

NOVEMBER 20, 2022



WEEKLY RESEARCH & ANALYSIS

BY ANDREW THRASHER, CMT

SUMMARY OF MODELS

	Current	Wkly Change
Maestro Model	0	Increasing
Volatility Risk Trigger	48	Increasing
Risk Appetite Ratios	.44	Decreasing
S&P 500 Long-Term Trend	Down	Unchanged

TABLE OFCONTENTS

Volatility

Equities

Maestro Model

Sector Sentiment

Sectors & Commodity

Sentiment

Trend Models

MARKET DASHBOARD

Sector Rotation: No	vembei	In	dex & Se	ctor	Daily S	Sentiment Index					
			Up	Down							
Energy	XLE		Trend	Trend		% Bullish	5-day MA				
Financials	XLF	SPX		Х	S&P 500	31%	31%				
Health Care	XLV	QQQ		Х	Nasdaq 100	25%	29%				
		XLF	Х		Nikkei	57%	59%				
		XLY		Х	VIX	25%	30%				
Maestro Mod	lel	XLK		Х	10yr Treasury	33%	31%				
Trend / Momentum	1	XLV	Х		5yr Treasury	31%	30%				
Sentiment / VIX	-1	XLU		Х	CRB Index	32%	38%				
Breadth	2	XLP	Х		Crude Oil	32%	38%				
Economic	-4	XLI	Х		Gold	52%	59%				
Total	0	XLR	E	Х	U.S. Dollar	55%	51%				
Breadth is weighted double	in model)	XLE	Х		Bitcoin	11%	12%				
		XLB		Х	*Green<25%	Red>80%					

source: trade-futures.com

Brief Summary:

The Maestro Model has continued to improve but is still not to a level to give a Conservative Buy signal. While breadth for large cap equities and most sectors improves, we did see a pullback last week in Risk Appetite and a continued breakdown in the Consumer Ratio and performance (both relative and absolute) of IPO stocks.

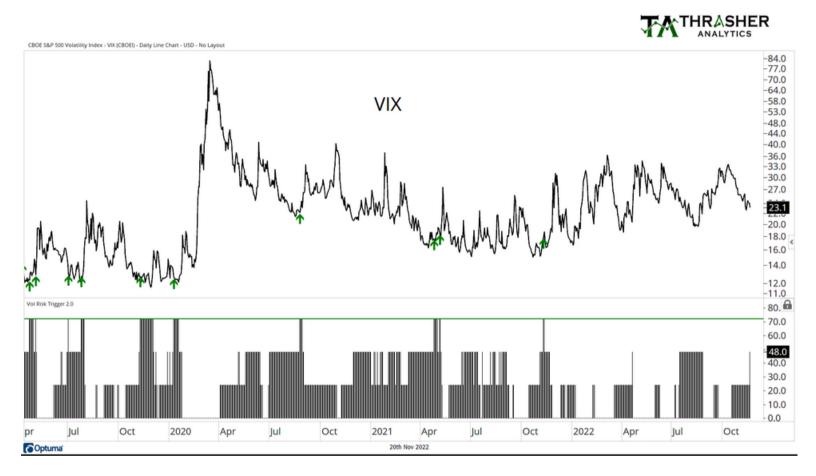
This week's letter takes a look at Consumer Disc. and Energy sectors as well as crude oil. All three have very interesting chart setups based on price action and internals. Small Caps began testing the 200-day moving average last week but haven't had a strong enough break to suggest a change of character has occurred. The SPX still sits a little over 2% from its own 200-day MA and 6% from a 3-month high.

Volatility markets remain of interest as they did last week. The spread between 9d-12m Volatility has risen to over 10 points, the upper end of its range over the last two years. Last week was opex for VIX futures and we now have a shortened Holiday week for U.S. markets. Seasonally is bullish but that doesn't mean we can't still see some fireworks.

VOLATILITY: VRT

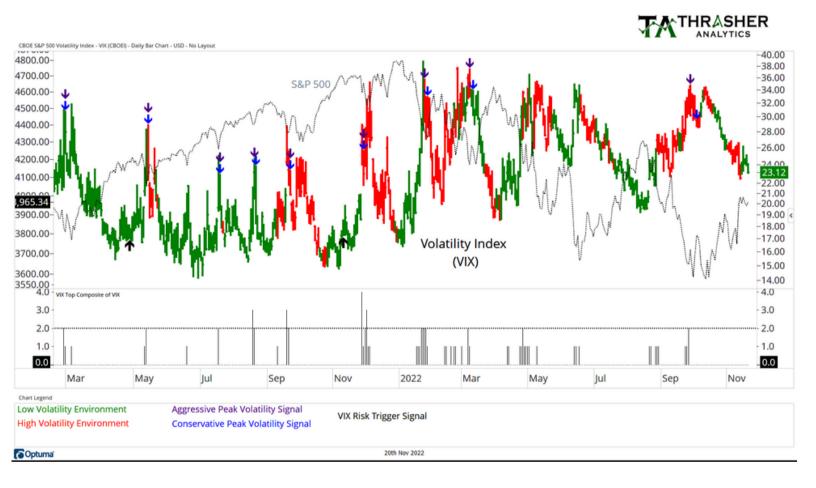


VRT increased to 48 with Spot VIX finishing the week at 23.

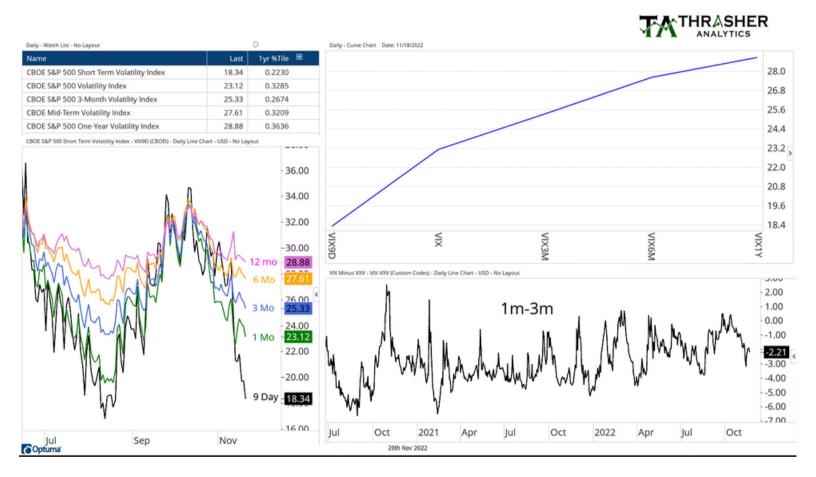


VOLATILITY: TOP & ENVIRONMENT

VIX has moved back into the Low Volatility Environment.

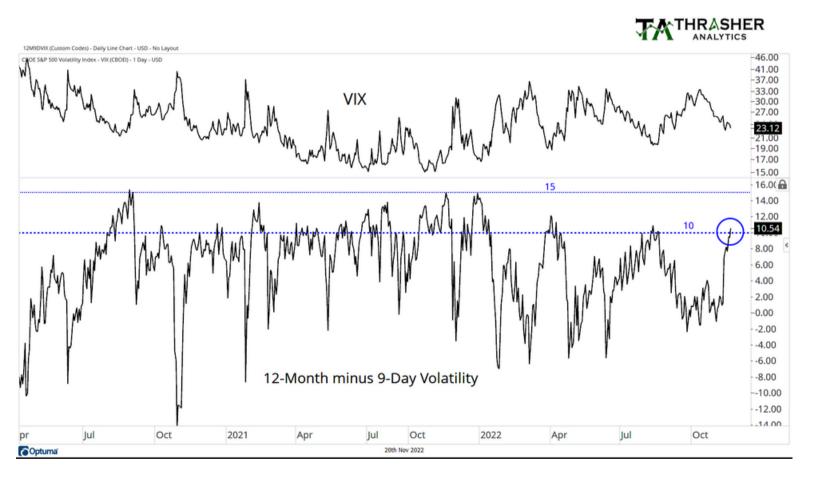


9-day volatility continued to decline last week as futures went through opex and Spot VIX saw a slight increase, holding above 23. There's now a growing spread between 9-day and 1year, shown on the next page.



VOLATILITY: FUTURES SPREAD

The difference between 9-day volatility and 12-month volatility has increased to over 10 points, the largest since during the summer. Coming into 2022 we saw the spread peak at 15 but 10 points has been the high-end of the range year-to-date. The prior two times we saw such a large spread between ultra-short term contracts and the 1yr, spot ended its decline and saw a material increase.

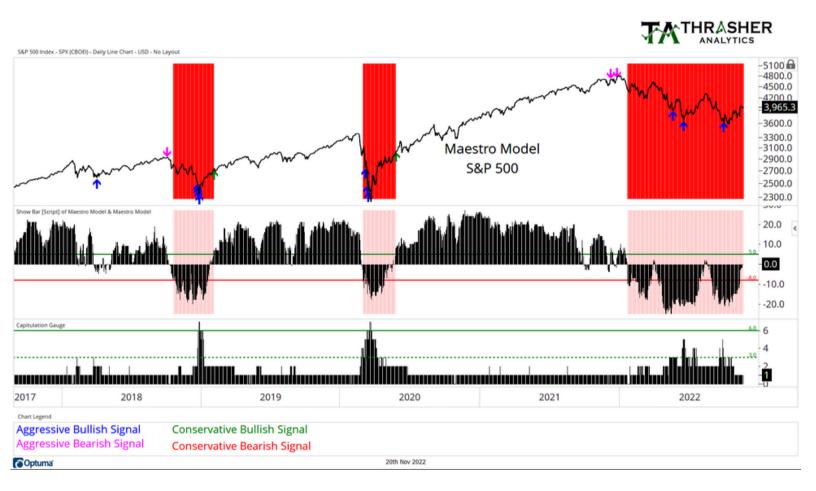


MAESTRO MODEL



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

The Maestro Model moved up to 0 last week. Both Breadth and Sentiment categories saw improvement.



MAESTRO MODEL - CATEGORIES

Trend remains positive, Sentiment improved, and Breadth has moved to its highest level in several weeks.

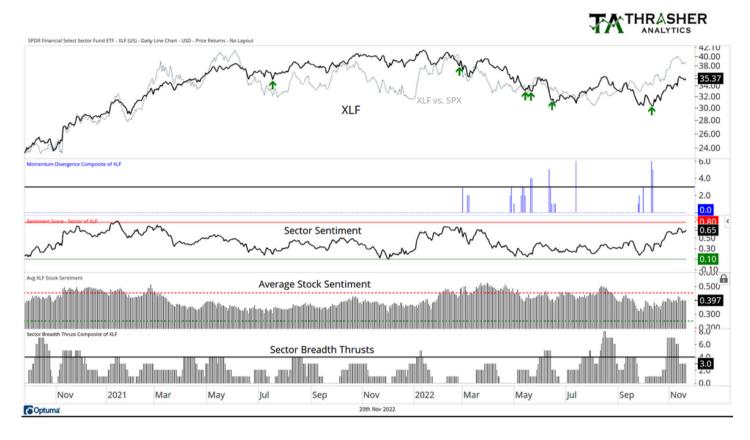


SENTIMENT SCORE

The difference between the average stock sentiment and sector sentiment for XLY has continued to grow. Industrial sentiment remains elevated but has come down from its peak. The energy sector sentiment has declined, off its peak of over 0.8 to .58 as of Friday.

Daily - Watch List - No Layou 1M Perf 3M Perf Sector Ticker Sector Sentiment Change in Score 1W Perf XLI 0.7799 SPDR Industrial Select Sector Fund ETF XLB SPDR Materials Select Sector Fund ETF 0.6570 SPDR Financial Select Sector Fund ETF XLF 0.6543 XLV SPDR Health Care Select Sector Fund ETF 0.6377 SPDR Energy Select Sector Fund ETF XLE 0.5835 XLP SPDR Consumer Staples Select Sector Fund ETF 0.4795 SPDR Utilities Select Sector Fund ETF XLU 0.4618 SPDR Technology Select Sector Fund ETF XLK 0.3991 XLC SPDR Communication Services Select Sector ETF 0.3631 SPDR Real Estate Select Sector Fund ETF XLRE 0.3521 SPDR Consumer Discretionary Select Sector Fund XLY 0.1040

SENTIMENT SCORE: XLF & XLY

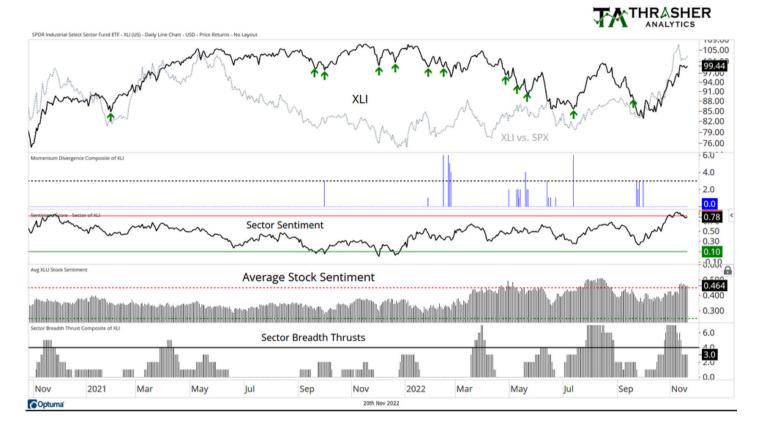




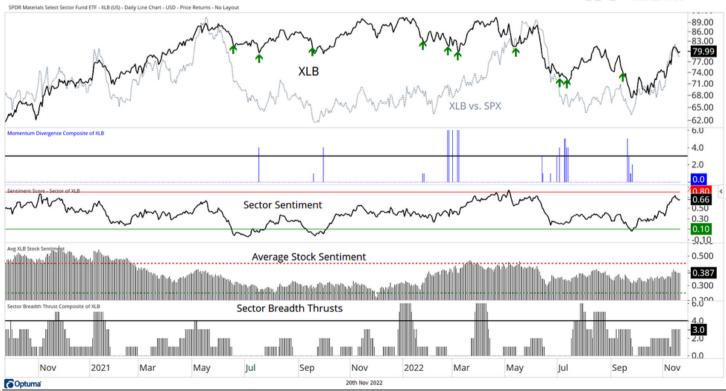
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SENTIMENT SCORE: XLI & XLB





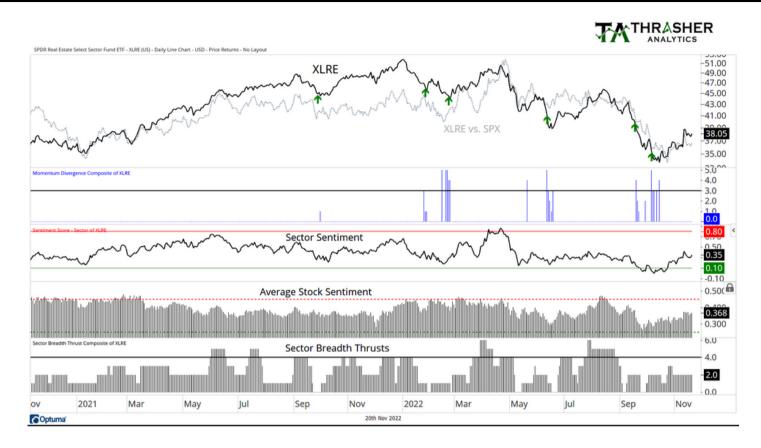
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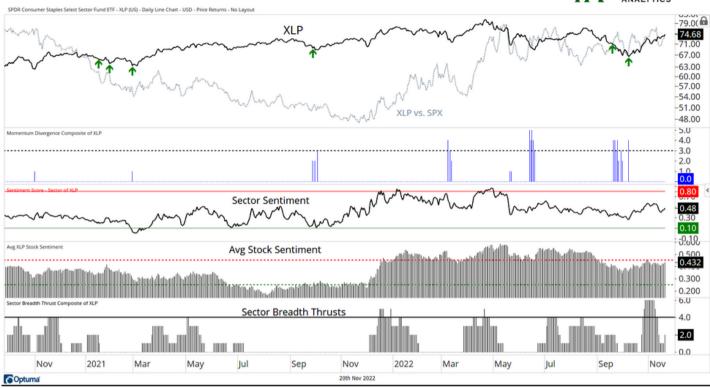
SENTIMENT SCORE: XLRE & XLC 7/X

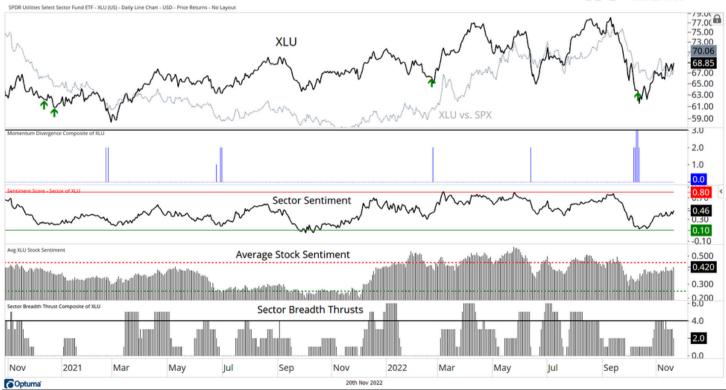




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SENTIMENT SCORE: XLP & XLU

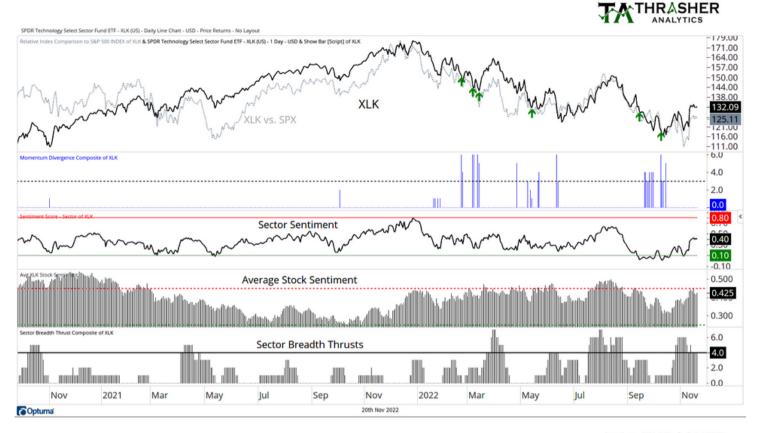


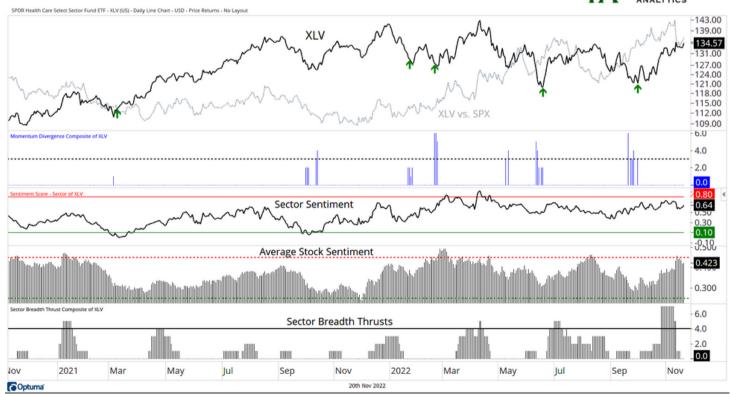


THRASHER

SENTIMENT SCORE: XLK & XLV



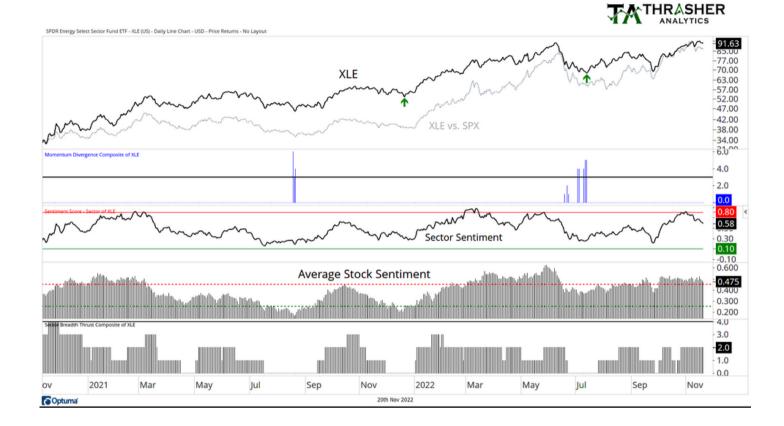




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SENTIMENT SCORE: XLE





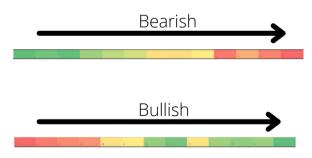
RISK APPETITE RATIO



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 44th 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	-4	Current
Emerging Market vs. SPX	0.14	0.09	0.10	0.11	0.13	0.16	0.14	0.09	0.11	0.02	0.05	0.06	0.01	0.00	0.07	0.03	0.00	0.00	0.09	0.08	0.00	0.02	0.10	0.16	0.22	0.33	0.29	0.30	0.31	0.24	0.31	0.32	0.38	0.34	0.36	0.32
EAFE vs. SPX	0.17	0.13	0.18	0.13	0.09	0.16	0.17	0.15	0.15	0.12	0.17	0.17	0.14	0.11	0.15	0.11	0.04	0.08	0.19	0.16	0.07	0.06	0.14	0.21	0.23	0.41	0.36	0.41	0.45	0.46	0.53	0.52	0.51	0.54	0.56	0.54
HY Debt vs. Treasury	0.93	0.90	1.00	1.00	1.00	0.99	1.00	0.99	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.90	0.89	0.93	0.91	0.89	0.88	0.87	0.95	0.98	0.94	0.89	0.87	0.89	0.88	0.85	0.77	0.79	0.82
Home Construction vs. SPX	0.38	0.42	0.46	0.44	0.48	0.49	0.51	0.53	0.49	0.41	0.37	0.36	0.41	0.27	0.25	0.26	0.27	0.37	0.37	0.39	0.40	0.38	0.39	0.35	0.32	0.34	0.33	0.31	0.36	0.51	0.51	0.43	0.48	0.47	0.43	0.42
Offense vs. Defense Sectors	0.17	0.18	0.24	0.26	0.32	0.28	0.26	0.21	0.24	0.26	0.18	0.22	0.24	0.27	0.29	0.33	0.29	0.31	0.27	0.27	0.25	0.25	0.24	0.18	0.18	0.21	0.23	0.24	0.17	0.28	0.38	0.37	0.38	0.32	0.32	0.27
Broker-Dealer vs. SPX	0.66	0.62	0.71	0.69	0.71	0.74	0.78	0.73	0.76	0.77	0.68	0.62	0.68	0.66	0.65	0.70	0.67	0.66	0.74	0.87	0.88	0.92	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.91	0.91	0.91	0.89	0.86	0.85
S&P Growth vs. S&P Value	0.20	0.19	0.20	0.20	0.22	0.16	0.14	0.12	0.13	0.12	0.08	0.12	0.11	0.11	0.11	0.12	0.12	0.15	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.09	0.13	0.12	0.13	0.12	0.12	0.10
Semiconductor vs. SPX	0.03	0.06	0.09	0.13	0.15	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.08	0.10	0.08	0.08	0.07	0.06	0.09	0.06	0.09	0.08	0.08	0.16	0.18	0.23	0.21	0.33	0.39	0.39	0.45	0.37	0.40	0.39
Consumer Disc. Vs. Staples	0.10	0.11	0.16	0.17	0.19	0.17	0.12	0.10	0.11	0.09	0.08	0.11	0.12	0.09	0.10	0.12	0.11	0.13	0.12	0.12	0.12	0.12	0.13	0.10	0.11	0.12	0.11	0.12	0.09	0.19	0.26	0.24	0.27	0.20	0.19	0.18
Small Cap vs. Utilities	0.14	0.13	0.17	0.20	0.25	0.24	0.22	0.23	0.29	0.29	0.26	0.29	0.27	0.27	0.29	0.30	0.29	0.30	0.31	0.30	0.29	0.31	0.31	0.26	0.23	0.25	0.30	0.29	0.26	0.29	0.33	0.34	0.35	0.30	0.32	0.30
Transports vs. Utilities	0.19	0.20	0.23	0.28	0.35	0.33	0.33	0.33	0.42	0.39	0.38	0.38	0.38	0.36	0.36	0.37	0.42	0.40	0.44	0.40	0.38	0.40	0.39	0.33	0.35	0.38	0.48	0.48	0.44	0.46	0.54	0.57	0.56	0.49	0.51	0.47
Equal Weight vs. Cap Weight	0.76	0.78	0.82	0.80	0.79	0.85	0.86	0.89	0.86	0.83	0.84	0.79	0.83	0.76	0.73	0.71	0.69	0.73	0.87	0.95	0.91	0.95	1.00	1.00	1.00	1.00	0.98	0.99	1.00	0.98	0.98	0.95	0.97	0.93	0.90	0.93
Small cap vs. Large Cap	0.33	0.33	0.38	0.35	0.38	0.37	0.38	0.42	0.42	0.41	0.39	0.42	0.42	0.36	0.34	0.33	0.28	0.34	0.41	0.45	0.44	0.49	0.52	0.47	0.49	0.49	0.46	0.44	0.40	0.43	0.44	0.44	0.48	0.45	0.44	0.48
Equities, vs. VIX	0.02	0.06	0.10	0.11	0.06	0.03	0.01	0.00	0.00	0.04	0.03	0.05	0.08	0.07	0.08	0.10	0.10	0.14	0.17	0.16	0.22	0.21	0.21	0.19	0.21	0.26	0.27	0.24	0.20	0.34	0.39	0.33	0.31	0.32	0.32	0.36
Aussie Dollar vs. Yen	0.70	0.79	0.76	0.77	0.72	0.70	0.66	0.64	0.68	0.71	0.69	0.76	0.78	0.77	0.79	0.79	0.78	0.81	0.83	0.80	0.80	0.83	0.81	0.77	0.74	0.82	0.83	0.81	0.78	0.74	0.73	0.76	0.78	0.78	0.76	0.75
Lumber vs. Gold	0.01	0.01	0.01	0.01	0.03	0.03	0.04	0.07	0.09	0.10	0.10	0.12	0.13	0.15	0.15	0.15	0.11	0.09	0.10	0.09	0.07	0.07	0.06	0.05	0.04	0.02	0.05	0.03	0.04	0.03	0.01	0.01	0.02	0.00	0.01	0.00
Copper vs. Gold	0.21	0.15	0.17	0.19	0.15	0.12	0.21	0.22	0.20	0.21	0.24	0.21	0.19	0.19	0.30	0.33	0.29	0.25	0.37	0.35	0.31	0.27	0.34	0.34	0.33	0.48	0.40	0.40	0.42	0.40	0.50	0.42	0.41	0.37	0.32	0.29
	_		_		_																									_	_	_	_	_		
AVERAGE	0.30	0.30	0.34	0.34	0.35	0.34	0.34	0.34	0.35	0.34	0.33	0.33	0.34	0.32	0.34	0.34	0.33	0.34	0.37	0.37	0.36	0.37	0.39	0.37	0.38	0.43	0.43	0.43	0.41	0.44	0.48	0.47	0.48	0.45	0.45	0.44



RISK APPETITE RATIO

Risk Appetite fell last week, moving slightly away from the 50th percentile we've been watching so closely in recent weeks. The relative performance of copper vs. gold and offense vs. defense sectors contributed to the overall decline of the indicator.



EQUITIES - S&P 500 DAILY



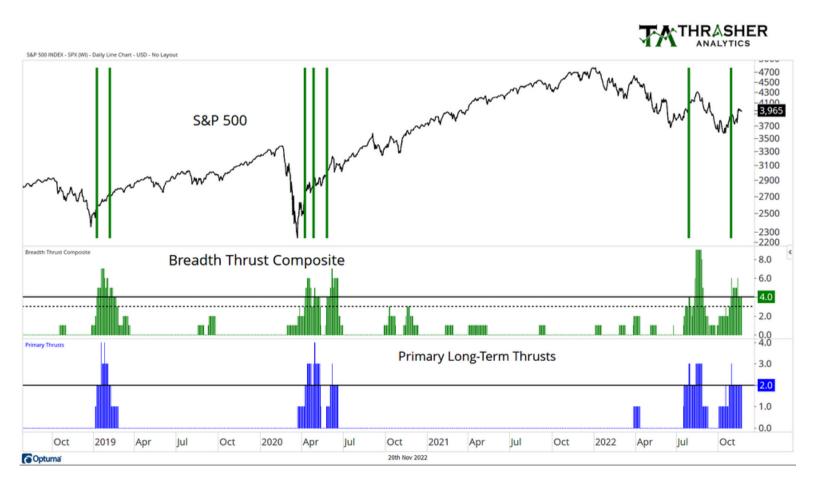
Stocks pulled back last week, finishing down 0.69%. Last week's letter noted the uptick in declining issues on the previous Friday, suggesting some short-term selling pressure may have been building. Overall, the market handled option expiration week well and we now move into a holiday-shortened week with U.S. markets closed Thursday and open for half of Friday. News should be light with the only major release being the minutes from the FOMC meeting. Volume will likely be low, giving way to opportunity for quiet price action or some low volume fireworks, we'll see which we get! For the daily chart, SPX remains below the 200-day MA and patience likely warranted until we see how price resolves the key moving average.



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.

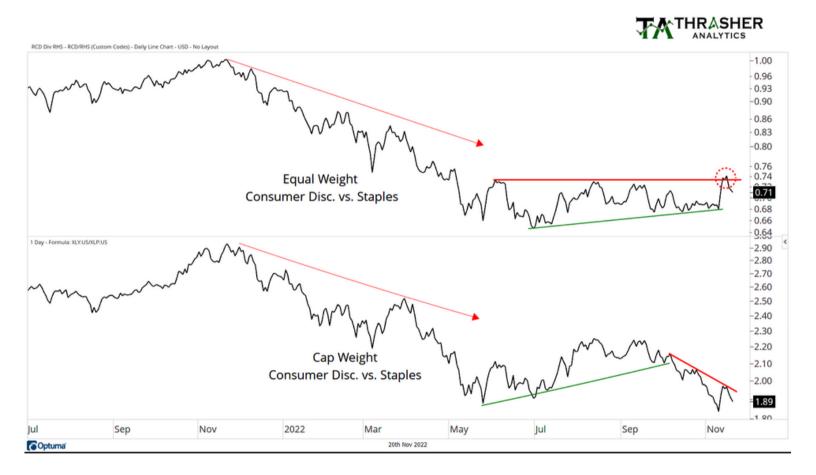
No change in the Breadth Thrust Composite.



EQUITY - CONSUMER RATIO



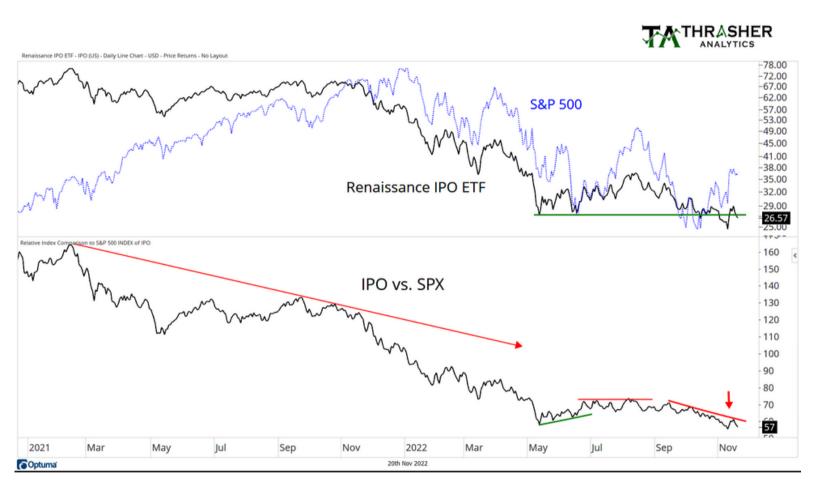
The equal weight version of the Consumer Ratio had been showing strength recently but has now failed to break out to a new multi-month high. Meanwhile, the weakness in mega caps like Tesla continue to weigh on the Cap Weight ratio, which has continued to decline.



EQUITIES - IPO STOCKS

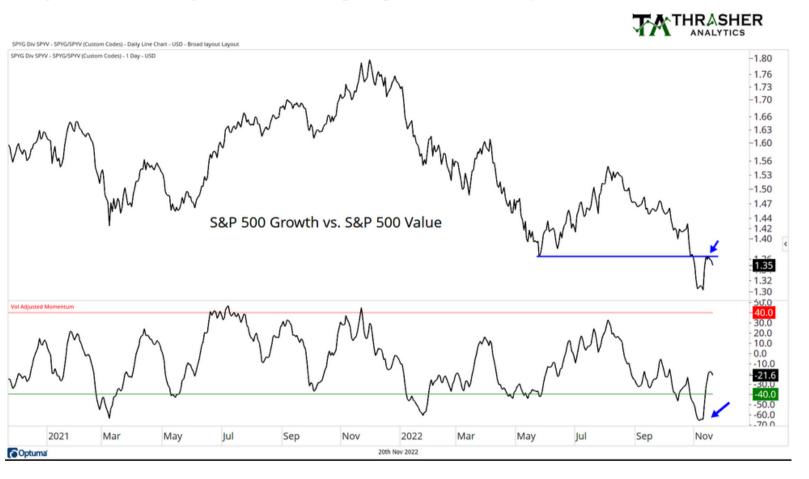


Recent IPO stocks also are seeing price weakness with the Renaissance IPO ETF (IPO) failing to move above the summer lows and its relative performance against the broad market sitting near YTD lows.



EQUITIES - GROWTH VS. VALUE

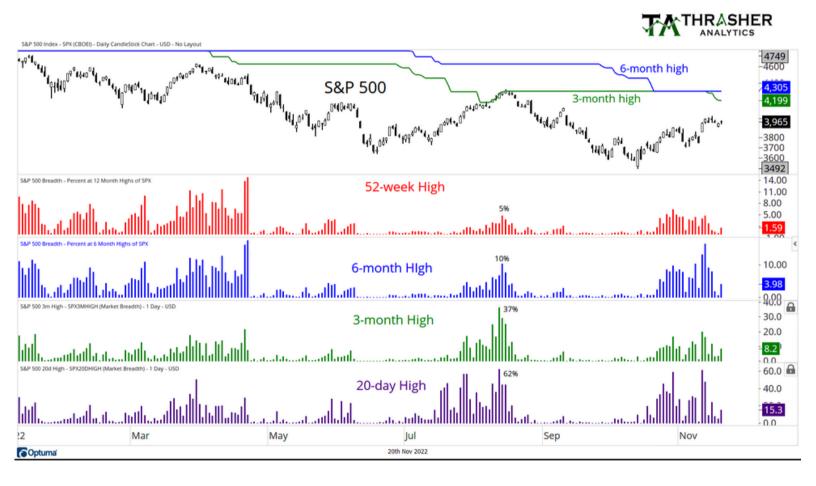
A couple of weeks ago I noted the contrarian setup in sentiment for the S&P 500 Growth factor. Since then, we saw a bounce but the ratio against Value is now failing at the prior summer low after coming off one of the lowest levels of momentum in over two years. The dash-for-trash helped bolster the growth factor but that short-covering induced rally didn't continue last week and value began showing strength. I'll be watching how this ratio shapes up as we move into year-end.



EQUITIES - NEW HIGHS



Turning the focus now back to the broad market, the new high list has been showing good signs of improvement. The Index isn't to a 3-month high yet but we're already seeing more 3- and 6-month highs by individual stocks. We'll get a better apples-to-apples comparison once/if the index reaches its own 3- month high which is roughly 6% away from where we closed on Friday.



EQUITIES - SMALL CAPS



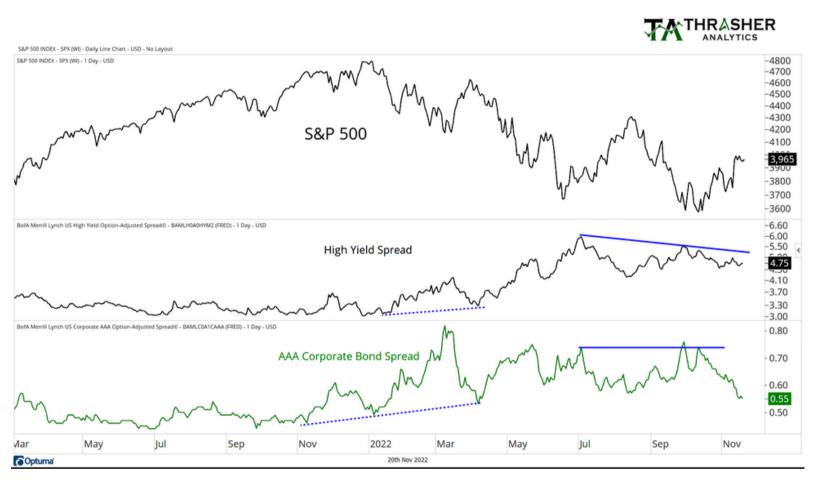
A few weeks ago I shared this chart of small caps approaching their 200-day moving average, noting we needed to see a character change by small caps seeing a breakout above the level that had been resistance earlier in the year. Since then, the picture has been messy. S&P 600 saw an initial break, then a backfill and closed the week marginally above the 200-day MA. Meanwhile, the Russell 2000 has failed to hold its own long-term average. Due to the lack of volume and shortened trading periods, this week likely won't give us a lot of insight here but I'll see keep an eye on how small caps perform.



EQUITIES - BOND SPREADS



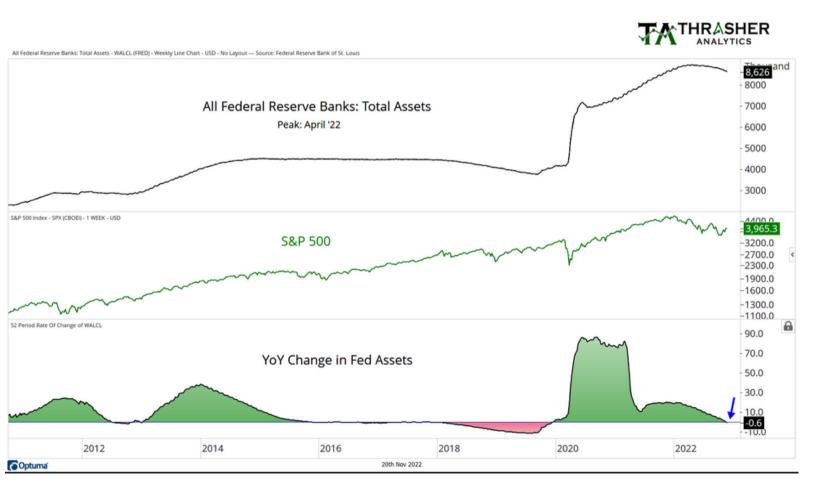
While stocks have rallied off the October low, we've seen both high yield and AAA bond spreads move lower. Notably, the drop in corporate bond spreads which have fallen to one of the lowest levels this year. This tells us the bond market isn't sniffing out any major risks at this point which is a good sign for equities.



EQUITIES - FED BALANCE SHEET

7%

Total assets at the Fed peaked in April and now has seen a year-over-year decline. The growth in assets as the Fed went on a buying spread of quantitative easing for the better part of a decade helped support risk assets and move equities higher. In 2018 we saw stocks stumble as that support was pulled and the market began to fear Powell would be too aggressive in raising rates. The market hasn't had a lot of practice since the Financial Crisis of operating without QE. In 2018 stocks got spooked by the idea the Fed wouldn't be as supportive as it had been and raise rates aggressively. Powell bent his knee to Wall St. and the party went on for a few more years. While there may not be immediate implications of the YoY move from positive to negative, what once was a tailwind for risk assets now begins to turn to a possible headwind.



SECTOR PERFORMANCE

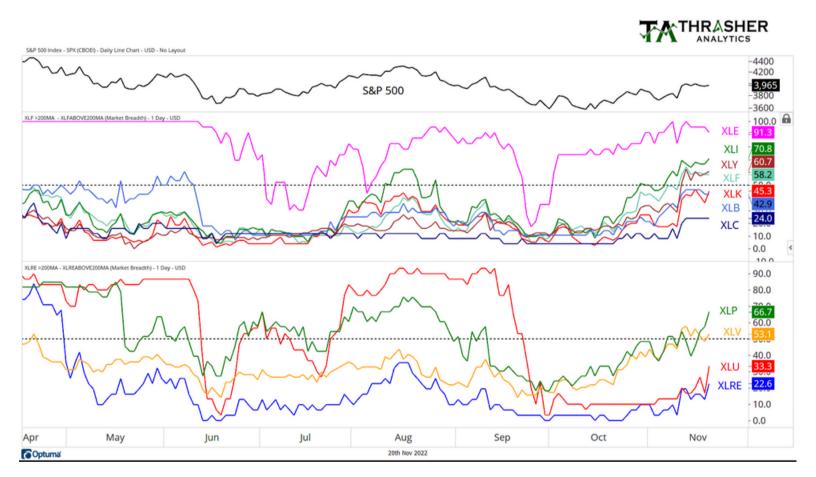


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- Ticker	Name	2022	YTD Rel% to SPX	1W %	1M %≁	3M%	6M%	% from 52Wk High	% from 52Wk Low	% From 20MA	% From 50MA	% From 200MA
- Index								AVG: 17.27%	AVG: 14.63%			
DJI	Dow Jones Industrial Average									2.89%	8.22%	3.83%
SML	S&P SmallCap 600 Index											0.47%
MID	S&P Midcap 400 Index						4.80%		14.85%	2.89%		1.47%
SPX	S&P 500 INDEX	-16.80%									4.62%	-2.51%
NDY	NASDAQ 100 Index	-28.45%										-7.73%
- Sectors			AVG: 10.21%					AVG: 17.36%			AVG: 5.09%	
XLB	SPDR Materials Select Sector Fund ETF					-0.82%						0.76%
XLI	SPDR Industrial Select Sector Fund ETF							7.82%				5.42%
XLE	SPDR Energy Select Sector Fund ETF		98.44%									16.85%
XLF	SPDR Financial Select Sector Fund ETF		8.87%									2.17%
XLK	SPDR Technology Select Sector Fund ETF		-8.69%		8.82%					3.83%		-4.76%
XLP	SPDR Consumer Staples Select Sector Fund ETF								12.85%			1.41%
XLRE	SPDR Real Estate Select Sector Fund ETF						-9.28%		14.87%			-10.56%
XLU	SPDR Utilities Select Sector Fund ETF	-3.81%										-2.95%
XLV	SPDR Health Care Select Sector Fund ETF		14.80%									3.39%
XLC	SPDR Communication Services Select Sector ETF											-14.70%
XLY	SPDR Consumer Discretionary Select Sector Fund							34.44%	6.89%			-11.03%

SECTOR - BREADTH 200-MA

Big improvements in staples, which now have the third most stocks above the 200-day moving average. While Consumer Disc. has had sub-par performance, the majority of its stocks are also above the 200-day MA - more on this later in the letter.





SECTOR - XLY



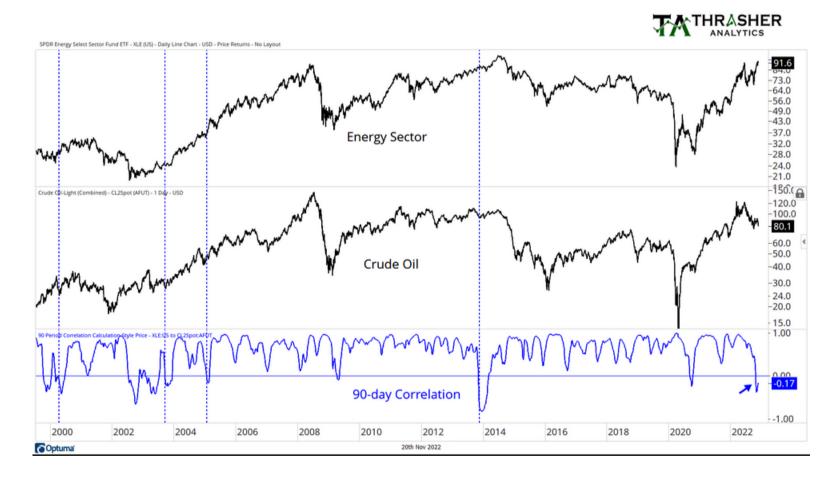
Amazon makes up 19% and Tesla accounts for 15% of XLY, and their poor price action has been a weight around the neck of the sector ETF. However, the rest of the holdings appear to be doing much better with 60.7% of stocks above the 200-day MA and nearly 88% are above the 50-day MA, while the ETF itself still isn't above either price level. In my note on sentiment, I've discussed the spread in sector vs. individual stock sentiment for this sector and the breadth data tells the same story. Many of the non-Amazon/Tesla holdings are showing strength but you wouldn't know it based on the XLY.



SECTOR - XLE - 1



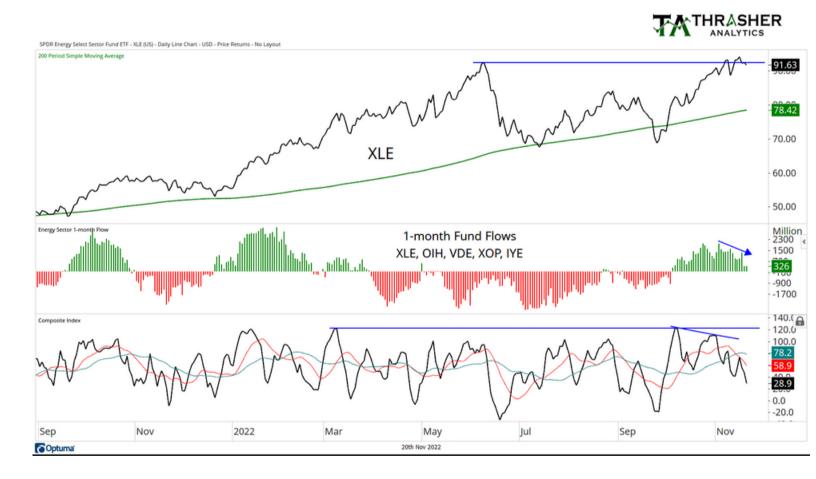
Crude oil has been moving lower but energy stocks have bucked that trend, holding XLE above \$90 and testing its most recent prior high. The 90-day correlation between the commodity and the sector has gone negative, something we don't see happen very often. I've drawn dotted vertical lines on the prior instances where correlation went negative as a result of crude going lower and stocks going higher. Since 2000 there's just 4 such examples and what stands out on the chart below is that we saw the strength in energy stocks hold firm and crude oil play 'catch up' with a bounce higher for at least a few months. What I'm keeping a close eye on is that possible double top in XLE, energy bulls want to see a breakout hold above the early June high, which the ETF closed just slightly below on Friday.



SECTOR - XLE -2



Here we can see a better look at that possible double top in XLE. I've also included the 1-month flows of the major energy ETFs (XLE, OIH, VDE, XOP, and IYE). The last time XLE was above \$90 and then moved to its 200-day MA, fund flows were firmly negative as investors didn't trust the latest strength in the sector. The 200-day MA held as support and we now have another test of the \$90 level but this time flows are still positive. They've come down from their peak but have not gone negative nor been as bearish as they were in June. Looking at the bottom panel, momentum saw a peak against the prior high in the Composite Index that then turned into a bearish divergence. Momentum is more supportive of a possible double top than I'd like to see and still has runway left before it gets to 0 or a prior turning point.



COMMODITY - CRUDE OIL



Now looking at crude oil by itself, we can see the failed break at \$110 and the move lower to \$80/barrel on this weekly chart. Producers have now gone net-short the commodity for the first time since the Covid Crash. Setting that crisis aside, the prior moves to net-short had mixed results for crude. In 2015 we saw oil continue lower and in 2017 we saw a final low a few weeks later that resulted in Producers going back to net-long. The example that most resembles today looks more like 2015 as Money Managers were also short at that time vs. being net-long in 2017. If crude continues lower, I'm watching the prior 2018 high as possible support.



Daily - Watch List - No Layout			0	Daily - Watch List - No Layout			0
Code	% Bullish 🔺	5-day MA	History 🎛	Code	% Bullish 🔺	5-day MA	Histor
Coffee DSI	9	10	AND DECK	Euro DSI	46	49	
Bitcoin DSI	11		All March and a low	Platinum DSI	50	56	unit, a
VIX DSI		30	the second second	Natural Gas DSI	50	46	
Nasdaq DSI	25	29	And the sub-	Copper DSI	51	62	
EuroDollar DSI	26	24	We have a set	Silver DSI	52	58	. M. M
Australian Dollar DSI	27	31	a film and a film	Gold DSI	52	59	A straight of
Wheat DSI	28	31	and a state of the	Gasoline DSI	52	61	Man Allen
Yen DSI	30	35	and the second second	Corn DSI	53	51	HALF AND A
Swiss Franc DSI	31	40	A Marian	US Dollar DSI	55	51	the second second
SPX DSI	31	31	A AND A REAL PROPERTY.	Cotton DSI	55	62	11-1-1
5YR DSI	31	30	In the second	Soybean DSI	57	59	HI MAN
CRB Index DSI	32	38	Las a des habes	Nikkei DSI	57	59	A STATE OF
10Y DSI	33	31	Martin and A	Heating Oil DSI	58	60	MA ANA
Palladium DSI	34	42	A MANAL A	New Zealand Dollar DSI	68	70	
Crude Oil DSI	40	51	The states in the	Orange Juice DSI	69	65	
Lumber DSI	41	40	1. 1. 1. A.	Lean Hog DSI	72	72	1000
Cocoa DSI	43	48	and the second	Cattle DSI	76	74	an a
British Pound DSI	45	44	1.1.1	Sugar DSI	79	80	ALL ADDE
				Mexican Peso DSI	79		

Source: trade-futures.com



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THRASHER

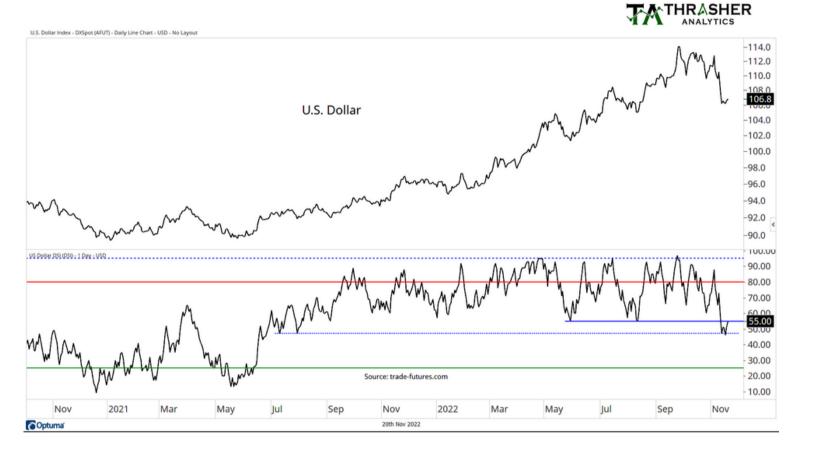
ANALYTICS Gold Futures - GC2Spot (AFUT) - Daily Line Chart - USD - No Layout -2070.00 -2040.00 -2010.00 M -1980.00 Gold -1950.00 -1920.00 -1890.00 -1870.00 -1850.00 -1830.00 -1810.00 -1790.00 770.00 1,754.4 -1730.00 -1710.00 -1690.0 < -1670.00 -1650.00 -1630.00 -1610.00 iold DSI (DSI) - 1 Day - USD 90.00 80.00 MM 70.00 Mh M 60.00 52.00 40.00 30.00 Source: trade-futures.com 20.00 10.00 Sep Nov 2021 Mar May Jul Sep Nov 2022 Mar May Jul Sep Nov Optuma 20th Nov 2022





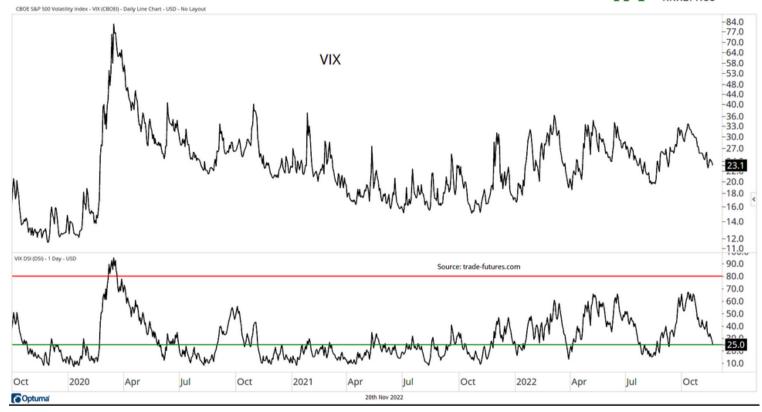






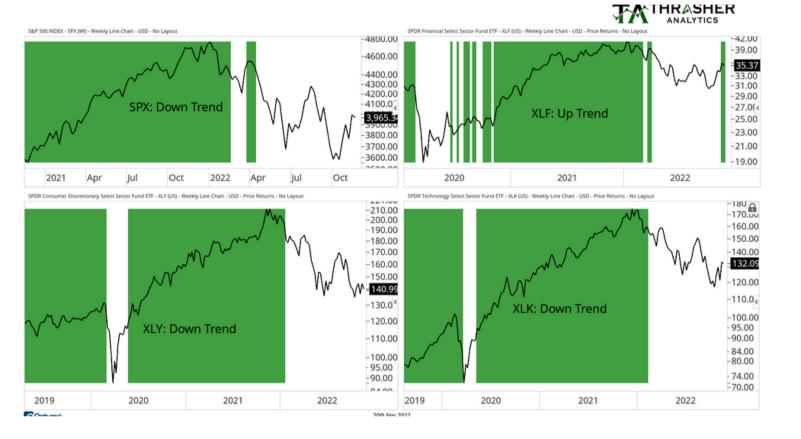






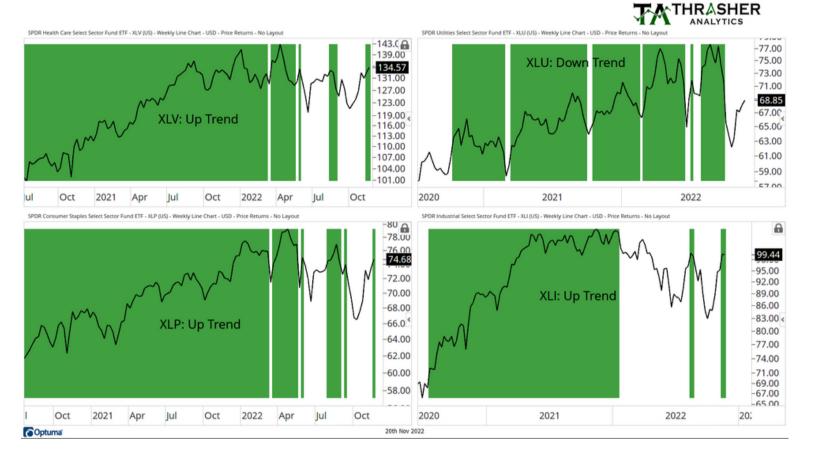
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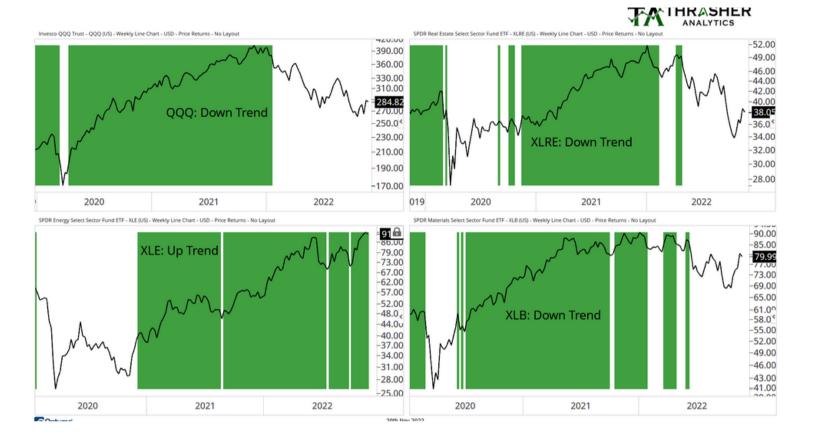
TREND MODELS





TREND MODELS







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