

TA THRASHER ANALYTICS

MARCH 19, 2023



WEEKLY RESEARCH & ANALYSIS

BY ANDREW THRASHER, CMT

SUMMARY OF MODELS

| | Current | Wkly Change |
|-------------------------|---------|-------------|
| Maestro Model | -11 | Decreasing |
| Volatility Risk Trigger | 0 | Decreasing |
| Risk Appetite Ratios | .41 | Decreasing |
| S&P 500 Long-Term Trend | Down | Unchanged |

TABLE OF CONTENTS

Volatility

Equities

Maestro Model

Sector Sentiment

Sectors & Commodity

Sentiment

Trend Models

| Sector Rotation: March | |
|------------------------|------|
| Financials | XLFX |
| Energy | XLE |
| Industrials | XLI |

| Maestro Model | |
|------------------|------------|
| Trend / Momentum | -5 |
| Sentiment / VIX | -3 |
| Breadth | -3 |
| Economic | 3 |
| Total | -11 |

(Breadth is weighted double in model)

| Index & Sector | | |
|----------------|----------|------------|
| | Up Trend | Down Trend |
| SPX | | X |
| QQQ | X | |
| XLFX | | 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 | 16% | 17% |
| Nasdaq 100 | 39% | 36% |
| Nikkei | 37% | 42% |
| VIX | 50% | 45% |
| 10yr Treasury | 63% | 56% |
| 5yr Treasury | 60% | 52% |
| CRB Index | 50% | 48% |
| Crude Oil | 12% | 18% |
| Gold | 80% | 73% |
| U.S. Dollar | 52% | 53% |
| Bitcoin | 60% | 50% |

*Green<25% Red>80%

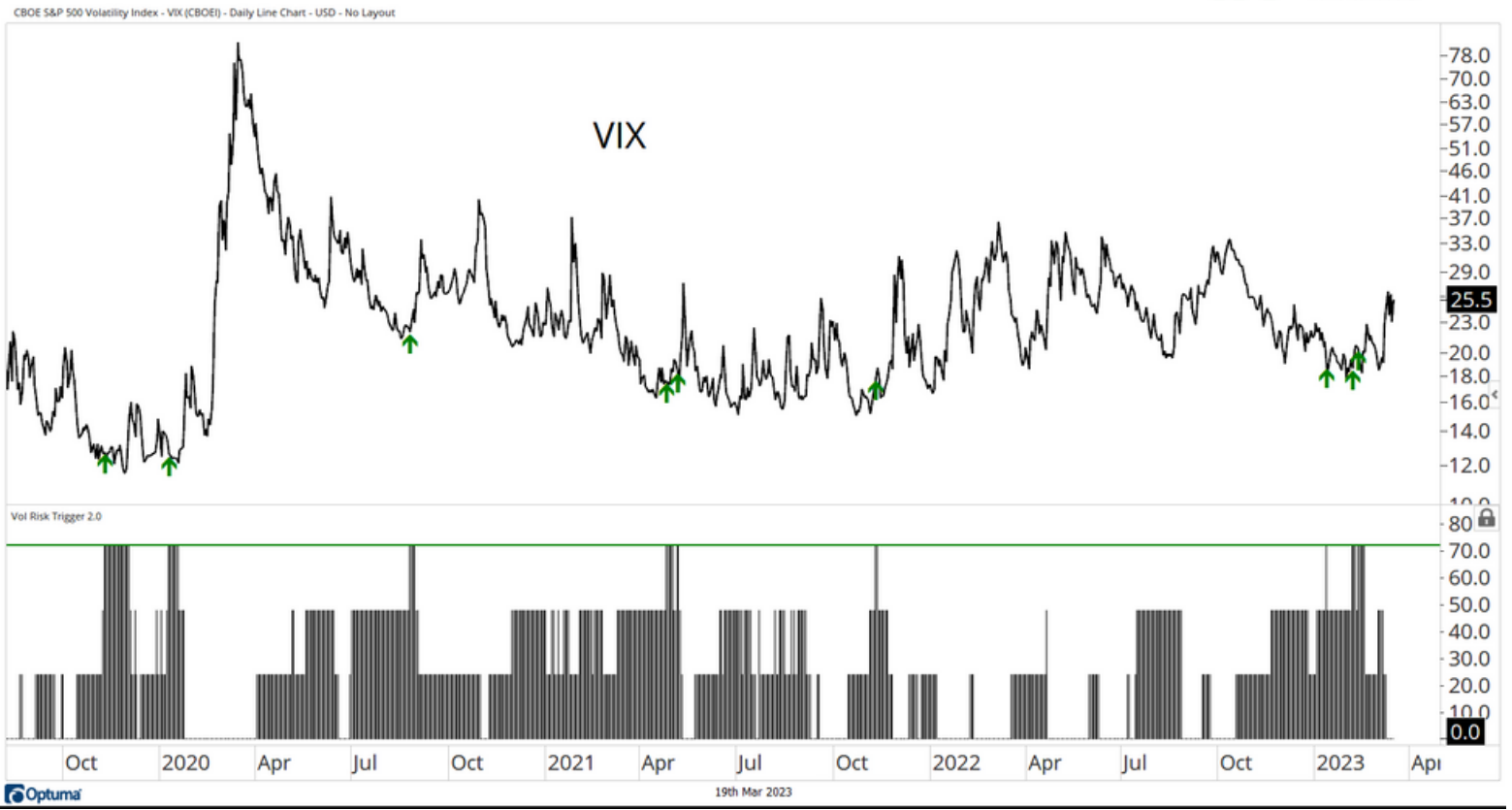
source: trade-futures.com

Brief Summary:

The whipsaw continues as individual stocks breakdown, and the indices rely on the mega caps to eke out a gain. More stocks have fallen below their 200-day MA and below their prior Dec. low while the S&P 500 gained roughly 1% last week. The VIX has begun to consolidate near 25 as the market digests the bank headlines and prepare for the next FOMC announcement. This week we'll get the likely 25 basis point hike in rates by the Fed on Weds. and apparently Trump is getting arrested on Tuesday (who knows how the market will respond to that event...). Tech stocks have been a key driver for SPX to rally last week but it lacks confirmation from multiple angles. Historically, Taiwan has had a strong relationship with Tech but it's not rallying, and we saw further declines in breadth data for the tech sector as well.

SPX has now gone 43 weeks without any progress while leaving in its wake a 20% range. The lack of a defined trend can be frustrating but is not entirely unusual. We've seen these consolidations develop in the past and patience is important to allow a trend to eventually develop. Currently breadth data is beginning to show less support for an eventual up trend to form but that can of course change and improve.

The VIX has come off its intraday highs but remains elevated, consolidating at 25 during most of the week.



VOLATILITY: TOP & ENVIRONMENT

On Tuesday we got both Aggressive and Conservative peak Volatility Signals, but this also came as the VIX moved into a High Volatility Environment, which helps explain why we did see vol come down a few points but has remained elevated in the mid-20s.

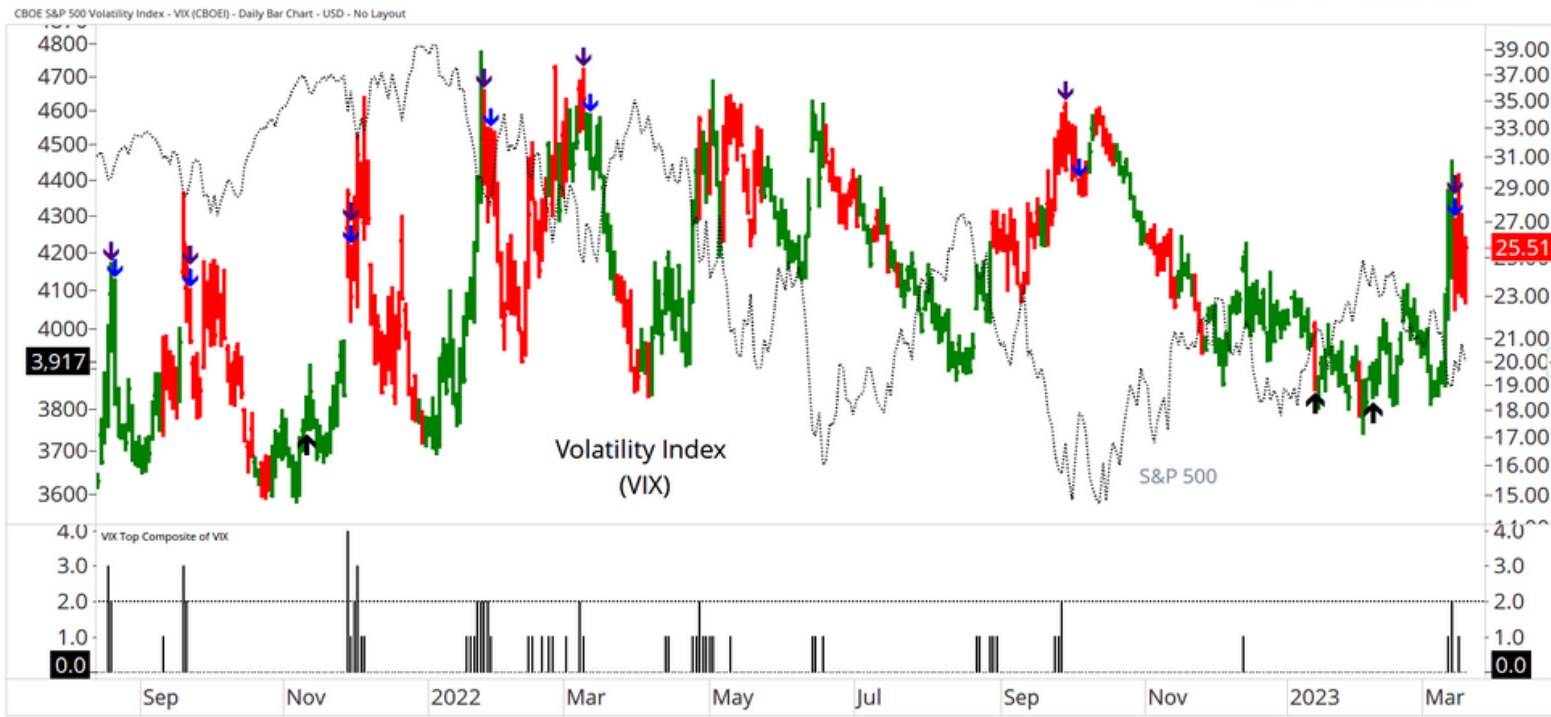


Chart Legend

| | | |
|-----------------------------|-------------------------------------|-------------------------|
| Low Volatility Environment | Aggressive Peak Volatility Signal | VIX Risk Trigger Signal |
| High Volatility Environment | Conservative Peak Volatility Signal | |

Optuma 19th Mar 2023

VOLATILITY - CURVE



The full curve now is plus/minus at its 50th one-year percentile. We didn't see a closing read of the 1m over 3m just yet which is pretty interesting. The full curve has moved higher but not seeing a persistent shift into backwardation.

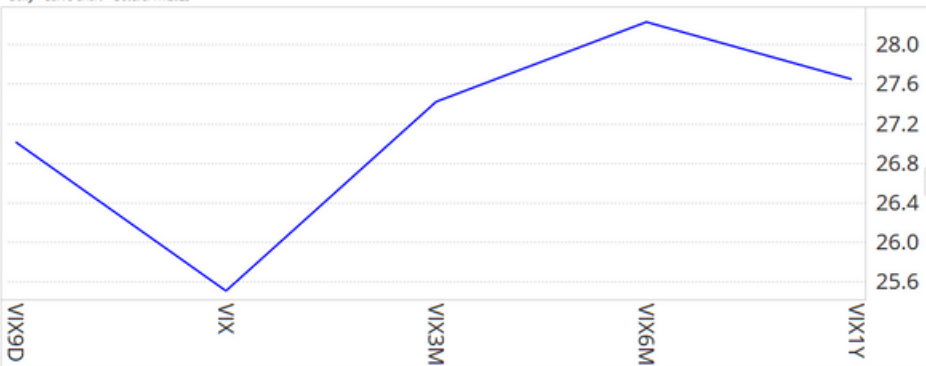
Daily - Watch List - No Layout

| Name | Last | 1yr %Tile |
|------------------------------------------|-------|-----------|
| CBOE S&P 500 Short Term Volatility Index | 27.01 | 0.5071 |
| CBOE S&P 500 Volatility Index | 25.51 | 0.4526 |
| CBOE S&P 500 3-Month Volatility Index | 27.42 | 0.4940 |
| CBOE Mid-Term Volatility Index | 28.23 | 0.5153 |
| CBOE S&P 500 One-Year Volatility Index | 27.63 | 0.4552 |

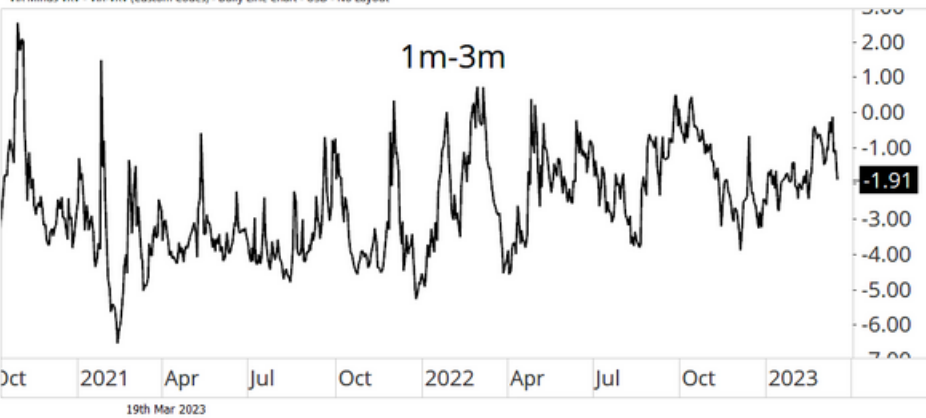
CBOE S&P 500 Short Term Volatility Index - VIX9D (CBOE) - Daily Line Chart - USD - No Layout



Daily - Curve Chart Date: 3/17/2023

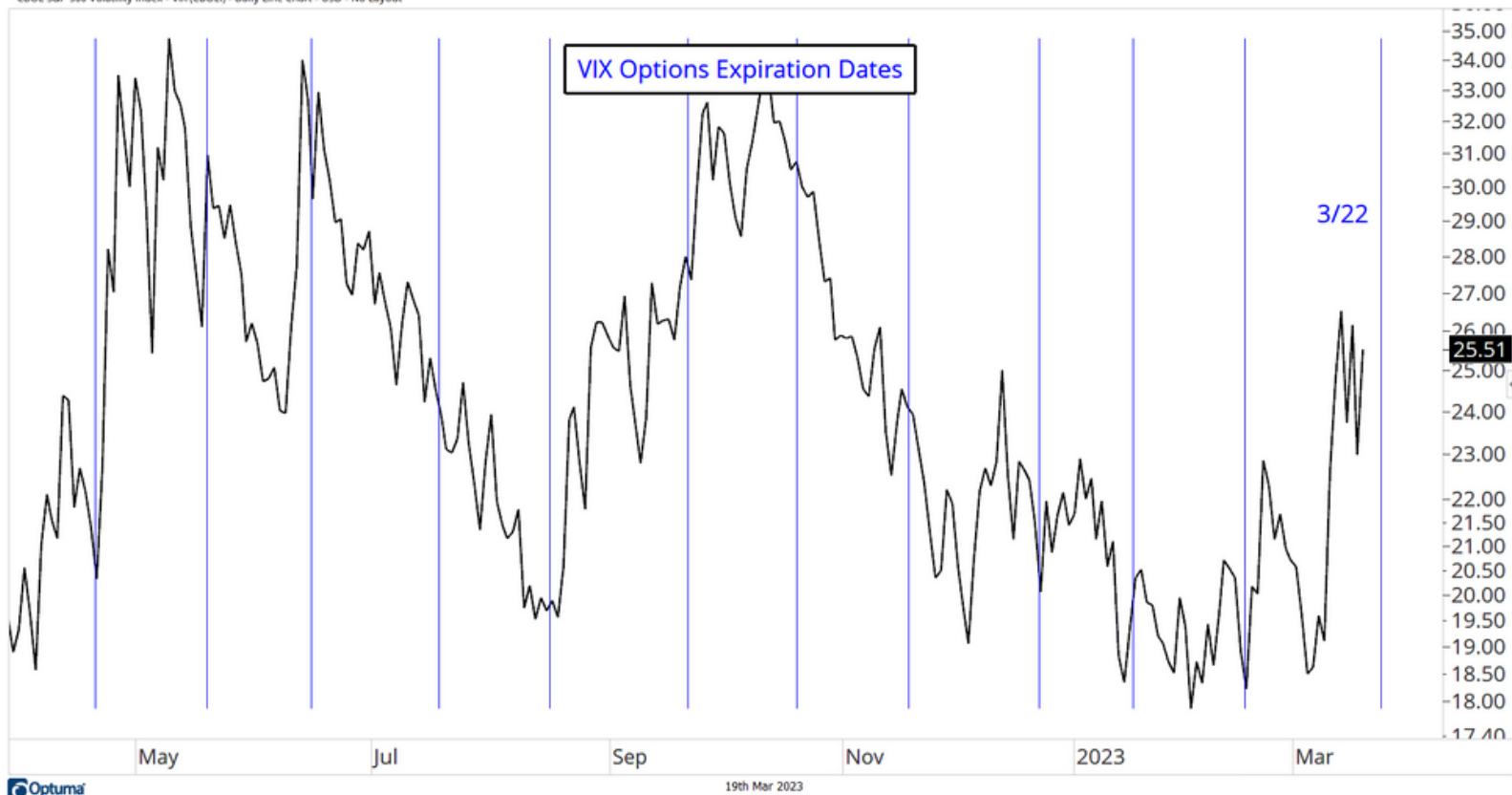


VIX Minus VIXV - VIX-VIXV (Custom Codes) - Daily Line Chart - USD - No Layout



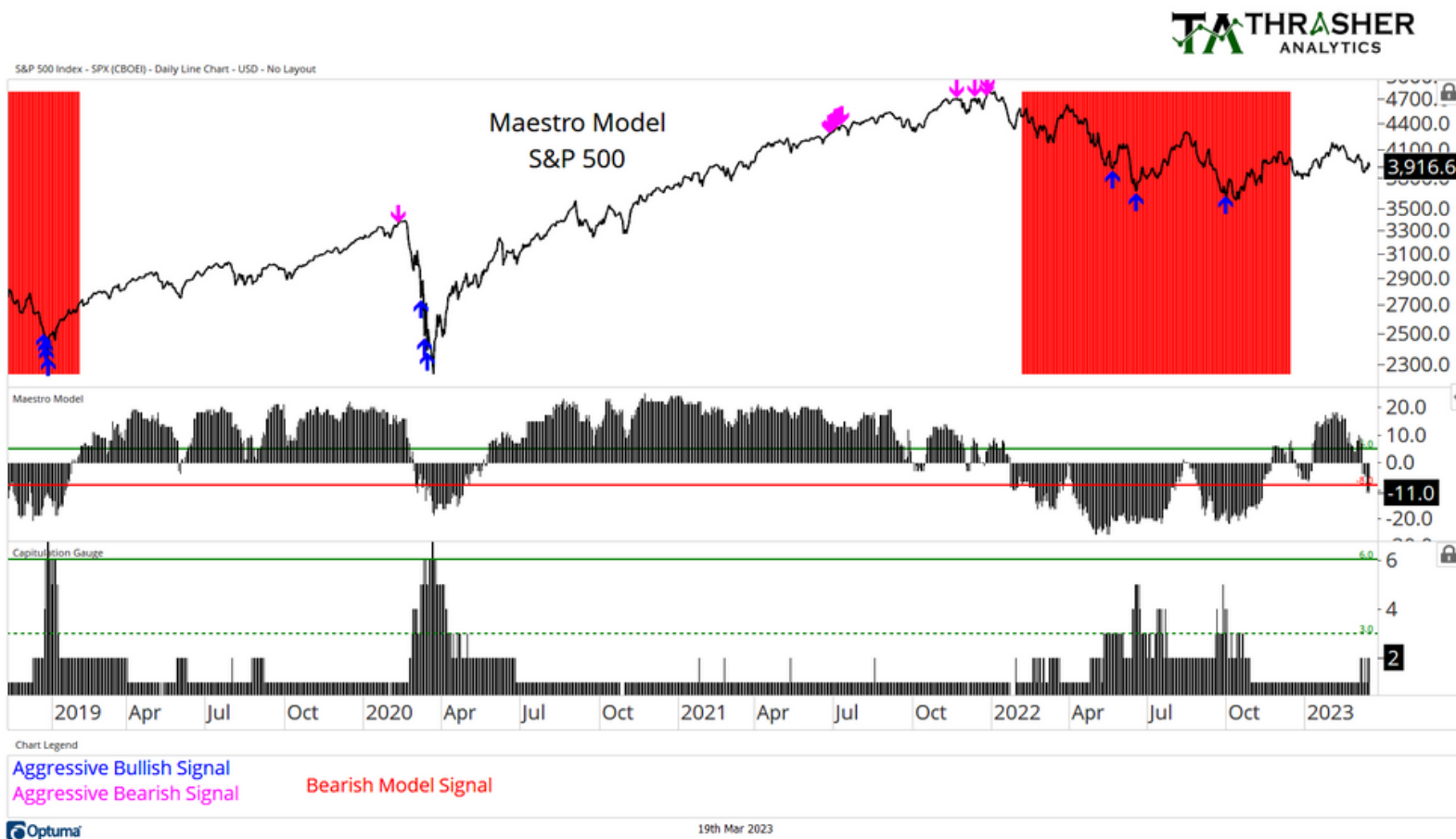
VIX options will expire this week. I often note the significance of OpEx for VIX contracts as being historically important to the direction volatility has moved. The Feb. OpEx marked start of the current up trend, will March mark the end? We'll see.

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



Please be sure to check out the Maestro Model Summary PDF in the Archive on the website.

The Maestro Model continued to decline last week, finishing at -11. All categories except Economic declined. While the model is very low, with the Economic category still positive and Capitulation Gauge at +2, a shift to a bearish model signal is being prevented.



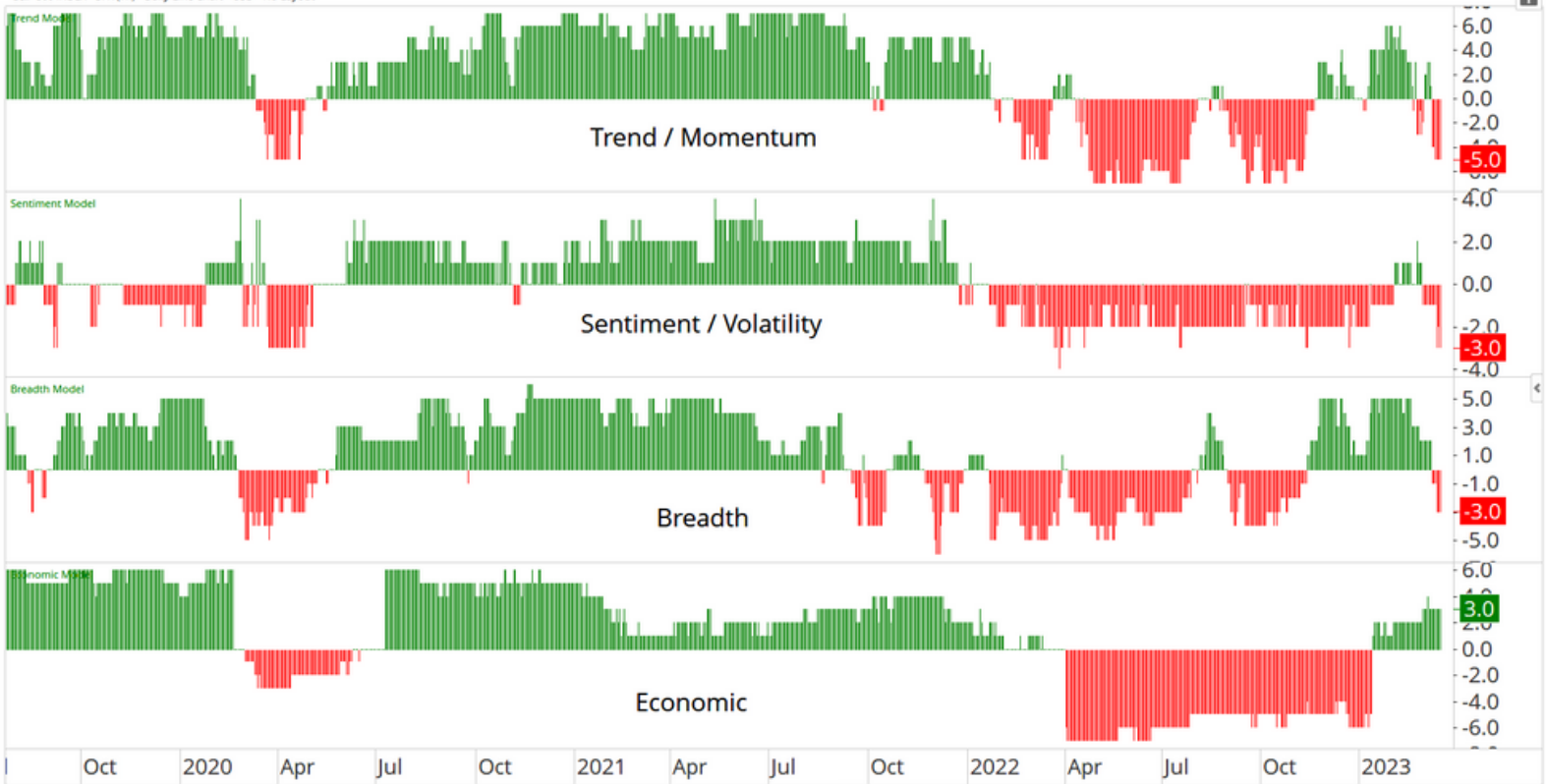
MAESTRO MODEL - CATEGORIES



Trend/Momentum declined one point, Sentiment/Volatility declined two points and Breadth declined 2 points.



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



19th Mar 2023

SENTIMENT SCORE



With the regional banking mess, it's little surprise we now have XLF showing a negative sentiment reading. This could pose a potential opportunity for contrarians but there's plenty of headline risk to whipsaw the sector. XLI and XLB saw the largest declines in sentiment while XLC, XLP, and XLU saw the largest increases.



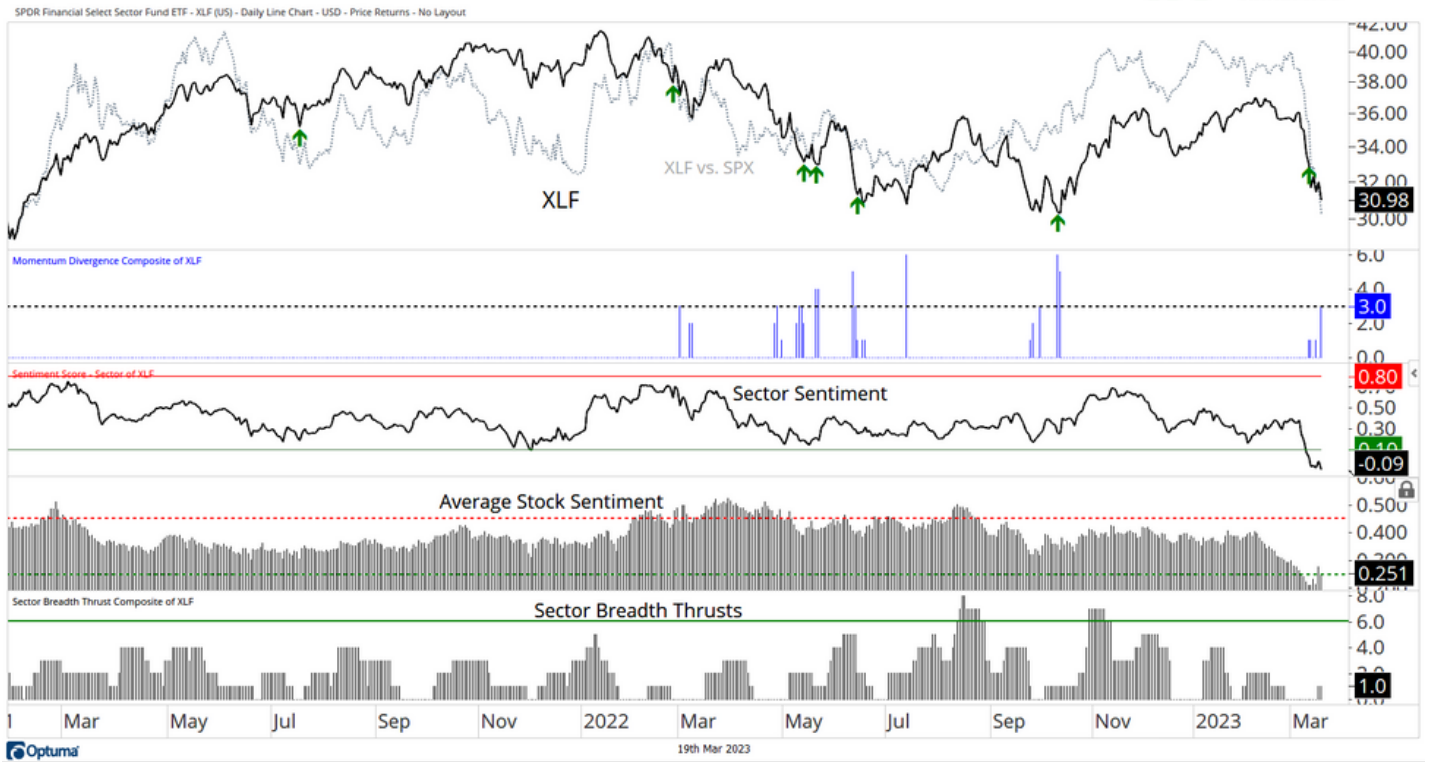
Daily - Watch List - No Layout

| Sector | Ticker | Sector Sentiment | Change in Score | 1W Perf | 1M Perf | 3M Perf |
|------------------------------------------------|--------|------------------|-----------------|---------|---------|---------|
| SPDR Communication Services Select Sector ETF | XLC | 0.54 | 0.17 | 5.26% | -0.61% | 14.48% |
| SPDR Technology Select Sector Fund ETF | XLK | 0.51 | 0.10 | 5.66% | 2.60% | 12.54% |
| SPDR Utilities Select Sector Fund ETF | XLU | 0.33 | 0.14 | 3.96% | -2.21% | -4.98% |
| SPDR Consumer Discretionary Select Sector Fund | XLY | 0.24 | 0.09 | 2.27% | -6.13% | 5.55% |
| SPDR Consumer Staples Select Sector Fund ETF | XLP | 0.23 | 0.10 | 1.41% | -2.13% | -3.67% |
| SPDR Industrial Select Sector Fund ETF | XLI | 0.20 | -0.14 | -2.35% | -6.17% | -1.46% |
| SPDR Materials Select Sector Fund ETF | XLB | 0.10 | -0.16 | -3.42% | -7.12% | -4.51% |
| SPDR Real Estate Select Sector Fund ETF | XLRE | 0.05 | 0.03 | 0.36% | -8.53% | -3.39% |
| SPDR Energy Select Sector Fund ETF | XLE | 0.04 | -0.08 | -6.85% | -8.90% | -8.76% |
| SPDR Health Care Select Sector Fund ETF | XLV | 0.03 | 0.14 | 1.38% | -4.64% | -7.13% |
| SPDR Financial Select Sector Fund ETF | XLF | -0.09 | -0.12 | -5.92% | -14.87% | -8.07% |

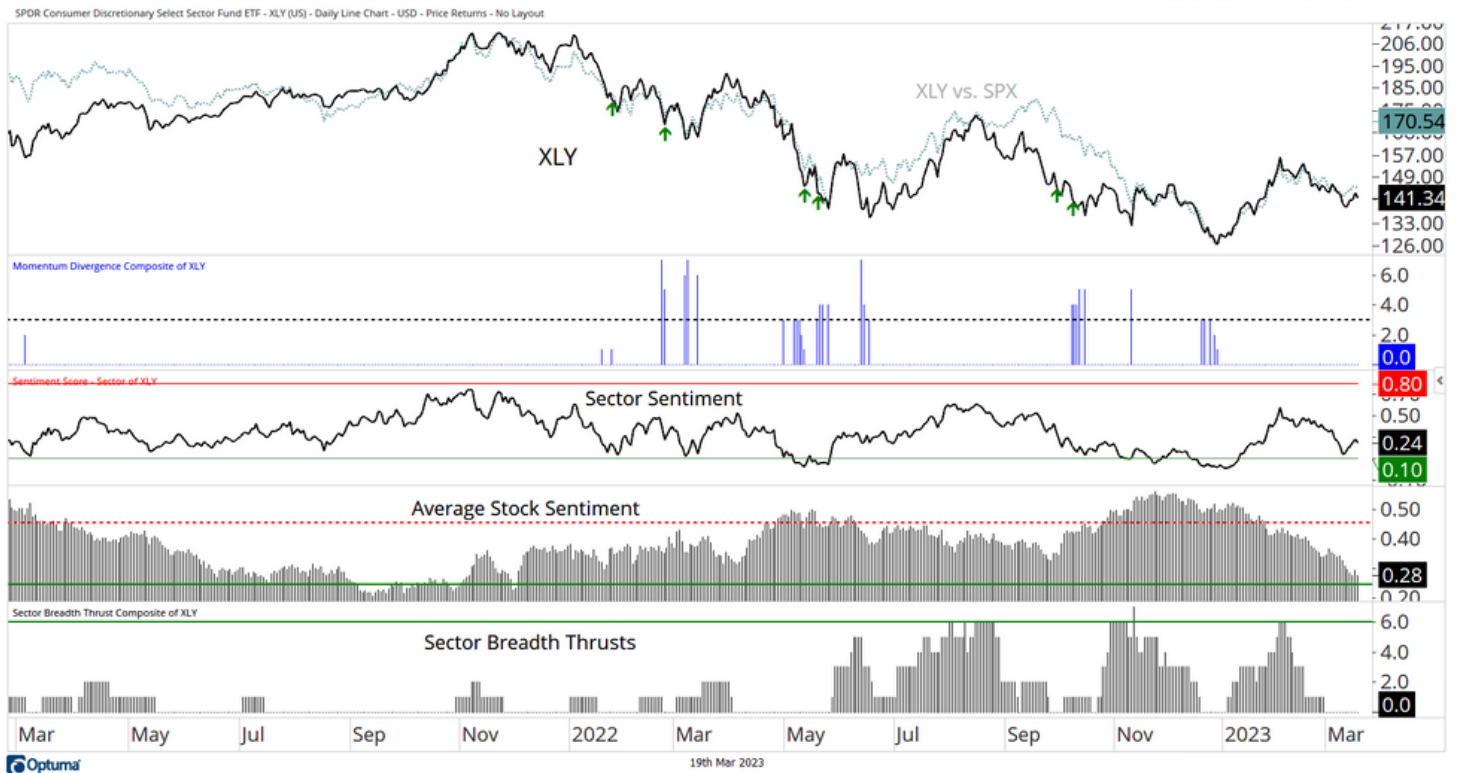
SENTIMENT SCORE: XLF & XLY



TA THRASHER
ANALYTICS



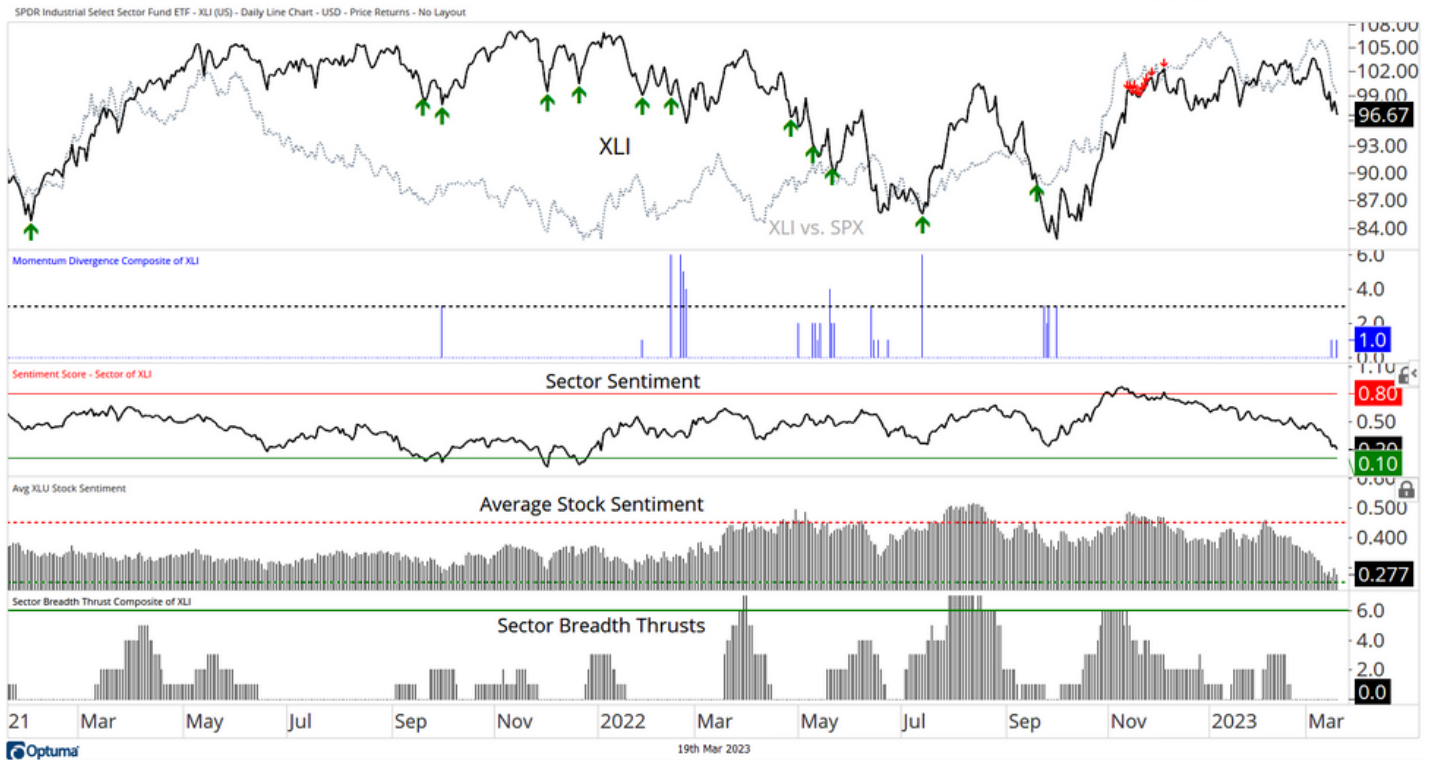
TA THRASHER
ANALYTICS



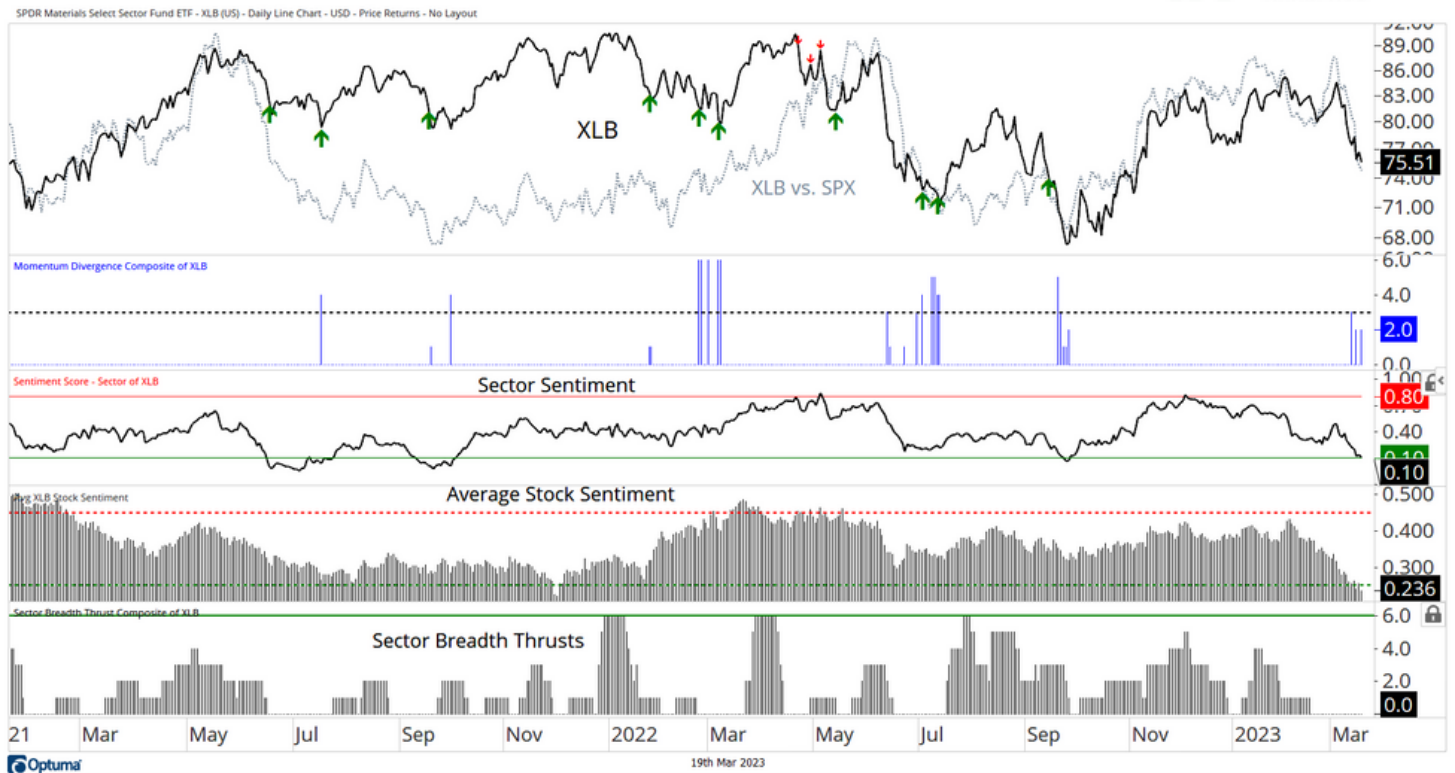
SENTIMENT SCORE: XLI & XLB



TA THRASHER
ANALYTICS



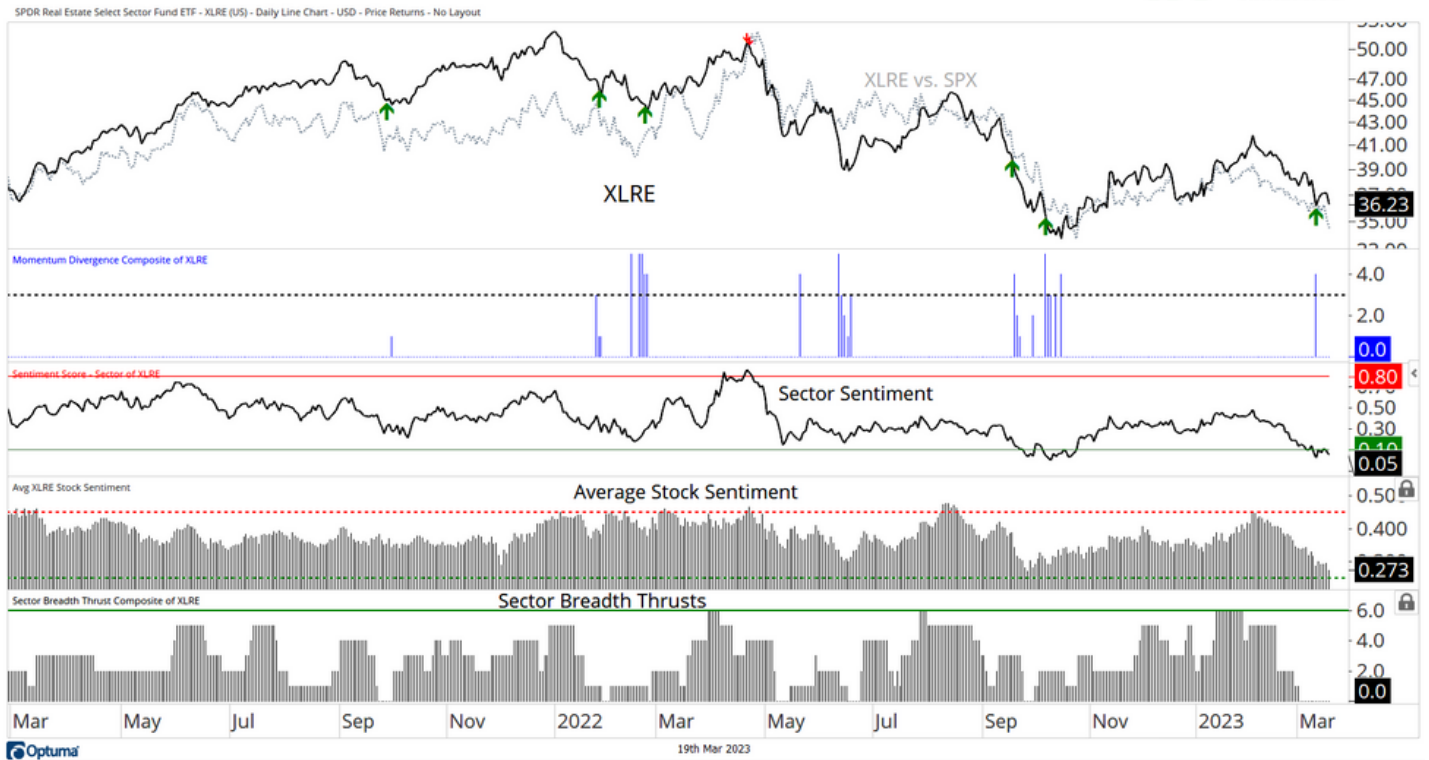
TA THRASHER
ANALYTICS



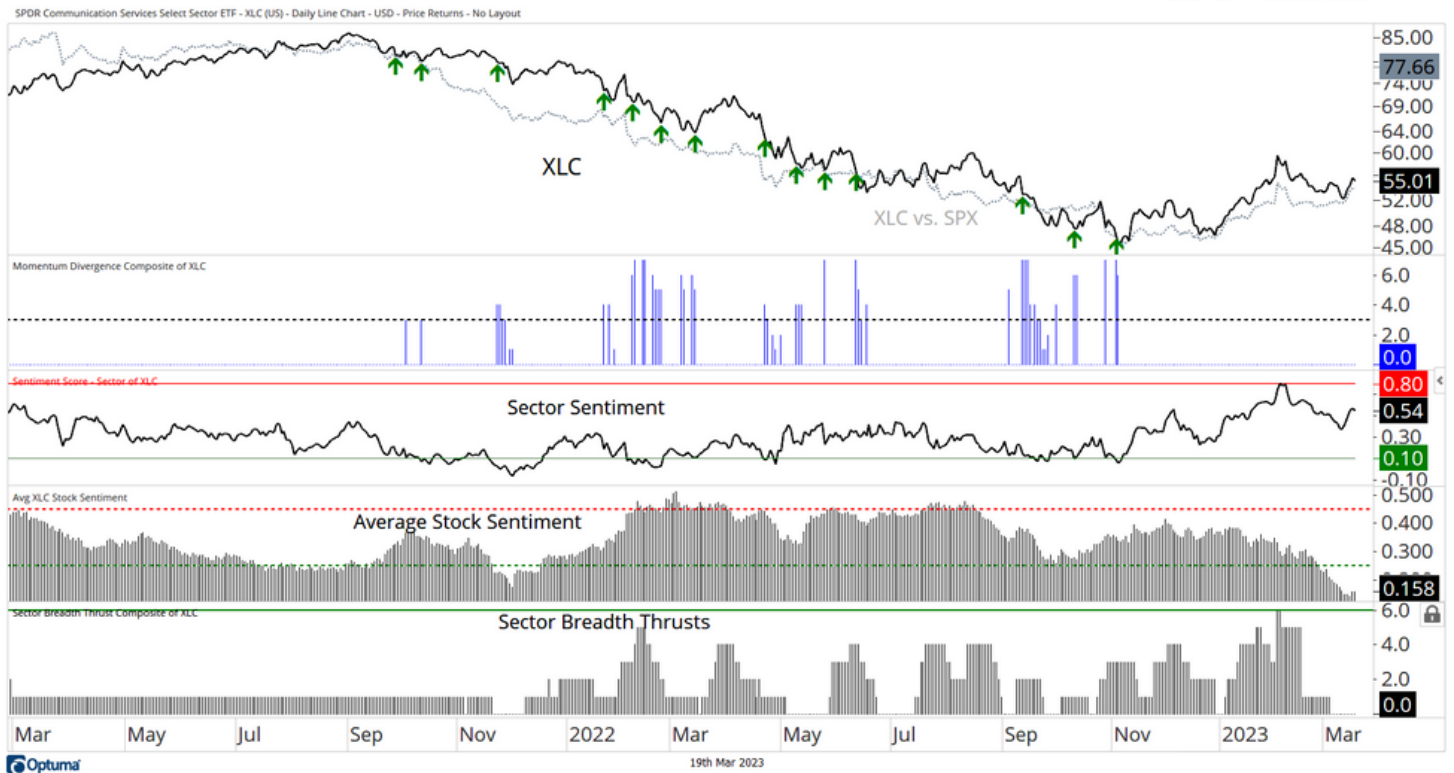
SENTIMENT SCORE: XLRE & XLC



TA THRASHER
ANALYTICS



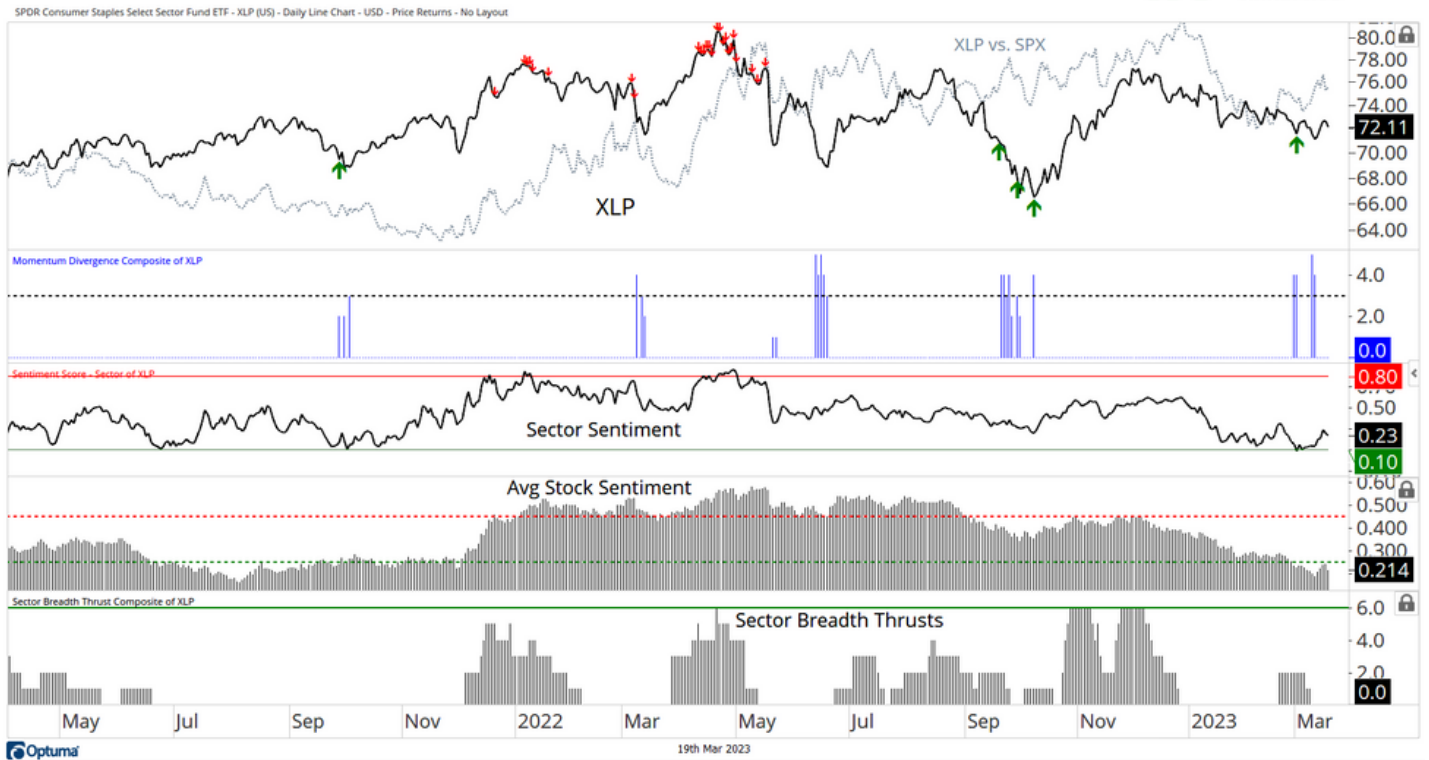
TA THRASHER
ANALYTICS



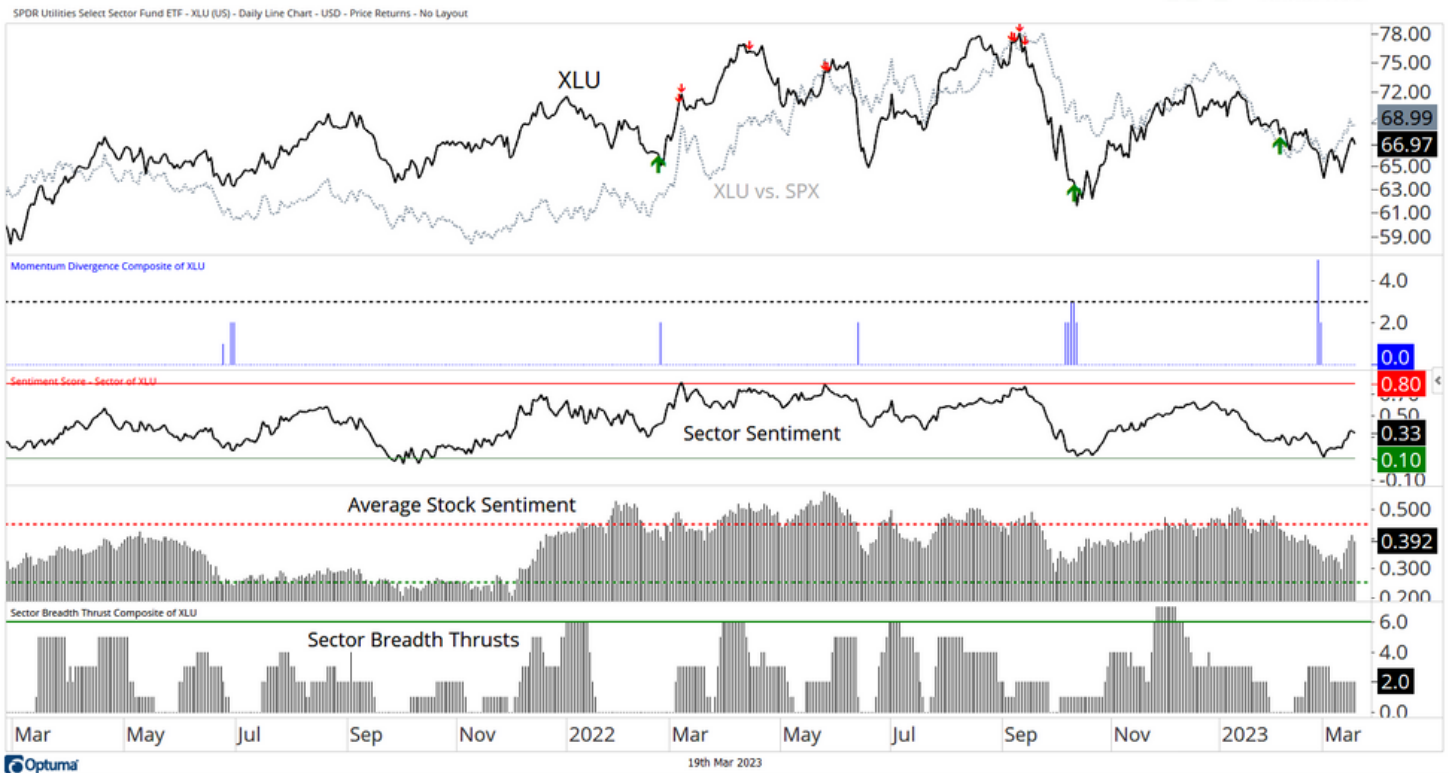
SENTIMENT SCORE: XLP & XLU



TA THRASHER
ANALYTICS



TA THRASHER
ANALYTICS

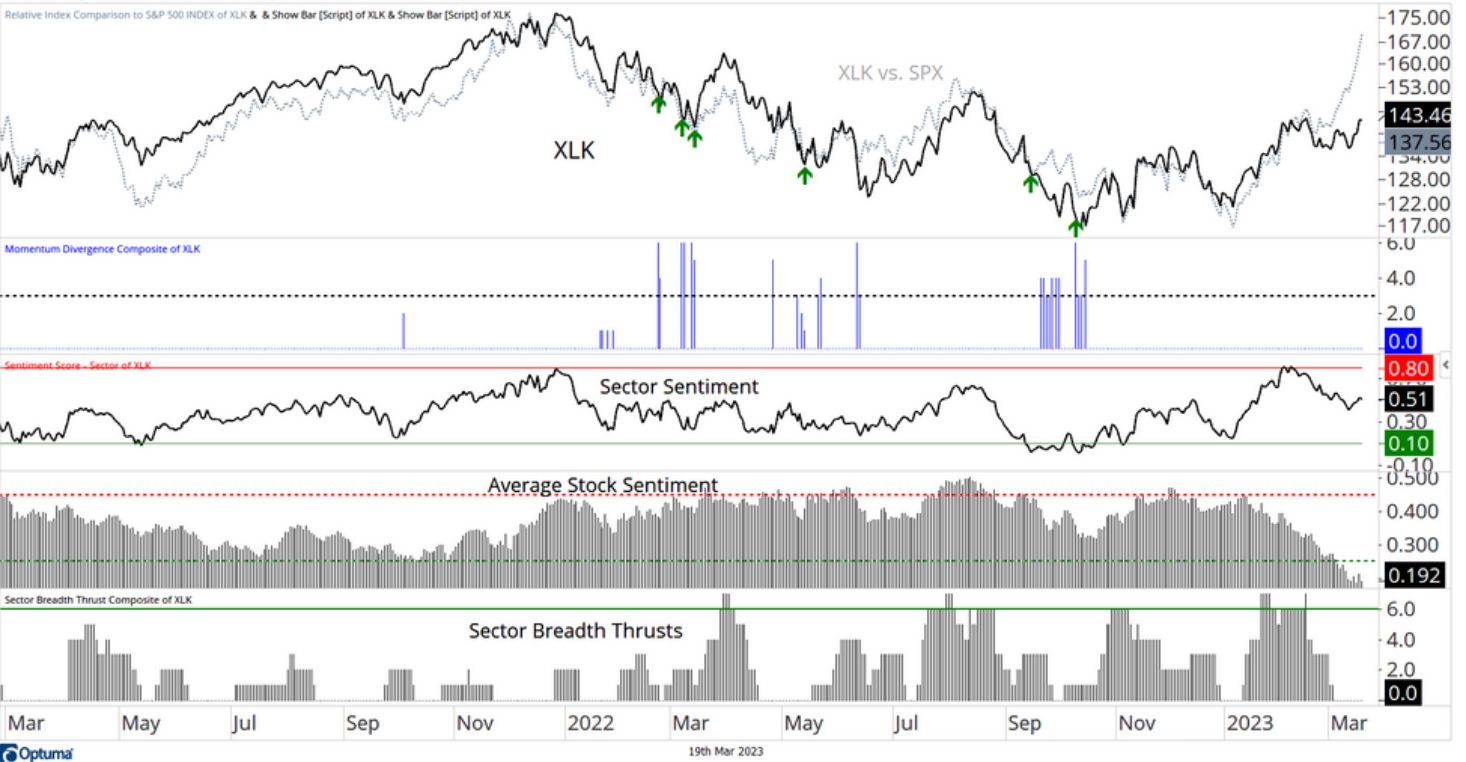


SENTIMENT SCORE: XLK & XLV



TA THRASHER ANALYTICS

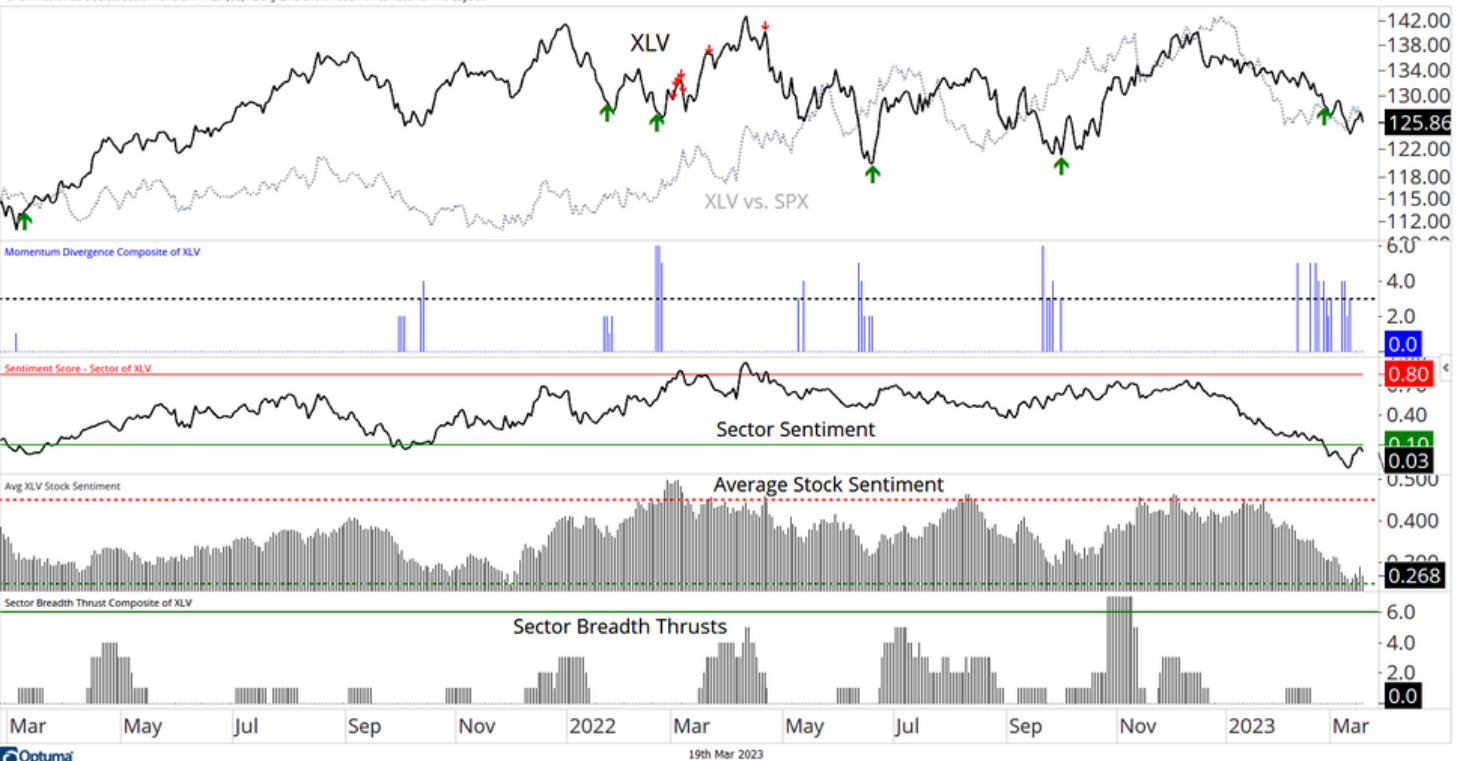
SPDR Technology Select Sector Fund ETF - XLK (US) - Daily Line Chart - USD - Price Returns - No Layout



Optima

TA THRASHER ANALYTICS

SPDR Health Care Select Sector Fund ETF - XLV (US) - Daily Line Chart - USD - Price Returns - No Layout



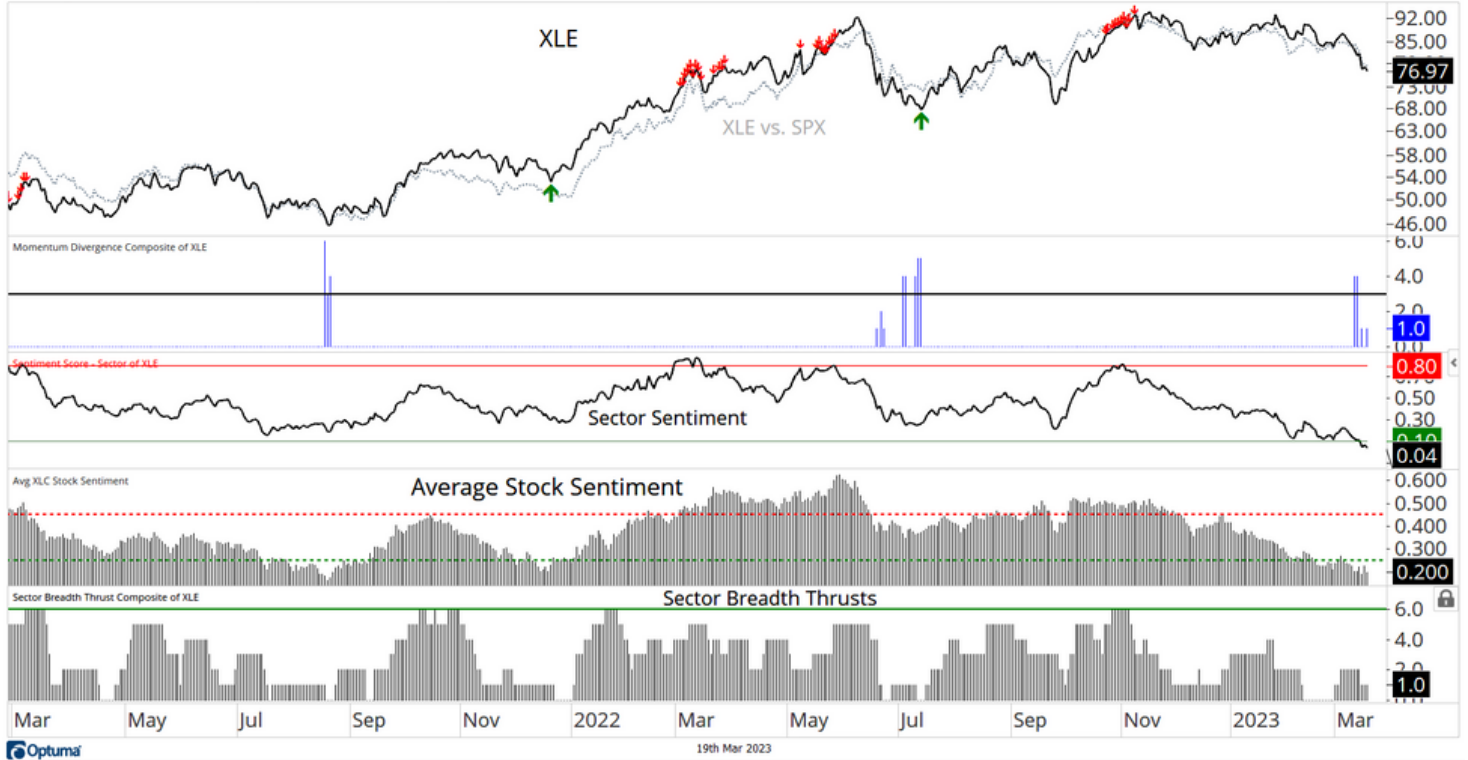
Optima

SENTIMENT SCORE: XLE



TA THRASHER ANALYTICS

SPDR Energy Select Sector Fund ETF - XLE (US) - Daily Line Chart - USD - Price Returns - No Layout



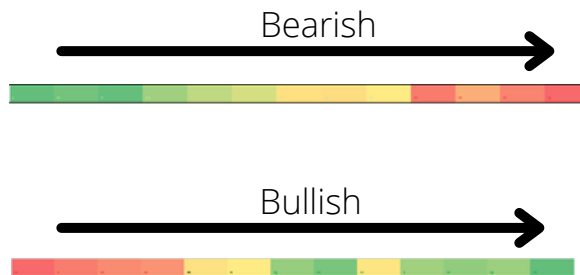
RISK APPETITE RATIO



Below is a table of 17 gauges of risk appetite such as offense vs. defense sectors, foreign markets vs. domestic, small vs. large cap, lumber vs gold, high beta vs. broad market, high yield debt vs. Treasury debt, etc. The table shows each ratio's 1-year percentile going back the last 35 trading days. As the data improves, it turns green and as it declines it becomes red.

The average Risk Appetite Ratio percentile is at the 41st percentile.

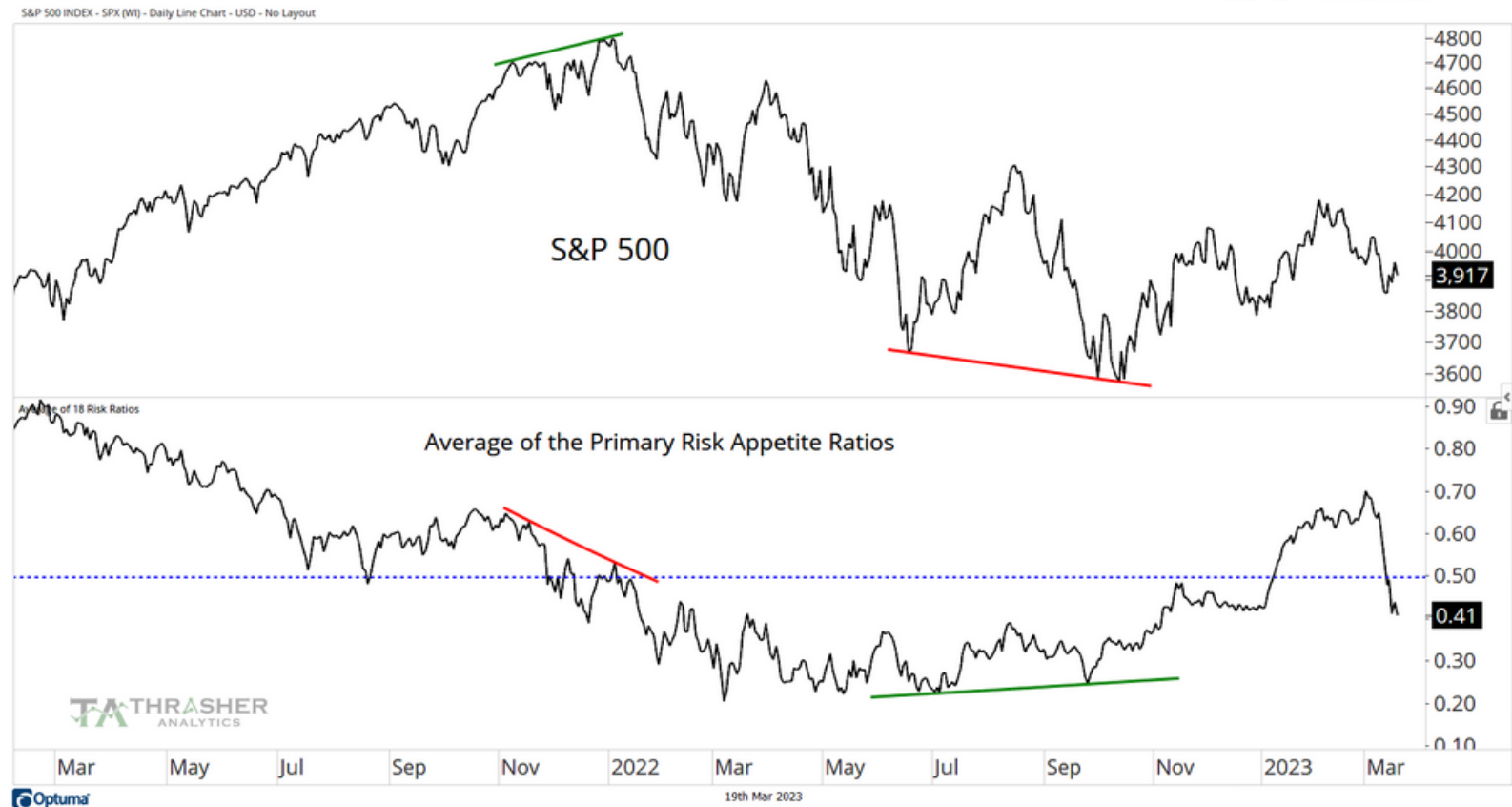
| Risk Metric | -35 | -34 | -33 | -32 | -31 | -30 | -29 | -28 | -27 | -26 | -25 | -24 | -23 | -22 | -21 | -20 | -19 | -18 | -17 | -16 | -15 | -14 | -13 | -12 | -11 | -10 | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | -1 | Current |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|
| Emerging Market vs. SPX | 0.69 | 0.66 | 0.63 | 0.56 | 0.56 | 0.48 | 0.45 | 0.41 | 0.38 | 0.42 | 0.47 | 0.42 | 0.41 | 0.40 | 0.36 | 0.41 | 0.38 | 0.41 | 0.40 | 0.40 | 0.42 | 0.43 | 0.41 | 0.53 | 0.51 | 0.48 | 0.46 | 0.45 | 0.46 | 0.44 | 0.49 | 0.50 | 0.43 | 0.37 | 0.36 | 0.41 |
| EAFE vs. SPX | 0.87 | 0.84 | 0.88 | 0.82 | 0.81 | 0.72 | 0.73 | 0.70 | 0.68 | 0.70 | 0.77 | 0.73 | 0.72 | 0.73 | 0.68 | 0.74 | 0.77 | 0.82 | 0.80 | 0.80 | 0.76 | 0.81 | 0.79 | 0.85 | 0.81 | 0.80 | 0.78 | 0.77 | 0.80 | 0.87 | 0.89 | 0.86 | 0.84 | 0.69 | 0.67 | 0.70 |
| HY Debt vs. Treasury | 0.64 | 0.64 | 0.63 | 0.63 | 0.62 | 0.63 | 0.65 | 0.65 | 0.70 | 0.66 | 0.67 | 0.69 | 0.67 | 0.67 | 0.70 | 0.73 | 0.71 | 0.73 | 0.72 | 0.72 | 0.74 | 0.76 | 0.73 | 0.75 | 0.79 | 0.74 | 0.77 | 0.72 | 0.69 | 0.65 | 0.52 | 0.49 | 0.56 | 0.46 | 0.51 | 0.41 |
| Home Construction vs. SPX | 0.94 | 0.96 | 0.94 | 1.00 | 1.00 | 1.00 | 0.95 | 0.92 | 0.91 | 0.87 | 0.89 | 0.89 | 0.93 | 0.90 | 0.91 | 0.91 | 0.86 | 0.79 | 0.82 | 0.85 | 0.86 | 0.87 | 0.90 | 0.87 | 0.87 | 0.88 | 0.83 | 0.86 | 0.90 | 0.94 | 0.92 | 0.94 | 0.94 | 0.92 | 0.94 | 0.96 |
| Offense vs. Defense Sectors | 0.53 | 0.57 | 0.52 | 0.55 | 0.57 | 0.66 | 0.63 | 0.60 | 0.66 | 0.66 | 0.67 | 0.62 | 0.63 | 0.68 | 0.70 | 0.67 | 0.63 | 0.57 | 0.59 | 0.63 | 0.63 | 0.69 | 0.74 | 0.77 | 0.75 | 0.79 | 0.76 | 0.76 | 0.76 | 0.70 | 0.66 | 0.57 | 0.60 | 0.47 | 0.54 | 0.52 |
| Broker-Dealer vs. SPX | 0.81 | 0.75 | 0.83 | 0.83 | 0.81 | 0.71 | 0.81 | 0.85 | 0.83 | 0.90 | 0.87 | 0.89 | 0.86 | 0.87 | 0.87 | 0.92 | 0.93 | 0.96 | 0.94 | 0.90 | 0.98 | 0.92 | 0.92 | 0.93 | 0.88 | 0.87 | 0.83 | 0.82 | 0.84 | 0.67 | 0.46 | 0.28 | 0.36 | 0.34 | 0.30 | 0.27 |
| S&P Growth vs. S&P Value | 0.09 | 0.10 | 0.07 | 0.08 | 0.08 | 0.05 | 0.09 | 0.09 | 0.12 | 0.11 | 0.12 | 0.12 | 0.11 | 0.13 | 0.13 | 0.11 | 0.10 | 0.11 | 0.11 | 0.13 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.14 | 0.15 | 0.16 | 0.18 | 0.19 | 0.23 | 0.23 | 0.25 | 0.26 | 0.30 |
| Semiconductor vs. SPX | 0.77 | 0.74 | 0.69 | 0.69 | 0.83 | 0.86 | 0.83 | 0.79 | 0.85 | 0.82 | 0.87 | 0.81 | 0.82 | 0.91 | 0.90 | 0.85 | 0.82 | 0.77 | 0.76 | 0.88 | 0.85 | 0.88 | 0.92 | 0.94 | 0.95 | 0.94 | 0.90 | 0.91 | 1.00 | 1.00 | 0.99 | 0.99 | 1.00 | 0.98 | 1.00 | 1.00 |
| Consumer Disc. Vs. Staples | 0.58 | 0.61 | 0.57 | 0.61 | 0.65 | 0.74 | 0.68 | 0.64 | 0.68 | 0.66 | 0.67 | 0.61 | 0.65 | 0.70 | 0.72 | 0.69 | 0.71 | 0.61 | 0.63 | 0.62 | 0.59 | 0.61 | 0.64 | 0.65 | 0.64 | 0.69 | 0.66 | 0.65 | 0.65 | 0.59 | 0.55 | 0.49 | 0.49 | 0.44 | 0.49 | 0.47 |
| Small Cap vs. Utilities | 0.52 | 0.54 | 0.50 | 0.56 | 0.61 | 0.67 | 0.73 | 0.64 | 0.67 | 0.68 | 0.68 | 0.61 | 0.63 | 0.65 | 0.66 | 0.65 | 0.70 | 0.66 | 0.69 | 0.74 | 0.70 | 0.77 | 0.85 | 0.93 | 0.85 | 0.91 | 0.82 | 0.84 | 0.81 | 0.71 | 0.66 | 0.52 | 0.54 | 0.41 | 0.44 | 0.37 |
| Transports vs. Utilities | 0.54 | 0.59 | 0.52 | 0.61 | 0.73 | 0.83 | 0.88 | 0.82 | 0.86 | 0.90 | 0.88 | 0.80 | 0.81 | 0.88 | 0.87 | 0.85 | 0.79 | 0.73 | 0.72 | 0.78 | 0.77 | 0.84 | 0.87 | 0.95 | 0.97 | 0.93 | 0.88 | 0.90 | 0.89 | 0.86 | 0.82 | 0.71 | 0.65 | 0.57 | 0.59 | 0.58 |
| Equal Weight vs. Cap Weight | 0.90 | 0.90 | 0.92 | 0.95 | 0.94 | 0.90 | 0.87 | 0.86 | 0.81 | 0.82 | 0.82 | 0.83 | 0.82 | 0.80 | 0.82 | 0.85 | 0.86 | 0.84 | 0.84 | 0.82 | 0.84 | 0.82 | 0.83 | 0.85 | 0.85 | 0.83 | 0.75 | 0.74 | 0.75 | 0.70 | 0.61 | 0.47 | 0.44 | 0.33 | 0.27 | 0.25 |
| Small cap vs. Large Cap | 0.73 | 0.77 | 0.75 | 0.85 | 0.91 | 0.96 | 1.00 | 0.91 | 0.85 | 0.81 | 0.74 | 0.74 | 0.74 | 0.74 | 0.82 | 0.86 | 0.92 | 0.81 | 0.86 | 0.88 | 0.89 | 0.89 | 0.93 | 0.99 | 0.93 | 0.91 | 0.74 | 0.78 | 0.77 | 0.67 | 0.51 | 0.35 | 0.37 | 0.27 | 0.23 | 0.11 |
| Equities vs. VIX | 0.79 | 0.81 | 0.68 | 0.74 | 0.88 | 0.83 | 0.85 | 0.75 | 0.83 | 0.74 | 0.65 | 0.66 | 0.69 | 0.80 | 0.86 | 0.69 | 0.69 | 0.49 | 0.52 | 0.99 | 0.55 | 0.60 | 0.61 | 0.61 | 0.69 | 0.80 | 0.79 | 0.69 | 0.73 | 0.48 | 0.35 | 0.28 | 0.42 | 0.30 | 0.47 | 0.34 |
| Aussie Dollar vs. Yen | 0.62 | 0.61 | 0.59 | 0.60 | 0.54 | 0.52 | 0.55 | 0.55 | 0.53 | 0.54 | 0.52 | 0.59 | 0.64 | 0.62 | 0.56 | 0.57 | 0.60 | 0.59 | 0.54 | 0.50 | 0.51 | 0.51 | 0.50 | 0.52 | 0.46 | 0.41 | 0.34 | 0.22 | 0.24 | 0.17 | 0.08 | 0.08 | 0.16 | 0.03 | 0.10 | 0.01 |
| Lumber vs. Gold | 0.13 | 0.13 | 0.16 | 0.16 | 0.14 | 0.15 | 0.15 | 0.14 | 0.12 | 0.11 | 0.09 | 0.08 | 0.07 | 0.06 | 0.07 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.06 | 0.07 | 0.07 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.02 | 0.01 | 0.00 | 0.00 | 0.11 | 0.11 |
| Copper vs. Gold | 0.50 | 0.47 | 0.46 | 0.47 | 0.36 | 0.36 | 0.43 | 0.40 | 0.43 | 0.39 | 0.46 | 0.40 | 0.47 | 0.48 | 0.47 | 0.56 | 0.54 | 0.66 | 0.63 | 0.54 | 0.47 | 0.50 | 0.56 | 0.60 | 0.54 | 0.51 | 0.53 | 0.51 | 0.56 | 0.53 | 0.46 | 0.38 | 0.35 | 0.18 | 0.21 | 0.15 |
| AVERAGE | 0.63 | 0.63 | 0.61 | 0.63 | 0.65 | 0.65 | 0.66 | 0.63 | 0.64 | 0.63 | 0.64 | 0.62 | 0.63 | 0.65 | 0.65 | 0.65 | 0.65 | 0.62 | 0.62 | 0.64 | 0.63 | 0.65 | 0.67 | 0.70 | 0.69 | 0.68 | 0.65 | 0.64 | 0.65 | 0.60 | 0.54 | 0.48 | 0.49 | 0.41 | 0.44 | 0.41 |



RISK APPETITE RATIO



The average risk appetite ratio dropped last week to the 41st percentile, heavily driven by the weakness in small caps, broker/dealer, and emerging markets and the strength in gold.



EQUITIES - S&P 500 DAILY



The S&P 500 is now back under the 200-day moving average and continues to frustrate trades with this whipsawing price action. The Index has basically gone nowhere for over 40 weeks (more on this topic specifically later). SPX is still above its Dec. low, but most stocks aren't as fortunate. Friday gave us another 90% down day, with 91.4% of stocks declining. Until a trend emerges, this messy market requires a strong degree of patience.

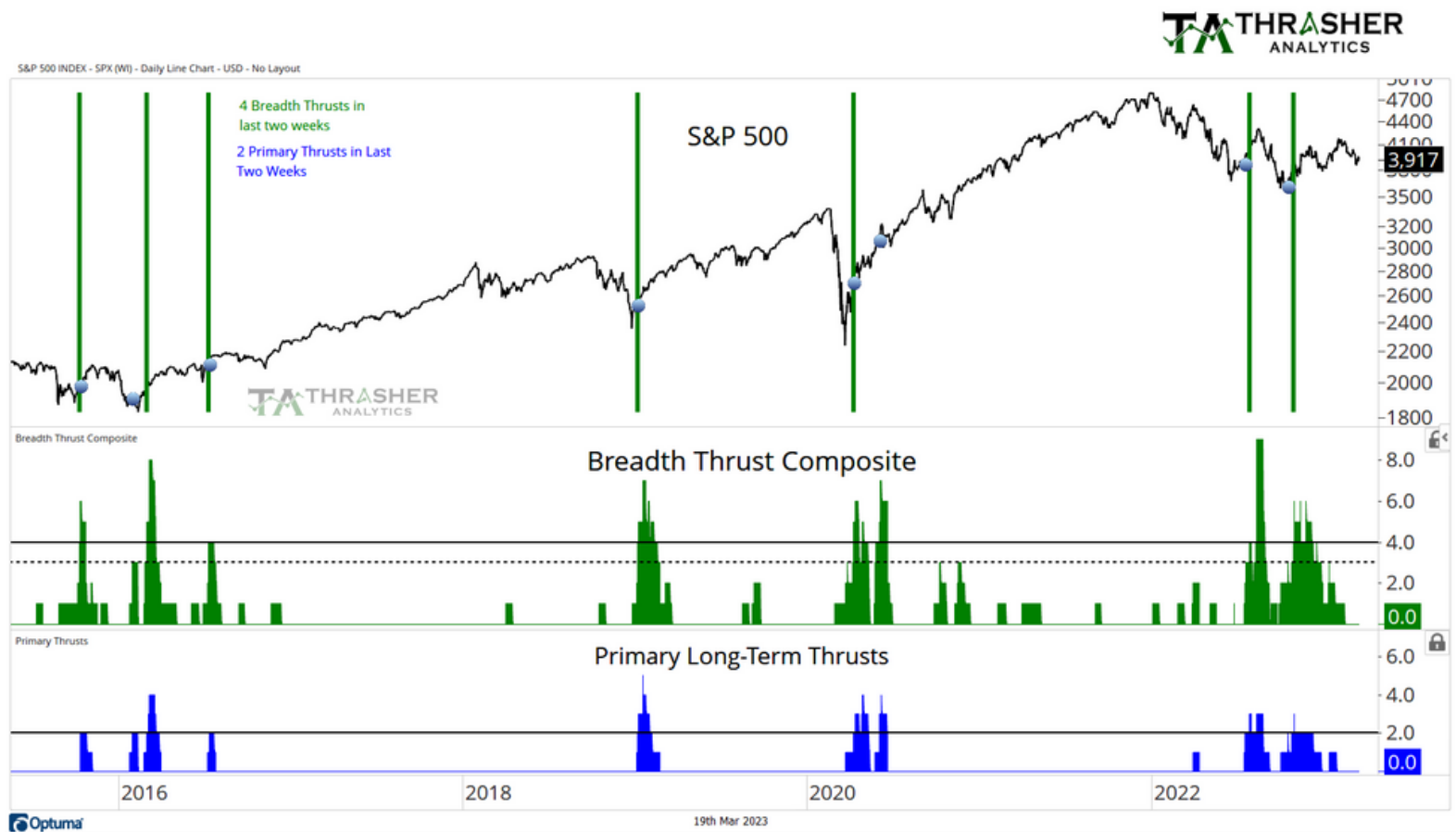


EQUITIES - BREADTH THRUSTS



I've added an add'l section of the breadth thrust composite chart, titled Primary Long-Term Thrusts. These are the handful of thrusts that are in the original composite that have the best track record and only have the highest bar to clear to signal. The original composite is still what 'feeds' the breadth category of the Maestro Model.

Thrust count sits at 0.



EQUITIES - BREADTH



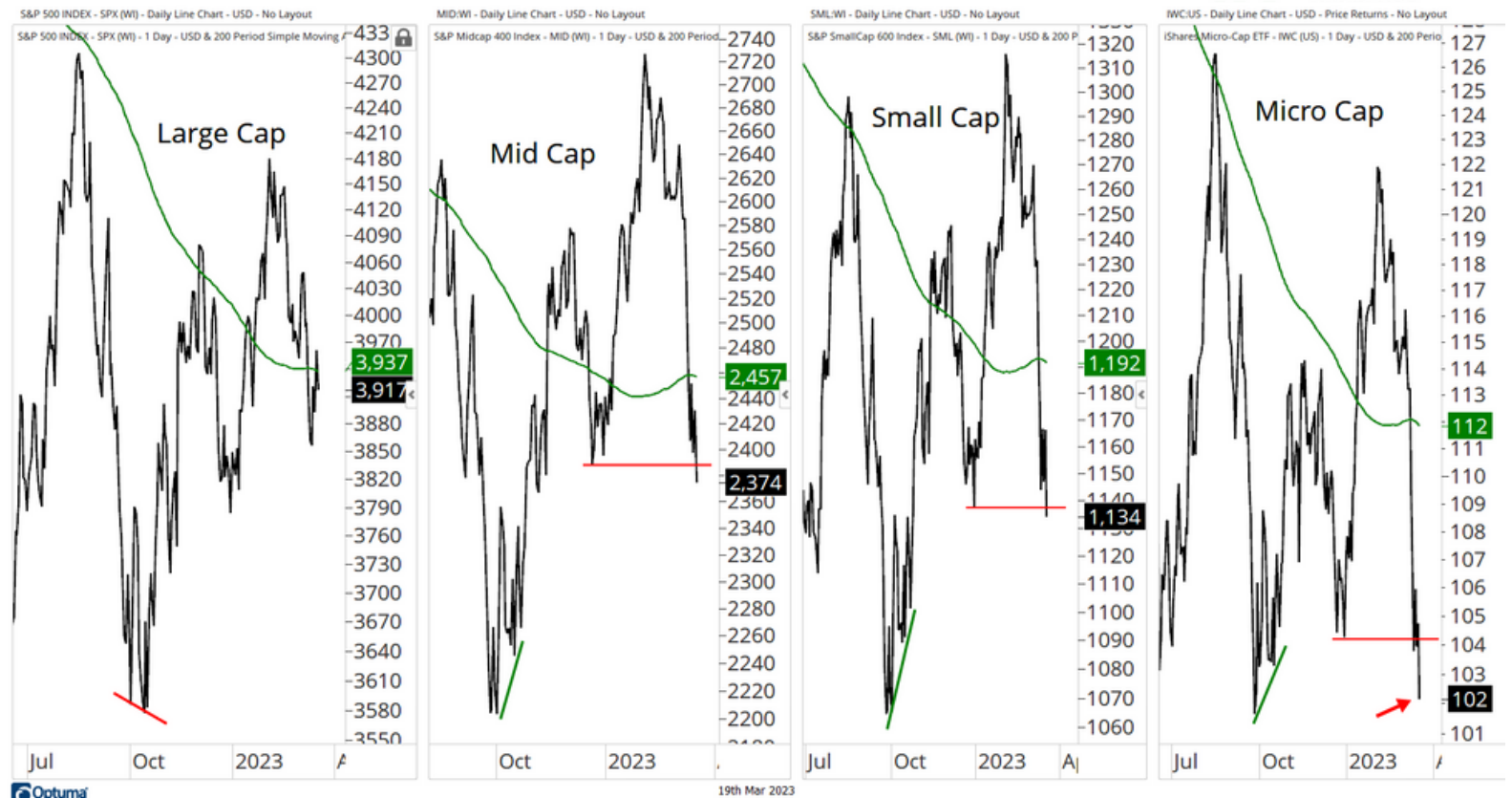
Below is a table showing the changes in breadth data over the last 35 days. This provides insight into whether bullish or bearish data is improving or declining.

| | 35 Days Ago | 30 Days Ago | 25 Days Ago | 20 Days Ago | 15 Days Ago | 10 Days Ago | 5 Days Ago | Current |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|---------|
| Moving Average Breadth | | | | | | | | |
| S&P 500 % above 200-day MA | 65.0 | 75.8 | 65.0 | 66.0 | 57.1 | 59.8 | 41.2 | 37.2 |
| Nasdaq 100 % above 200-day MA | 58.4 | 75.2 | 66.3 | 71.3 | 55.4 | 63.4 | 48.5 | 57.4 |
| S&P 500 % above 50-day MA | 72.6 | 74.0 | 62.2 | 63.8 | 43.3 | 51.1 | 16.3 | 19.9 |
| Nasdaq 100 % above 50-day MA | 72.3 | 73.3 | 64.4 | 71.3 | 48.5 | 55.4 | 31.7 | 43.6 |
| S&P 500 % above 20-day MA | 75.5 | 73.4 | 48.7 | 43.9 | 17.9 | 38.6 | 6.4 | 21.9 |
| Nasdaq 100 % above 20-day MA | 78.2 | 80.2 | 54.5 | 57.4 | 22.8 | 46.5 | 11.9 | 47.5 |
| Bullish Breadth | | | | | | | | |
| S&P 500 % RSI(14) > 70 | 9.9 | 26.6 | 4.0 | 2.4 | 0.2 | 3.2 | 0.2 | 0.6 |
| Nasdaq 100 % RSI(14) > 70 | 14.9 | 37.6 | 3.0 | 3.0 | 2.0 | 4.0 | 0.0 | 3.0 |
| S&P 400 % New 52 week highs | 4.8 | 17.0 | 4.1 | 6.1 | 1.5 | 3.7 | 0.2 | 0.0 |
| S&P 600 % New 52 week highs | 4.4 | 12.2 | 2.4 | 2.9 | 1.0 | 4.6 | 0.0 | 0.7 |
| S&P 500 % New 52 week highs | 4.0 | 6.6 | 3.8 | 2.0 | 0.8 | 4.4 | 0.4 | 1.2 |
| Nasdaq 100 % New 52 week highs | 5.0 | 5.0 | 3.0 | 4.0 | 1.0 | 4.0 | 1.0 | 2.0 |
| S&P 500 % New 6 month highs | 9.2 | 21.9 | 6.8 | 3.0 | 0.8 | 5.8 | 0.2 | 2.2 |
| Nasdaq 100 % New 6 month highs | 9.9 | 19.8 | 5.9 | 6.9 | 1.0 | 6.9 | 0.0 | 5.0 |
| Bearish Bearish | | | | | | | | |
| S&P 500 % RSI(14) < 30 | 1.4 | 0.8 | 1.4 | 1.2 | 3.6 | 1.6 | 22.3 | 24.1 |
| Nasdaq 100 % RSI(14) < 30 | 1.0 | 4.0 | 3.0 | 2.0 | 5.0 | 1.0 | 7.9 | 5.0 |
| S&P 400 % New 52 week lows | 0.3 | 0.0 | 0.3 | 0.3 | 1.0 | 0.7 | 9.5 | 5.5 |
| S&P 600 % New 52 week lows | 0.7 | 0.2 | 0.3 | 0.2 | 1.5 | 0.7 | 11.8 | 7.2 |
| S&P 500 % New 52 week lows | 0.0 | 0.2 | 0.2 | 0.2 | 2.4 | 0.4 | 8.2 | 3.8 |
| Nasdaq 100 % New 52 week lows | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 | 3.0 | 0.0 |
| S&P 500 % New 6 month lows | 0.0 | 0.2 | 0.4 | 0.4 | 3.0 | 0.4 | 10.7 | 5.0 |
| Nasdaq 100 % New 6 month lows | 0.0 | 1.0 | 2.0 | 0.0 | 3.0 | 0.0 | 5.0 | 1.0 |

EQUITIES - ASSET SIZE



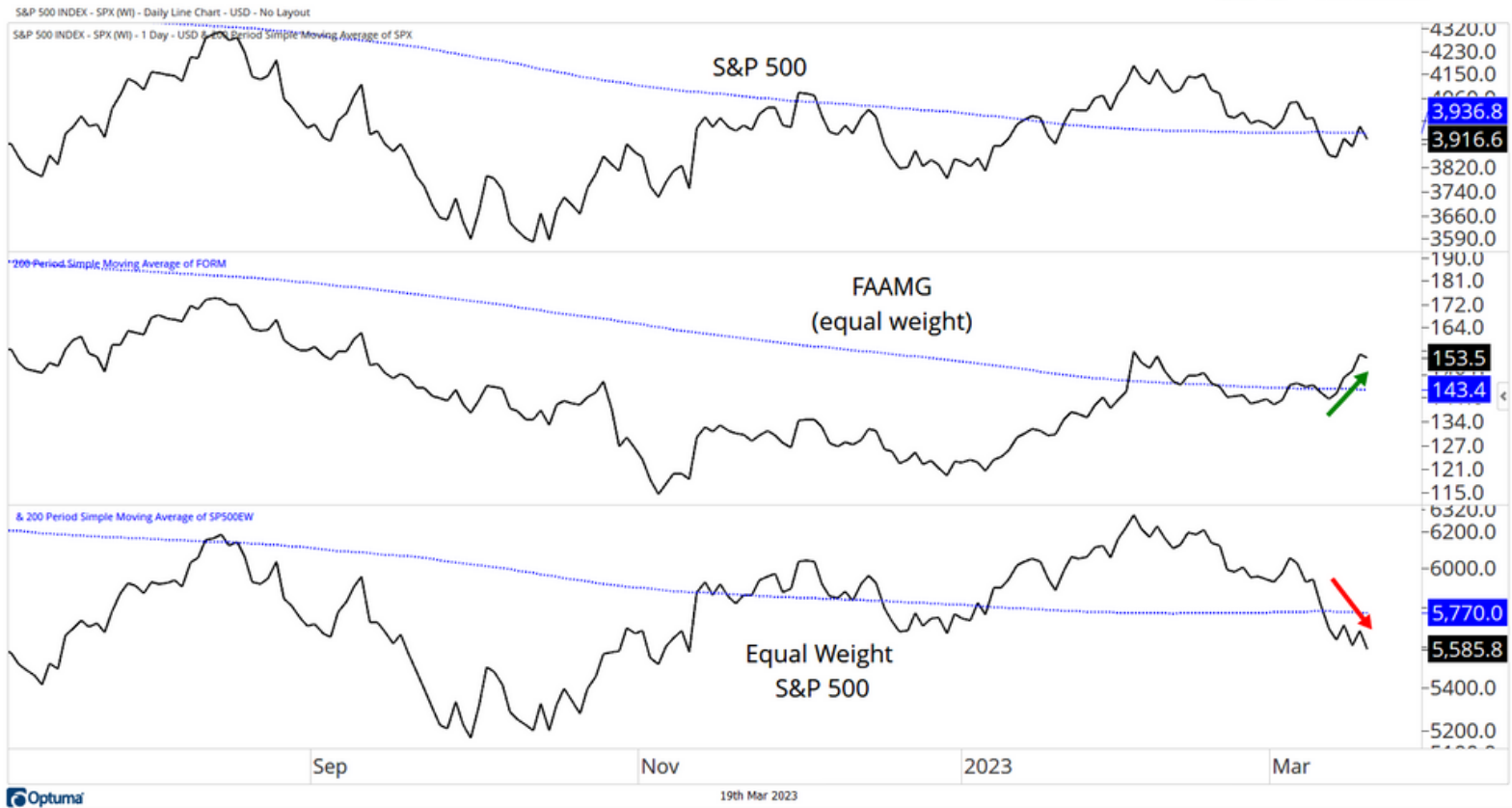
Outside of the mega cap stocks, the rest of the market is showing a larger degree of weakness. Micro Caps in fact are almost back to their Q4 2022 low! Mid, Small, and Micro all are back below their respective December lows. It's been just the handful of mostly tech mega cap stocks that have helped buoy the SPX.



EQUITIES - FAAMG



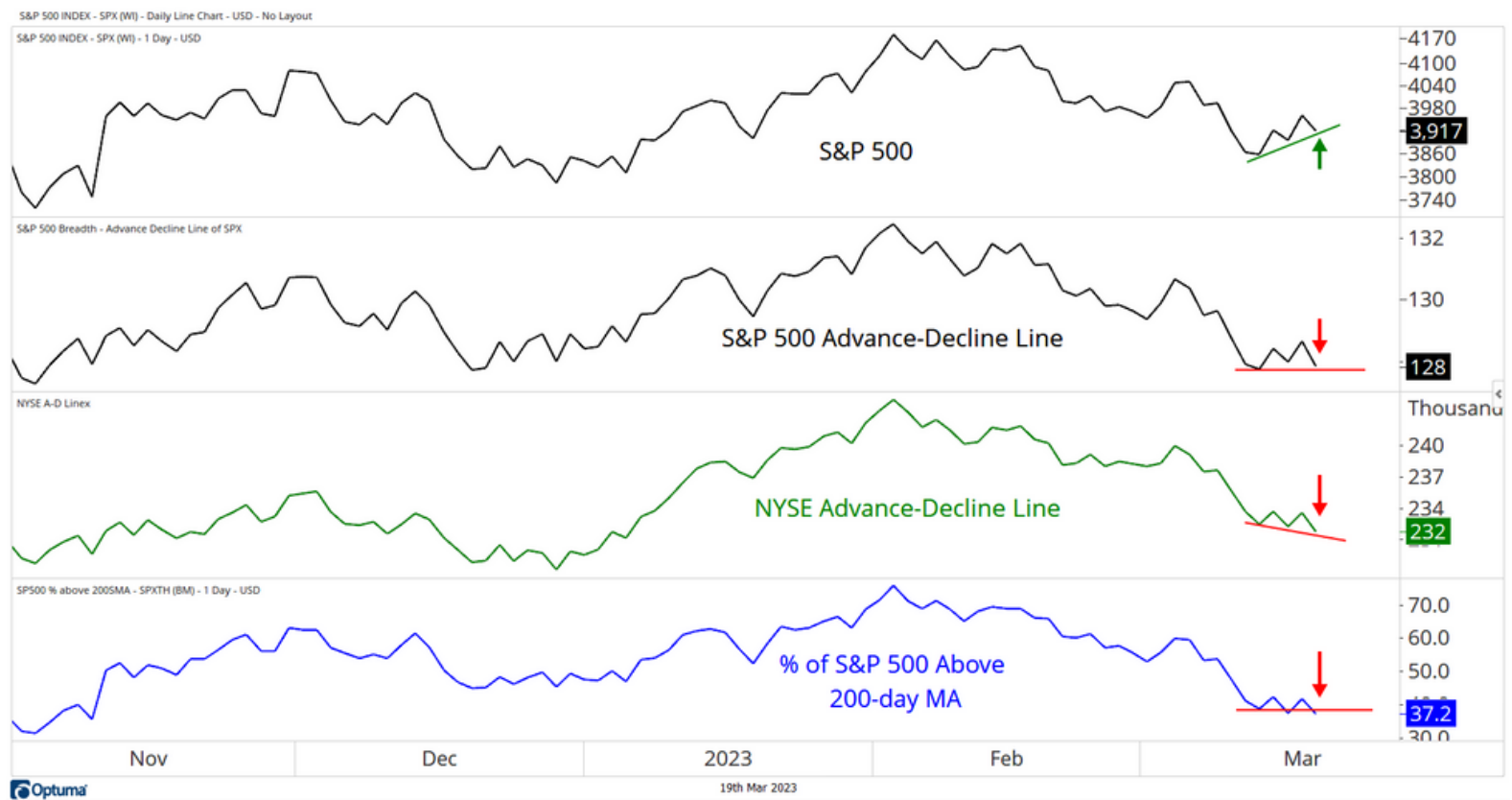
We can see another example of this performance spread between asset size in the chart below. We can see that FAAMG stocks have rallied back above the 200-day MA while an equal-weighting of the S&P 500 made lower-lows under the 200-day MA last week.



EQUITIES - BREADTH



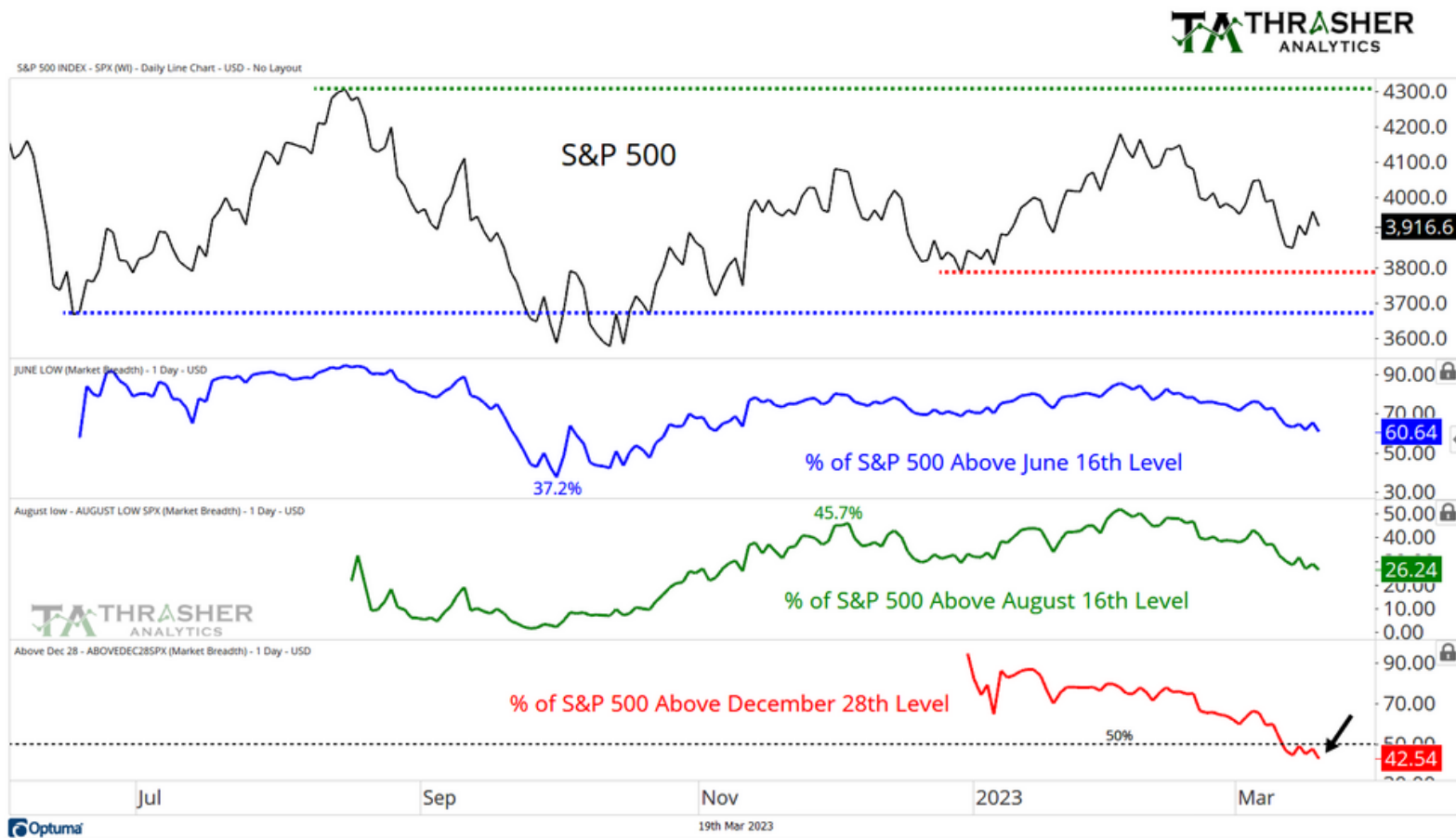
Here's another example. Here we have the S&P 500 and NYSE Advance-Decline Lines as well as the percent of the S&P 500 above the 200-day moving average. All three are showing weakness and moving lower while the Index attempted to make some short-term higher lows. This isn't what strong internals look like. Breadth looks weak.



EQUITIES - DECEMBER LOW



I showed this chart last week when 46% of stocks were still trading above their December 28th level. That figure has now declined to 42.5% even though the Index actually posted a positive gain for the week. Below the hood, stocks are struggling.



EQUITY - TECH AND TAIWAN



There's been historically a very strong relationship between technology stocks and specifically semiconductors and Taiwan. A large share of semis are produced in Taiwan and so their stock market is heavily influenced by the trends within the tech space. With tech showing strength here recently, you'd expect to see Taiwan being rising as well. Unfortunately, that's not the case and puts the latest rise in tech/semis into question. I'll discuss the tech again in the Sector section of the letter.



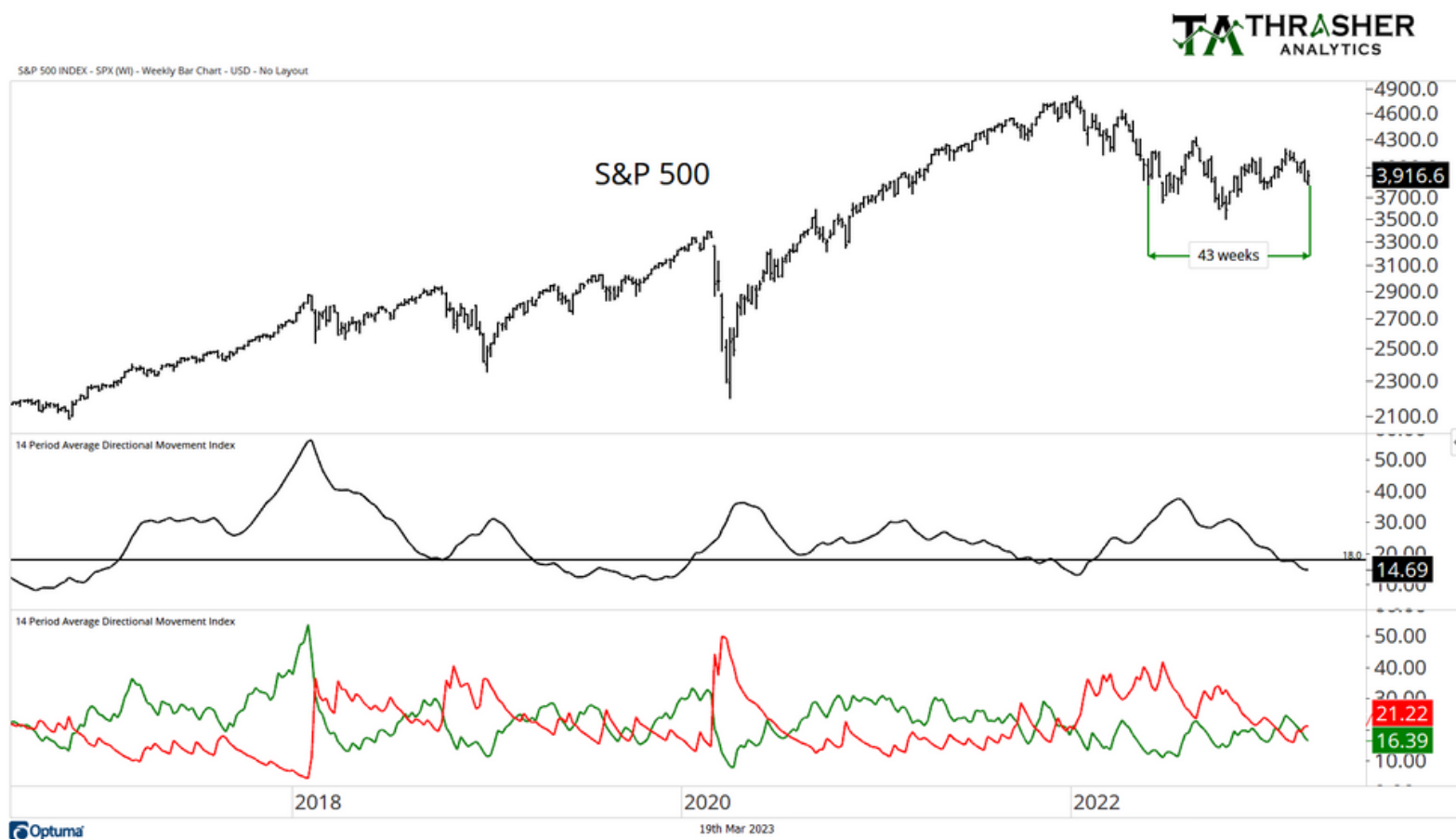
Daily - Relative Comparison - None - Date Range: Date Range Start Date: 1/1/2022 End Date: 12/29/2023



Optima

19th Mar 2023

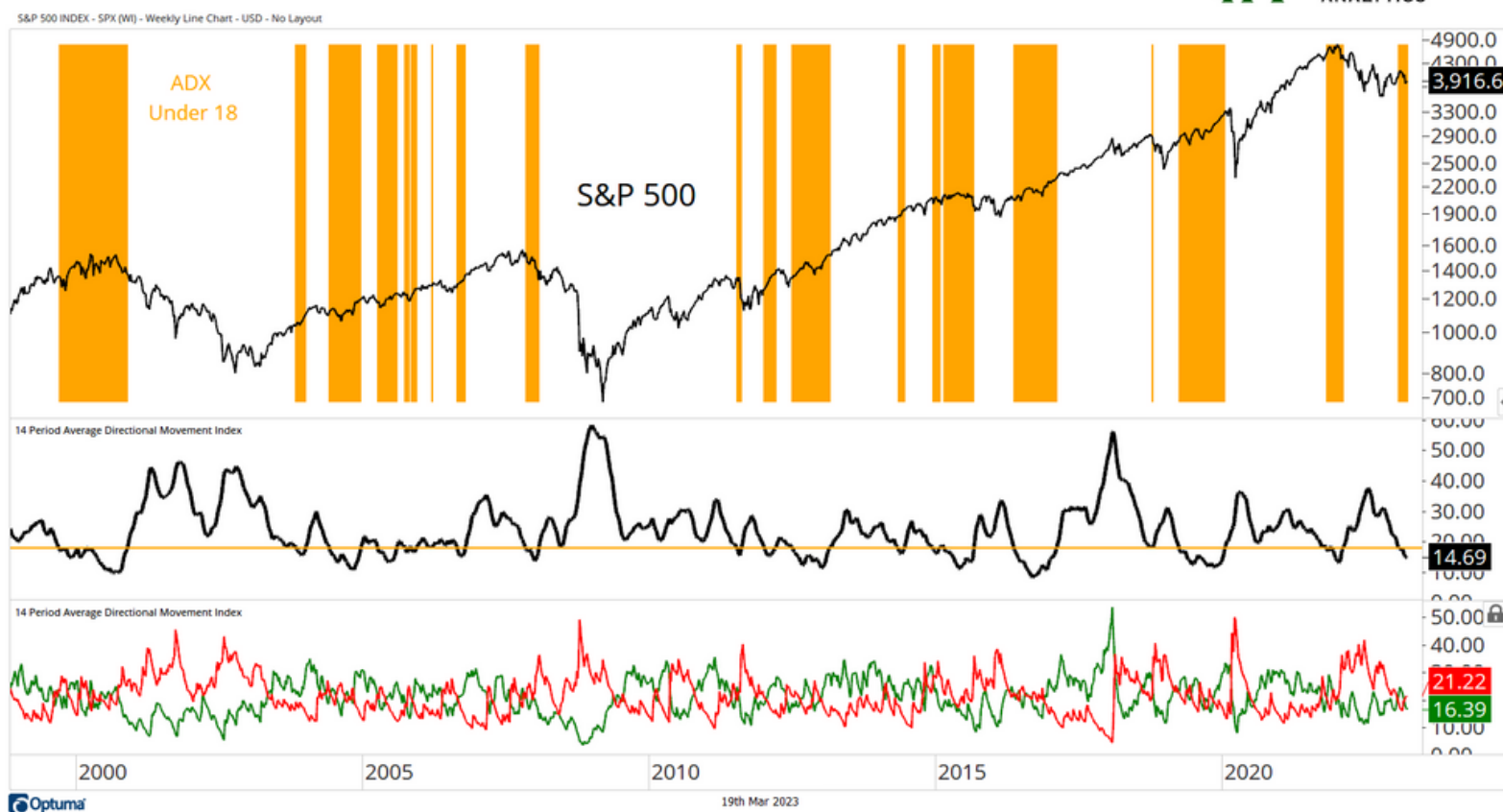
As I mentioned earlier, the S&P 500 has been in a fairly wide consolidation for 40 weeks, 43 weeks to be exact. This trendless market can be frustrating and actually isn't that unusual but it's important to recognize. Below we have the 14-period ADX Indicator, which measures trend strength (agnostic to the direction of the trend). The bottom panel shows the DI+ and DI- indicators which do focus on rising or falling trends. When DI+ (green) is above DI- (red) then it's identifying an uptrend. When the ADX is also rising, it's suggesting a strong trend (again, regardless of direction). When the ADX is low, the indicator is identifying a trendless or whipsawing market - like we are in today. I'll look at a longer-term chart of this on the next page.



EQUITY - TRENDLESS MARKET 2



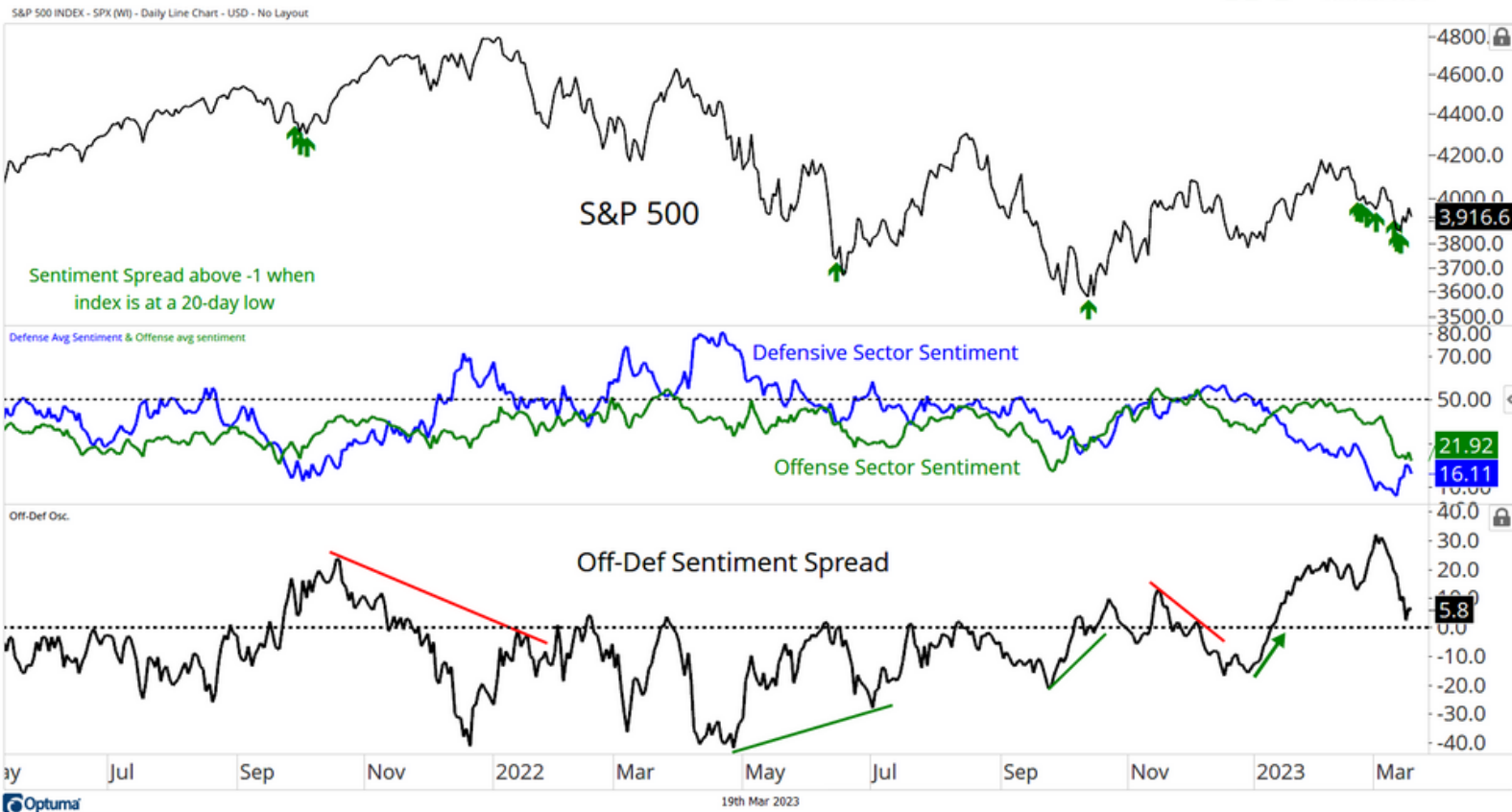
Here we have a weekly chart of the S&P 500 since the mid-90s. I've plotted orange lines when ADX is under 18, which notes a likely trendless environment for the index. If you were trading in 2014 and 2015 you probably remember the multi-month whipsaw price action that caused a migraine for trend traders. That's the environment we are in today, the market is sitting at roughly the same place it was 43 weeks ago which also happens to include a roughly 20% range from the high to the low. It's one thing when the range is tight, like in early 2015 when it was just a 3-4% range but what we have today is much wider and more volatile. I share this to point out the need for patience and allowing this market to determine its next move that eventually ends this whipsaw migraine-inducing price action.



EQUITIES - SECTOR SENTIMENT



The Sentiment Spread is still positive but has come down quite a bit as Offense sentiment has declined to 21.9



ETF FUND FLOW



Below is a look at fund flows for major bond and equity ETFs. Data is through Thursday of last week.



Daily - ETF Flows - Fund Flows Layout

| Name | Ticker | Net Flows YTD | Net Flows 3 Month | Net Flows 1 Month | 1 Month Flow % of AUM |
|------------------------------------------------------|--------|-----------------|-------------------|-------------------|-----------------------|
| - Bond ETFs | | | | | |
| iShares 7-10 Year Treasury Bond ETF | IEF | 2,893,237,793 | 3,053,309,989 | 2,574,570,311 | 9.81% |
| iShares 20+ Year Treasury Bond ETF | TLT | 3,787,028,637 | 2,820,037,573 | 1,567,285,862 | 4.87% |
| iShares 10-20 Year Treasury Bond ETF | TLH | 2,349,284,595 | 2,482,720,904 | 152,560,053 | 1.77% |
| iShares 1-3 Year Treasury Bond ETF | SHY | -626,030,731 | -528,725,941 | 66,223,575 | 0.24% |
| iShares TIPS Bond ETF | TIP | -1,313,357,874 | -1,625,364,341 | -296,115,465 | -1.34% |
| iShares iBoxx \$ Investment Grade Corporate Bond ETF | LQD | -1,493,594,632 | -3,228,269,349 | -2,122,023,317 | -6.19% |
| iShares 3-7 Year Treasury Bond ETF | IEI | 71,831,041 | 59,235,021 | -1,034,928,131 | -8.62% |
| - SPDR Equity ETFs | | | | | |
| SPDR Utilities Select Sector Fund ETF | XLU | -97,631,858 | -234,553,651 | 14,747,904 | 0.09% |
| SPDR Energy Select Sector Fund ETF | XLE | -547,006,880 | -181,724,476 | -77,173,722 | -0.21% |
| SPDR Consumer Staples Select Sector Fund ETF | XLP | -430,763,550 | -630,474,111 | -55,414,229 | -0.34% |
| SPDR Health Care Select Sector Fund ETF | XLV | -996,539,124 | -1,041,506,413 | -527,306,932 | -1.37% |
| SPDR Communication Services Select Sector Fund ETF | XLC | 26,678,316 | -123,021,079 | -168,450,941 | -1.84% |
| SPDR Consumer Discretionary Select Sector Fund ETF | XLY | -263,911,732 | -369,669,630 | -302,434,872 | -2.21% |
| SPDR Industrial Select Sector Fund ETF | XLI | -110,922,138 | -281,476,510 | -305,504,857 | -2.30% |
| SPDR Technology Select Sector Fund ETF | XLK | -2,170,613,315 | -2,112,423,569 | -987,272,047 | -2.37% |
| SPDR S&P 500 ETF | SPY | -15,761,156,215 | -24,632,917,554 | -13,039,255,676 | -3.69% |
| SPDR Materials Select Sector Fund ETF | XLB | 239,761,781 | 163,700,688 | -225,483,051 | -4.19% |
| SPDR Financial Select Sector Fund ETF | XLF | -627,431,373 | -1,109,896,514 | -1,322,790,312 | -4.62% |
| SPDR Real Estate Select Sector Fund ETF | XLRE | -326,312,513 | -220,936,905 | -318,906,980 | -6.91% |

SECTOR PERFORMANCE



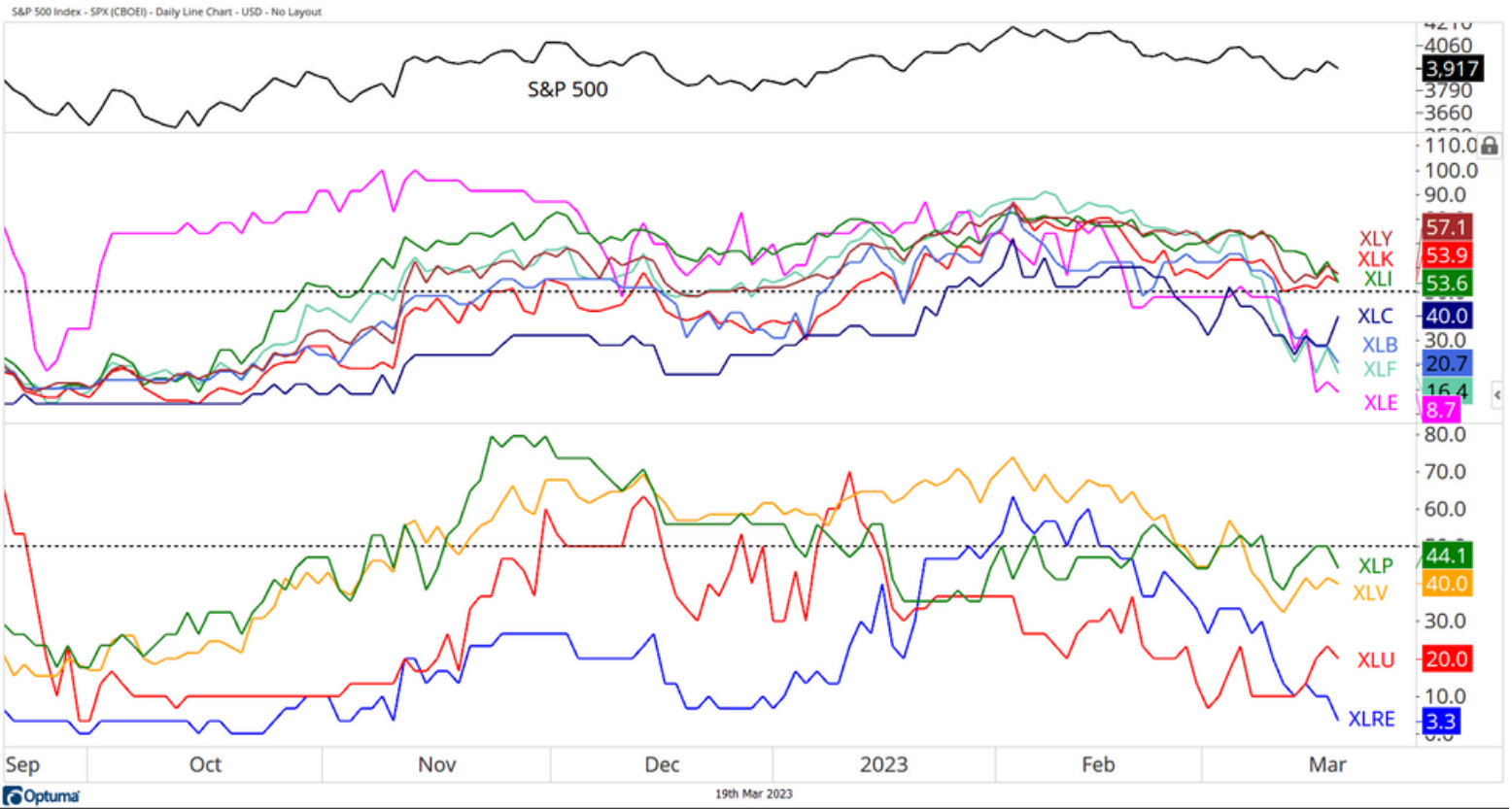
Daily - Performance - No Layout

| - TickerName | | 2023 | YTD Rel% to SPX | 1W %▼ | 1M % | 3M% | 6M% | % from 52Wk High | % from 52Wk Low | % From 20MA | % From 50MA | % From 200MA |
|--------------|------------------------------------------------|------------|-----------------|--------|---------|--------|---------|------------------|-----------------|-------------|-------------|--------------|
| - Index | | AVG: 0.03% | | | | | | AVG: 15.01% | AVG: 11.81% | AVG: -3.82% | | |
| NDY | NASDAQ 100 Index | 14.44% | -6.65% | 5.83% | 1.31% | 11.35% | 5.55% | 17.99% | 19.91% | 3.05% | 4.08% | 5.17% |
| SPX | S&P 500 INDEX | 2.01% | 0.00% | 1.43% | -3.98% | 1.67% | 1.12% | 15.54% | 12.17% | -1.26% | -2.27% | -0.51% |
| DJI | Dow Jones Industrial Average | -3.88% | 6.70% | -0.15% | -5.81% | -3.22% | 3.37% | 10.23% | 11.17% | -2.53% | -4.51% | -1.59% |
| MID | S&P Midcap 400 Index | -2.30% | 1.67% | -3.19% | -10.94% | -1.74% | -0.24% | 14.62% | 8.63% | -6.87% | -8.10% | -3.35% |
| SML | S&P SmallCap 600 Index | -2.04% | -1.56% | -3.28% | -11.59% | -1.79% | -0.97% | 16.68% | 7.18% | -7.02% | -8.29% | -4.84% |
| - Sectors | | AVG: 6.37% | | | | | | AVG: 17.79% | AVG: 13.56% | AVG: -4.05% | | |
| XLK | SPDR Technology Select Sector Fund ETF | 15.28% | 0.41% | 5.66% | 2.60% | 12.54% | 11.46% | 12.34% | 26.99% | 3.56% | 5.07% | 7.93% |
| XLC | SPDR Communication Services Select Sector ETF | 14.63% | -13.82% | 5.26% | -0.61% | 14.48% | 5.50% | 23.14% | 22.63% | 2.00% | 1.66% | 3.84% |
| XLU | SPDR Utilities Select Sector Fund ETF | -5.01% | 13.85% | 3.96% | -2.21% | -4.98% | -10.07% | 14.38% | 10.97% | 1.19% | -1.54% | -4.22% |
| XLY | SPDR Consumer Discretionary Select Sector Fund | 9.43% | -15.87% | 2.27% | -6.13% | 5.55% | -10.51% | 26.46% | 12.17% | -1.53% | -1.78% | -3.49% |
| XLP | SPDR Consumer Staples Select Sector Fund ETF | -3.27% | 13.80% | 1.41% | -2.13% | -3.67% | 1.09% | 11.35% | 8.97% | -0.39% | -1.34% | -1.16% |
| XLV | SPDR Health Care Select Sector Fund ETF | -7.35% | 8.71% | 1.38% | -4.64% | -7.13% | -1.25% | 12.24% | 5.99% | -1.41% | -3.99% | -3.46% |
| XLRE | SPDR Real Estate Select Sector Fund ETF | -1.90% | -14.90% | 0.36% | -8.53% | -3.39% | -10.21% | 28.92% | 9.37% | -4.24% | -6.99% | -8.25% |
| XLI | SPDR Industrial Select Sector Fund ETF | -1.57% | 11.18% | -2.35% | -6.17% | -1.46% | 8.36% | 8.13% | 16.82% | -3.95% | -4.38% | 1.56% |
| XLB | SPDR Materials Select Sector Fund ETF | -2.79% | 1.41% | -3.42% | -7.12% | -4.51% | 3.58% | 17.47% | 12.95% | -5.97% | -7.60% | -2.97% |
| XLF | SPDR Financial Select Sector Fund ETF | -9.42% | -3.46% | -5.92% | -14.87% | -8.07% | -6.29% | 22.56% | 4.70% | -9.96% | -12.50% | -8.50% |
| XLE | SPDR Energy Select Sector Fund ETF | -12.00% | 68.77% | -6.85% | -8.90% | -8.76% | -1.87% | 18.73% | 17.55% | -7.73% | -11.18% | -6.89% |

SECTOR - BREADTH 200-MA



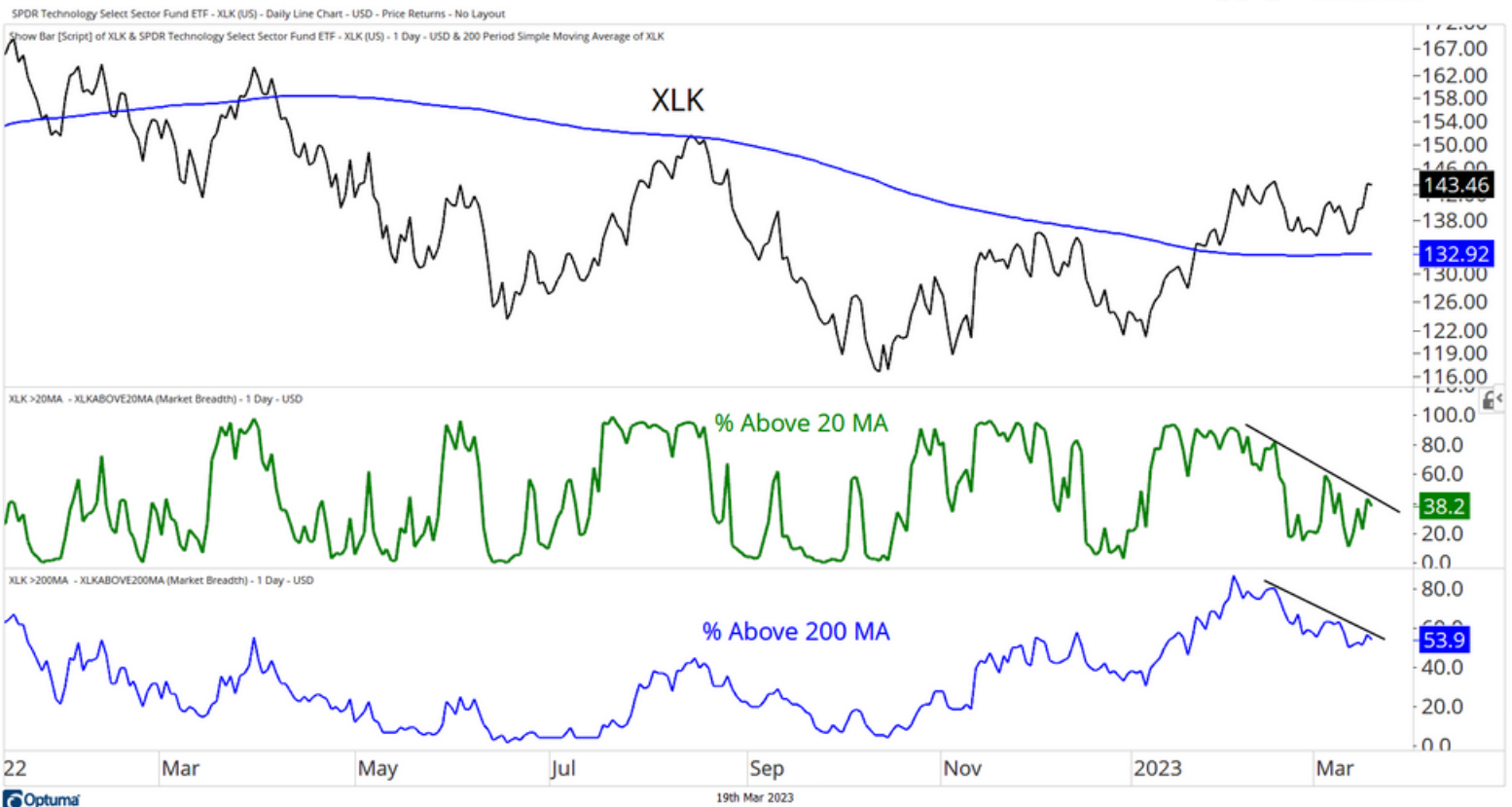
Just three sectors remain above 50% (% of stocks above 200-day MA), XLY, XLK, and XLI.



SECTOR - XLK BREADTH



I mentioned before the lack of confirmation in Taiwan's equity price action for the strength shown in semis and tech stocks. Below we can see the breadth data for XLK and the lack of confirmation here as well. XLK is sitting near the high end of its range while less than 40% of stocks are above their 20-day MA and barely 50% are above the 200-day MA but well off the 70-80 % we saw the last time XLK was at this level. Internally, tech is weakening but the sector is being propped up by a handful of mega caps.



DAILY SENTIMENT INDEX



Daily - Watch List - No Layout

| Code | % Bullish ^ | 5-day MA | History |
|-----------------------|-------------|----------|---------|
| Lean Hog DSI | 12 | 17 | |
| Crude Oil DSI | 12 | 18 | |
| SPX DSI | 16 | 17 | |
| Palladium DSI | 18 | 26 | |
| Natural Gas DSI | 24 | 29 | |
| Heating Oil DSI | 29 | 31 | |
| Wheat DSI | 30 | 27 | |
| Corn DSI | 31 | 23 | |
| Nikkei DSI | 37 | 42 | |
| Soybean DSI | 38 | 44 | |
| Nasdaq DSI | 39 | 36 | |
| Swiss Franc DSI | 41 | 43 | |
| Gasoline DSI | 42 | 50 | |
| Cotton DSI | 42 | 48 | |
| Platinum DSI | 45 | 44 | |
| Australian Dollar DSI | 48 | 44 | |
| Euro DSI | 49 | 48 | |
| VIX DSI | 50 | 45 | |
| CRB Index DSI | 50 | 48 | |

Daily - Watch List - No Layout

| Code | % Bullish ^ | 5-day MA | History |
|------------------------|-------------|----------|---------|
| Yen DSI | 52 | 45 | |
| US Dollar DSI | 52 | 53 | |
| Copper DSI | 52 | 53 | |
| Coffee DSI | 55 | 59 | |
| British Pound DSI | 55 | 57 | |
| Mexican Peso DSI | 60 | 60 | |
| Cattle DSI | 60 | 58 | |
| Bitcoin DSI | 60 | 50 | |
| 5YR DSI | 60 | 52 | |
| EuroDollar DSI | 62 | 57 | |
| Cocoa DSI | 62 | 54 | |
| 10Y DSI | 63 | 56 | |
| Silver DSI | 65 | 54 | |
| Sugar DSI | 69 | 70 | |
| New Zealand Dollar DSI | 69 | 66 | |
| Lumber DSI | 69 | 57 | |
| Gold DSI | 80 | 73 | |
| Orange Juice DSI | 88 | 83 | |

Type Code or Name to add an item to the watchlist

Source: trade-futures.com

DAILY SENTIMENT INDEX



DAILY SENTIMENT INDEX

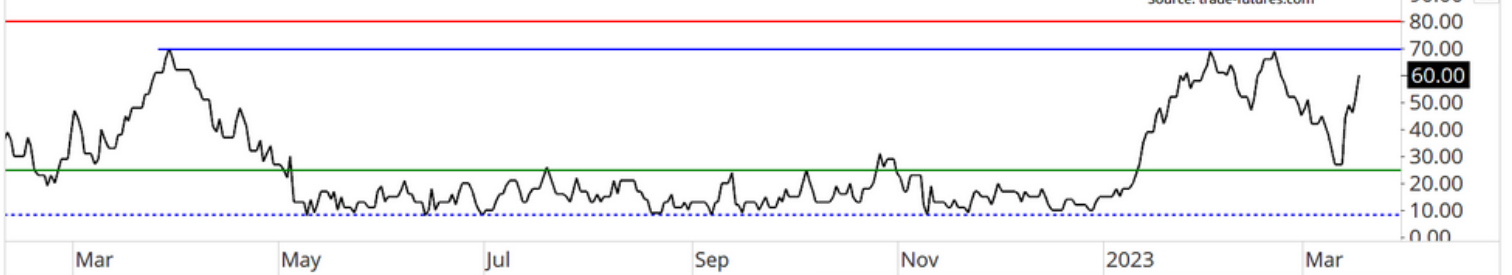


Bitcoin/United States dollar - BTCUSD (CW) - Daily Line Chart - USD - No Layout --- Data from Cryptowatch



Bitcoin DSI (DSI) - 1 Day - USD

Source: trade-futures.com

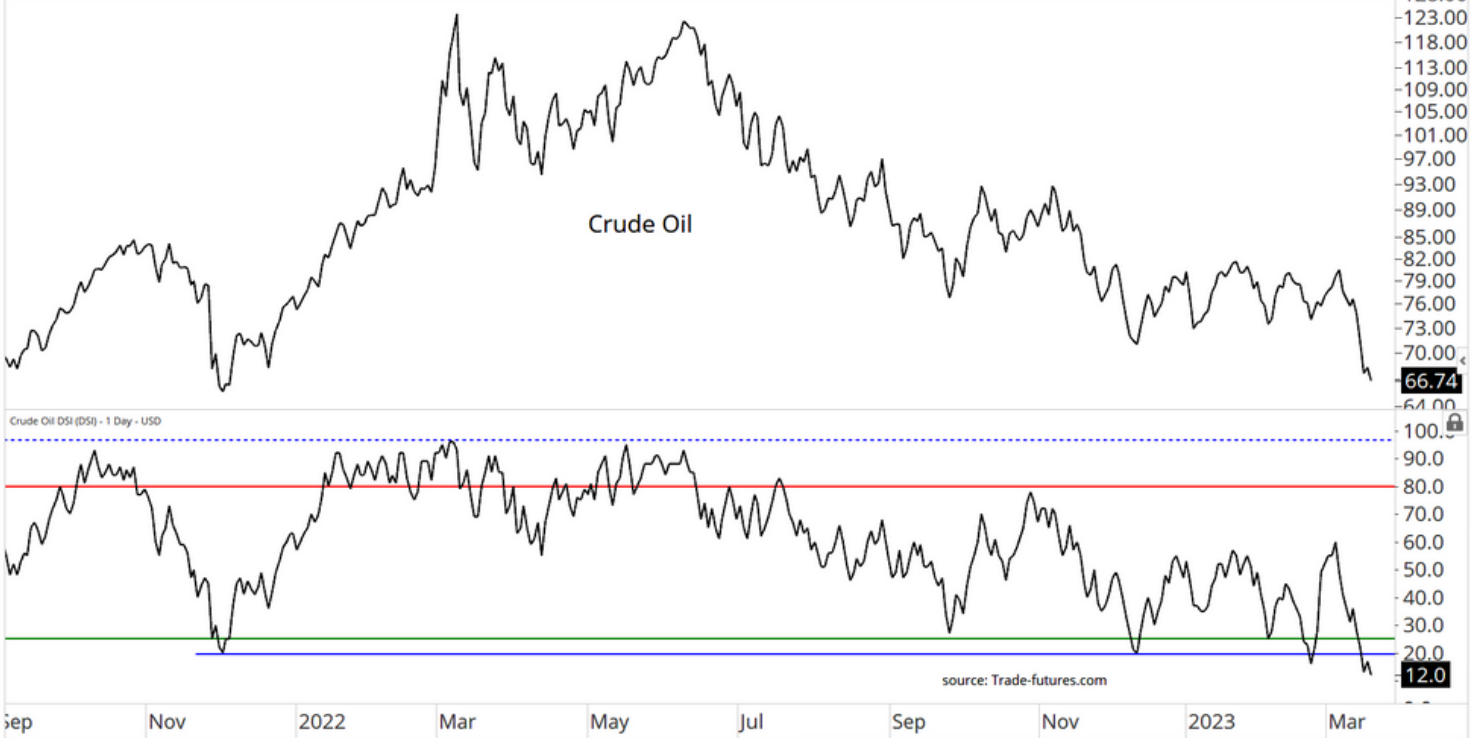


19th Mar 2023

DAILY SENTIMENT INDEX



Crude Oil Light Sweet NYMEX - OILSW (W) - Daily Line Chart - USD - No Layout



19th Mar 2023

DAILY SENTIMENT INDEX



TA THRASHER
ANALYTICS

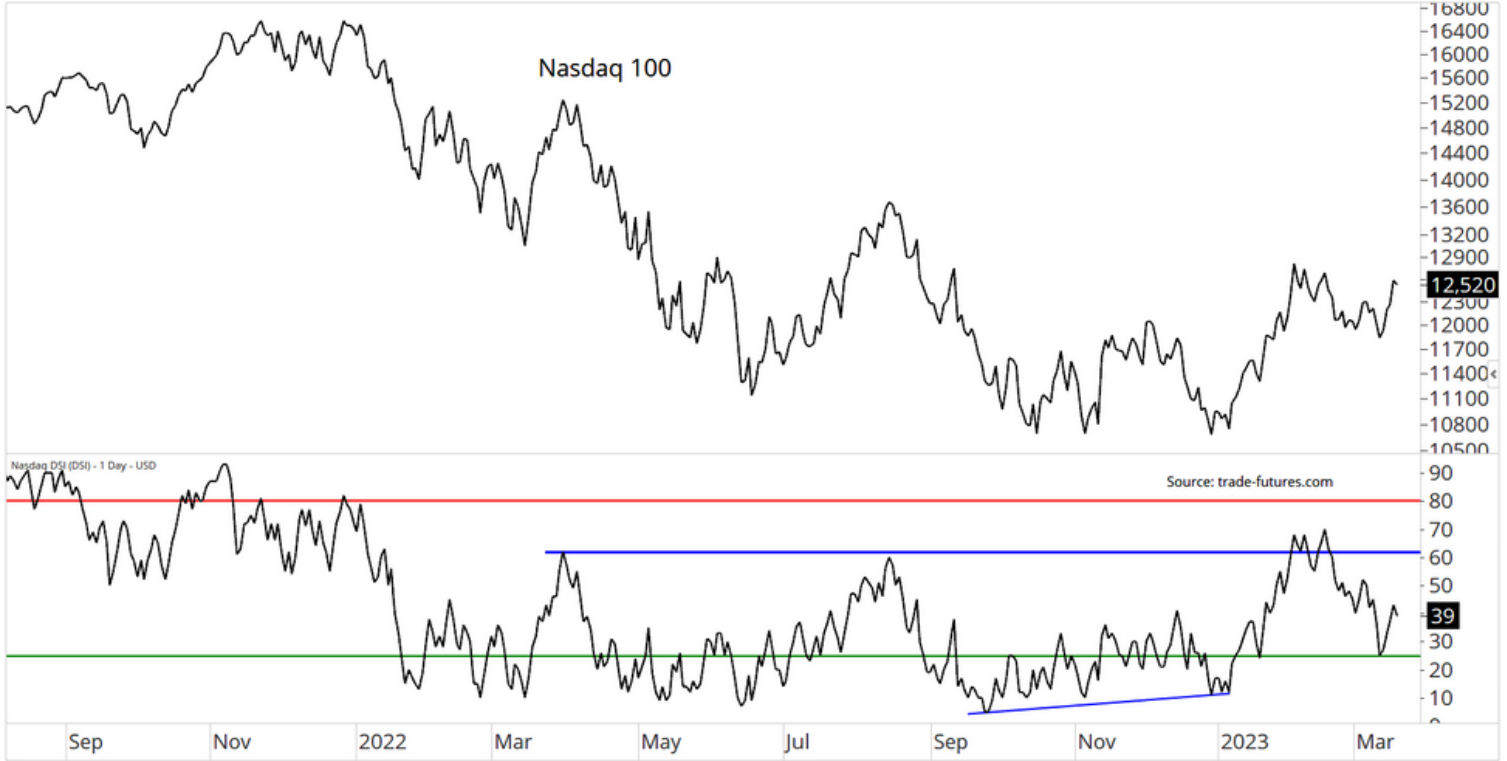
Gold Futures - GC25spot (AFUT) - Daily Line Chart - USD - No Layout



DAILY SENTIMENT INDEX



NASDAQ 100 Index - NDY (W) - Daily Line Chart - USD - No Layout



19th Mar 2023

DAILY SENTIMENT INDEX



S&P 500 Index - SPX (CBOE) - Daily Line Chart - USD - No Layout



DAILY SENTIMENT INDEX



TA THRASHER
ANALYTICS

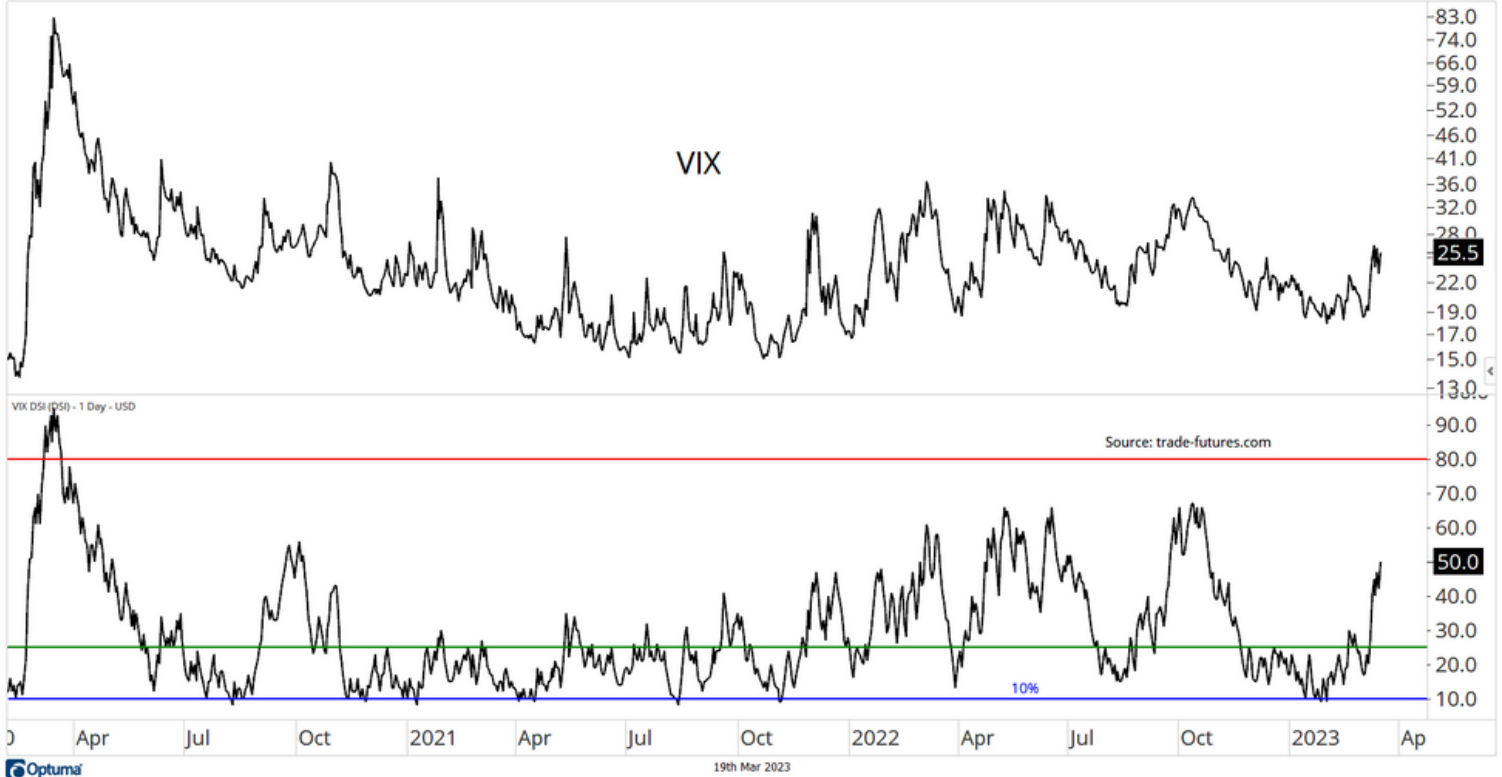
U.S. Dollar Index - DIXSpot (AFUT) - Daily Line Chart - USD - No Layout



DAILY SENTIMENT INDEX



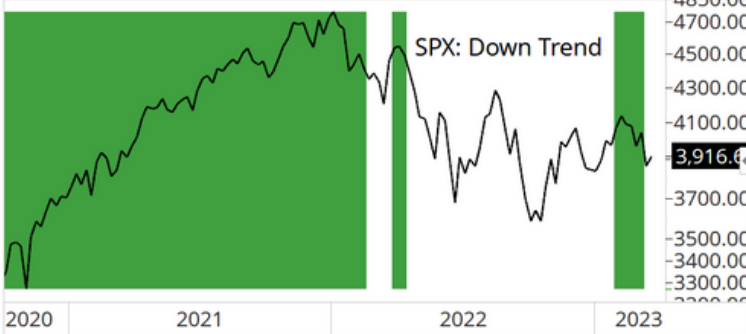
CBOE S&P 500 Volatility Index - VIX (CBOE) - Daily Line Chart - USD - No Layout



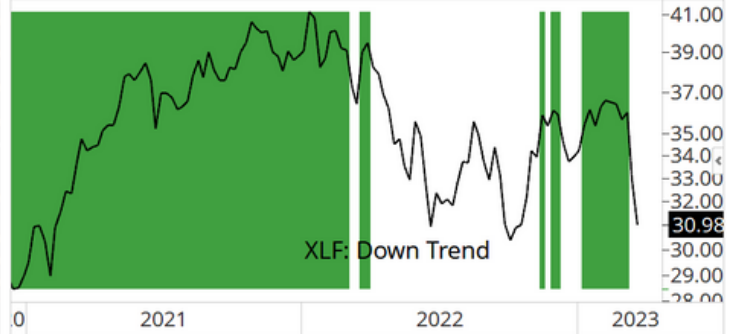
TREND MODELS



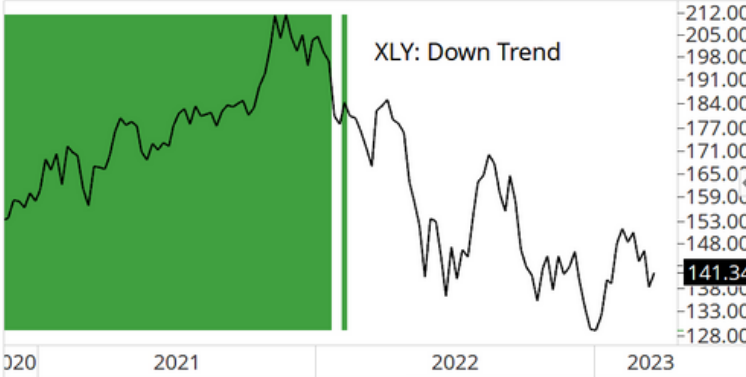
S&P 500 INDEX - SPX (W) - Weekly Line Chart - USD - No Layout



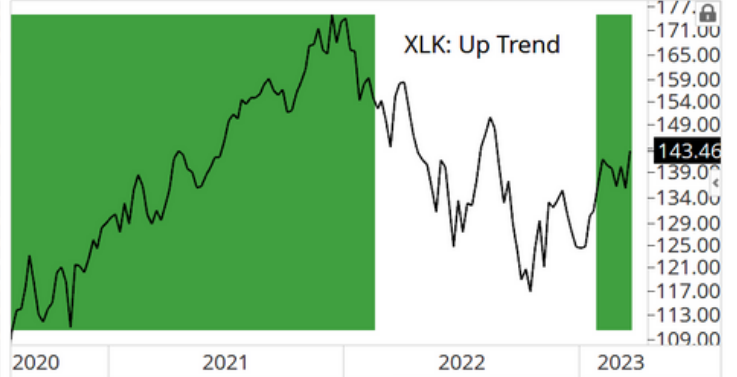
SPDR Financial Select Sector Fund ETF - XLF (US) - Weekly Line Chart - USD - Price Returns - No Layout



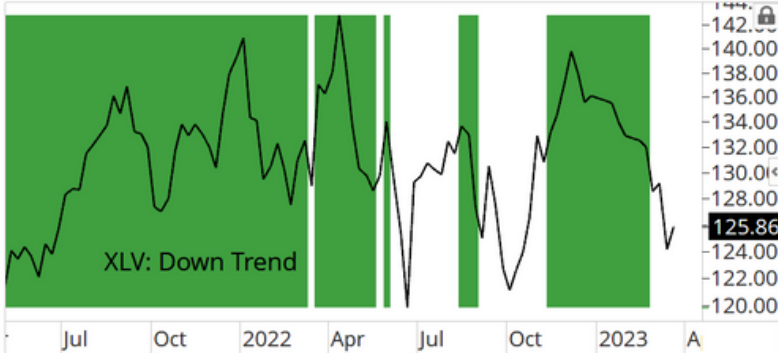
SPDR Consumer Discretionary Select Sector Fund ETF - XLY (US) - Weekly Line Chart - USD - Price Returns - No Layout



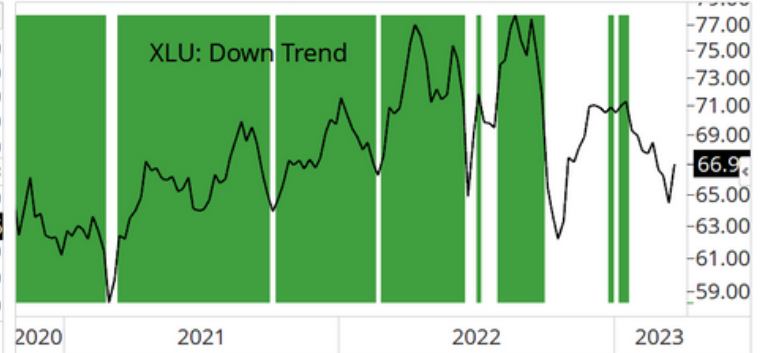
SPDR Technology Select Sector Fund ETF - XLK (US) - Weekly Line Chart - USD - Price Returns - No Layout



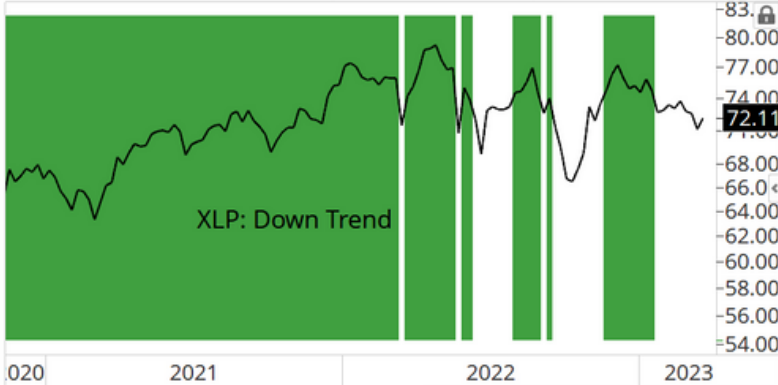
SPDR Health Care Select Sector Fund ETF - XLV (US) - Weekly Line Chart - USD - Price Returns - No Layout



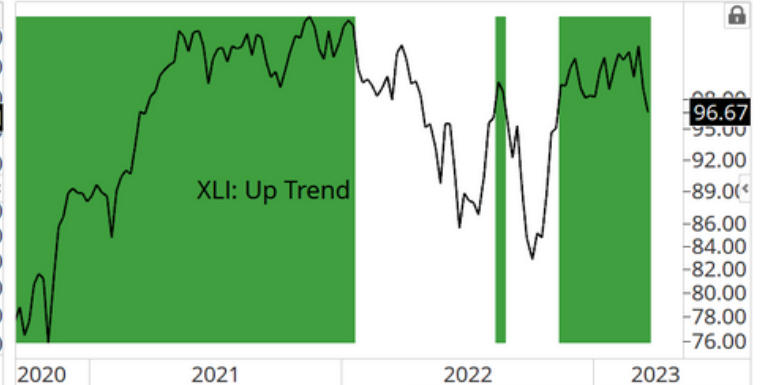
SPDR Utilities Select Sector Fund ETF - XLU (US) - Weekly Line Chart - USD - Price Returns - No Layout



SPDR Consumer Staples Select Sector Fund ETF - XLP (US) - Weekly Line Chart - USD - Price Returns - No Layout



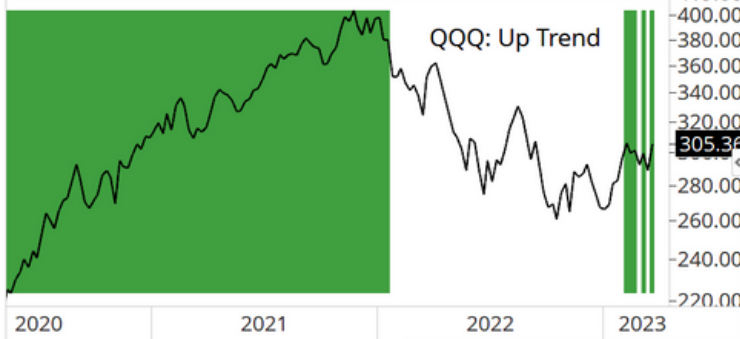
SPDR Industrial Select Sector Fund ETF - XLI (US) - Weekly Line Chart - USD - Price Returns - No Layout



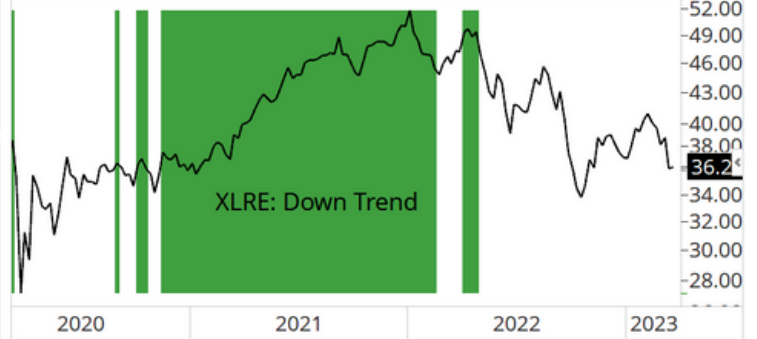
TREND MODELS



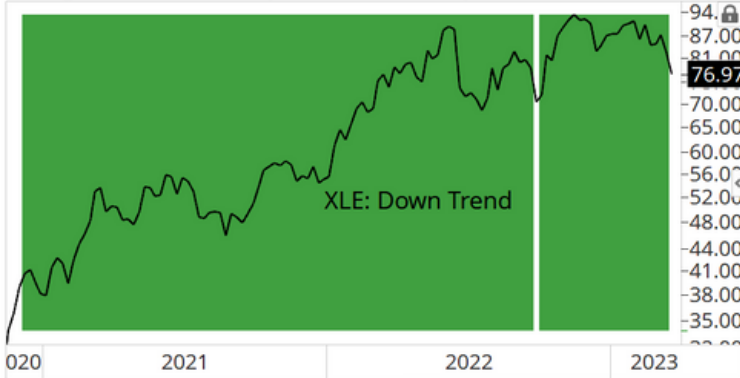
Invesco QQQ Trust - QQQ (US) - Weekly Line Chart - USD - Price Returns - No Layout



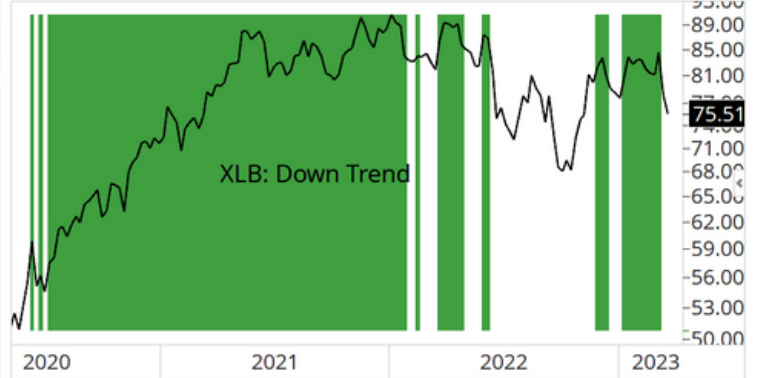
SPDR Real Estate Select Sector Fund ETF - XLRE (US) - Weekly Line Chart - USD - Price Returns - No Layout



SPDR Energy Select Sector Fund ETF - XLE (US) - Weekly Line Chart - USD - Price Returns - No Layout



SPDR Materials Select Sector Fund ETF - XLB (US) - Weekly Line Chart - USD - Price Returns - No Layout



10th Mar 2023

DISCLAIMER:

No reproduction, transmission, or distribution permitted without consent of Thrasher Analytics LLC ("Thrasher Analytics"). The material contained herein is the sole opinion of Thrasher Analytics. This research has been prepared using information sourced believed to be reliable. Such information has not been independently verified and no guarantee, representation or warranty, express or implied, is made as to its accuracy completeness or correctness. It is intended for the sole use by the receipt to whom it has been delivered to by Thrasher Analytics. The delivery of this report to any person shall not be deemed a recommendation by Thrasher Analytics to effect any transaction in any securities discussed herein. For more information please refer to our Terms & Service page of our website:
<http://thrasheranalytics.com/terms-of-service-agreement>.