THRASHER ANALYTICS

WEEKLY RESEARCH & ANALYSIS

ThrasherAnalytics.com

Thrasher Analytics Market Dashboard

THRASHER ANALYTICS

Sector Rotation: June	
Technology	XLK
Health Care	XLV
Communications	XLC

Fixed Income Rotation: Q2	
Emerging Mkt Sovereign	PCY
Convertible Bond	CWB

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	

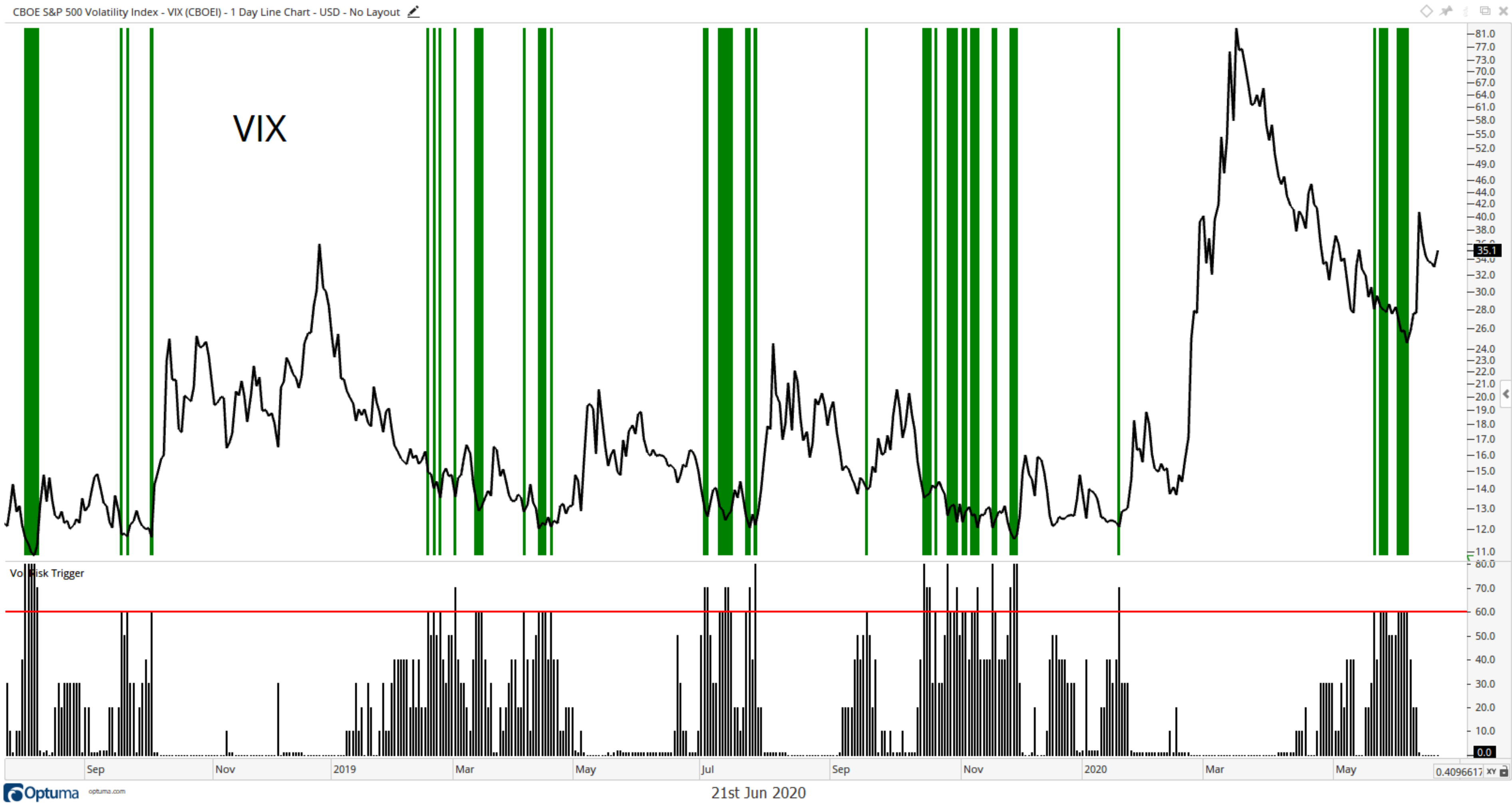
Daily Sentiment Index	% Bullish	5-day MA
S&P 500	65%	72%
Nasdaq 100	79%	84%
Nikkei	68%	70%
VIX	30%	27%
10yr Treasury	51%	46%
5yr Treasury	50%	50%
CRB Index	76%	71%
Gold	82%	78%
U.S. Dollar	43%	34%

**Green<25%   Red>80%*

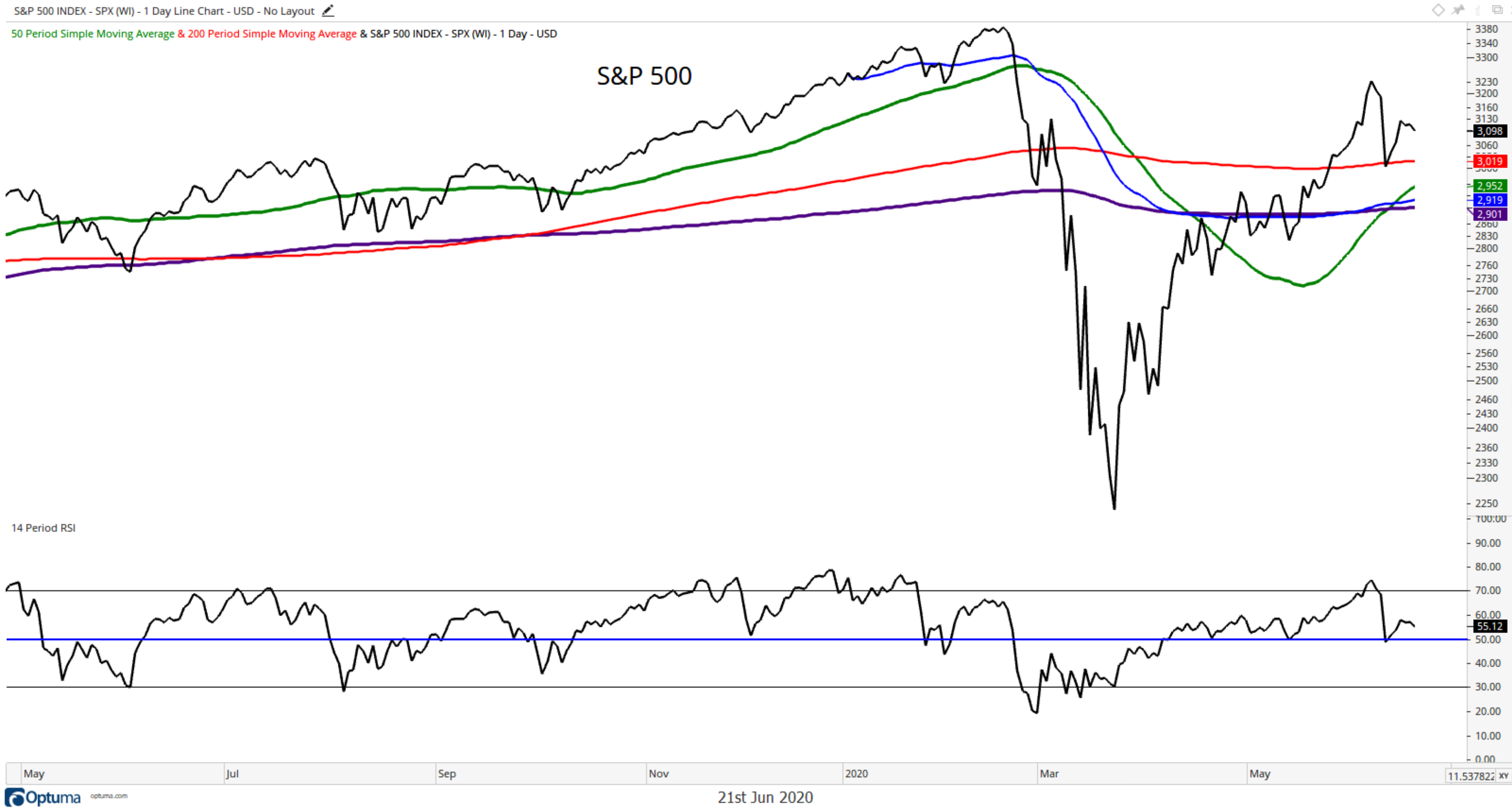
Notable Breadth Data:	
SPX >50MA	75.25%
SPX >200MA	38.61%
Nasdaq >50MA	89.32%
Nasdaq >200MA	69.90%

Sector	> 50MA	> 200MA	1wk Perf	1mo Perf	3mo Perf	12mo Perf
SPDR Health Care Select Sector Fund ETF	True	True	3.23%	0.72%	22.49%	8.02%
SPDR Technology Select Sector Fund ETF	True	True	2.85%	7.16%	36.59%	31.38%
SPDR Communication Services Select Sector ETF	True	True	2.62%	6.15%	31.99%	13.35%
SPDR Consumer Staples Select Sector Fund ETF	True	False	2.58%	4.18%	10.63%	1.33%
SPDR Materials Select Sector Fund ETF	True	False	2.07%	6.64%	33.16%	-2.24%
SPDR Consumer Discretionary Select Sector Fund ETF	True	True	1.63%	6.67%	40.75%	6.45%
SPDR Financial Select Sector Fund ETF	True	False	0.63%	11.07%	22.28%	-12.16%
SPDR Industrial Select Sector Fund ETF	True	False	0.6%	10.64%	27.94%	-9.56%
SPDR Real Estate Select Sector Fund ETF	True	False	-0.53%	10.95%	22.79%	-7.63%
SPDR Energy Select Sector Fund ETF	True	False	-0.63%	4.57%	54.51%	-36.48%
SPDR Utilities Select Sector Fund ETF	False	False	-2.01%	2.44%	10.69%	-5.52%

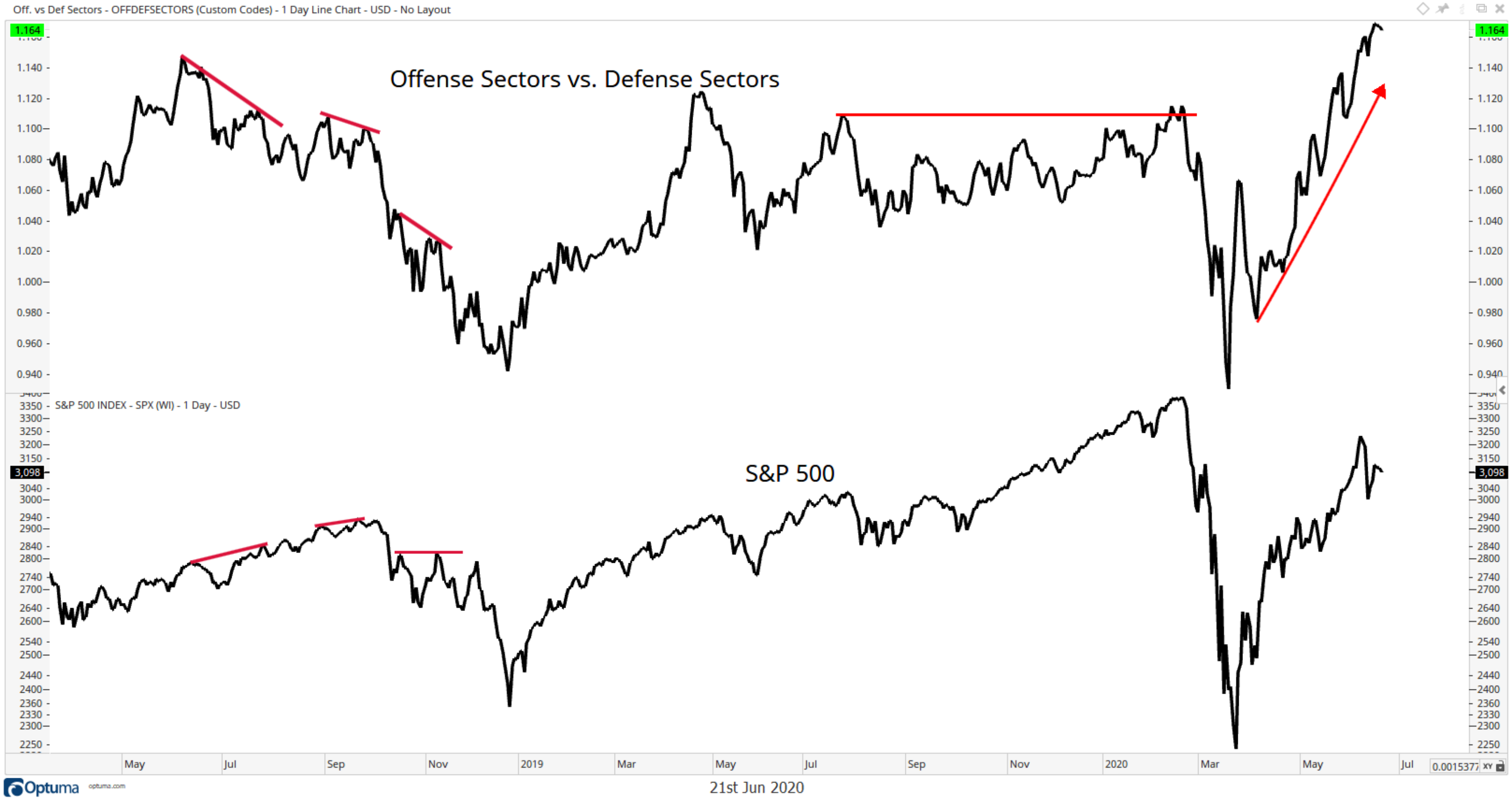
Volatility Risk Trigger (VRT)



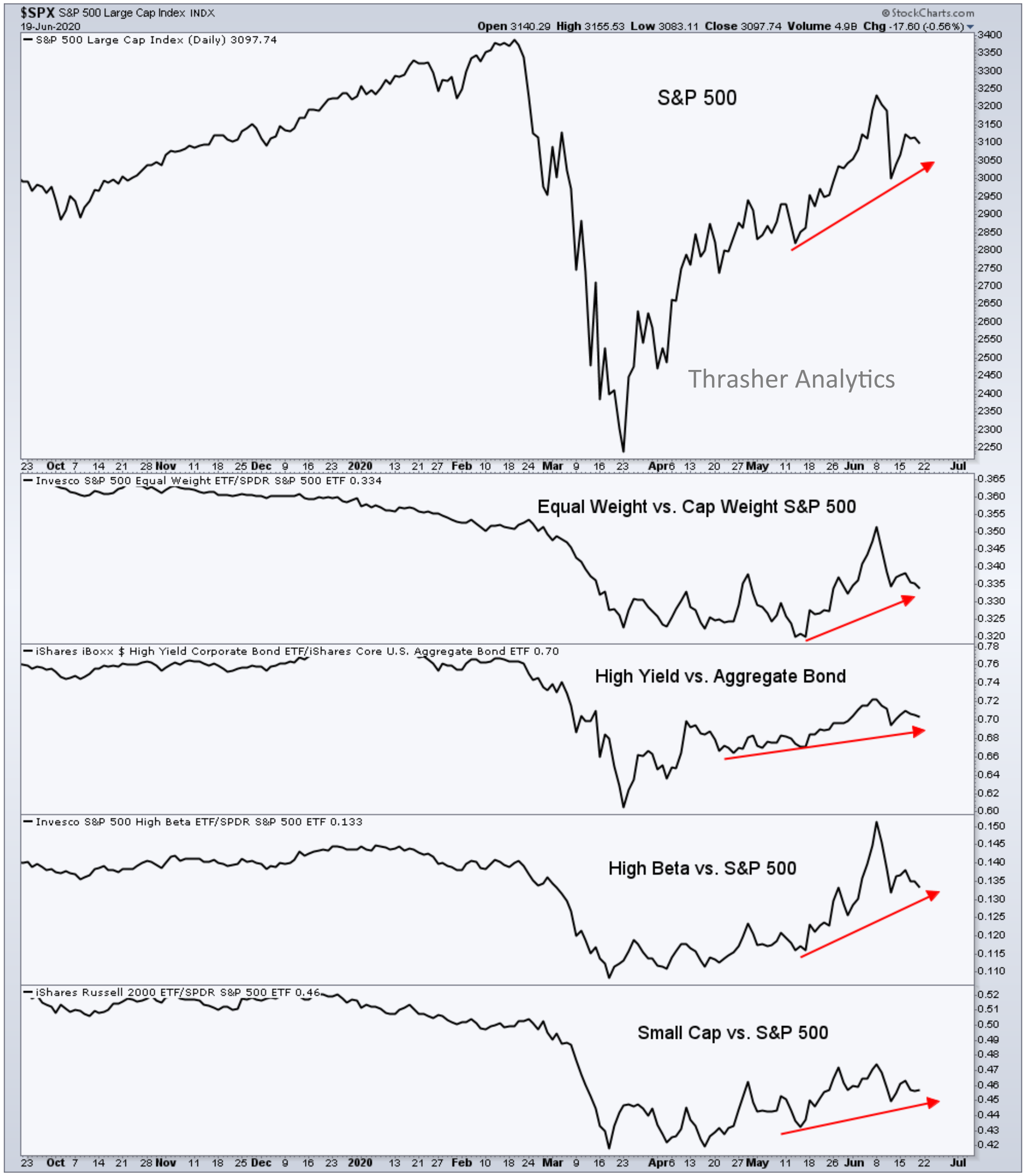
Thee trigger warnings from the VRT (green bars on the chart above) proved puissant, preceding the move in the VIX from under 30 up to 40. The VRT paired with the flattening of the volatility futures curve gave great insight that the volatility market was due to release some pressure. As I've written about in the last few weeks regarding the VRT, signals at these higher levels are less predictive, so while the VIX did move about 10 points, I'm not surprised we didn't see a larger advance in volatility than that. From here we'll see if vol moves back to being inversely correlated with equities, a condition that hasn't been present lately. A break to new short-term high in SPX needs to be accompanied with a lower-low in the VIX for the bulls to regain control.



The S&P 500 came down to test the 200-day MA following the largest single day decline in the index since March. The signals given off from the divergences charts marked the high, I'll be writing more on these later in the letter. I previously mentioned I was watching the 'cluster' of moving averages around the 2900-2950 area, this is still an area of potential support if we see equities drift lower in coming weeks. On the upside, the prior short-term high just under 3300 needs to be taken out and is the obviously price level traders will be watching on a move higher. Momentum held its midpoint for the Relative Strength Index (RSI), a bullish development and one I'll continue to monitor on any further downside.

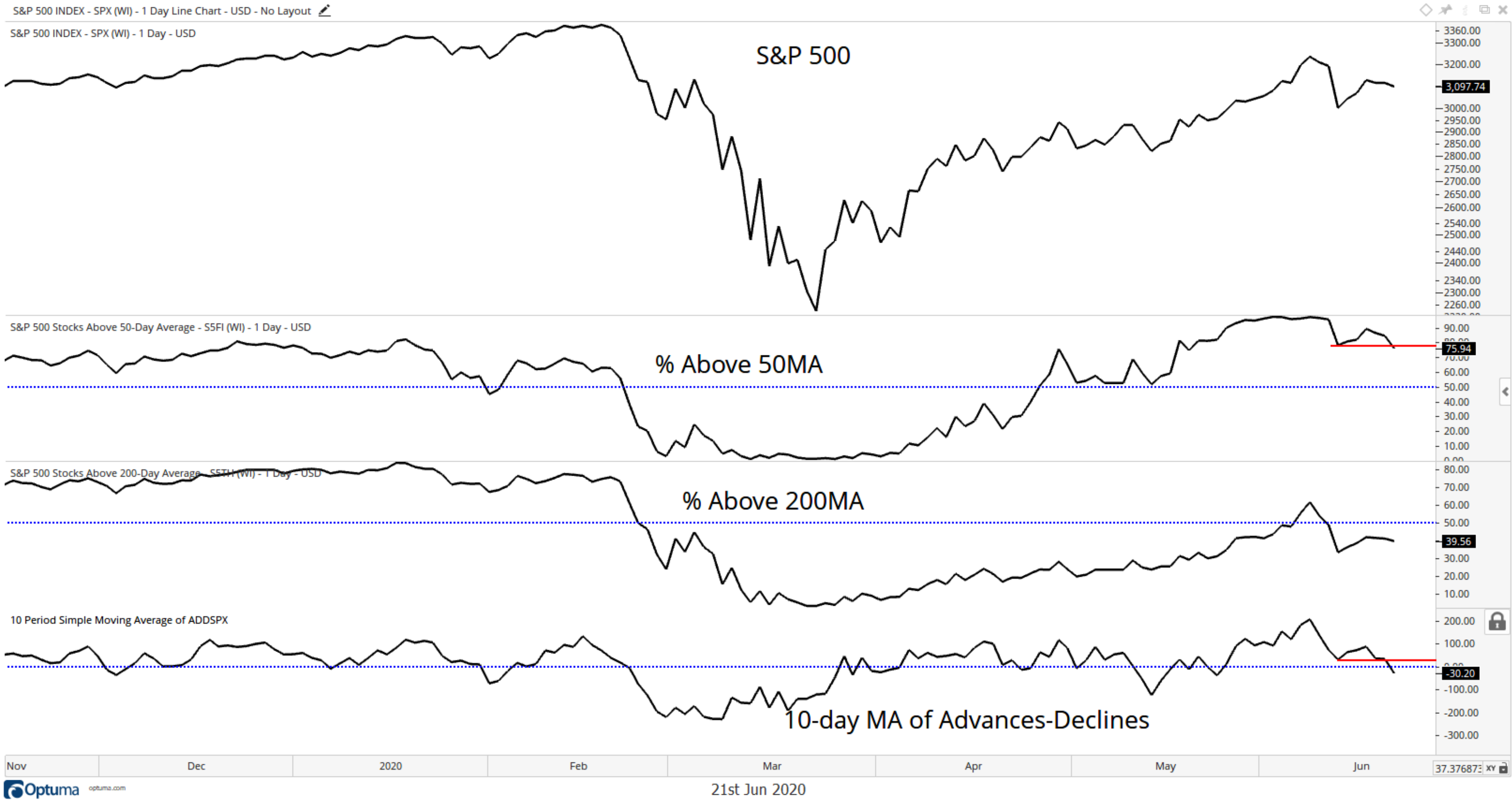


The strongest sectors continue to be the offensive sectors, holding up extremely well during the large one-day drop recently experienced by the equity index. Tech, health care, and communications were the strongest sectors last week (and also happen to be the three Thrasher Analytics sector rotation overweight's this month).

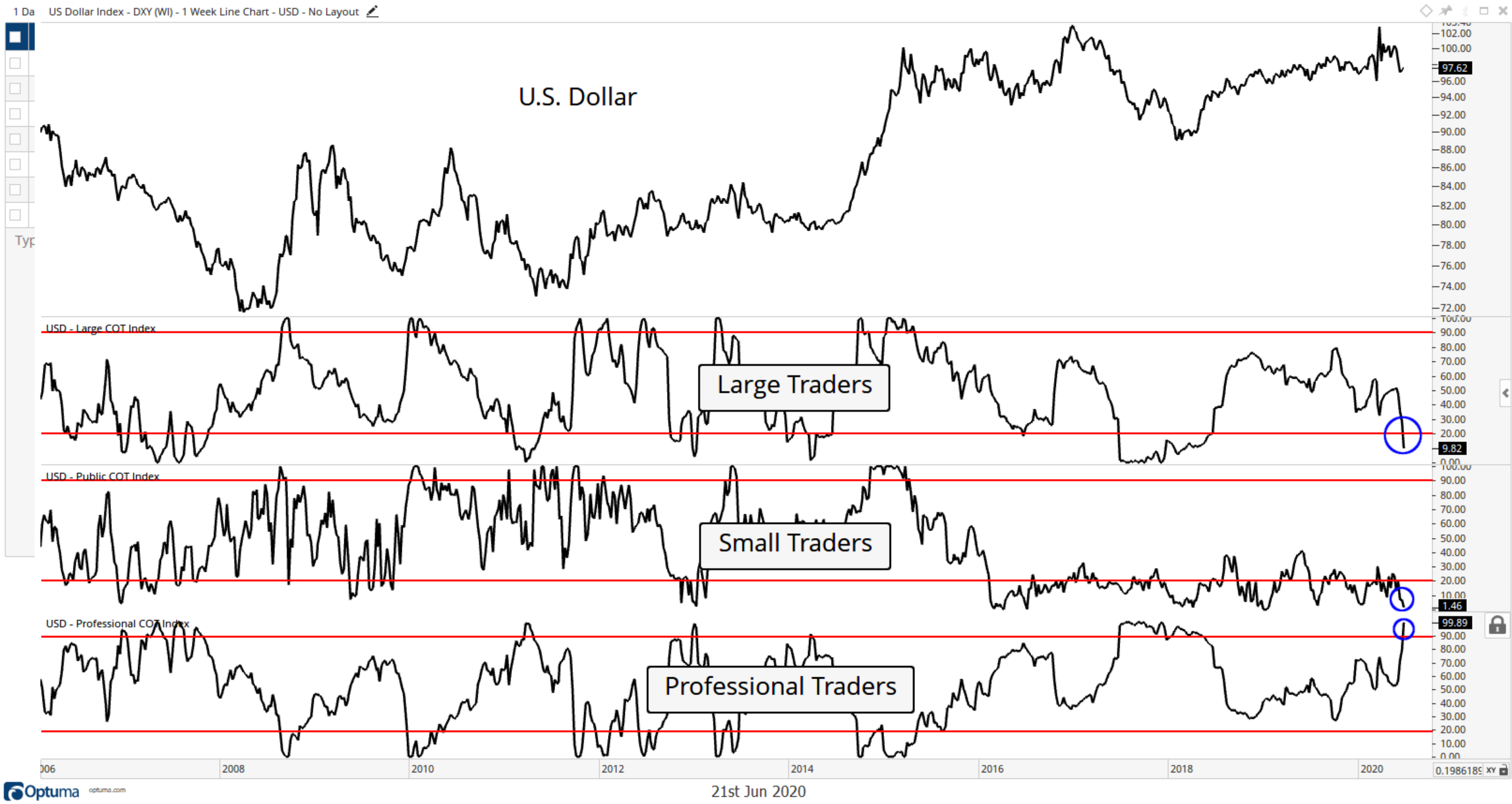


Based on a few of the risk appetite ratios I monitor, risk appetite appears to be healthy as they continue to move in the general direction as the broad equity index. No major divergences have developed in recent weeks, a bullish sign for stocks.

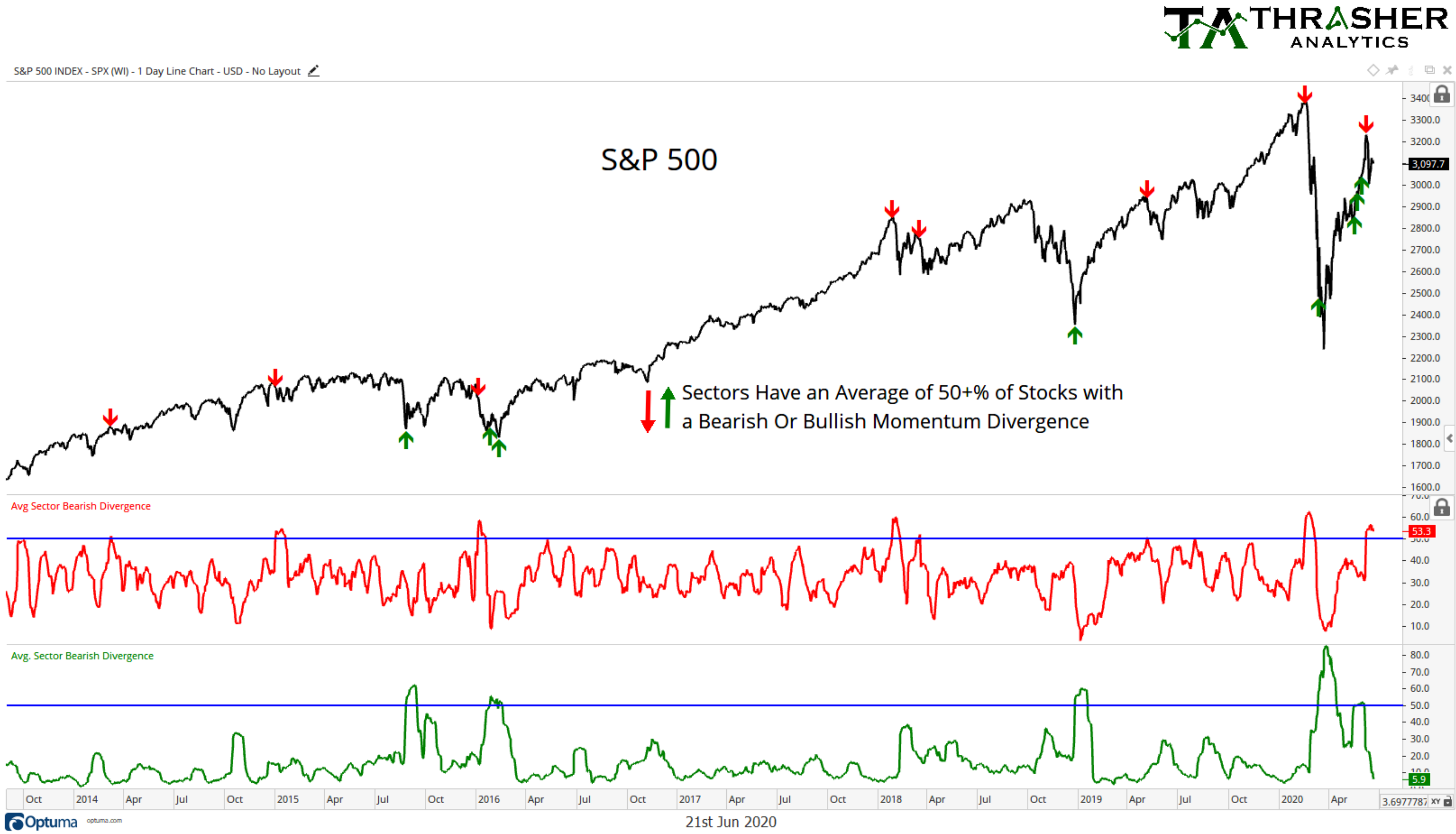
If there's just one other market to watch for trend confirmation in equities and specifically the tech sector, it would be semiconductors. I've been writing about them extensively since 2013 as the new "Dr. Copper" and fortunately many other analysts have caught on to this. Semiconductors have been steadily outperforming the S&P 500 after their relative performance had consolidated following the break higher in stocks back in March. Divergences in semi's strength are warning signs, so seeing them break to new highs against the SPX is a positive sign.



While breadth has greatly improved in recent weeks, with over 90% of the S&P 500 having broken above their respective 50-day Moving Average and over half the index above the 200-day MA at brief point earlier this month. However, during the recent drop in equities, while the index has yet to make a lower low below the short-term low in June, the % of stocks above their 50-day MA did, a sign of internal breakdown. The same thing happened in the 10-day advances-declines line for the S&P 500, falling below its zero line as more stocks on average declined than advanced over the prior 10 days. These are both shorter-term focused and may be warning of something to come but it's still important to point out that the % above the 200-day MA is still above the last June low but has since fallen back below 50%, with less than half the stocks above their long-term average. I'd say this gives a fairly mixed to slightly bullish slant for breadth. I'm still encouraged that over 75% of stocks are above their 50-day MA, hopefully the % above 200MA can regain the 50% level soon.



The latest Commitment of Traders (COT) data for the U.S. dollar shows a strong bullish bias by professional traders while large and small traders are much more bearish. Professional traders are holding a 99%tile net-long position in the dollar while large and small traders are at 9.8 and 1.46%tile respectively. The Dollar recently ran up to its 2016 high above 100 but since moved off that level lower, if the professional traders position data is correct, we could see further strengthening in the dollar. Remember that this data is weekly, and more long-term in nature, so it's not necessarily calling for a quick short-term move in the currency. We haven't seen professional traders this bullish on the dollar since the last major low in late '17.



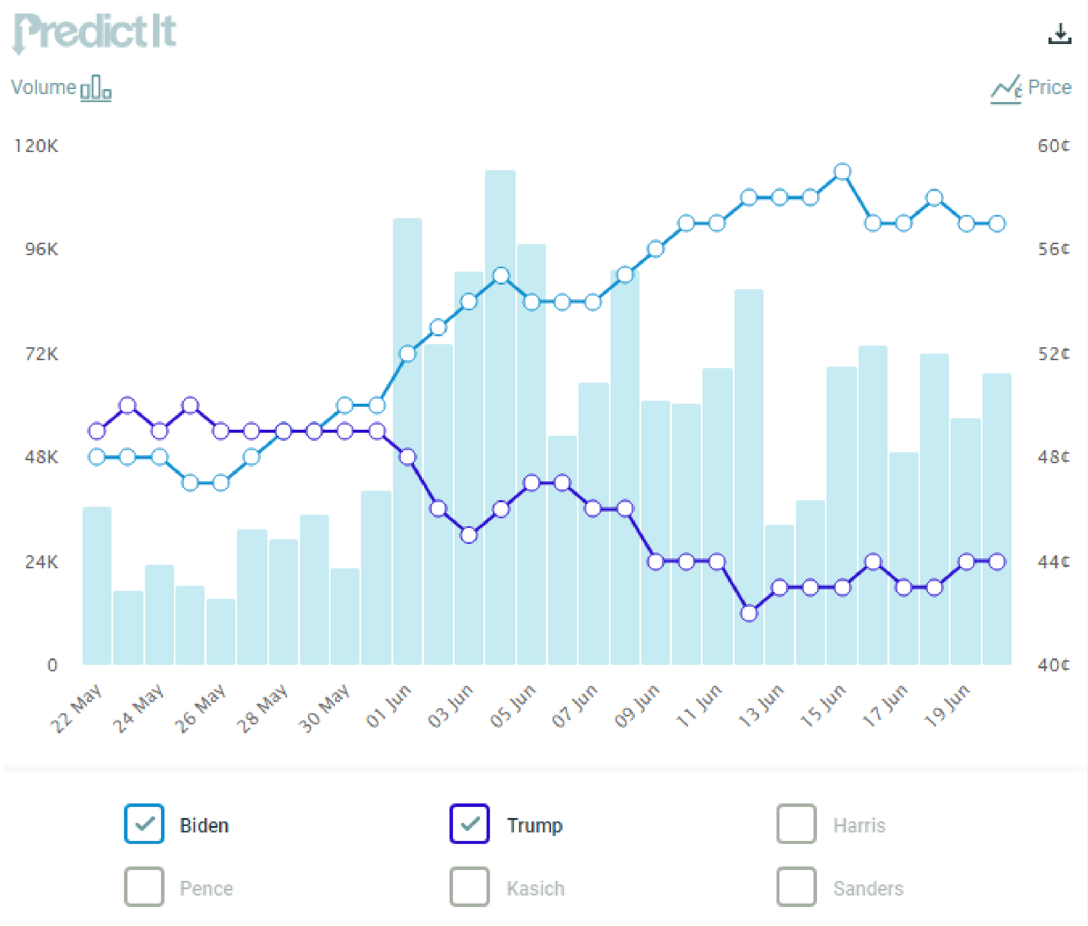
Further down in the letter are the individual sector charts, including each sector's bullish and bearish divergence indicators. This data can be combined to give a look at the momentum divergences as a collective average for all 11 major sectors. When we see a high percentage of each sector showing bullish or bearish divergence, that can create a strong headwind (bearish) or tailwind (bullish) as you can see on the chart above. Recently the average sector had more than half of its constitutes with a bearish divergence, the most since February while less than 6% have a bullish divergence, the lowest since January. This heled pinpoint the unattractive risk/reward environment I mentioned going into the largest single-day decline in stocks since March. The average divergence data still is elevated and leaning bearish, some more selling would likely help "wash" some of these divergences away.

THE S&P FROM JUNE20-27

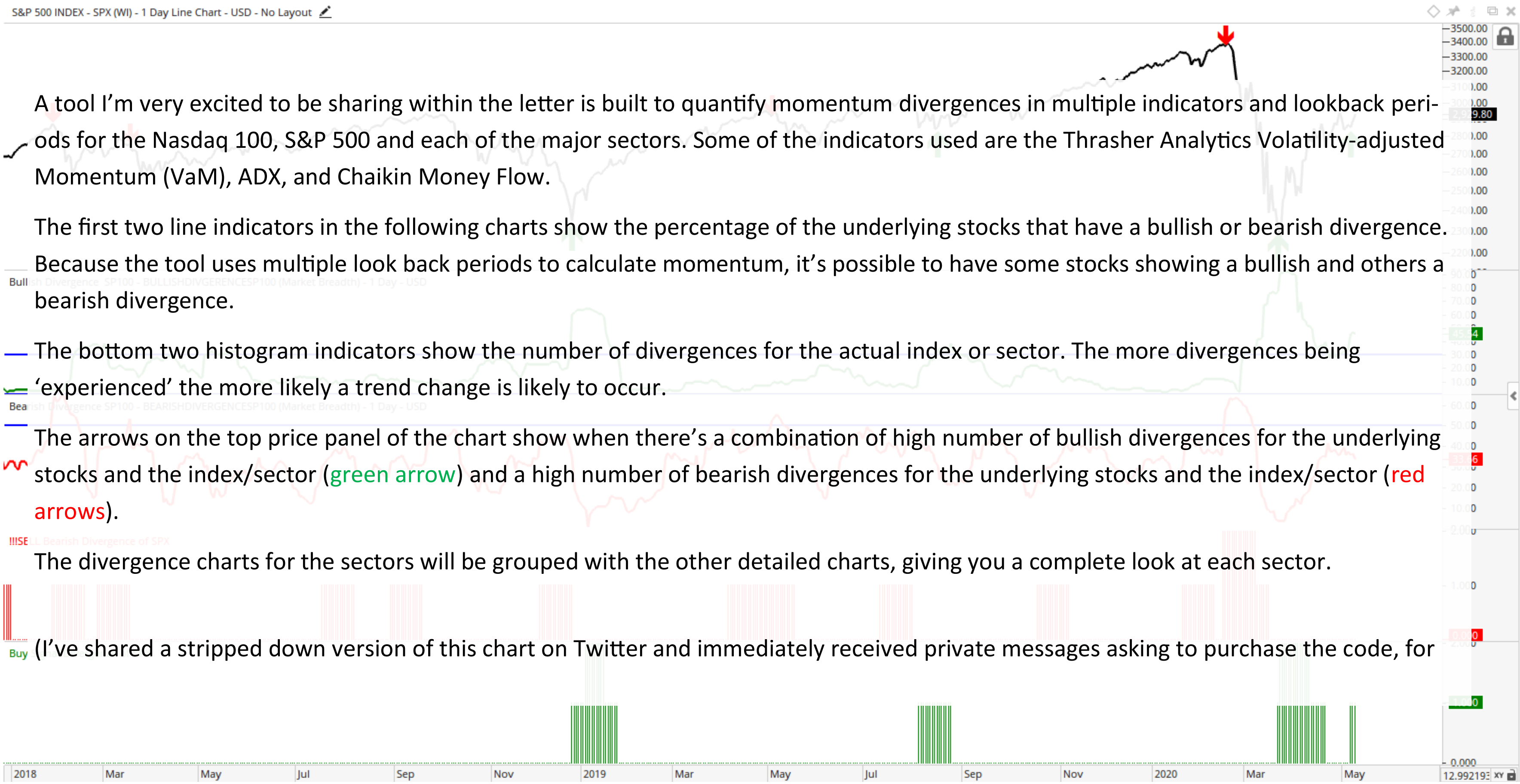
When the Trailing Month May20-June20 is Positive

YEAR	MAY20-JUN20%	JUN20-27%
1990	1.26	-1.10
1991	0.84	-0.27
1994	0.12	-1.79
1995	4.97	-0.47
1997	6.78	-1.27
1999	0.30	-2.05
2000	4.90	-1.72
2003	8.26	-1.96
2004	4.21	-0.05
2005	2.26	-2.09
2009	1.97	-0.25
2010	4.29	-3.65
2012	4.67	-1.76
2014	4.81	-0.10
2016	1.51	-3.97
2017	2.32	-0.72
2018	2.00	-2.45
2019	4.01	-0.99
2020	4.23	
	#UP-DN =	0-18
	AVG%CHG=	-1.48
	MED%CHG=	-1.49

The above table comes from Wayne Whaley, shared by my friend Steve Deppe, CMT. The table shows when the S&P 500 is positive during the May 20th-June 20th time period over the last 30 years. This has been followed by a down week each of the 18 occurrences with an average return of –1.48%. This matches what Charlie McElligott of Nomura has written, that when stocks are up the 4 weeks into June option expiration, since 1994, they have been positive the next week just 12% of the time and the next two weeks only 41%. After that Charlie notes seasonality and historical trends improve with average 1-month returns being positive 76% of the time. So from a seasonal perspective, we could see some weakness in equities over the next one to two weeks.



I promise I'm not about to get political! But the election is an important market catalyst and it's commonly thought that a Biden victory would be bearish for equities as Biden has run on a campaign of higher taxes and less accommodative corporate policies. Whether you agree or not is irrelevant, all that matters is what the collective market thinks and how traders respond, and that's currently the narrative being held. This is important as Biden has been rising in the polls with Trump beginning to decline, based on the above PredictIt data. This week's poorly attended Oklahoma rally will be framed in the news as a sign of trouble for the Trump re-election and so the markets could respond with pricing in a higher chance of Biden victory, which would likely be more clicking of "sell" than "buy" on many macro managers Bloomberg terminals. There's also the latest uptick in infection rates with several states seeing the signs of a 'second wave' develop. Apple has also begun to respond with closing stores in Arizona, FL, and the Carolinas. China has banned the importation of beef from several U.S. Tyson plants due to the extremely high infection rates there as Beijing has also begun dealing with their 'second wave' of the coronavirus.



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.

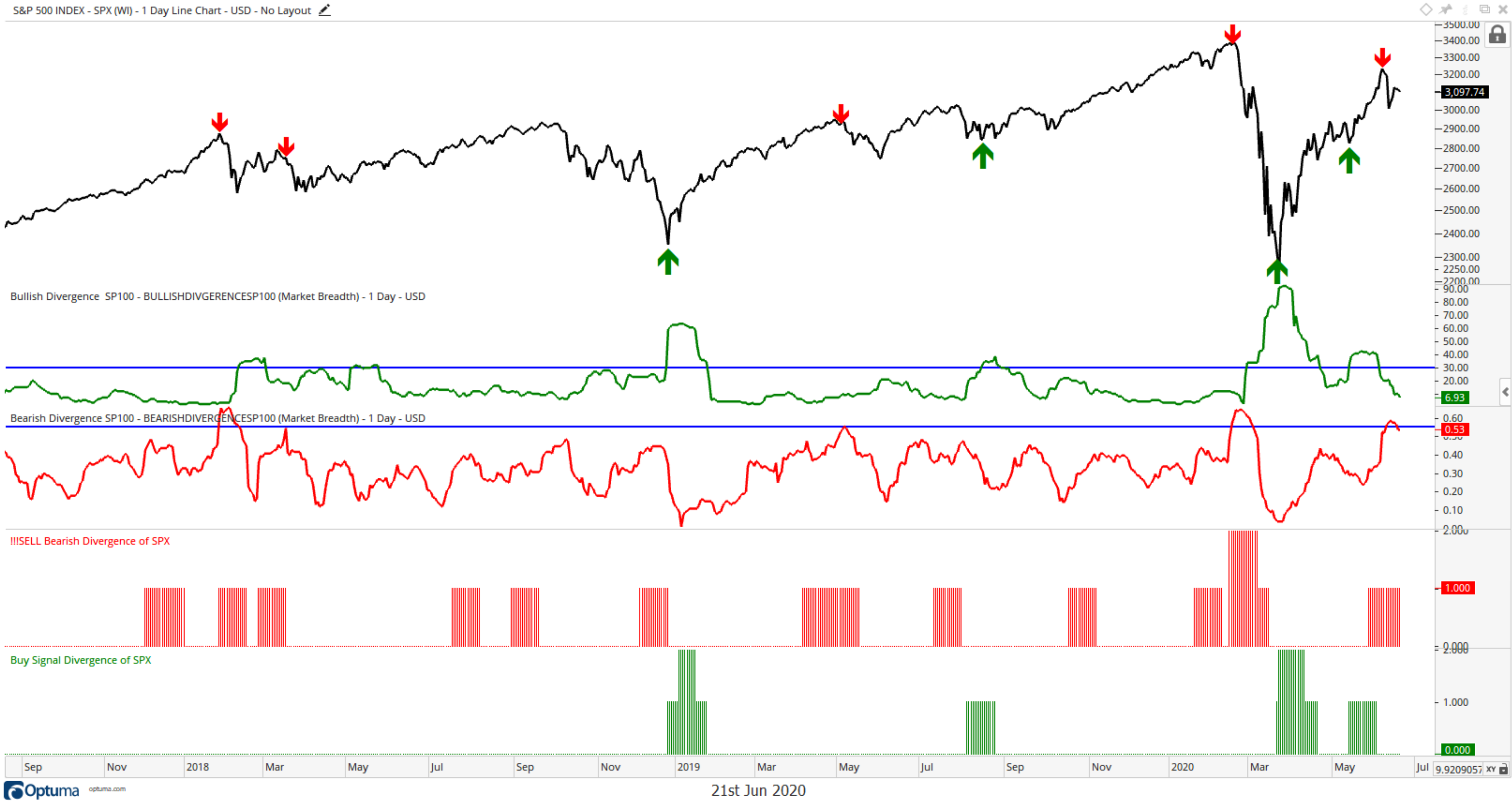
The first two line indicators in the following charts show the percentage of the underlying stocks that have a bullish or bearish divergence. Because the tool uses multiple look back periods to calculate momentum, it's possible to have some stocks showing a bullish and others a bearish divergence.

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.

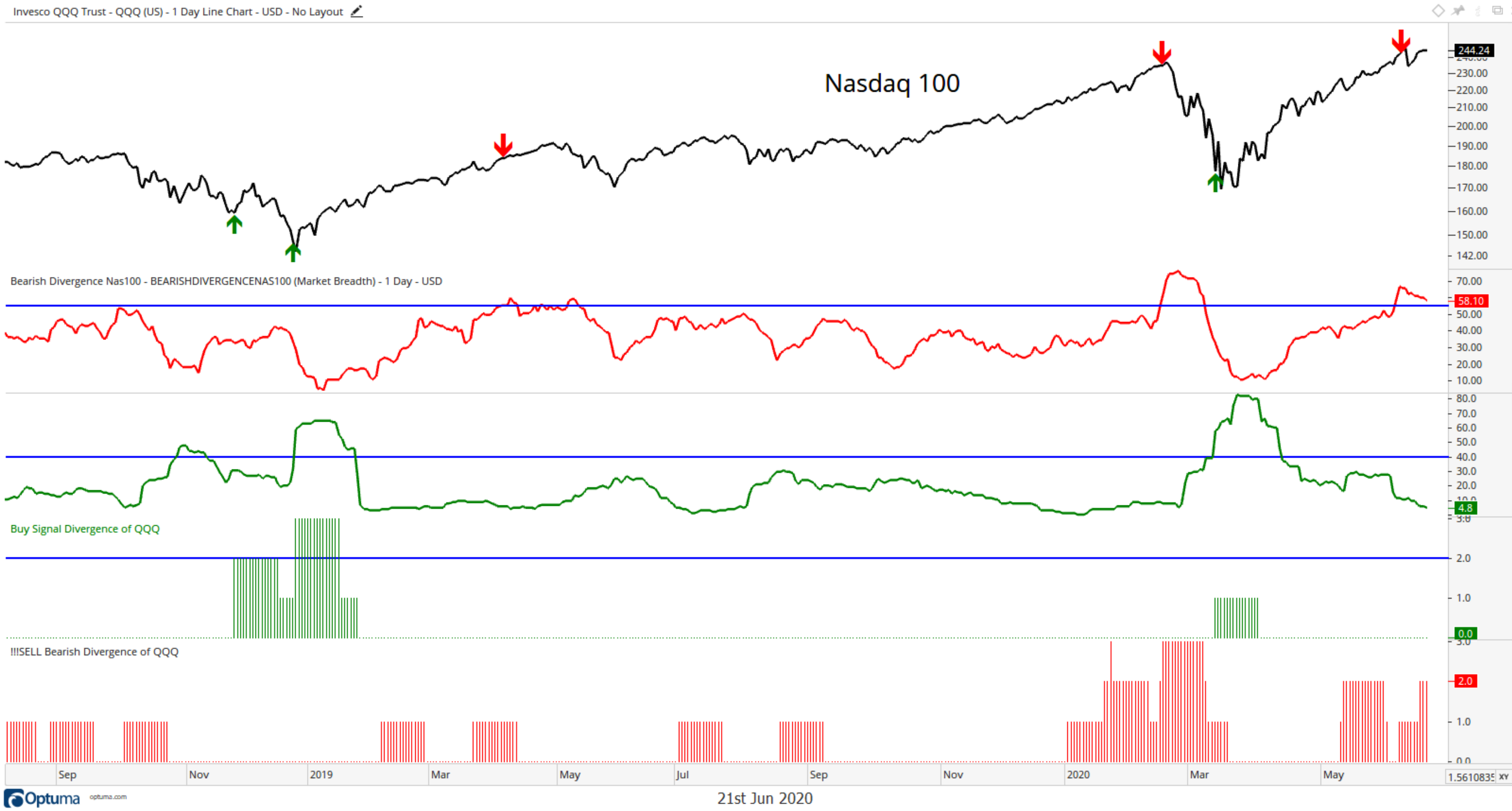
The arrows on the top price panel of the chart show when there's a combination of high number of bullish divergences for the underlying stocks and the index/sector (green arrow) and a high number of bearish divergences for the underlying stocks and the index/sector (red arrows).

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



The signal from the bearish divergences that built up in the S&P 500 did an excellent job at marking the heightened risk in equities ahead of the largest single-day decline in equities since March. Since then, the high level of divergences has declined to 53%. Bullish divergences has also continued to move lower, with less than 7% of stocks experiencing a bullish divergence, this creates a wide spread that still gives a less attractive risk/reward environment for equities.



While the S&P 500 bearish divergences have dropped below 55%, that hasn't been the case for the Nasdaq 100, with still over 58% showing a bearish divergence and less than 5% a bullish momentum divergence. There's also been an update to 2 divergences for the index it self (bottom panel), the most since early May. We got up to 3 (of 4) at the peak in late-February and March, so we aren't quite to those bearish of levels just yet.

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.

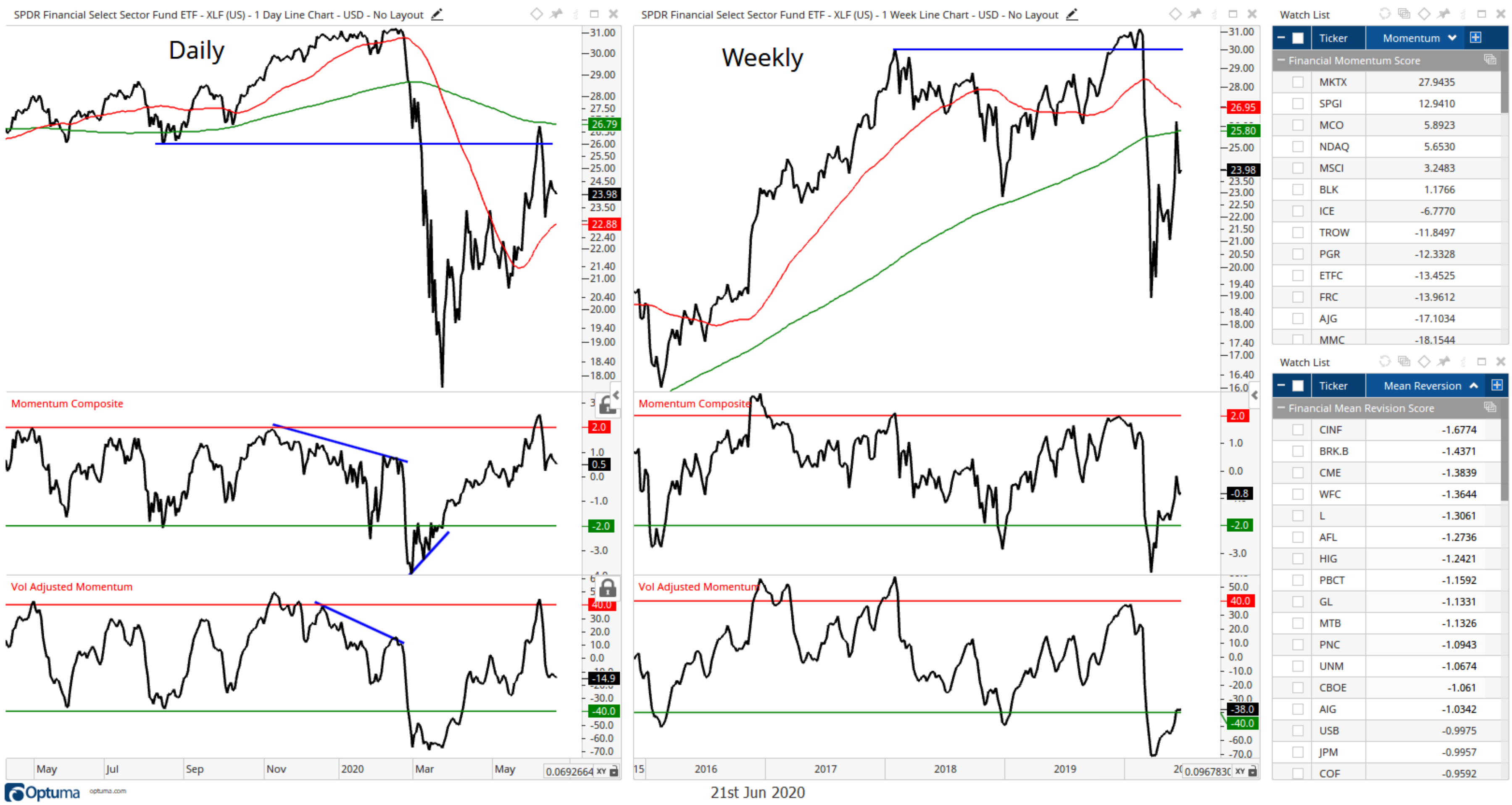
When used together, a great detail can be gleaned from what momentum is showing for the daily and weekly charts of each sector and I'll of course provide brief commentary to accompany them.

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.

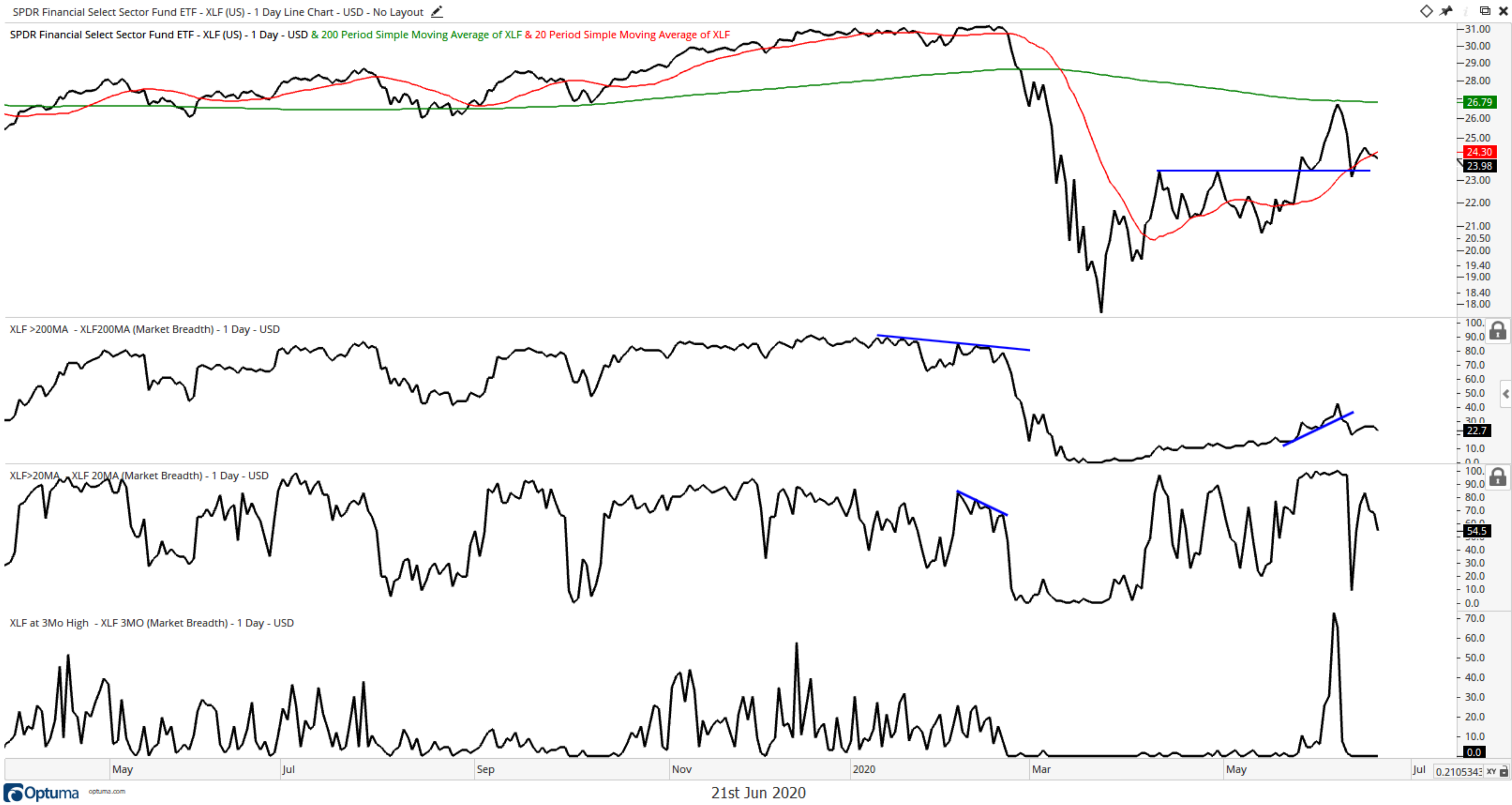
The second watchlist is the individual stocks of the sector sorted by respective Momentum Composite reading, shown as a z-score. Scores less than 2 are significant.

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.

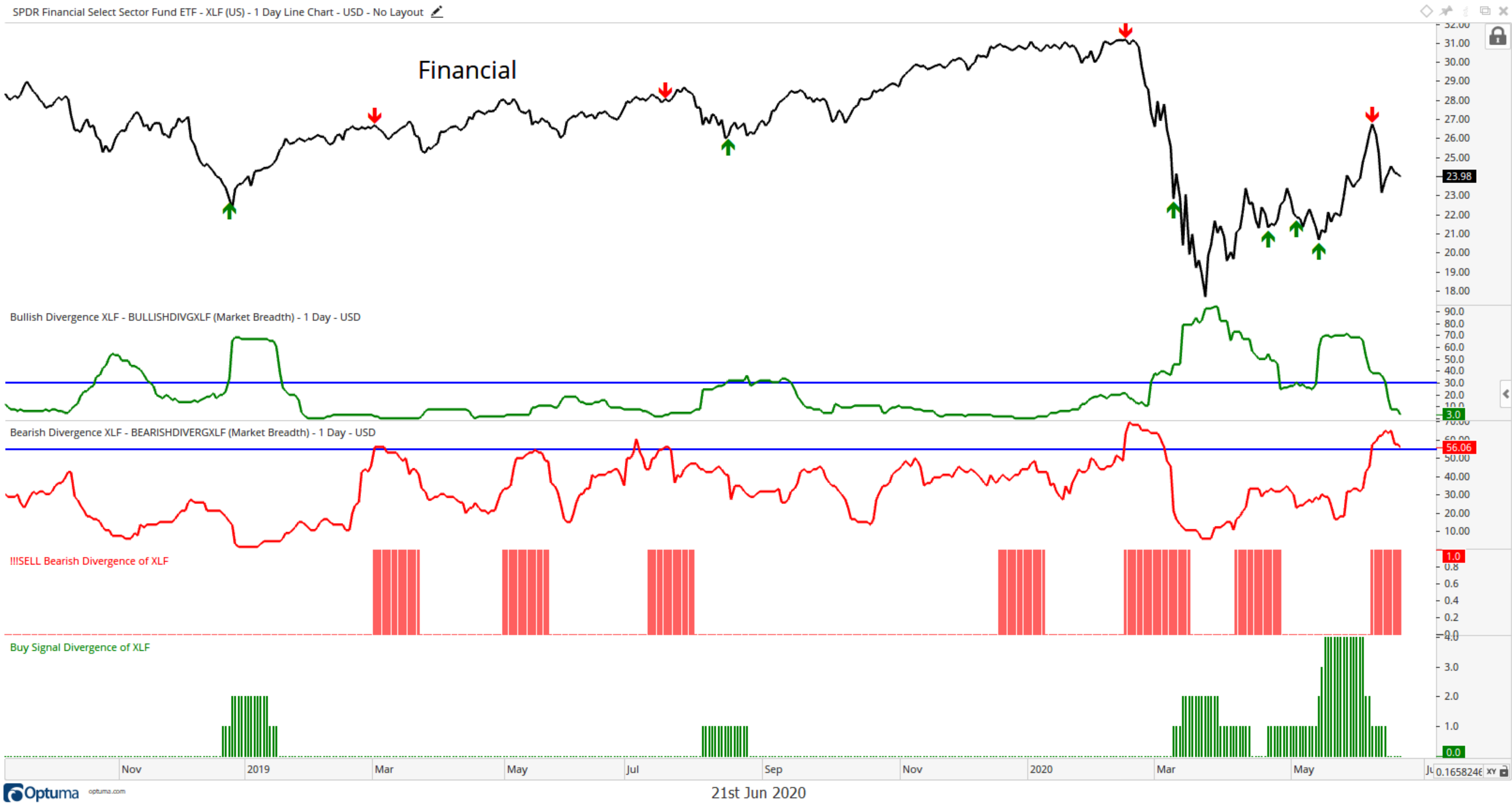
The second page will show several standard breadth gauges for each sector, providing additional insight into the individual stock participation in the sector's price action.

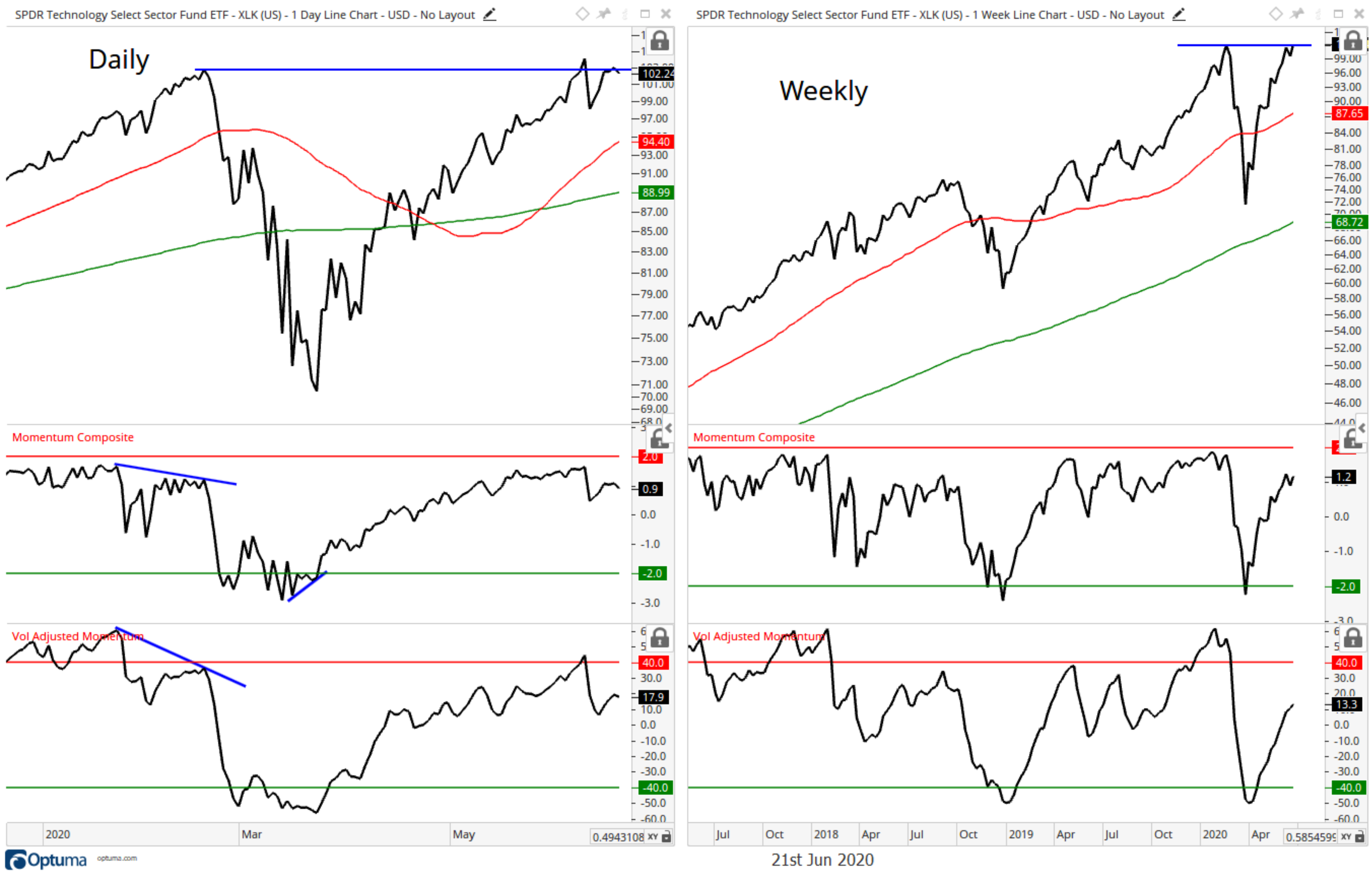


XLF failed the $26 level with momentum and VaM both ‘overbought’ as price tried to break above the 200-day MA. These levels remain in focus until price breaks above.



Breadth remains fairly supportive.


SPDR Financial Select Sector Fund ETF - XLF (US) - 1 Day Line Chart - USD - No Layout
Financial
Bullish Divergence XLF - BULLISHDIVGXLF (Market Breadth) - 1 Day - USD
Bearish Divergence XLF - BEARISHDIVERGXLF (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLF
Buy Signal Divergence of XLF
23.98
56.06
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
21st Jun 2020



Watch List

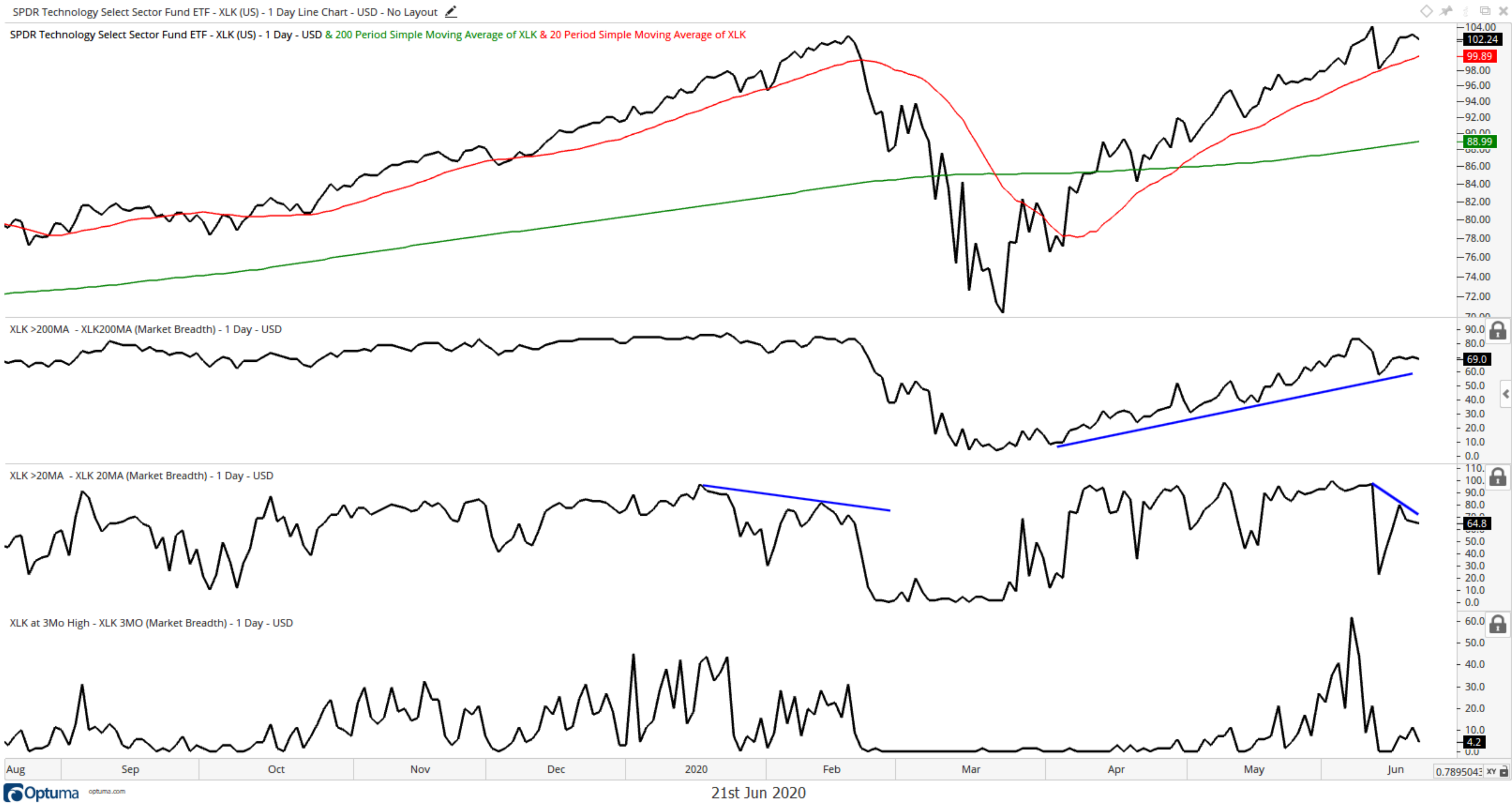
Ticker	Momentum
Tech Sector Momentum Score	
PYPL	41.0970
ADBE	37.6387
NVDA	33.4504
AAPL	29.1076
MSFT	28.2347
SNPS	25.4789
CDNS	24.8555
NOW	23.2730
ADSK	19.2607
FTNT	5.5837
SWKS	4.7389
IPGP	4.5019

Watch List

Ticker	Mean Reversion
Tech Sector Mean Reversion Score	
XRX	-1.6232
MSI	-1.3295
FLIR	-1.0958
ADS	-0.9039
IT	-0.8616
DXC	-0.8397
IBM	-0.7971
NTAP	-0.7813
ADP	-0.7609
CTSH	-0.7327
HPQ	-0.7023
WDC	-0.6963
PAYX	-0.6678
TEL	-0.5091
NLOK	-0.5089
FISV	-0.4876
WU	-0.3960

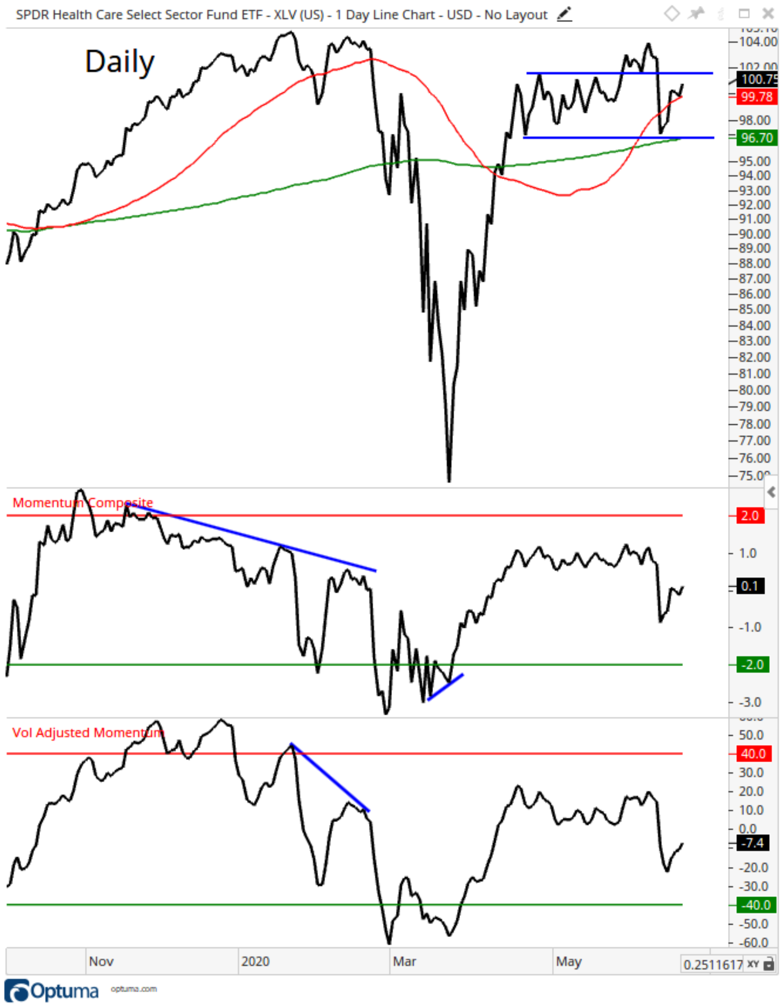
XLK so far has failed at the prior high, continuing to watch for a breakout.

Technology Sector



A continued trend of more stocks rising above their respective 200-day MA

Technology Sector



21st Jun 2020

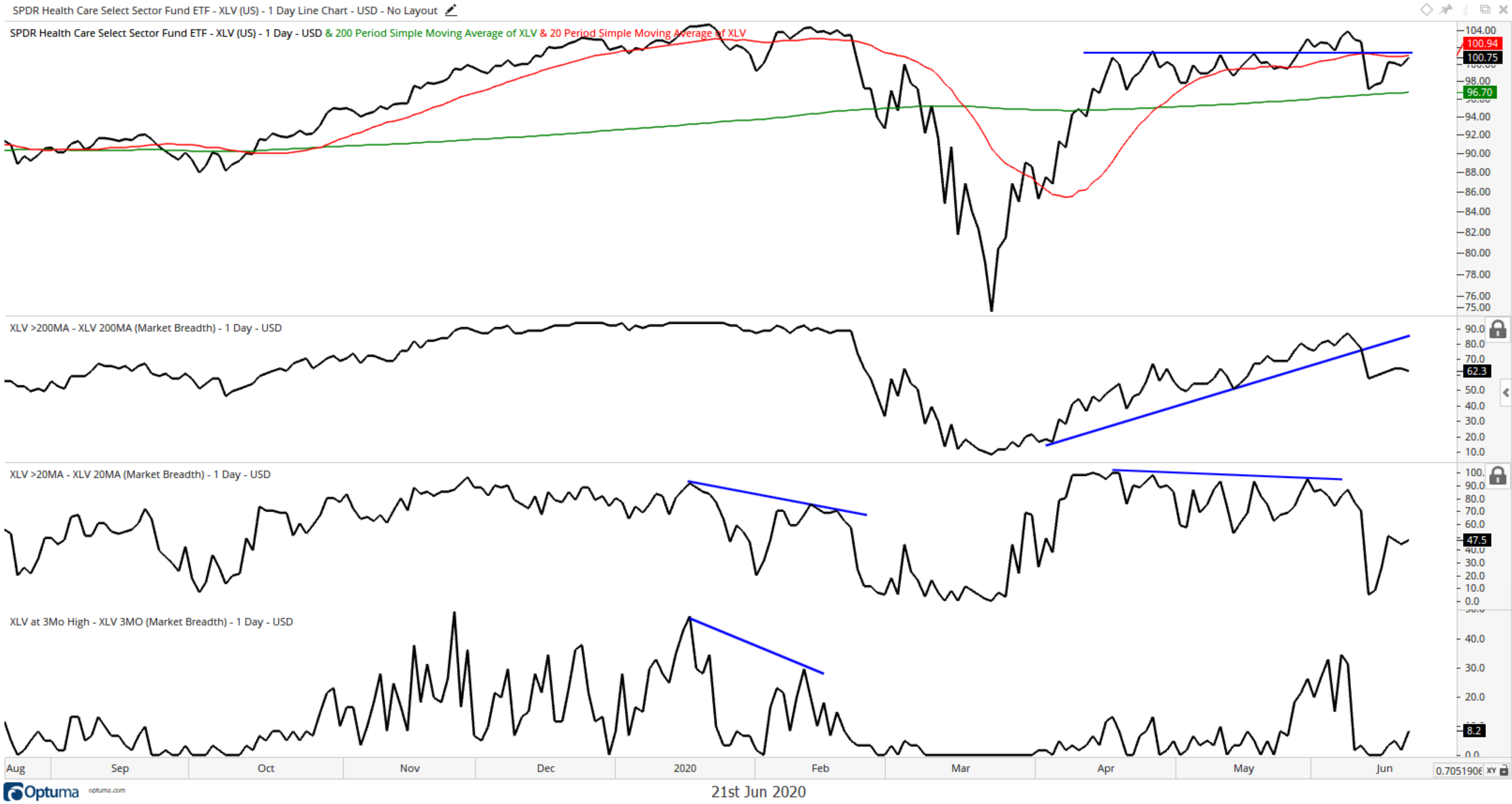
Watch List

Ticker	Momentum
Health Care Momentum Score	
REGN	27.9697
ABMD	24.8626
IDXX	13.4751
ABBV	12.2248
DHR	11.7208
ILMN	10.2701
TMO	8.7818
ABC	8.0047
VRTX	6.9544
AGN_2020	5.7921
A	4.3968
PKI	1.8706

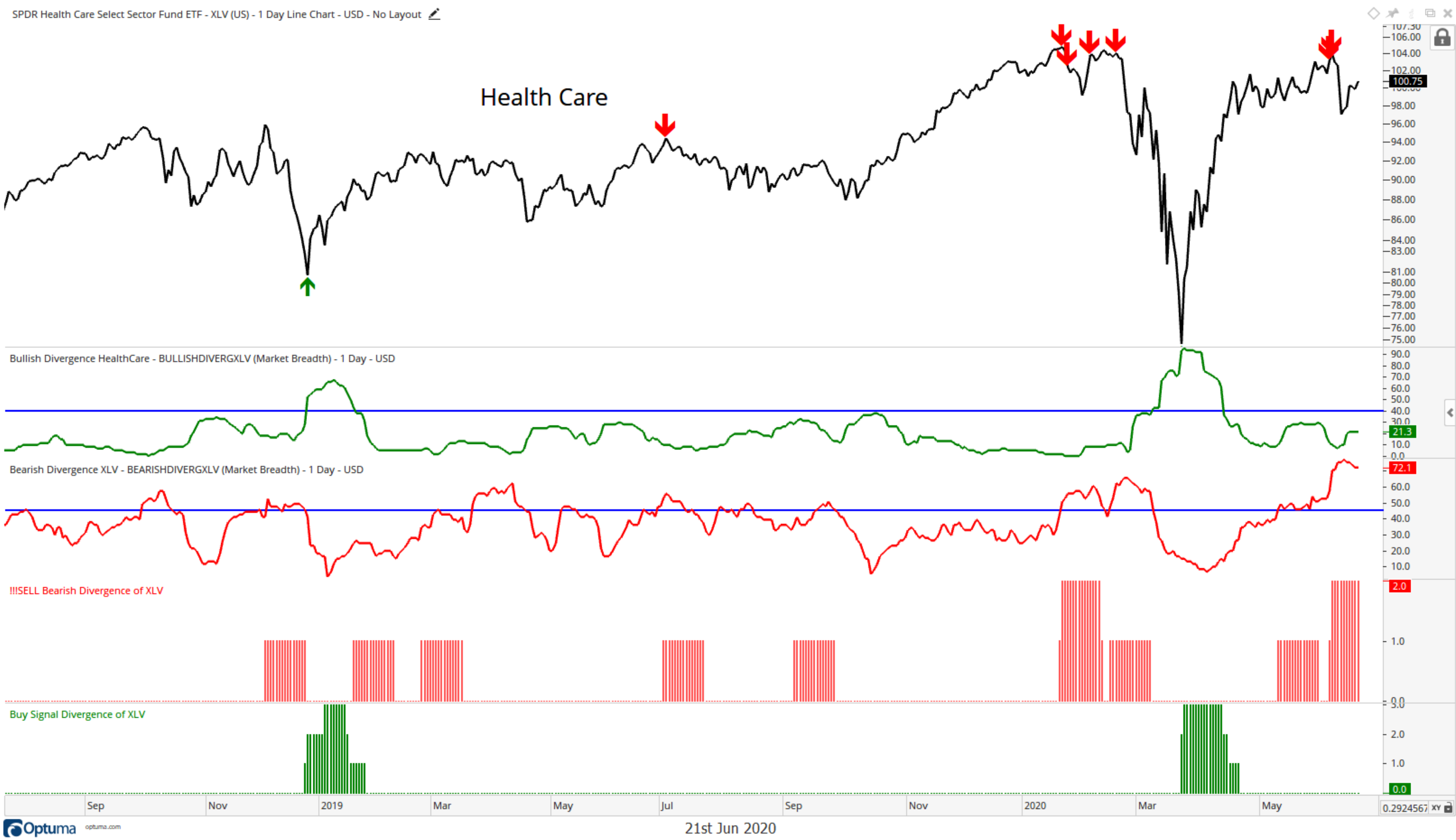
Watch List

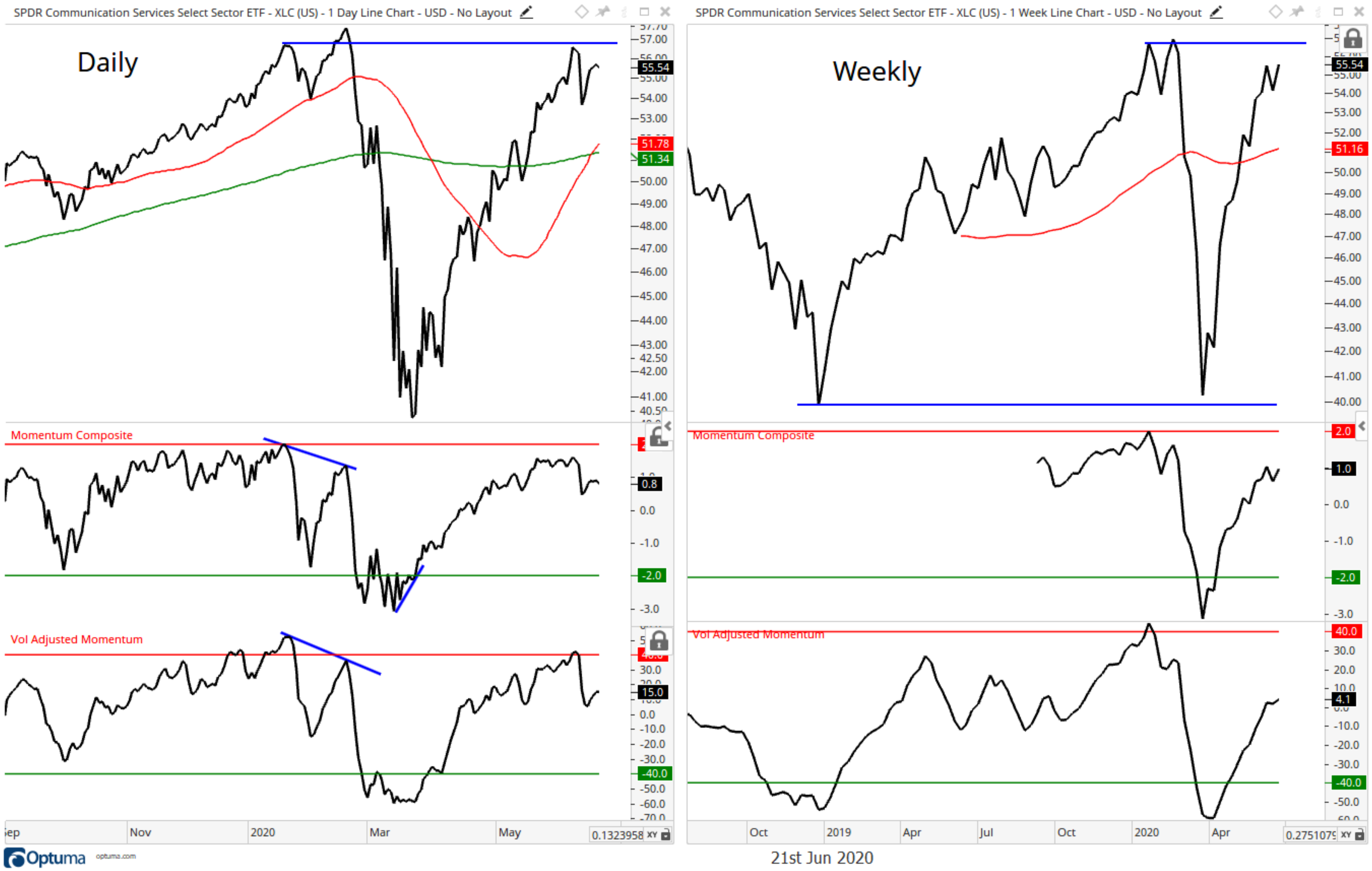
Ticker	Mean Reversion
Health Care Mean Reversion Score	
HCA	-1.4309
UHS	-1.4269
PFE	-1.2209
XRAY	-1.0182
WAT	-0.9844
MRK	-0.9380
MDT	-0.8763
BDX	-0.8442
BSX	-0.7472
SYK	-0.6639
MYL	-0.5997
IQV	-0.5765
COO	-0.5145
VAR	-0.3667
LH	-0.3419

XLV remains in its short-term range and below prior 2020 highs.



L/T breadth above the 200-day MA ended its up trend during the consolidation in price but still remains above 50%. An uptick in % of stocks at 3-month highs has started, a bullish sign for health care.


SPDR Health Care Select Sector Fund ETF - XLV (US) - 1 Day Line Chart - USD - No Layout
Health Care
Bullish Divergence HealthCare - BULLISHDIVERGXLV (Market Breadth) - 1 Day - USD
Bearish Divergence XLV - BEARISHDIVERGXLV (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLV
Buy Signal Divergence of XLV
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
100.75
21.3
72.1
2.0
0.0
21st Jun 2020



Watch List

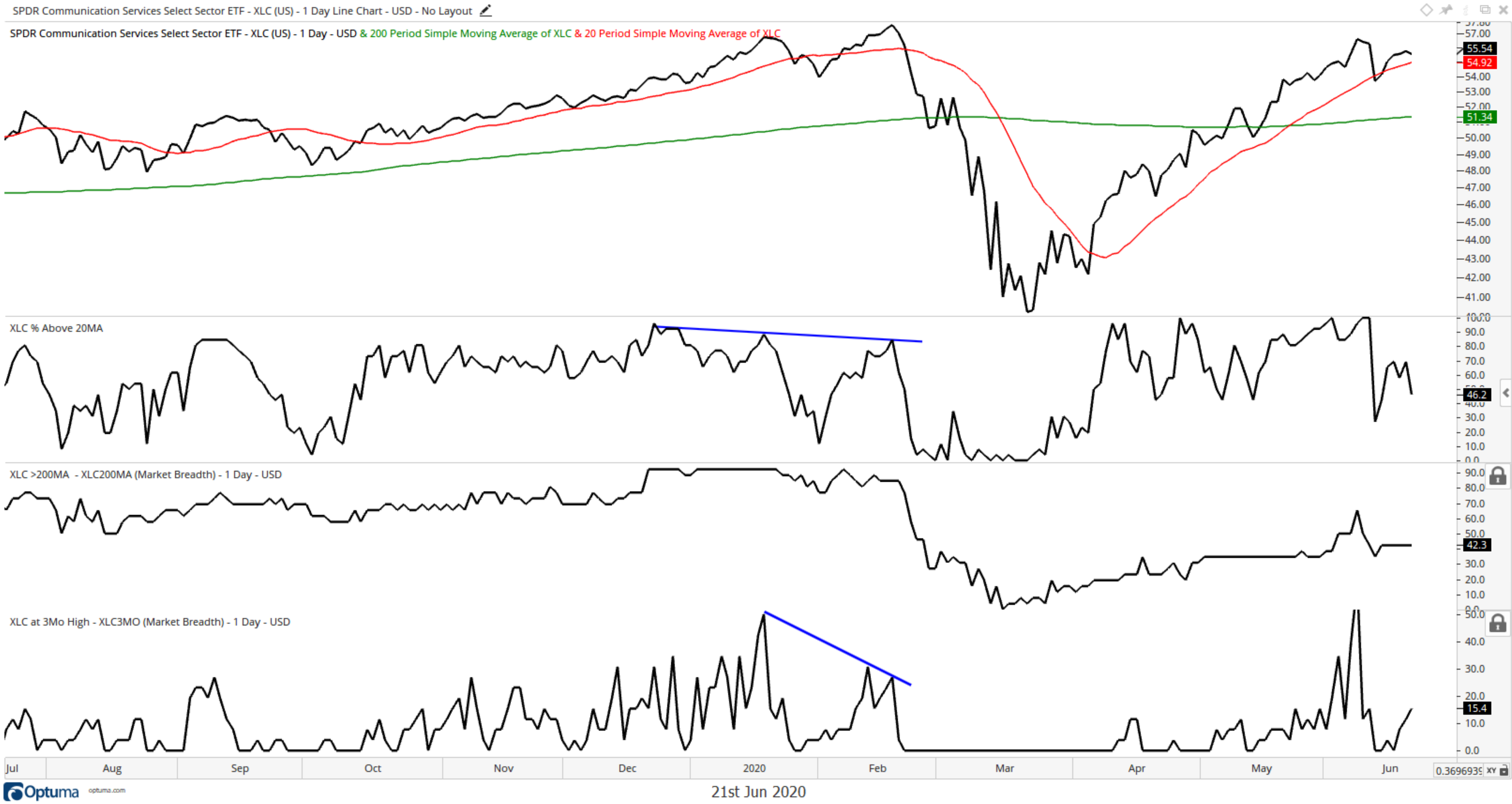
Ticker	Momentum
Communications Momentum Score	
TMUS	26.4248
EA	21.8044
ATVI	18.2791
FB	16.5370
NFLX	9.8762
CHTR	6.8210
TTWO	4.0374
GOOG	0.3149
GOOGL	0.1897
VZ	-17.9185
TWTR	-19.3217
DISH	-23.5656

Watch List

Ticker	Mean Reversion
Communications Mean Reversion	
OMC	-1.515
LYV	-1.1672
T	-1.1348
DISCK	-1.1335
DISCA	-1.0846
IPG	-0.9956
DIS	-0.9121
CMCSA	-0.9092
CTL	-0.8071
VZ	-0.7410
FOX	-0.6116
FOXA	-0.6099
VIAC	-0.5632
NWS	-0.3847
NWSA	-0.2694
TWTR	-0.0876
DISH	0.4751

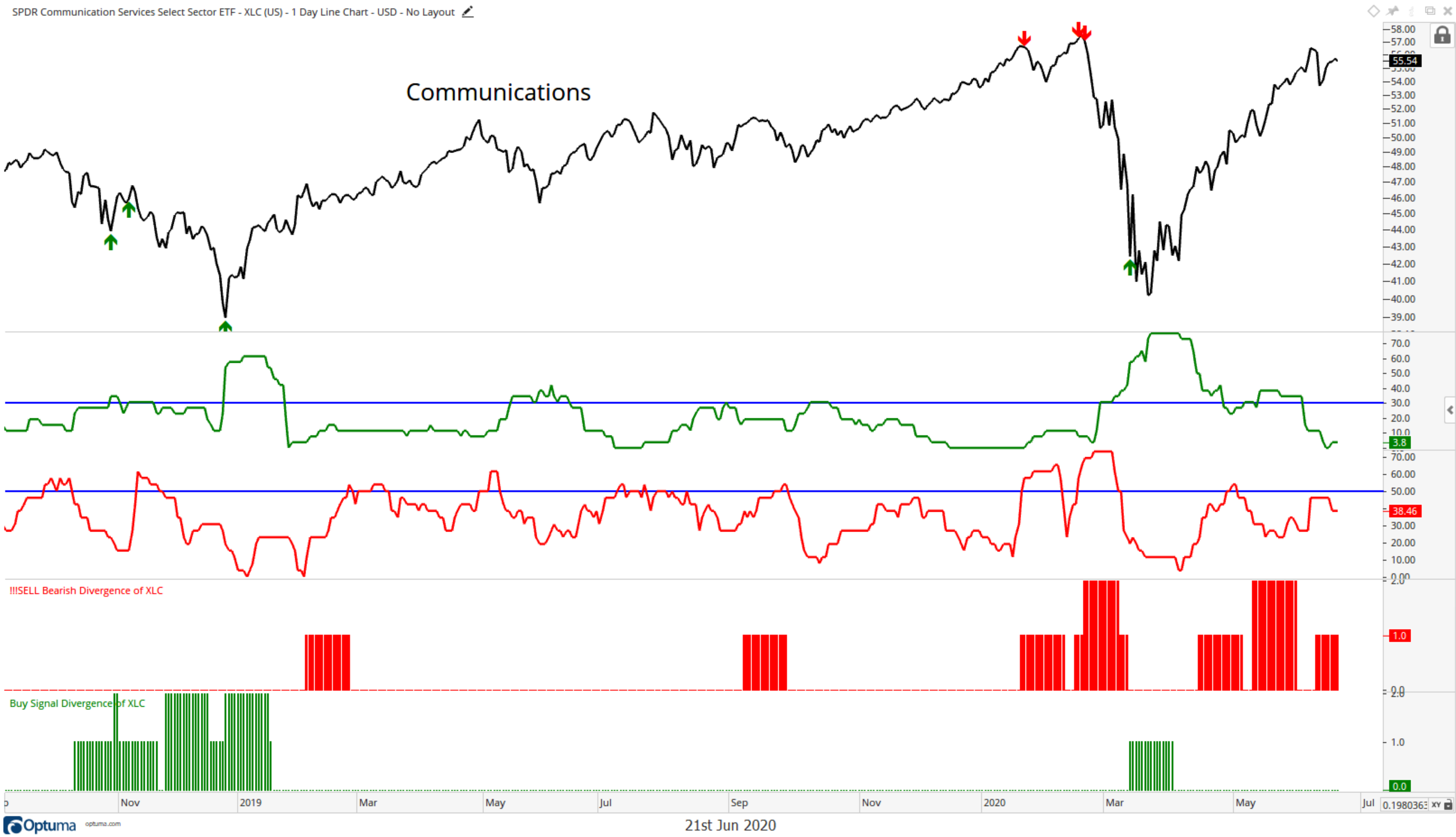
21st Jun 2020

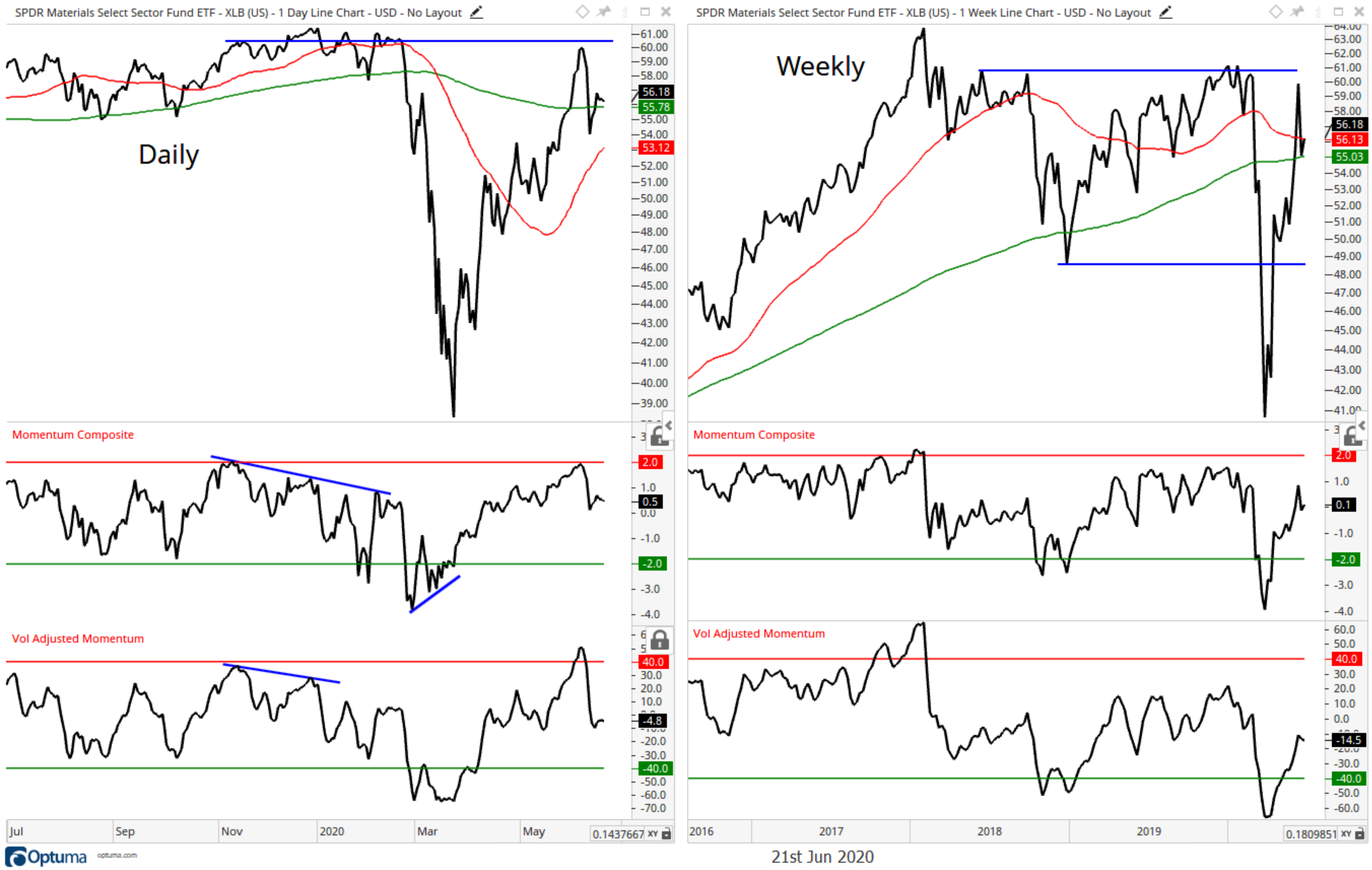
XLC still remains the prior high.



Breadth doesn't give a clear picture for XLC, still seeing improvement in %200day MA but %20MA has weakened below 50%.

THRASHER ANALYTICS





Watch List

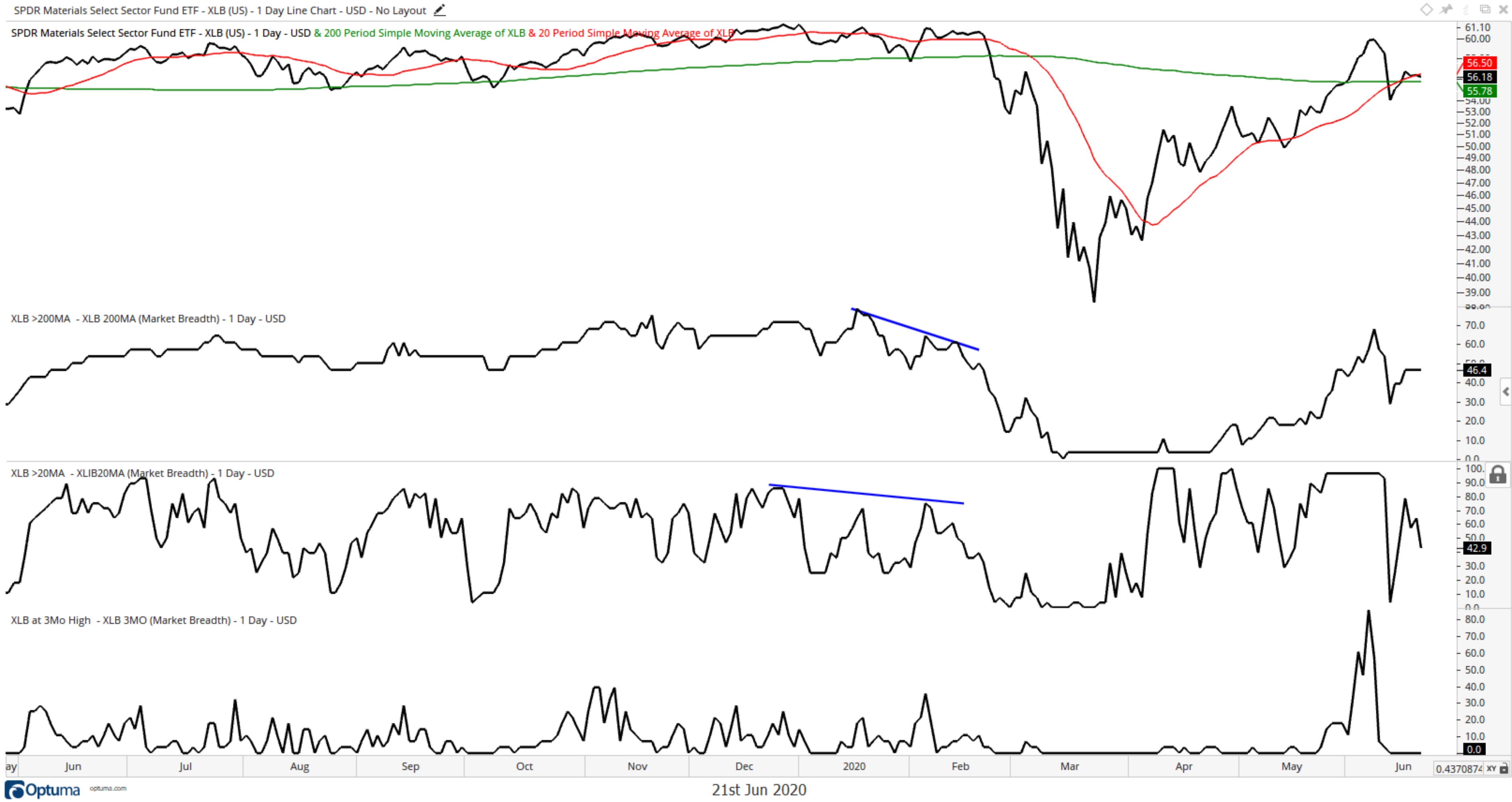
Ticker	Momentum
Materials Momentum Score	
SHW	-5.6416
APD	-8.7696
ECL	-9.8004
FMC	-10.1351
LIN	-10.3692
AMCR	-12.4982
IFF	-15.6834
EMN	-16.0550
PKG	-17.2896
BLL	-17.5322
NEM	-20.2851
CTVA	-20.5350
ALB	-21.2410

Watch List

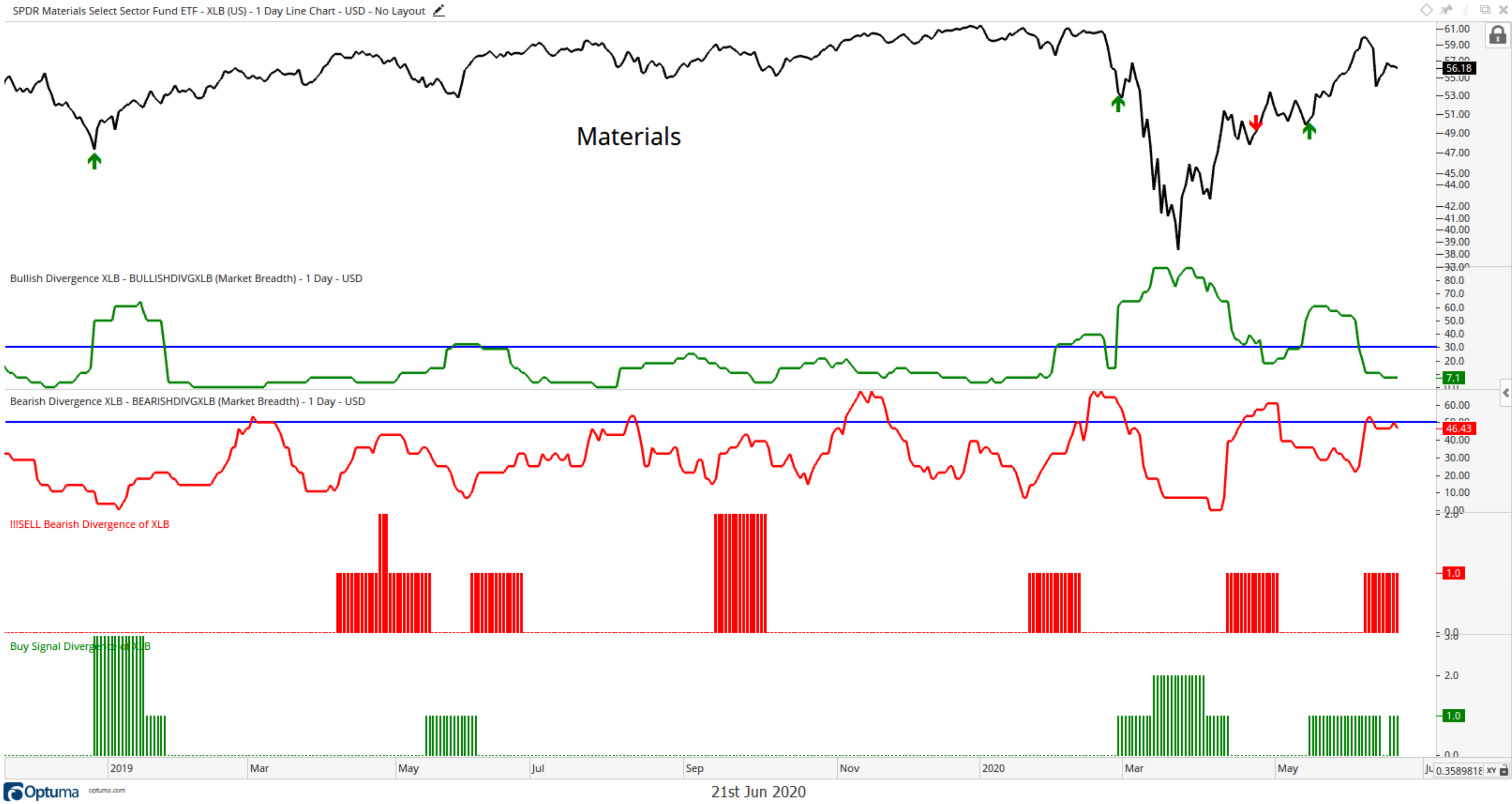
Ticker	Mean Reversion
Materials Mean Reversion Score	
CF	-1.0894
WRK	-1.0869
CE	-0.9208
IP	-0.8180
MOS	-0.7469
MLM	-0.6765
SEE	-0.6697
VMC	-0.6012
PPG	-0.5529
NUE	-0.5479
LYB	-0.5193
DOW	-0.2839
AVY	-0.2719
IFF	-0.2255
DD	-0.1388
PKG	-0.0279
CTVA	0

21st Jun 2020

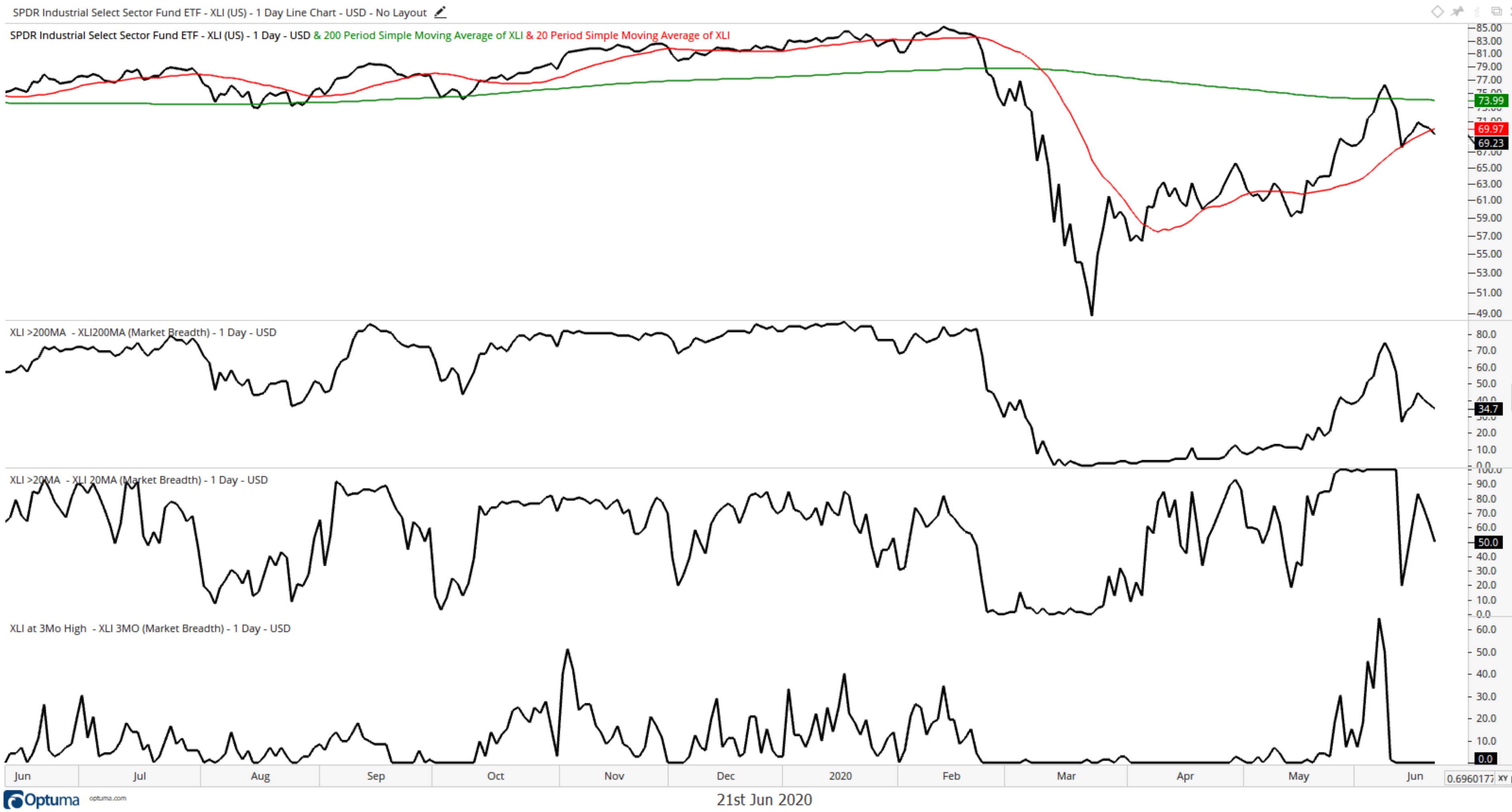
XLB is just under the prior high, watching for a breakout.



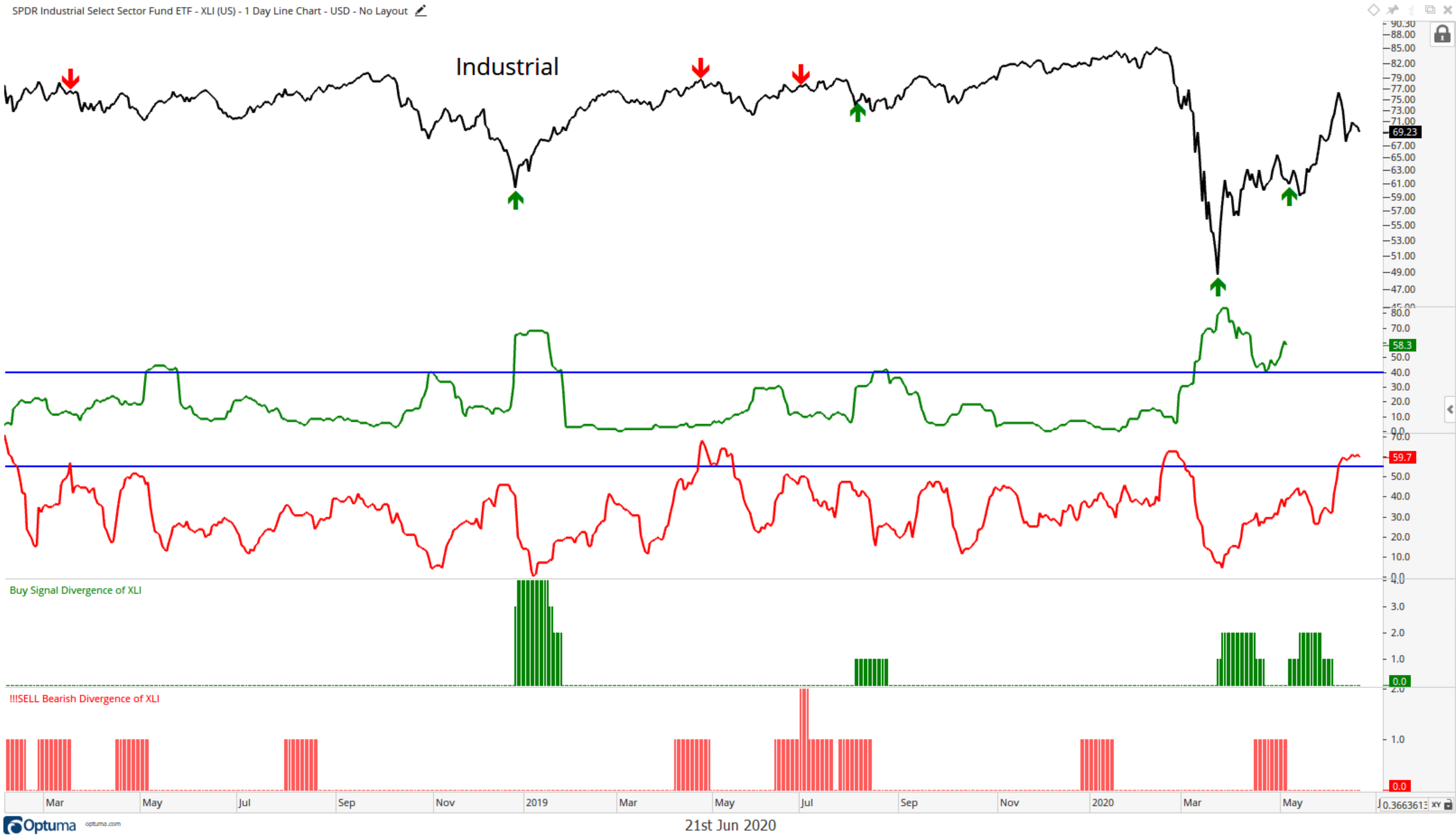
Breadth is positive for XLB.

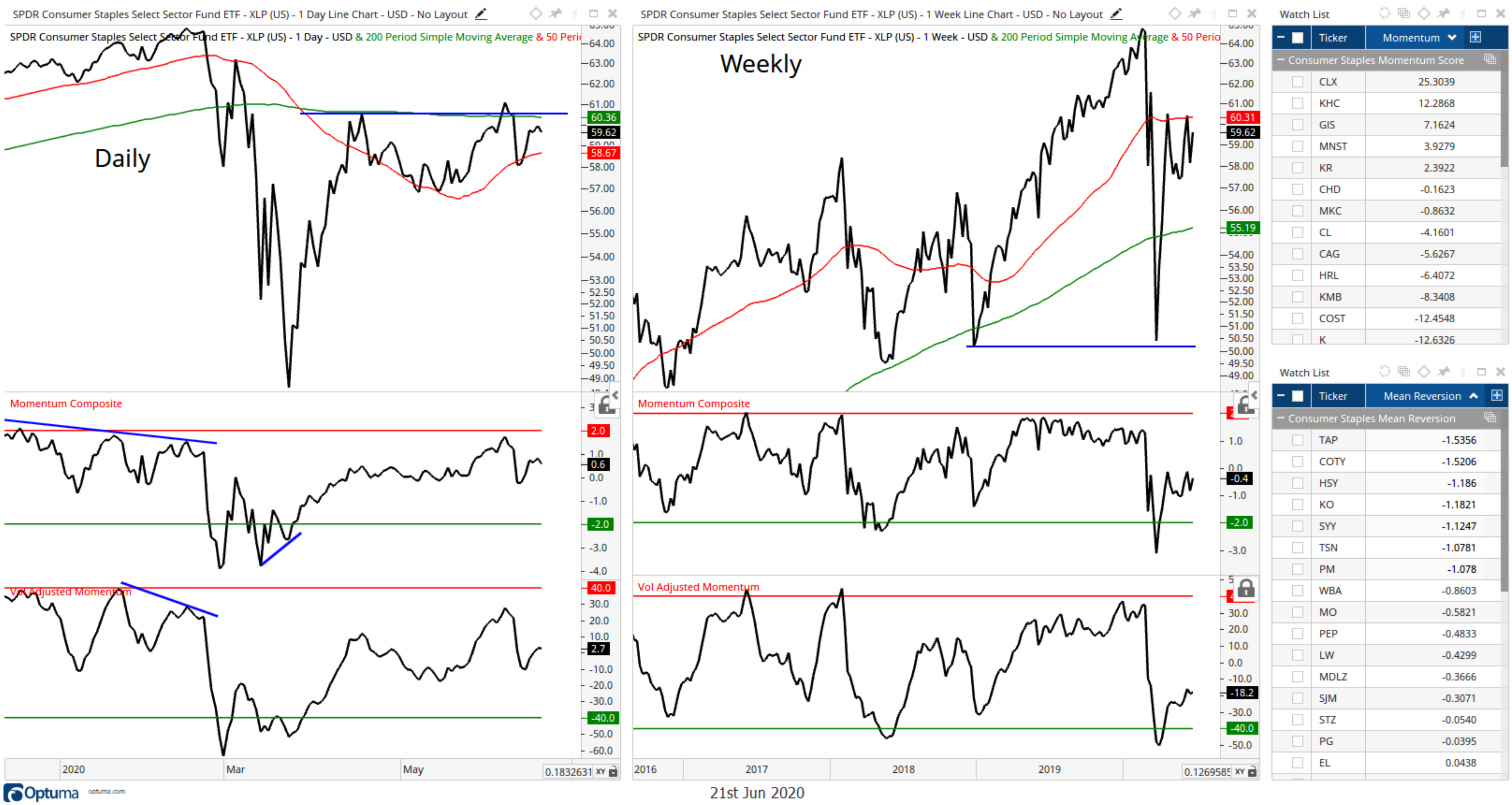

SPDR Materials Select Sector Fund ETF - XLB (US) - 1 Day Line Chart - USD - No Layout
Materials
Bullish Divergence XLB - BULLISHDIVGXLB (Market Breadth) - 1 Day - USD
Bearish Divergence XLB - BEARISHDIVGXLB (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLB
Buy Signal Divergence of XLB
56.18
7.1
46.43
1.0
1.0
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Optuma
21st Jun 2020

XLI is holding above short-term support under its 200-day MA after momentum and VaM became overbought.



Breadth continues to trach price trend.


SPDR Industrial Select Sector Fund ETF - XLI (US) - 1 Day Line Chart - USD - No Layout
Industrial
69.23
58.3
59.7
Buy Signal Divergence of XLI
!!!SELL Bearish Divergence of XLI
Mar
May
Jul
Sep
Nov
2019
2020
Optuma
21st Jun 2020



21st Jun 2020

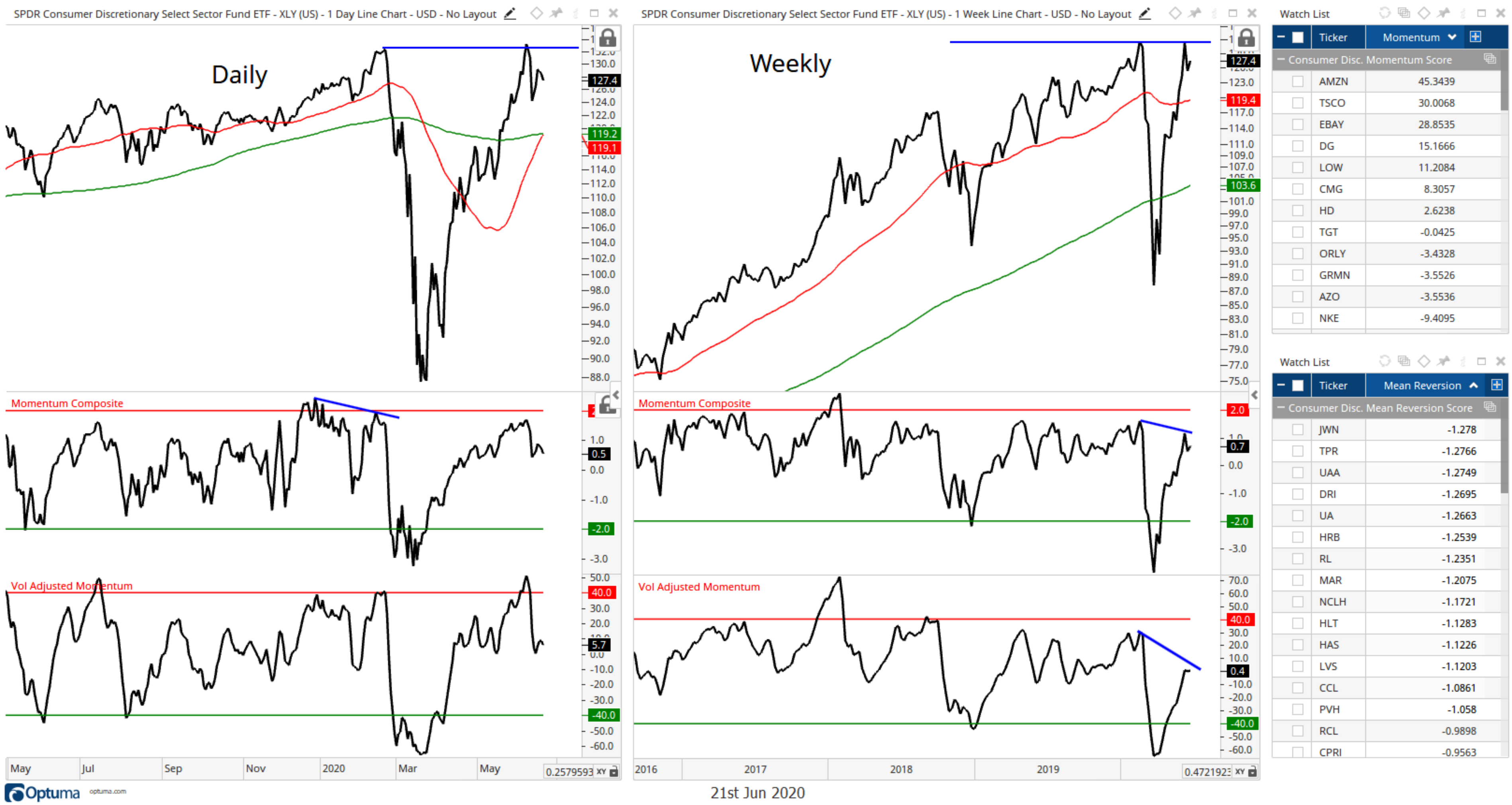
XLP remains below its 200-day MA as price consolidates since May.

Breadth lines up with price, would like to see continued expansion in % above 200MA.

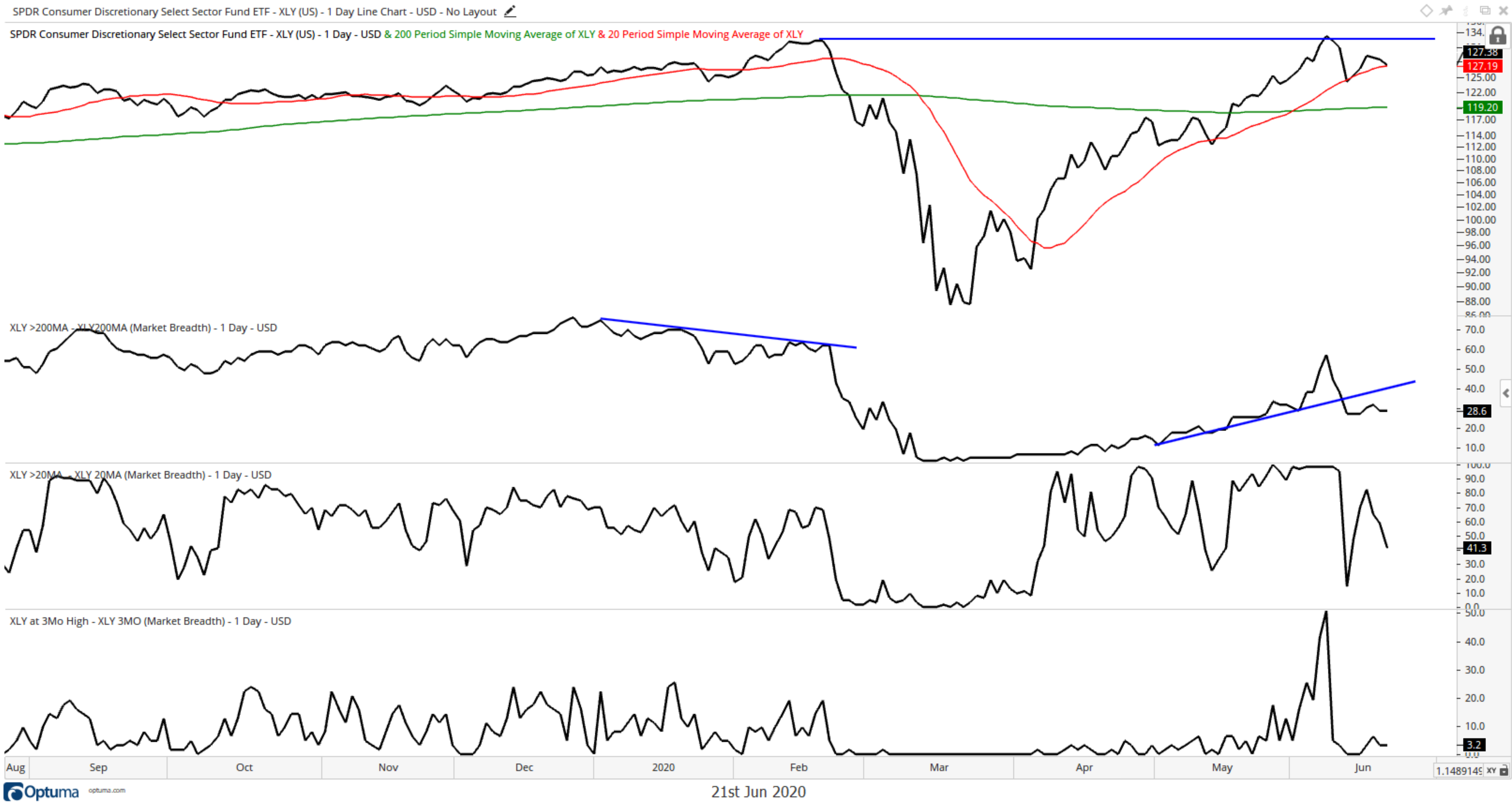

SPDR Consumer Staples Select Sector Fund ETF - XLP (US) - 1 Day Line Chart - USD - No Layout
Consumer Staples
Bullish Divergence XLP - BULLISHDIVXLP (Market Breadth) - 1 Day - USD
Bearish Divergence XLP - BEARISHDIVGXLP (Market Breadth) - 1 Day - USD
!!!SELL Bearish Divergence of XLP
Buy Signal Divergence of XLP
May
Jul
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
59.62
6.1
45.45
2.0
0.0
Optuma
21st Jun 2020

Consumer Discretionary Sector

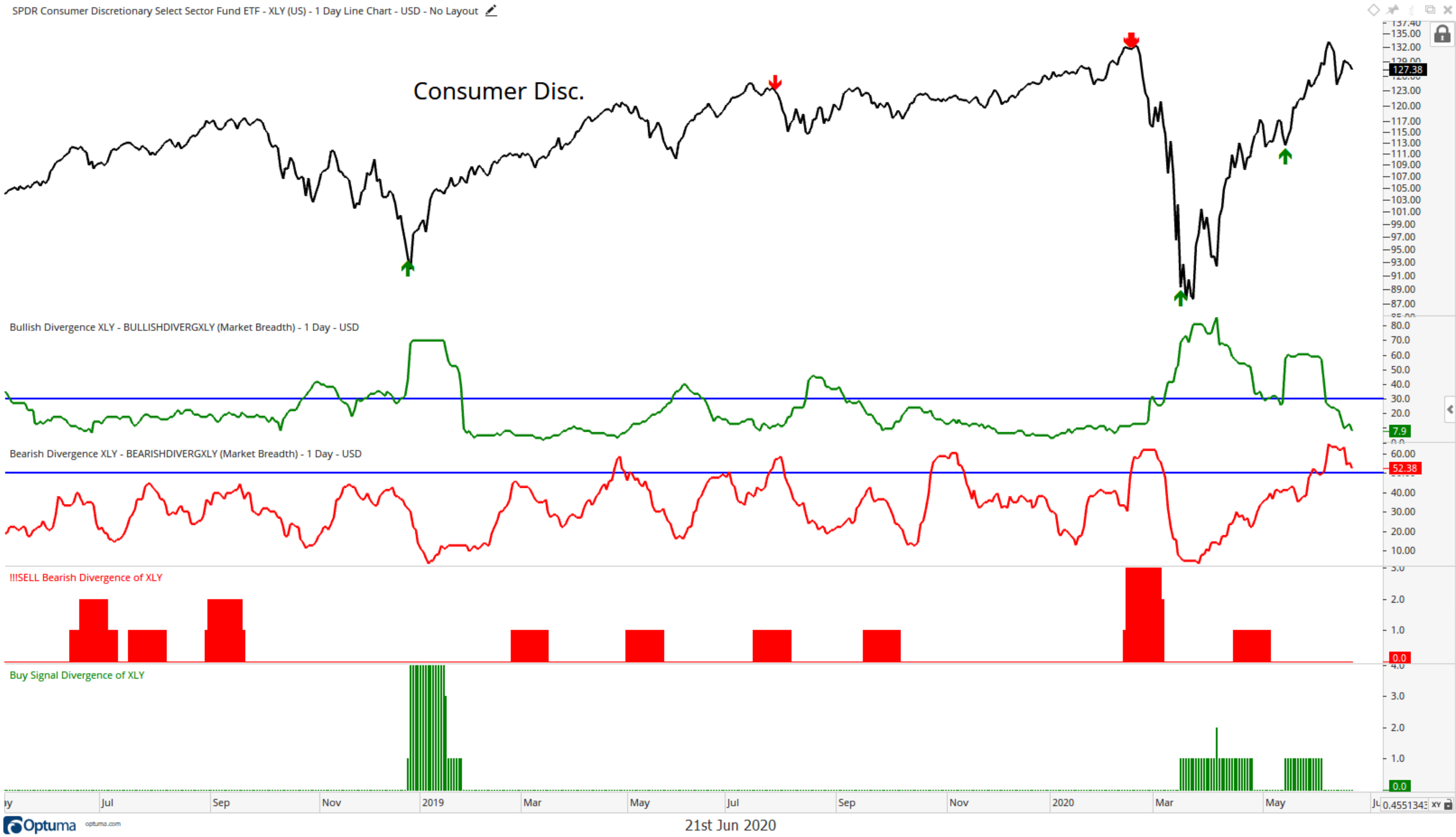
THRASHER ANALYTICS

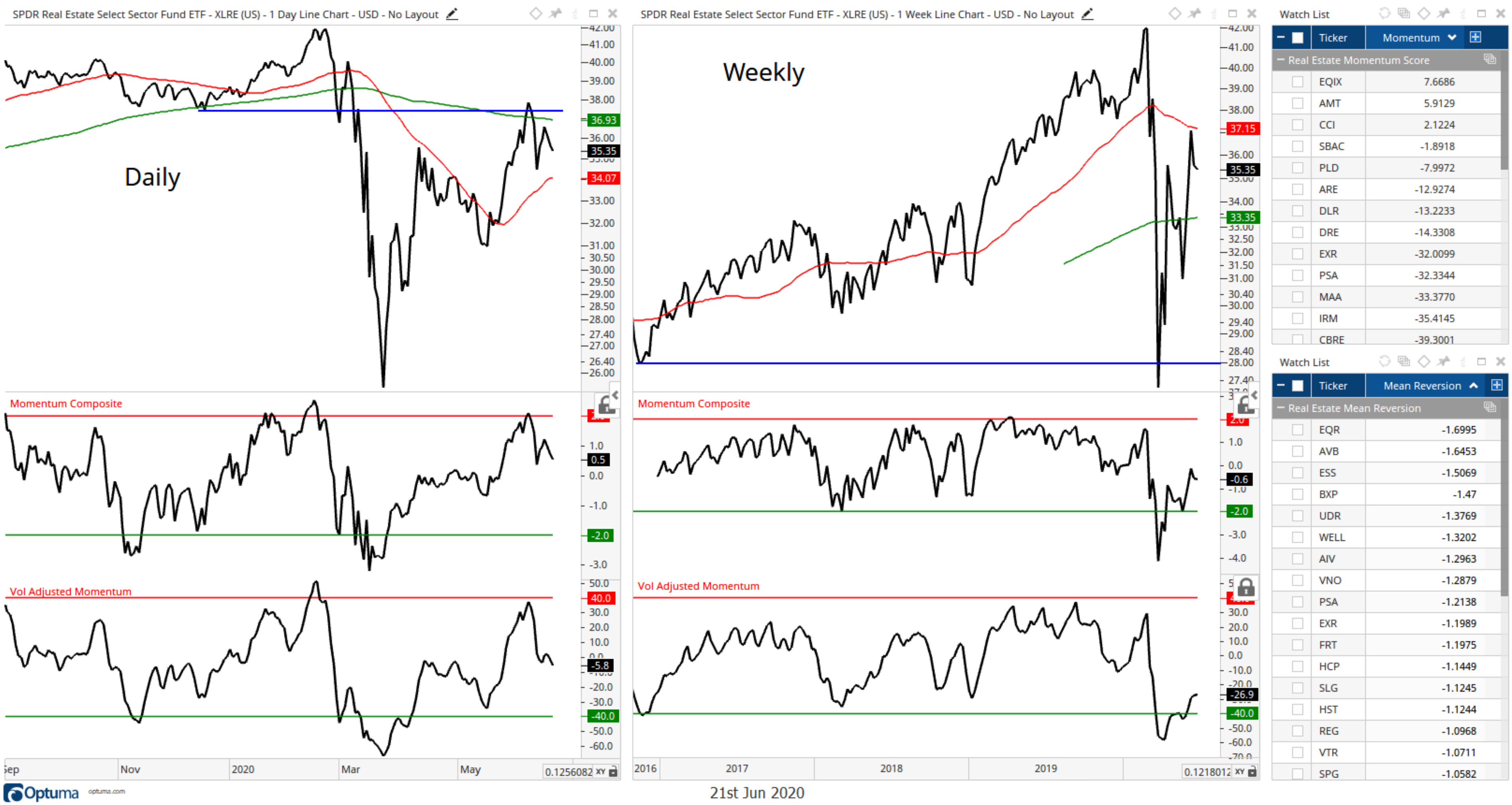


XLY failed its breakout attempt. Weekly momentum and VaM have put in two bearish divergences.



Breadth continuing to track price trend.


SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - 1 Day Line Chart - USD - No Layout
Consumer Disc.
127.38
Bullish Divergence XLY - BULLISHDIVERGXLY (Market Breadth) - 1 Day - USD
7.9
Bearish Divergence XLY - BEARISHDIVERGXLY (Market Breadth) - 1 Day - USD
52.38
!!!SELL Bearish Divergence of XLY
Buy Signal Divergence of XLY
Jul
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Optuma
21st Jun 2020



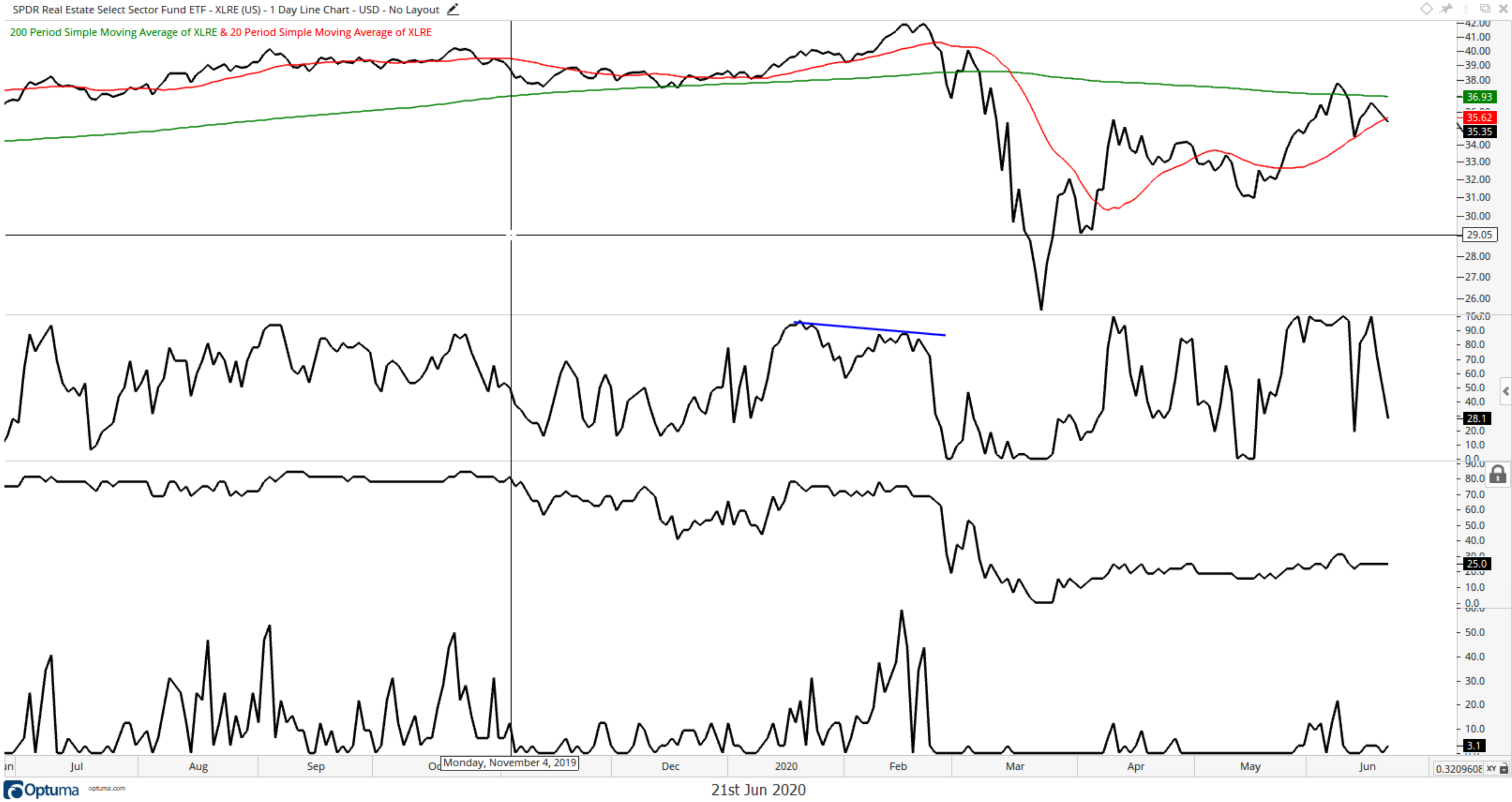
Watch List

Ticker	Momentum
Real Estate Momentum Score	
EQIX	7.6686
AMT	5.9129
CCI	2.1224
SBAC	-1.8918
PLD	-7.9972
ARE	-12.9274
DLR	-13.2233
DRE	-14.3308
EXR	-32.0099
PSA	-32.3344
MAA	-33.3770
IRM	-35.4145
CBRE	-39.3001

Watch List

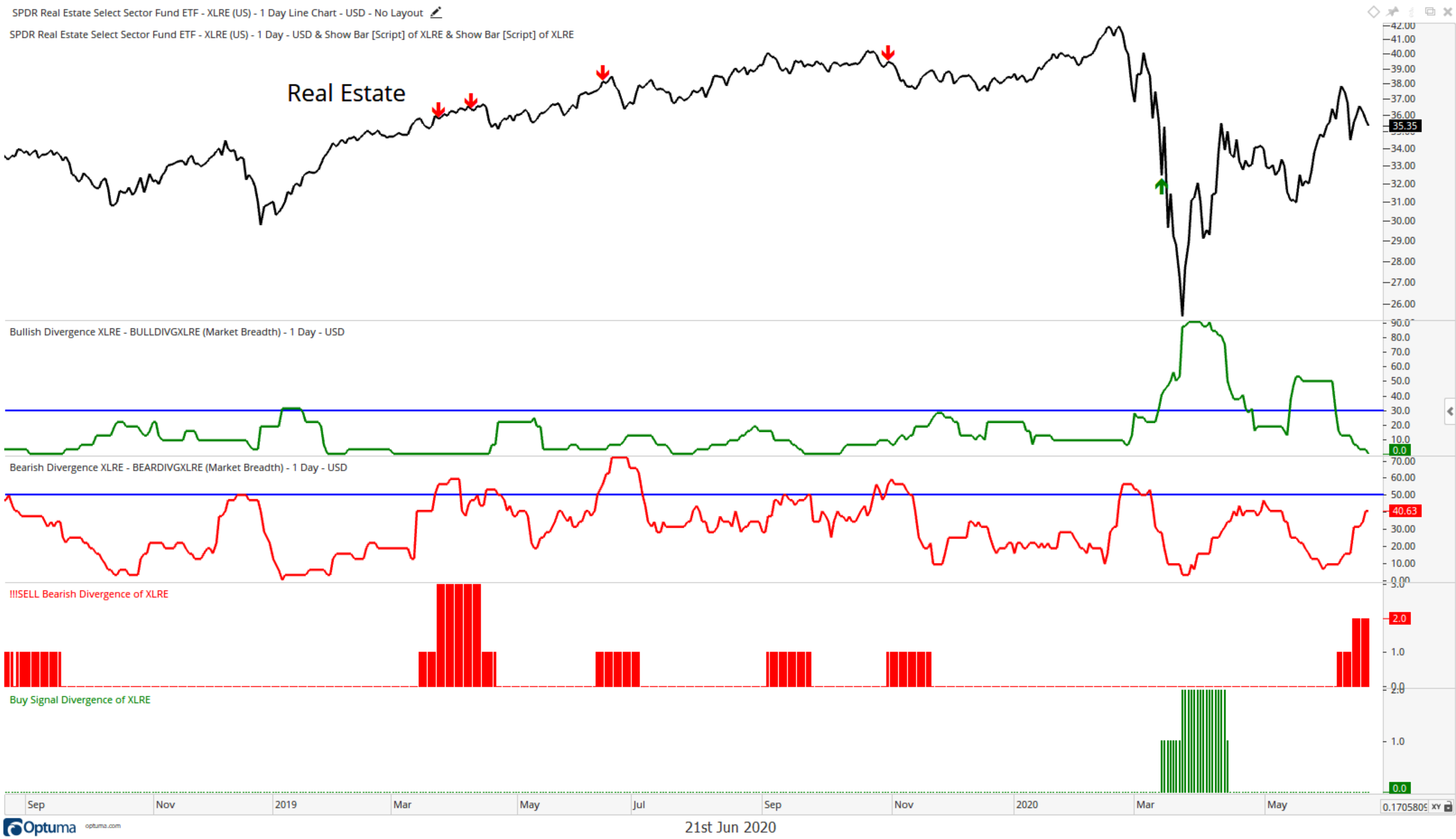
Ticker	Mean Reversion
Real Estate Mean Reversion	
EQR	-1.6995
AVB	-1.6453
ESS	-1.5069
BXP	-1.47
UDR	-1.3769
WELL	-1.3202
AIV	-1.2963
VNO	-1.2879
PSA	-1.2138
EXR	-1.1989
FRT	-1.1975
HCP	-1.1449
SLG	-1.1245
HST	-1.1244
REG	-1.0968
VTR	-1.0711
SPG	-1.0582

XLRE remains below the 200-day MA after momentum came off overbought level.



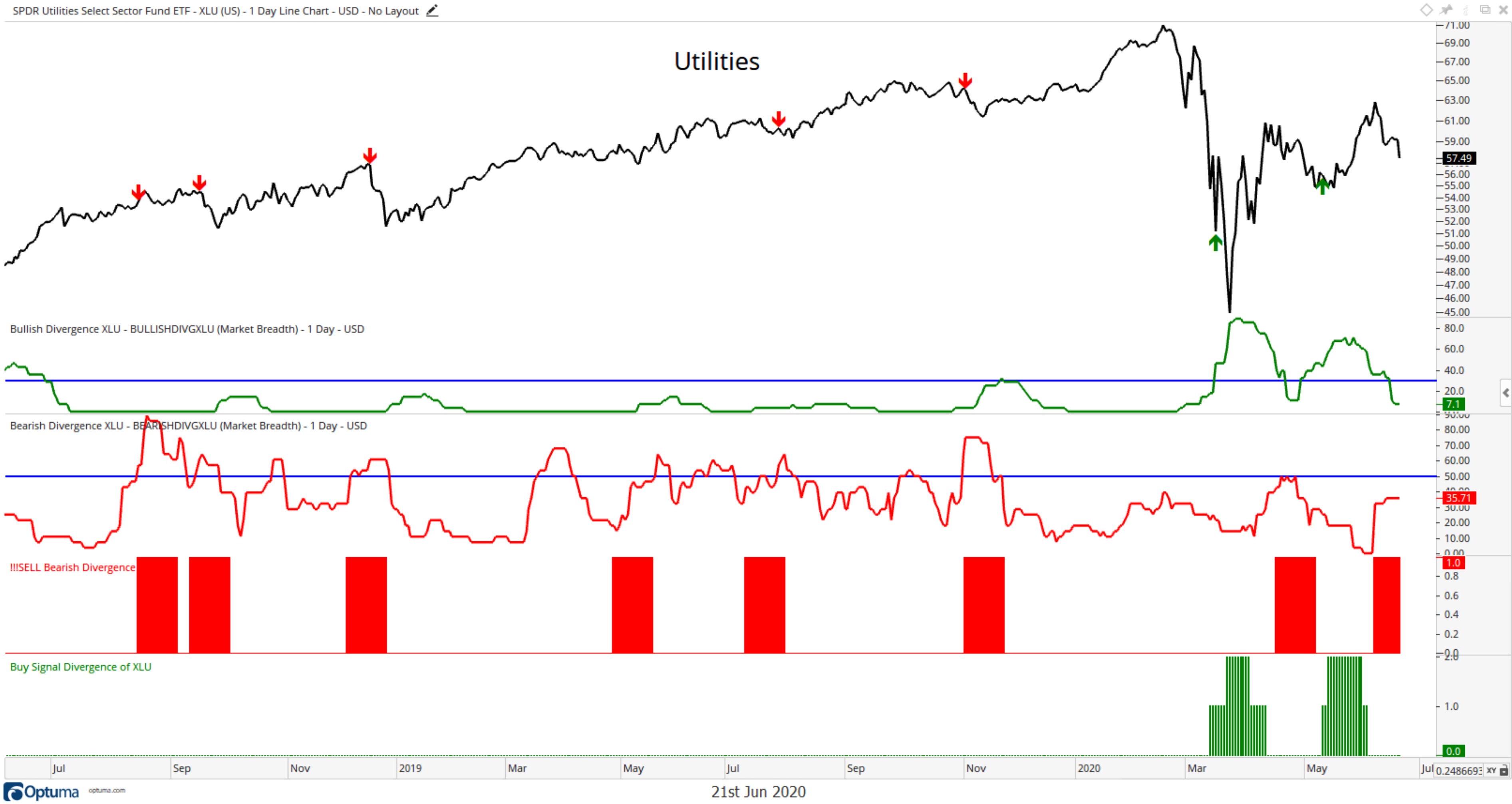
Still only 25% of stocks above 200-day MA, lack of support for XLRE as it tries to break the 200-day MA.

Real Estate Sector



XLU failed to break above 200-day MA.

Breadth uninspired.


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
Buy Signal Divergence of XLU
Jul
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
57.49
7.1
35.71
21st Jun 2020

Daily Sentiment Index Dashboard

Day - Watch List - No Layout

Market	% Bullish	5MA	History
Lean Hog DSI	10	14.6	
Coffee DSI	14	14.6	
Cocoa DSI	17	18.2	
Natural Gas DSI	18	13.6	
Wheat DSI	19	26.20	
VIX DSI	30.00	27.00	
US Dollar DSI	43.00	33.80	
Corn DSI	48.00	45.20	
5YR DSI	50.00	50.20	
Cattle DSI	51.00	58.00	
British Pound DSI	51.00	58.80	
10Y DSI	51.00	45.80	
Orange Juice DSI	53.00	52.80	
Heating Oil DSI	56.00	60.20	
Mexican Peso DSI	60.00	61.20	
Euro DSI	61.00	67.60	
Palladium DSI	63.00	68.80	

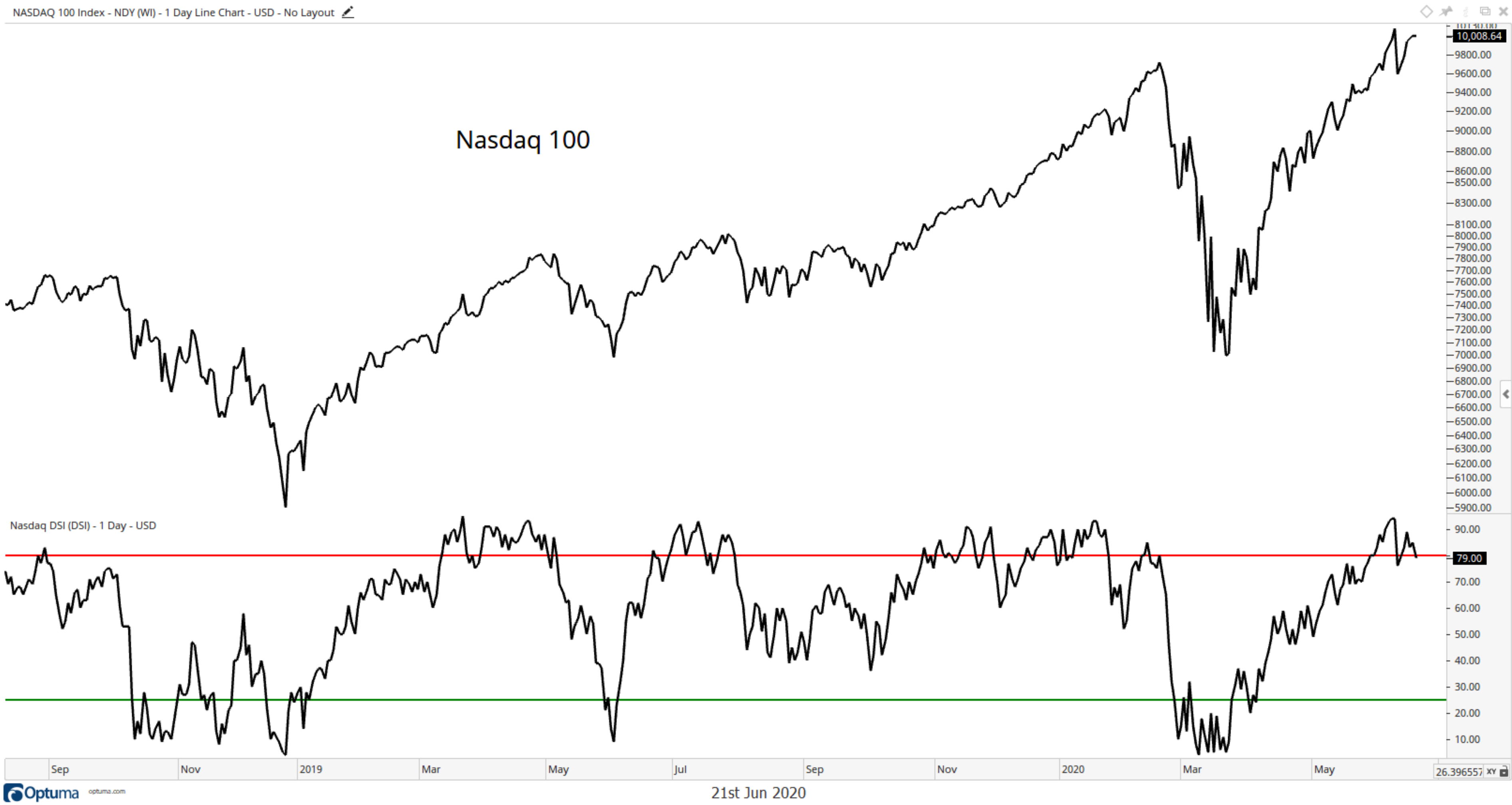
1 Day - Watch List - No Layout

Code	% Bullish	5MA	History
Australian Dollar DSI	63.00	70.00	
Swiss Franc DSI	65.00	67.00	
SPX DSI	65.00	71.80	
Nikkei DSI	68.00	70.20	
Sugar DSI	69.00	70.20	
Cotton DSI	69.00	67.20	
Gasoline DSI	70.00	65.60	
Platinum DSI	71.00	72.00	
EuroDollar DSI	71.00	71.00	
Lumber DSI	73.00	53.20	
Crude Oil DSI	75.00	70.40	
CRB Index DSI	76.00	70.60	
New Zealand Dollar DSI	77.00	81	
Copper DSI	77.00	74.20	
Silver DSI	79.00	77.00	
Nasdaq DSI	79.00	83.8	
Gold DSI	82	78.20	

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

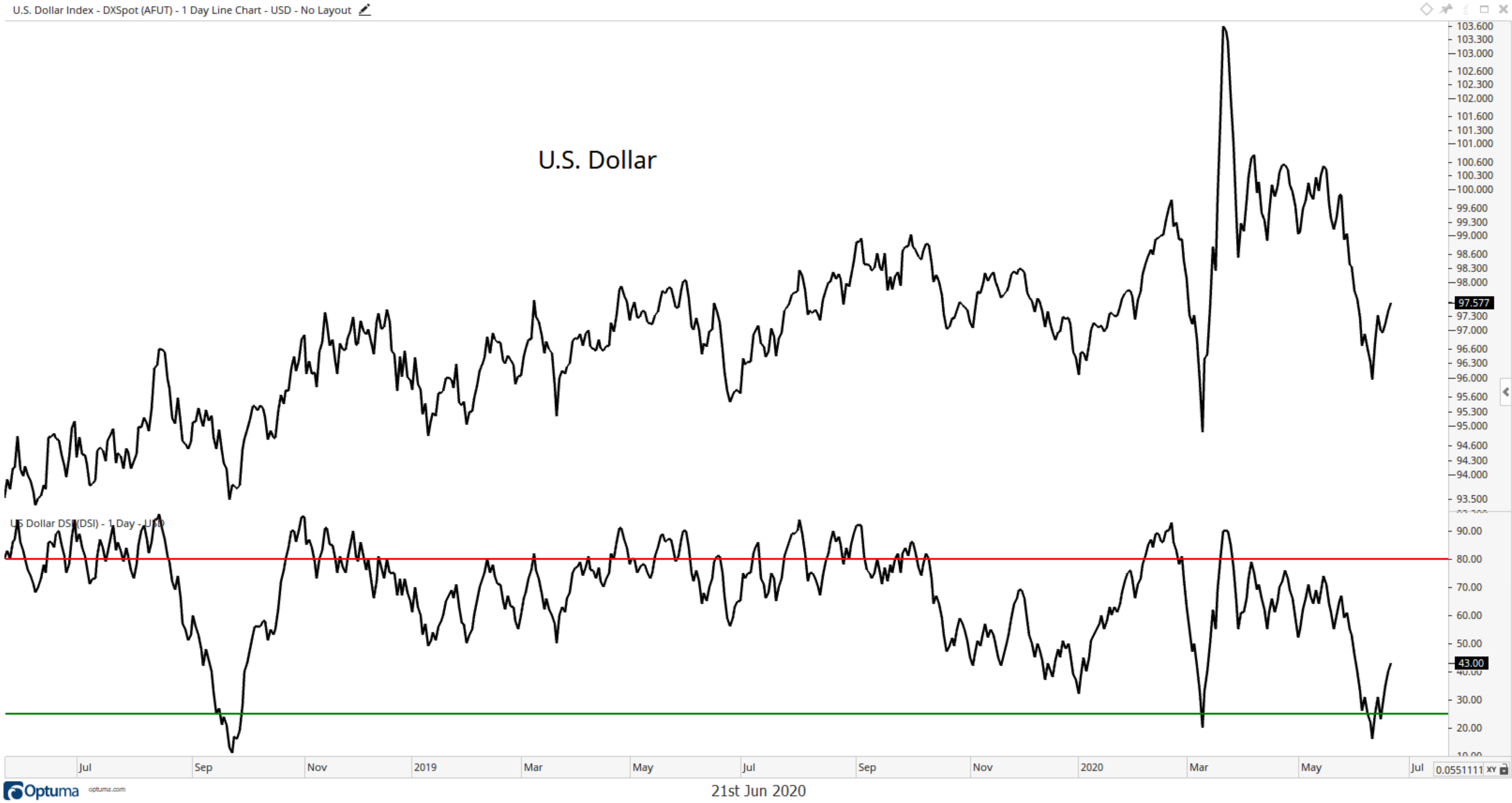

10-Year T-Note (P) Continuation - TY_FSpot (CBOT) - 1 Day Line Chart - USD - No Layout
10yr Treasury Bond
138.78
51.00
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Jul
Optuma
21st Jun 2020


S&P 500 INDEX - SPX (WI) - 1 Day Line Chart - USD - No Layout
S&P 500
SPX DSI (DSI) - 1 Day - USD
3380.00
3340.00
3300.00
3230.00
3200.00
3160.00
3130.00
3,097.74
3060.00
3030.00
3000.00
2960.00
2930.00
2900.00
2860.00
2830.00
2800.00
2760.00
2730.00
2700.00
2660.00
2630.00
2600.00
2560.00
2530.00
2500.00
2460.00
2430.00
2400.00
2360.00
2330.00
2300.00
2250.00
90.00
80.00
70.00
65.00
60.00
50.00
40.00
30.00
20.00
10.00
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Optuma
21st Jun 2020



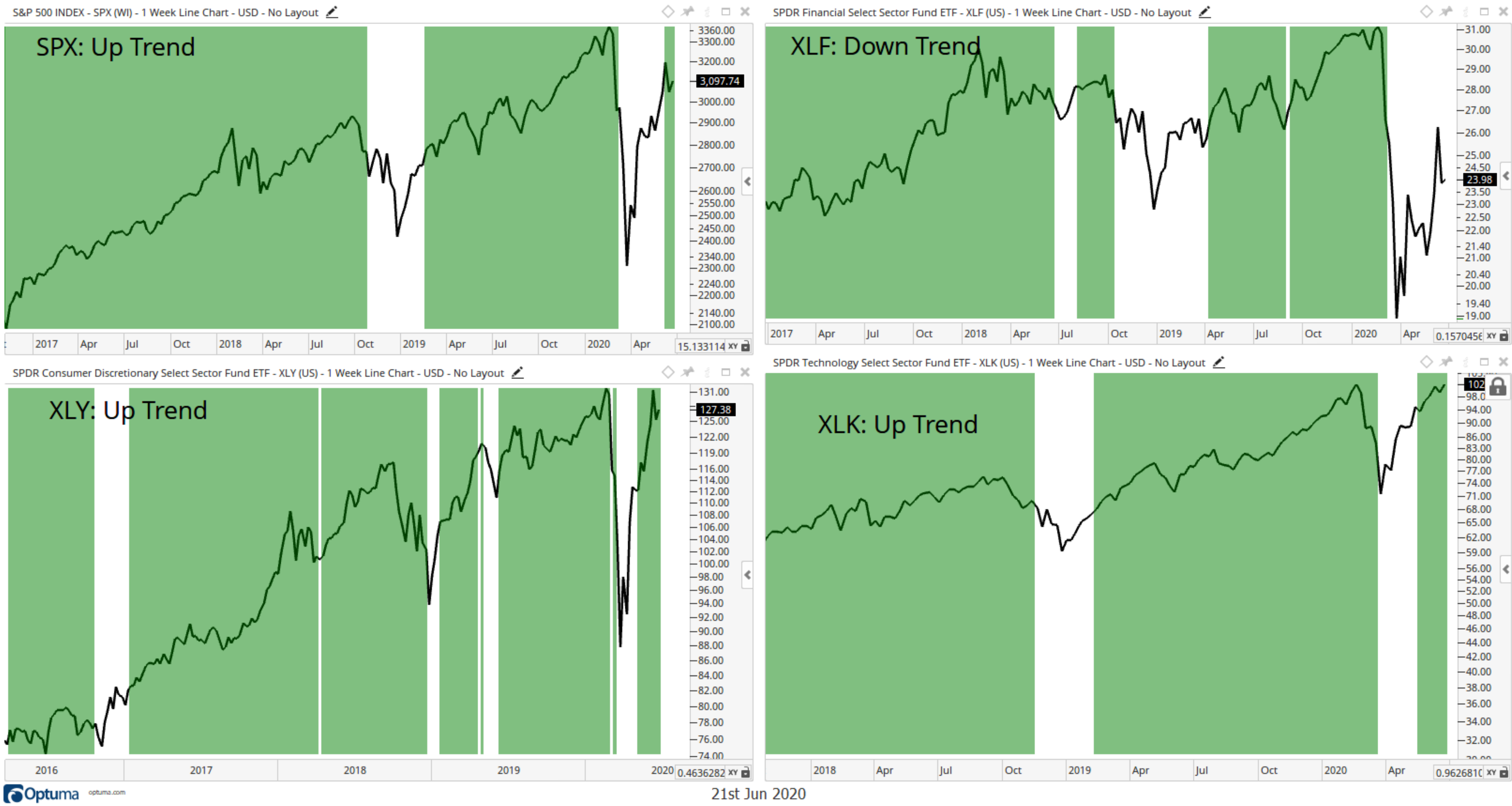
NASDAQ 100 Index - NDY (WI) - 1 Day Line Chart - USD - No Layout
Nasdaq 100
10,008.64
9800.00
9600.00
9400.00
9200.00
9000.00
8800.00
8600.00
8500.00
8300.00
8100.00
8000.00
7900.00
7800.00
7700.00
7600.00
7500.00
7400.00
7300.00
7200.00
7100.00
7000.00
6900.00
6800.00
6700.00
6600.00
6500.00
6400.00
6300.00
6200.00
6100.00
6000.00
5900.00
Nasdaq DSI (DSI) - 1 Day - USD
90.00
79.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Optuma
21st Jun 2020

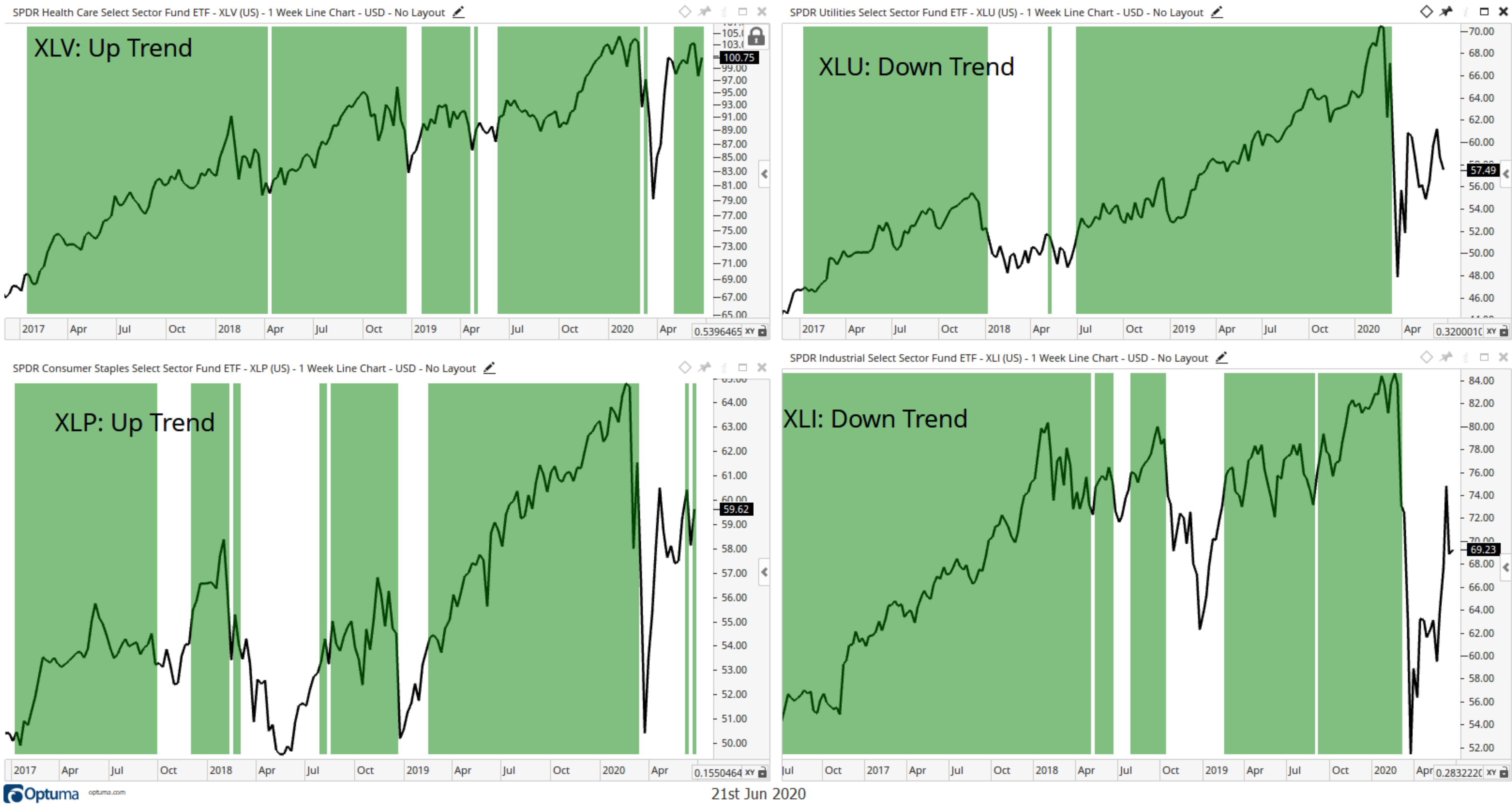
Gold Futures - GCSpot (NYMEX) - 1 Day Line Chart - USD - No Layout
Gold
1,753.00
82.00
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
21st Jun 2020
Optuma


U.S. Dollar Index - DXSpot (AFUT) - 1 Day Line Chart - USD - No Layout
U.S. Dollar
US Dollar DSI (DSI) - 1 Day - USD
97.577
43.00
Jul
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Jul
21st Jun 2020
Optuma


CBOE S&P 500 Volatility Index - VIX (CBOEI) - 1 Day Line Chart - USD - No Layout
VIX
VIX DSI (DSI) - 1 Day - USD
35.12
30.00
Sep
Nov
2019
Mar
May
Jul
Sep
Nov
2020
Mar
May
Optuma
21st Jun 2020

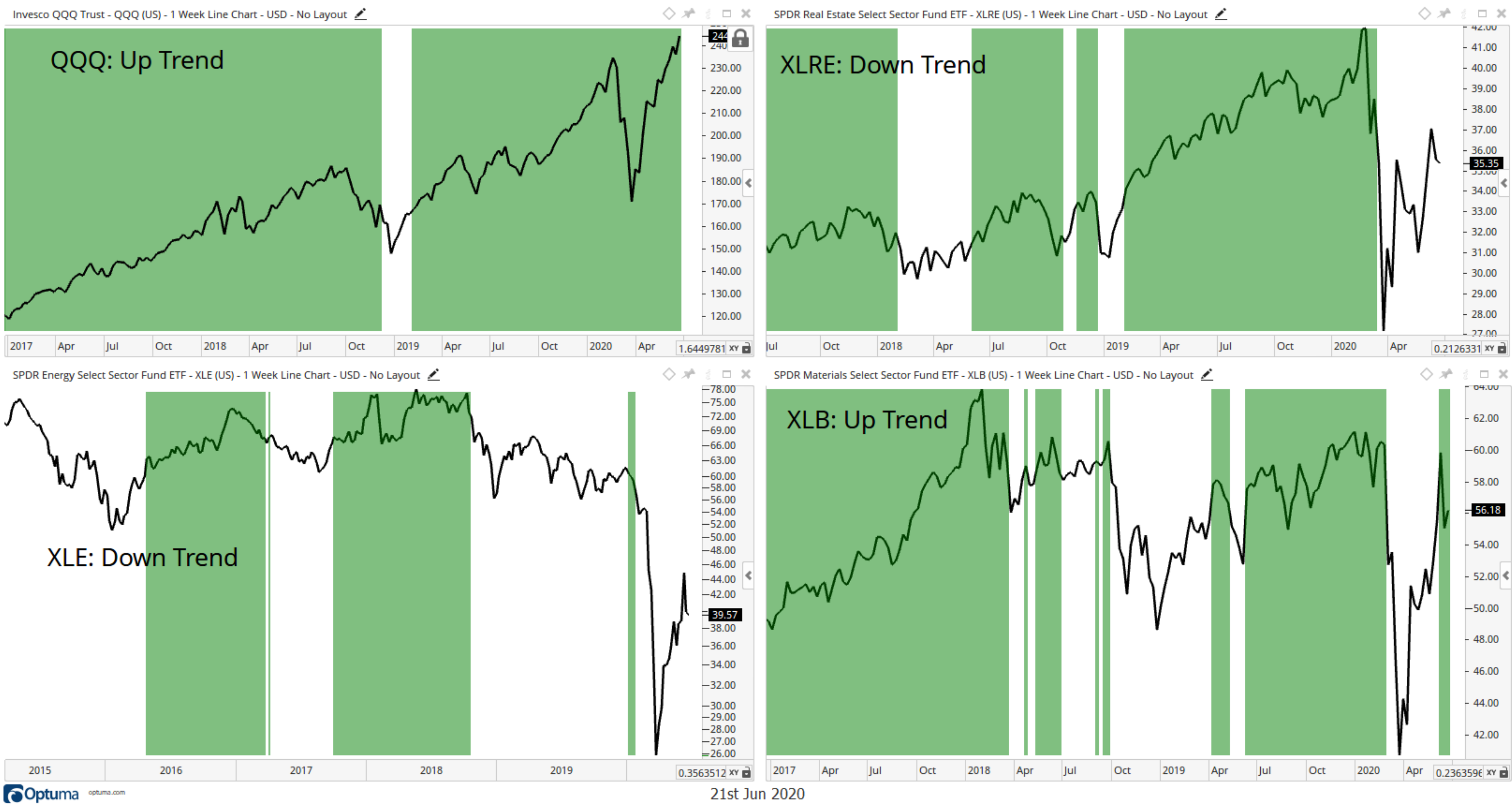
DAILY SENTIMENT INDEX NIKKEI 225


S&P 500 INDEX - SPX (WI) - 1 Week Line Chart - USD - No Layout
SPX: Up Trend
SPDR Financial Select Sector Fund ETF - XLF (US) - 1 Week Line Chart - USD - No Layout
XLF: Down Trend
SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - 1 Week Line Chart - USD - No Layout
XLY: Up Trend
SPDR Technology Select Sector Fund ETF - XLK (US) - 1 Week Line Chart - USD - No Layout
XLK: Up Trend
Optuma
21st Jun 2020



21st Jun 2020

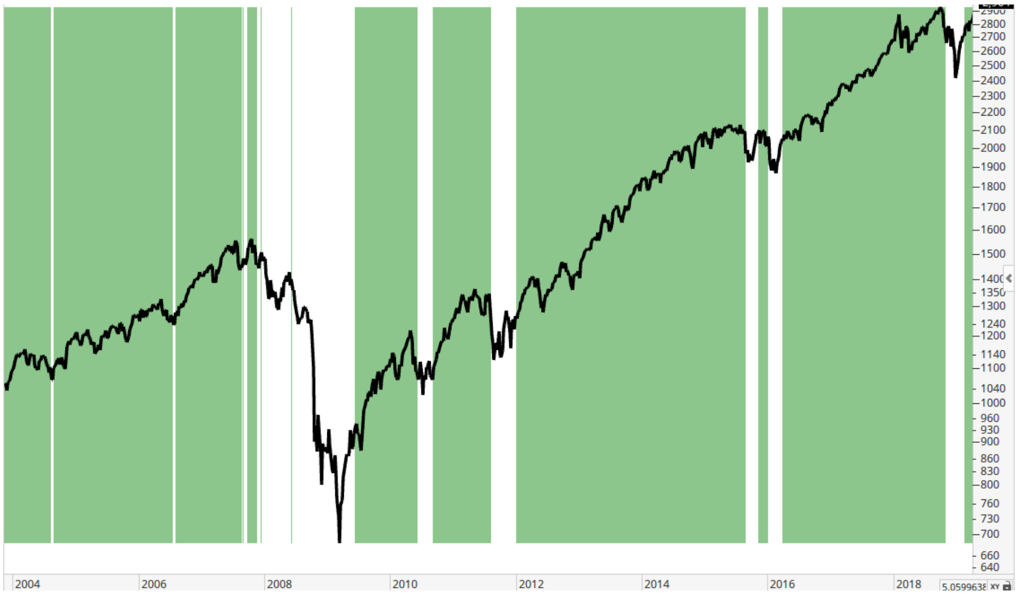
SECTOR TREND

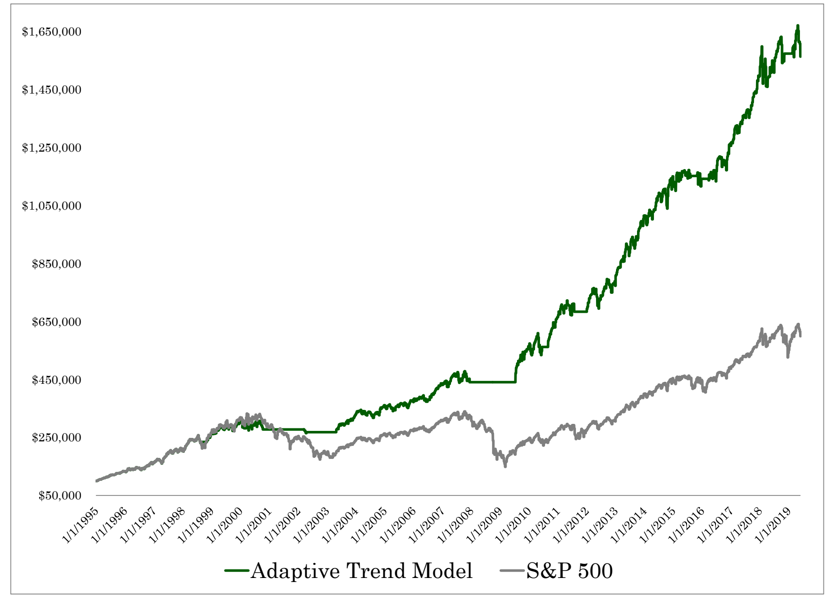


Trend-based analysis is a process built on the idea of enduring minor pullbacks in the anticipating of avoiding protracted drawdowns in financial markets. With a focus on stepping out of the market during large down trends, the Thrasher Analytics Adaptive Trend Model (TAATM) pursues to minimize the “whipsaws”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



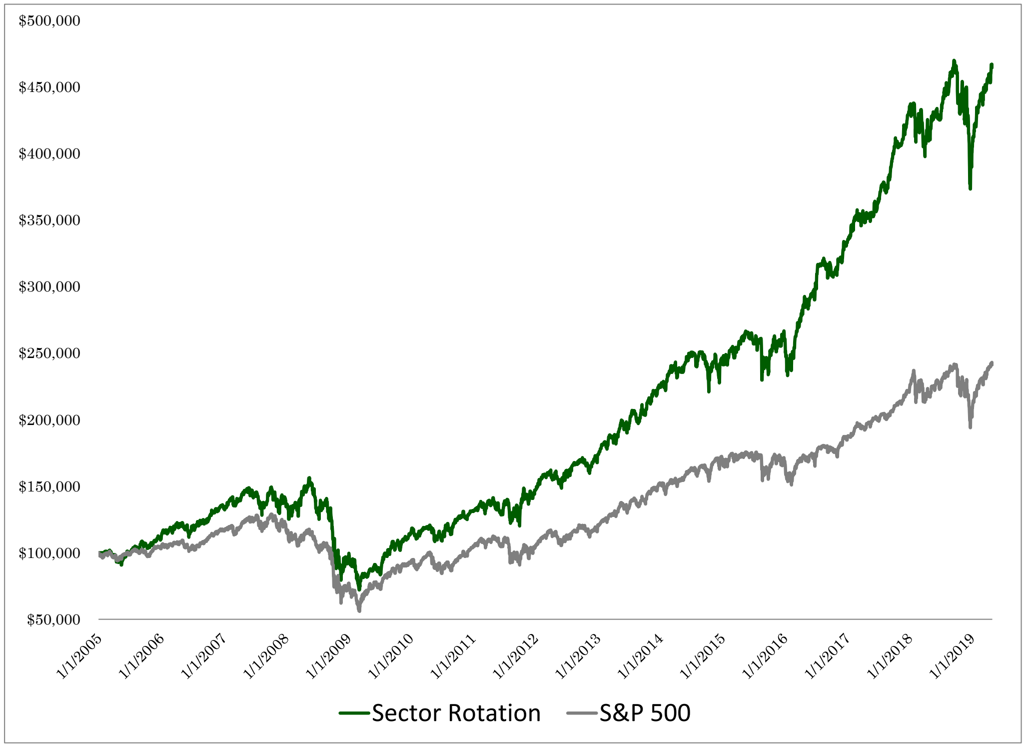


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Adaptive Trend	12.5%	10.3%	0.47	0.97	14.1%
S&P 500	8.9%	15.3%	1	0.42	56.6%

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.

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	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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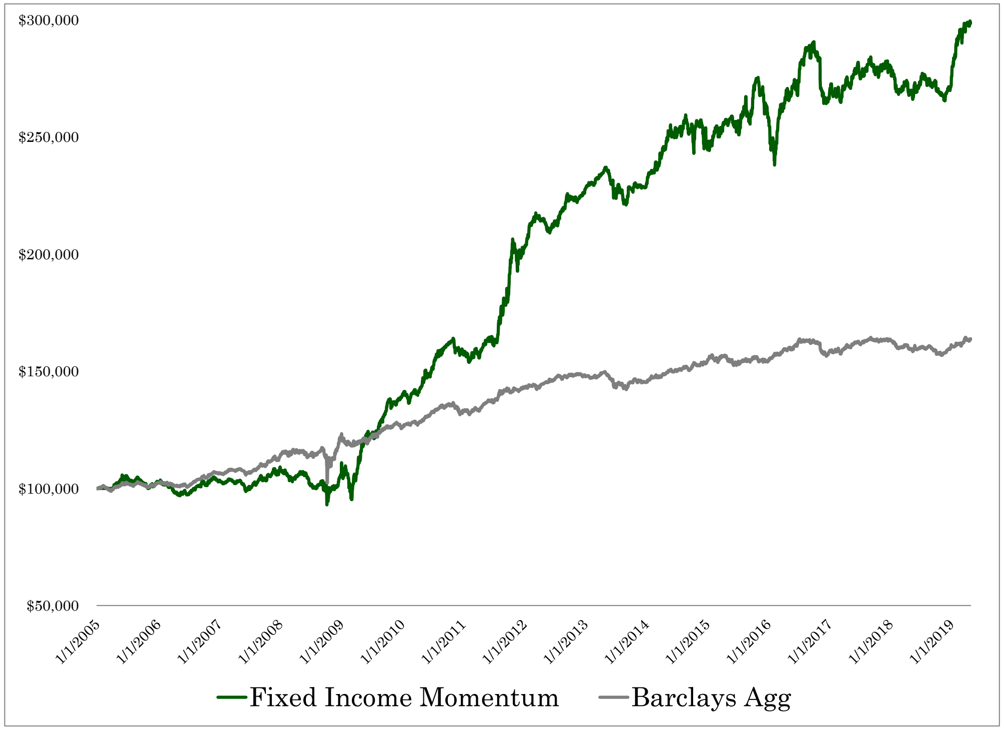
If equities are the speedboats in the sea of financial markets then fixed income securities are the tanker ships. While stocks can move violently in both directions, Thrasher Analytics research has shown that fixed income markets historically show consistent trends. Because of the tanker-like movements 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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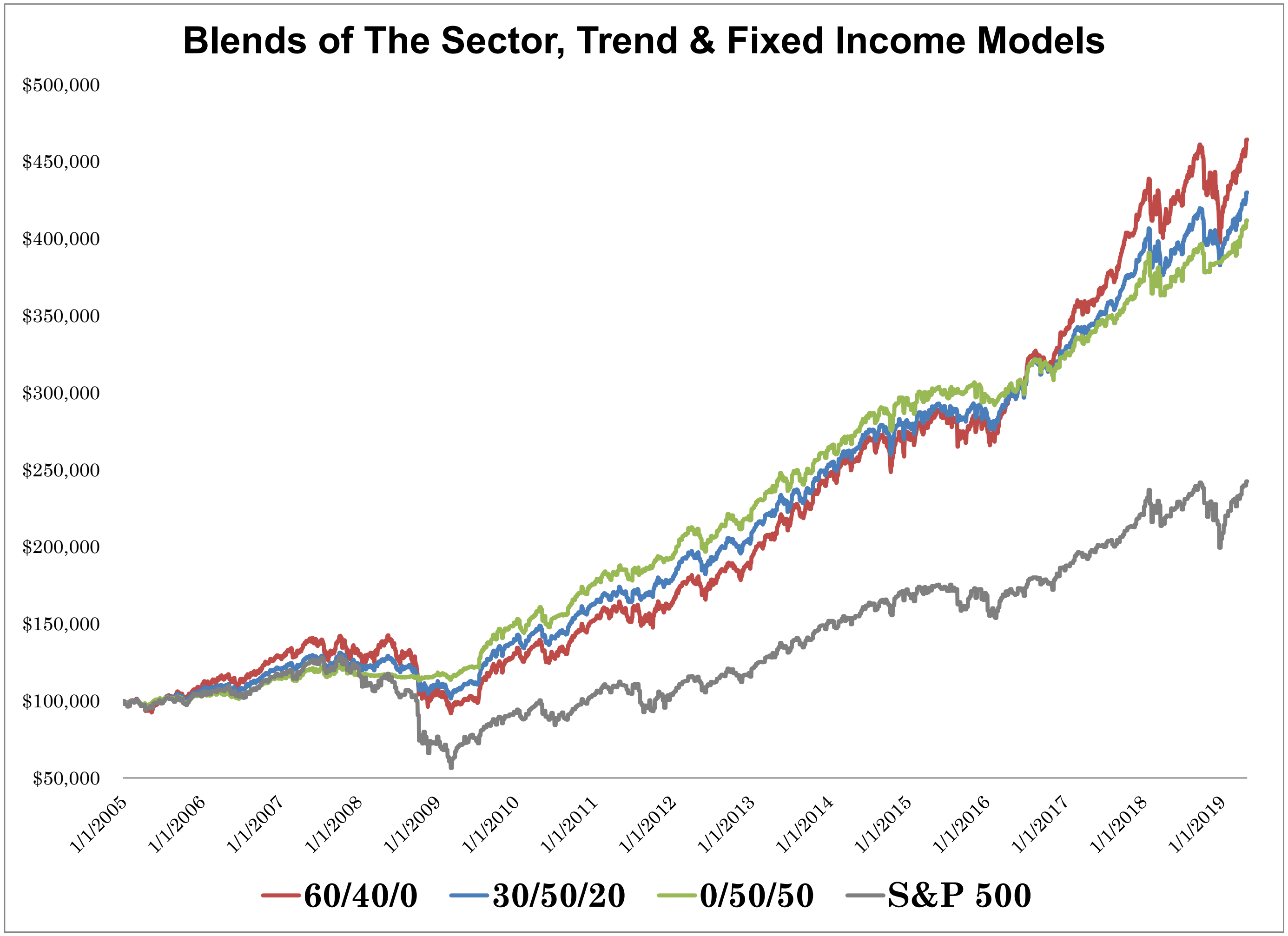
The concept of diversification is not new to financial markets. While many market participants focus on the diversification of the underlying holdings. This procedure is can be vastly skewed during periods of high market turmoil, in which correlations across asset classes tend to historically rise. Thrasher 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	PCY
	XLV	CWB
	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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