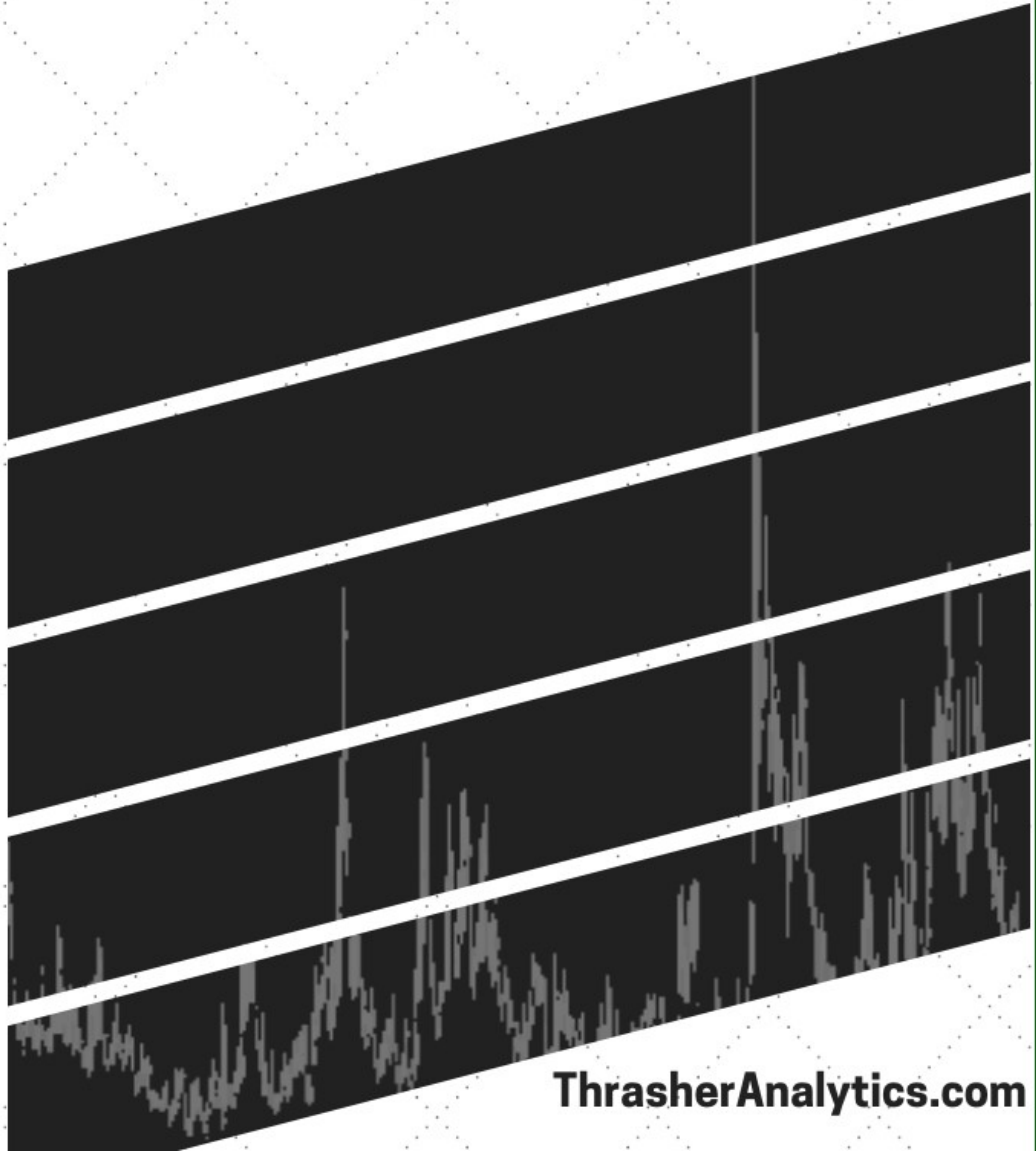




WEEKLY RESEARCH & ANALYSIS



ThrasherAnalytics.com

Sector Rotation: May	
Technology	XLK
Health Care	XLV
Consumer Staples	XLP

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

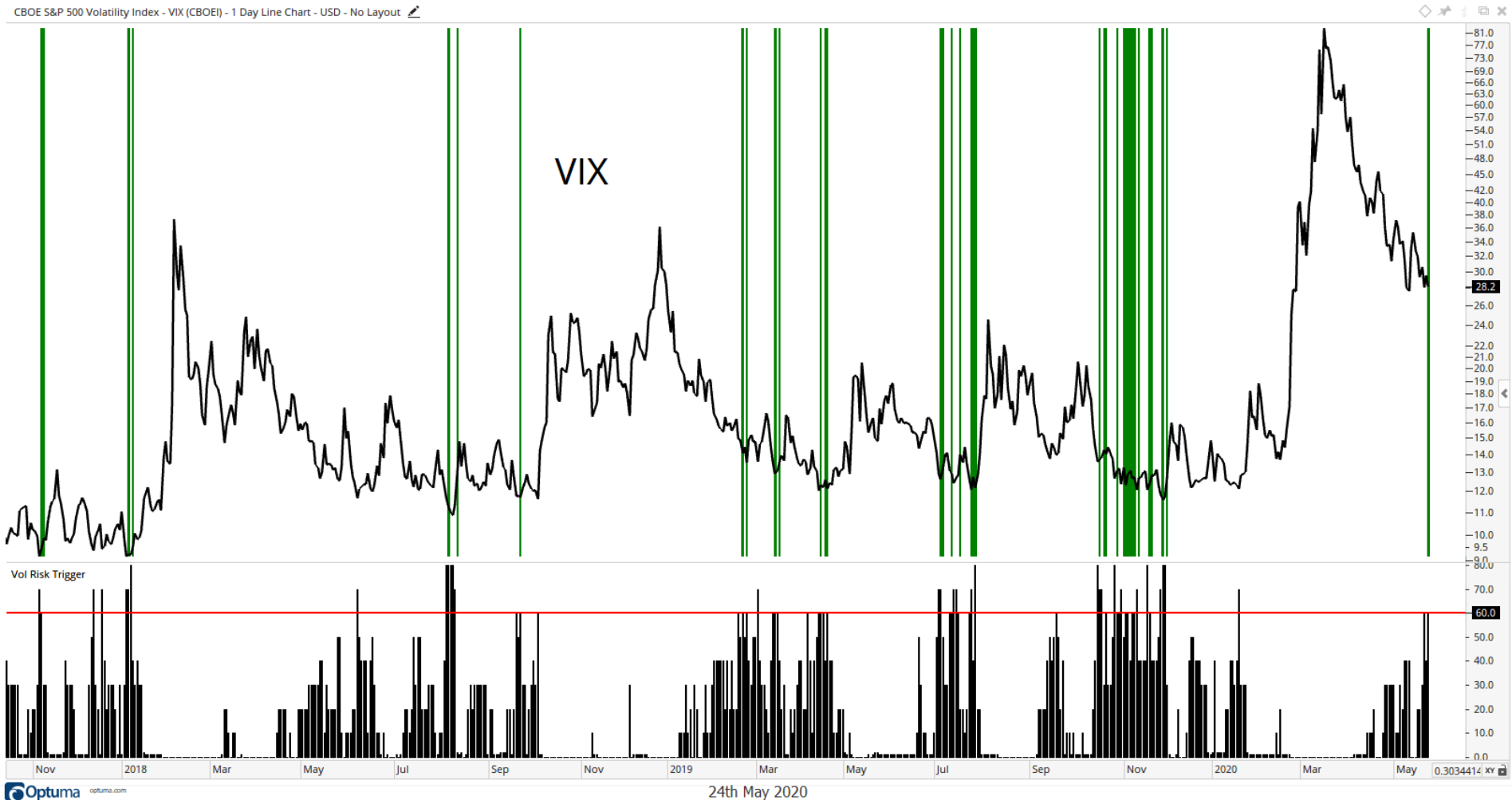
Notable Breadth Data:	
SPX >50MA	82.18%
SPX >200MA	30.30%
Nasdaq >50MA	90.29%
Nasdaq >200MA	56.31%

Index & Sector Adaptive Trend		
	Up Trend	Down Trend
SPX		X
QQQ	X	
XLF		X
XLV	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	63%	64%
Nasdaq 100	71%	72%
Nikkei	79%	74%
VIX	31%	33%
10yr Treasury	65%	58%
5yr Treasury	55%	53%
CRB Index	77%	77%
Gold	84%	83%
U.S. Dollar	65%	61%

**Green < 25% Red > 80%*

Sector	> 50MA	> 200MA	1wk Perf ▼	1mo Perf	3mo Perf	12mo Perf +
SPDR Industrial Select Sector Fund ETF	True	False	7.37%	5.35%	-23.63%	-14.68%
SPDR Energy Select Sector Fund ETF	True	False	6.92%	15.00%	-28.93%	-39.64%
SPDR Real Estate Select Sector Fund ETF	True	False	5.55%	-1.92%	-22.01%	-10.75%
SPDR Consumer Discretionary Select Sector Fund ETF	True	True	4.98%	9.80%	-6.96%	4.59%
SPDR Communication Services Select Sector ETF	True	True	4.8%	12.58%	-4.29%	9.61%
SPDR Financial Select Sector Fund ETF	True	False	4.13%	1.86%	-28.76%	-18.45%
SPDR Materials Select Sector Fund ETF	True	False	4.05%	8.57%	-12.28%	-3.15%
SPDR Technology Select Sector Fund ETF	True	True	3.23%	10.41%	-2.97%	28%
SPDR Utilities Select Sector Fund ETF	True	False	3.05%	-4.19%	-19.69%	-3.91%
SPDR Consumer Staples Select Sector Fund ETF	True	False	0.14%	-1.95%	-11.11%	-0.48%
SPDR Health Care Select Sector Fund ETF	True	True	-0.8%	1.22%	-3.68%	12.64%

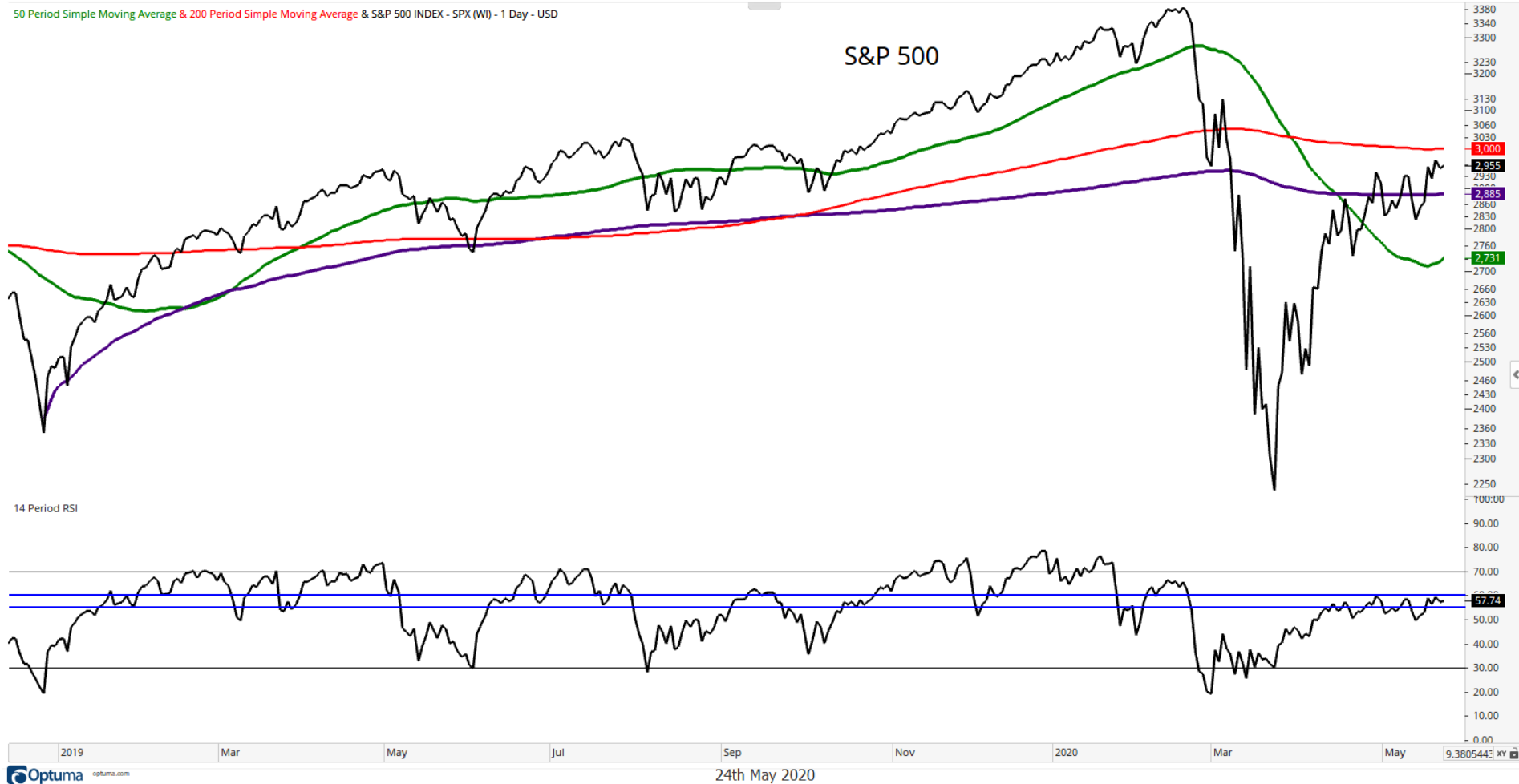


The VRT triggered twice last week, Wednesday and Thursday. As volatility has moved off its March peak it's also started to see its daily dispersion drop along with the other components of the indicator meeting their threshold. However, I will note that when the VRT as triggered while the VIX has been above 25 in the past, something we saw it do in early 2009 and 2011, volatility continued to move lower. I prefer to see this trigger with volatility at lower levels. Also, weekly dispersion is still extremely elevated, a big difference from November '19 through February '20. Typically when weekly dispersion accompanies daily dispersion (and the other components) we get a stronger signal. This doesn't mean there isn't elevated risk in volatility, but I want to note these important caveats.



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

50 Period Simple Moving Average & 200 Period Simple Moving Average & S&P 500 INDEX - SPX (WI) - 1 Day - USD



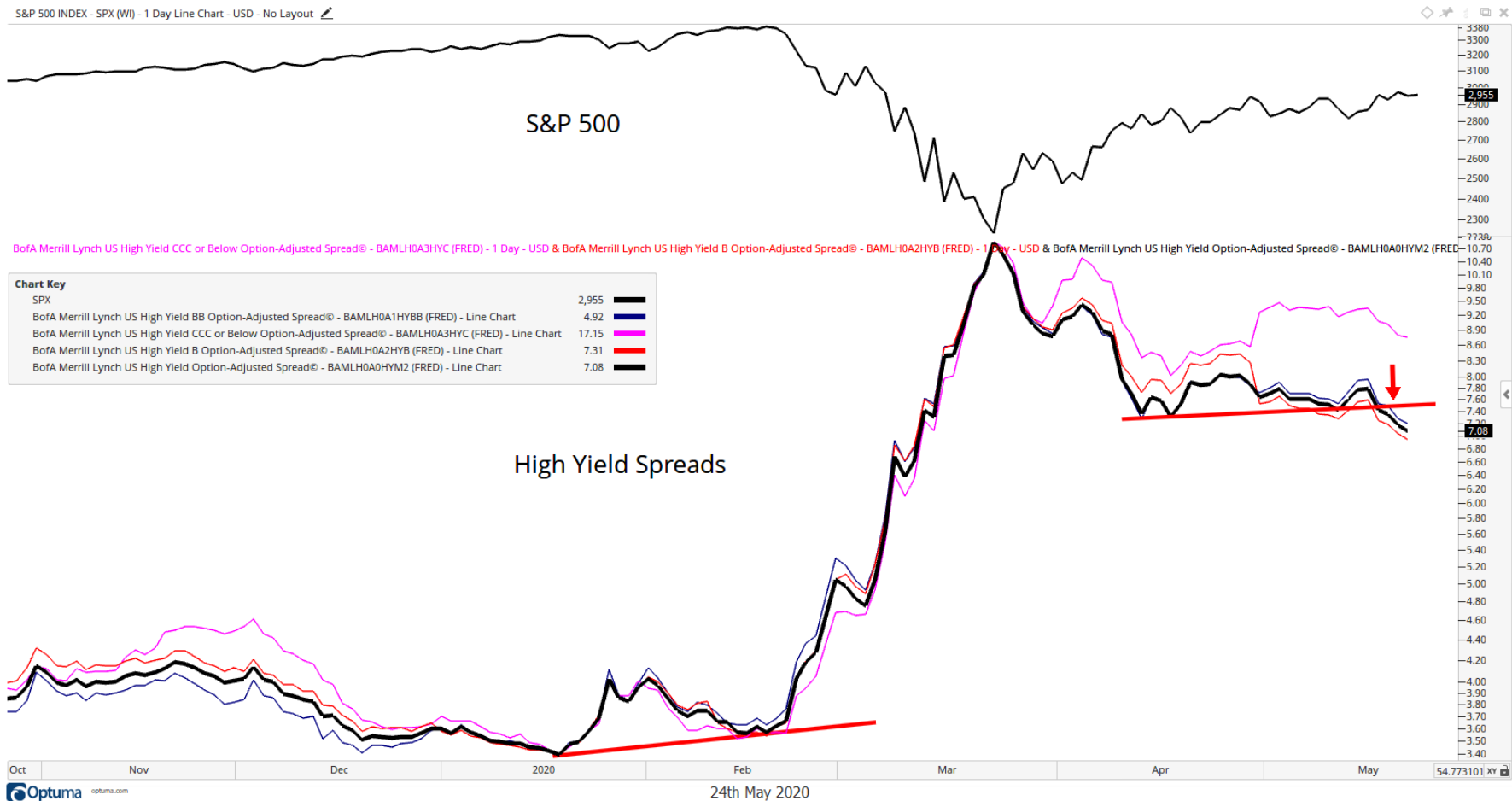
Are we back above the 200-day moving average? No. Has momentum moved out of its bearish range yet? No. Has the market really done anything in three weeks? No, not really. As I wrote last week, I'm sitting on my hands until we clear the 200-day MA and breadth meets my threshold. More on this on the next page.

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

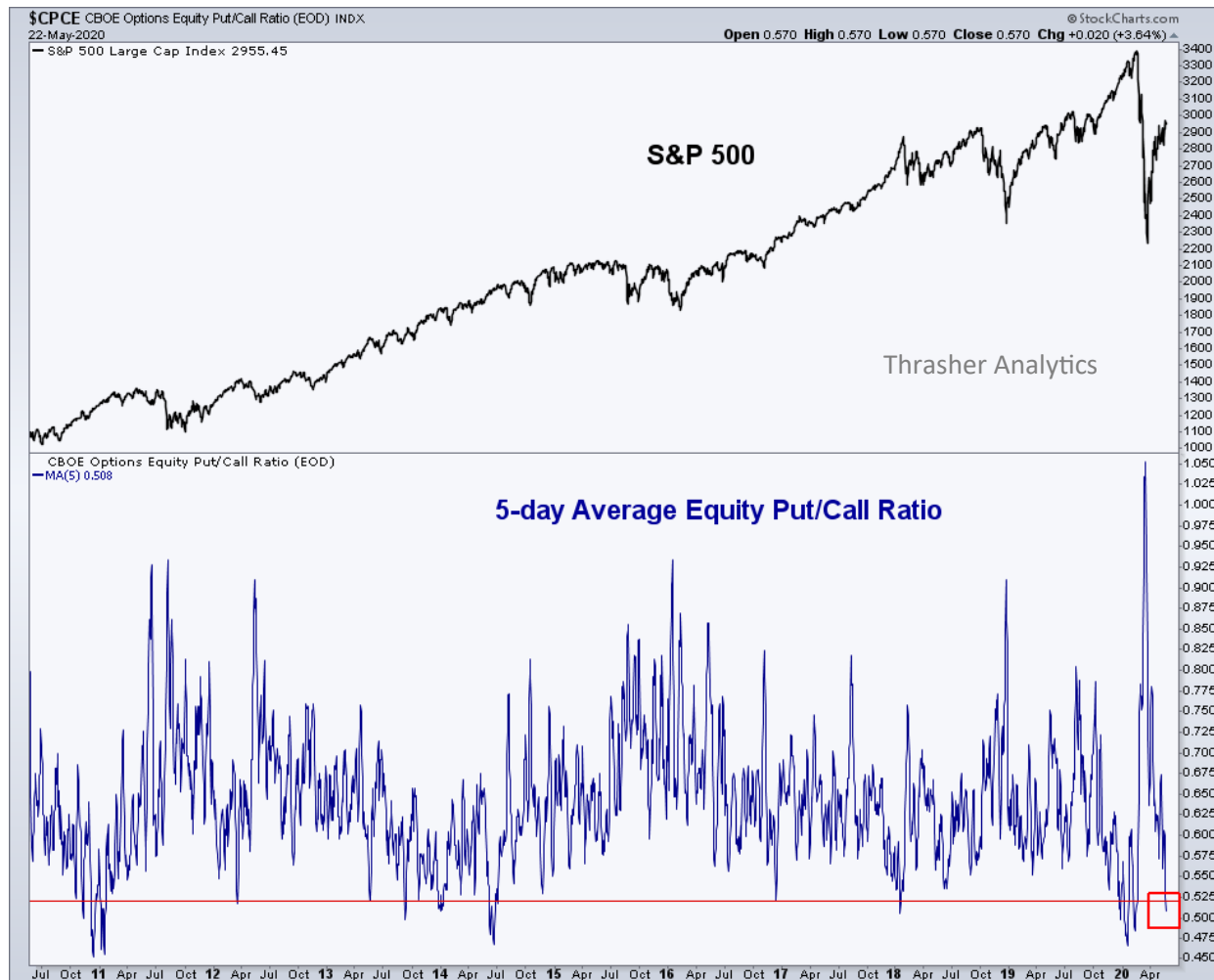
S&P 500 Breadth & Trend Confirmation



I've written about this chart before and shared it in a [blog post as well](#). Historical bear markets or major corrections were confirmed to have ended when we had the S&P 500 above its 200-day MA and at least 85% of stocks trading above their 50-day Moving Average, a "breadth thrust" to signal the strength in equities. We're at 81% of stocks above their 50-day MA, still below the 85% threshold and price remains below its long-term MA. With that, this advance since March remains a possible bear market rally. We'll see what this next week brings.



High yield bond spreads had an encouraging move last week, falling below their prior lows as they continue to narrow after the move higher during the bear market decline in February and March. This is a positive development from fixed income land.



The equity put/call ratio has been steadily declining, a sign of bullish equity sentiment. There are reports that individual investors are accounting for an above-average level of option volume. [Goldman said](#) one contract volume accounts for 13% of volume (compared to less than 8% before the downturn). The same linked article above states TD Ameritrade has seen a 280% increase in their “education center” which teaches about options, using the trading app, and fundamentals.

For those long-time readers of my letter note, I look for when the put/call ratio begins to move higher as signs of trouble. The fact that it’s fallen to this low of a level is a bit worrisome but the timing has been better when that trend reverses and moves with stocks, which is a result of traders becoming more cautious picking up puts.

Consumers that received stimulus checks made stock trades

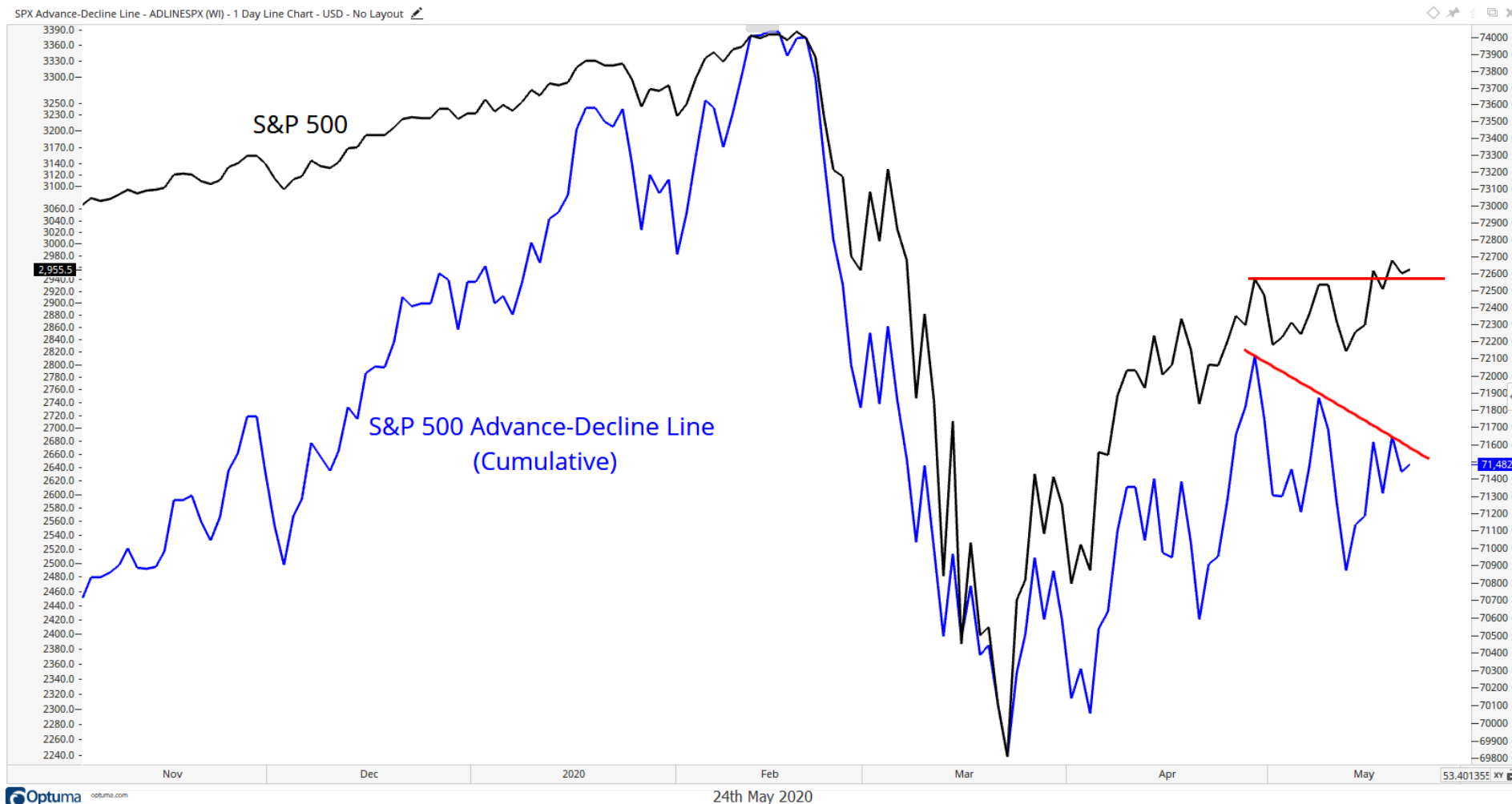
Categories which saw highest week-over-week changes in bank account transfers, from households which received stimulus checks compared to those that did not

Rank	<\$35K	\$35K-\$50K	\$50K-\$75K	\$75K-\$100K	\$100K-\$150K	\$150K+
1	Savings +250%	Savings +197%	Savings +188%	Savings +234%	Savings +223%	Loans +84%
2	ATM/Cash Withdrawals +199%	ATM/Cash Withdrawals +137%	ATM/Cash Withdrawals +102%	ATM/Cash Withdrawals +111%	Securities Trades +82%	Insurance +69%
3	Home Improvement +129%	Securities Trades +93%	Securities Trades +90%	Home Improvement +90%	ATM/Cash Withdrawals +76%	Savings +57%
4	Transfers +126%	Home Improvement +93%	Home Improvement +80%	Education +86%	Loans +70%	Travel +52%
5	Utilities +111%	Transfers +85%	Utilities +68%	Loans +70%	Home Improvement +69%	Home Improvement +52%
6	Electronics/ Gen. Merch. +100%	Utilities +75%	Travel +63%	Utilities +66%	Insurance +66%	Entertainment/ Recreation +48%
7	Education +99%	Electronics/ Gen. Merch. +67%	Electronics/ Gen. Merch. +61%	Rent +64%	Education +61%	Securities Trades +46%

SOURCE: Envestnet Yodlee

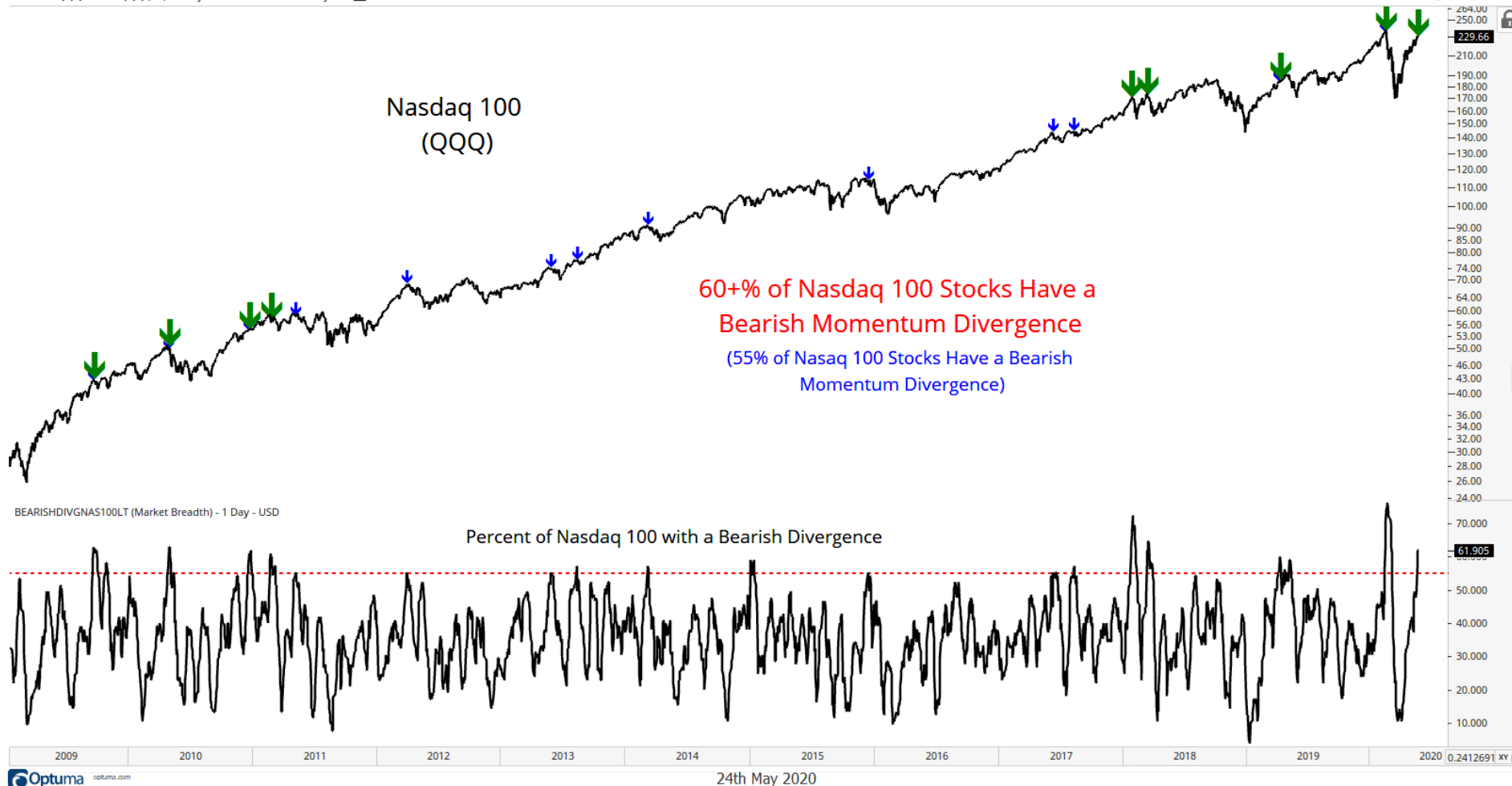


Based on the results of survey by [Envestnet Yodlee](#), many Americans that received a stimulus check threw it right into their investment account, accounting as their second or third most common use of the cash. Gamblers have also turned to the market now that there's no sports to bet on and casinos closed. Three of the four largest brokerage firms saw a record number of new accounts opened in April and March, with [780,000 new customers](#). Now that trading can be done with no commissions, retail investors are throwing caution into the wind and jumping into the market. Seeing the large swings in beaten down stocks like Carnival and Delta. Meanwhile, institutional investors remain standoffish from equities, focusing more on the economic landscape that's been destroyed by the coronavirus. Who will win out with the next leg in stocks? We basically have a duel between a pellet gun (retail) vs. a bazooka (inst'l).

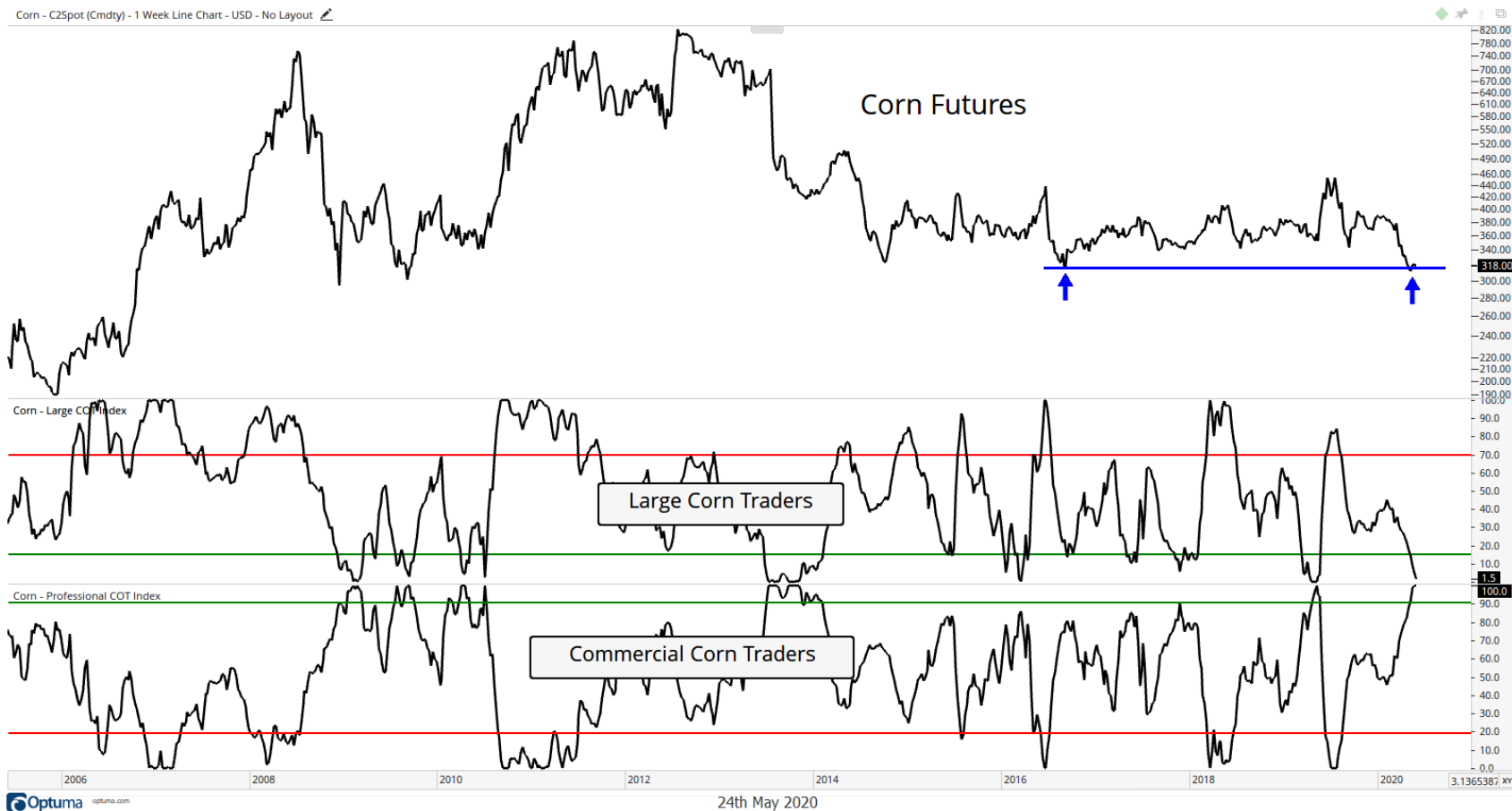


The cumulative advance-decline line doesn't get a lot of attention as its often just confirming the trend in equities. But when it divergences, especially a negative divergence, we want to pay attention. As stocks have traded sideways for the back-half of April and start of May, the S&P 500 A-D Line has been making lower highs. The Mega Cap 5 (FAAMG) are unable to have an impact to the A-D Line and that's being reflective here with the many stocks declining cumulatively.

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



Later in the letter I'll be sharing this chart for all the S&P sectors as well as the S&P 500 and Nasdaq 100 along with some other tools. But I wanted to highlight the rising number of bearish momentum divergences in the QQQ, which as of Friday sits at 61% of the stocks with a bearish divergence. This last occurred in February and just seven other times in the last ten years. I've also shown blue arrows when it got to 55%, which has also not been a bullish development. While just a few stocks are holding the index higher (FAAMG), just like the S&P 500 A-D Line, there's some break down happening within the at least 61 of the other Nasdaq 100 stocks.



Commercial Traders are now holding a very large net-long position in corn futures which is being matched by a large net-short position by Large Traders. Commercial Traders are typically actual users of the commodity while Large Traders are hedge funds, banks, and other large institutions. Corn currently is sitting near its 2016 low, if this level holds then we could see corn make a move higher from here like it did in 2018 when commercials were last very bullish on corn and prices jumped from \$350 to \$450 in just a few weeks.

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.

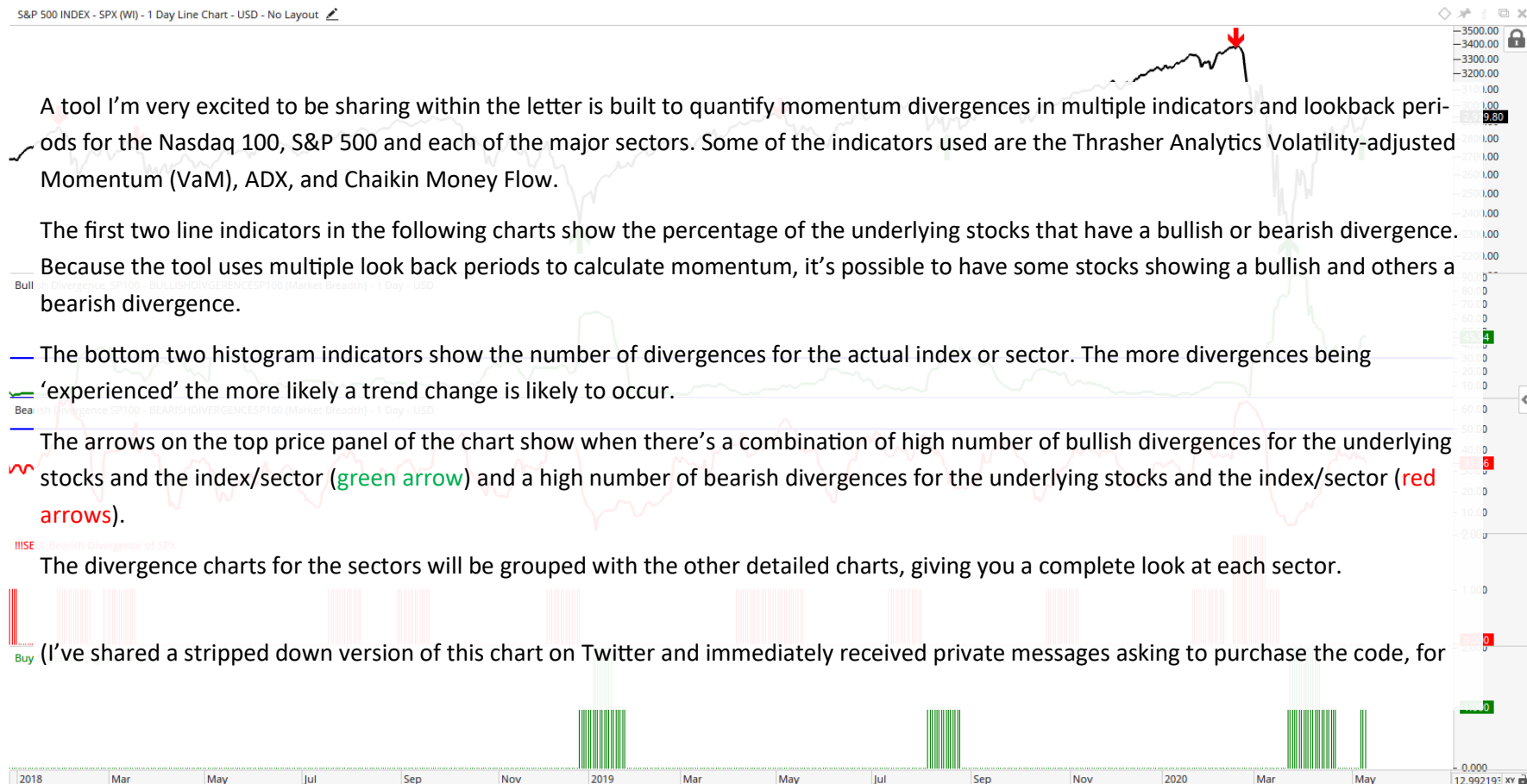
The first two line indicators in the following charts show the percentage of the underlying stocks that have a bullish or bearish divergence. Because the tool uses multiple look back periods to calculate momentum, it's possible to have some stocks showing a bullish and others a bearish divergence.

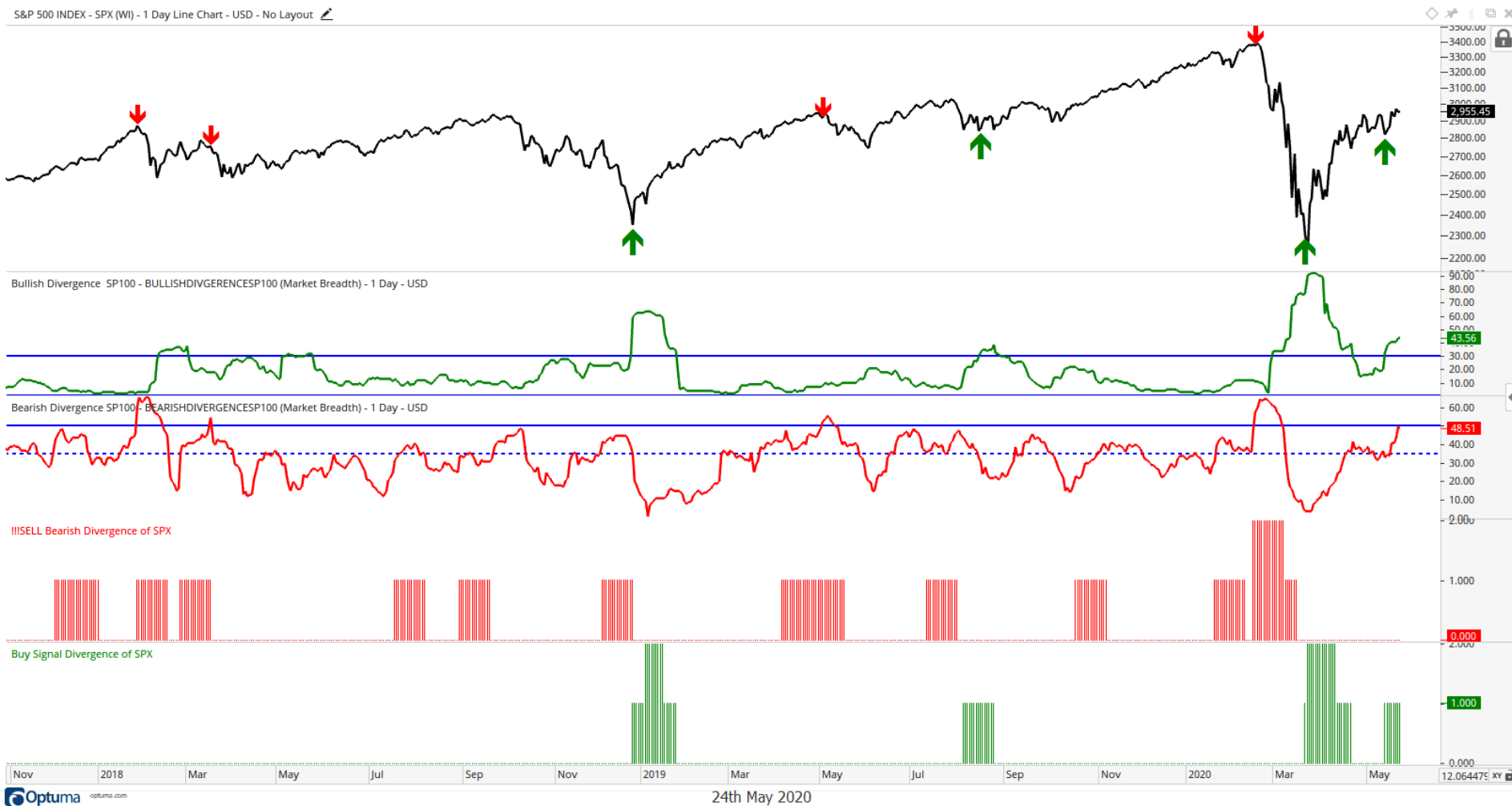
The bottom two histogram indicators show the number of divergences for the actual index or sector. The more divergences being 'experienced' the more likely a trend change is likely to occur.

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.

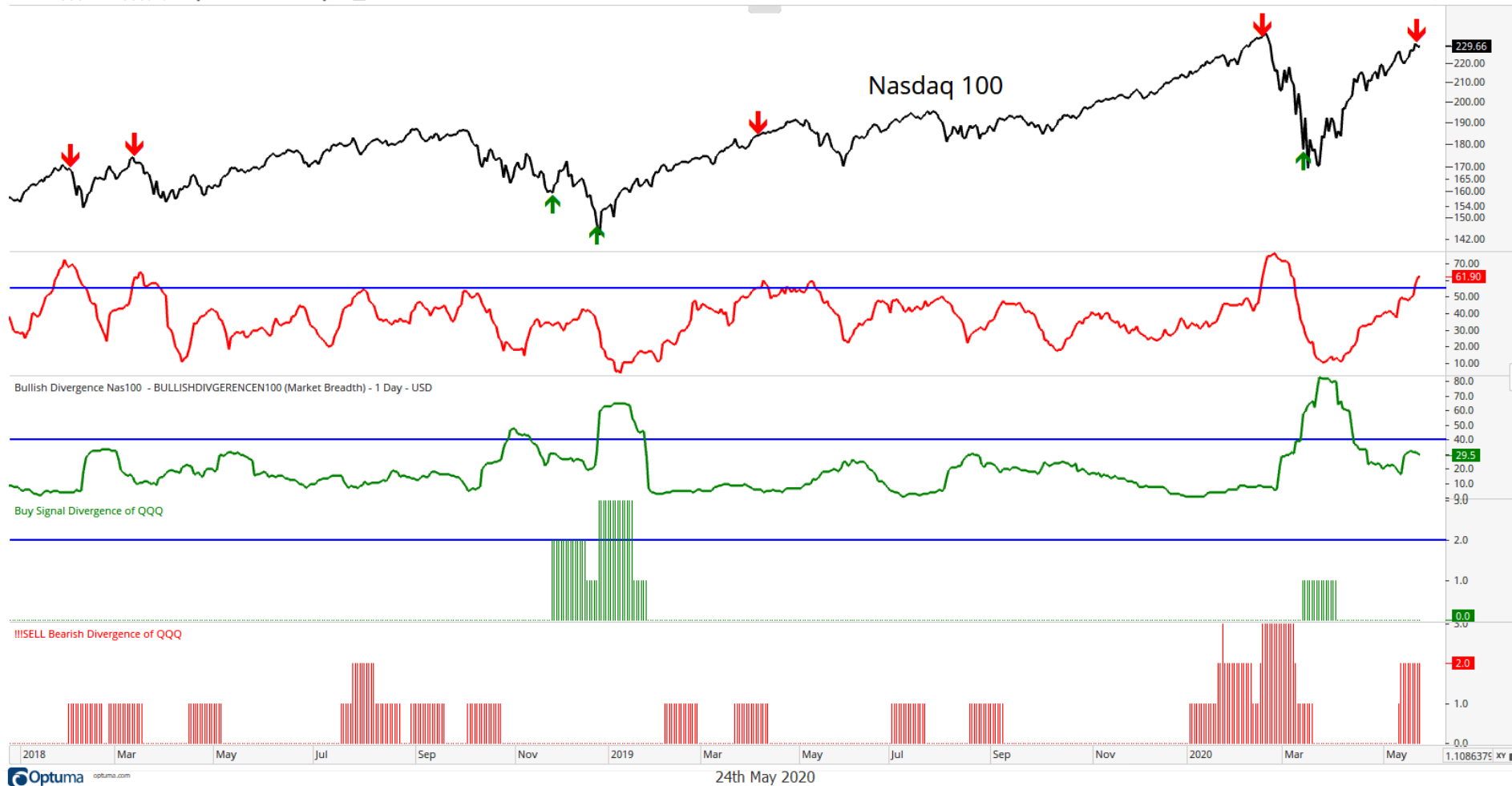
(I've shared a stripped down version of this chart on Twitter and immediately received private messages asking to purchase the code, for





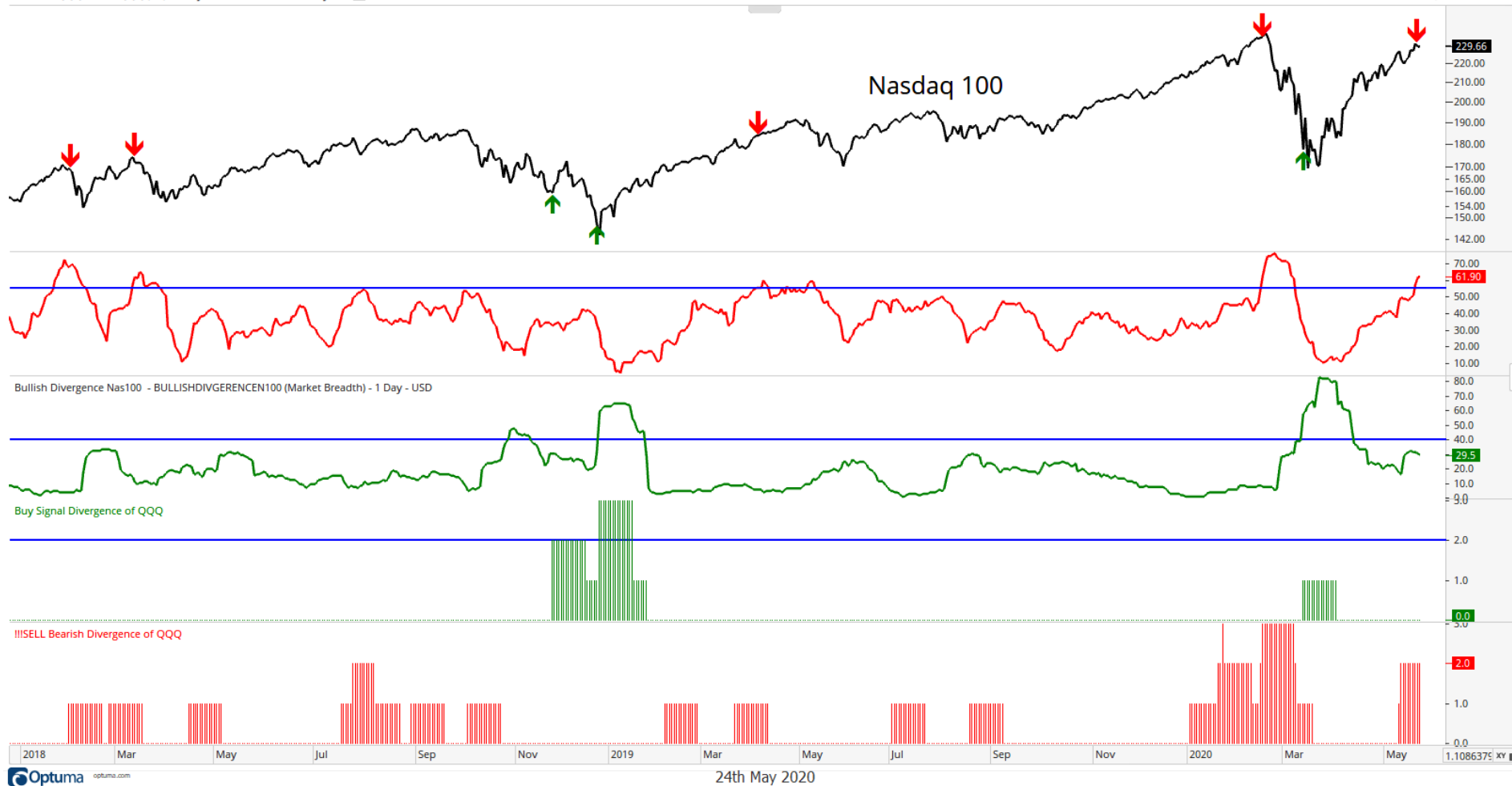
There's a growing number of SPX stocks with bearish divergences but also with bullish divergences, showing the disparity of price trends within the index.

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



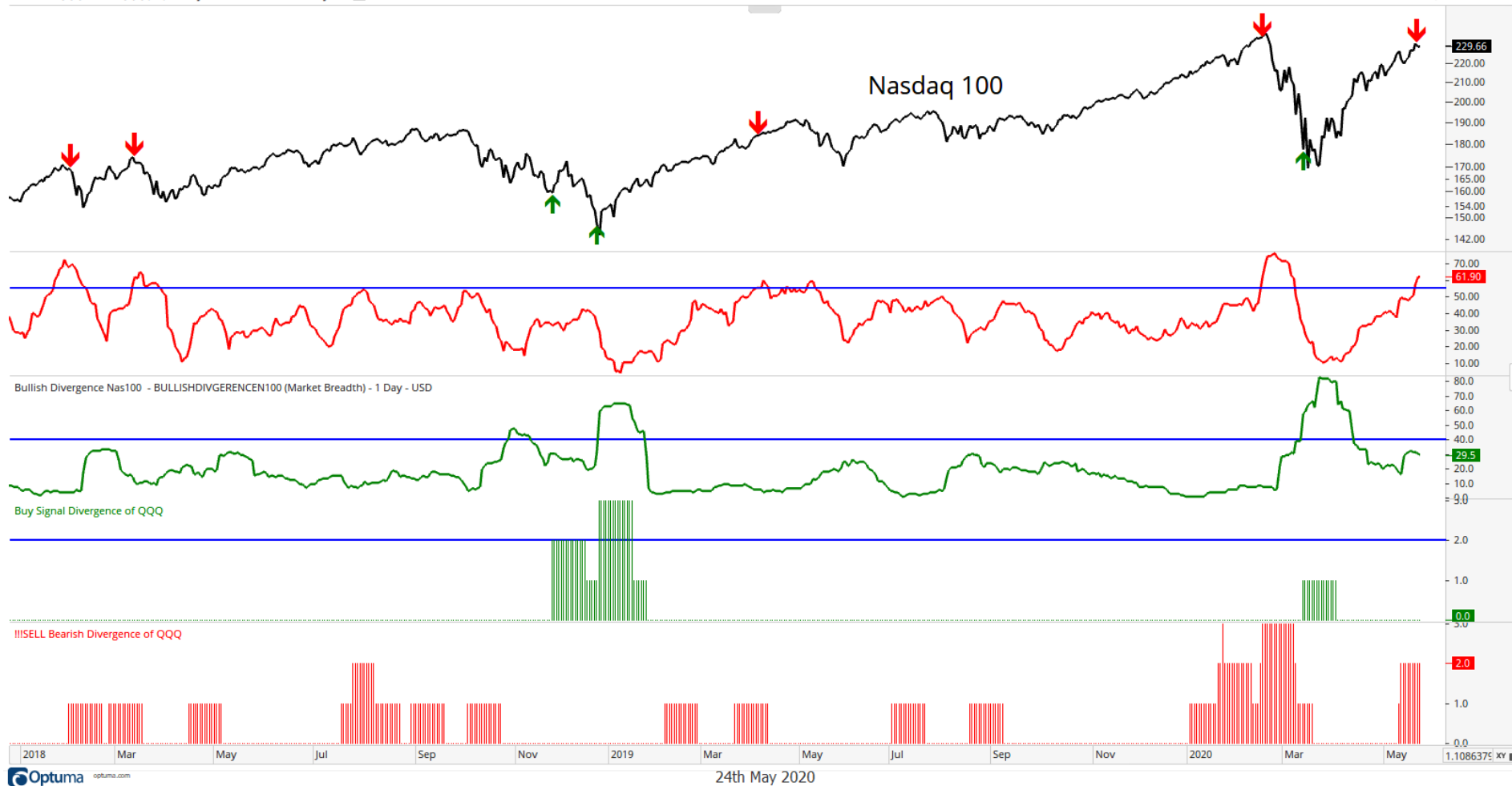
Previously addressed QQQ divergence chart.

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



Previously addressed QQQ divergence chart.

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



Previously addressed QQQ divergence chart.

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 of 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.



Watch List

Ticker	Momentum
Financial Momentum Score	
<input type="checkbox"/> MKTX	30.9171
<input type="checkbox"/> MSCI	24.6357
<input type="checkbox"/> SPGI	13.8334
<input type="checkbox"/> NDAQ	-0.7650
<input type="checkbox"/> MCO	-8.8262
<input type="checkbox"/> ICE	-9.3334
<input type="checkbox"/> WLTW	-13.0103
<input type="checkbox"/> BLK	-15.0754
<input type="checkbox"/> MMC	-20.4503
<input type="checkbox"/> PGR	-22.9012
<input type="checkbox"/> TROW	-29.8852
<input type="checkbox"/> AON	-31.4349
<input type="checkbox"/> AJG	-31.8891

Watch List

Ticker	Mean Reversion
Financial Mean Revision Score	
<input type="checkbox"/> CINF	-2.3408
<input type="checkbox"/> WFC	-2.083
<input type="checkbox"/> PBCT	-2.008
<input type="checkbox"/> L	-1.9872
<input type="checkbox"/> BRK.B	-1.9674
<input type="checkbox"/> IVZ	-1.966
<input type="checkbox"/> MTB	-1.9243
<input type="checkbox"/> USB	-1.8834
<input type="checkbox"/> HBAN	-1.7997
<input type="checkbox"/> AFL	-1.7467
<input type="checkbox"/> C	-1.7348
<input type="checkbox"/> SYF	-1.7342
<input type="checkbox"/> KEY	-1.7223
<input type="checkbox"/> HIG	-1.711
<input type="checkbox"/> TFC	-1.6933

XLF has broken above its 50-day MA with improvement in VaM and the momentum composite.



Breadth remains supportive.

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



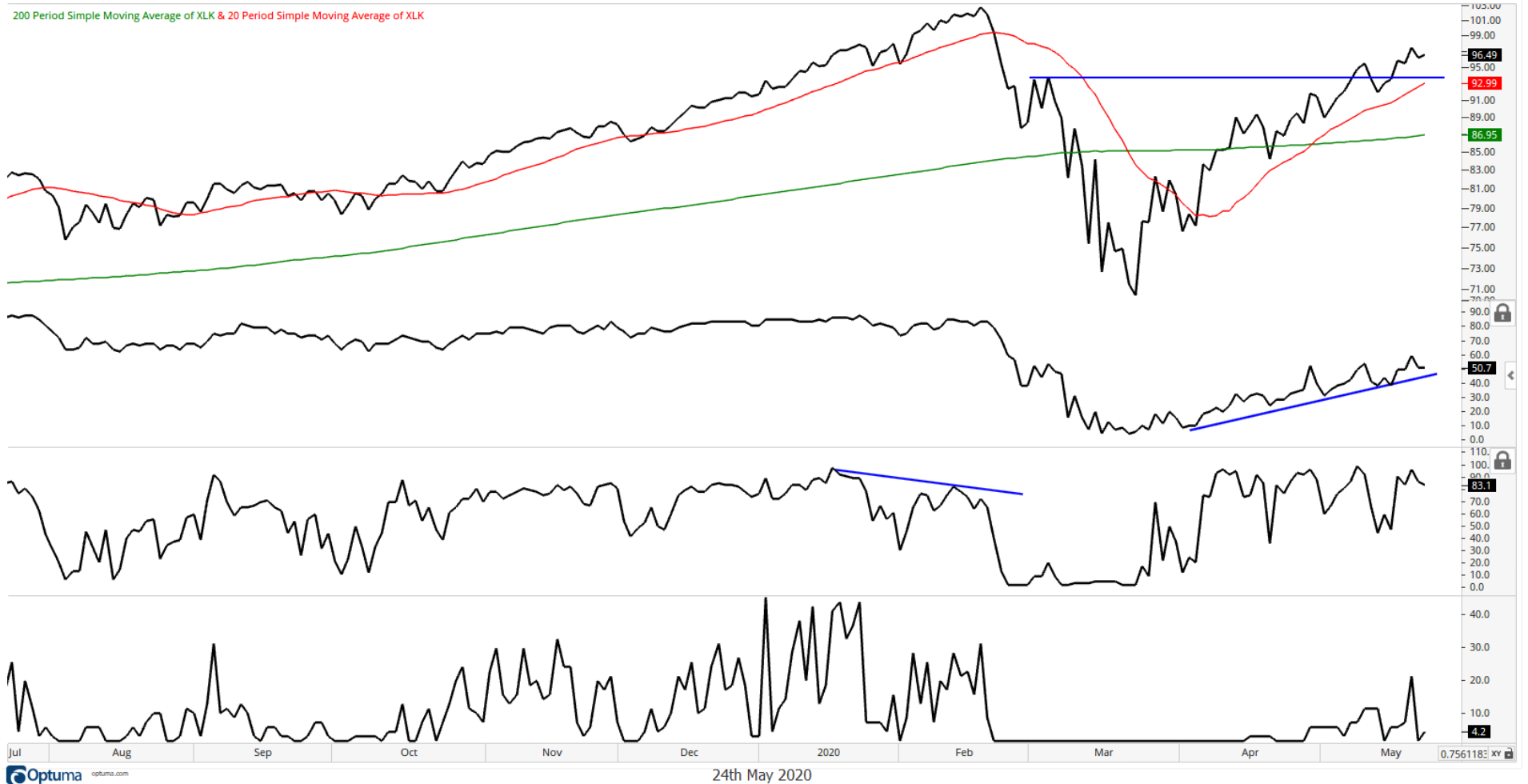
Large number of stocks have a bullish divergence with 4 divergences for XLF itself.



XLK is holding above its March pivot high with improvements in momentum and VaM.



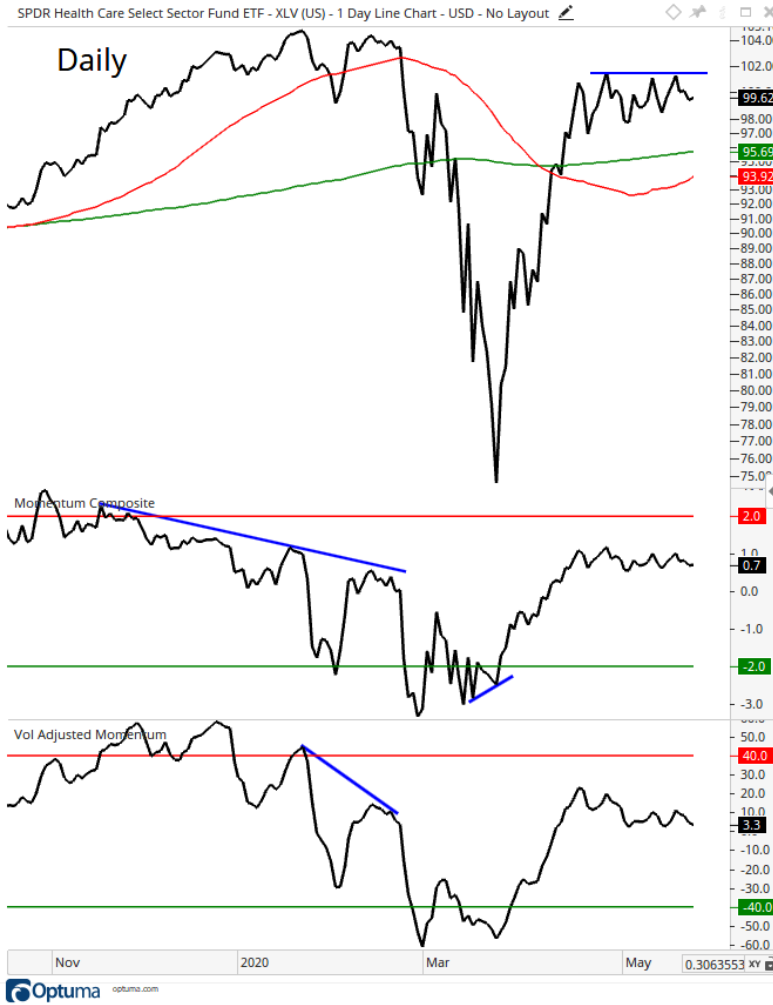
SPDR Technology Select Sector Fund ETF - XLK (US) - 1 Day Line Chart - USD - No Layout
 200 Period Simple Moving Average of XLK & 20 Period Simple Moving Average of XLK



A continued trend of more stocks rising above their respective 200-day MA with 50% now above their long-term average.

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





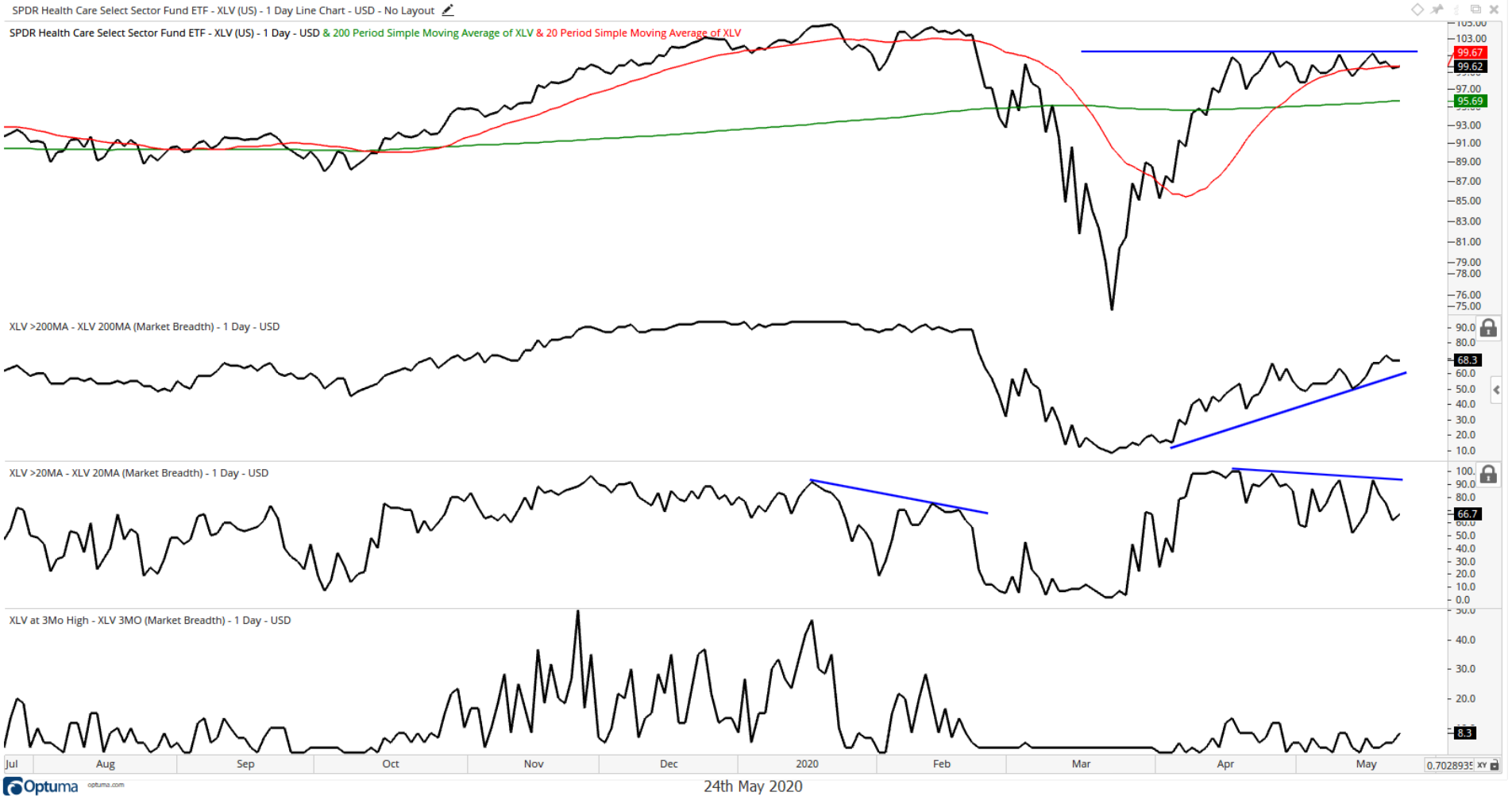
Watch List

Ticker	Momentum
Health Care Momentum Score	
<input type="checkbox"/> REGN	29.8059
<input type="checkbox"/> VRTX	26.9960
<input type="checkbox"/> ILMN	11.1567
<input type="checkbox"/> HUM	10.8293
<input type="checkbox"/> TMO	10.6613
<input type="checkbox"/> IDXX	7.7802
<input type="checkbox"/> AGN_2020	5.7921
<input type="checkbox"/> LLY	4.7375
<input type="checkbox"/> INCY	4.2976
<input type="checkbox"/> ABMD	3.5425
<input type="checkbox"/> DHR	1.0551
<input type="checkbox"/> DGX	0.0190
<input type="checkbox"/> HOLX	-1.0858

Watch List

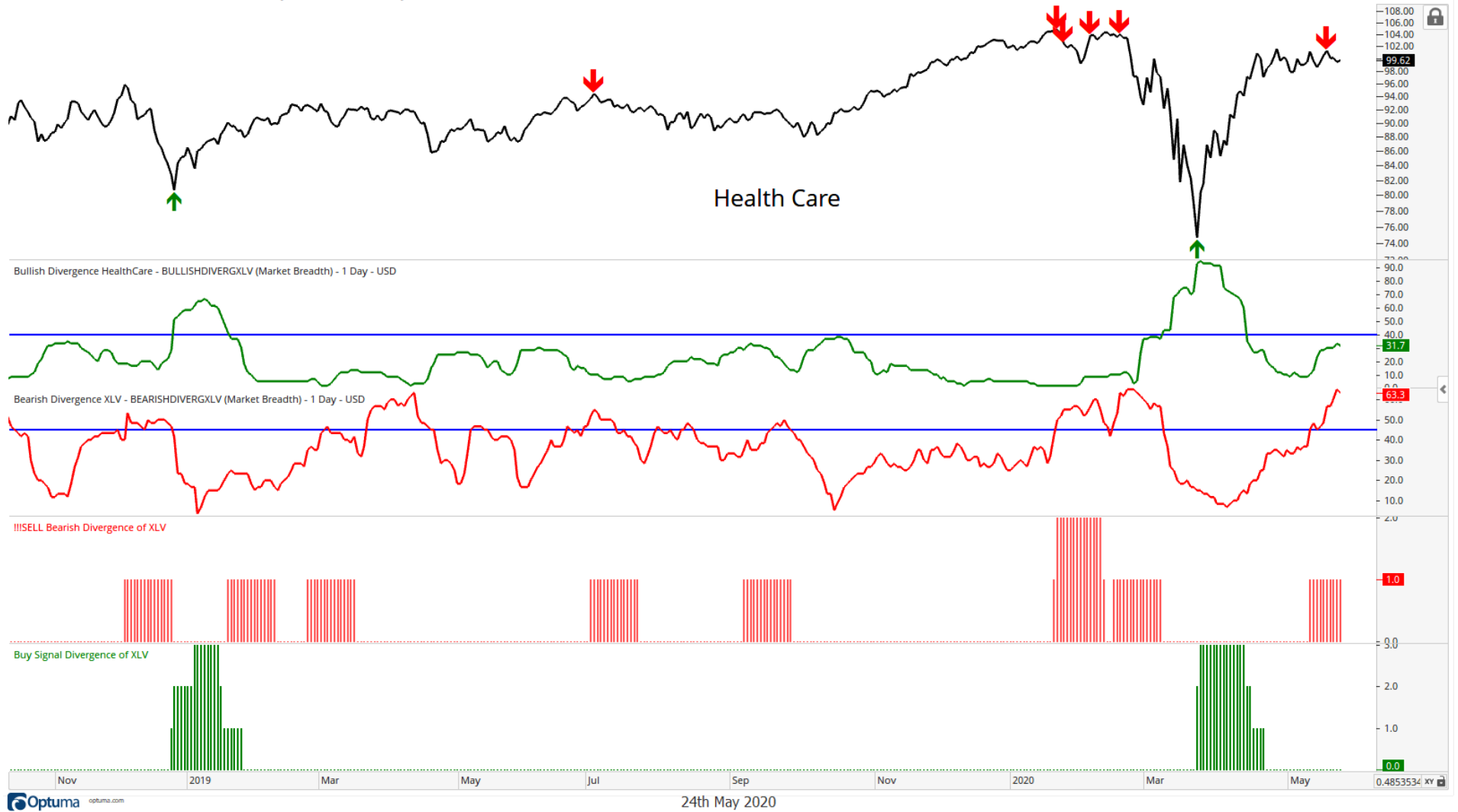
Ticker	Mean Reversion
Health Care Mean Reversion Score	
<input type="checkbox"/> MRK	-1.3533
<input type="checkbox"/> WAT	-1.2878
<input type="checkbox"/> XRAY	-1.2865
<input type="checkbox"/> UHS	-1.2479
<input type="checkbox"/> HCA	-1.082
<input type="checkbox"/> BSX	-0.9648
<input type="checkbox"/> COO	-0.9604
<input type="checkbox"/> BDX	-0.8336
<input type="checkbox"/> SYK	-0.8332
<input type="checkbox"/> HSIK	-0.8301
<input type="checkbox"/> MYL	-0.7970
<input type="checkbox"/> MDT	-0.7833
<input type="checkbox"/> VAR	-0.7194
<input type="checkbox"/> CERN	-0.4711
<input type="checkbox"/> ZBH	-0.4519

XLV has consolidated in recent weeks, watching for a break above the prior highs.



Continued improvement in L/T breadth but a slight divergence has developed with % above 20-day MA.

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"/> ATVI	27.6582
<input type="checkbox"/> NFLX	25.1878
<input type="checkbox"/> EA	15.9774
<input type="checkbox"/> TTWO	14.3067
<input type="checkbox"/> FB	5.3384
<input type="checkbox"/> TMUS	3.8036
<input type="checkbox"/> CHTR	-0.5150
<input type="checkbox"/> GOOGL	-9.4768
<input type="checkbox"/> GOOG	-9.7949
<input type="checkbox"/> VZ	-31.1076
<input type="checkbox"/> TWTR	-35.3799
<input type="checkbox"/> DIS	-42.2316
<input type="checkbox"/> NWSA	-42.3625

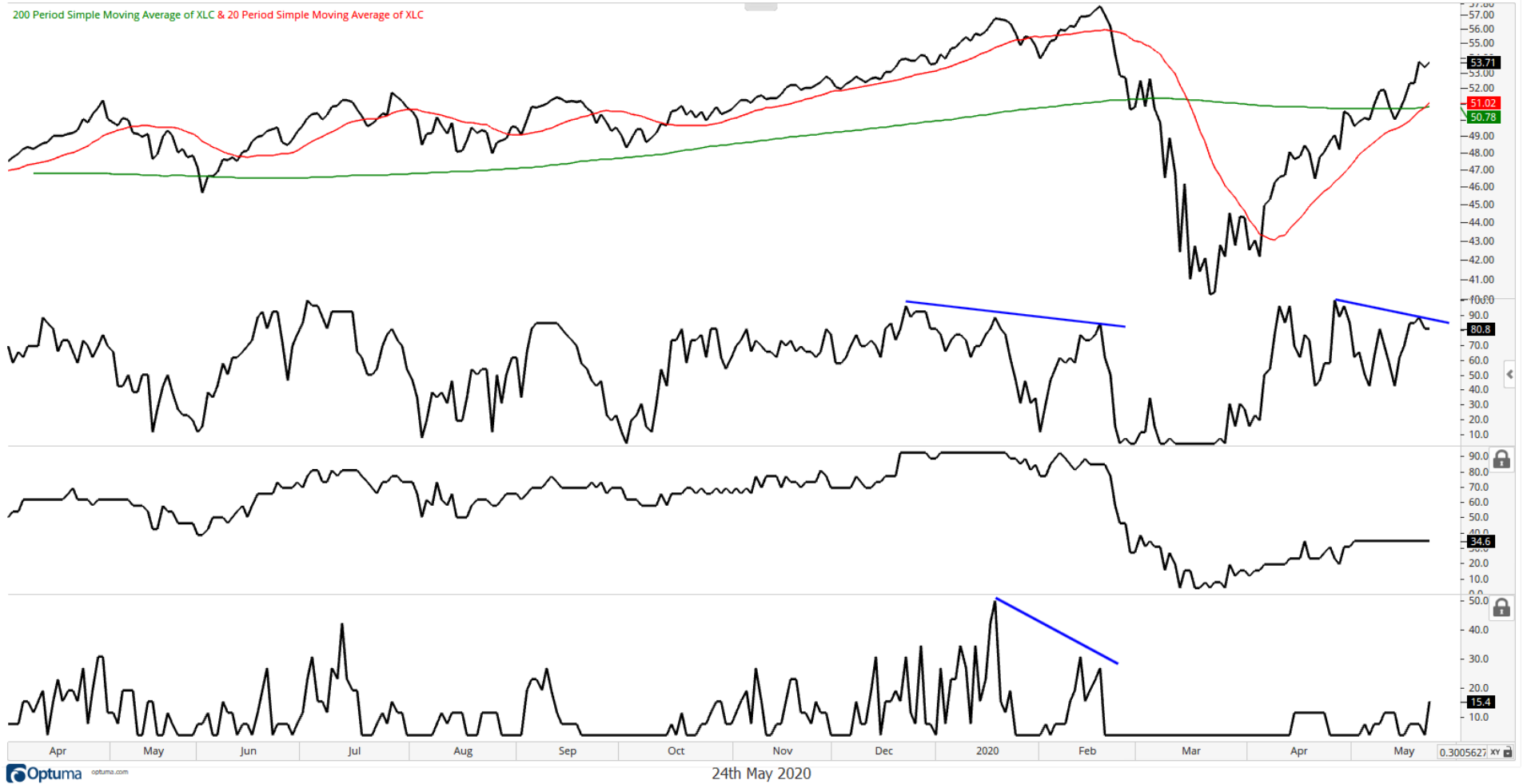
Watch List

Ticker	Mean Reversion
Communications Mean Reversion	
<input type="checkbox"/> OMC	-1.9956
<input type="checkbox"/> DISCK	-1.8744
<input type="checkbox"/> DISCA	-1.7808
<input type="checkbox"/> VZ	-1.7166
<input type="checkbox"/> T	-1.3135
<input type="checkbox"/> IPG	-1.3134
<input type="checkbox"/> LYV	-1.2981
<input type="checkbox"/> VIAC	-1.1449
<input type="checkbox"/> CTL	-1.1291
<input type="checkbox"/> CMCSA	-1.0351
<input type="checkbox"/> FOXA	-0.7586
<input type="checkbox"/> FOX	-0.7422
<input type="checkbox"/> DIS	-0.6552
<input type="checkbox"/> NWS	-0.5060
<input type="checkbox"/> DISH	-0.5026

Watching the pivot low in January as the next level for XLC to clear.

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

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



A slight drop in % of stocks above 20-day MA with XLC making a higher-high and no recent additions to the % above 200-day MA.



Watch List

Ticker	Momentum
Materials Momentum Score	
<input type="checkbox"/> NEM	20.0772
<input type="checkbox"/> ECL	-5.4538
<input type="checkbox"/> SHW	-7.0288
<input type="checkbox"/> APD	-13.9845
<input type="checkbox"/> IFF	-15.0898
<input type="checkbox"/> FMC	-24.9660
<input type="checkbox"/> AMCR	-28.3334
<input type="checkbox"/> LIN	-29.2273
<input type="checkbox"/> BLL	-33.1125
<input type="checkbox"/> PKG	-33.8582
<input type="checkbox"/> EMN	-34.3830
<input type="checkbox"/> CTVA	-40.4288
<input type="checkbox"/> AVY	-42.4024

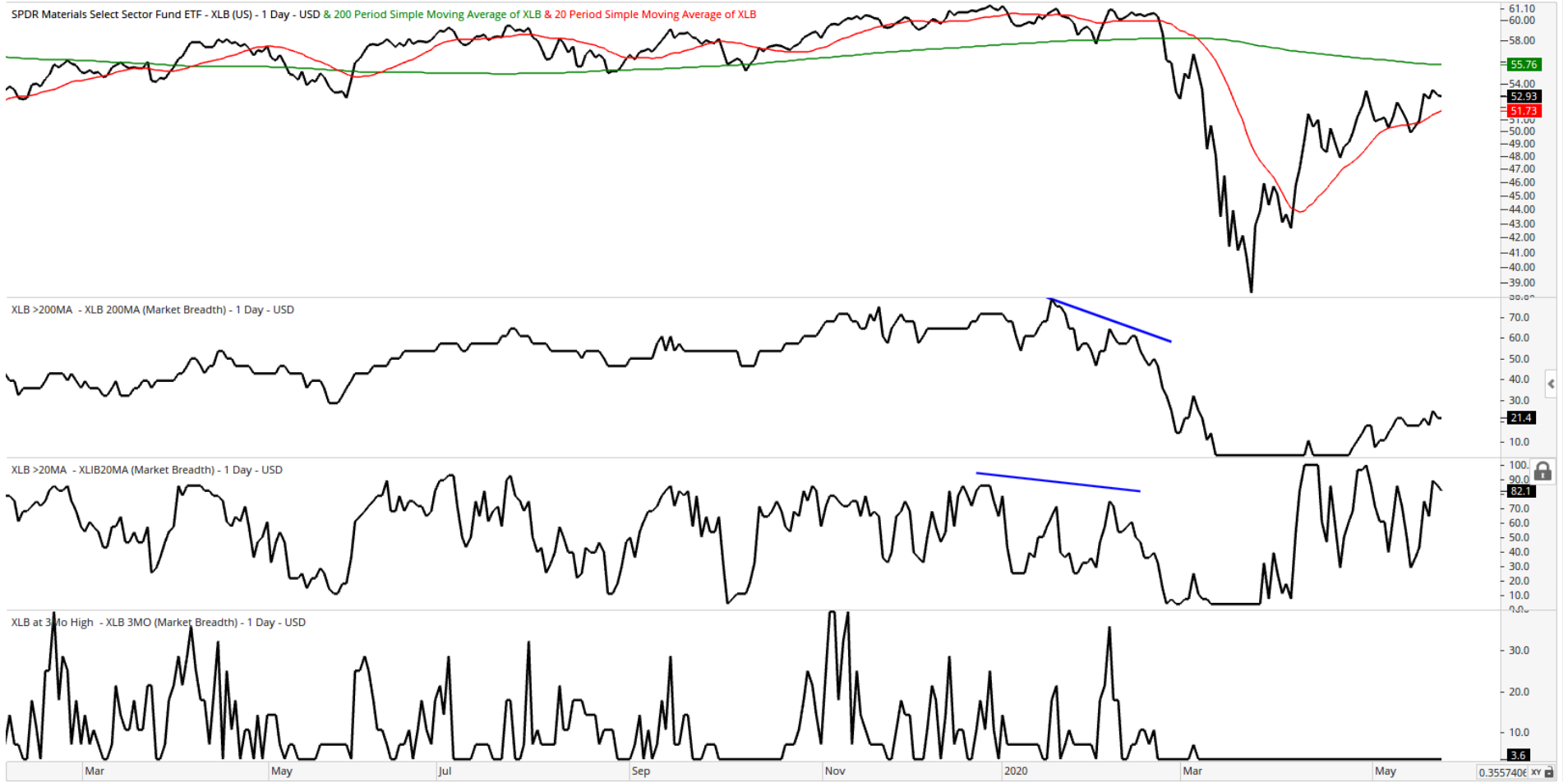
Watch List

Ticker	Mean Reversion
Materials Mean Reversion Score	
<input type="checkbox"/> WRK	-1.8629
<input type="checkbox"/> VMC	-1.7833
<input type="checkbox"/> CF	-1.5806
<input type="checkbox"/> MLM	-1.5437
<input type="checkbox"/> IP	-1.4172
<input type="checkbox"/> MOS	-1.2436
<input type="checkbox"/> NUE	-1.139
<input type="checkbox"/> SEE	-1.1308
<input type="checkbox"/> PPG	-1.1203
<input type="checkbox"/> CE	-1.0604
<input type="checkbox"/> LYB	-1.0136
<input type="checkbox"/> AVY	-0.9573
<input type="checkbox"/> FCX	-0.7851
<input type="checkbox"/> PKG	-0.7498
<input type="checkbox"/> BLL	-0.6334
<input type="checkbox"/> DD	-0.5096

XLB continues to consolidate after its 50-day MA breakout.

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

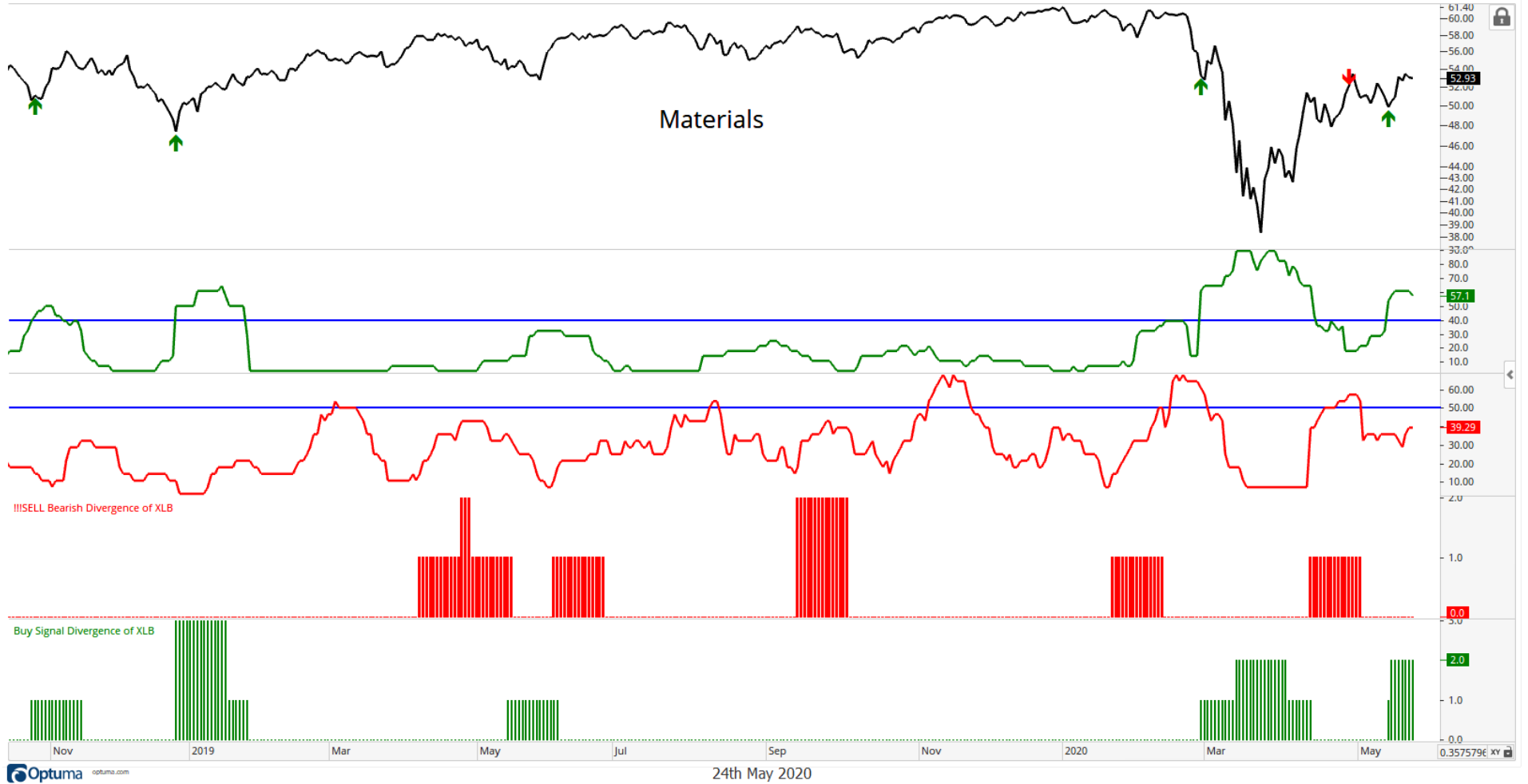


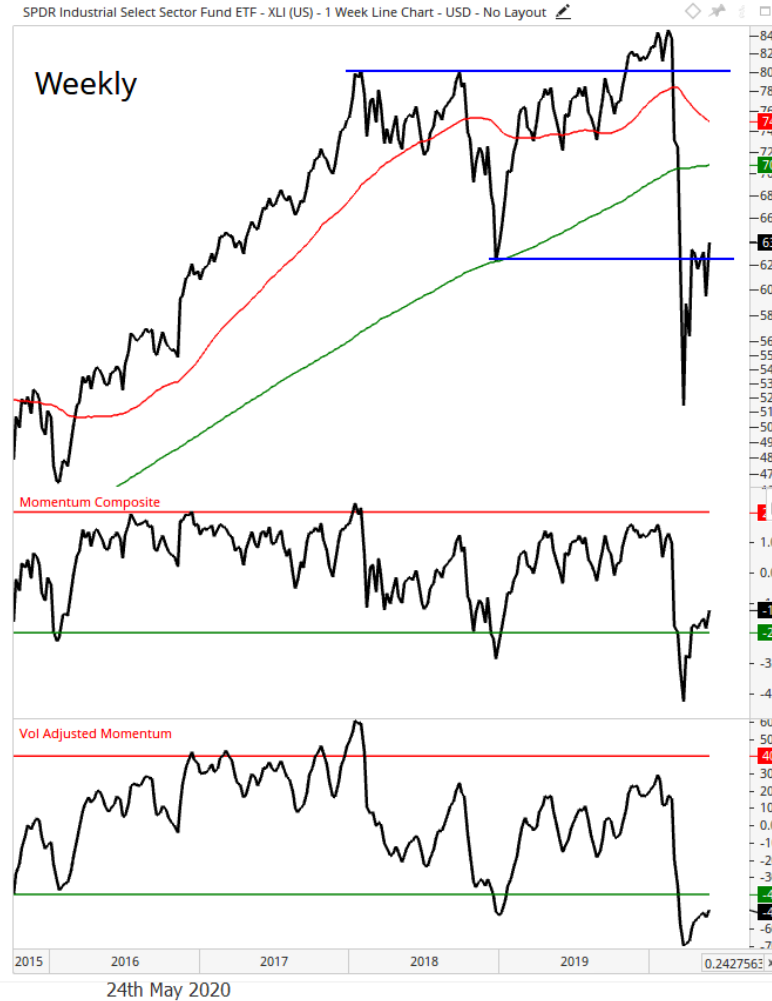
Optuma optuma.com

24th May 2020

Breadth improves.

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





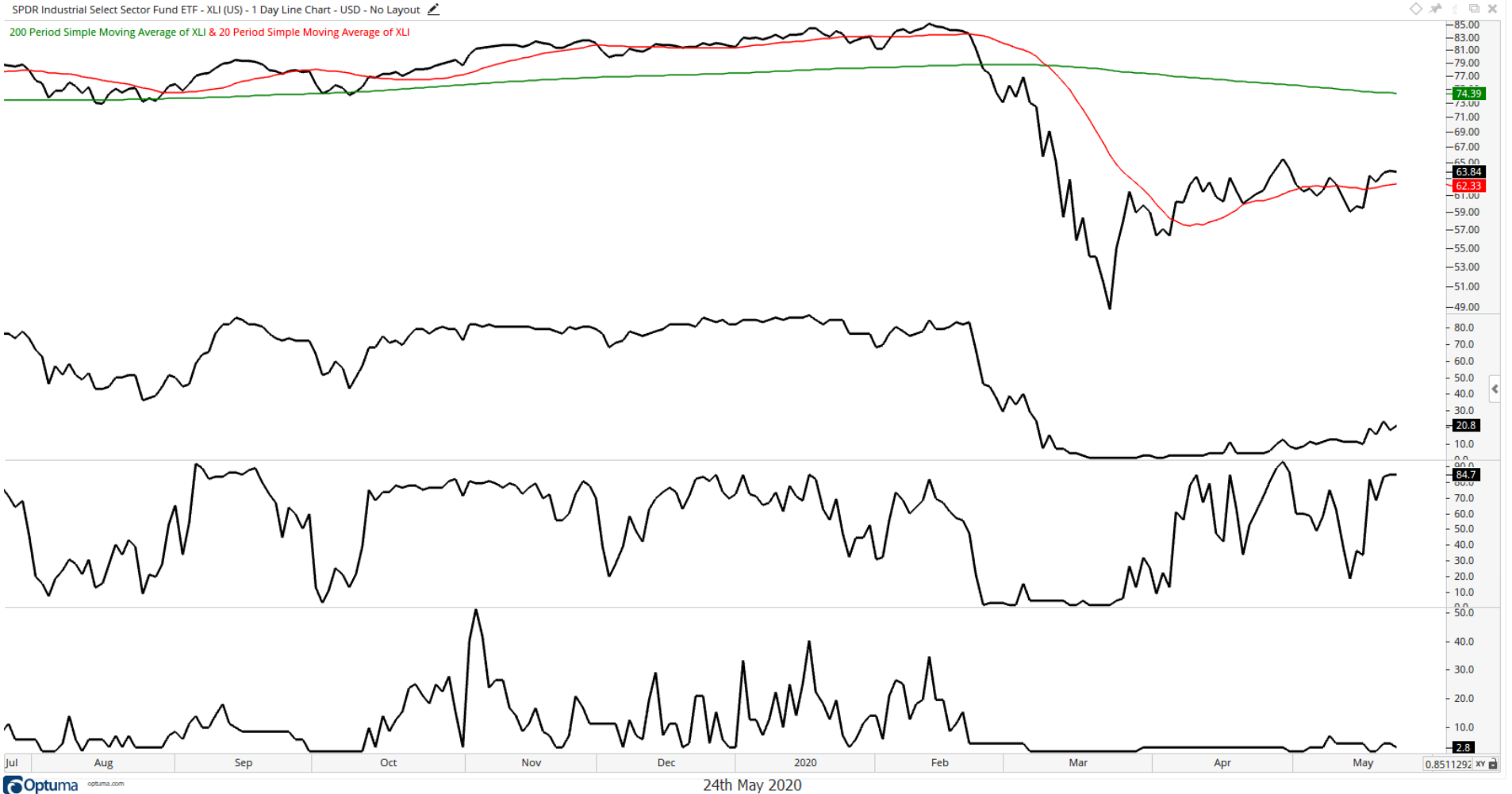
Watch List

Ticker	Momentum
Industrial Momentum Score	
<input type="checkbox"/> ODFL	18.7126
<input type="checkbox"/> FAST	9.1710
<input type="checkbox"/> ROK	-4.2046
<input type="checkbox"/> ROL	-4.3088
<input type="checkbox"/> ROP	-11.7897
<input type="checkbox"/> VRSK	-13.4912
<input type="checkbox"/> EXPD	-14.5234
<input type="checkbox"/> CHRW	-14.8435
<input type="checkbox"/> EFX	-16.2134
<input type="checkbox"/> MAS	-19.1819
<input type="checkbox"/> JBHT	-24.9163
<input type="checkbox"/> CMI	-26.5021
<input type="checkbox"/> AOS	-26.6019

Watch List

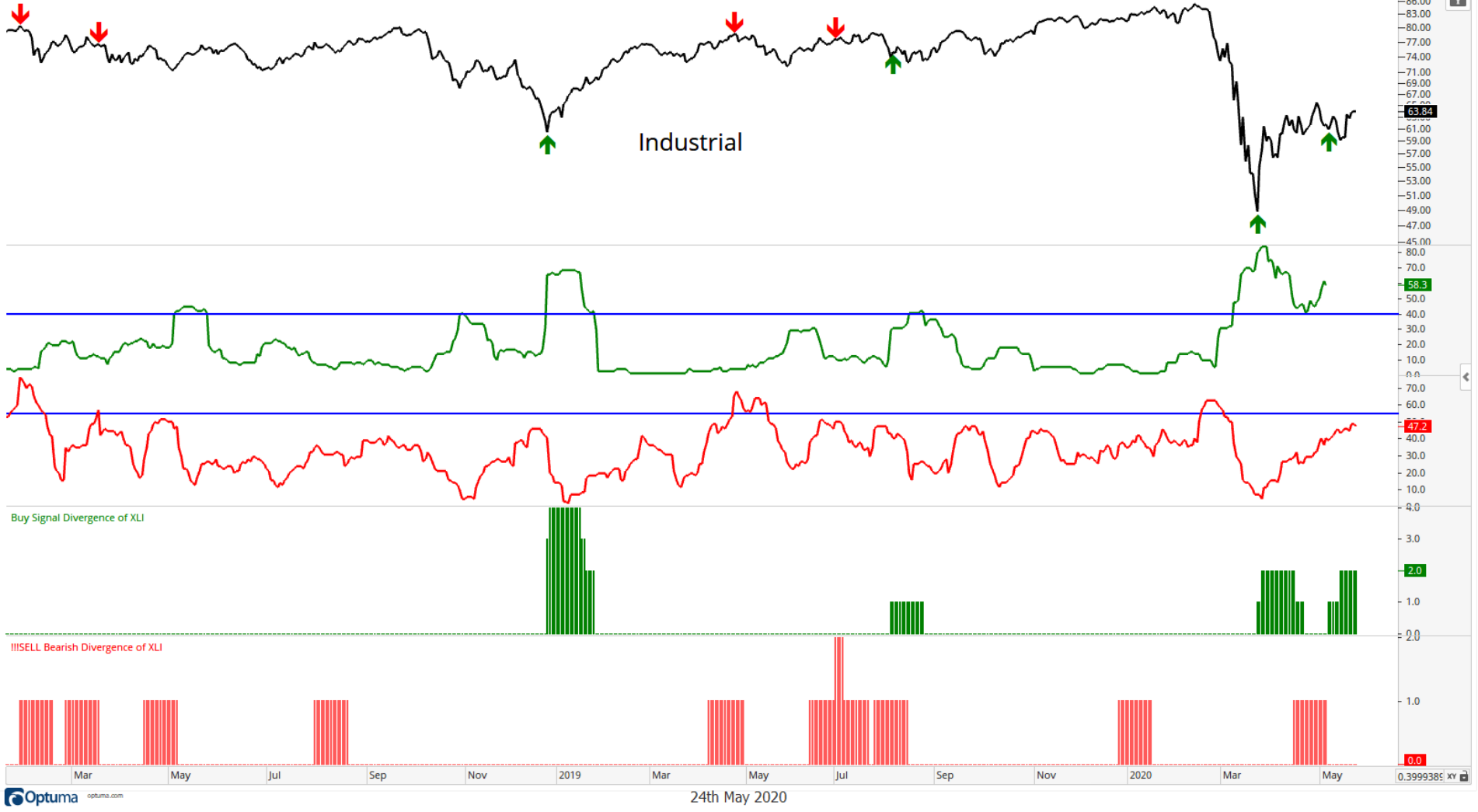
Ticker	Mean Reversion
Industrial Mean Reversion Score	
<input type="checkbox"/> XYL	-2.0571
<input type="checkbox"/> LUV	-2.0283
<input type="checkbox"/> DAL	-2.0188
<input type="checkbox"/> AAL	-1.9261
<input type="checkbox"/> UAL	-1.9165
<input type="checkbox"/> TT	-1.8649
<input type="checkbox"/> HWM	-1.8067
<input type="checkbox"/> BA	-1.8027
<input type="checkbox"/> FLS	-1.7302
<input type="checkbox"/> GE	-1.6644
<input type="checkbox"/> RTX	-1.6641
<input type="checkbox"/> ALK	-1.6475
<input type="checkbox"/> TXT	-1.6339
<input type="checkbox"/> JCI	-1.5757
<input type="checkbox"/> HON	-1.4377
<input type="checkbox"/> NLSN	-1.4298

XLI has moved above its 50-day MA and sits below its prior short-term high.



Breadth improves.

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





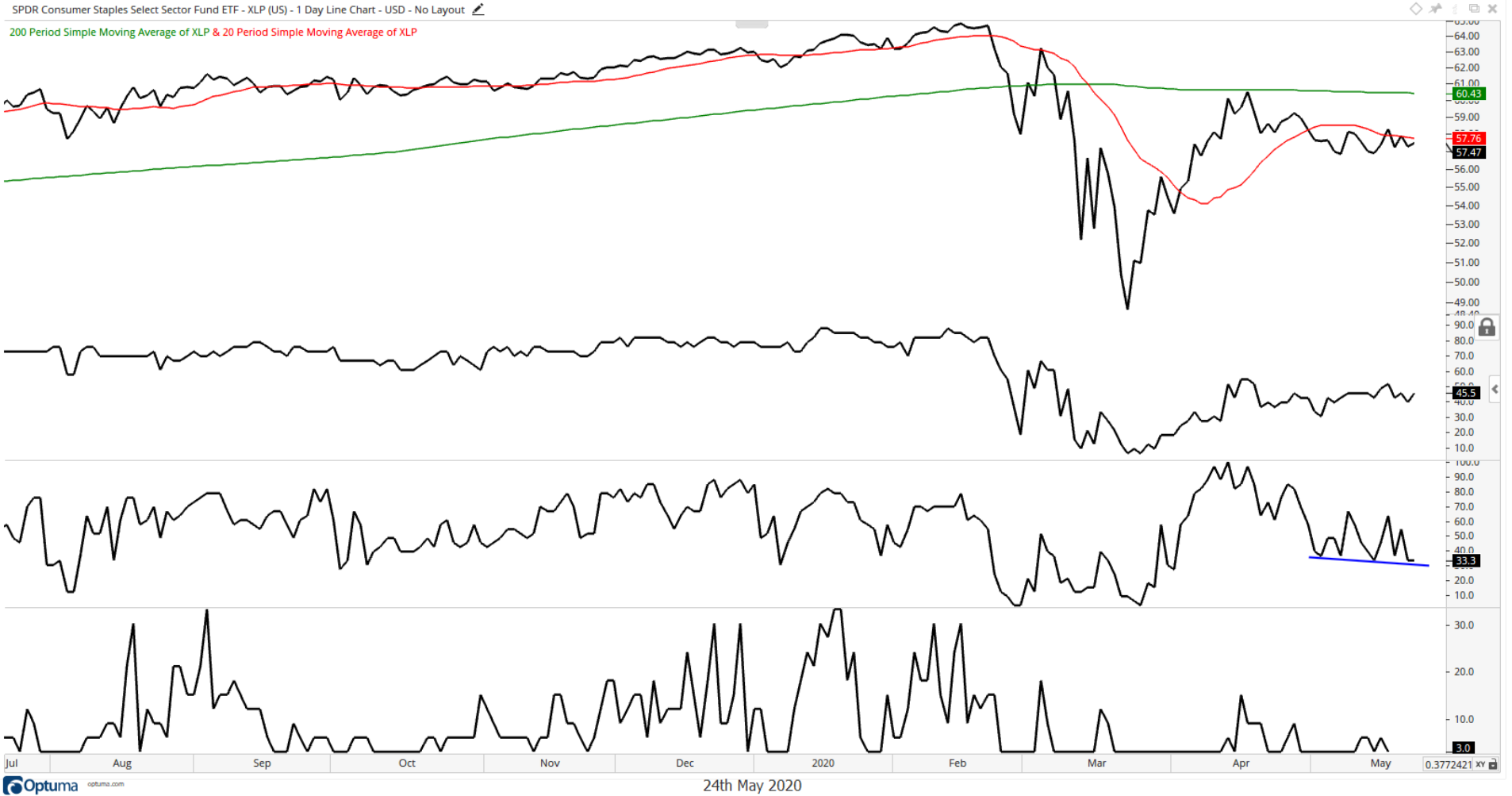
Watch List

Ticker	Momentum
Consumer Staples Momentum Score	
<input type="checkbox"/> CLX	33.2077
<input type="checkbox"/> GIS	16.7473
<input type="checkbox"/> KR	7.7890
<input type="checkbox"/> MKC	1.3196
<input type="checkbox"/> WMT	-0.4766
<input type="checkbox"/> CAG	-2.9768
<input type="checkbox"/> MNST	-3.7593
<input type="checkbox"/> CPB	-5.0213
<input type="checkbox"/> HRL	-7.7985
<input type="checkbox"/> COST	-9.9562
<input type="checkbox"/> KMB	-10.2531
<input type="checkbox"/> CHD	-10.4995
<input type="checkbox"/> KHC	-10.7657
<input type="checkbox"/> SIM	-12.1458

Watch List

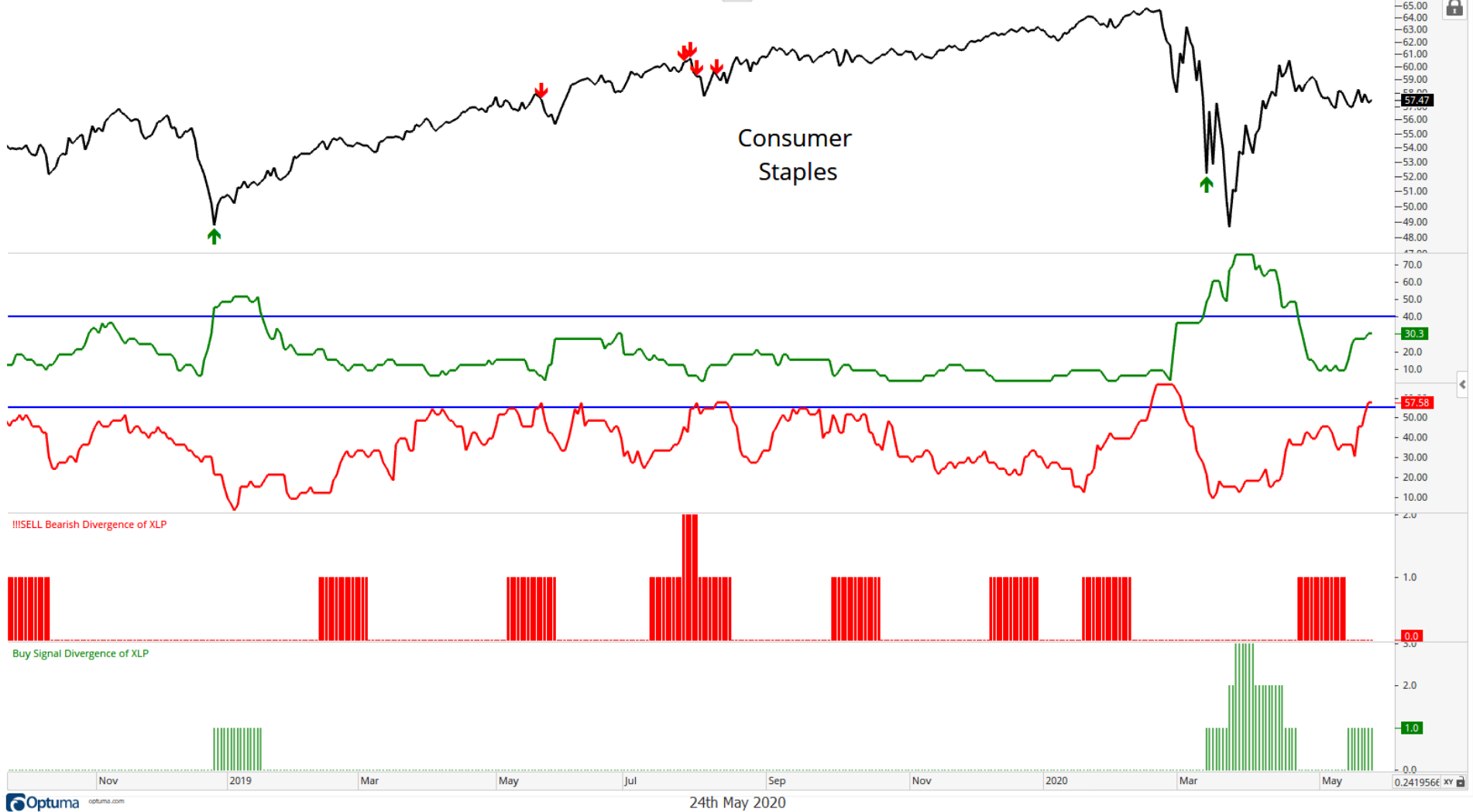
Ticker	Mean Reversion
Consumer Staples Mean Reversion	
<input type="checkbox"/> COTY	-2.2909
<input type="checkbox"/> TAP	-2.1347
<input type="checkbox"/> WBA	-1.9256
<input type="checkbox"/> TSN	-1.5325
<input type="checkbox"/> PM	-1.5178
<input type="checkbox"/> SYY	-1.434
<input type="checkbox"/> KO	-1.404
<input type="checkbox"/> MO	-1.3255
<input type="checkbox"/> ADM	-1.2583
<input type="checkbox"/> MDLZ	-1.2511
<input type="checkbox"/> LW	-1.1649
<input type="checkbox"/> HSY	-1.0011
<input type="checkbox"/> PG	-0.7904
<input type="checkbox"/> EL	-0.5282
<input type="checkbox"/> PEP	-0.5232
<input type="checkbox"/> STZ	-0.4894

XLP has weakened, making some short-term lower highs.



Lower lows in the % of stocks above their 20-day MA.

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



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Watch List

Ticker	Momentum
Consumer Disc. Momentum Score	
<input type="checkbox"/> AMZN	30.5581
<input type="checkbox"/> CMG	23.5904
<input type="checkbox"/> EBAY	21.4376
<input type="checkbox"/> TSCO	19.3177
<input type="checkbox"/> DG	15.6631
<input type="checkbox"/> HD	-1.9662
<input type="checkbox"/> TGT	-8.7995
<input type="checkbox"/> TIF	-9.0401
<input type="checkbox"/> LOW	-11.1295
<input type="checkbox"/> ORLY	-14.2088
<input type="checkbox"/> AZO	-18.4813
<input type="checkbox"/> NKE	-23.7832
<input type="checkbox"/> BBY	-23.9064

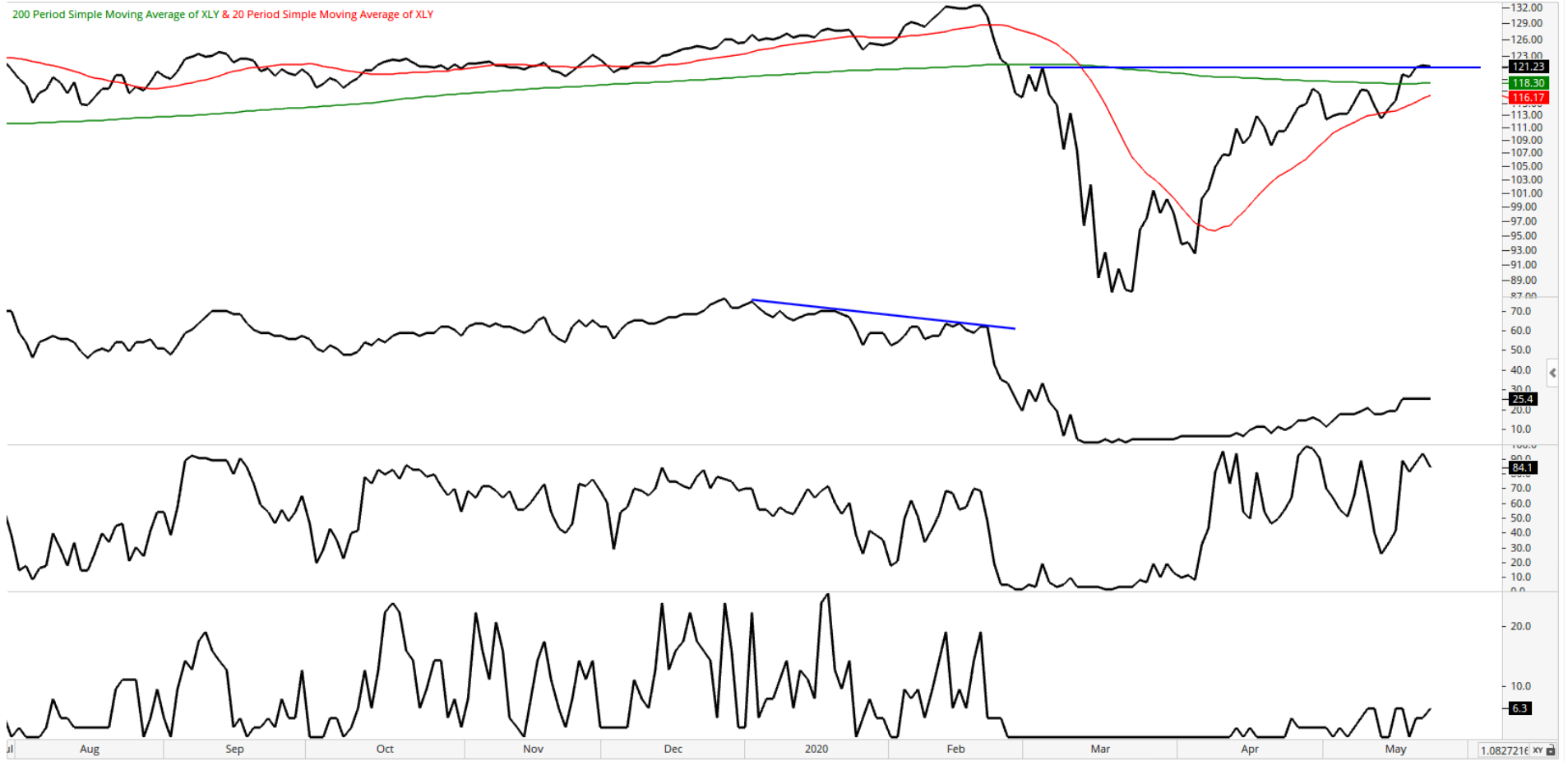
Watch List

Ticker	Mean Reversion
Consumer Disc. Mean Reversion Score	
<input type="checkbox"/> UA	-1.8603
<input type="checkbox"/> UAA	-1.8116
<input type="checkbox"/> JWN	-1.7204
<input type="checkbox"/> VFC	-1.7105
<input type="checkbox"/> NCLH	-1.7063
<input type="checkbox"/> CCL	-1.6476
<input type="checkbox"/> KSS	-1.567
<input type="checkbox"/> RCL	-1.5626
<input type="checkbox"/> HAS	-1.4869
<input type="checkbox"/> TPR	-1.459
<input type="checkbox"/> MHK	-1.4288
<input type="checkbox"/> MGM	-1.4071
<input type="checkbox"/> PVH	-1.3818
<input type="checkbox"/> RL	-1.3604
<input type="checkbox"/> MAR	-1.3325
<input type="checkbox"/> GPS	-1.3198

XLY has cleared its 200-day MA breaking out from its consolidation.

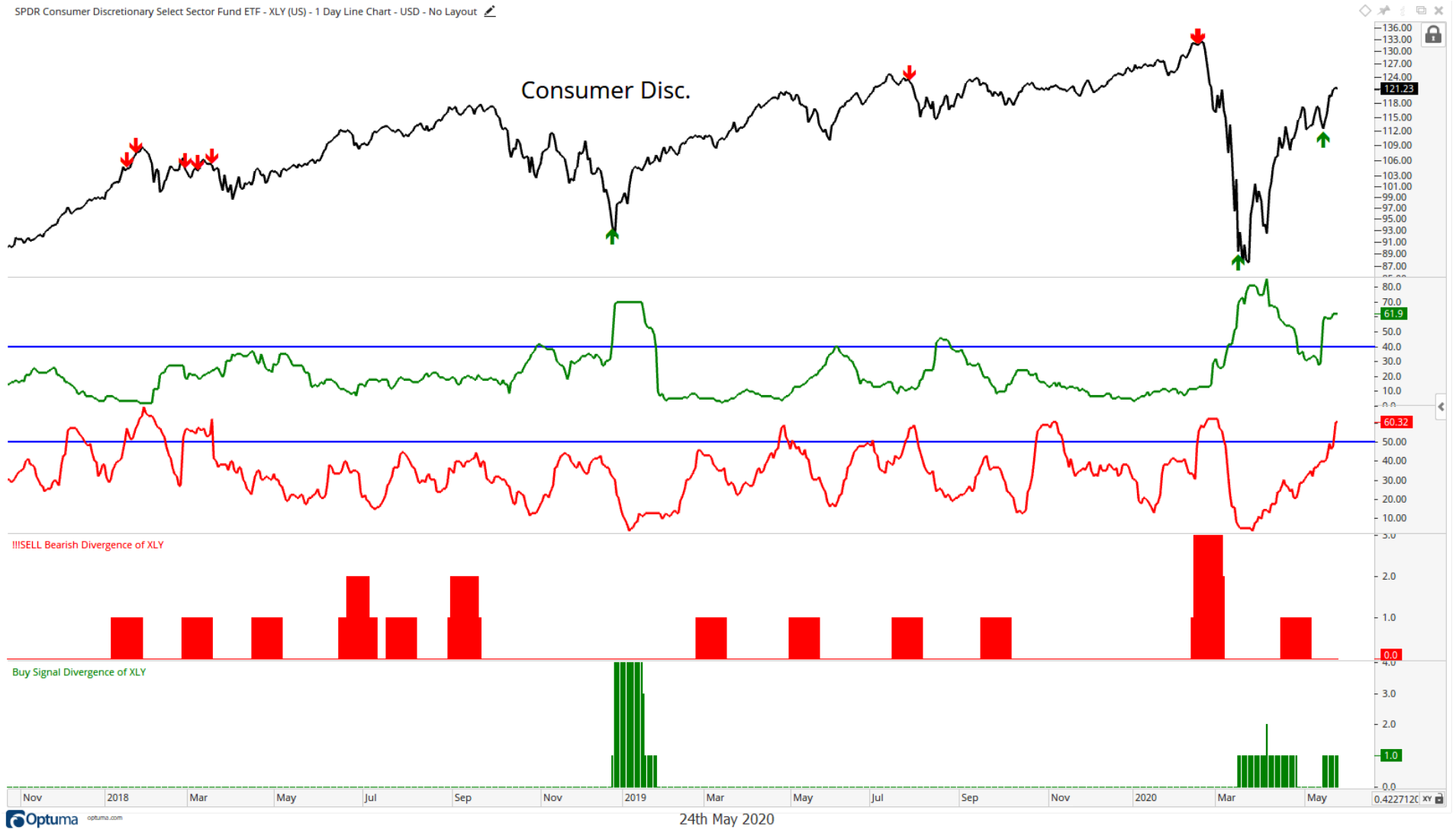
SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - 1 Day Line Chart - USD - No Layout

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



Breadth improves.

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





Watch List

Ticker	Momentum
Real Estate Momentum Score	
<input type="checkbox"/> EQIX	1.7167
<input type="checkbox"/> SBAC	-8.7211
<input type="checkbox"/> CCI	-13.2870
<input type="checkbox"/> DLR	-13.8425
<input type="checkbox"/> AMT	-16.1698
<input type="checkbox"/> PLD	-23.4767
<input type="checkbox"/> DRE	-30.7869
<input type="checkbox"/> ARE	-30.8560
<input type="checkbox"/> MAA	-40.7966
<input type="checkbox"/> PSA	-44.2307
<input type="checkbox"/> ESS	-47.8780
<input type="checkbox"/> EXR	-48.0193
<input type="checkbox"/> UDR	-48.3822

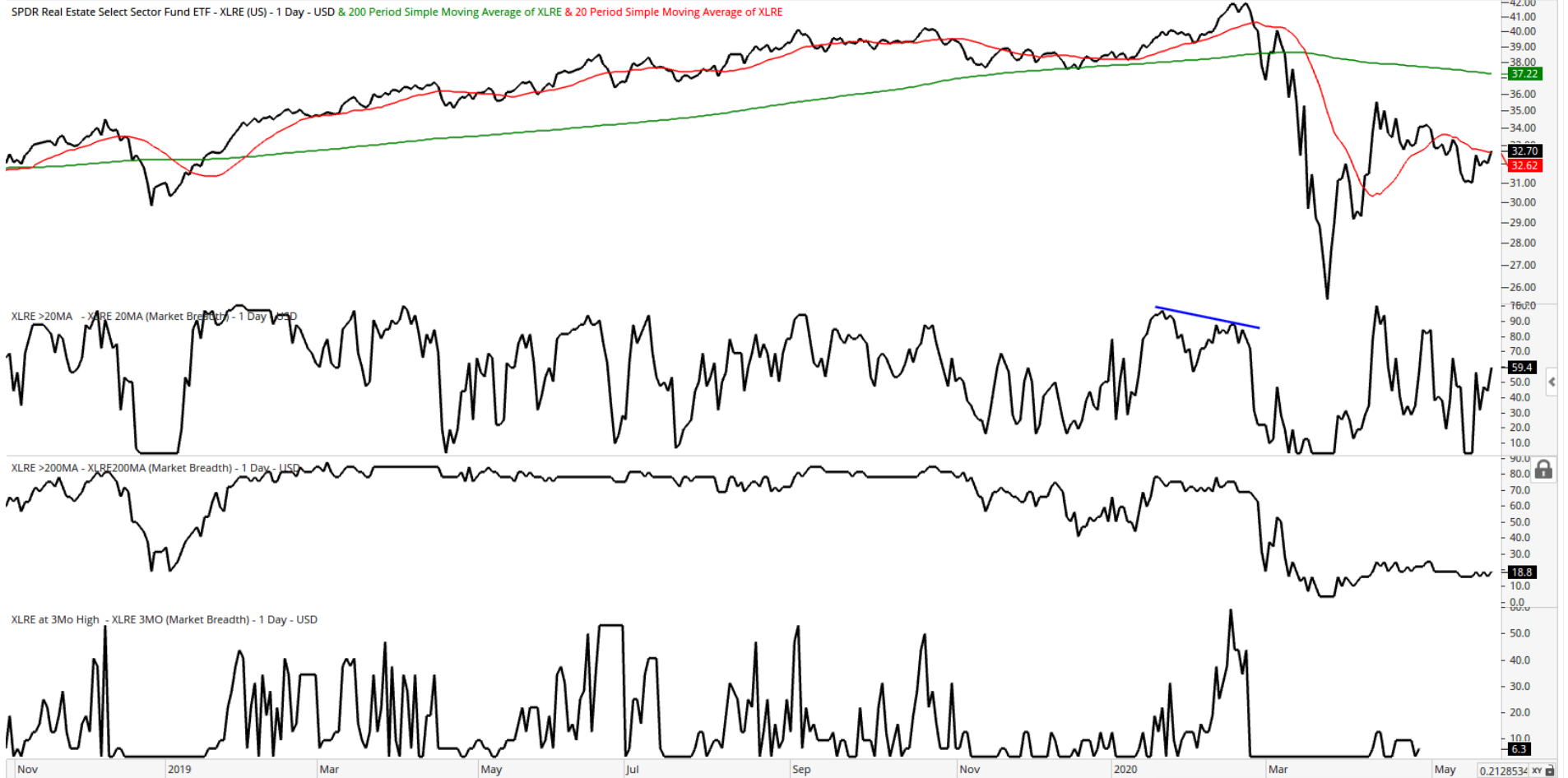
Watch List

Ticker	Mean Reversion
Real Estate Mean Reversion	
<input type="checkbox"/> BXP	-2.4707
<input type="checkbox"/> SLG	-2.3579
<input type="checkbox"/> EQR	-2.2161
<input type="checkbox"/> VNO	-2.0637
<input type="checkbox"/> AVB	-1.9842
<input type="checkbox"/> EXR	-1.9141
<input type="checkbox"/> UDR	-1.8806
<input type="checkbox"/> O	-1.8436
<input type="checkbox"/> AIV	-1.8365
<input type="checkbox"/> SPG	-1.7626
<input type="checkbox"/> FRT	-1.7476
<input type="checkbox"/> WELL	-1.7166
<input type="checkbox"/> HCP	-1.674
<input type="checkbox"/> ESS	-1.6229
<input type="checkbox"/> REG	-1.6097
<input type="checkbox"/> IRM	-1.6015

Recent break above the declining 50-day MA.

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

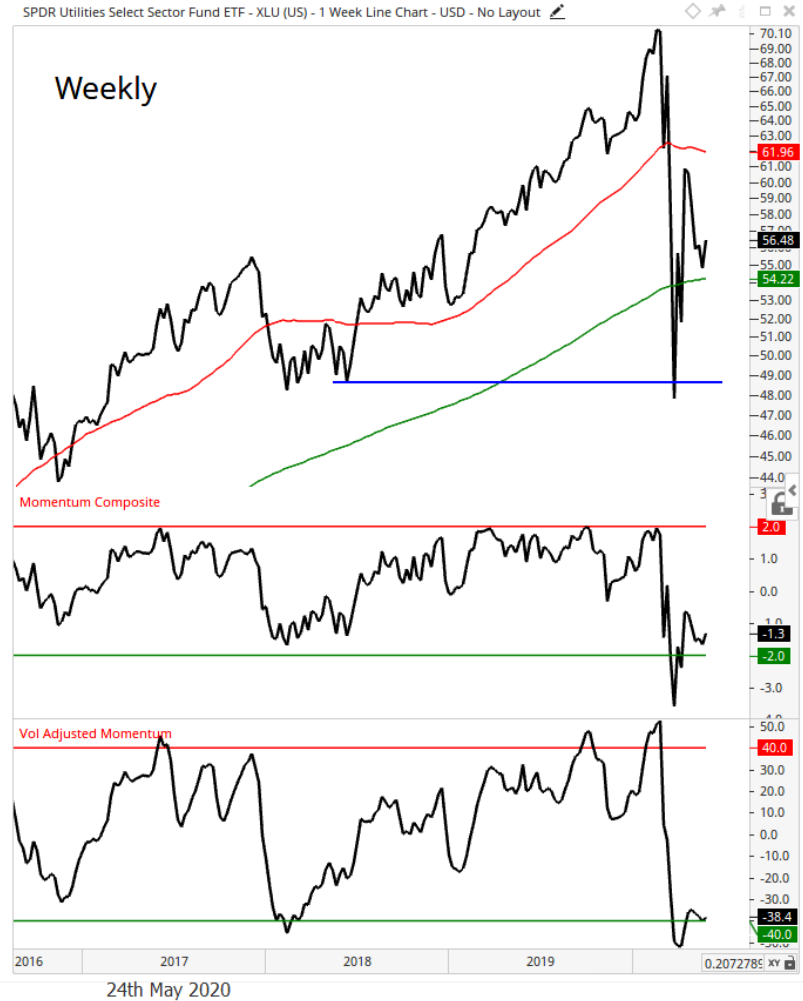
SPDR Real Estate Select Sector Fund ETF - XLRE (US) - 1 Day - USD & 200 Period Simple Moving Average of XLRE & 20 Period Simple Moving Average of XLRE



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Breath has improved but tracks price which has been making lower highs.



Watch List

Ticker	Momentum
Utilities Momentum Score	
<input type="checkbox"/> D	-22.0195
<input type="checkbox"/> AWK	-28.2547
<input type="checkbox"/> NRG	-30.0150
<input type="checkbox"/> NEE	-30.2889
<input type="checkbox"/> XEL	-30.7840
<input type="checkbox"/> WEC	-33.5266
<input type="checkbox"/> ES	-34.5069
<input type="checkbox"/> DUK	-35.9744
<input type="checkbox"/> EVRG	-36.0300
<input type="checkbox"/> AEE	-37.5869
<input type="checkbox"/> ATO	-37.7222
<input type="checkbox"/> CMS	-37.9146
<input type="checkbox"/> SO	-39.6460

Watch List

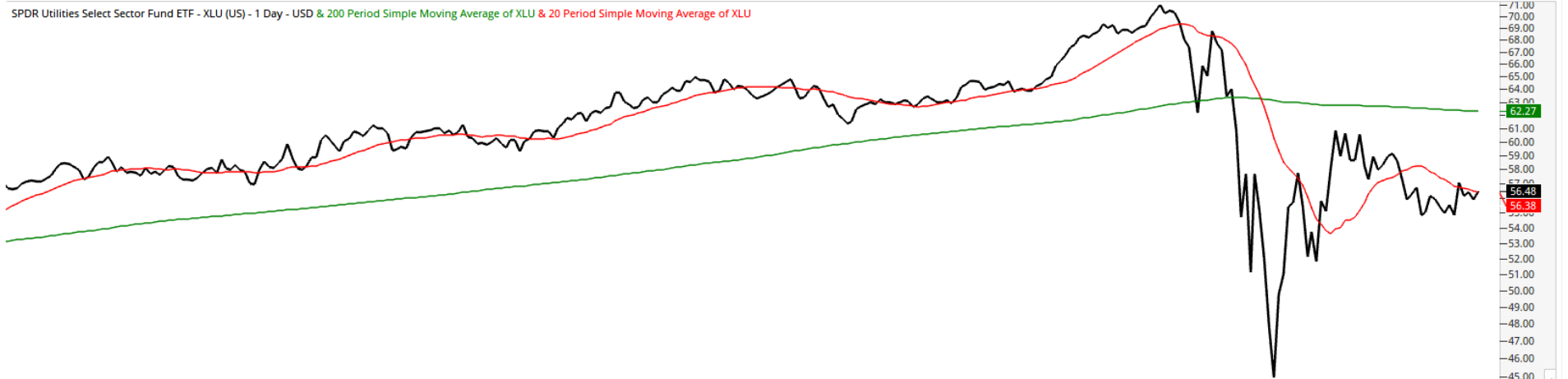
Ticker	Mean Reversion
Utilities Mean Reversion Score	
<input type="checkbox"/> ED	-2.7895
<input type="checkbox"/> NI	-1.9831
<input type="checkbox"/> PNW	-1.875
<input type="checkbox"/> AES	-1.7344
<input type="checkbox"/> AEP	-1.6488
<input type="checkbox"/> AEE	-1.5213
<input type="checkbox"/> PEG	-1.5155
<input type="checkbox"/> DTE	-1.4958
<input type="checkbox"/> CNP	-1.4834
<input type="checkbox"/> EXC	-1.465
<input type="checkbox"/> LNT	-1.3809
<input type="checkbox"/> ATO	-1.3356
<input type="checkbox"/> EIX	-1.3267
<input type="checkbox"/> PPL	-1.3258
<input type="checkbox"/> CMS	-1.2199
<input type="checkbox"/> FE	-1.218

XLU has broken above its declining 50-day MA but still has been making lower highs.



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



XLU >200MA - XLU200MA (Market Breadth) - 1 Day - USD



XLU >20MA - XLU20MA (Market Breadth) - 1 Day - USD



Mar May Jul Sep Nov 2020 Mar May 0.3318345 xy

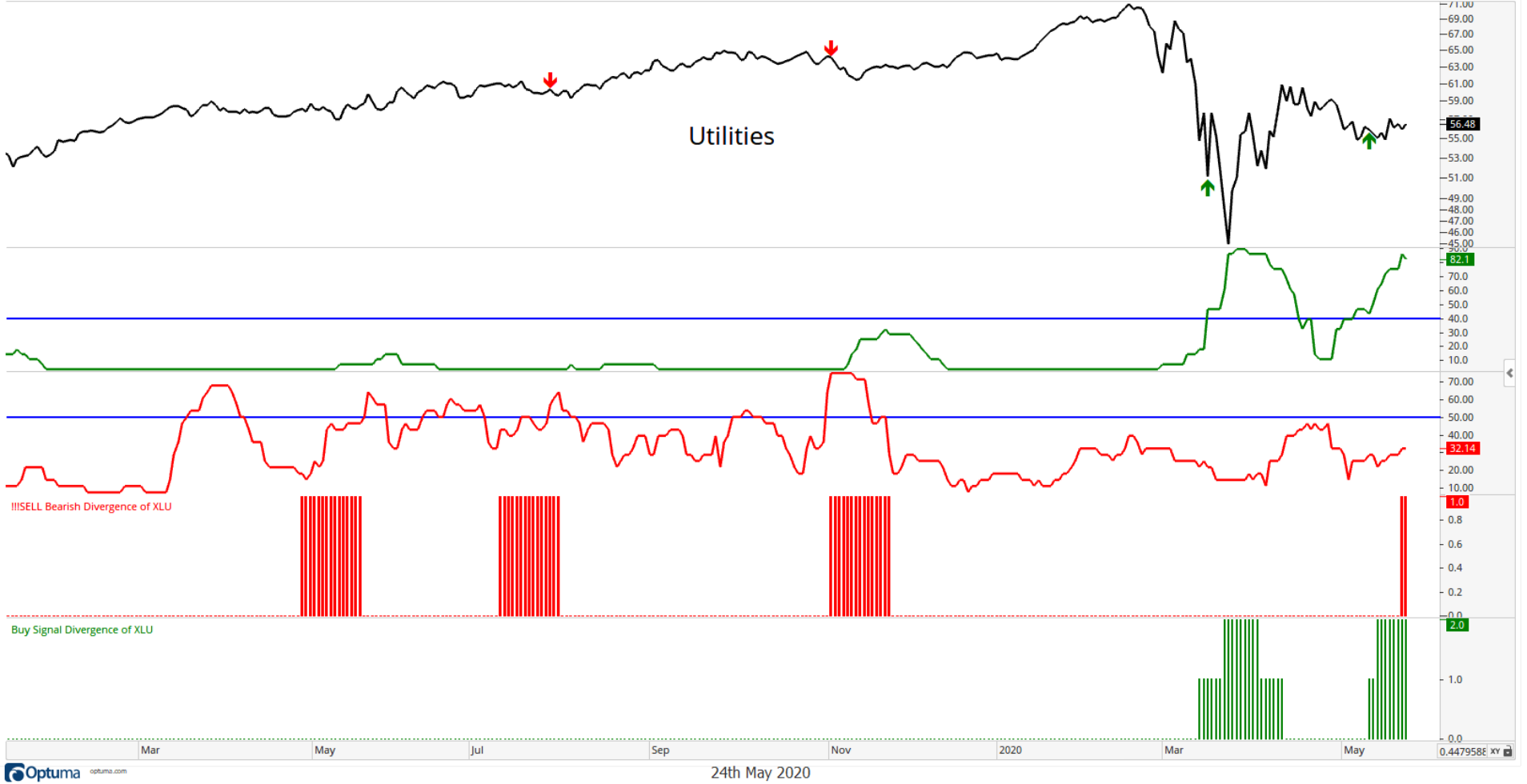


24th May 2020

Breadth uninspired.



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





1 Week - Watch List - No Layout

Name	Momentum
Country Momentum Score	
<input type="checkbox"/> OMX Copenhagen	5.3171
<input type="checkbox"/> NASDAQ Composite Index	-2.6215
<input type="checkbox"/> OMX Vilnius Stock Index	-5.9755
<input type="checkbox"/> Shanghai Composite Index	-20.7988
<input type="checkbox"/> Taiwan Stock Exchange Weighted In	-21.5812
<input type="checkbox"/> NZSX 50 Index	-22.1943
<input type="checkbox"/> S&P 500 INDEX	-25.5189
<input type="checkbox"/> Swiss Market Index	-29.1964
<input type="checkbox"/> Kospi 200 Index	-30.5373
<input type="checkbox"/> FTSE JSE Africa All Share	-31.0946
<input type="checkbox"/> Nikkei Stock Average 225	-31.7315
<input type="checkbox"/> OMX Stockholm Benchmark Index	-31.7564
<input type="checkbox"/> OMX Stockholm All-Share Cap GI Inc	-33.0564

1 Week - Watch List - No Layout

Name	Mean Reversion
Country Mean Reversion Score	
<input type="checkbox"/> Hang Seng Index	-1.9342
<input type="checkbox"/> Straits Times Industrial Inde	-1.9254
<input type="checkbox"/> Madrid General Index	-1.8794
<input type="checkbox"/> BSE 30 - India	-1.8771
<input type="checkbox"/> Jakarta Stock Exchange Com	-1.8712
<input type="checkbox"/> Vienna Stock Exchange Inde	-1.7618
<input type="checkbox"/> CAC 40 Index	-1.6253
<input type="checkbox"/> BEL 20 Index - Belgium	-1.6247
<input type="checkbox"/> FTSE MIB Index	-1.5731
<input type="checkbox"/> Mexico IPC Index	-1.5541
<input type="checkbox"/> Australia All Ordinaries Inde	-1.3778
<input type="checkbox"/> FTSE All Share Index	-1.3544
<input type="checkbox"/> Polish Index	-1.3521
<input type="checkbox"/> FTSE 100 Index	-1.3475
<input type="checkbox"/> Budapest Indices BUX Index	-1.339
<input type="checkbox"/> Prague Stock Exchange Inde	-1.3246

EFA remains below its prior short-term high.

1 Day - Watch List - No Layout

<input type="checkbox"/>	Market	% Bullish ▲	5MA	History
<input type="checkbox"/>	Natural Gas DSI	15	16.8	
<input type="checkbox"/>	Cocoa DSI	15	16.6	
<input type="checkbox"/>	Corn DSI	18	20.4	
<input type="checkbox"/>	Swiss Franc DSI	25	25.20	
<input type="checkbox"/>	Lean Hog DSI	28.00	31.60	
<input type="checkbox"/>	Coffee DSI	28.00	36.00	
<input type="checkbox"/>	VIX DSI	31.00	32.60	
<input type="checkbox"/>	Euro DSI	37.00	40.20	
<input type="checkbox"/>	British Pound DSI	41.00	47.80	
<input type="checkbox"/>	Mexican Peso DSI	43.00	35.20	
<input type="checkbox"/>	Cotton DSI	47.00	54.40	
<input type="checkbox"/>	Wheat DSI	50.00	45.80	
<input type="checkbox"/>	Sugar DSI	52.00	45.60	
<input type="checkbox"/>	Gasoline DSI	55.00	56.40	
<input type="checkbox"/>	5YR DSI	55.00	52.80	
<input type="checkbox"/>	Lumber DSI	57.00	52.60	
<input type="checkbox"/>	Heating Oil DSI	60.00	58.80	

1 Day - Watch List - No Layout

<input type="checkbox"/>	Code	% Bullish ▲	5MA	History
<input type="checkbox"/>	New Zealand Dollar DSI	61.00	61.60	
<input type="checkbox"/>	Australian Dollar DSI	61.00	62.80	
<input type="checkbox"/>	Cattle DSI	62.00	68.60	
<input type="checkbox"/>	SPX DSI	63.00	63.60	
<input type="checkbox"/>	US Dollar DSI	65.00	61.00	
<input type="checkbox"/>	10Y DSI	65.00	57.60	
<input type="checkbox"/>	Orange Juice DSI	67.00	73.00	
<input type="checkbox"/>	Copper DSI	67.00	70.40	
<input type="checkbox"/>	Nasdaq DSI	71.00	72.40	
<input type="checkbox"/>	Palladium DSI	73.00	75.80	
<input type="checkbox"/>	EuroDollar DSI	75.00	75.40	
<input type="checkbox"/>	Crude Oil DSI	76.00	73.00	
<input type="checkbox"/>	CRB Index DSI	77.00	76.80	
<input type="checkbox"/>	Platinum DSI	79.00	77.00	
<input type="checkbox"/>	Nikkei DSI	79.00	73.60	
<input type="checkbox"/>	Gold DSI	84	83	
<input type="checkbox"/>	Silver DSI	88	87.8	

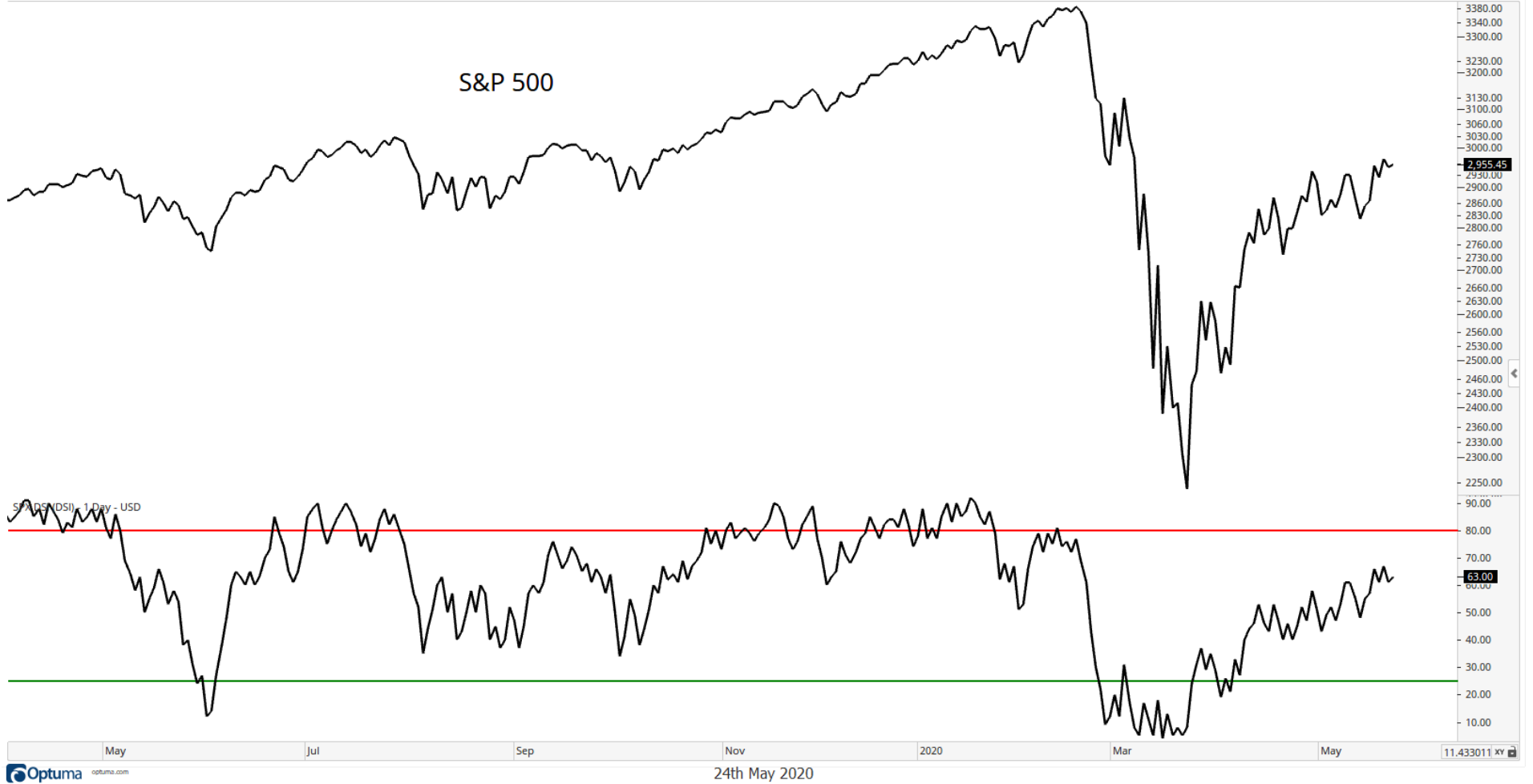
Above is the DSI score for each of the futures markets.

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

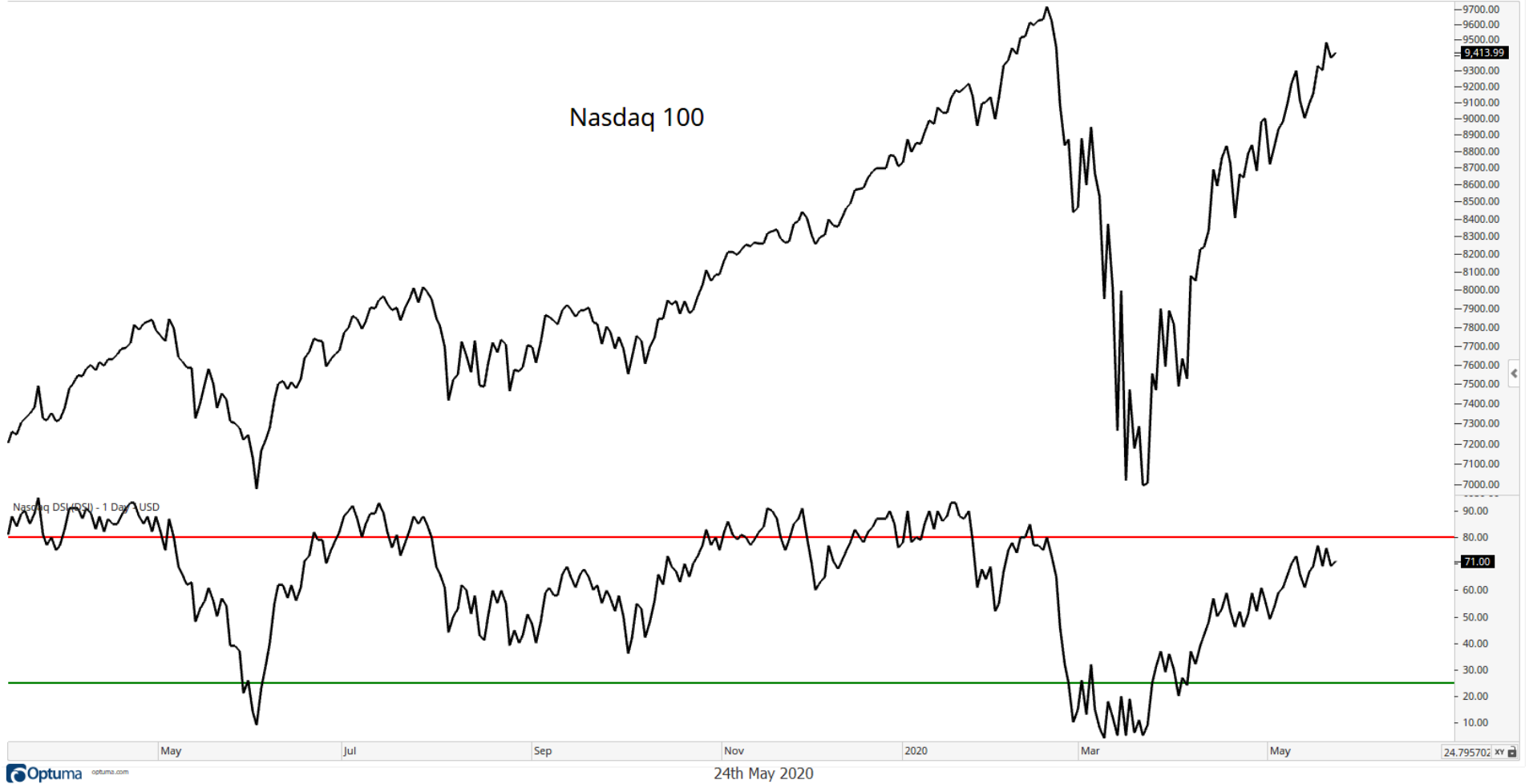




S&P 500 INDEX - SPX (WI) - 1 Day Line Chart - USD - No Layout

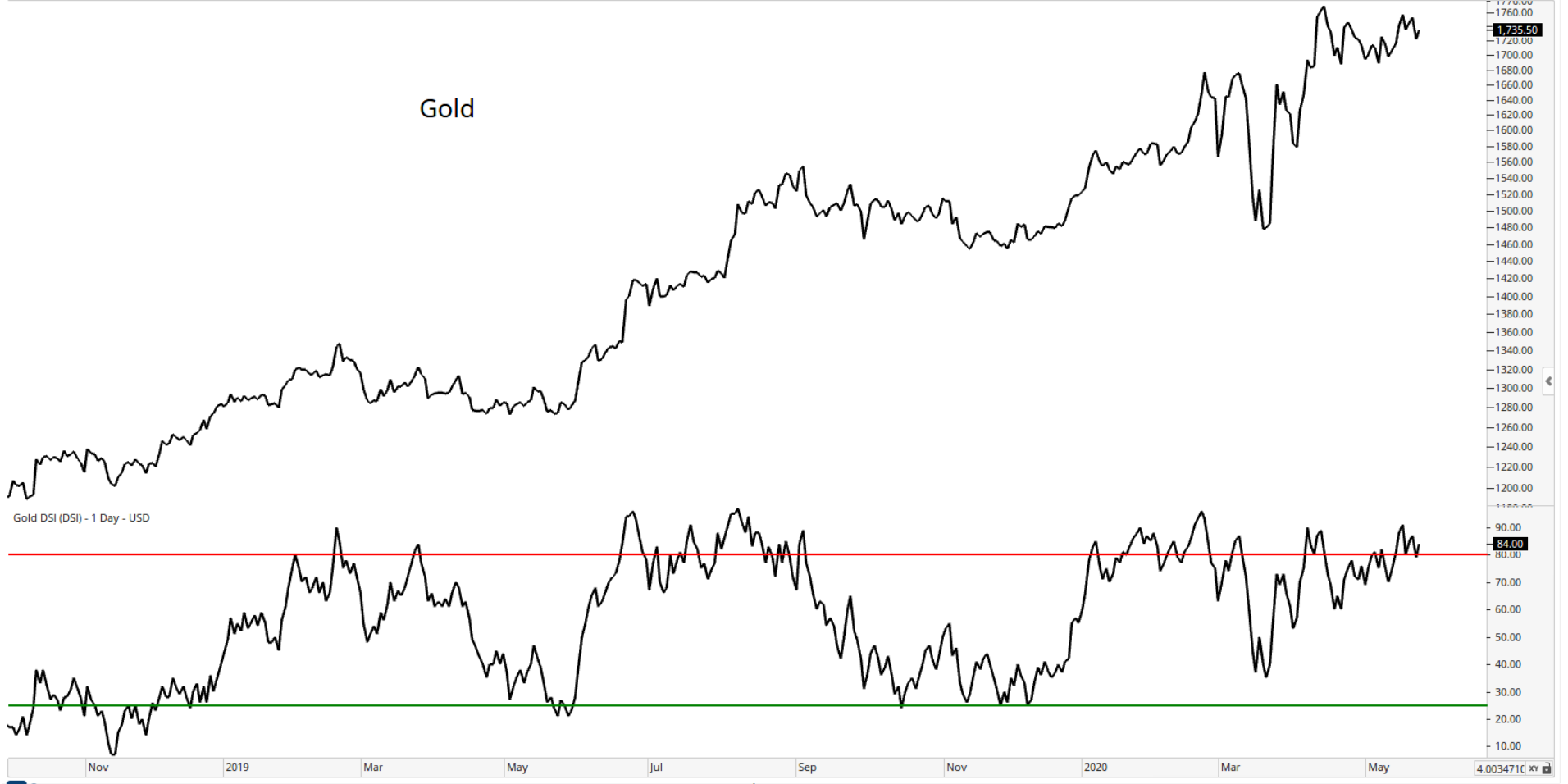


NASDAQ 100 Index - NDY (WI) - 1 Day Line Chart - USD - No Layout





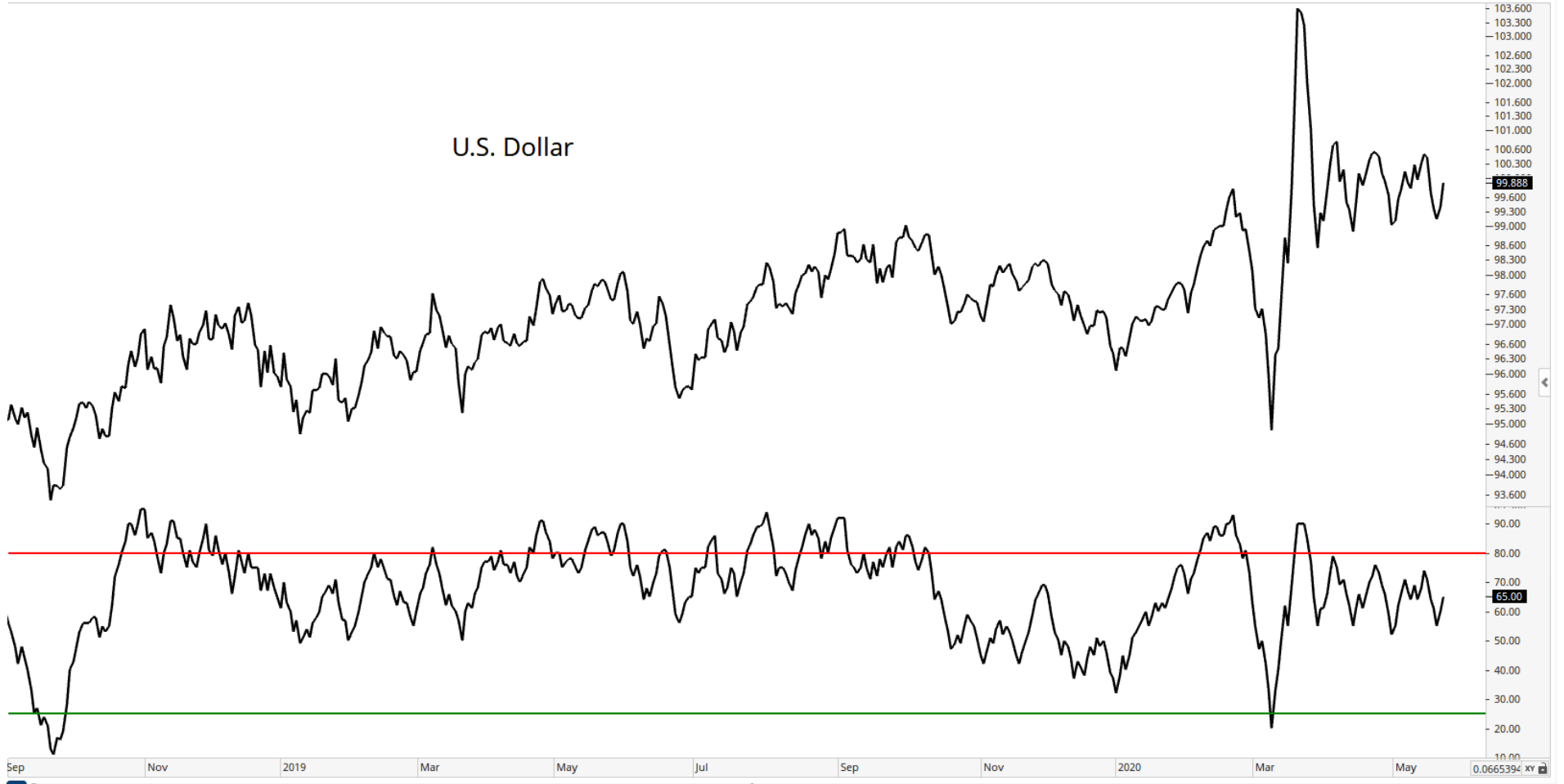
Gold Futures - GCSpot (NYMEX) - 1 Day Line Chart - USD - No Layout



24th May 2020



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



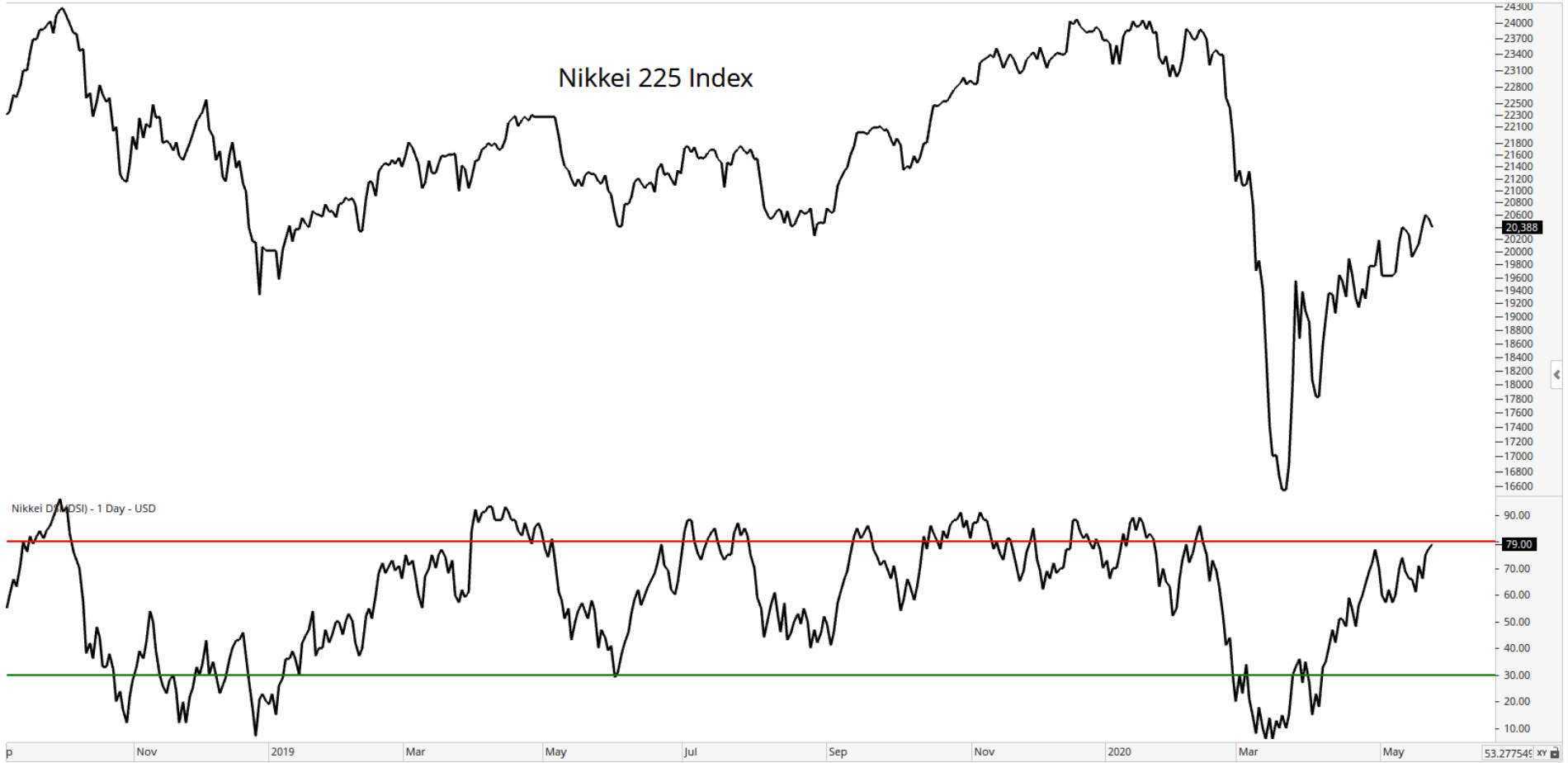
24th May 2020

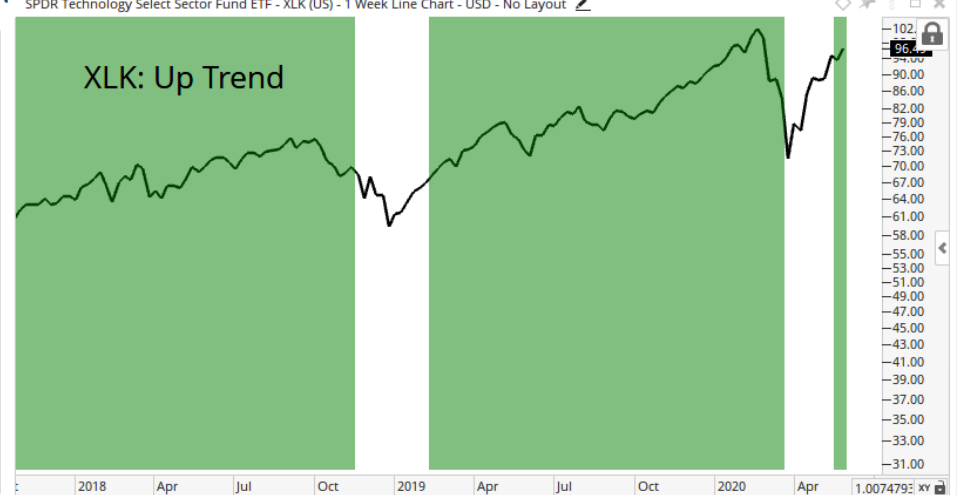
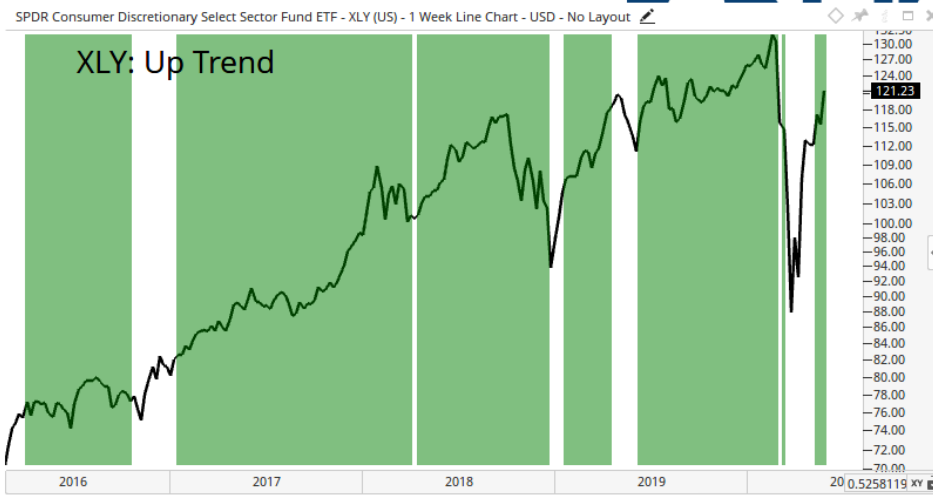
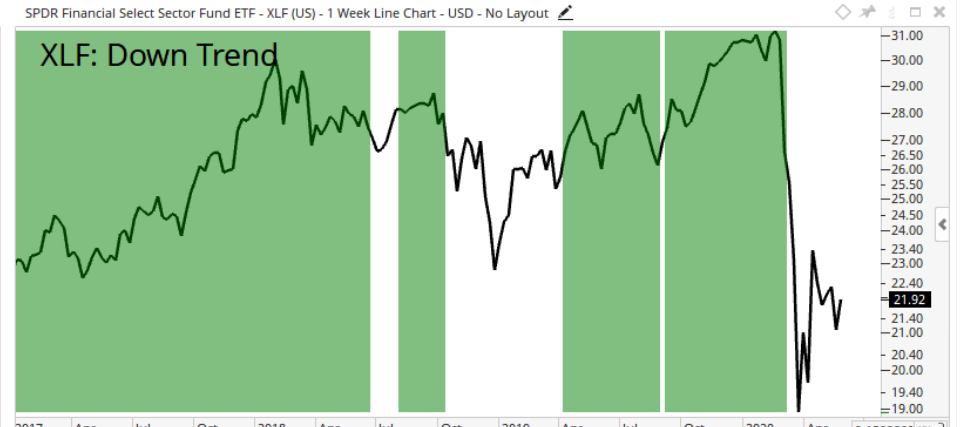
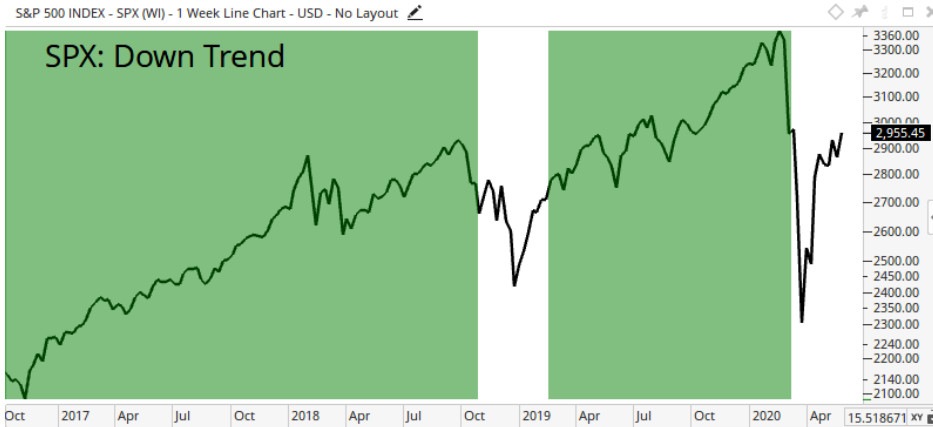
CBOE S&P 500 Volatility Index - VIX (CBOE) - 1 Day Line Chart - USD - No Layout

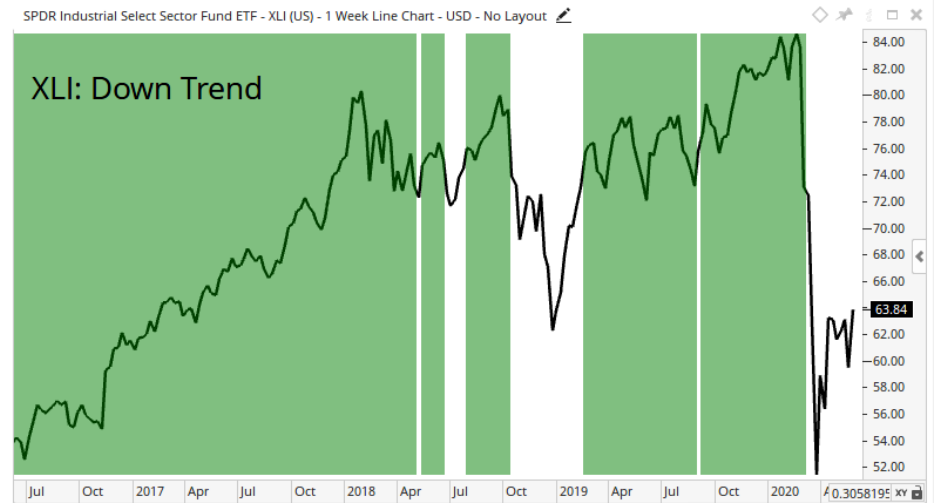
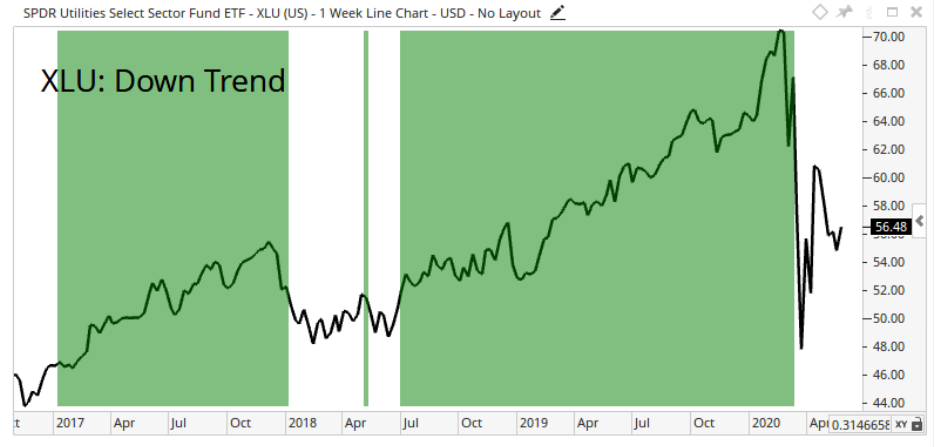
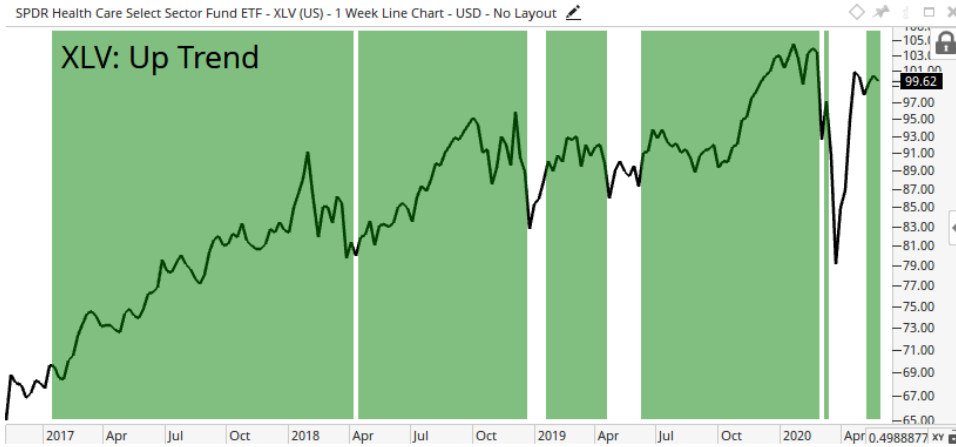


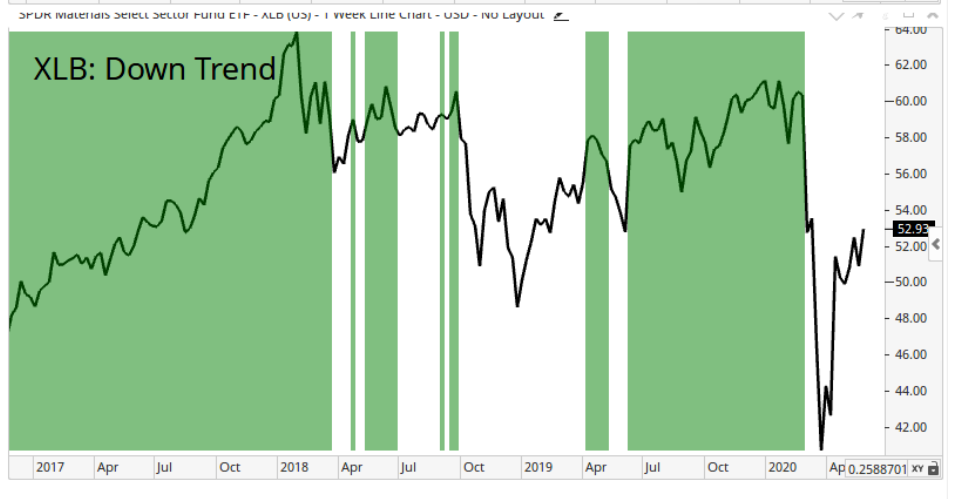
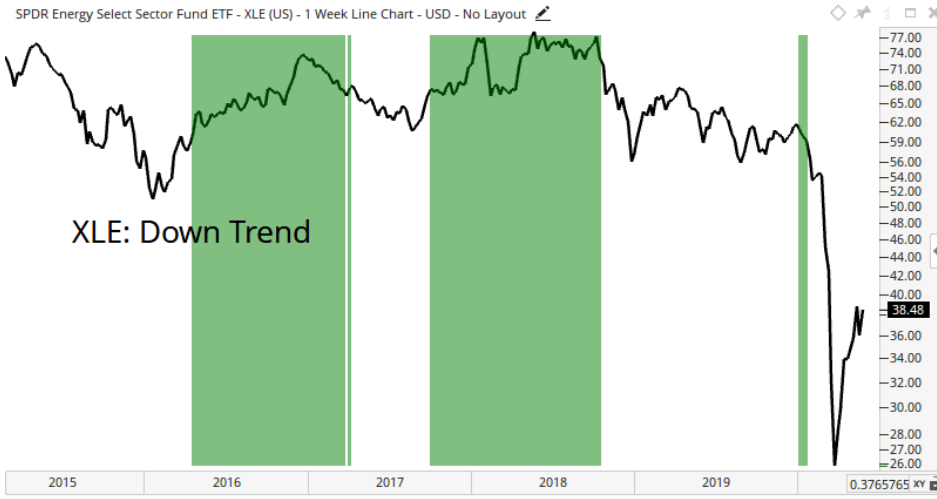
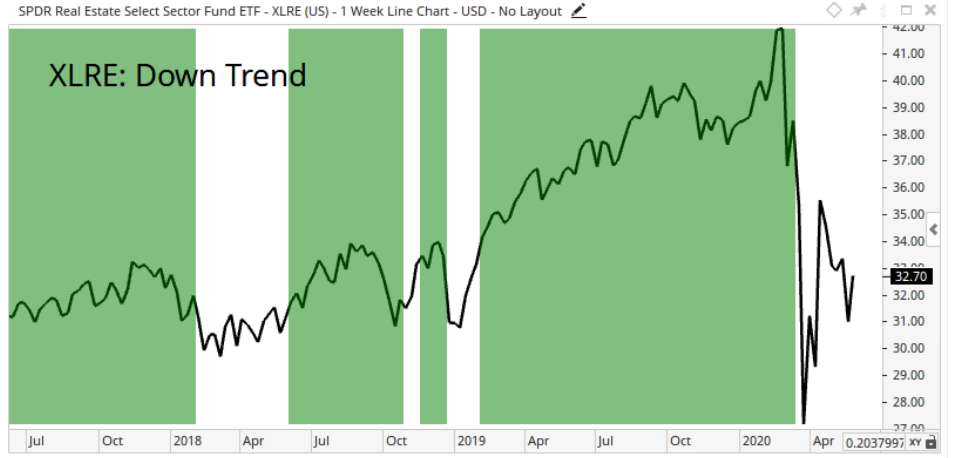
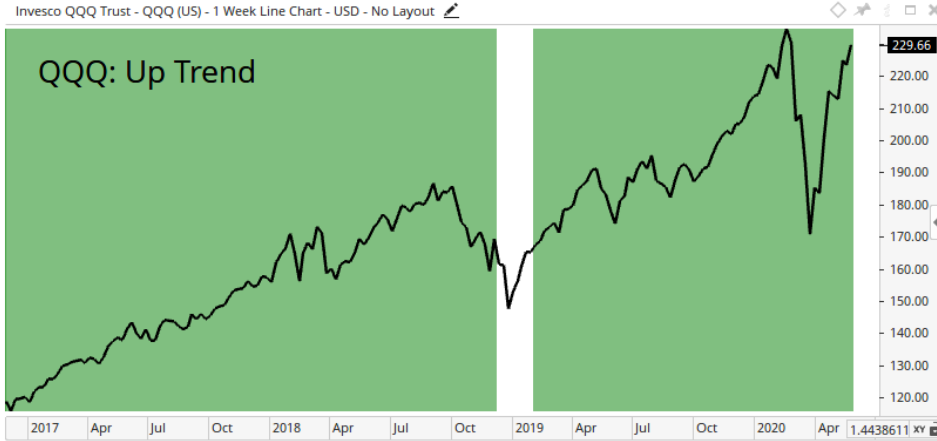


NIKKEI 225 INDEX - NYCash (CME) - 1 Day Line Chart - USD - No Layout



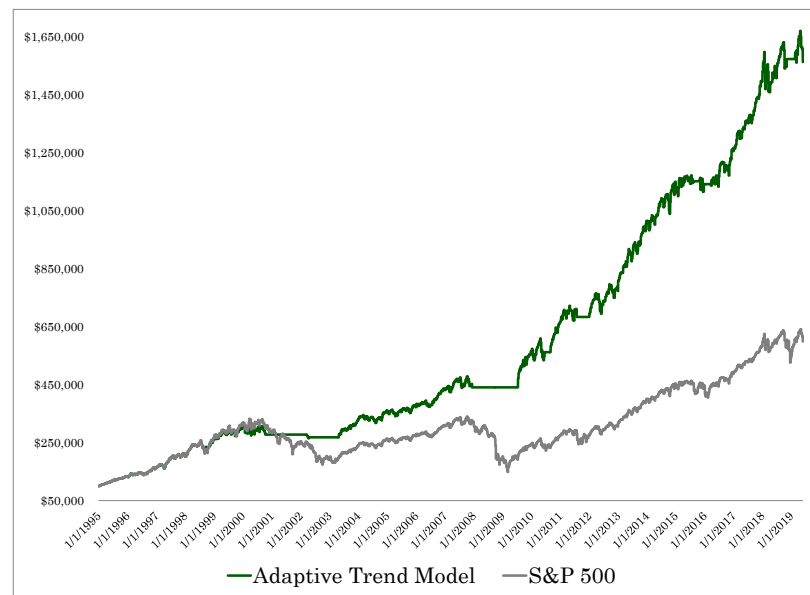
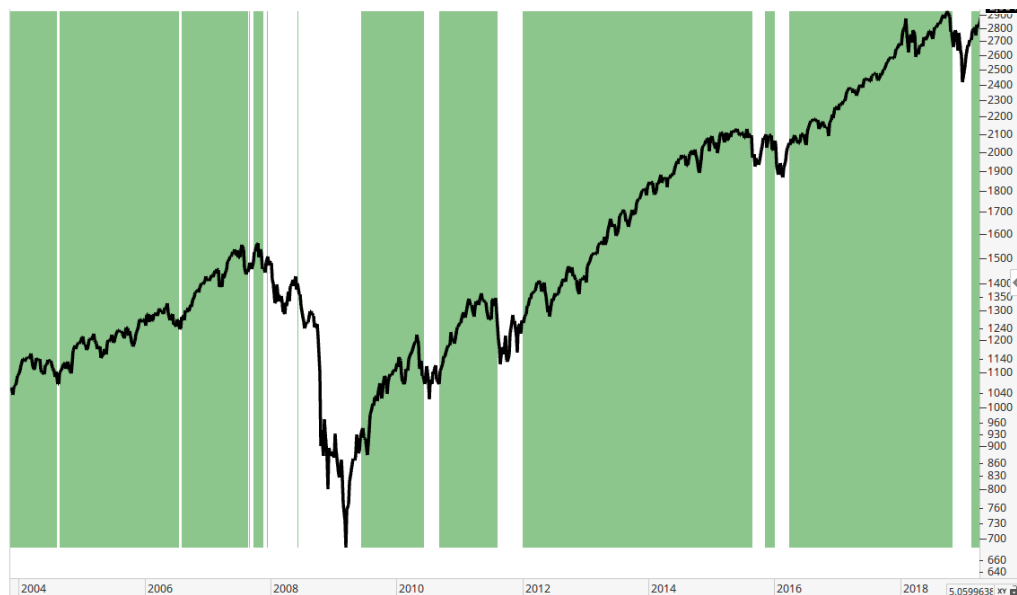






Trend-based analysis is a process built on the idea of enduring minor pullbacks in the anticipating of avoiding protracted drawdowns in financial markets. With a focus on stepping out of the market during large down trends, the Thrasher Analytics Adaptive Trend Model (TAATM) pursues to minimize the “whipsaws”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

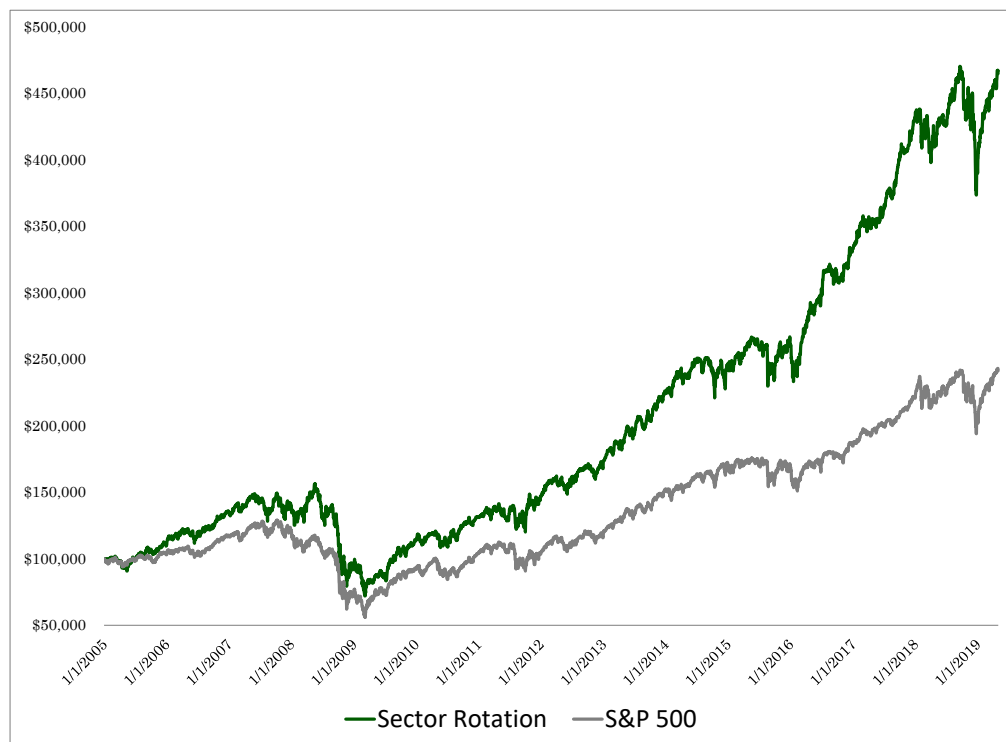


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Adaptive Trend	12.5%	10.3%	0.47	0.97	14.1%
S&P 500	8.9%	15.3%	1	0.42	56.6%

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.

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.

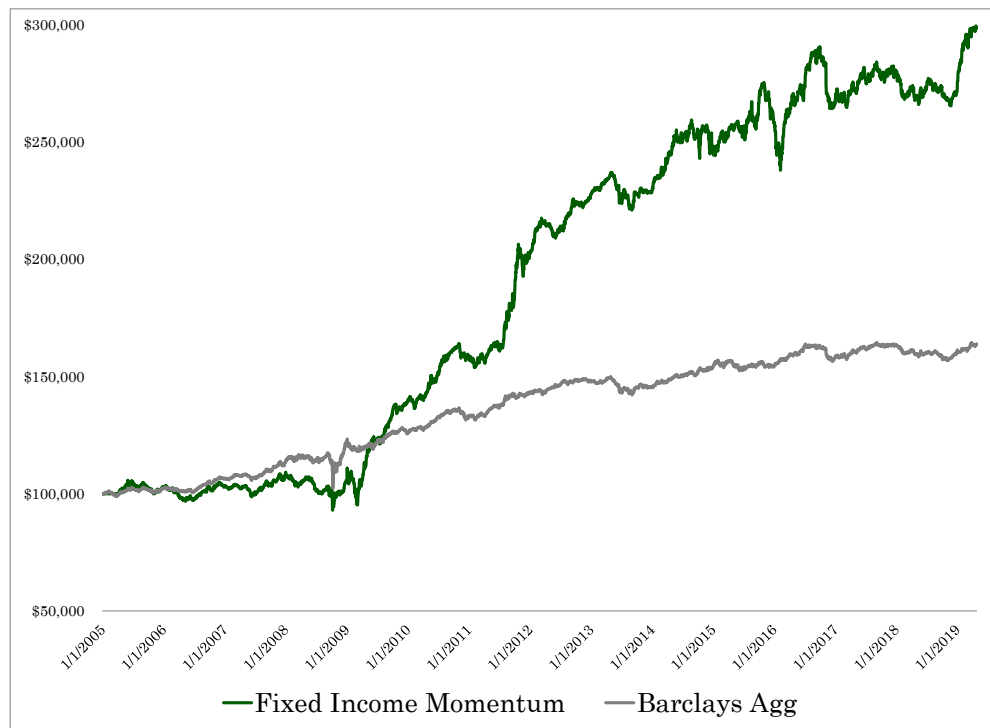


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Sector Rotation	12.7%	15.9%	0.96	0.64	53.9%
S&P 500	7.5%	14.8%	1	0.34	56.6%

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.

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.

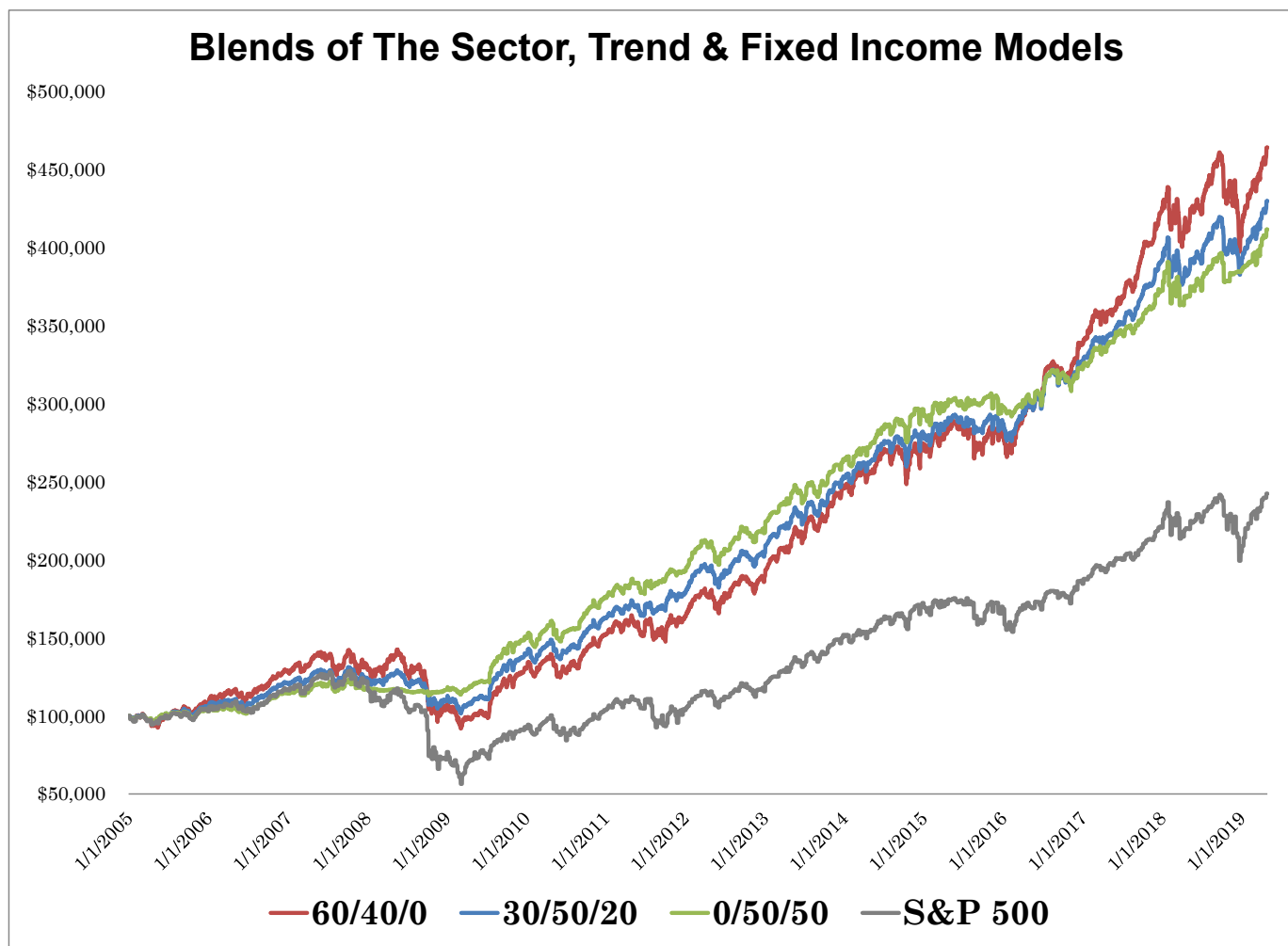


	Annualized Return	Annualized Volatility	Beta	Sharpe Ratio	Maximum Drawdown
Fixed Income Momentum	8.3%	8.2%	1.04	0.7	14.9%
Barclays Agg	3.6%	3.7%	1	0.29	11.0%

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

Please see complete disclosure for additional information.

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



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.

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.

Trend (weekly)	Sector Rotation (monthly)	Fixed Income Momentum (quarterly)
Negative	XLV XLK XLP	PCY CWB

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.

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