Layout



S&P 500 INDEX - SPX (WI) - 1 Day - USD



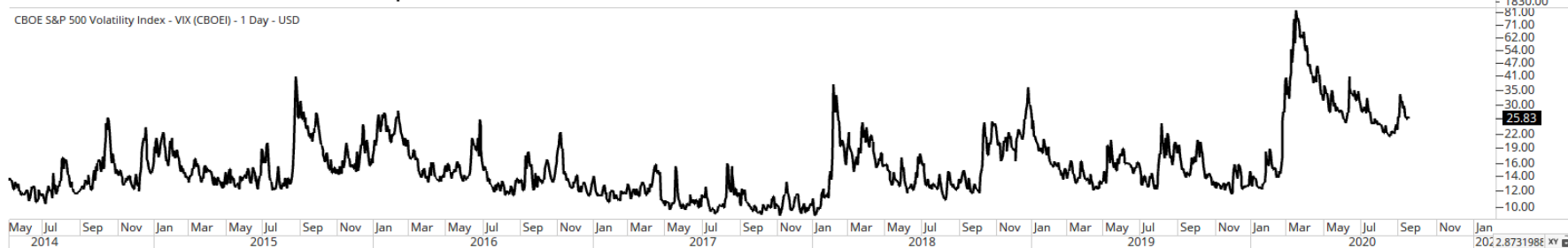
May Jun Jul Aug Sep Oct Nov Dec 2018 Jan Feb Mar Apr May Jun Jul Aug Sep 2019 Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep 2020 20th Sep 2020 0.0043538 xy

The ratio between Consumer Disc. and Consumer Staples has dipped a bit but still remains firmly above its June high and the major breakout above the 2018 high. A typically ‘risk off’ sign would for staples to outperform discretionary, causing the ratio to move lower. However, no serious technical damage has been caused just yet on this chart, a bullish sign thus far.

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



CBOE S&P 500 Volatility Index - VIX (CBOEI) - 1 Day - USD



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20th Sep 2020

I've shown this chart and referenced to the underlying message several times in this letter. I want to show it again because I think it's an excellent reminder of the importance of analyzing volatility. Above shows when stocks are at a 1yr high but volatility is at least 25% off its 1-month low, i.e. both stocks and the VIX are rising. This has been an extremely difficult environment for equities to continue rising and once again we saw the peak marked by this flashing warning sign.

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

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.

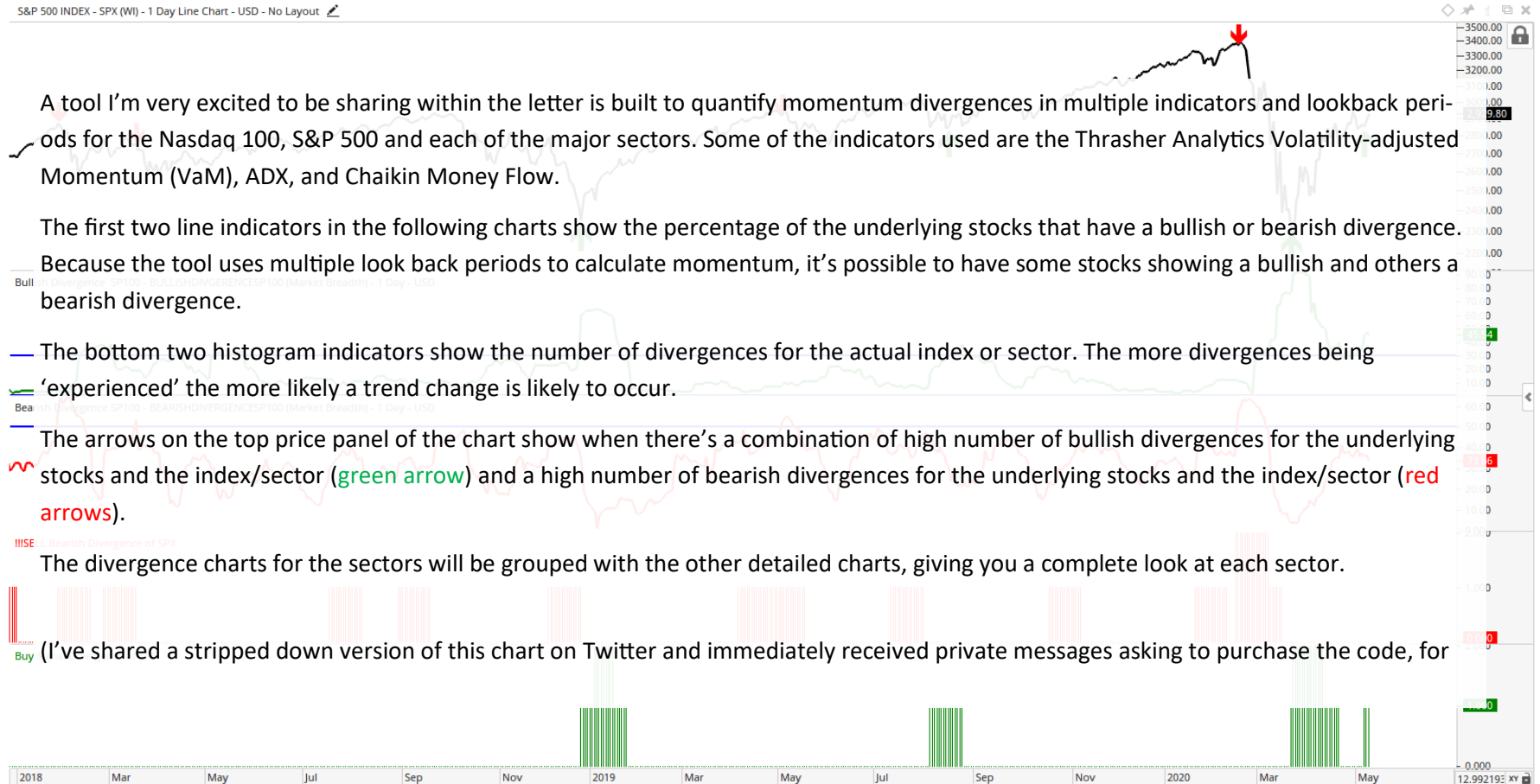
The first two line indicators in the following charts show the percentage of the underlying stocks that have a bullish or bearish divergence. Because the tool uses multiple look back periods to calculate momentum, it's possible to have some stocks showing a bullish and others a bearish divergence.

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.

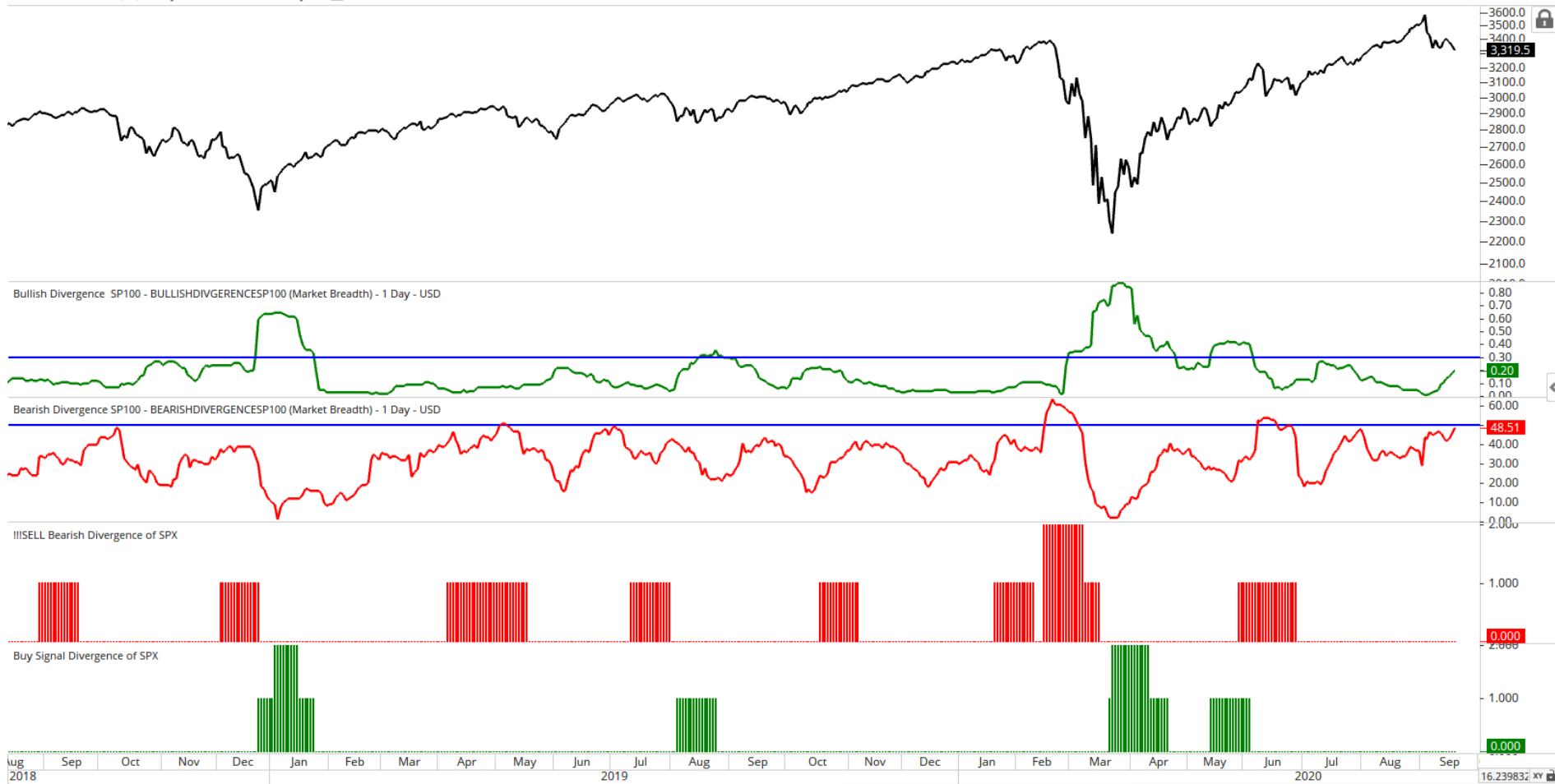
The arrows on the top price panel of the chart show when there's a combination of high number of bullish divergences for the underlying stocks and the index/sector (green arrow) and a high number of bearish divergences for the underlying stocks and the index/sector (red arrows).

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

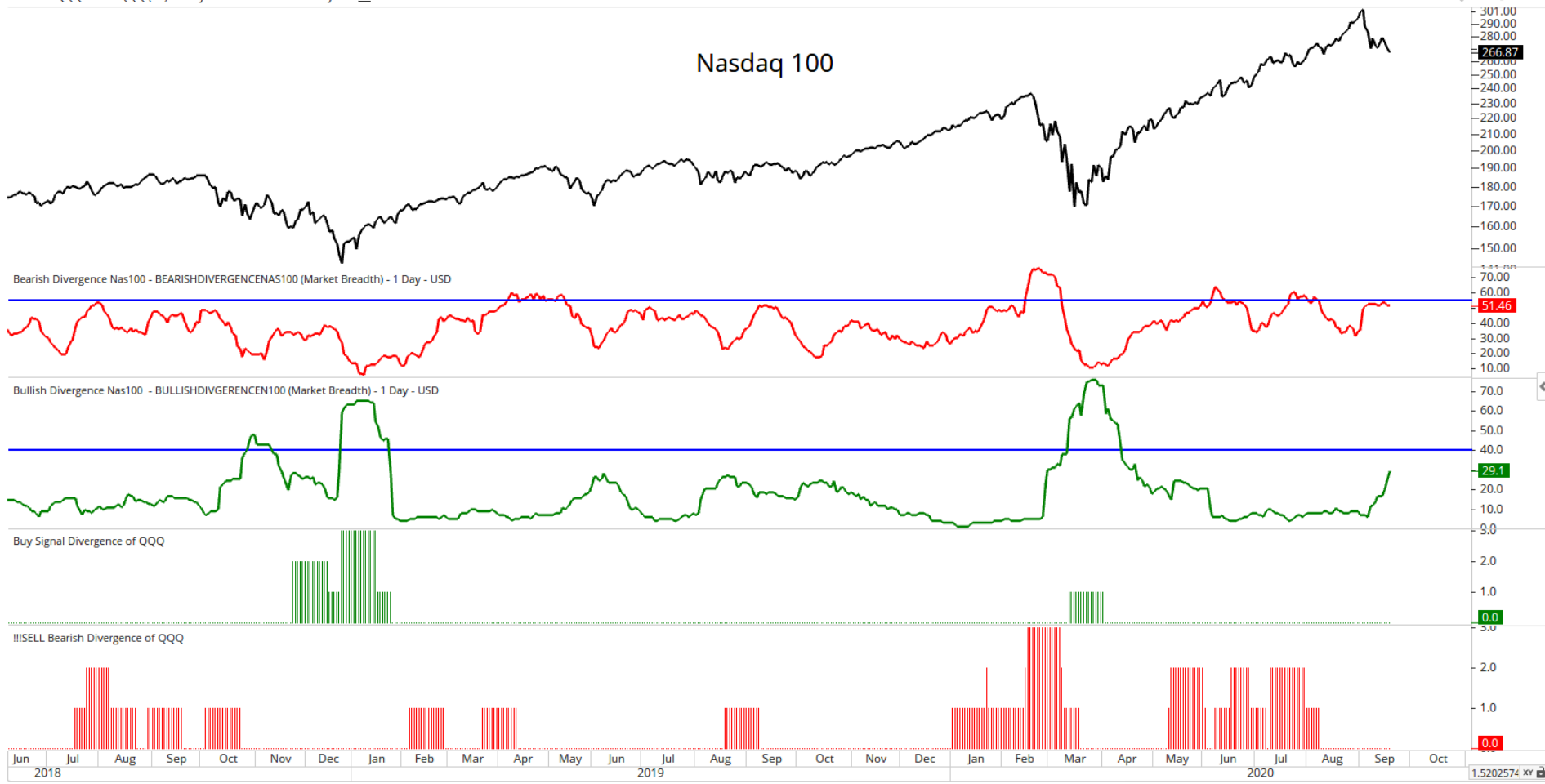
(I've shared a stripped down version of this chart on Twitter and immediately received private messages asking to purchase the code, for



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



Invesco QQQ Trust - QQQ (US) - 1 Day Line Chart - USD - No Layout



Optuma optuma.com

20th Sep 2020

1.5202574 xy

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 an 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 deal 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.



Watch List

Ticker	Momentum
Financial Momentum Score	
<input type="checkbox"/> PGR	28.7049
<input type="checkbox"/> BRK.B	21.2042
<input checked="" type="checkbox"/> MMC	14.9358
<input type="checkbox"/> SPGI	11.4906
<input type="checkbox"/> SYF	5.6062
<input type="checkbox"/> ETFC	5.4652
<input type="checkbox"/> SIVB	5.1437
<input type="checkbox"/> AJG	3.8908
<input type="checkbox"/> AMP	2.6361
<input type="checkbox"/> MCO	2.5529

Watch List

Ticker	Mean Reversion
Financial Mean Revision Score	
<input type="checkbox"/> ALL	-1.1639
<input type="checkbox"/> C	-1.1633
<input type="checkbox"/> CBOE	-1.1243
<input type="checkbox"/> CME	-1.1232
<input type="checkbox"/> HIG	-1.0857
<input type="checkbox"/> PBCT	-1.0471
<input type="checkbox"/> CB	-1.0193
<input type="checkbox"/> RE	-0.9573
<input type="checkbox"/> WFC	-0.9358
<input type="checkbox"/> AIG	-0.9240
<input type="checkbox"/> MTB	-0.9130
<input type="checkbox"/> BK	-0.8772
<input type="checkbox"/> LNC	-0.8486
<input type="checkbox"/> ZION	-0.7865
<input type="checkbox"/> JPM	-0.7116
<input type="checkbox"/> USB	-0.6732
<input type="checkbox"/> PFG	-0.6250
<input type="checkbox"/> KEY	-0.5905
<input type="checkbox"/> TRV	-0.5861

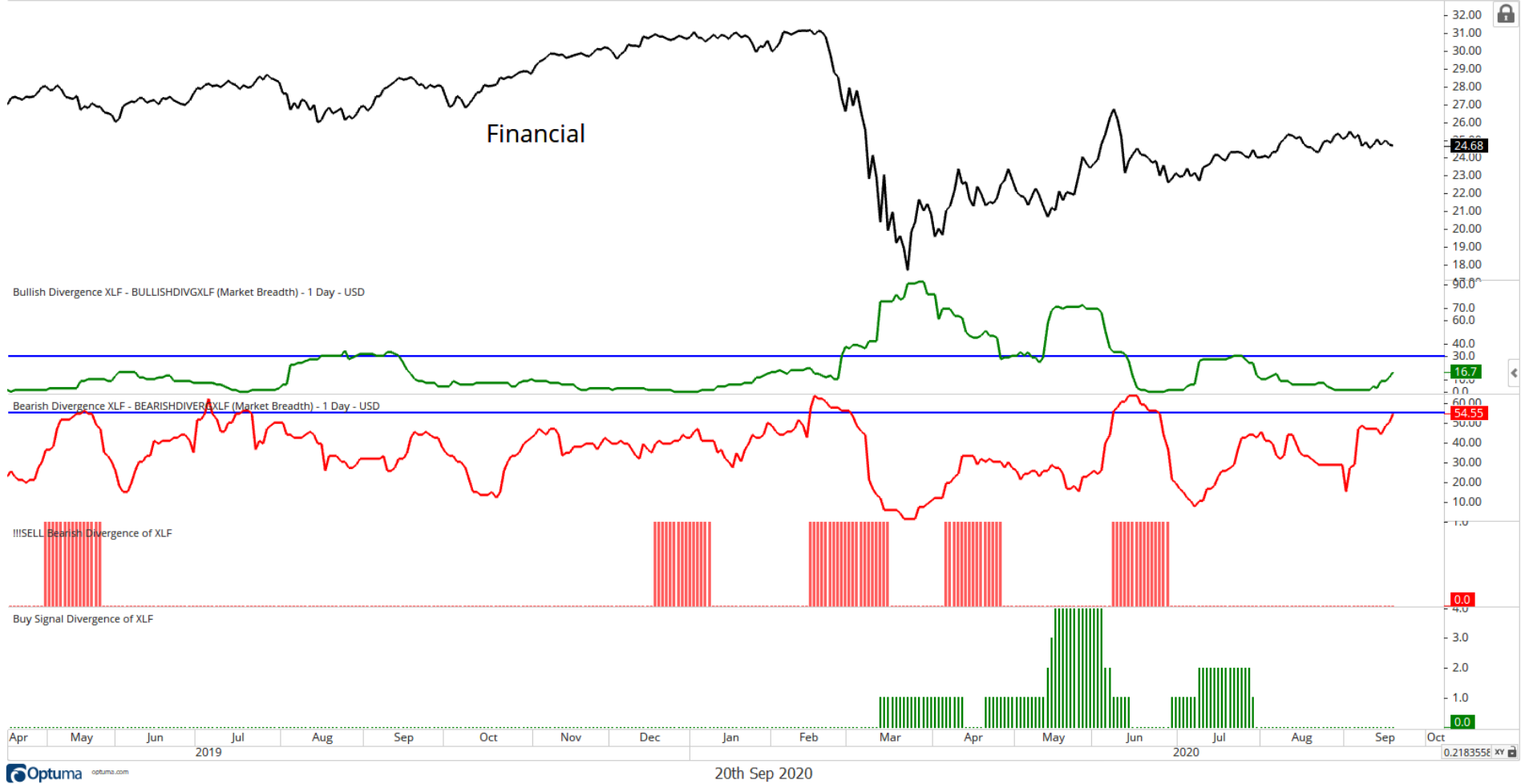
XLF still holding above its 50-day MA but unable to break the 200-day MA.

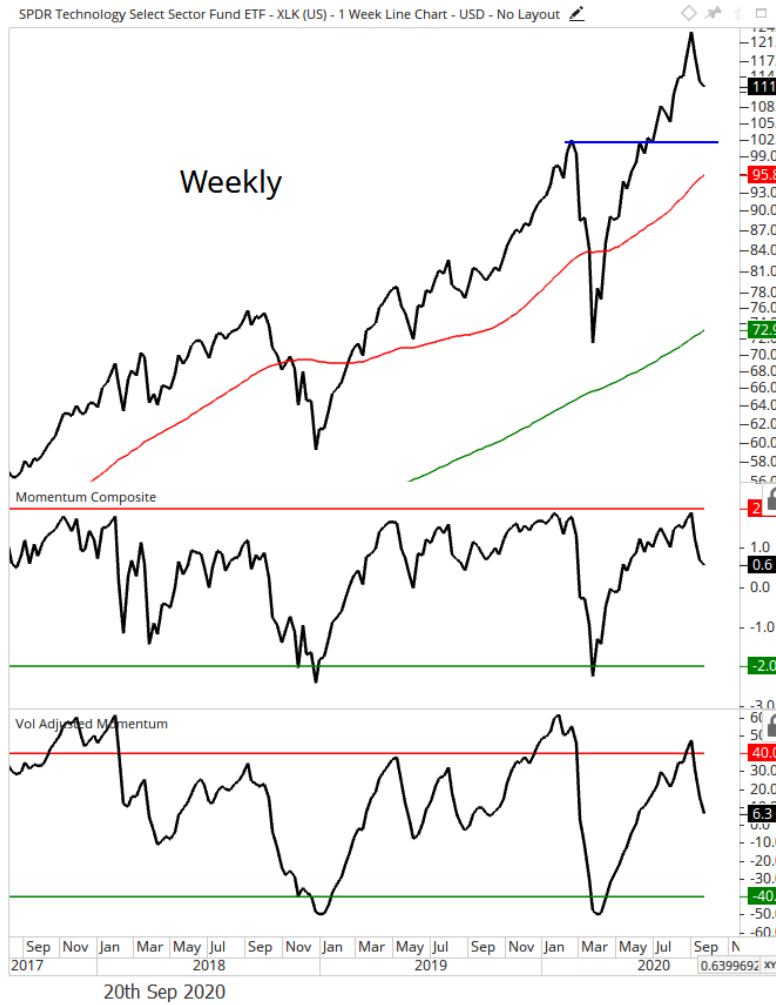
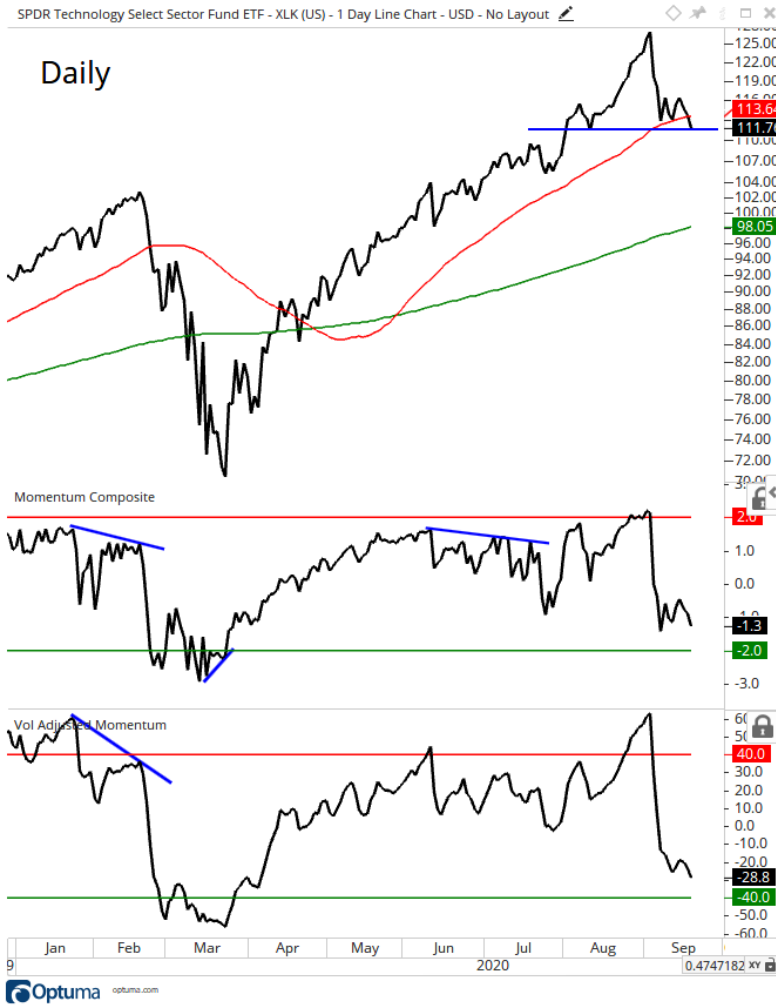


% above 200-day MA is still rising but short-term break has broken down.



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





Watch List

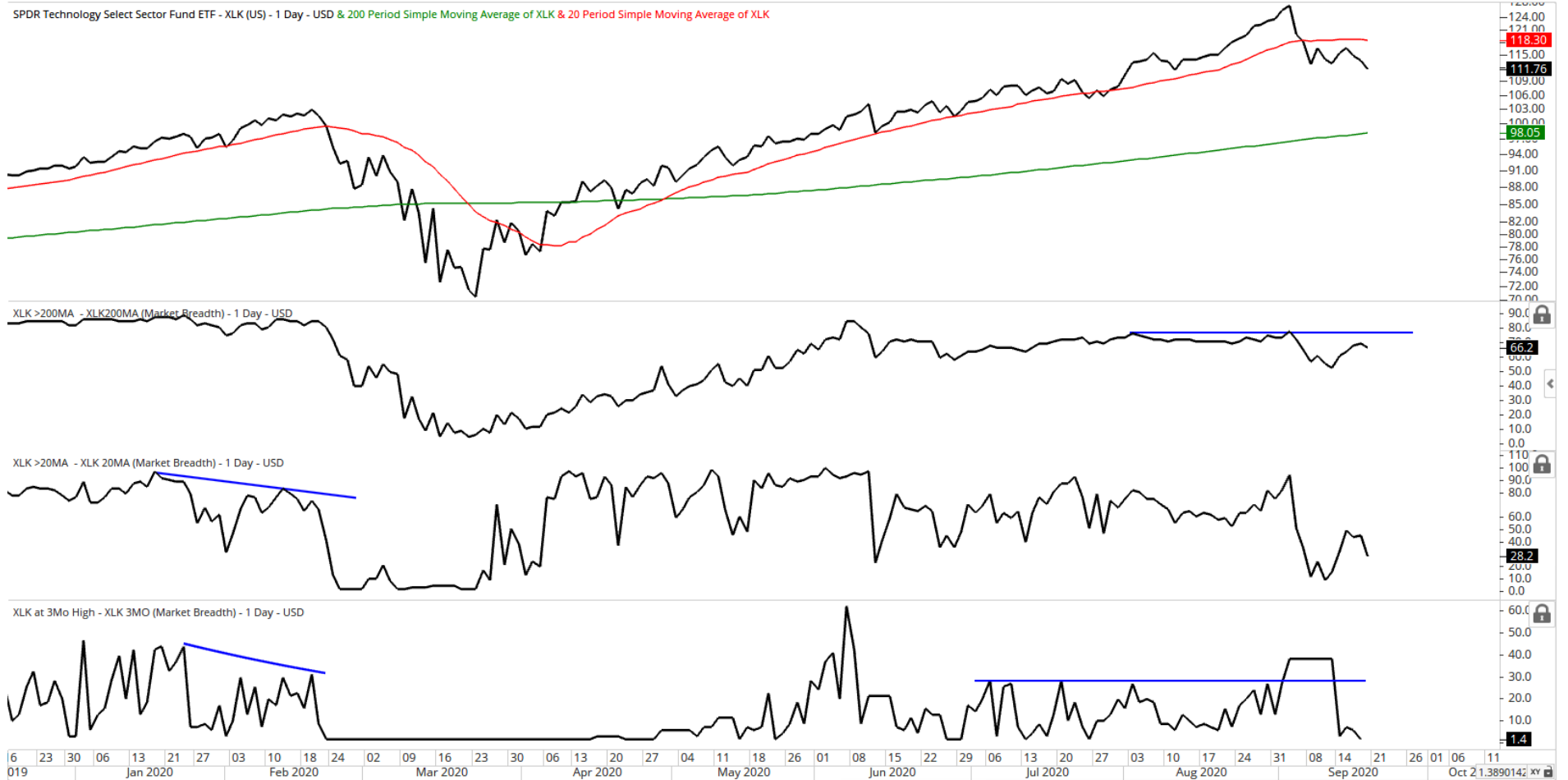
Ticker	Momentum
Tech Sector Momentum Score	
<input type="checkbox"/> AVGO	30.6482
<input type="checkbox"/> NVDA	27.2208
<input type="checkbox"/> GLW	26.4890
<input type="checkbox"/> ACN	24.3676
<input type="checkbox"/> TEL	21.0430
<input type="checkbox"/> QCOM	20.8263
<input type="checkbox"/> CTS	19.1195
<input type="checkbox"/> ORCL	15.0395
<input type="checkbox"/> NOW	12.5538
<input type="checkbox"/> CRM	11.1631
Tech Sector Mean Reversion Score	
<input type="checkbox"/> CSCO	-1.3309
<input type="checkbox"/> ADP	-1.1932
<input type="checkbox"/> WDC	-1.1885
<input type="checkbox"/> FFIV	-1.1267
<input type="checkbox"/> FLIR	-1.1011
<input type="checkbox"/> INTC	-1.0337
<input type="checkbox"/> FLT	-0.7533
<input type="checkbox"/> ANET	-0.6864
<input type="checkbox"/> NTAP	-0.6587
<input type="checkbox"/> XRX	-0.6320
<input type="checkbox"/> NLOK	-0.5558
<input type="checkbox"/> IBM	-0.5094
<input type="checkbox"/> LDOS	-0.4995
<input type="checkbox"/> CDW	-0.4718
<input type="checkbox"/> STX	-0.4557
<input type="checkbox"/> ADS	-0.4544
<input type="checkbox"/> DXC	-0.2866
<input type="checkbox"/> FISV	-0.2681
<input type="checkbox"/> JKHY	-0.2589
<input type="checkbox"/> WU	-0.2489

XLK is back testing its Aug. low and is below the 50-day MA after coming down from momentum being 'overbought' on both daily and weekly.



SPDR Technology Select Sector Fund ETF - XLK (US) - 1 Day Line Chart - USD - No Layout

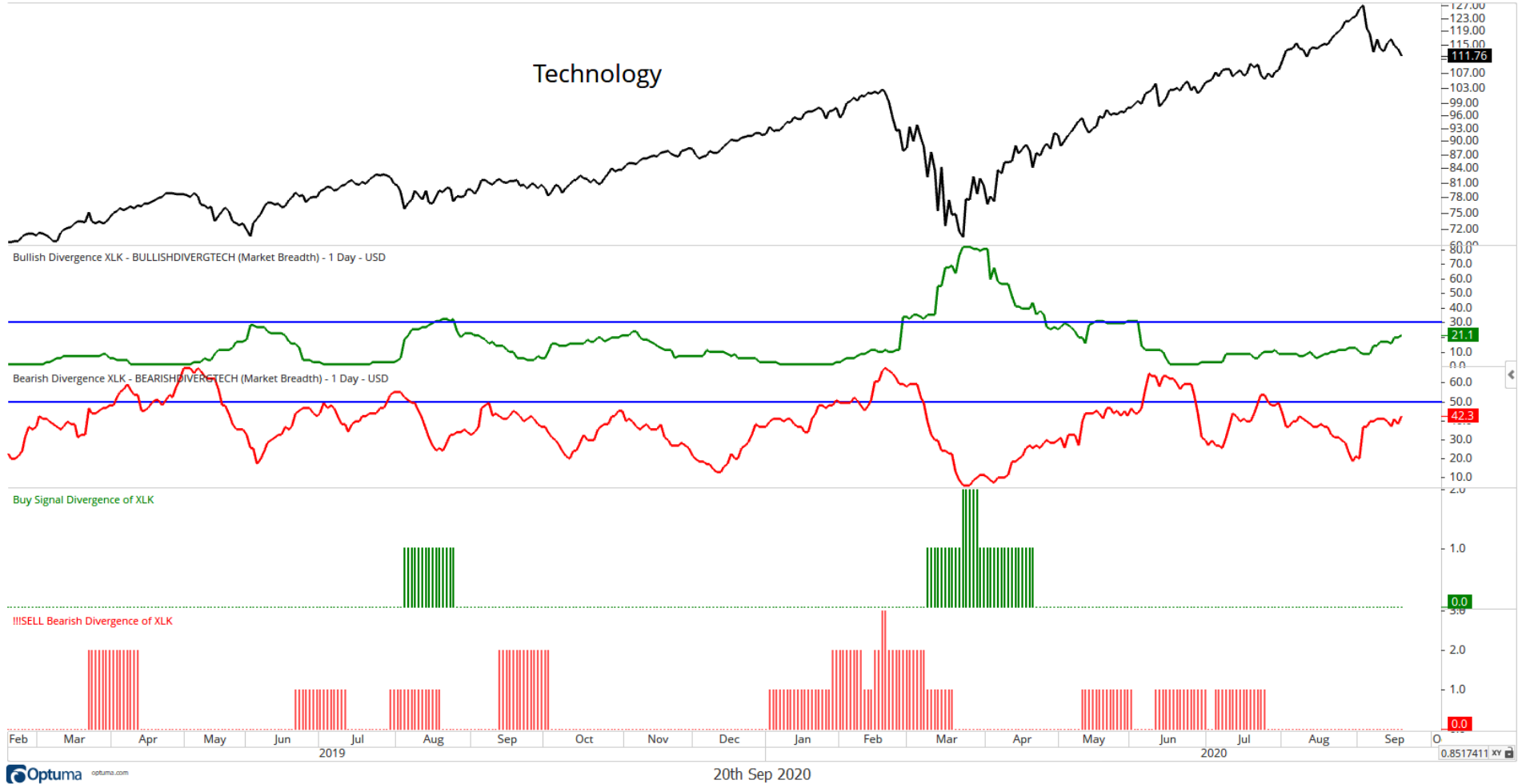
SPDR Technology Select Sector Fund ETF - XLK (US) - 1 Day - USD & 200 Period Simple Moving Average of XLK & 20 Period Simple Moving Average of XLK



% above 200day MA holding up well.



SPDR Technology Select Sector Fund ETF - XLK (US) - 1 Day Line Chart - USD - No Layout



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20th Sep 2020



Watch List

Ticker	Momentum
Health Care Momentum Score	
<input type="checkbox"/> VAR	39.7552
<input type="checkbox"/> TMO	32.9433
<input type="checkbox"/> MTD	32.0741
<input type="checkbox"/> ZTS	27.1269
<input type="checkbox"/> DHR	26.8153
<input type="checkbox"/> PKI	24.9133
<input type="checkbox"/> A	24.0652
<input type="checkbox"/> COO	15.7026
<input type="checkbox"/> EW	15.0182
<input type="checkbox"/> ABT	12.3653
<input type="checkbox"/> ALGN	12.3204

Watch List

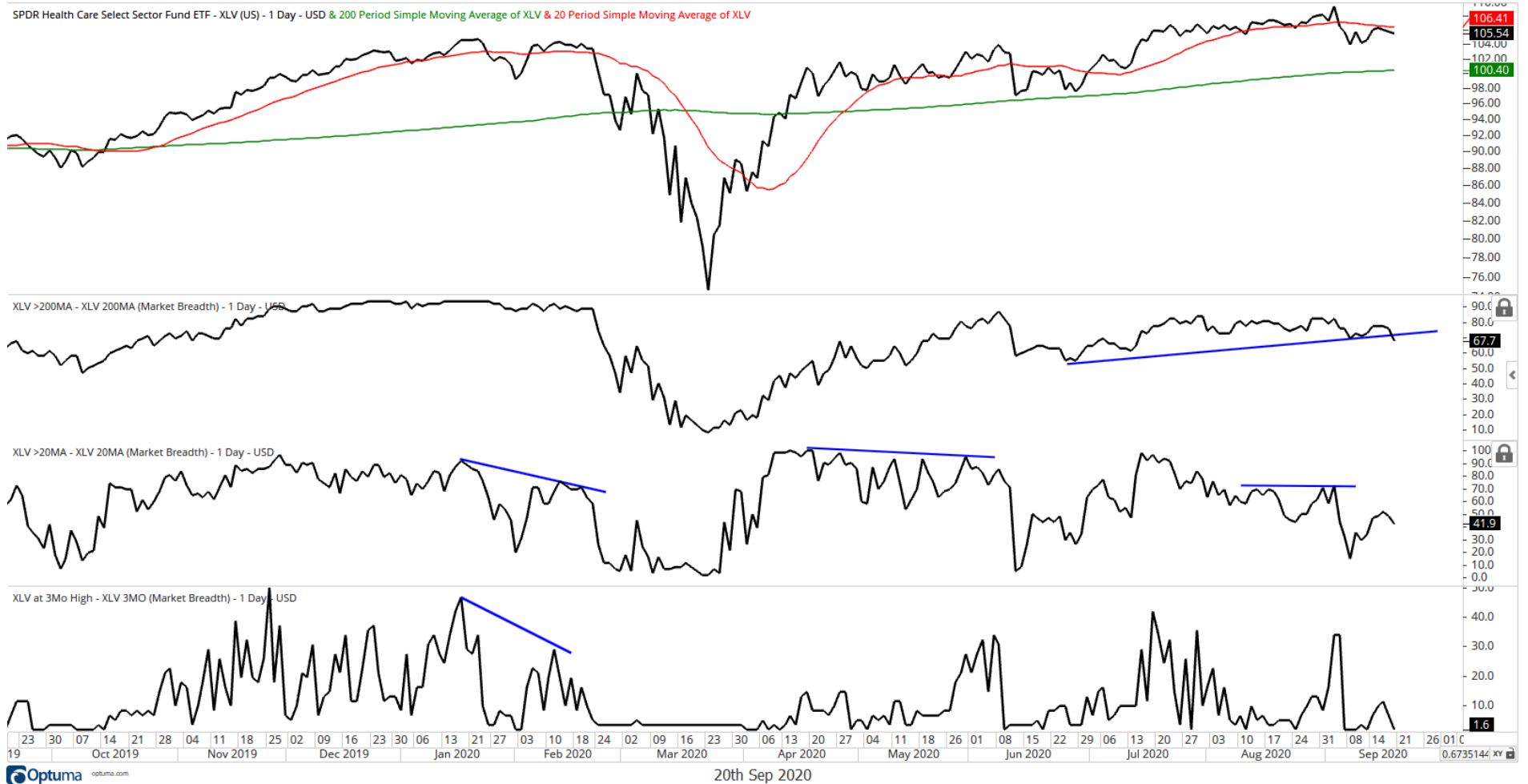
Ticker	Mean Reversion
Health Care Mean Reversion Score	
<input type="checkbox"/> PRGO	-1.5183
<input type="checkbox"/> BDX	-1.4211
<input type="checkbox"/> GILD	-0.9715
<input type="checkbox"/> CVS	-0.9314
<input type="checkbox"/> CI	-0.8819
<input type="checkbox"/> ILMN	-0.8198
<input type="checkbox"/> CAH	-0.8117
<input type="checkbox"/> TFX	-0.7466
<input type="checkbox"/> BAX	-0.7231
<input type="checkbox"/> MYL	-0.7113
<input type="checkbox"/> WAT	-0.6821
<input type="checkbox"/> ANTM	-0.3332
<input type="checkbox"/> INCY	-0.3062
<input type="checkbox"/> XRAY	-0.2604
<input type="checkbox"/> BIIB	-0.2597
<input type="checkbox"/> HSIC	-0.2568
<input type="checkbox"/> BSX	-0.2490
<input type="checkbox"/> CERN	-0.1963

Momentum divergence with XLV on daily and weekly charts as price comes back to test the breakout level.



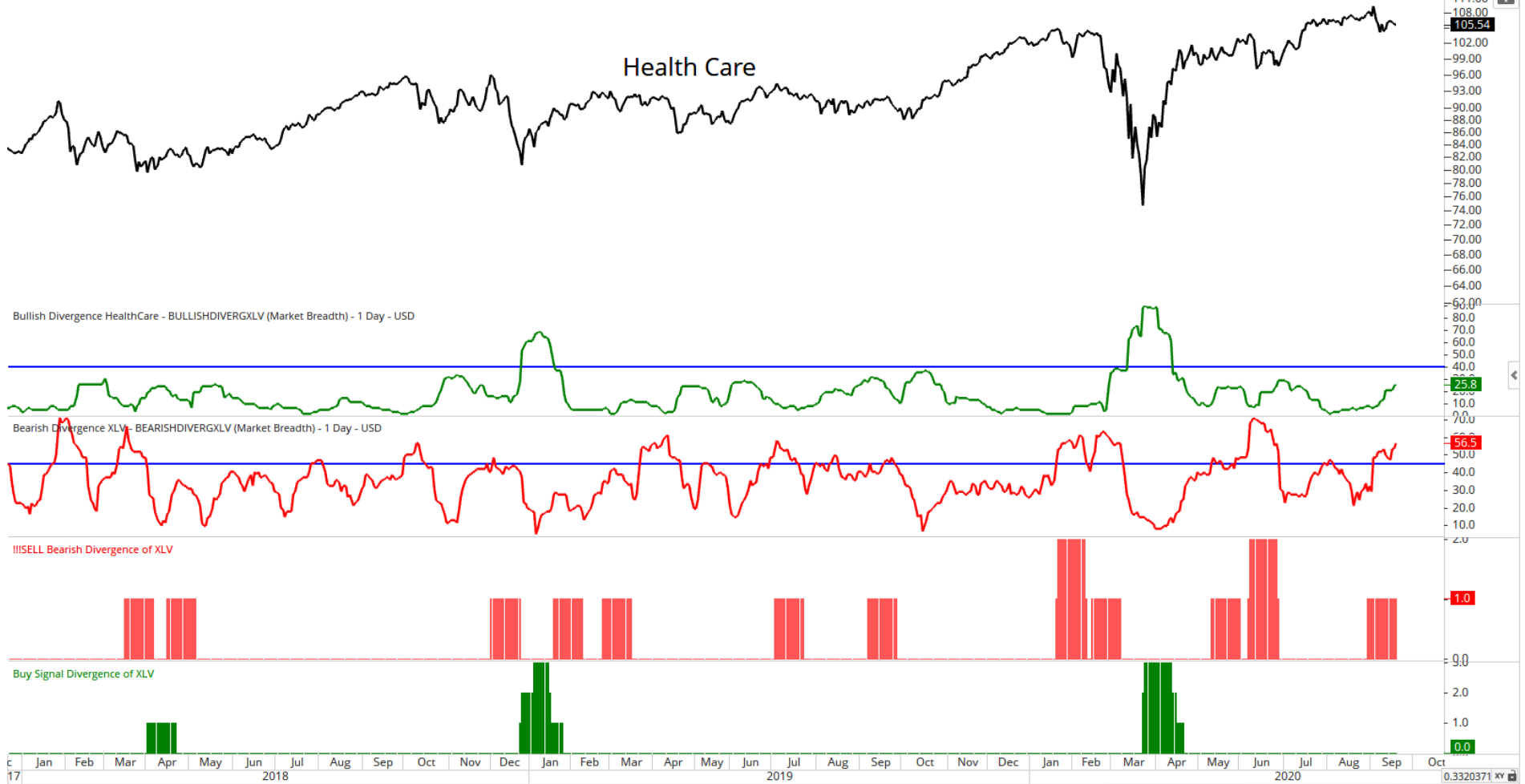
SPDR Health Care Select Sector Fund ETF - XLV (US) - 1 Day Line Chart - USD - No Layout

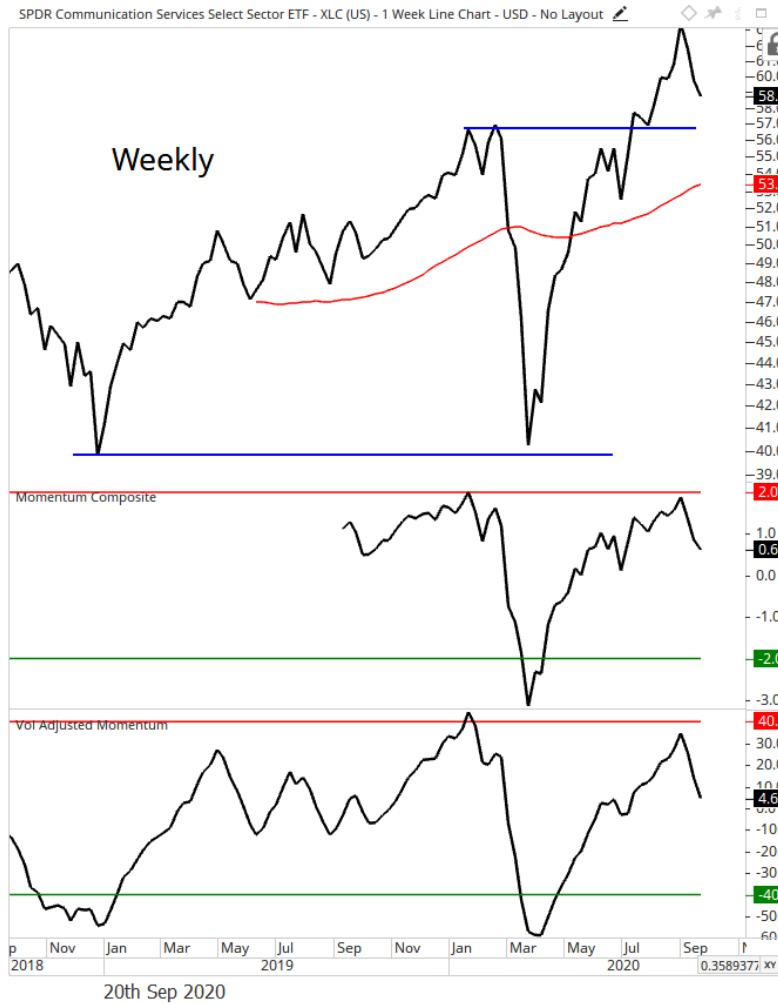
SPDR Health Care Select Sector Fund ETF - XLV (US) - 1 Day - USD & 200 Period Simple Moving Average of XLV & 20 Period Simple Moving Average of XLV



Breadth beginning to weak with a drop in %20MA and a possible breaking of the up trend in %200MA.

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





Watch List

Ticker	Momentum
Communications Momentum Score	
<input type="checkbox"/> CHTR	28.8701
<input type="checkbox"/> NWSA	22.0323
<input type="checkbox"/> CMCSA	19.6647
<input type="checkbox"/> VIAC	17.9844
<input type="checkbox"/> NWS	17.2103
<input type="checkbox"/> VZ	16.3526
<input type="checkbox"/> TMUS	16.0600
<input type="checkbox"/> TWTR	8.1587
<input type="checkbox"/> ATVI	6.4634
<input type="checkbox"/> DIS	4.5658
<input type="checkbox"/> LUV	1.0310

Watch List

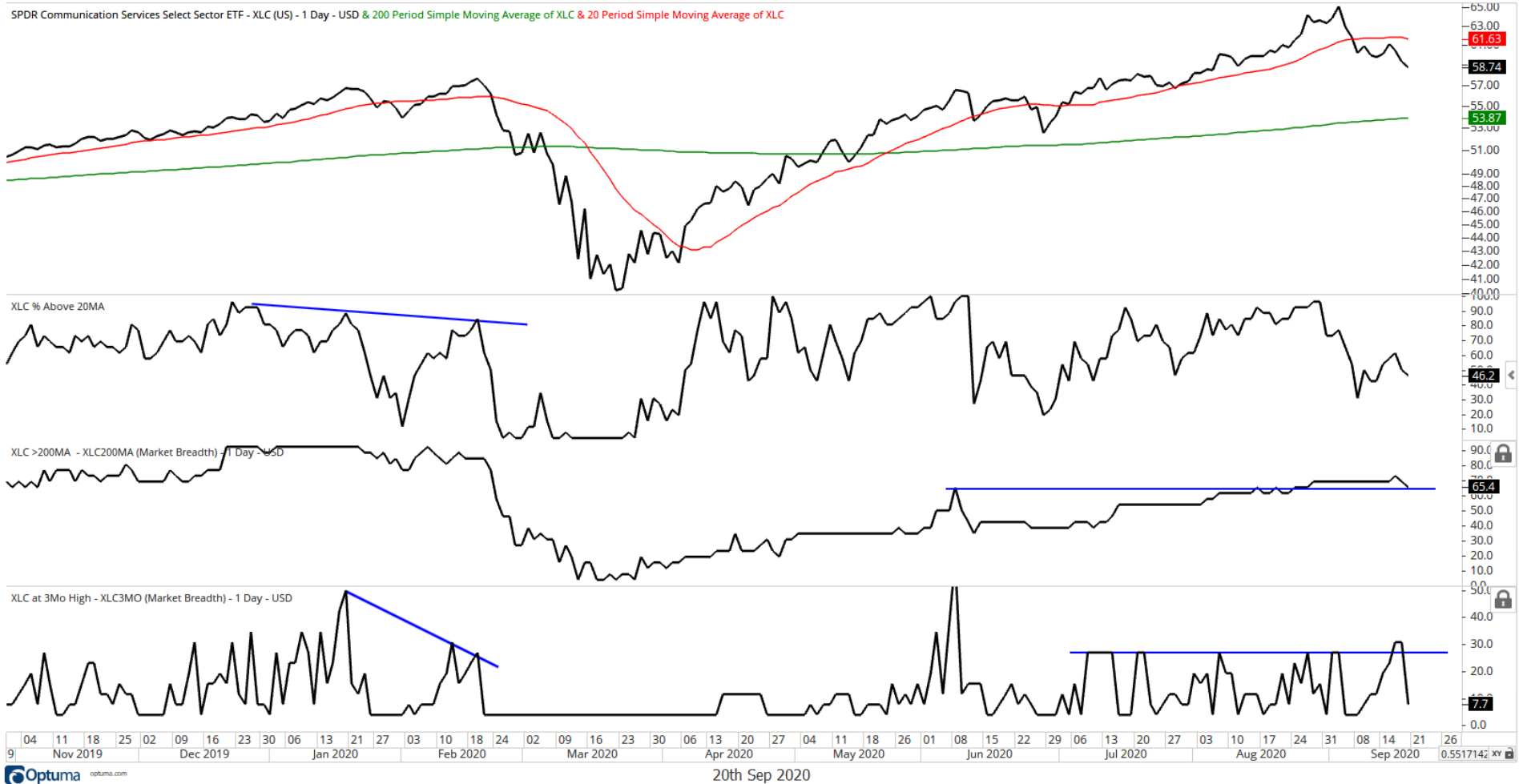
Ticker	Mean Reversion
Communications Mean Reversion	
<input type="checkbox"/> T	-1.2104
<input type="checkbox"/> OMC	-1.0596
<input type="checkbox"/> IPG	-0.4462
<input type="checkbox"/> CTL	-0.2827
<input type="checkbox"/> DISH	-0.2764
<input type="checkbox"/> FOXA	-0.2493
<input type="checkbox"/> DISCK	-0.1864
<input type="checkbox"/> FOX	-0.1705
<input type="checkbox"/> DISCA	-0.1454
<input type="checkbox"/> LUV	0.0044
<input type="checkbox"/> DIS	0.1348
<input type="checkbox"/> VIAC	0.3598
<input type="checkbox"/> GOOGL	0.3907
<input type="checkbox"/> GOOG	0.4438
<input type="checkbox"/> EA	0.5038
<input type="checkbox"/> CMCSA	0.8956
<input type="checkbox"/> NFLX	0.8960
<input type="checkbox"/> FB	1.0184
<input type="checkbox"/> VZ	1.0410

XLC under the 50-day MA and nearing the Feb. high after coming down from being 'overbought'.



SPDR Communication Services Select Sector ETF - XLC (US) - 1 Day Line Chart - USD - No Layout

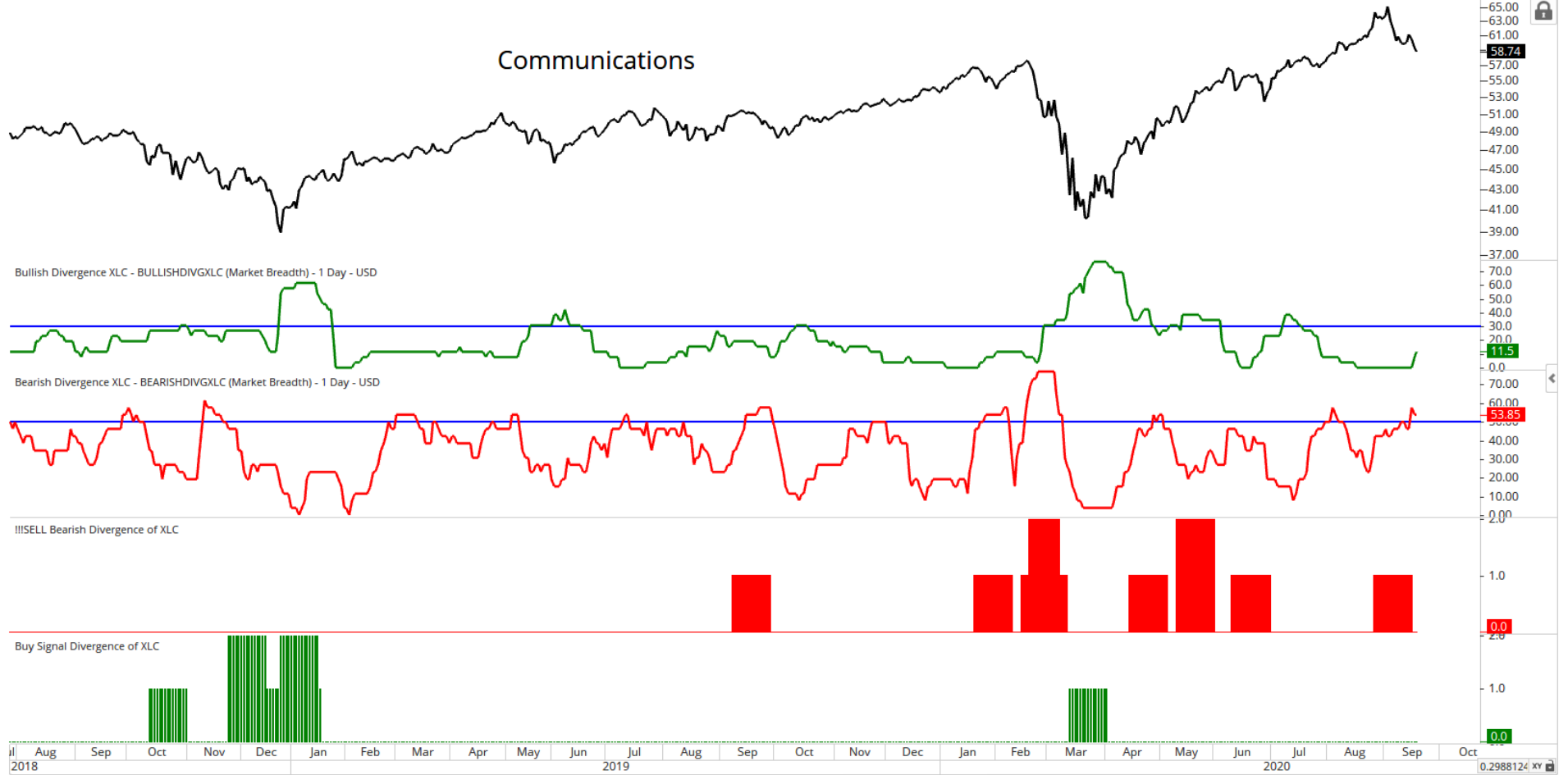
SPDR Communication Services Select Sector ETF - XLC (US) - 1 Day - USD & 200 Period Simple Moving Average of XLC & 20 Period Simple Moving Average of XLC



% above 200-day MA still strong but drop in %20MA.



SPDR Communication Services Select Sector ETF - XLC (US) - 1 Day Line Chart - USD - No Layout



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Watch List

Ticker	Momentum
Materials Momentum Score	
<input type="checkbox"/> FCX	46.4672
<input type="checkbox"/> SHW	31.4360
<input type="checkbox"/> APD	30.0239
<input type="checkbox"/> BLL	25.3877
<input type="checkbox"/> ALB	25.3136
<input type="checkbox"/> CE	22.8902
<input type="checkbox"/> PPG	21.0233
<input type="checkbox"/> LIN	20.0142
<input type="checkbox"/> DOW	19.9001
<input type="checkbox"/> EMN	18.2031
<input type="checkbox"/> FMC	15.4448

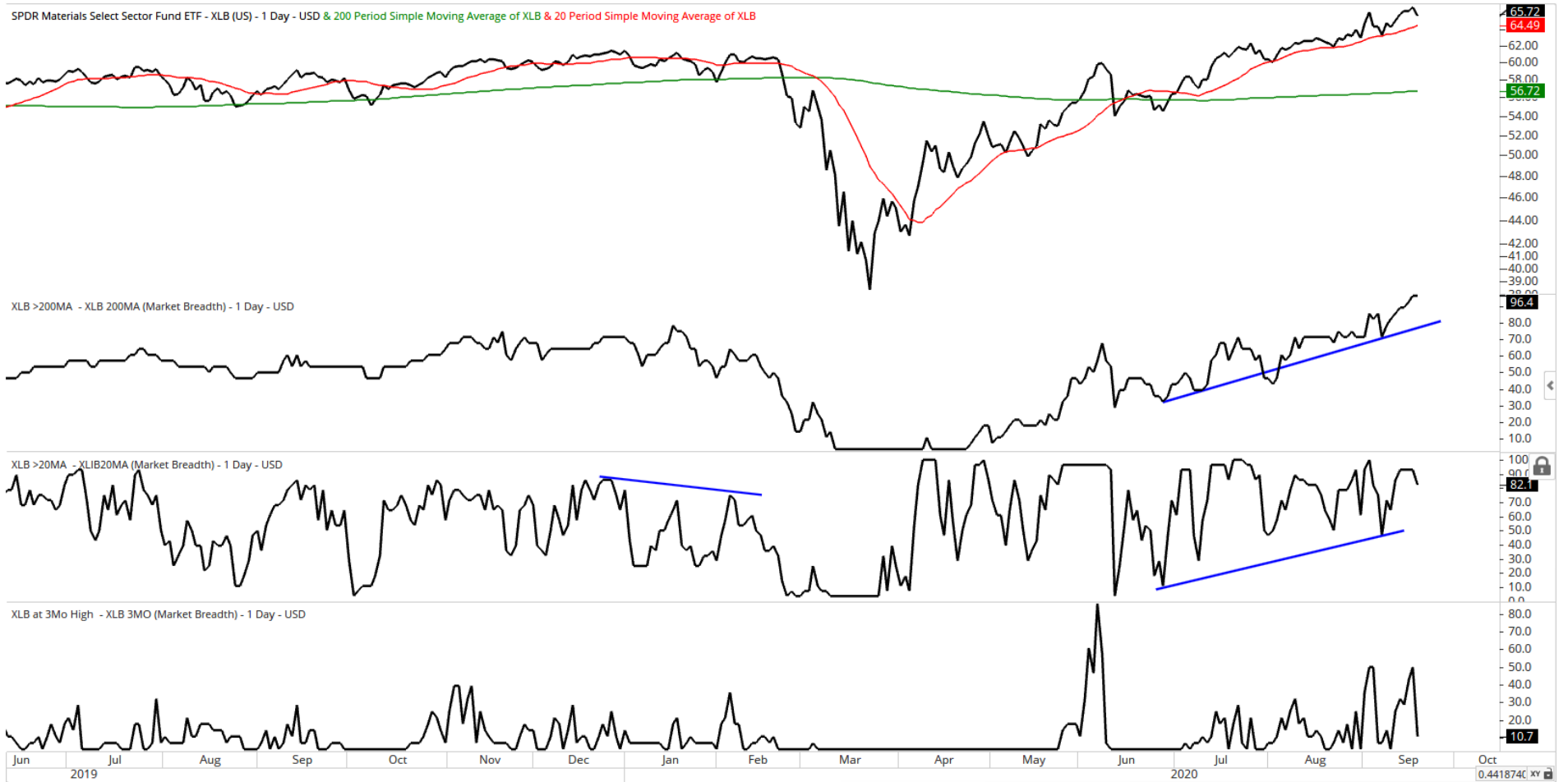
Watch List

Ticker	Mean Reversion
Materials Mean Reversion Score	
<input type="checkbox"/> IFF	-0.2875
<input type="checkbox"/> CF	-0.2144
<input type="checkbox"/> MLM	-0.1984
<input type="checkbox"/> VMC	0.1414
<input type="checkbox"/> ECL	0.5272
<input type="checkbox"/> DD	0.5287
<input type="checkbox"/> LYB	0.5319
<input type="checkbox"/> NUE	0.6175
<input type="checkbox"/> AVY	0.6448
<input type="checkbox"/> WRK	0.6600
<input type="checkbox"/> SEE	0.6719
<input type="checkbox"/> CTVA	0.6982
<input type="checkbox"/> CE	0.7291
<input type="checkbox"/> IP	0.8866
<input type="checkbox"/> PPG	0.9069
<input type="checkbox"/> NEM	0.9071
<input type="checkbox"/> MOS	0.9283
<input type="checkbox"/> DOW	0.9820
<input type="checkbox"/> AMCP	1.2741

XLB holding its strong trend, making new weekly high. Momentum still diverging.

SPDR Materials Select Sector Fund ETF - XLB (US) - 1 Day Line Chart - USD - No Layout

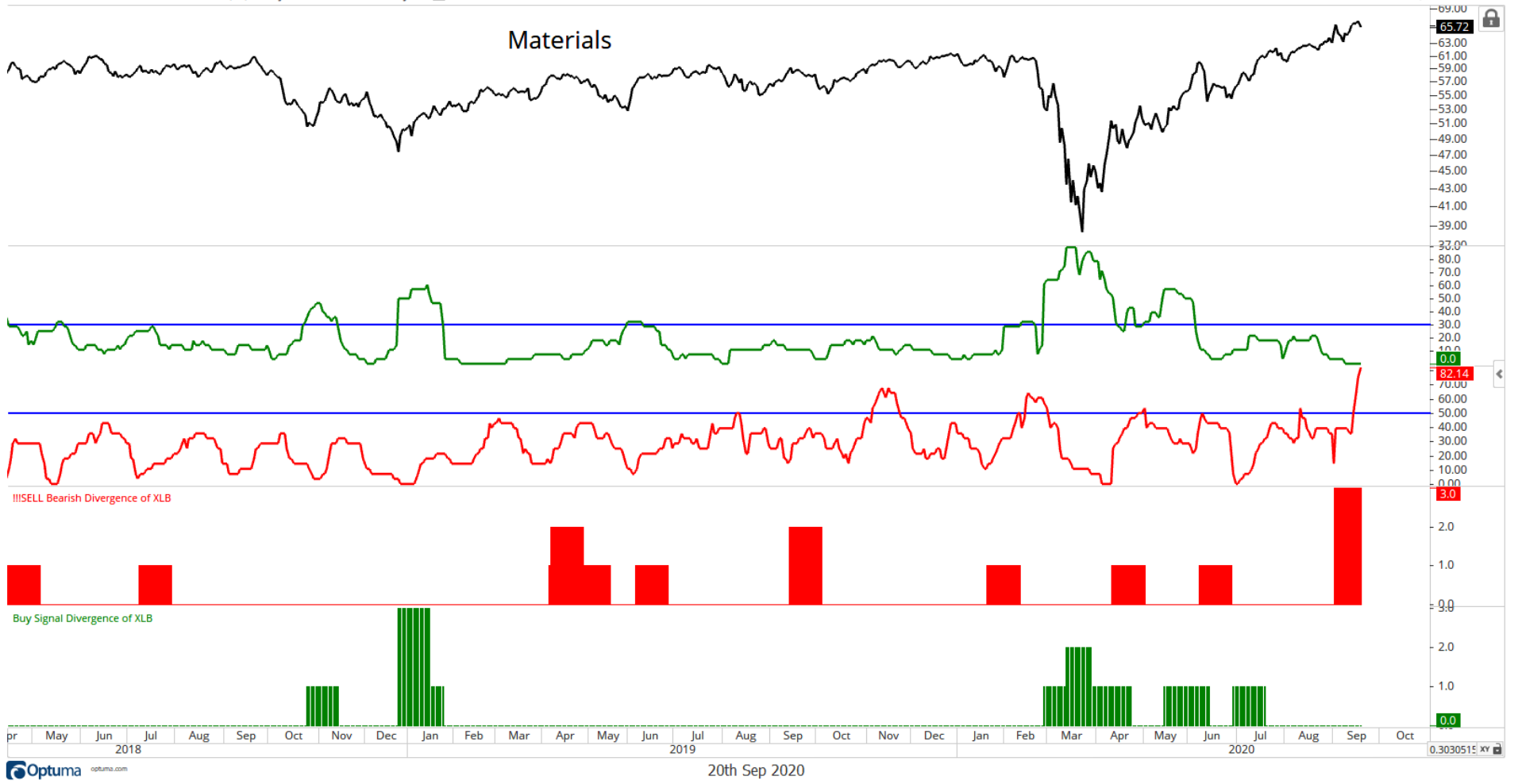
SPDR Materials Select Sector Fund ETF - XLB (US) - 1 Day - USD & 200 Period Simple Moving Average of XLB & 20 Period Simple Moving Average of XLB

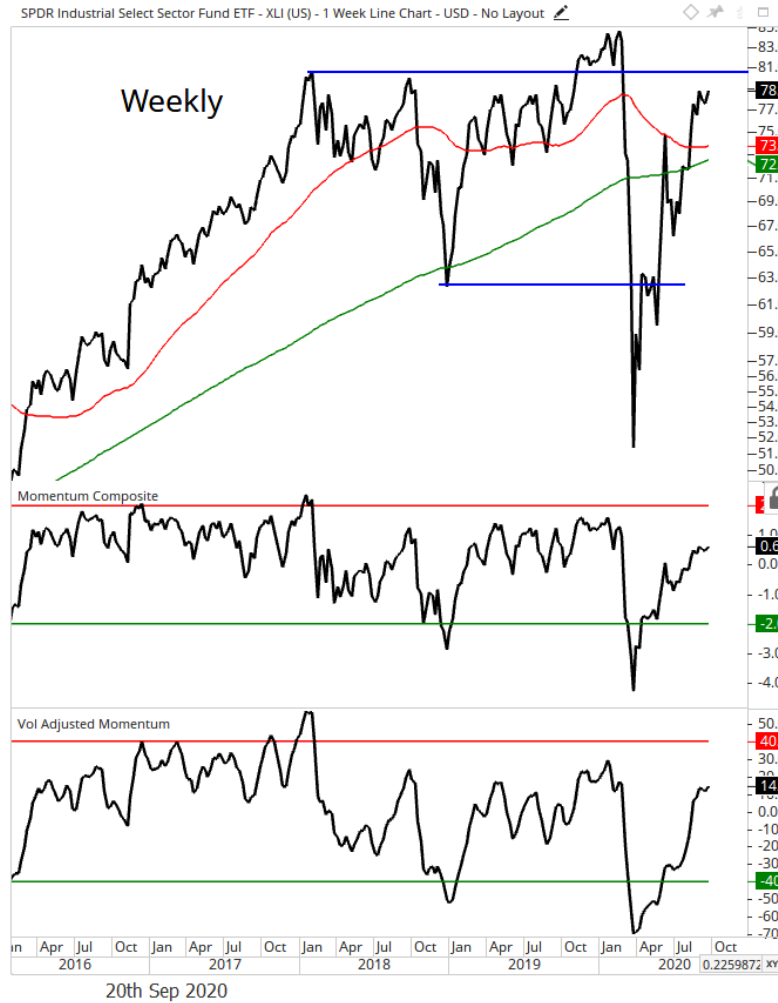


Breadth is positive for XLB.



SPDR Materials Select Sector Fund ETF - XLB (US) - 1 Day Line Chart - USD - No Layout





Watch List

Ticker	Momentum
Industrial Momentum Score	
<input type="checkbox"/> FDX	52.4295
<input type="checkbox"/> CHRW	44.7189
<input type="checkbox"/> DE	42.8485
<input type="checkbox"/> UPS	42.6936
<input type="checkbox"/> CARR	40.7459
<input type="checkbox"/> EXPD	40.0864
<input type="checkbox"/> PWR	34.5610
<input type="checkbox"/> ROL	31.7416
<input type="checkbox"/> JCI	28.7790
<input type="checkbox"/> IEX	25.7189

Watch List

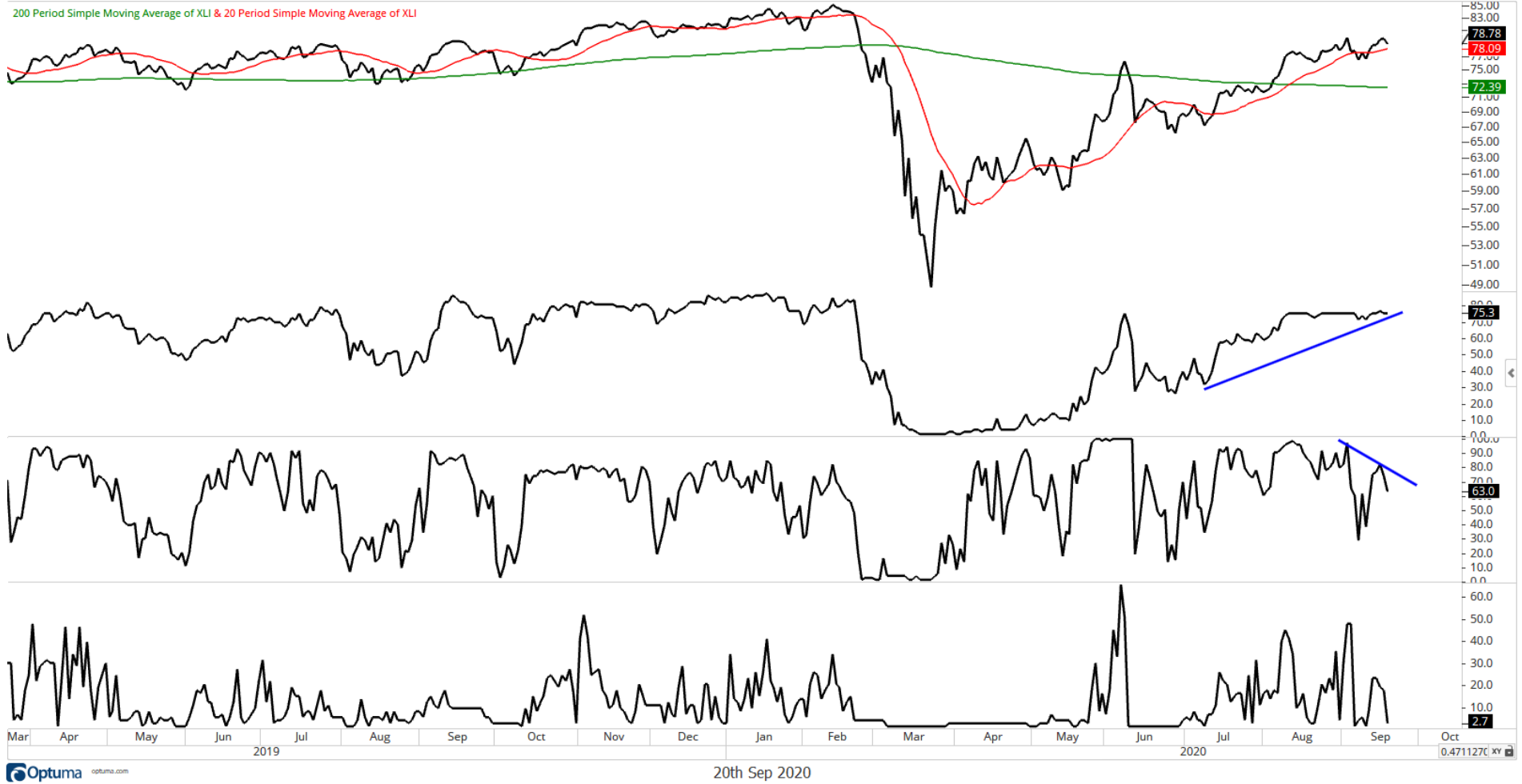
Ticker	Mean Reversion
Industrial Mean Reversion Score	
<input type="checkbox"/> HII	-1.5103
<input type="checkbox"/> GD	-0.8517
<input type="checkbox"/> BA	-0.7799
<input type="checkbox"/> FLS	-0.6659
<input type="checkbox"/> GE	-0.6497
<input type="checkbox"/> UAL	-0.6000
<input type="checkbox"/> AAL	-0.5677
<input type="checkbox"/> HWM	-0.5263
<input type="checkbox"/> LHX	-0.5201
<input type="checkbox"/> NLSN	-0.5057
<input type="checkbox"/> DAL	-0.3915
<input type="checkbox"/> ALLE	-0.3506
<input type="checkbox"/> ALK	-0.3491
<input type="checkbox"/> LUV	-0.1620
<input type="checkbox"/> NOC	-0.0248
<input type="checkbox"/> OTIS	0
<input type="checkbox"/> CARR	0
<input type="checkbox"/> TXT	0.0587
<input type="checkbox"/> RHI	0.1041
<input type="checkbox"/> TDG	0.1287

XLI holding breakout from June high. Momentum starting to weaken.



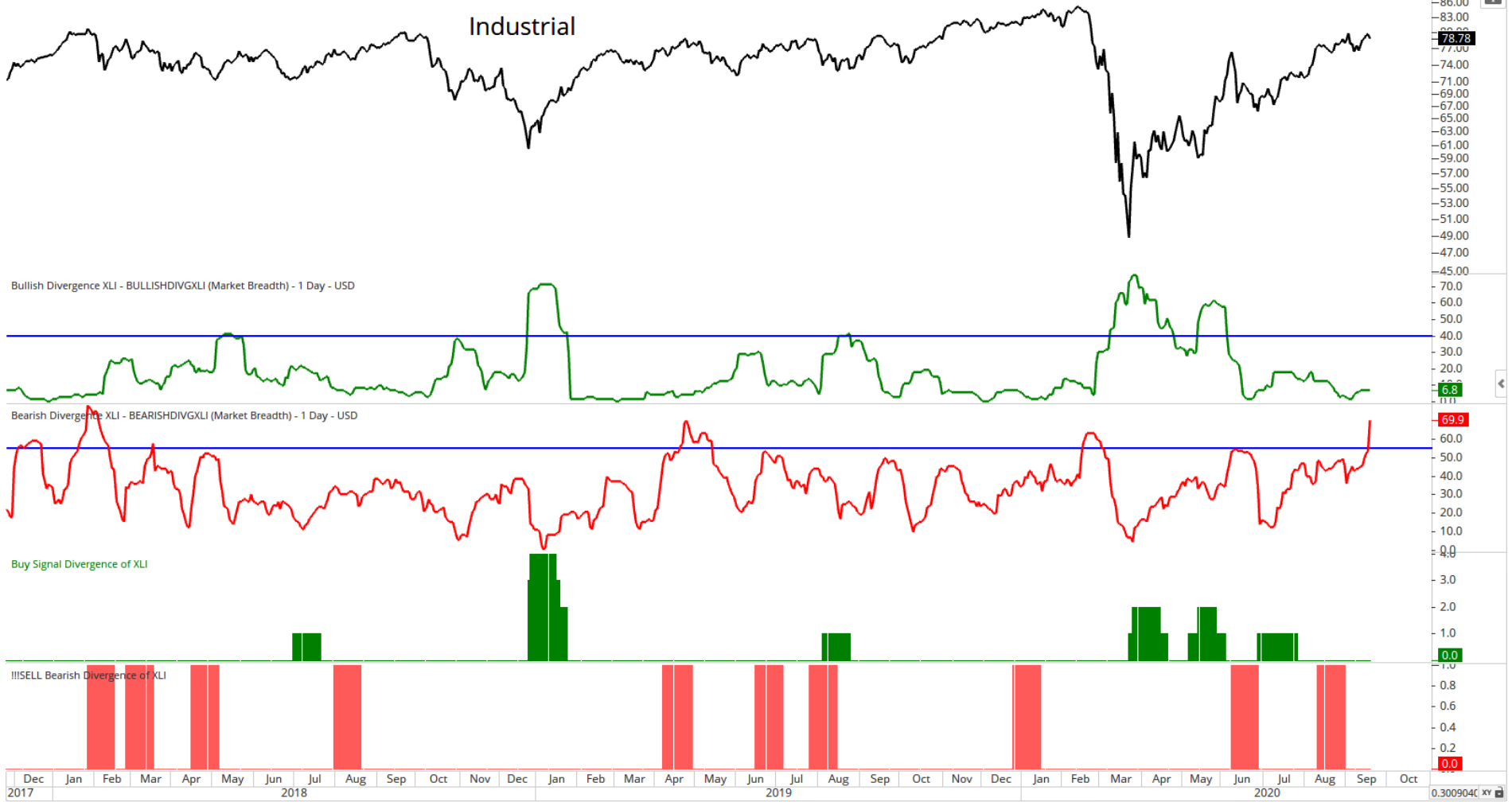
SPDR Industrial Select Sector Fund ETF - XLI (US) - 1 Day Line Chart - USD - No Layout

200 Period Simple Moving Average of XLI & 20 Period Simple Moving Average of XLI



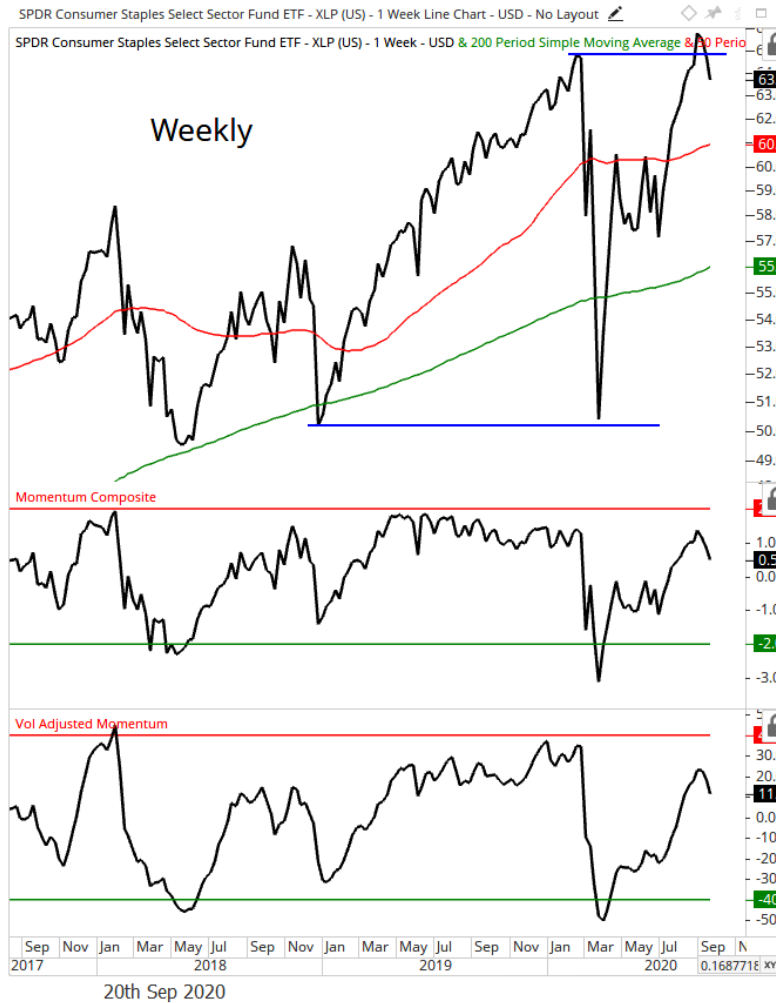
%20MA diverging but %200MA still holding strong.

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



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Watch List

Ticker	Momentum
Consumer Staples Momentum Score	
<input type="checkbox"/> PG	28.7758
<input type="checkbox"/> ADM	28.3825
<input type="checkbox"/> BF.B	22.3204
<input type="checkbox"/> CHD	15.9524
<input type="checkbox"/> COST	13.8620
<input type="checkbox"/> MNST	13.6627
<input type="checkbox"/> WMT	12.9699
<input type="checkbox"/> MKC	12.2905
<input type="checkbox"/> MDLZ	10.9907
<input type="checkbox"/> EL	7.8069
<input type="checkbox"/> SYY	6.9012
<input type="checkbox"/> CL	4.3833

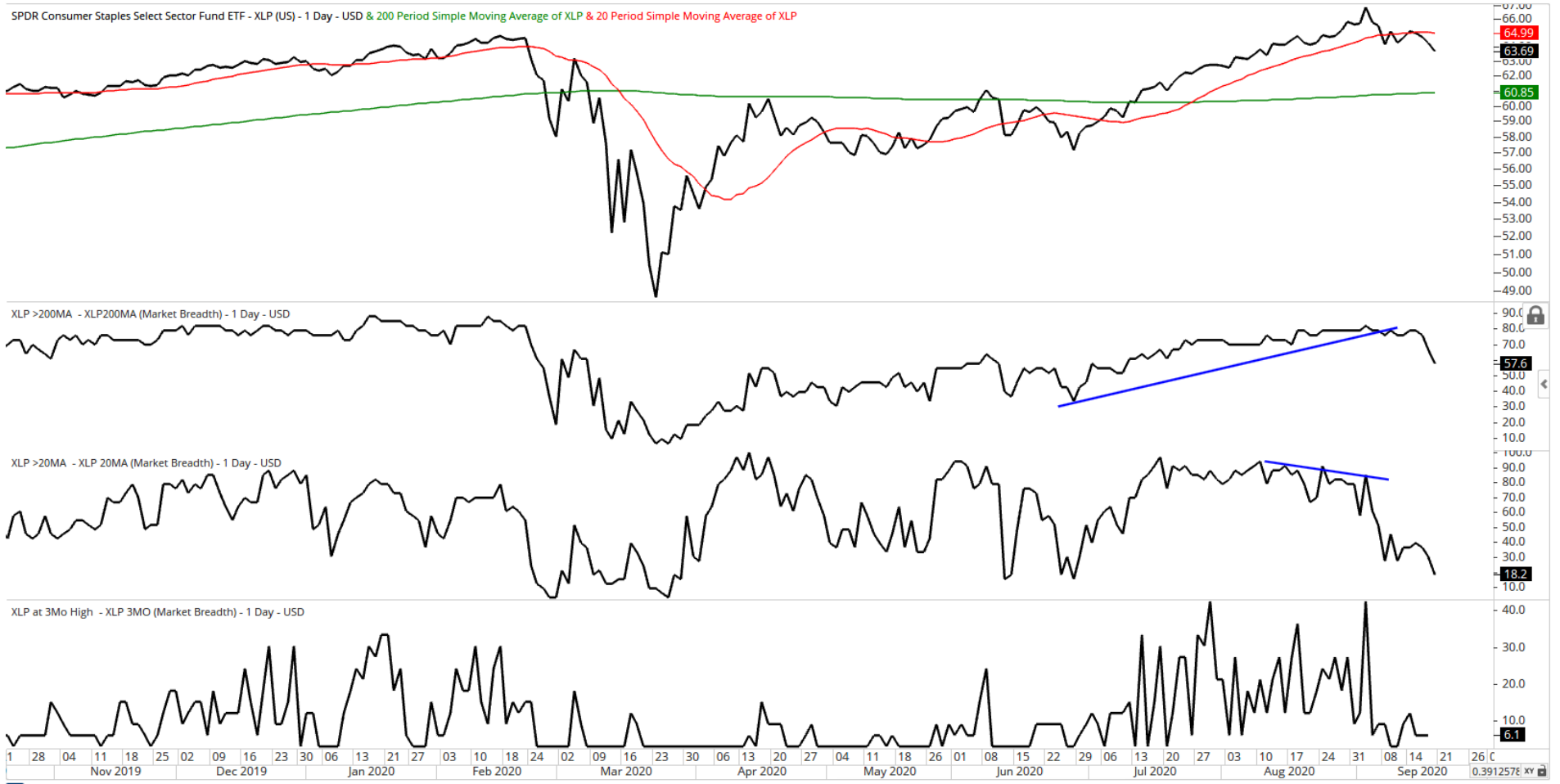
Watch List

Ticker	Mean Reversion
Consumer Staples Mean Reversion	
<input type="checkbox"/> COTY	-1.4257
<input type="checkbox"/> WBA	-1.3456
<input type="checkbox"/> TAP	-1.3084
<input type="checkbox"/> CPB	-1.1339
<input type="checkbox"/> K	-0.8359
<input type="checkbox"/> TSN	-0.7357
<input type="checkbox"/> MO	-0.6643
<input type="checkbox"/> PEP	-0.6550
<input type="checkbox"/> HSY	-0.6296
<input type="checkbox"/> GIS	-0.3664
<input type="checkbox"/> LW	-0.2336
<input type="checkbox"/> KHC	-0.1487
<input type="checkbox"/> KO	-0.0927
<input type="checkbox"/> PM	-0.0272
<input type="checkbox"/> SJM	0.0879
<input type="checkbox"/> SYY	0.1705
<input type="checkbox"/> STZ	0.4145
<input type="checkbox"/> KMB	0.4323

XLP failed to hold breakout and is now testing the 50-day MA after VaM was overbought.

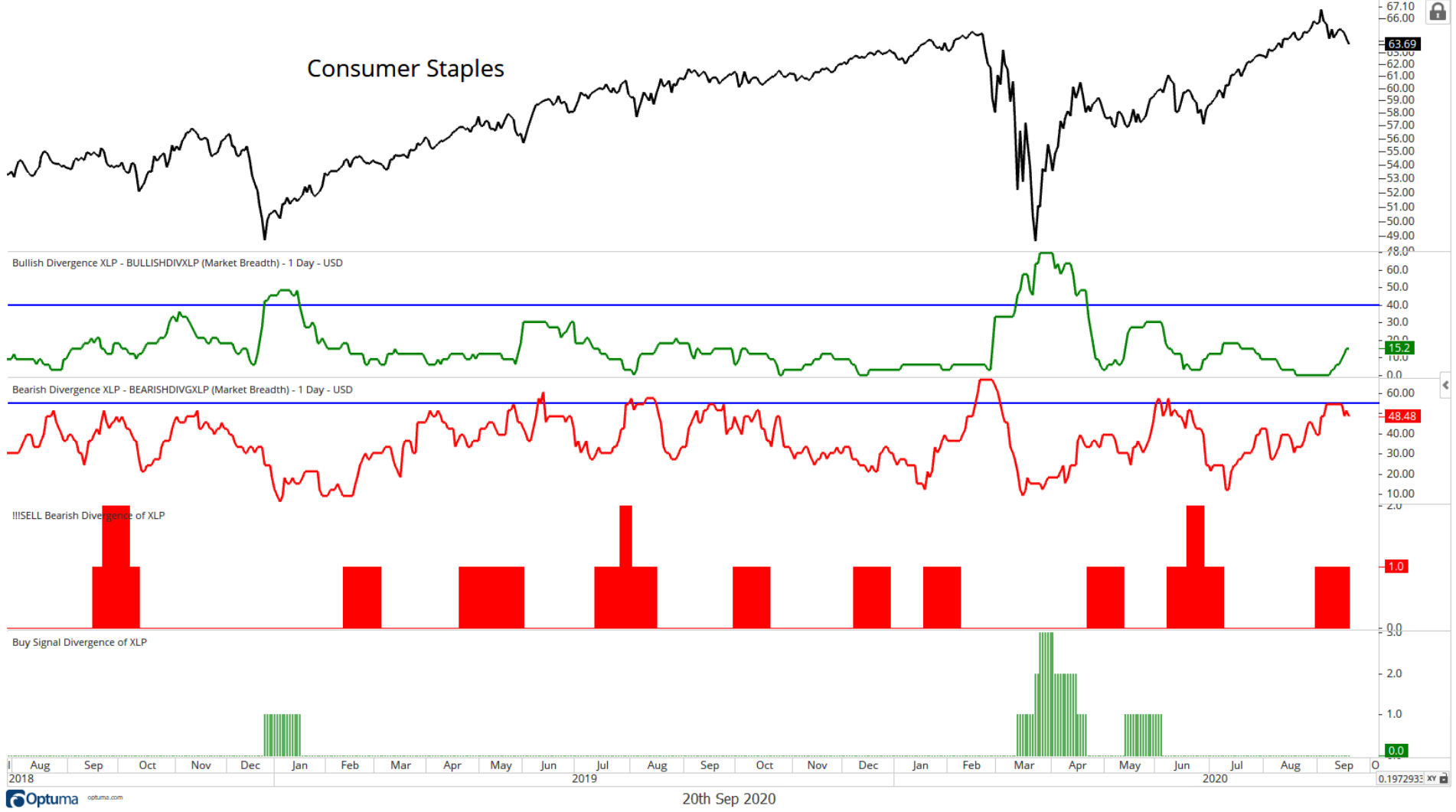
SPDR Consumer Staples Select Sector Fund ETF - XLP (US) - 1 Day Line Chart - USD - No Layout

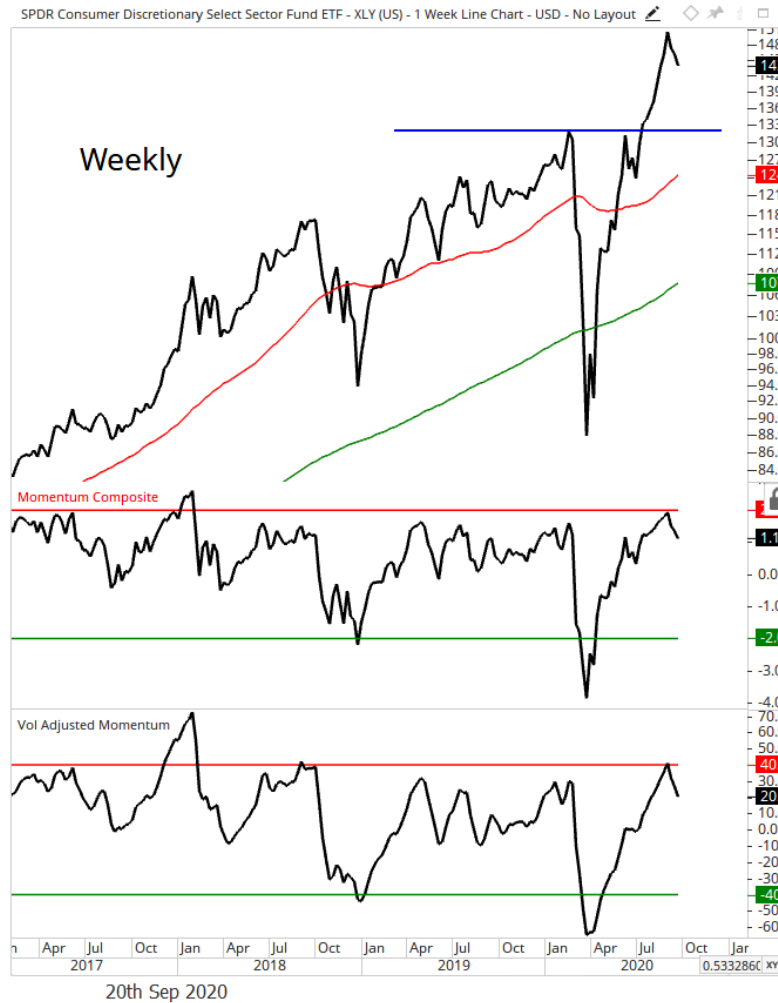
SPDR Consumer Staples Select Sector Fund ETF - XLP (US) - 1 Day - USD & 200 Period Simple Moving Average of XLP & 20 Period Simple Moving Average of XLP



Breadth breaking down.

SPDR Consumer Staples Select Sector Fund ETF - XLP (US) - 1 Day Line Chart - USD - No Layout





Watch List

Ticker	Momentum
Consumer Disc. Momentum Score	
<input type="checkbox"/> DG	32.3625
<input type="checkbox"/> TGT	28.2147
<input type="checkbox"/> NKE	27.5124
<input type="checkbox"/> MCD	26.5356
<input type="checkbox"/> CMG	25.6580
<input type="checkbox"/> LOW	24.5540
<input type="checkbox"/> GPC	24.1043
<input type="checkbox"/> LB	21.7921
<input type="checkbox"/> HBI	20.5065
<input type="checkbox"/> WHR	18.0122

Watch List

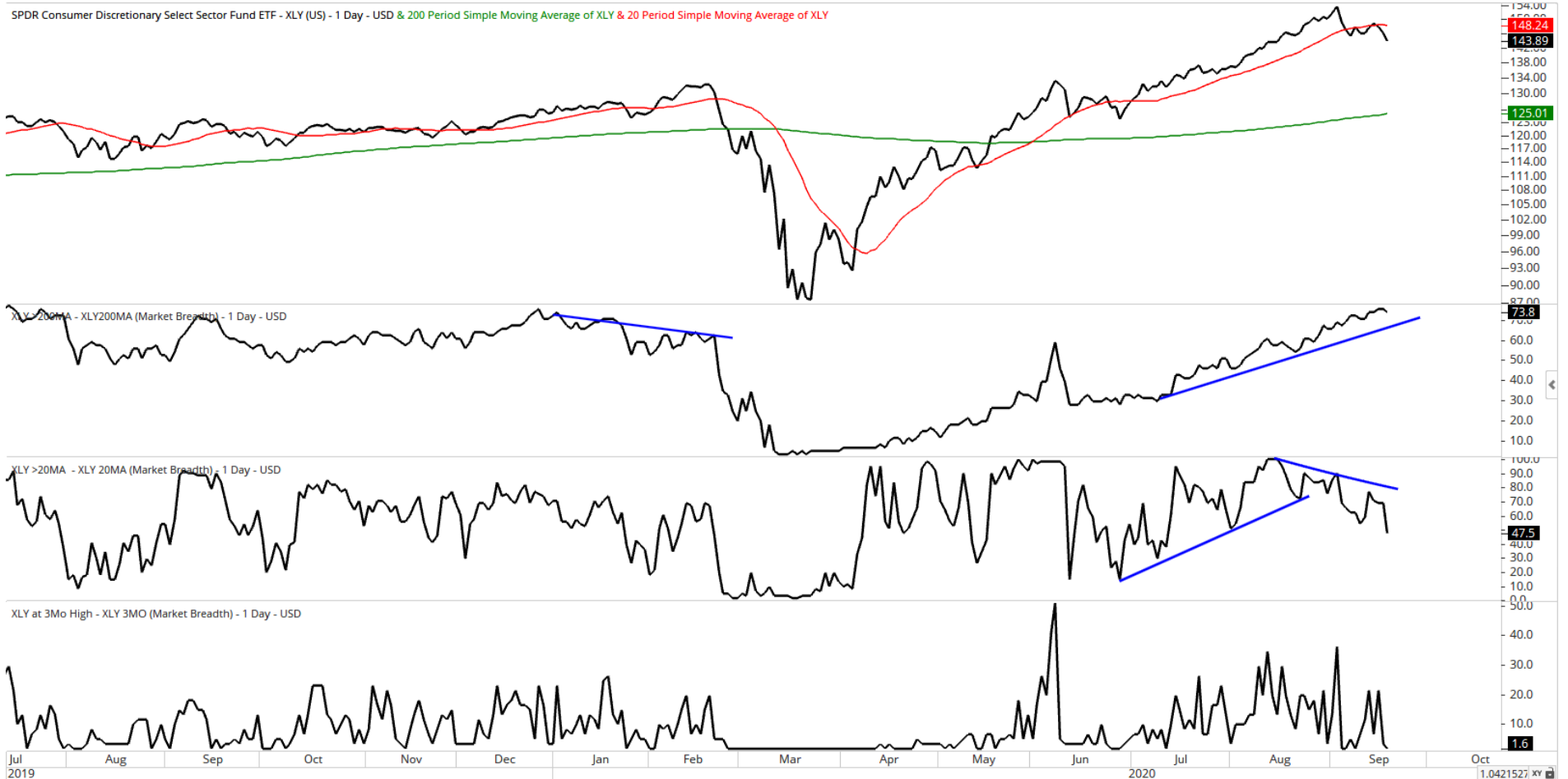
Ticker	Mean Reversion
Consumer Disc. Mean Reversion Score	
<input type="checkbox"/> HRB	-1.0207
<input type="checkbox"/> JWN	-0.9857
<input type="checkbox"/> WYNN	-0.7740
<input type="checkbox"/> CCL	-0.7407
<input type="checkbox"/> NCLH	-0.7399
<input type="checkbox"/> ROST	-0.6217
<input type="checkbox"/> LVS	-0.5197
<input type="checkbox"/> HOG	-0.5084
<input type="checkbox"/> RL	-0.4790
<input type="checkbox"/> DLTR	-0.3965
<input type="checkbox"/> TIF	-0.3834
<input type="checkbox"/> MAR	-0.3734
<input type="checkbox"/> UA	-0.3505
<input type="checkbox"/> KSS	-0.3484
<input type="checkbox"/> HAS	-0.3196
<input type="checkbox"/> YUM	-0.2993
<input type="checkbox"/> RCL	-0.2801
<input type="checkbox"/> UAA	-0.2734
<input type="checkbox"/> BKNG	-0.1647

XLY still above 50-day MA but close to testing.



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

SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - 1 Day - USD & 200 Period Simple Moving Average of XLY & 20 Period Simple Moving Average of XLY



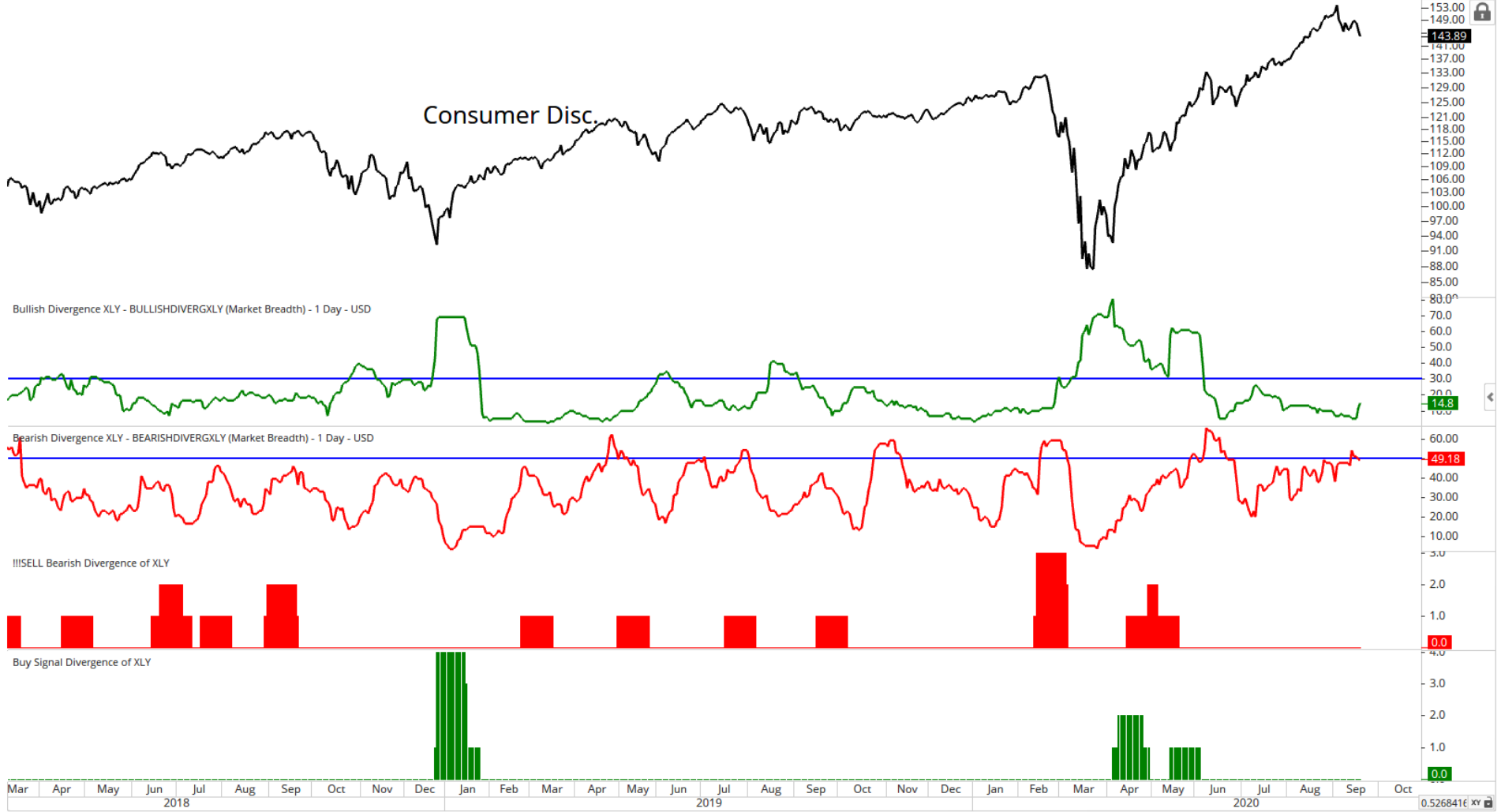
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1.0421527; XY

%20MA continuing to move lower but %200MA still strong.

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



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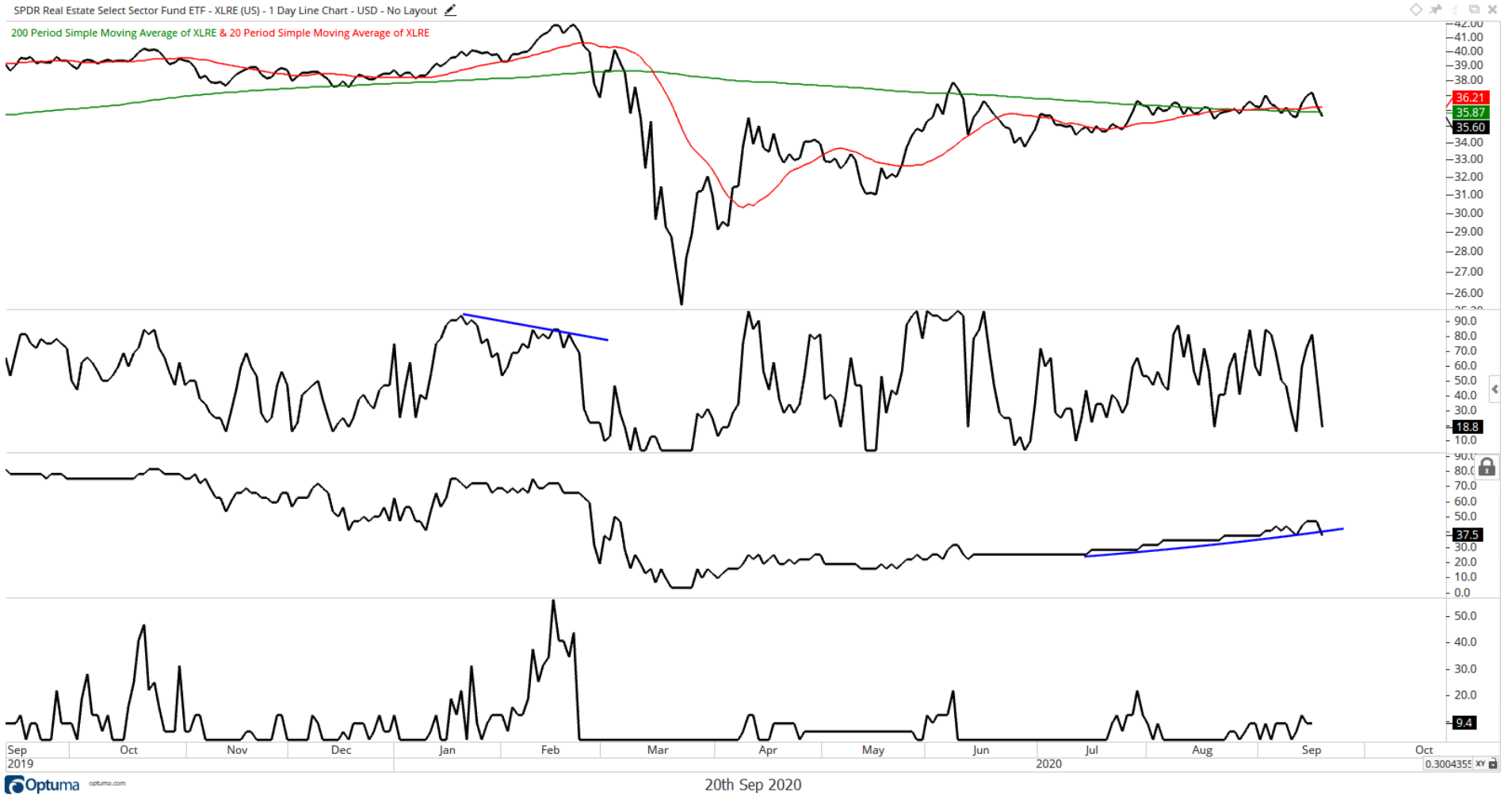
Watch List

Ticker	Momentum
Real Estate Momentum Score	
<input type="checkbox"/> EXR	12.5212
<input type="checkbox"/> PSA	12.5013
<input type="checkbox"/> EQIX	5.8019
<input type="checkbox"/> SBAC	3.1731
<input type="checkbox"/> PLD	0.6531
<input type="checkbox"/> WY	-0.5819
<input type="checkbox"/> VTR	-1.7742
<input type="checkbox"/> IRM	-2.7352
<input type="checkbox"/> O	-3.7995
<input type="checkbox"/> DRE	-9.6384
<input type="checkbox"/> WELL	13.0271

Watch List

Ticker	Mean Reversion
Real Estate Mean Reversion	
<input type="checkbox"/> UDR	-1.3661
<input type="checkbox"/> ESS	-1.3064
<input type="checkbox"/> EQR	-1.2887
<input type="checkbox"/> AIV	-1.1389
<input type="checkbox"/> AVB	-1.1086
<input type="checkbox"/> BXP	-1.0915
<input type="checkbox"/> REG	-0.9283
<input type="checkbox"/> VNO	-0.9253
<input type="checkbox"/> HCP	-0.8396
<input type="checkbox"/> MAA	-0.7459
<input type="checkbox"/> HST	-0.7207
<input type="checkbox"/> SLG	-0.7127
<input type="checkbox"/> FRT	-0.7029
<input type="checkbox"/> KIM	-0.6771
<input type="checkbox"/> WELL	-0.6094
<input type="checkbox"/> MAC	-0.5884
<input type="checkbox"/> O	-0.4152
<input type="checkbox"/> SPG	-0.3891
<input type="checkbox"/> VTR	-0.2256

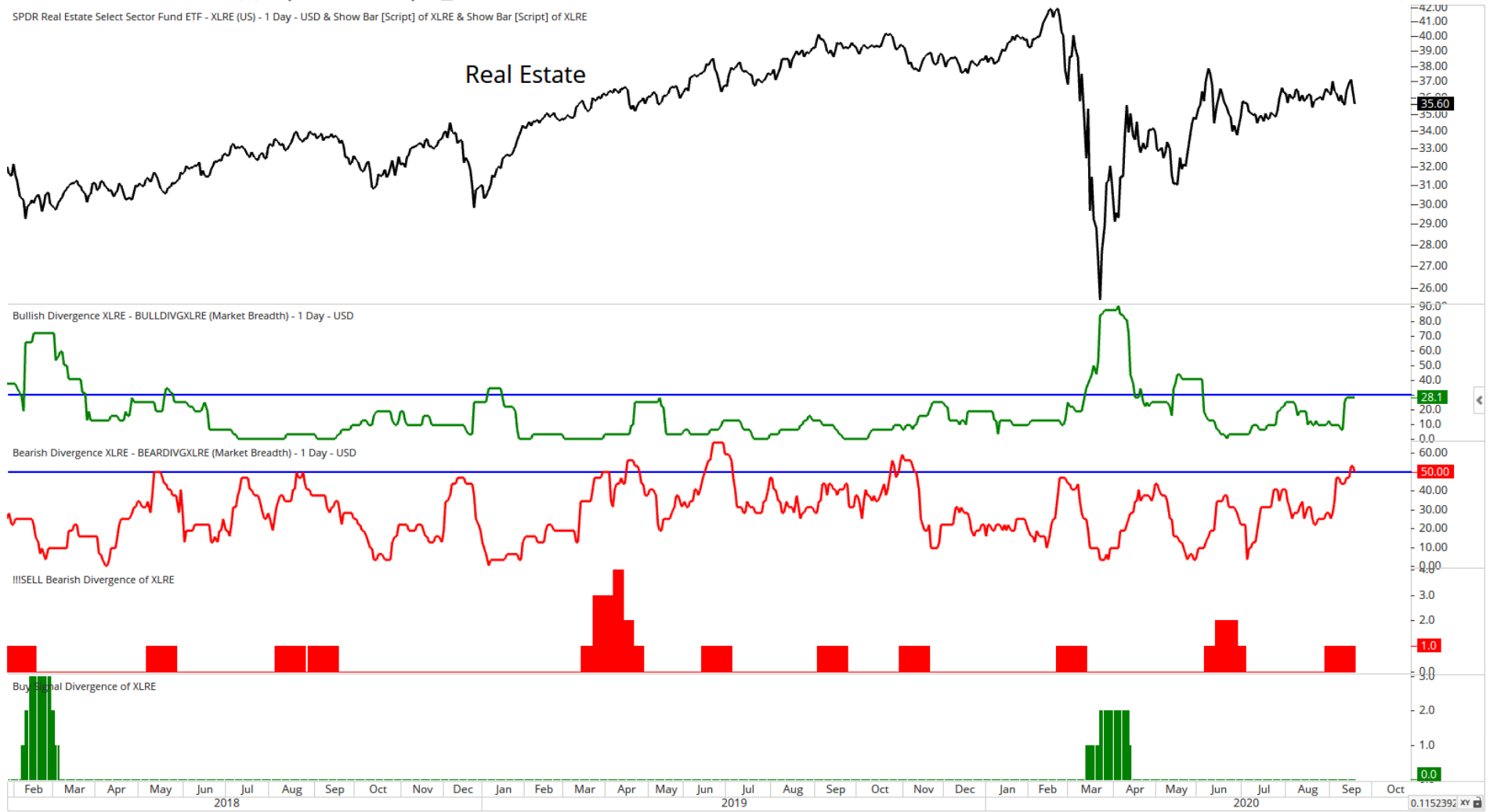
XLRE holding above 50-day MA but unable to get back to June high.



Breadth has flattened with price.

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

SPDR Real Estate Select Sector Fund ETF - XLRE (US) - 1 Day - USD & Show Bar [Script] of XLRE & Show Bar [Script] of XLRE



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Watch List

Ticker	Momentum
Utilities Momentum Score	
<input type="checkbox"/> AES	18.3022
<input type="checkbox"/> NEE	9.5638
<input type="checkbox"/> AWK	-3.1532
<input type="checkbox"/> DTE	-3.5790
<input type="checkbox"/> WEC	-5.0000
<input type="checkbox"/> XEL	-5.5819
<input type="checkbox"/> CMS	-8.7312
<input type="checkbox"/> LNT	-9.4505
<input type="checkbox"/> AEE	-9.5750
<input type="checkbox"/> CNP	-16.5244

Watch List

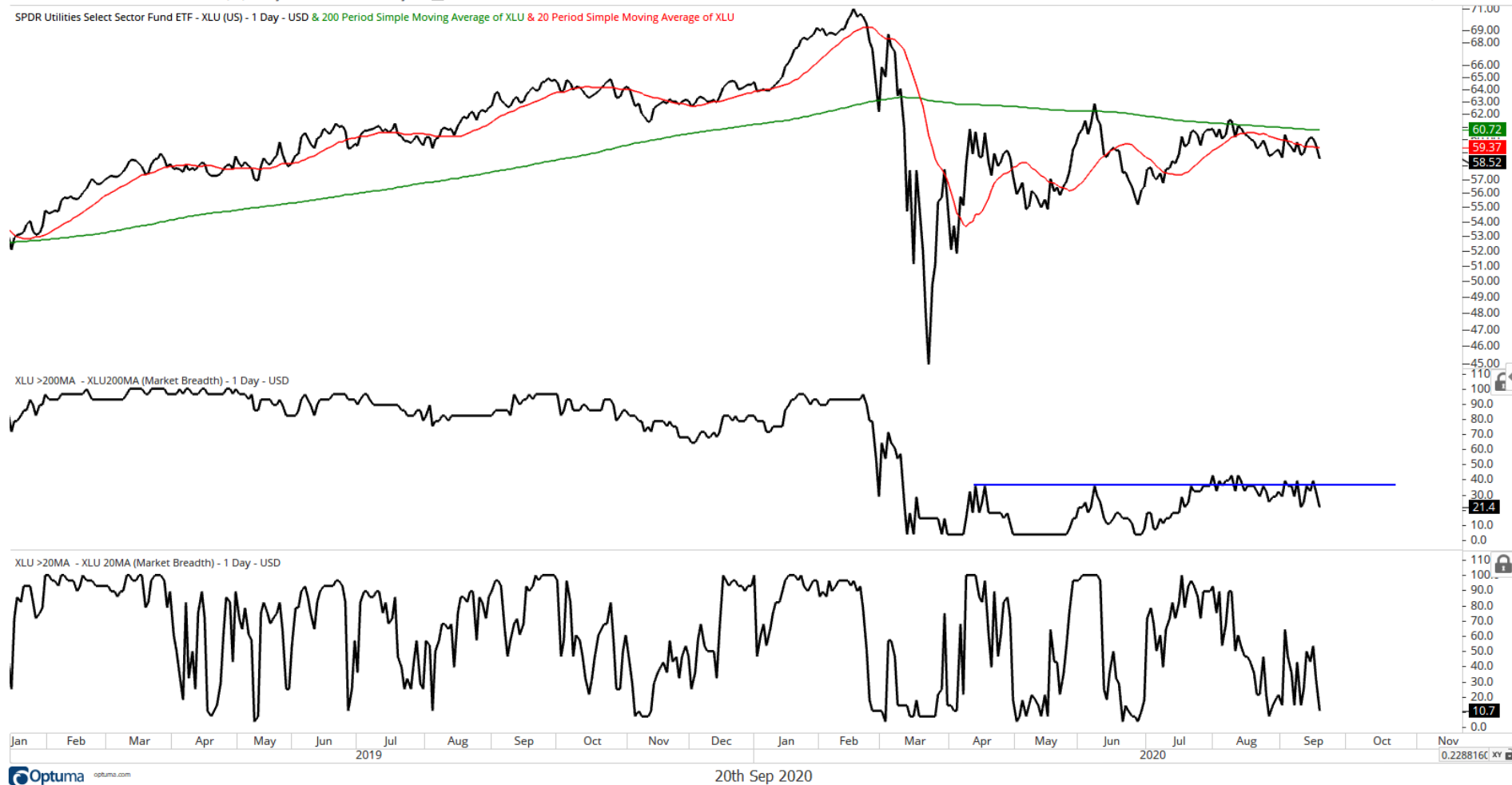
Ticker	Mean Reversion
Utilities Mean Reversion Score	
<input type="checkbox"/> ATO	-1.8898
<input type="checkbox"/> FE	-1.8637
<input type="checkbox"/> EVRG	-1.8404
<input type="checkbox"/> NI	-1.4526
<input type="checkbox"/> NRG	-1.4367
<input type="checkbox"/> PNW	-1.3829
<input type="checkbox"/> EIX	-1.3266
<input type="checkbox"/> AEP	-1.2724
<input type="checkbox"/> EXC	-1.1803
<input type="checkbox"/> ES	-1.0968
<input type="checkbox"/> ETR	-1.0762
<input type="checkbox"/> SO	-1.0607
<input type="checkbox"/> ED	-1.0054
<input type="checkbox"/> SRE	-0.9971
<input type="checkbox"/> DUK	-0.7181
<input type="checkbox"/> PPL	-0.6729
<input type="checkbox"/> D	-0.6195
<input type="checkbox"/> PEG	-0.5829
<input type="checkbox"/> CNP	-0.5415
<input type="checkbox"/> LNT	-0.4620

XLU continues to fail at the 200-day MA and is now also below the 50-day MA.



SPDR Utilities Select Sector Fund ETF - XLU (US) - 1 Day Line Chart - USD - No Layout

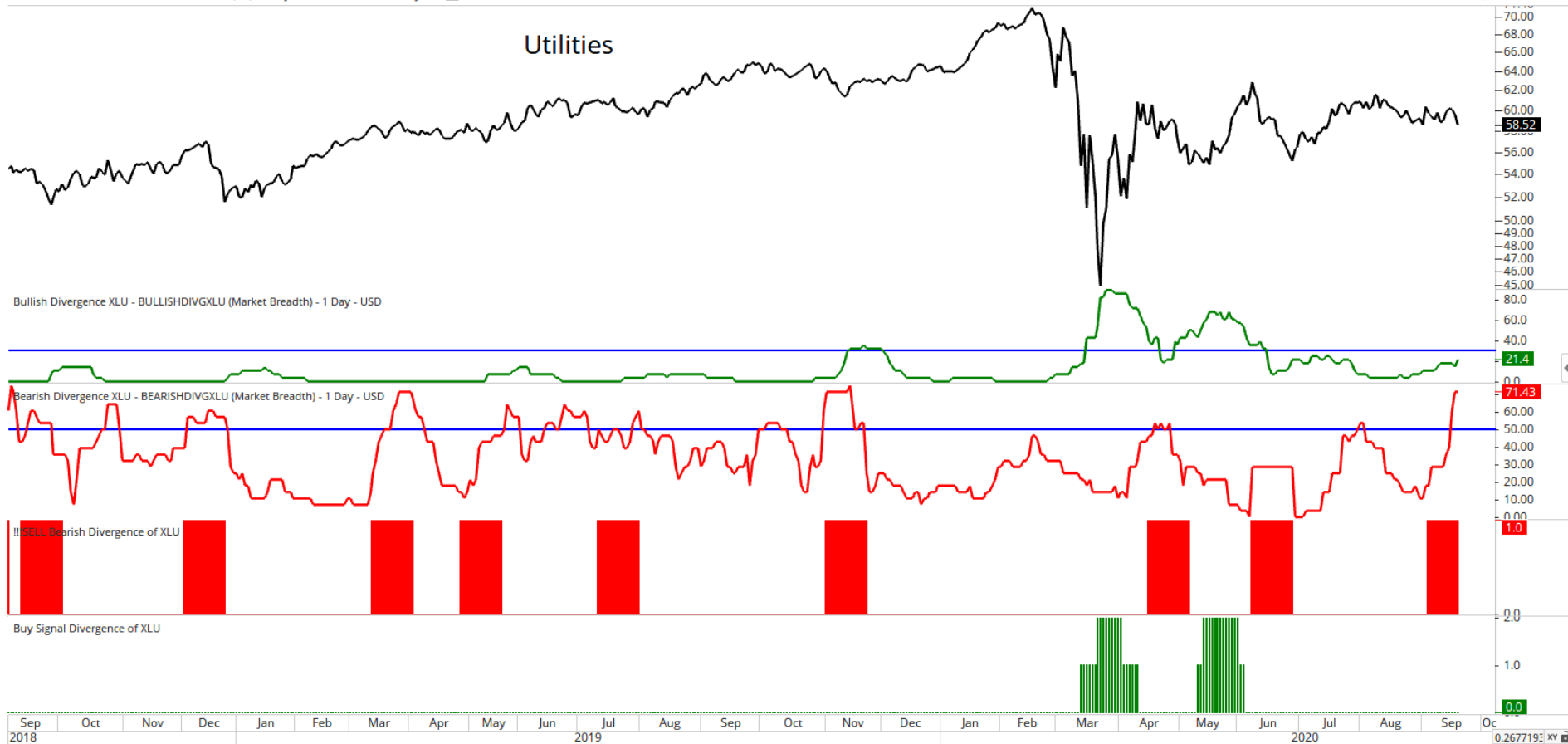
SPDR Utilities Select Sector Fund ETF - XLU (US) - 1 Day - USD & 200 Period Simple Moving Average of XLU & 20 Period Simple Moving Average of XLU



Breadth still waiting to expand with price.



SPDR Utilities Select Sector Fund ETF - XLU (US) - 1 Day Line Chart - USD - No Layout



Market	% Bullish ▲	5MA	History 📈
Lumber DSI	13	19.6	
Orange Juice DSI	25	21	
Natural Gas DSI	31.00	31.60	
Coffee DSI	33.00	43.20	
US Dollar DSI	35.00	34.00	
VIX DSI	43.00	36.60	
Nasdaq DSI	45.00	55.80	
SPX DSI	49.00	58.60	
British Pound DSI	51.00	52.60	
Heating Oil DSI	53.00	49.20	
Gold DSI	53.00	57.80	
Silver DSI	55.00	61.60	
Crude Oil DSI	55.00	47.60	
CRB Index DSI	55.00	53.00	
Sugar DSI	66.00	57.00	
Nikkei DSI	66.00	72.40	
Gasoline DSI	66.00	58.40	

<input type="checkbox"/>	Code	% Bullish ▲	5MA	History 📈
<input type="checkbox"/>	Platinum DSI	67.00	76.20	
<input type="checkbox"/>	New Zealand Dollar DSI	68.00	67.00	
<input type="checkbox"/>	Swiss Franc DSI	69.00	71.00	
<input type="checkbox"/>	Palladium DSI	69.00	68.80	
<input type="checkbox"/>	Euro DSI	72.00	71.80	
<input type="checkbox"/>	EuroDollar DSI	73.00	72.20	
<input type="checkbox"/>	Cotton DSI	73.00	73.40	
<input type="checkbox"/>	10Y DSI	73.00	74.80	
<input type="checkbox"/>	5YR DSI	73.00	73.80	
<input type="checkbox"/>	Australian Dollar DSI	75.00	74.20	
<input type="checkbox"/>	Lean Hog DSI	76.00	75.00	
<input type="checkbox"/>	Cattle DSI	76.00	73.00	
<input type="checkbox"/>	Cocoa DSI	77.00	73.40	
<input type="checkbox"/>	Wheat DSI	78.00	66.20	
<input type="checkbox"/>	Corn DSI	79.00	73.40	
<input type="checkbox"/>	Copper DSI	80	76.60	
<input type="checkbox"/>	Mexican Peso DSI	84	85.6	

Sour

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

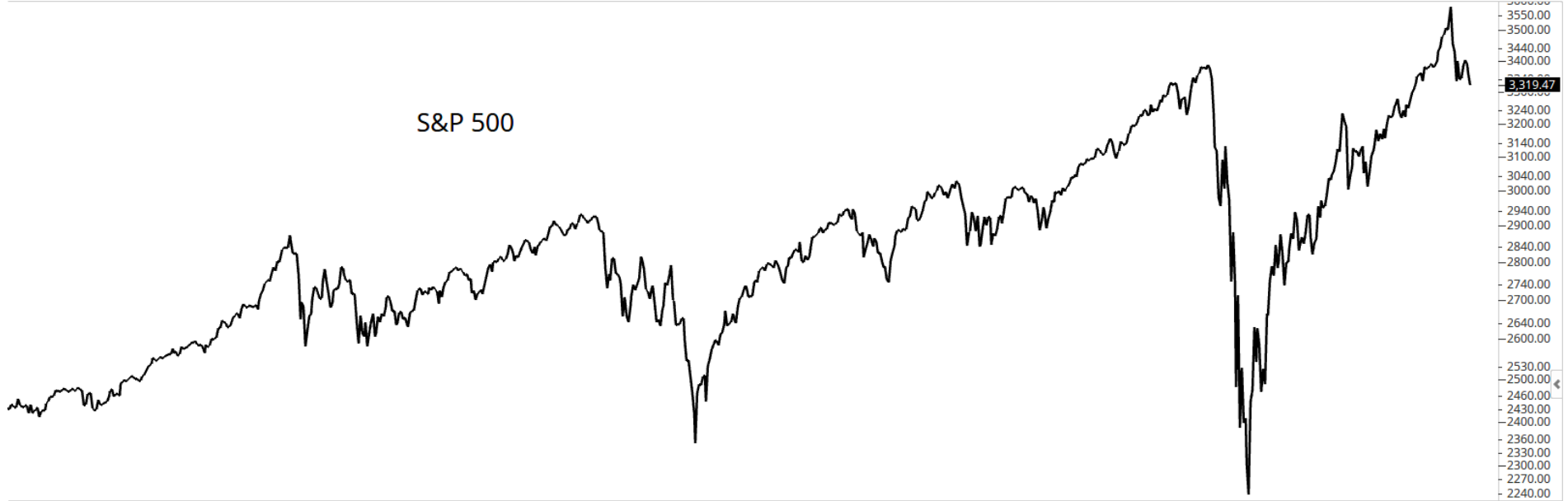
10-Year T-Note (P) Continuation - TY_FSpot (CBOT) - 1 Day Line Chart - USD - No Layout



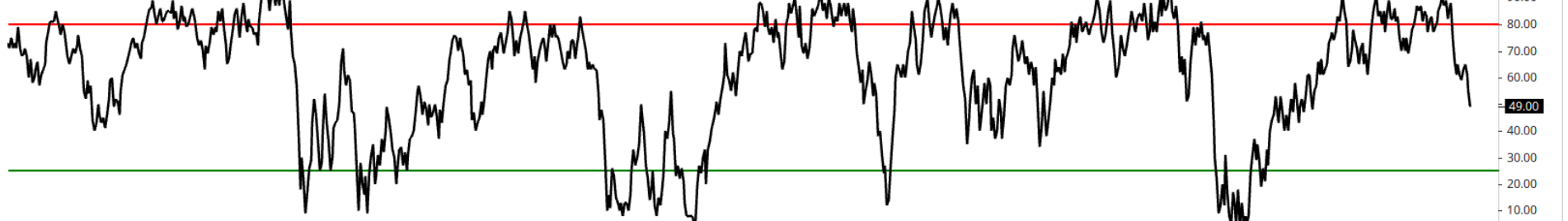
Source: trade-futures.com



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



SPX DSI (DSI) - 1 Day - USD

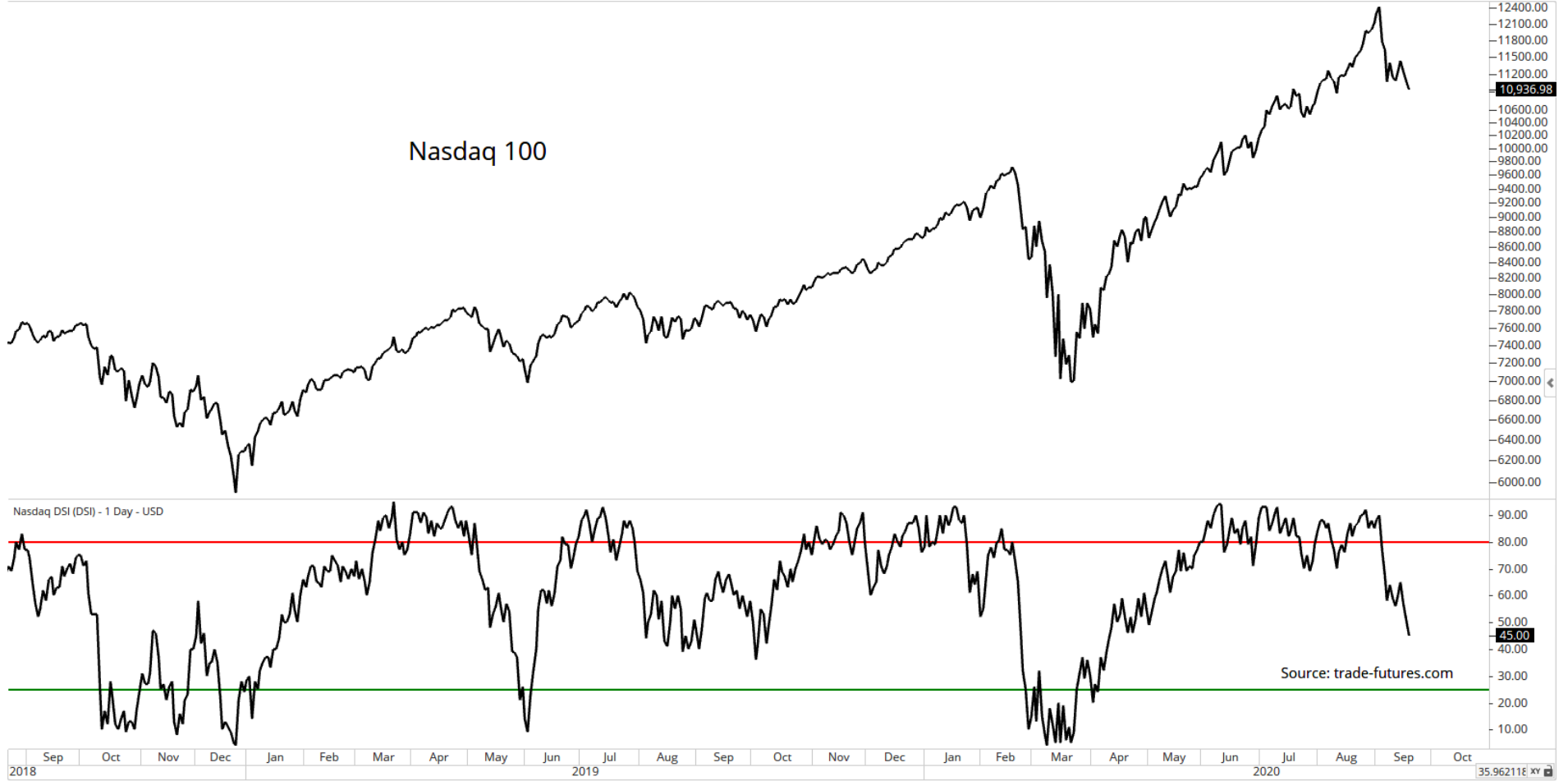


Jun 2017 Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep 2018 2019 2020 4.885775e xy



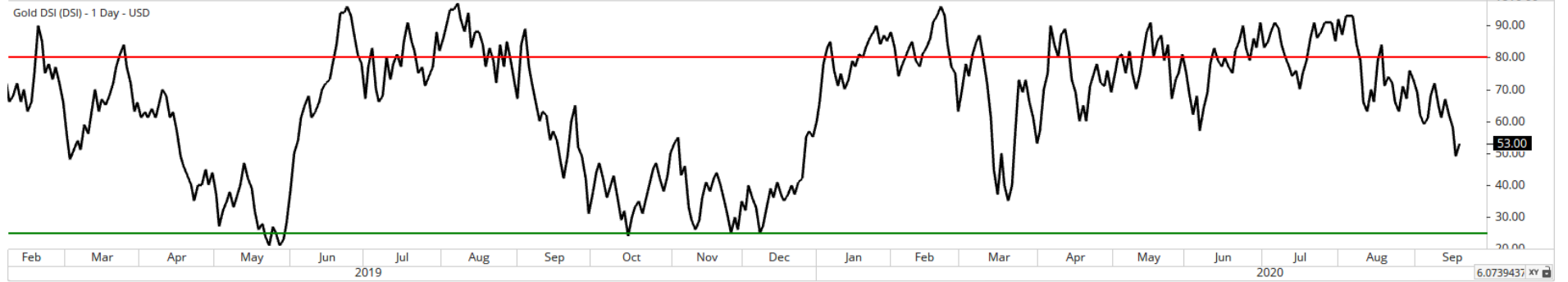
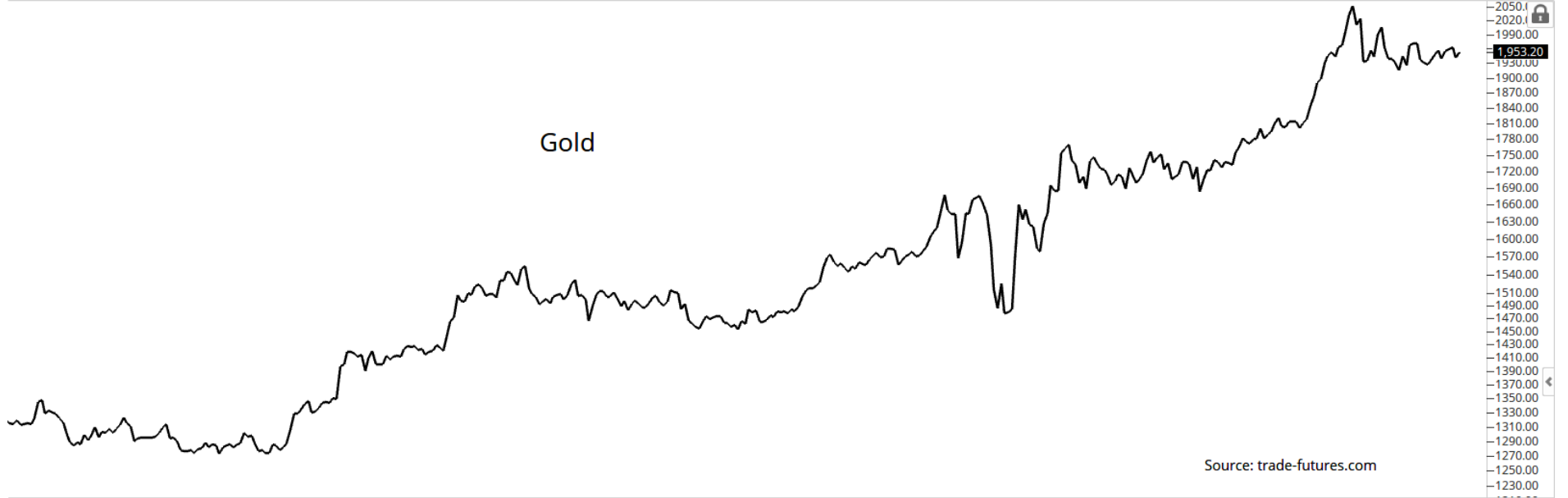
20th Sep 2020

NASDAQ 100 Index - NDY (WI) - 1 Day Line Chart - USD - No Layout





Gold Futures - GCSPot (NYMEX) - 1 Day Line Chart - USD - No Layout



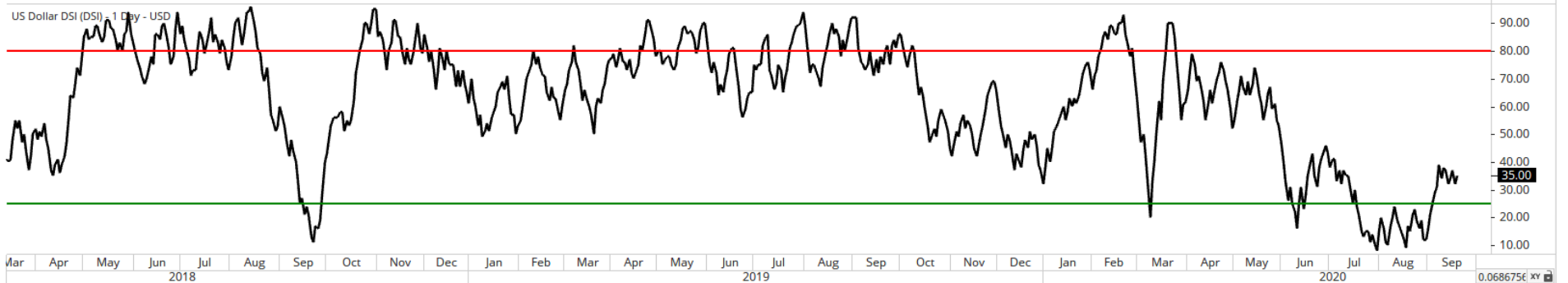
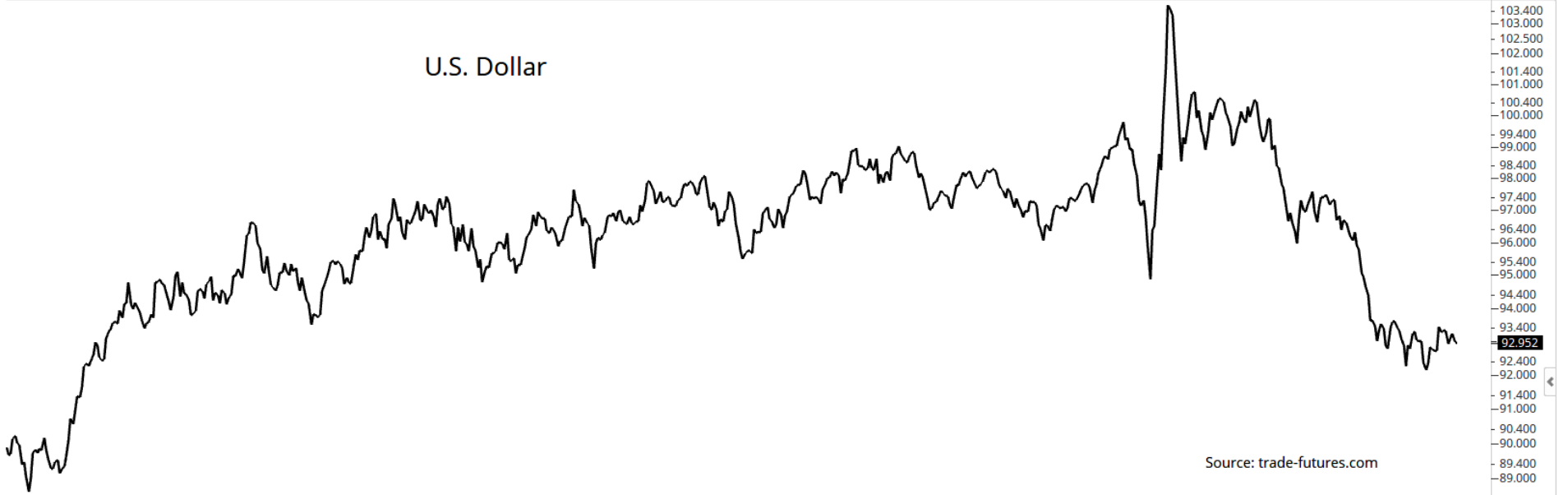
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20th Sep 2020

6.0739437 xy

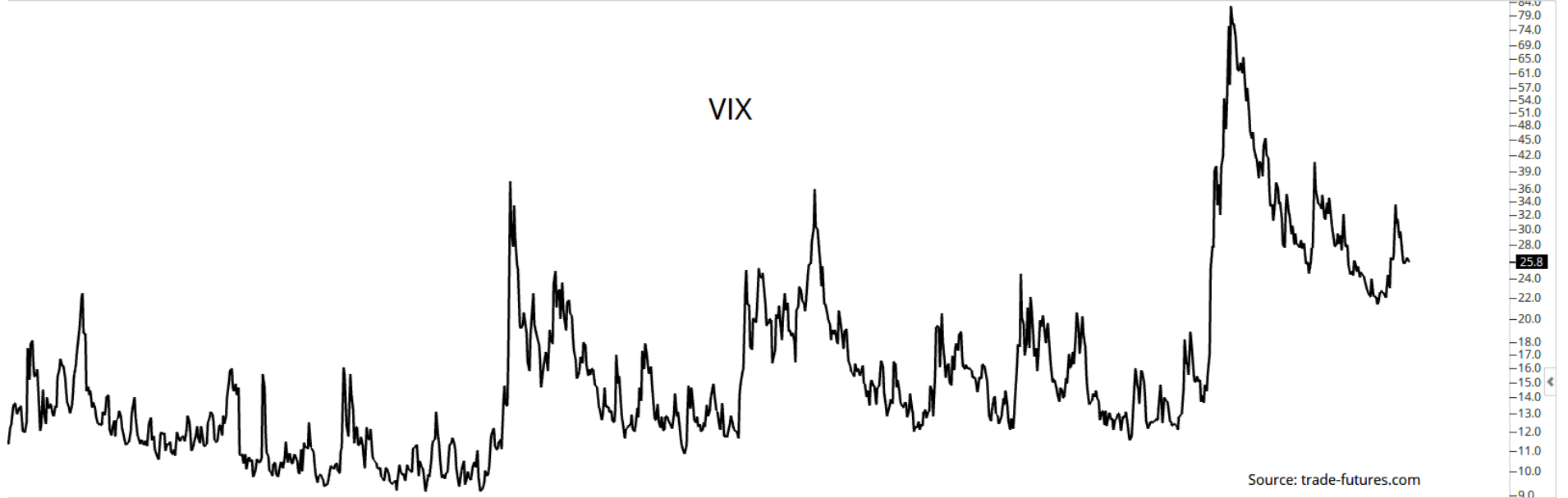


U.S. Dollar Index - DXSpot (AFUT) - 1 Day Line Chart - USD - No Layout



Optima optima.com 20th Sep 2020 0.068675€ xy

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

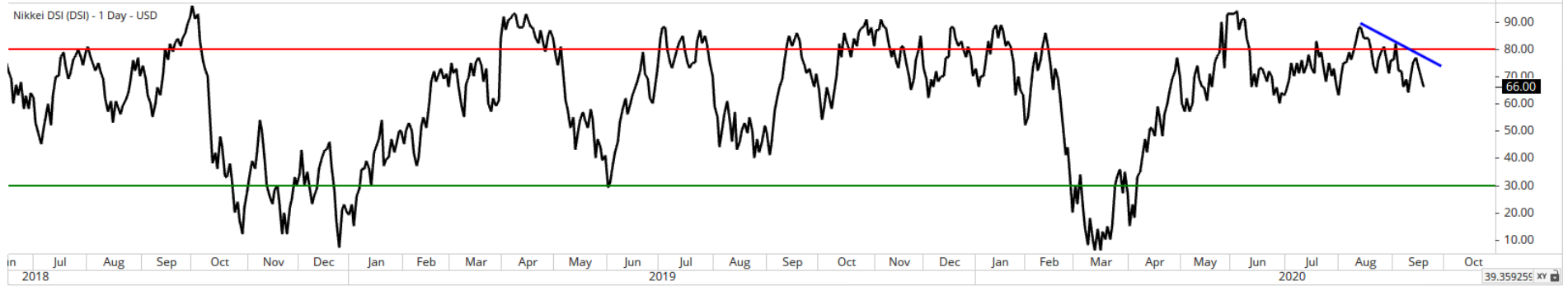
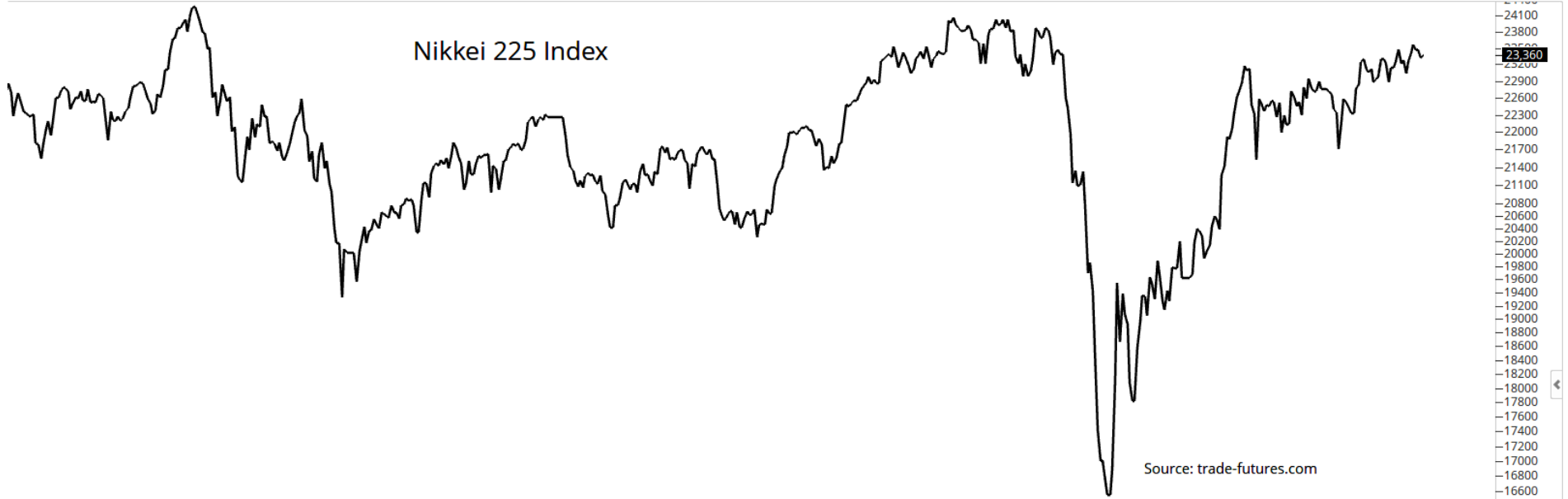


VIX DSI (DSI) - 1 Day - USD





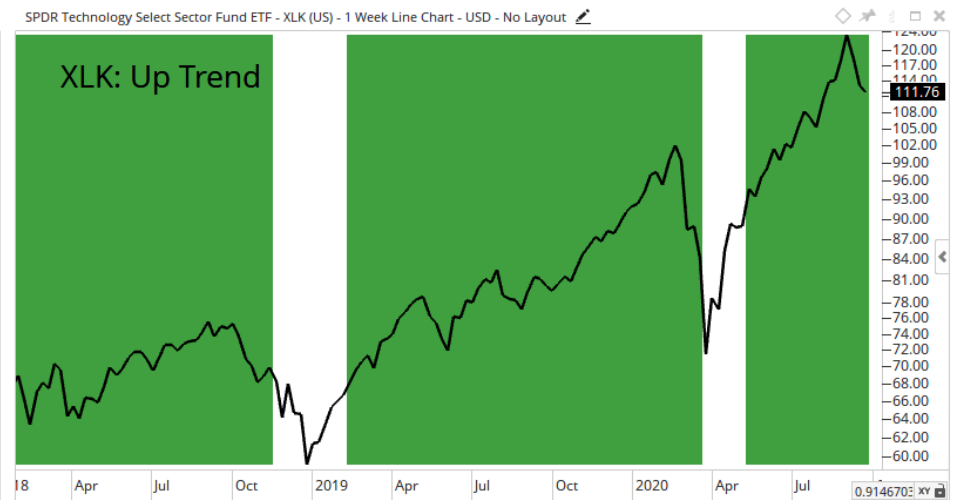
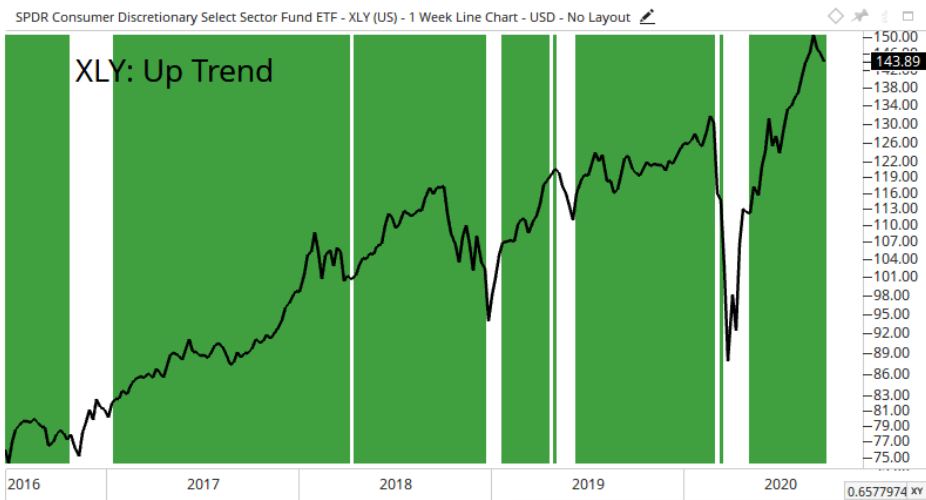
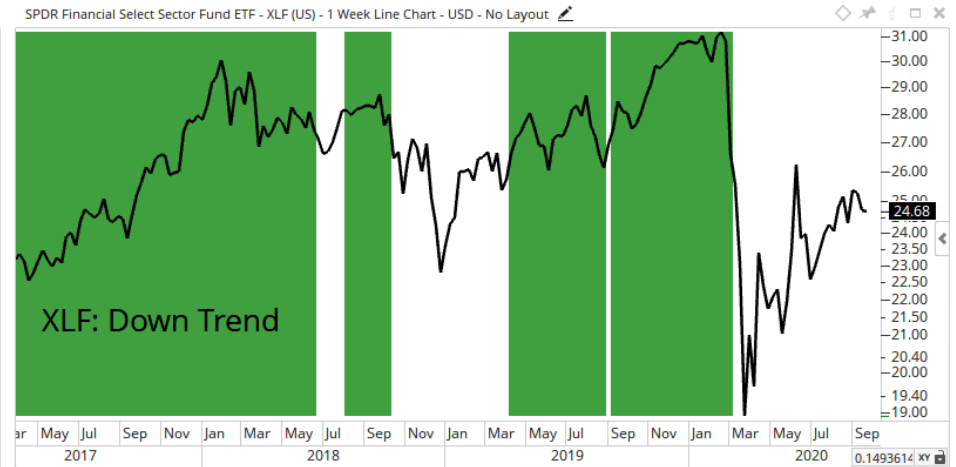
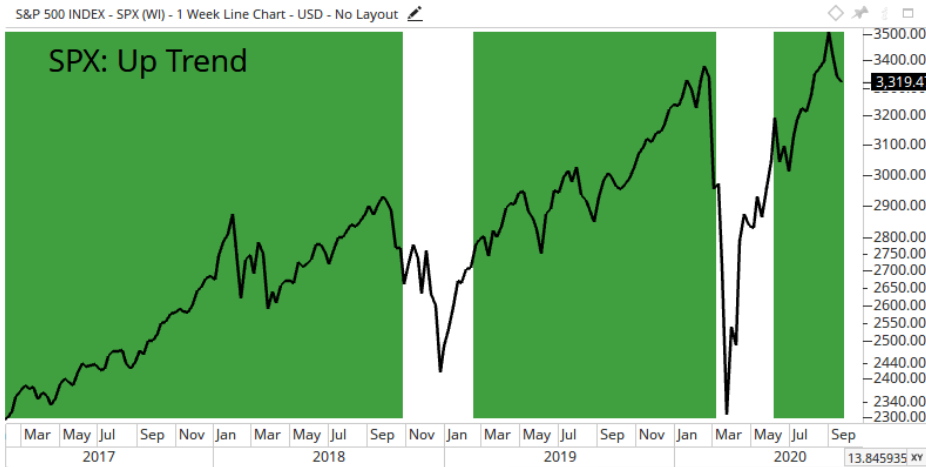
NIKKEI 225 INDEX - NYCash (CME) - 1 Day Line Chart - USD - No Layout

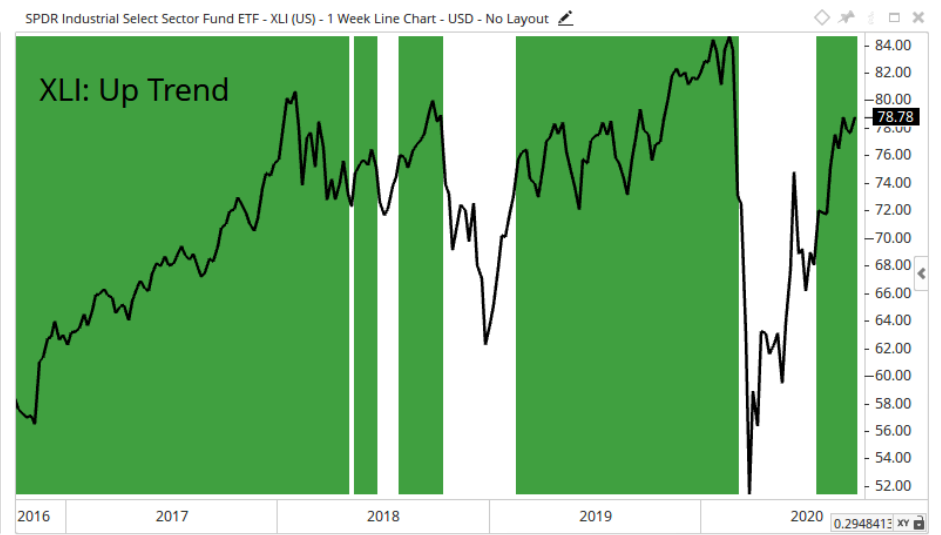
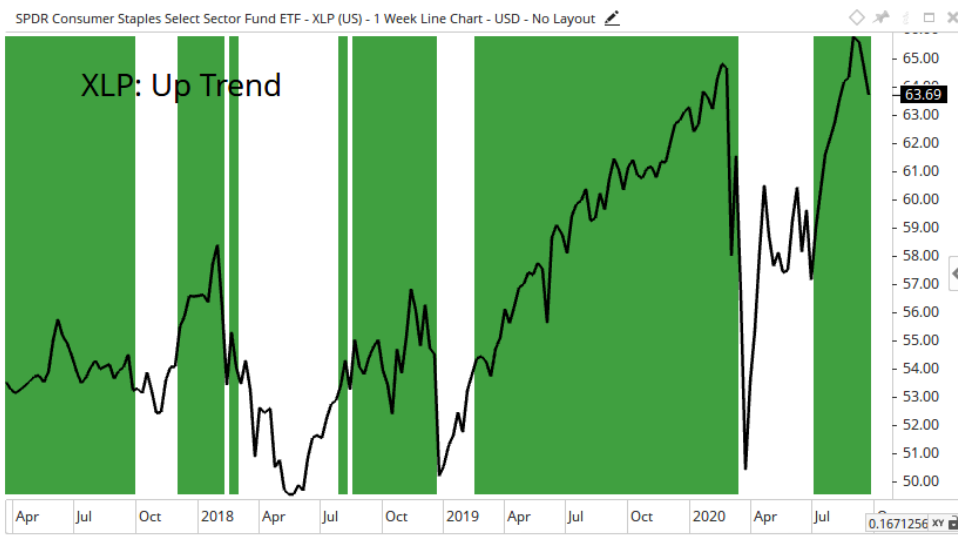
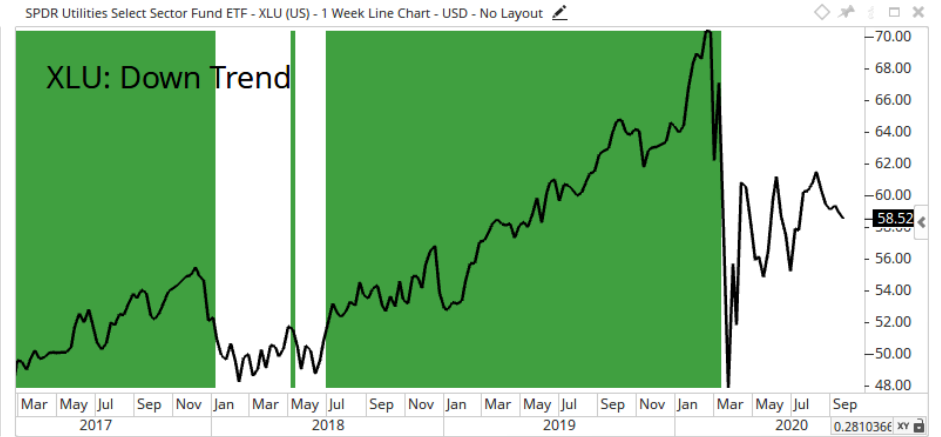
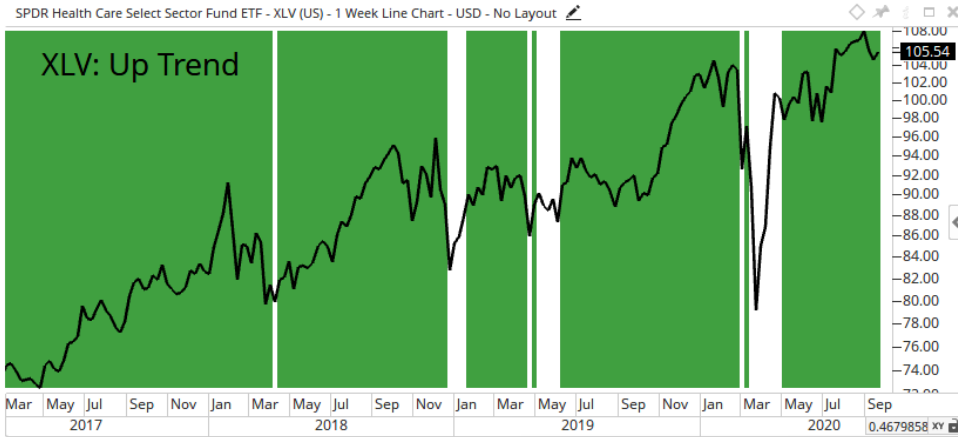


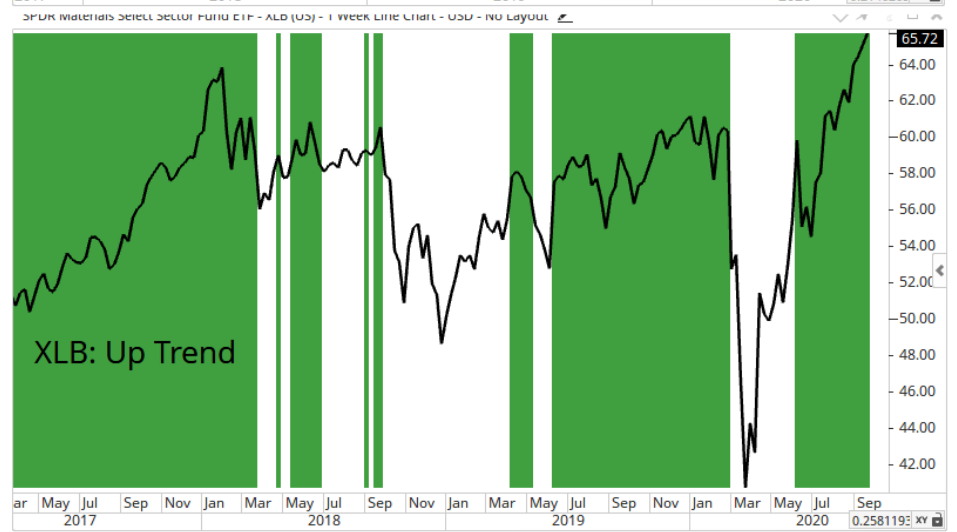
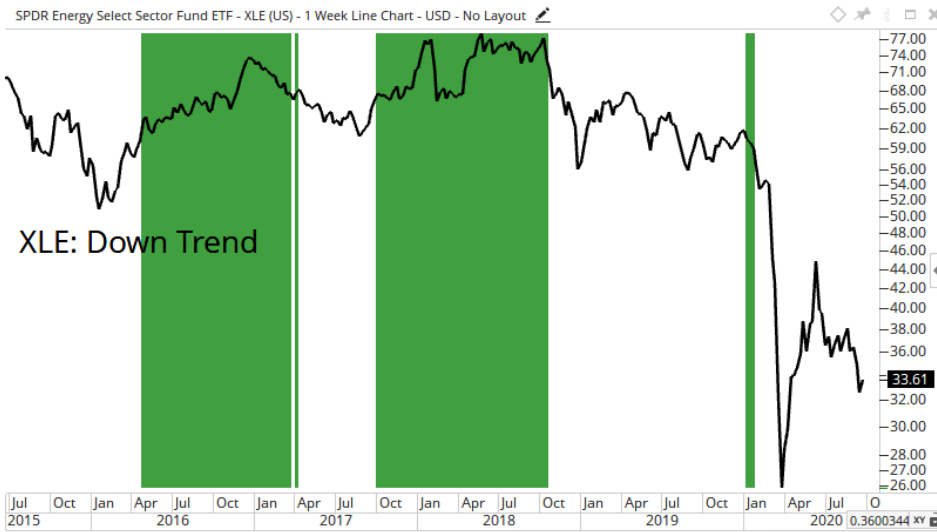
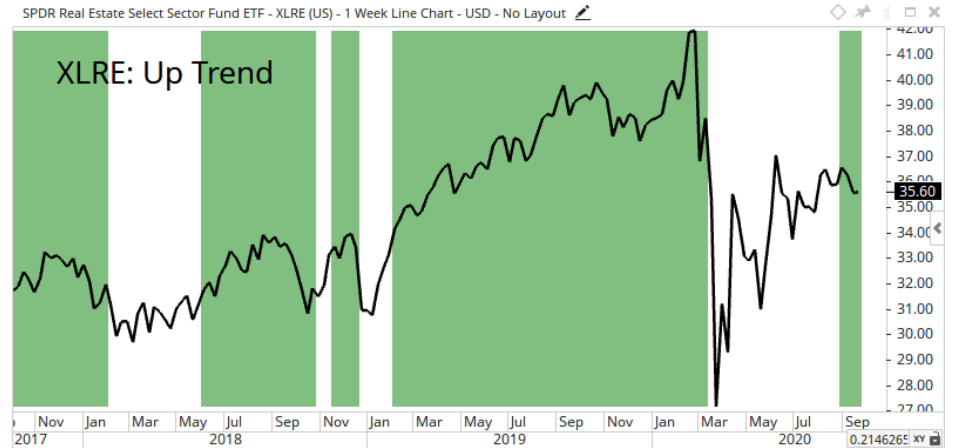
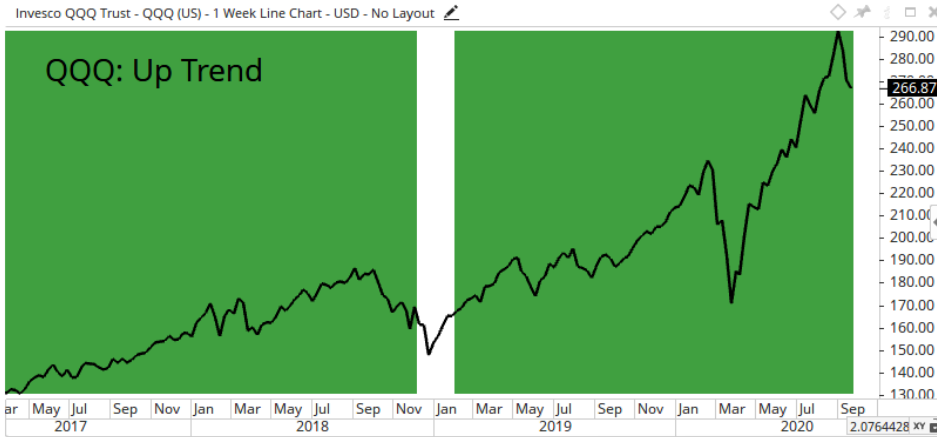
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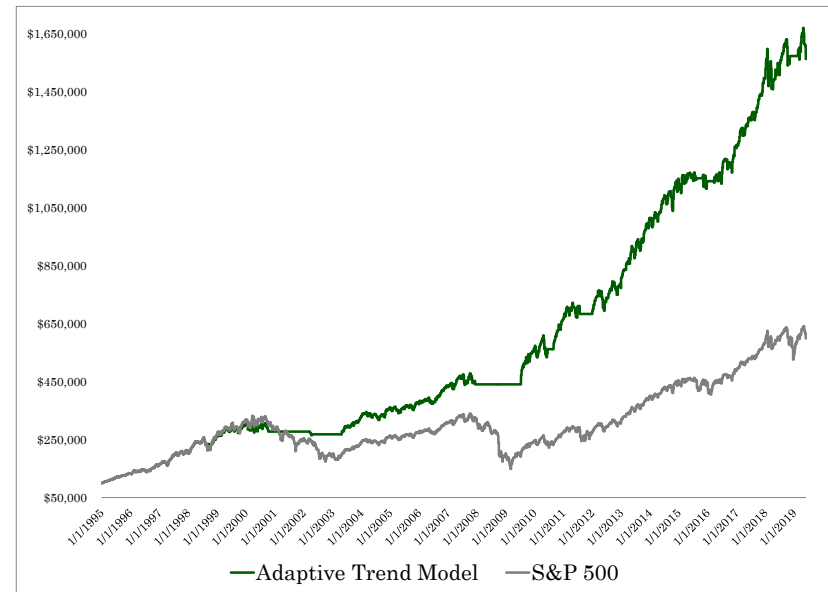
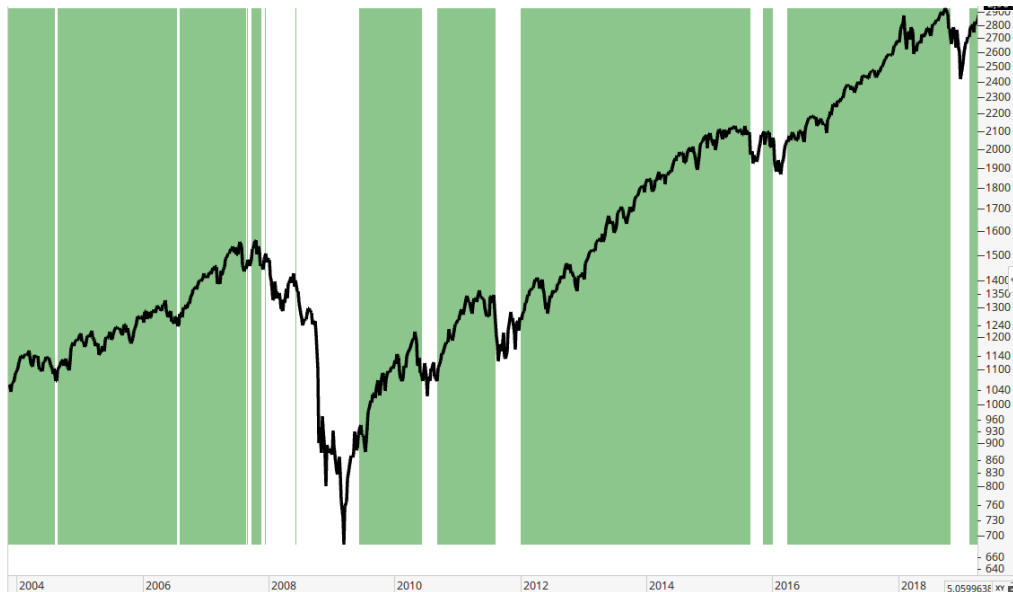






Trend-based analysis is a process built on the idea of enduring minor pullbacks in the anticipating of avoiding protracted drawdowns in financial markets. With a focus on stepping out of the market during large down trends, the Thrasher Analytics Adaptive Trend Model (TAATM) pursues to minimize the “whipsaws”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

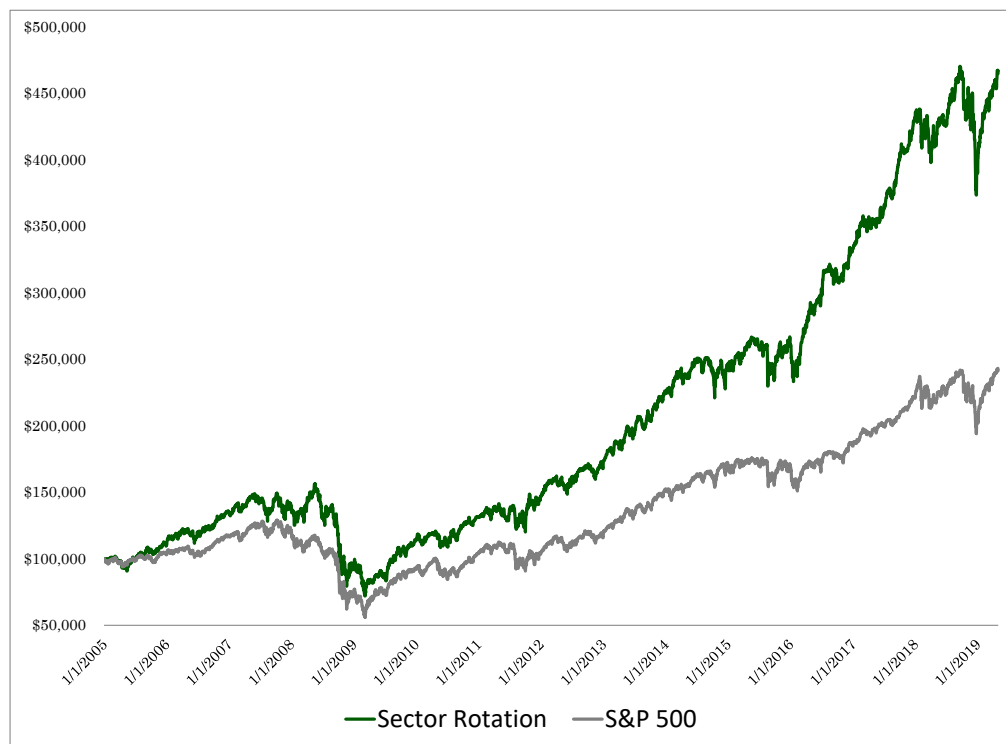


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Adaptive Trend	12.5%	10.3%	0.47	0.97	14.1%
S&P 500	8.9%	15.3%	1	0.42	56.6%

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.

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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.

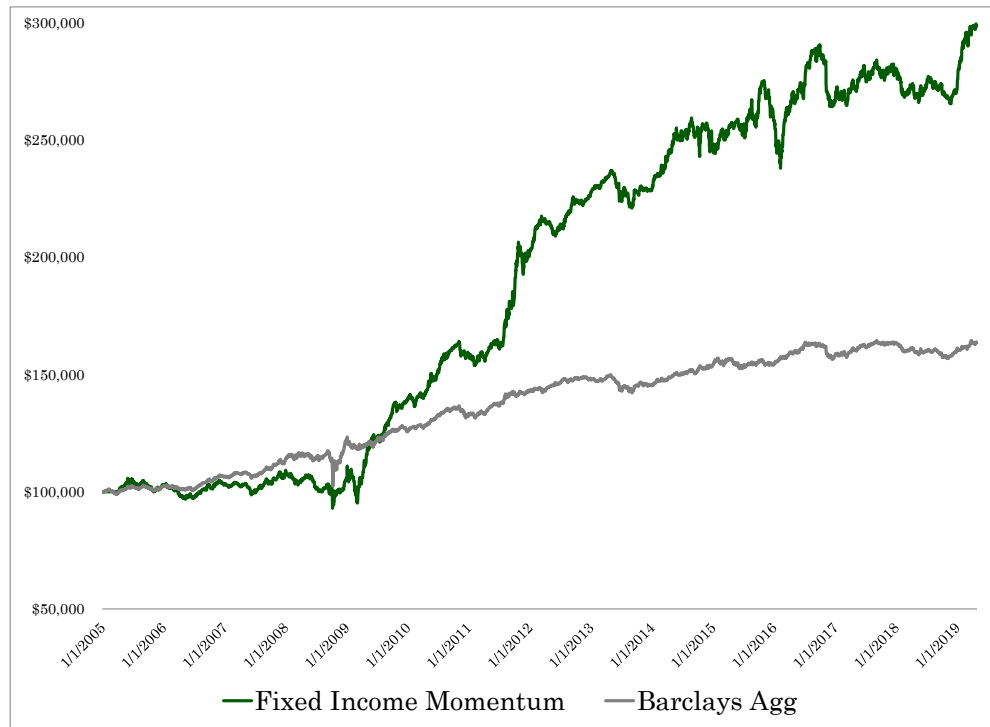


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Sector Rotation	12.7%	15.9%	0.96	0.64	53.9%
S&P 500	7.5%	14.8%	1	0.34	56.6%

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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.

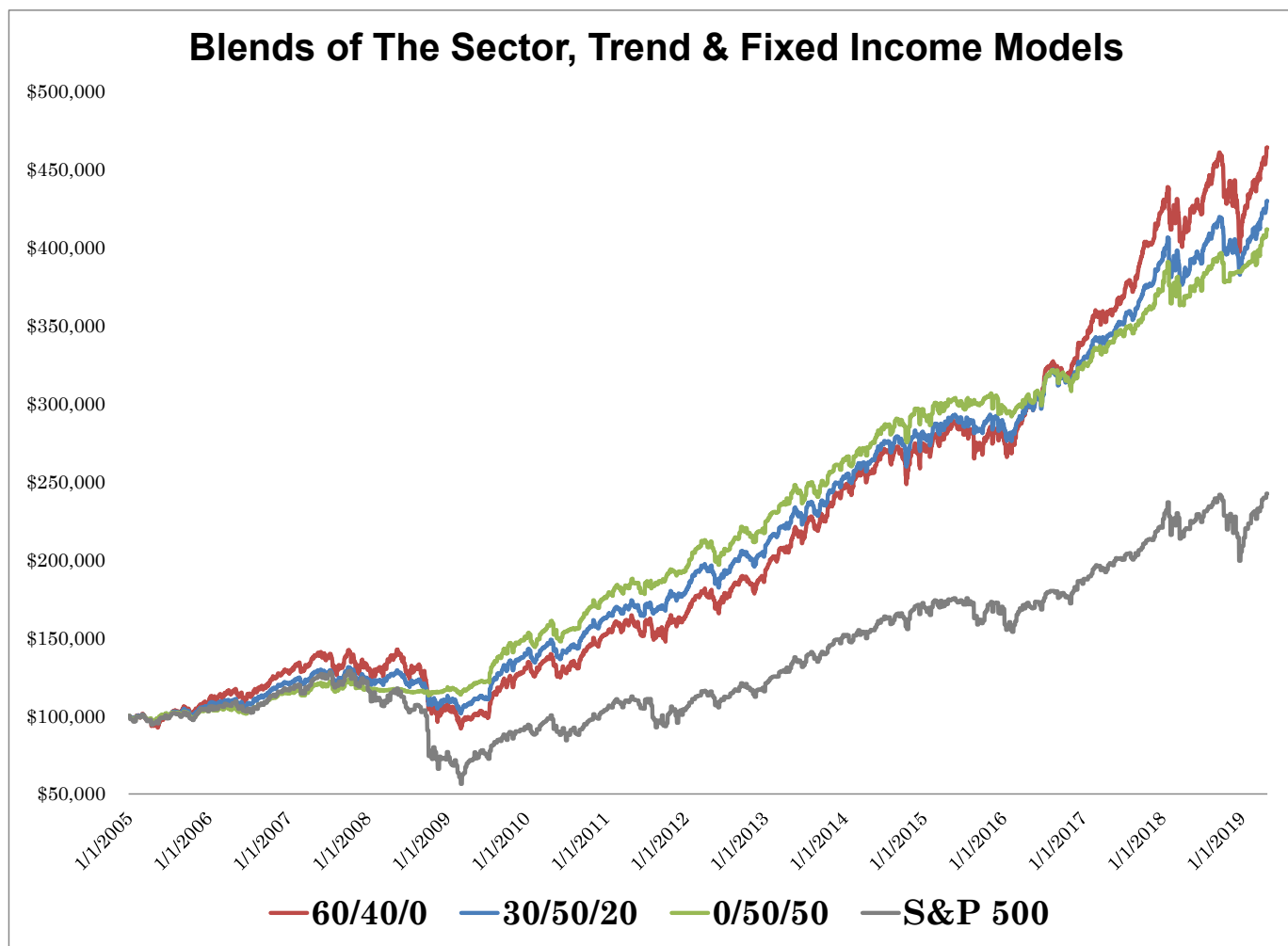


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Fixed Income Momentum	8.3%	8.2%	1.04	0.7	14.9%
Barclays Agg	3.6%	3.7%	1	0.29	11.0%

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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.



The above chart shows examples of blending the sector, trend, and fixed income models . Ranging from an all equity approach of 60% in sector rotation, 40% trend and 0% in fixed income; 30% in sector rotation, 50% in trend, and 20% in fixed income; 0% in sector rotation, 50% in trend, and 50% in fixed income.

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

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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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