October 2022 Technical Outlook

fundstrat

Fundstrat Global Advisors
150 East 52nd St, 3rd floor
New York, NY 10022

Mark Newton, CMT
Head of Technical Strategy
mark.newton@fundstrat.com
Twitter: @MarkNewtonCMT

For Reg AC certification and other important disclosures see Slide 48.

Conclusions

- Stock indices might encounter volatility into early November but are likely to bottom and rally into mid-to-late December. Trends remain bearish, but overly pessimistic sentiment combined with better breadth and sector participation gives some reason for hope on a larger Q4 bounce.

- Treasury Yields are approaching short-term peaks that likely take yields down into December, directly coinciding with a stock market rally. The negative correlation to Stocks remains quite strong. Pullbacks in Yields into next year looks likely.

- US Dollar index getting stretched based on multiple metrics and has begun to show evidence of daily/weekly momentum wavering a bit on this latest surge. A rolling over in DXY also is a real possibility from October-December but should prove short-lived with a push up into next Spring/Summer providing a larger USD Peak.

- Commodities should be close to bottoming out which likely should happen in late October/early November with Energy as well as Precious metals while DXY rolls over.

- Cryptocurrencies have diverged somewhat positively from Equities since September but remain largely neutral in the short run. Any decline in Stock indices into early November would likely represent a final pullback for Cryptocurrencies before a rally into December.

Indicators

TREND	Bull/Bear	Support	Resistance	Conclusions
SPX	Bear	3600, 3491, 3200	3800, 4200	Trend bearish but seasonal bounce from Nov into December likely
QQQ	Bear	254, 239, 227	278, 294, 303	Trend bearish but exhaustion now present vs SPX; Rally likely in Nov
TNX	Bull	3.84, 3.30	4.15, 4.20	Quite extended but nearing its Fall peak; Pullback likely Nov-Dec
DXY	Bull	110, 108	113.50, 114.77	Gradual signs of waning momentum; Pullback likely Nov-Dec
Gold	Bear	1615, 1600	1680, 1725	Gold should be close to bottoming and bounce into Dec
Crude	Bull	81.30, 76	93.60, 100	Crude close to bottoming; Rally likely into year-end 2022
Bitcoin	Neutral	18,157, 13.5-14k	20k, 22.8k	Very lackluster consolidation but no evidence of bottoming. Lows in Nov

Cycles/Seasonality
Gann Mass Pressure - Peak possible at/near 10/21 followed by decline to 10/26, but upward bias likely into mid-December
Cycle Composite- Rally should have started mid-October and carries SPX higher through year-end
November Mid-term Year Returns- +1.0% compared with Non-Mid-term Nov returns of +0.3% since 1871

Sentiment	
Equity Put/call ratio (10-day)	0.71
Total Put/call ratio (10-day)	0.98
TRIN (10-day)	0.96
VIX (10-day)	31.32
AAII	Bears 55.9%, Bulls 20.4%
Inv. Intellience	Bears 55.1%, Bulls 25.0%
Fear & Greed	29/100 - Fear

Breadth/Momentum	
% SPX > 20-day m.a.	28.03%
% SPX > 50-day m.a.	11.33%
% SPX > 200-day m.a.	15.17%
RSI-Daily SPX	46.35
RSI-Weekly SPX	51.30
% within 20% of 52-wk highs	26.44%

SPX – Daily- Rally has neared the all-important early October highs and 3807 will be important for SPX (3820-S&P Futures) Until exceeded, bounces remain part of larger downtrends

Source: Bloomberg

Key Positives to consider

10/13 Reversal happened in a key time zone for potential trend change and might extend into October expiration before late October weakness

Huge upside volume into Advancing vs Declining stocks was a definite positive at recent lows.

Enormous low to high range from 10/13 was a technical positive following the recent churning, and pullbacks into early November should provide possible more attractive risk/reward areas to buy dips.

Momentum and breadth had failed to follow prices down under September lows over the last week. This positive divergence was an important short-term bullish technical sign. Daily and weekly divergence in momentum indicators like RSI and MACD are present.

Sentiment had recently been getting worse and worse, with Equity Put/call ratio reaching extremes while VIX showed backwardation after trading up near the highs of its range

DeMark signals have “started” to be confirmed on various Equity indices, but both daily and weekly (and in some cases, Monthly) exhaustion signals using TD Sequential and TD Combo are in place on many Equity indices along with Treasuries and major currencies.

Sector performance over the last week had shown Technology weakness to have disguised some of the strength shown by sectors such as Industrials (Transports in particular) along with Financials, and Energy. All of these look more positive than Technology at present which will need a Treasury rally to gain some traction.

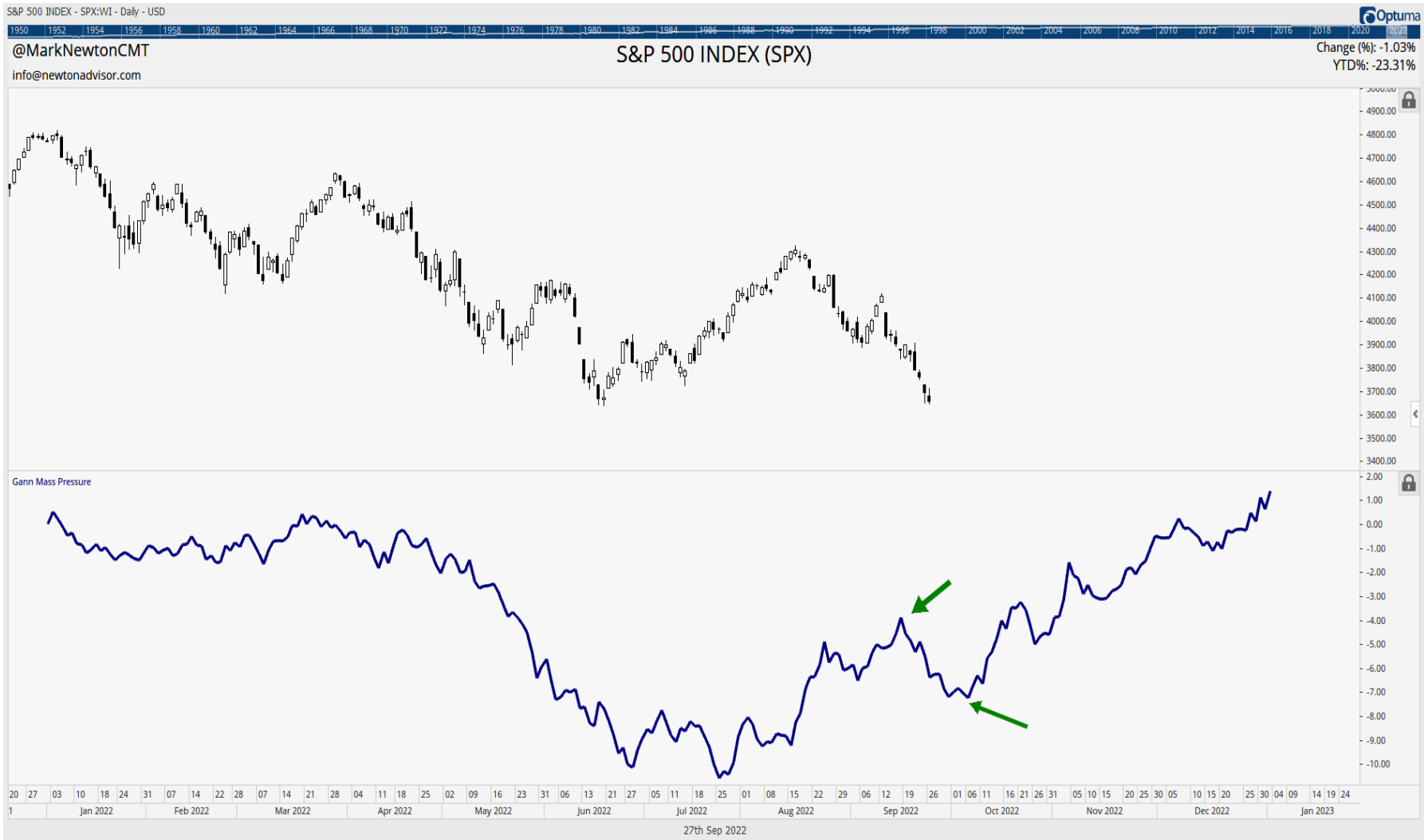
Cycles should bottom by first week in November based on Mass Pressure index into mid-December while my cycle composite from the Foundation of the Study of Cycles has already bottomed,and is positive into December. Both show a good likelihood of a Q4 rally once November gets underway.

High Yield corporates have largely diverged positively lately and did not decline to new lows despite recent pullback in Equity indices like $SPX and $QQQ under September lows.

Mid-term seasonality favors strong performance of 1.0% in November much stronger than normal November of +0.3%.

Defensive groups like Utilities and REITS have underperformed dramatically in recent weeks and remain the worst performing sectors over the last month. This can be seen as a positive, as these groups have actually underperformed Technology, and historical huge underperformance in these groups has occurred near former lows in 2008 and other bear market lows.

Cycle Composite from Mass Pressure Index shows a turn back higher which should accelerate post Nov 10

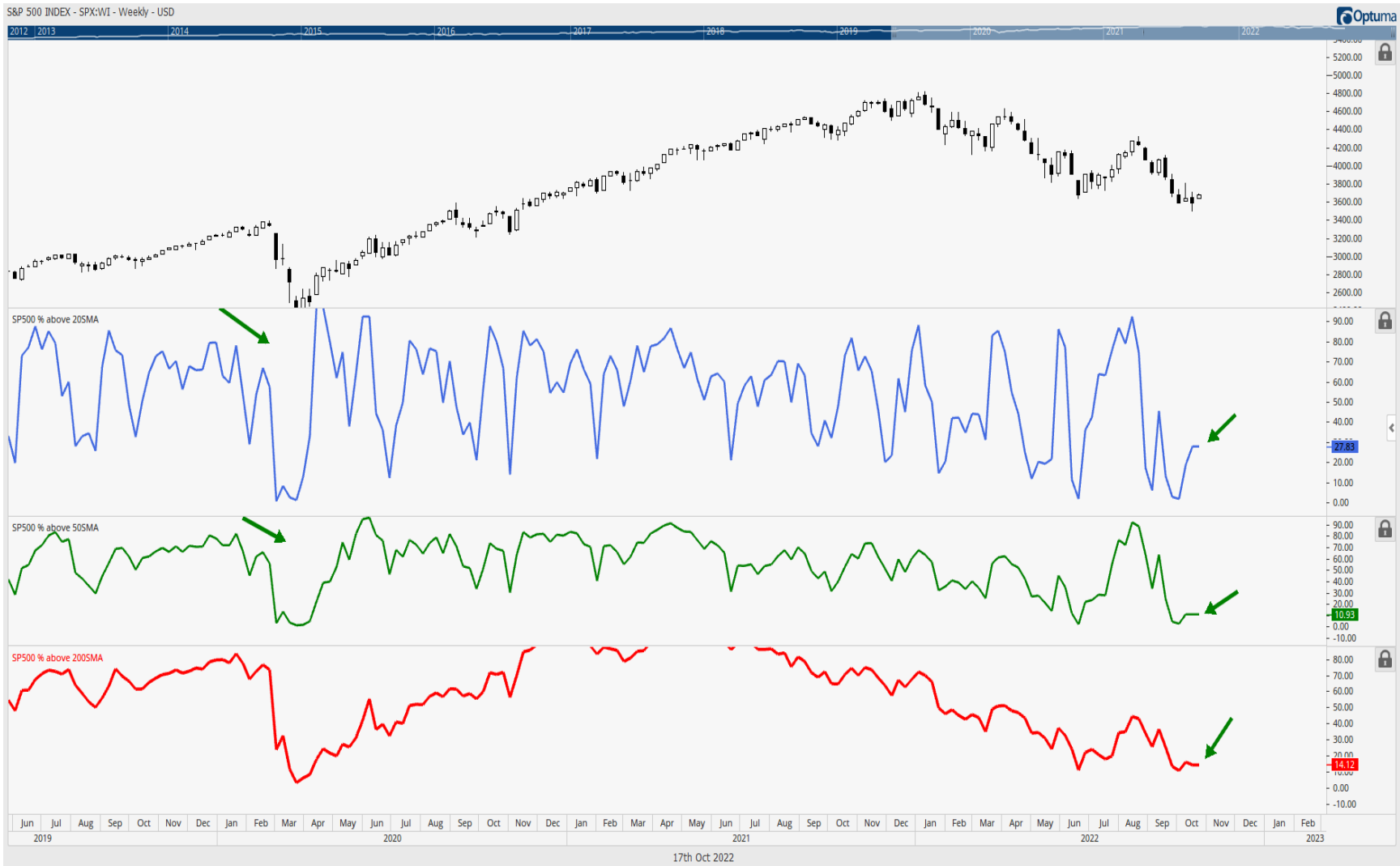


Source: Optuma

Daily NYSE Cycle composite shows prices bottoming in October and rallying into mid-December- This composite is slightly different from the Mass Pressure index, with late October more important

Source: Foundation for the Study of Cycles

Breadth has bounced sharply off late Sept/early Oct lows



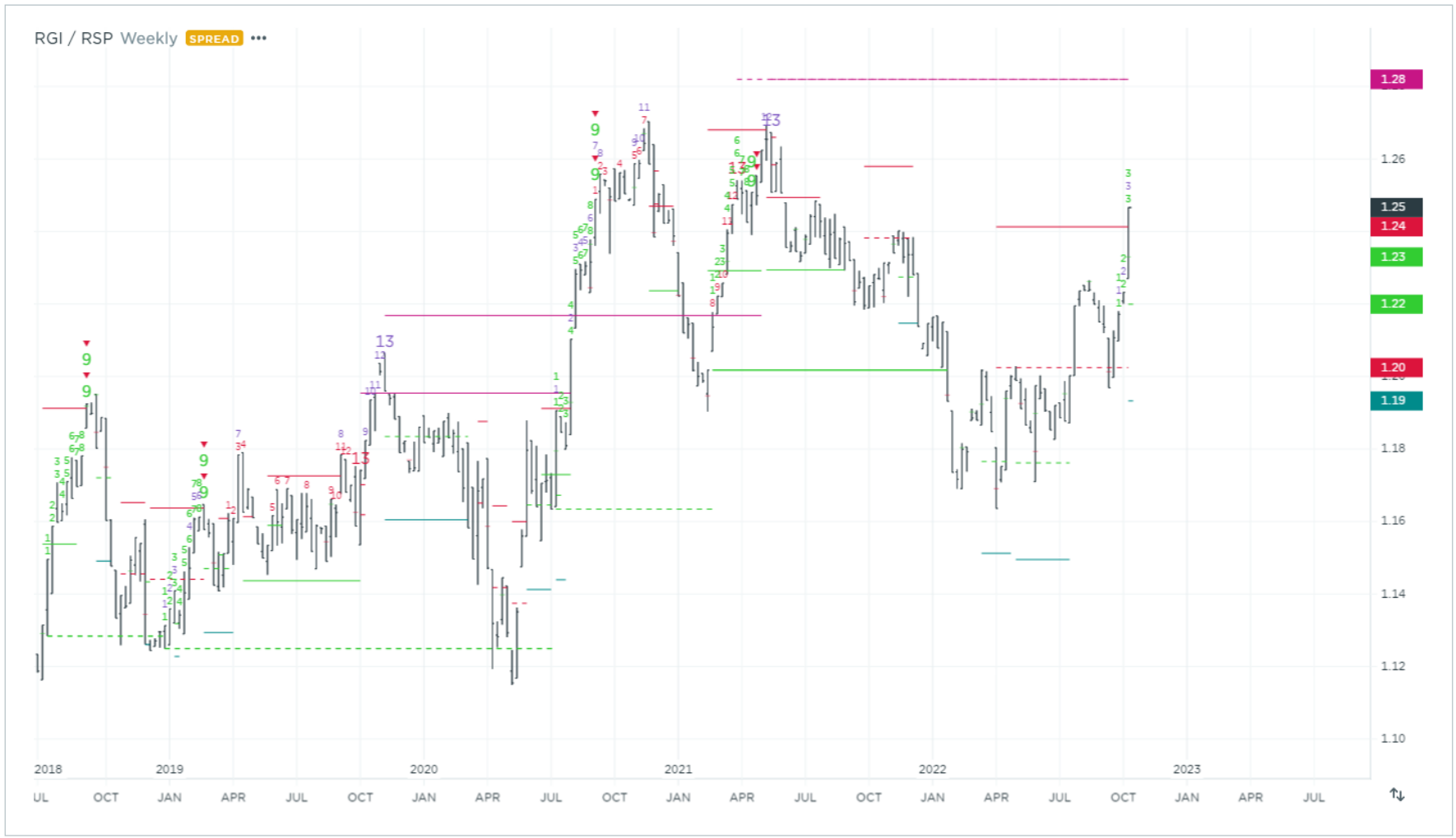
Source: Optuma

Sector-wise, the one-week performance shows some excellent participation in Financials and also into Industrials

Code	Name	Change (%)	1W%	1Mo %	3Mo %	YTD%
XLF	SPDR Financial Select Sector Fund ETF	1.60%	6.39%	-2.30%	2.02%	-17.29%
RYF	Invesco S&P 500 Equal Weight Financials ETF	1.37%	4.53%	-2.92%	1.61%	-15.81%
EWCO	Invesco S&P 500 Equal Weight Communication Services ETF	0.00%	4.31%	-5.56%	-8.91%	-29.57%
XLC	SPDR Communication Services Select Sector ETF	0.75%	4.15%	-4.74%	-9.90%	-36.06%
XLK	SPDR Technology Select Sector Fund ETF	0.85%	3.81%	-5.69%	-7.41%	-30.19%
XLI	SPDR Industrial Select Sector Fund ETF	2.41%	3.79%	-0.59%	2.73%	-16.19%
SPX	S&P 500 INDEX	1.14%	3.65%	-3.96%	-2.89%	-21.95%
RGI	Invesco S&P 500 Equal Weight Industrials ETF	2.14%	3.42%	-0.72%	2.57%	-16.59%
RYH	Invesco S&P 500 Equal Weight Health Care ETF	0.82%	3.39%	-1.59%	-1.49%	-17.54%
RCD	Invesco S&P500 Equal Weight Cons Discret ETF	1.79%	3.39%	-5.30%	-1.42%	-29.41%
XLV	SPDR Health Care Select Sector Fund ETF	0.56%	3.34%	-0.67%	-0.67%	-10.15%
XLE	SPDR Energy Select Sector Fund ETF	0.87%	3.16%	4.53%	16.86%	47.73%
XLB	SPDR Materials Select Sector Fund ETF	1.96%	3.16%	-2.26%	-1.33%	-21.37%
XLRE	SPDR Real Estate Select Sector Fund ETF	1.31%	2.99%	-12.04%	-12.59%	-31.50%
RTM	Invesco S&P 500 Equal Weight Materials ETF	2.16%	2.97%	-2.59%	-2.51%	-17.08%
RYT	Invesco S&P 500 Equal Weight Technology ETF	1.26%	2.93%	-7.30%	-5.58%	-29.40%
XLY	SPDR Consumer Discretionary Select Sector Fund ETF	1.38%	2.93%	-9.65%	-1.76%	-30.20%
EWRE	Invesco S&P 500 Equal Weight Real Estate ETF	1.22%	2.93%	-10.78%	-10.43%	-29.26%
XLP	SPDR Consumer Staples Select Sector Fund ETF	1.30%	2.76%	-3.06%	-4.26%	-10.32%
RYE	Invesco S&P 500 Equal Weight Energy ETF	0.99%	2.73%	2.99%	15.04%	45.07%
RHS	Invesco S&P 500 Equal Weight Consumer Staples ETF	1.17%	2.15%	-1.62%	-3.52%	-5.63%
RYU	Invesco S&P 500 Equal Weight Utilities ETF	1.84%	1.93%	-12.55%	-4.30%	-6.60%
XLU	SPDR Utilities Select Sector Fund ETF	1.83%	1.52%	-13.24%	-6.08%	-9.74%

Source: Trading View

Industrials have strengthened sharply of late, owing to outperformance from not only Aerospace and Defense given geopolitical tensions but also Transportation stocks, particularly Trucking- Below is the ratio of RGI to RSP, Invesco's Equal-weighted Industrials ETF



Source: Symbolik

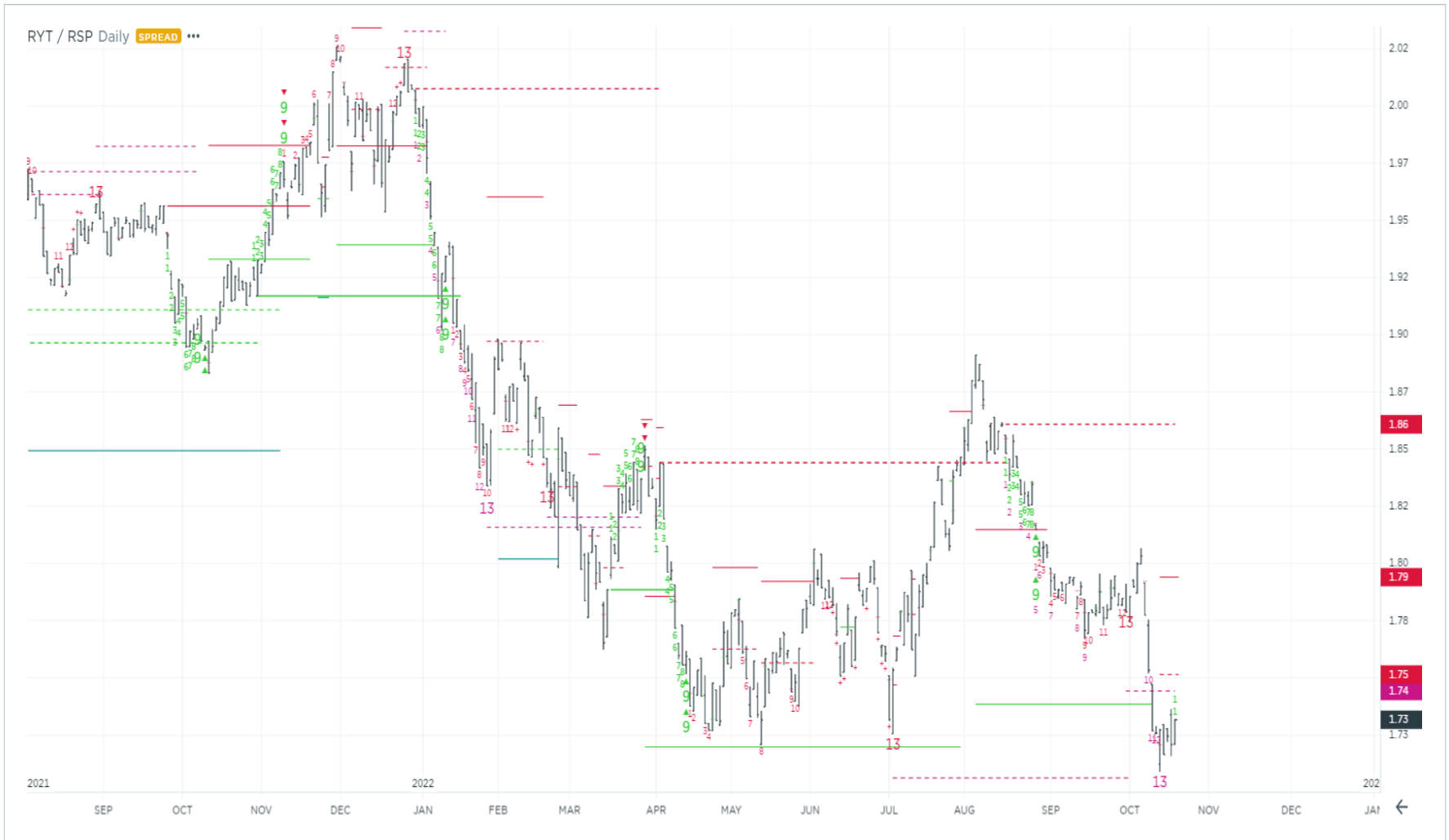
Energy still showing stellar technical outperformance vs S&P in Equal-weighted terms (Invesco's Equal-weighted Energy ETF, vs Equal-weighted S&P 500 (RYE vs RSP) shown below- Note the long-term breakout going back 10 years and minimal consolidation before turning back higher

Source: Symbolik

Equal-weighted Financials vs. SPX- Meaningful recent outperformance as yields have risen

Source: Symbolik

Technology should start to outperform- Tech's weakness vs SPX has been very extreme over the last couple weeks, largely camouflaging the extent to which Industrials, Financials, Discretionary have strengthened. DeMark on Ratio charts are now confirming "13" buy signals

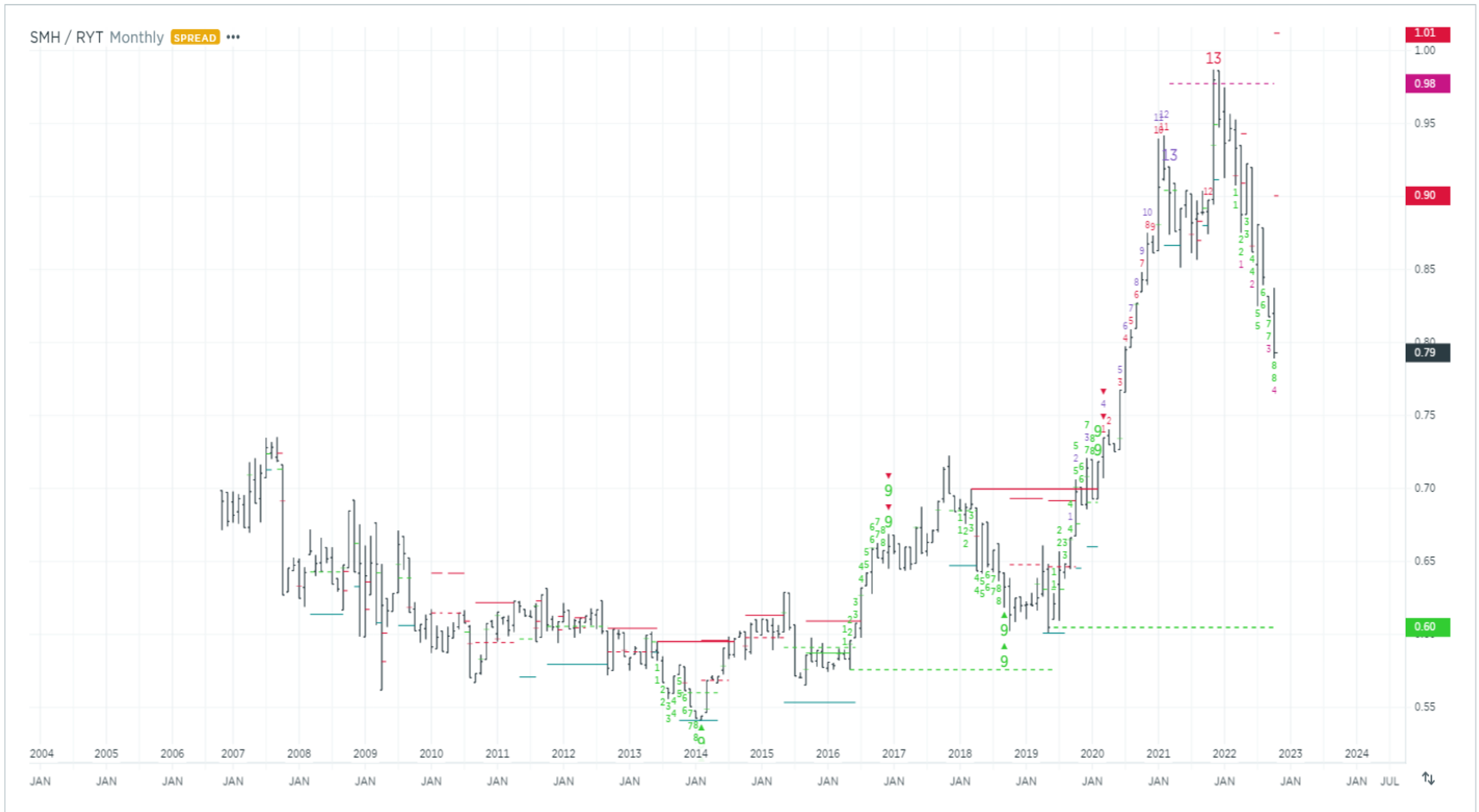


Source: Symbolik

My cycle composite for AAPL turns up sharply from mid-October- This could allow for a nice bounce in AAPL at a time when few expect it

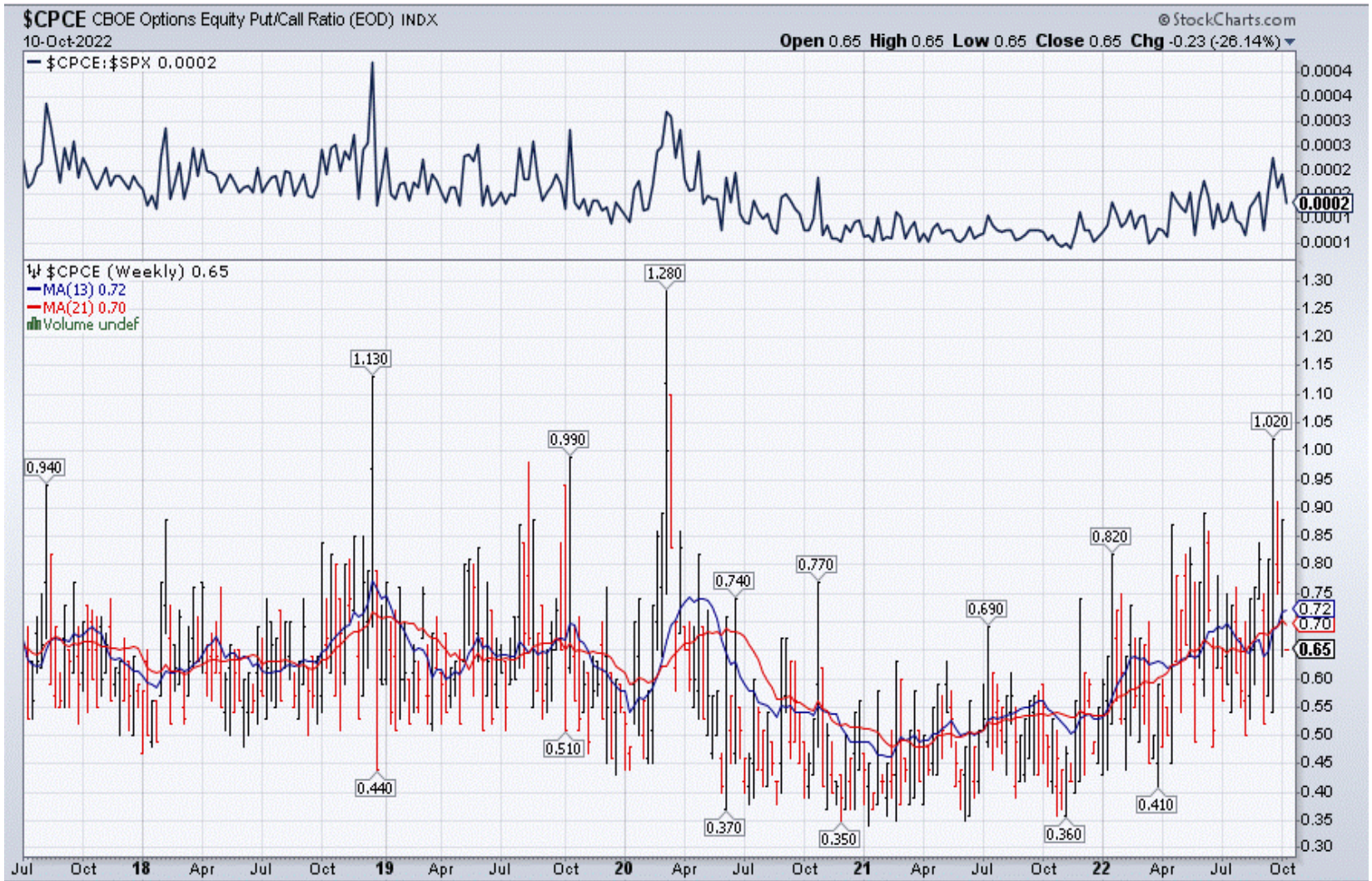
Source: Foundation for the Study of Cycles

Semiconductors vs Technology and also vs S&P now show evidence of downside exhaustion on monthly charts which should limit further downside on Semiconductors- Monthly Ratio chart of SMH vs RYT



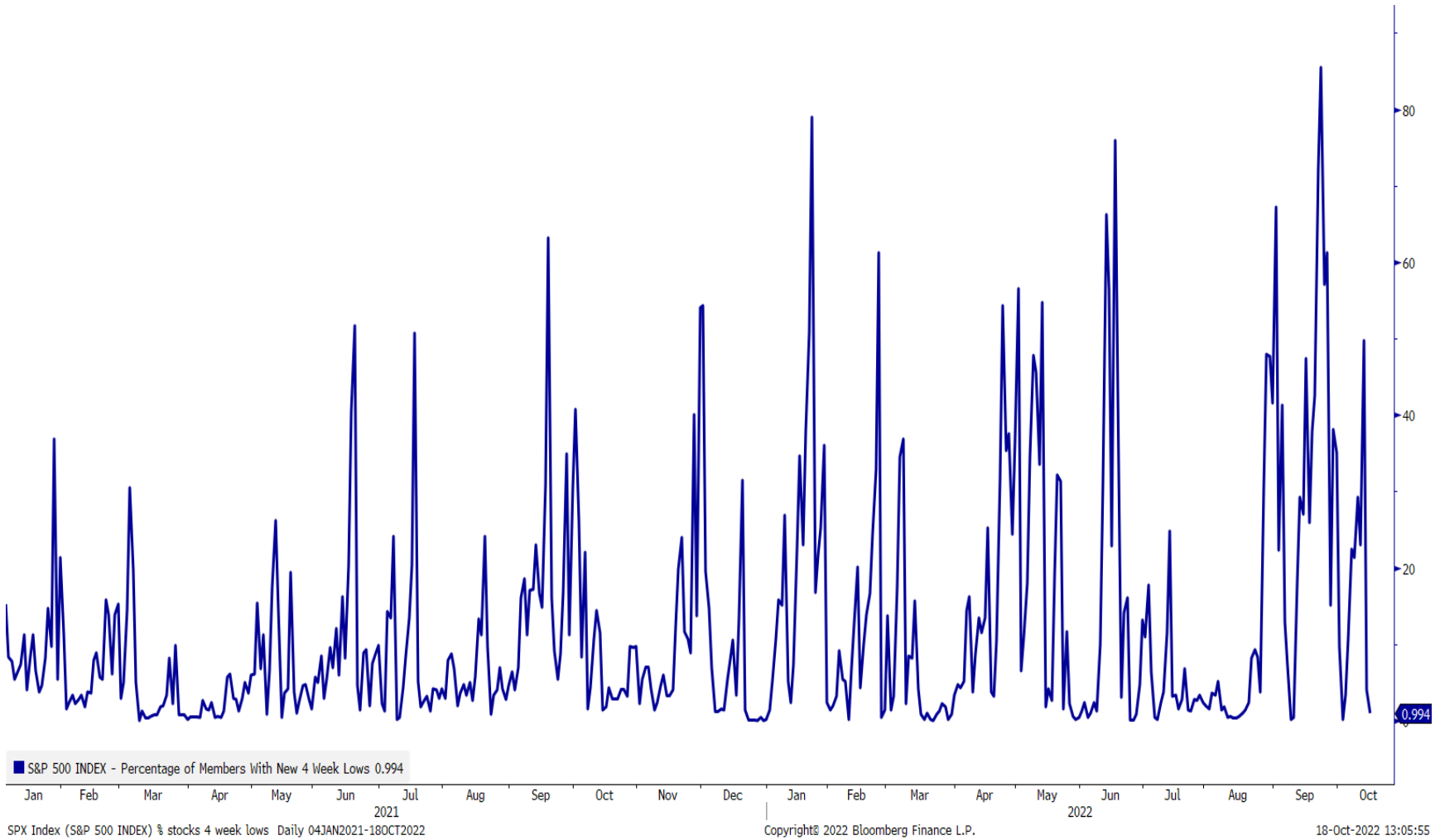
Source: Symbolik

Equity Put/call ratio now showing 13-week moving average up above 0.70, as high as what marked former market bottoms from 2018 and 2020



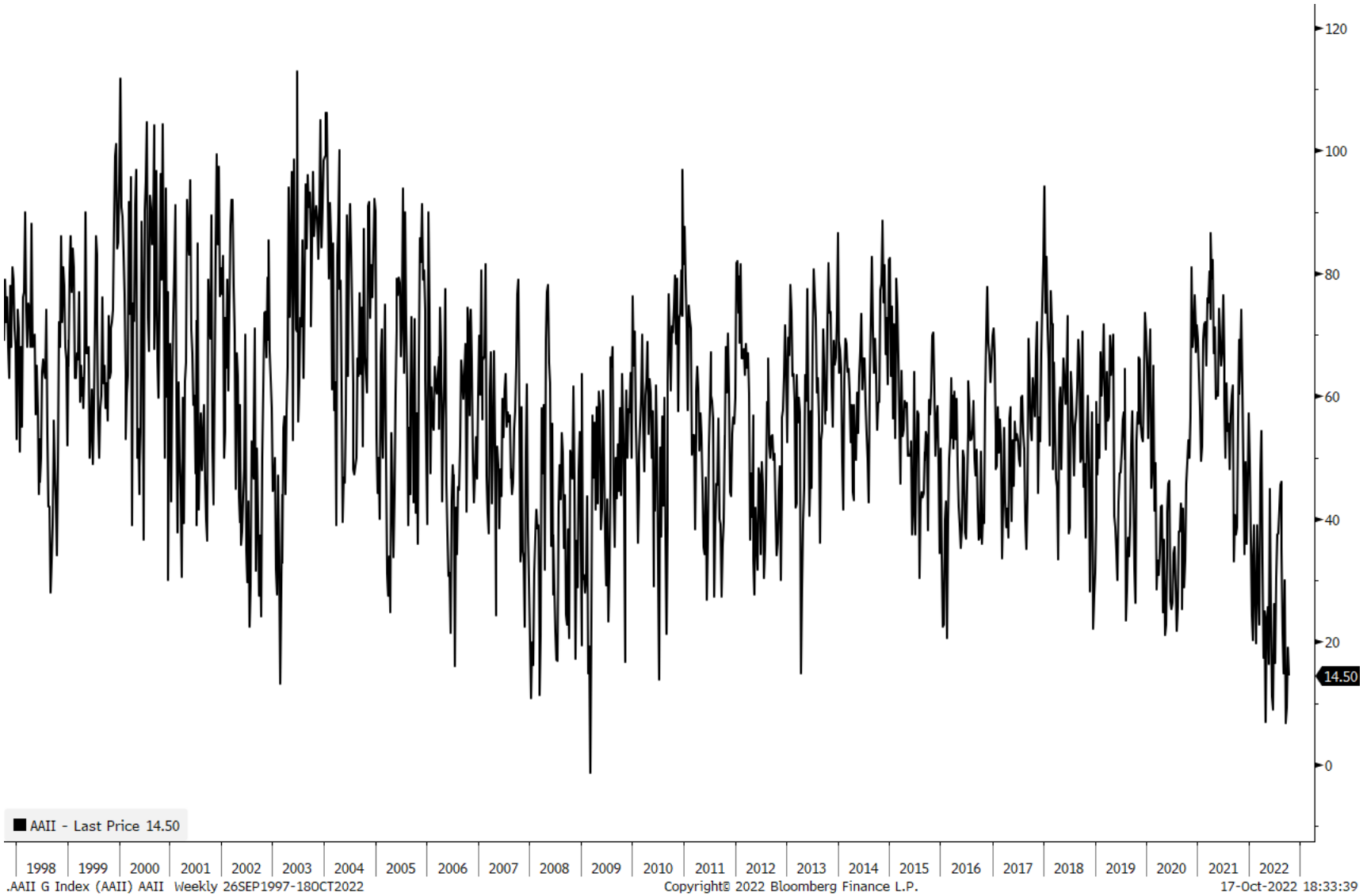
Source: stockcharts.com

S&P 500 - % Members with New 4 Week Lows- This has fallen off dramatically over the last week after diverging in October from September peaks. This is a bullish sign.



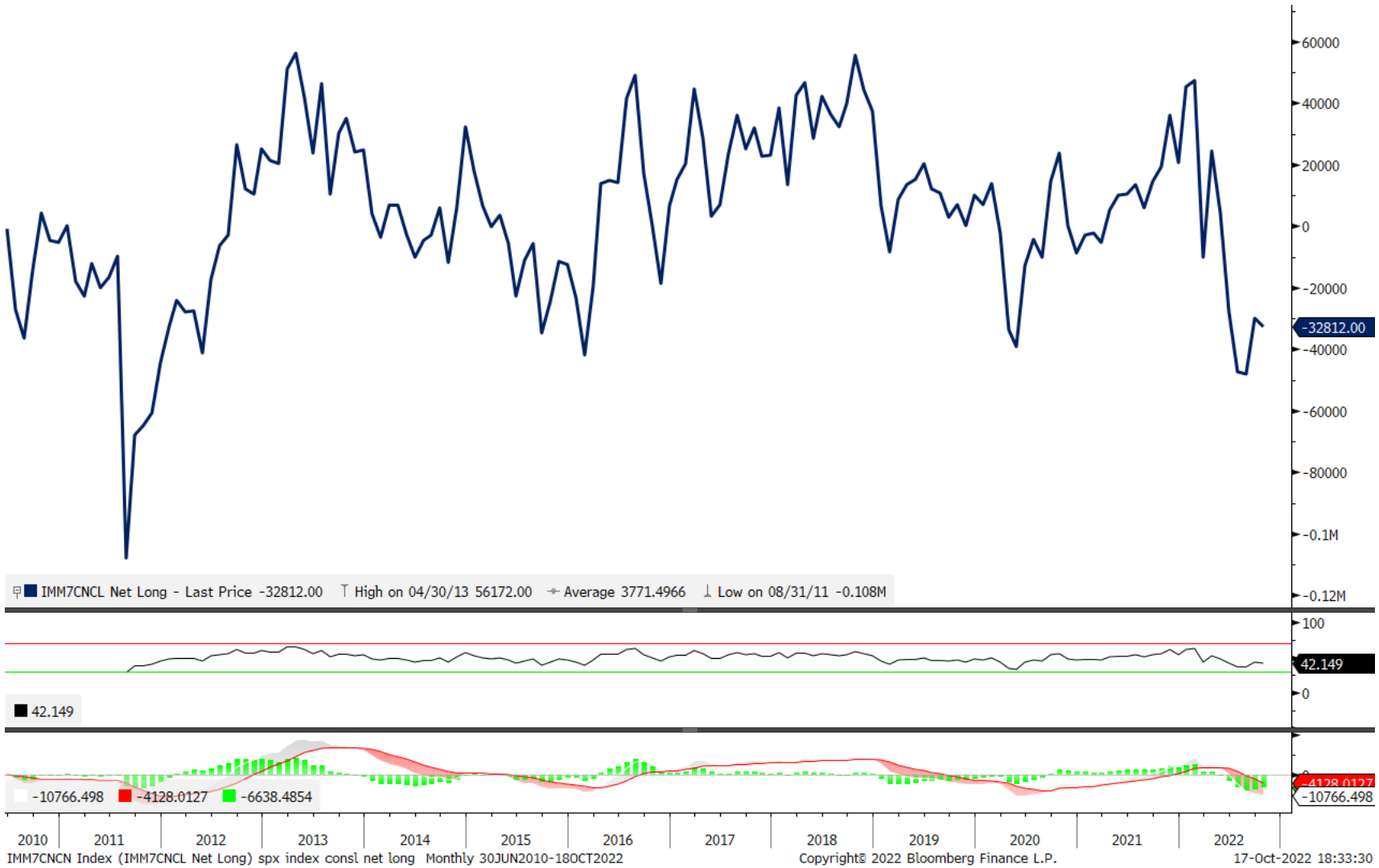
Source: Bloomberg

AAII- More than 35% spread between Bears and bulls taking this down to near the lowest levels since 2009



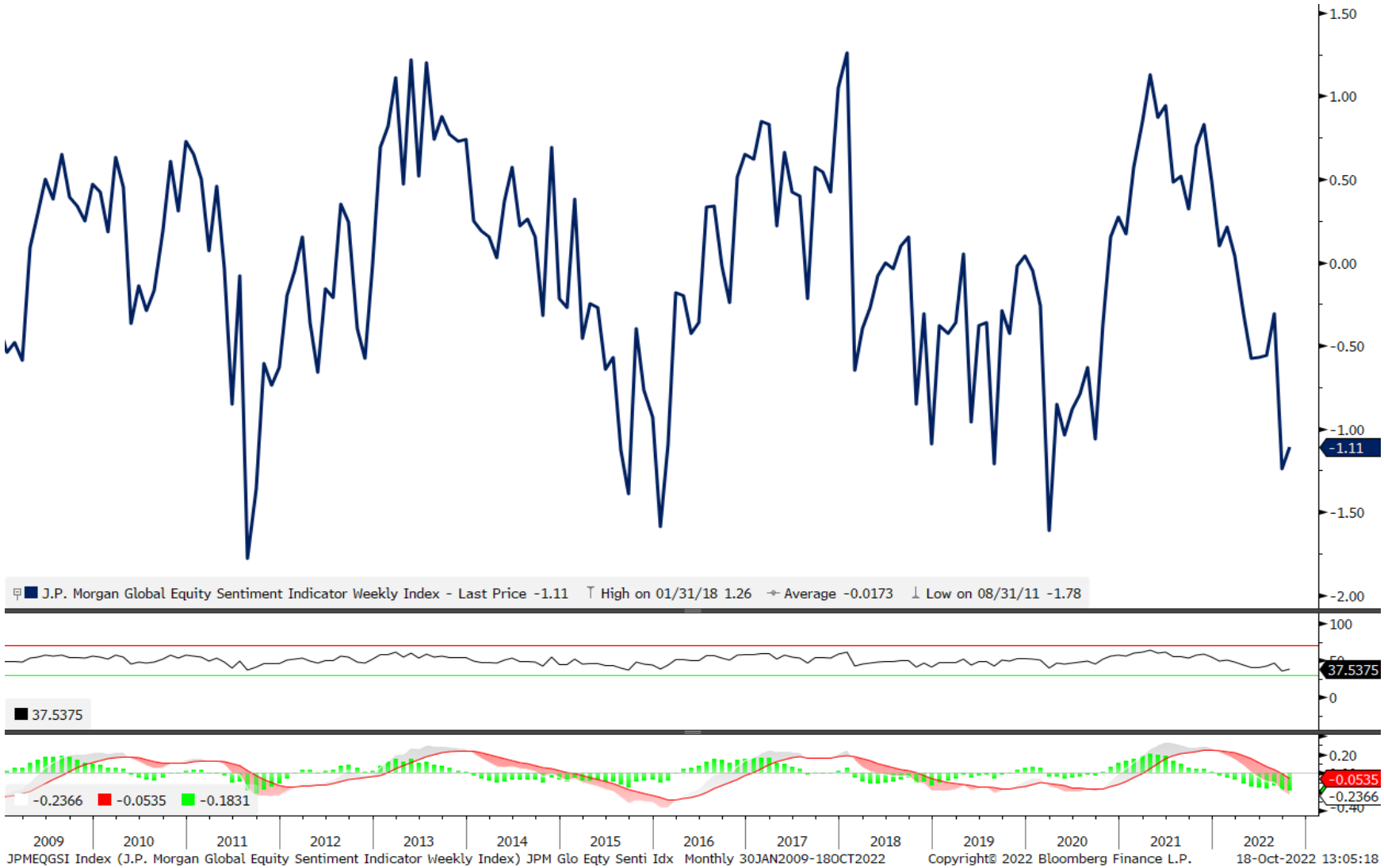
Source: Bloomberg

CFTC S&P Non-Commercial Net Longs -32.8k Short S&P- Minor improvement from two weeks ago but still nearly the most short positioning in nearly a Decade
Leveraged funds were way too bullish in Jan 2022, now quite negative



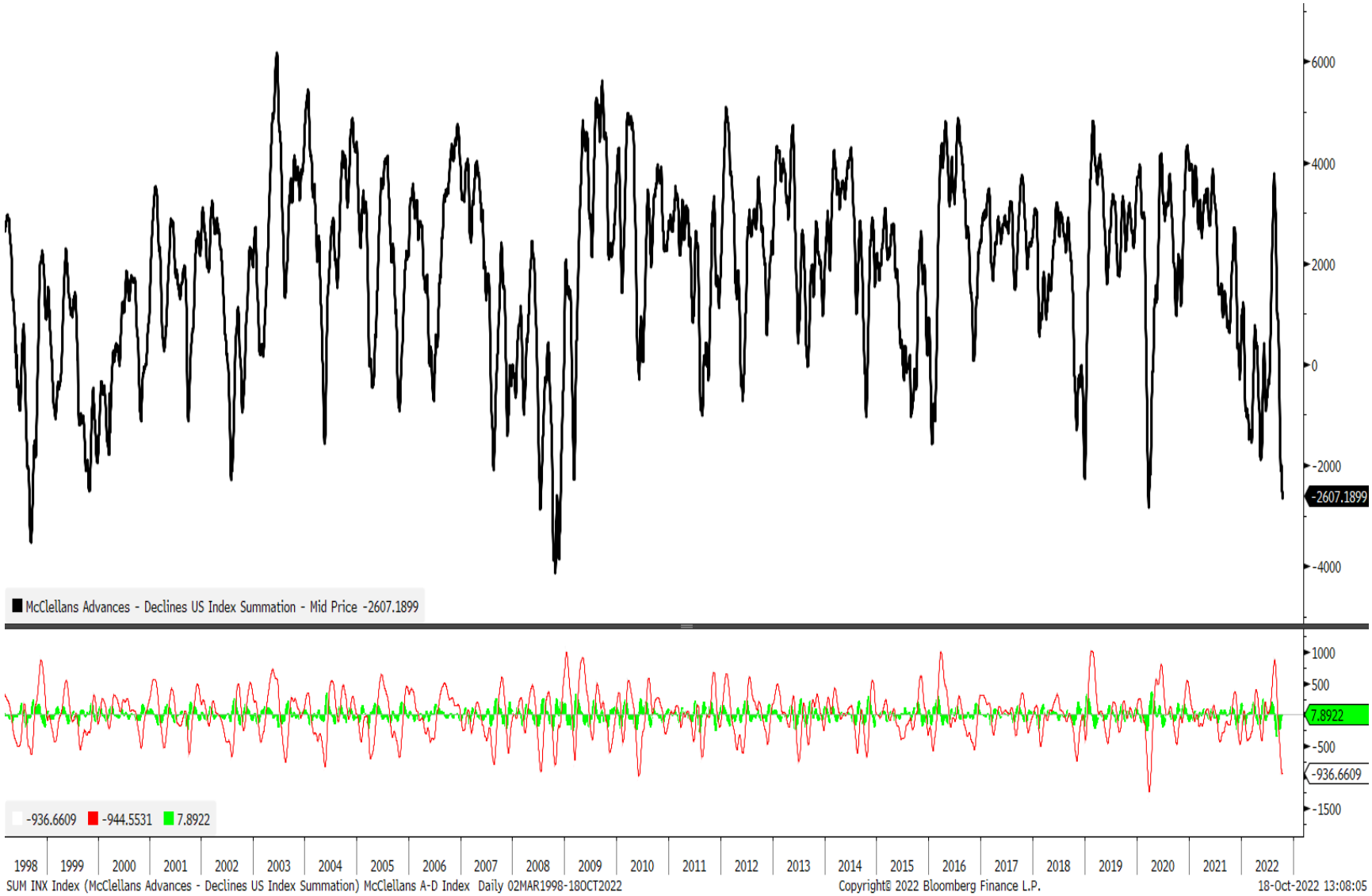
Source: Bloomberg

JP Morgan Global Equity Sentiment Indicator- Big dropoff from 2021, though arguably not as fearful as 2011, 2015, 2020. Thus, bearish but not capitulatory



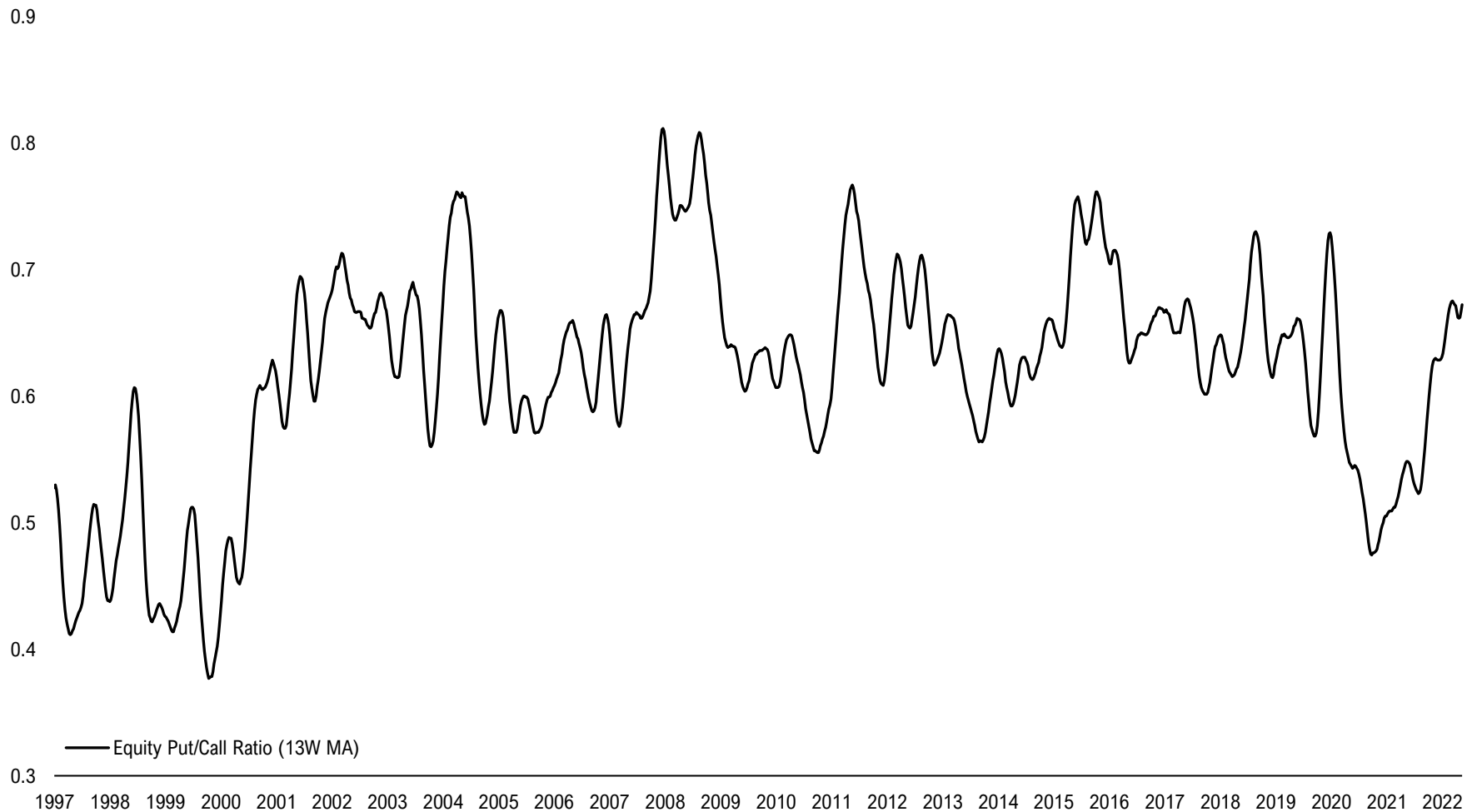
Source: Bloomberg

McClellan Summation Index has reached the lowest levels since 2020



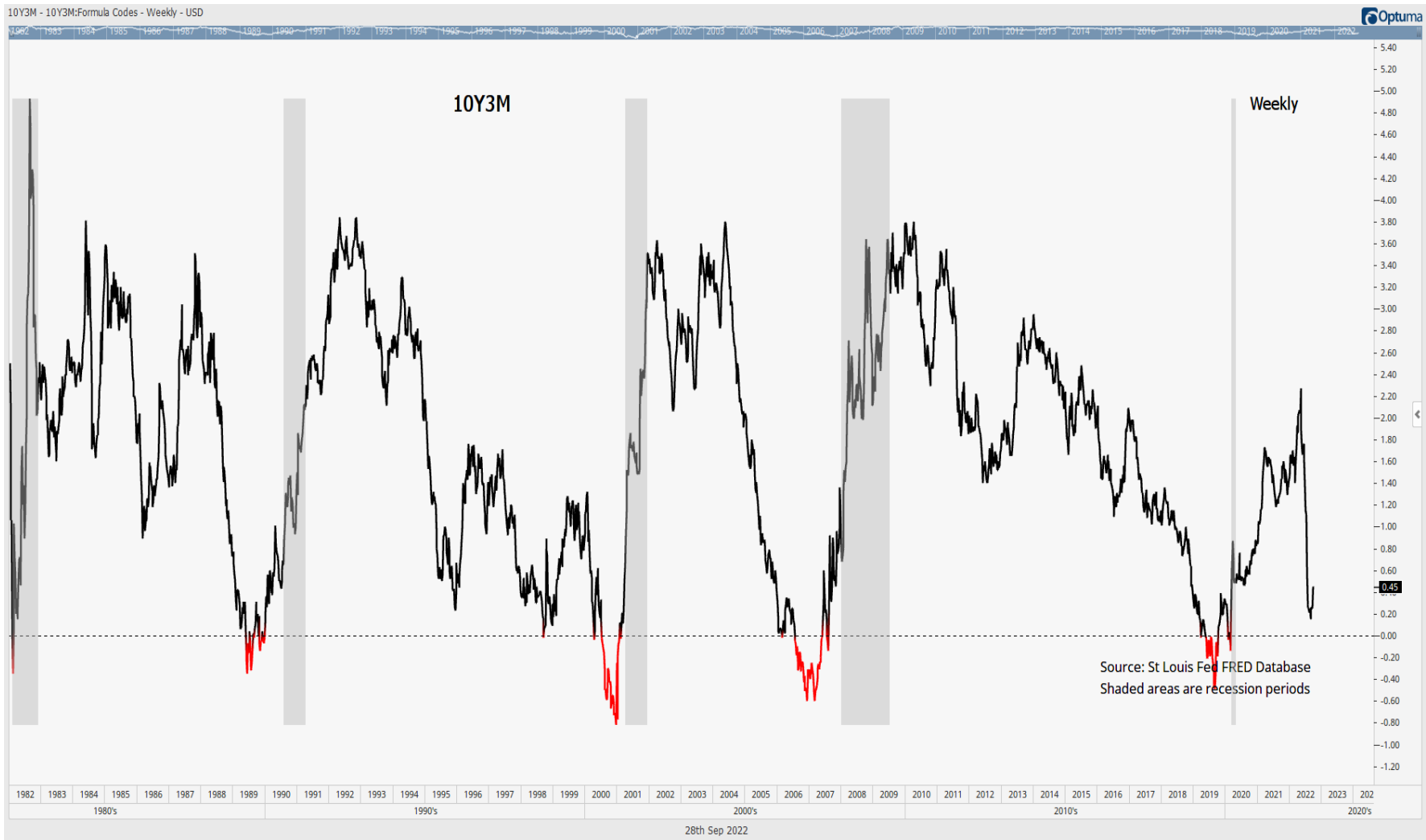
Source: Bloomberg

Equity Put/Call Ratio (13W Moving Average)- Back up above 0.70 which lines up close to extremes seen in the last decade



Source: Bloomberg

10-Year–3-month yield curve is nearly inverted, but not yet- This has had a better record than 10-Year-2 Year curve for predicting recessions

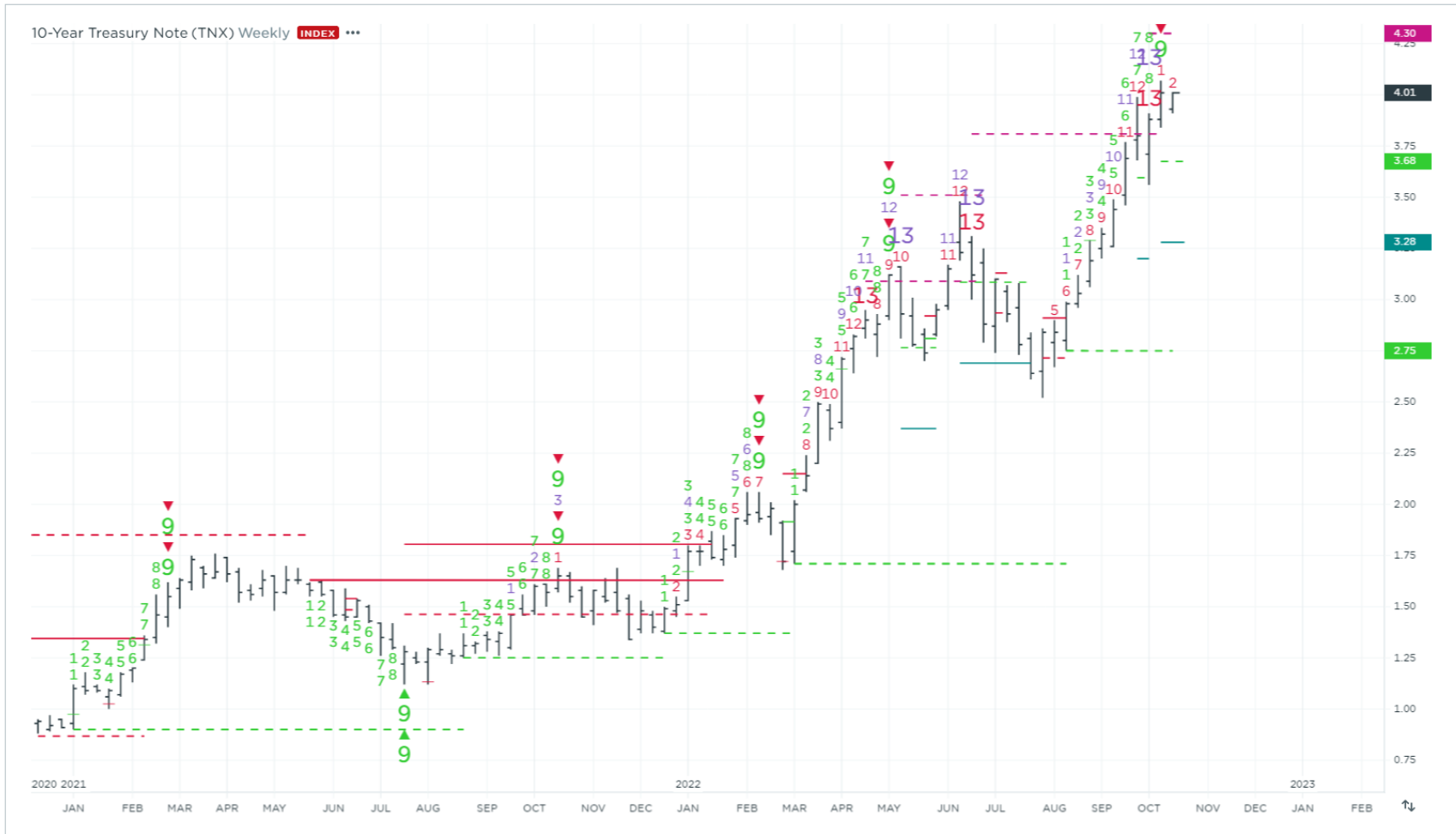


Source: Optuma

TNX- Cycles point lower into 2023 for yields. Recent push to near 4.15% on TNX should be a chance to add duration, expecting meaningful weakness into end of year

Source: Foundation for the Study of Cycles

TNX- DeMark exhaustion also nearly complete for Yields- TD Sequential and TD Combo 13 Countdown (SELLS) could be present as early as next week. This could mark a peak in Treasury yields in October



Source: Symbolik

OIH has broken out vs XLE in the last week, which bodes well for outperformance in the weeks/months to come. Intermediate-term downtrends still intact since June 2021

Source: Bloomberg

Crude looks to be nearing support and it's technically likely that WTI can bottom and turn higher in the weeks to come. Recent dips have not adversely affected Energy as a sector

Source: Bloomberg

Utilities vs SPX in relative terms peaked where it needed to from 2008 to keep this relative downtrend intact. The last month of huge underperformance in XLU is important

Source: Bloomberg

USDJPY – Dollar/Yen cycle starts to peak out and turn down sharply over the next couple years. An upcoming peak in the Dollar vs Yen (Low in the Yen) looks likely

Source: Foundation for the Study of Cycles

Key Negatives to consider

Daily, weekly, and monthly momentum remain negative sloping and most major indices remain within downtrends from last November/this past January's peak. Most trend following models remain quite negative and will be slow to turn positive barring meaningful structural improvement.

October remains a volatile month, and one cannot rule out further volatility into end of October or even early November ahead of the FOMC meeting and mid-term Elections. Key cycles like 40-year cycles and 90-year cycles have prominent turns this year. Some of these focus on October/November so getting some clarity as to whether markets are truly bottoming yet is key.

Technology has been the worst performing sector over the last week and has lagged sharply over the last month. Given that this remains the #1 ranked sector by capitalization within SPX, we'll need to see some stabilization and evidence of relative strength in Technology to have any real conviction on a meaningful SPX and $QQQ rally.

DeMark exhaustion signals on weekly charts of $TNX and $TYX have not yet been confirmed, nor on DXY and it's thought that given the negative correlation to SPX, showing some real evidence of these breaking down is critical to the thinking of SPX rallying with any kind of duration.

Elliott counts took on a more negative intermediate-term view with (what appears to be) a five-wave decline at or near completion under September 2022 lows. While a counter-trend bounce is certainly likely between now and December, it's tough making the case for a move back to highs given these counts. The most likely outcome is a sharp three-wave bounce followed by a possible five wave decline back to lows before any serious market low, i.e. a bear market low, is at hand.

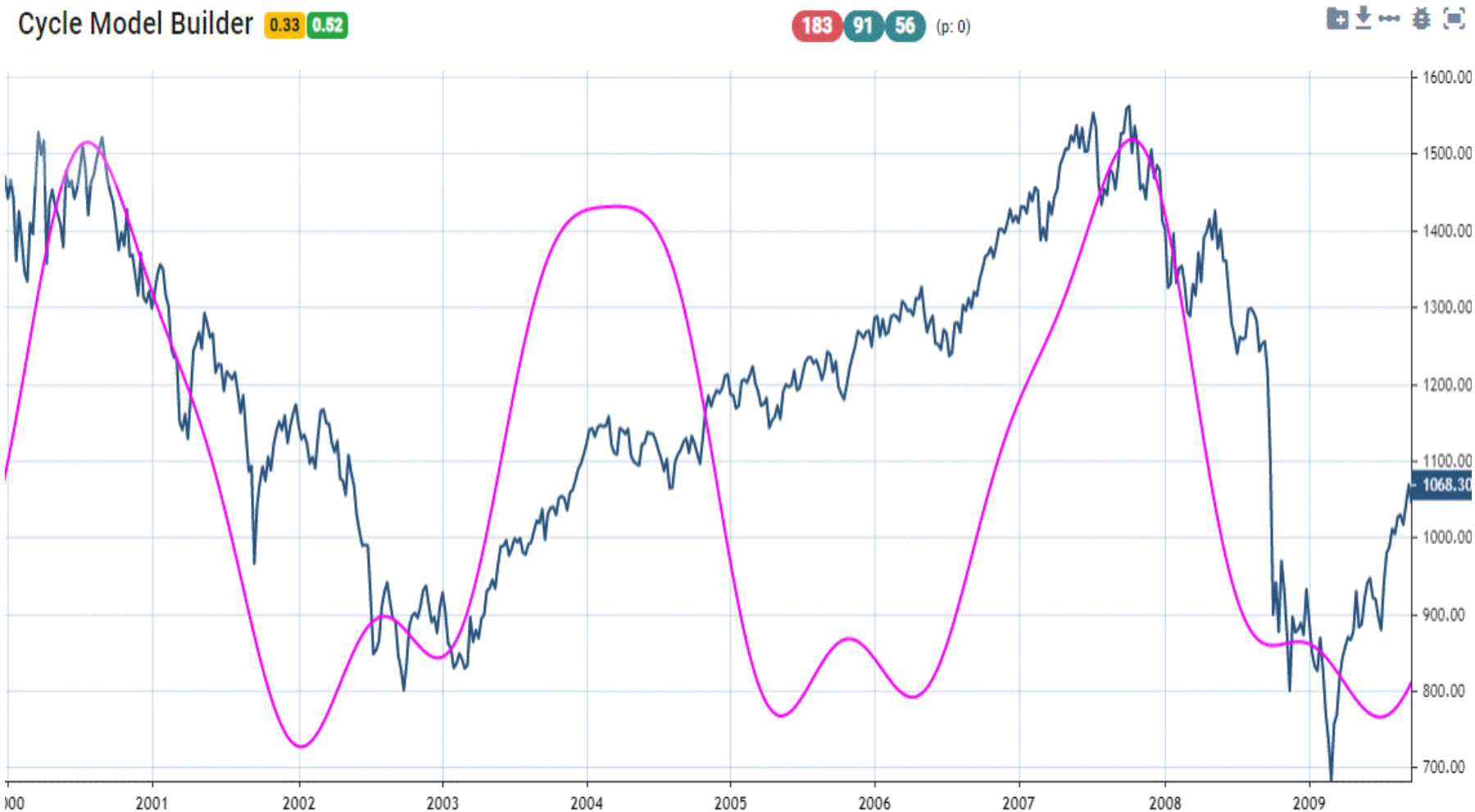
No meaningful capitulation happened regarding excessive TRIN readings (ARMS Index) at Thursday's lows. While sentiment was quite bearish, normally more capitulation in volume or Advance/Decline typically happens near major lows.

Weekly cycles show the potential to bottom out in Q2 of 2023, so while the near-term cycles show strength from late October into December, this might require a retest of lows into 2023. In other words, short-term strength might be sellable on any material bounce.

Consumer Discretionary has slumped in recent weeks vs Staples, but still in much better shape than in June, and the downtrend was broken and this remains a constructive development

Source: Foundation for the Study of Cycles

Weekly Cycle composite peaked out near highs in 2000 and also 2007, and bottomed near the lows of both bear markets. I suspect that 2023 should be important in forming a low

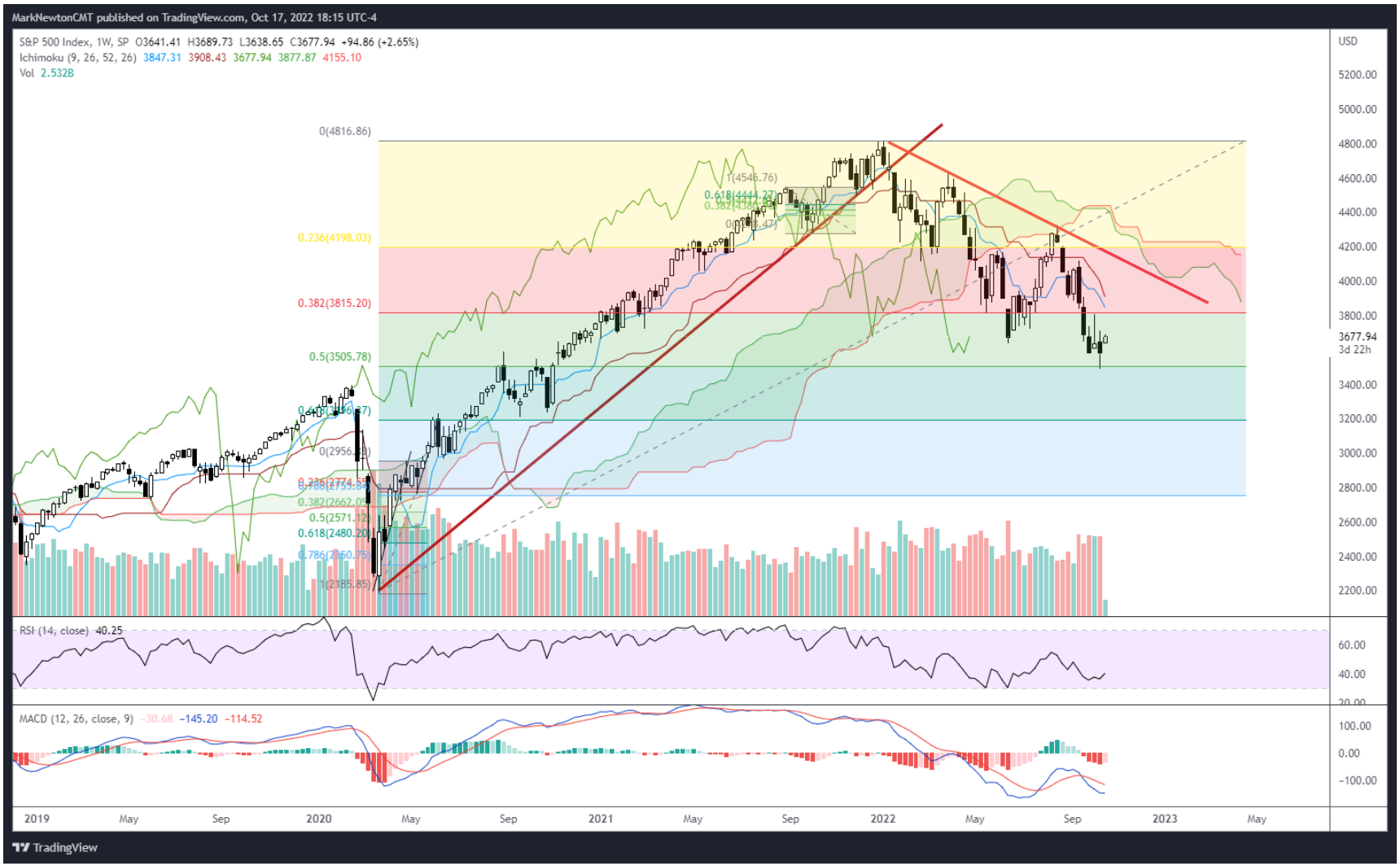


Source: Foundation for the Study of Cycles

Treasury yields look close to rolling over, but this is key when expecting Equities to try to bottom out given the ongoing negative correlation in yields to Equities. TNX, TYX show counter-trend exhaustion and very overbought. Cycles turn lower from November into year-end for TNX.

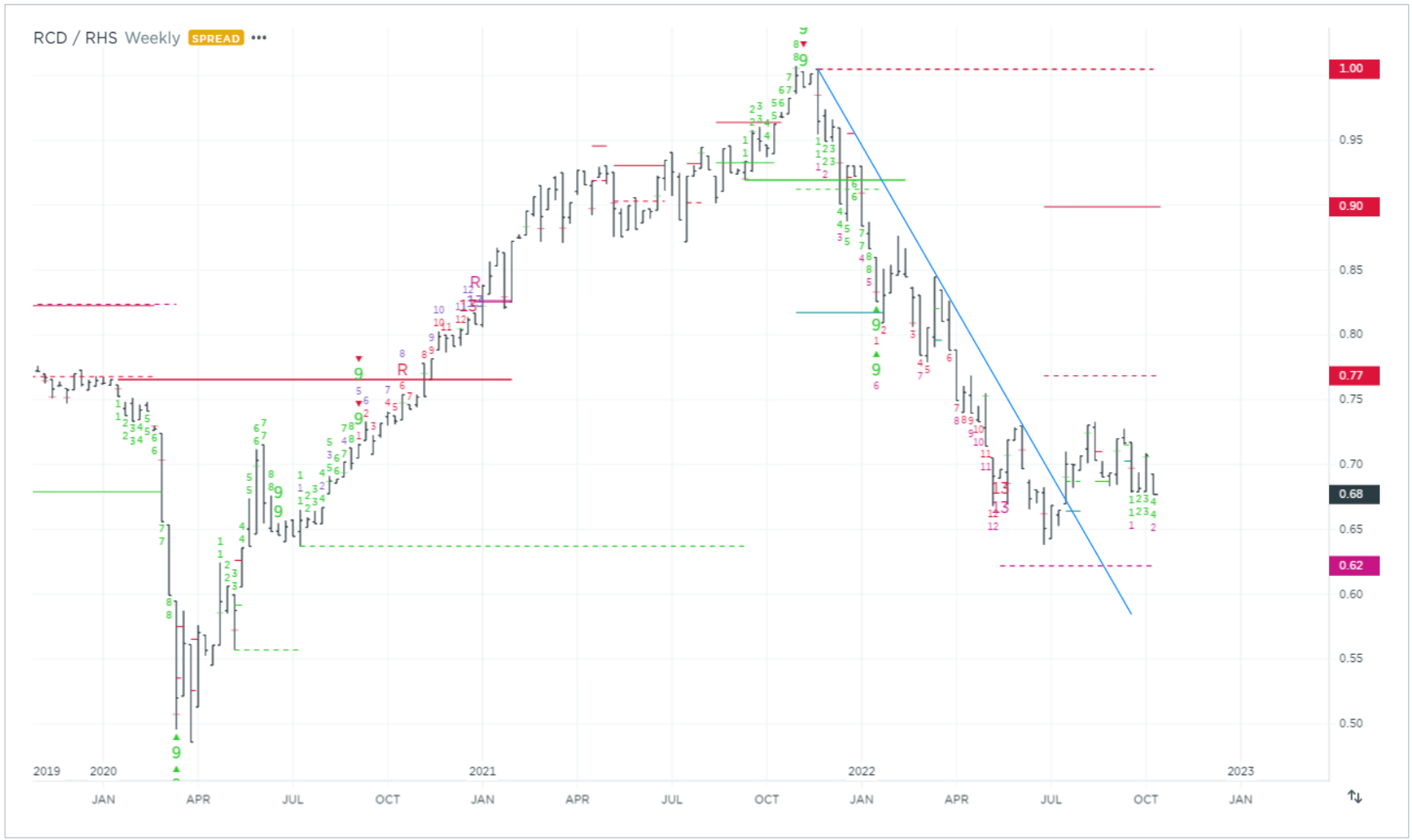
Source: Bloomberg

SPX – Weekly- Decline has now tested meaningful support near June lows and rallies are likely from late Oct-December. However, breaking back above the current downtrend from January is important to expecting an intermediate-term rally. At present this area represents meaningful upside resistance



Source: Trading View

Consumer Discretionary has slumped in recent weeks vs Staples, but still in much better shape than in June, and the downtrend was broken and this remains a constructive development



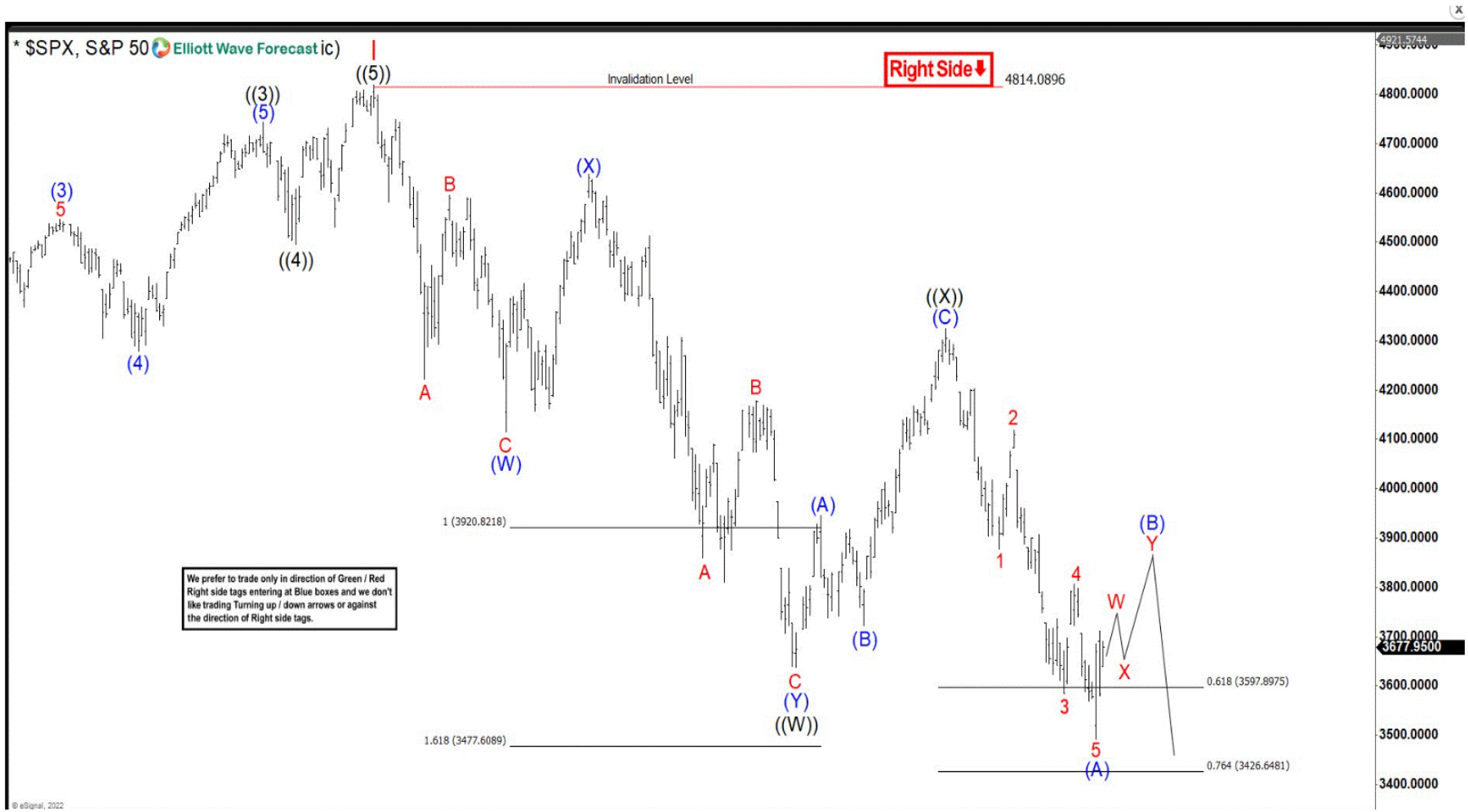
www.symbolik.com

SYMBOLIK

OCT 12, 2022 10:26:50

Source: Symbolik

Elliott-wave Forecast shows a count which largely agrees with my technical readings on oversold conditions and poor sentiment at a time when a turn back higher is likely. SPX looks to bounce to 3800-50 but requires a move back over 4200 to think this bear market is over

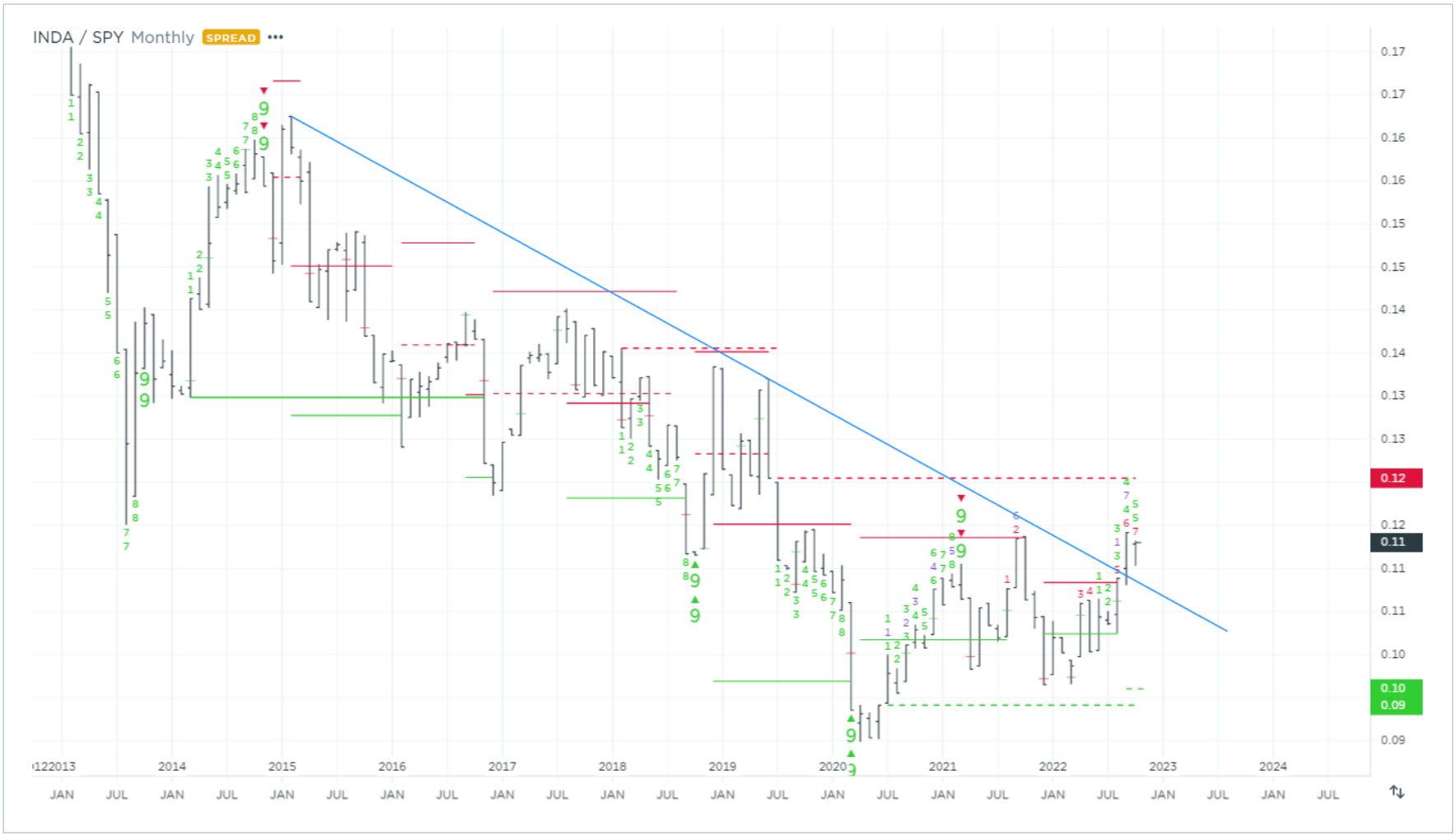


Source: Elliott wave Forecast

Small caps have largely performed in-line with Large-cap through most of 2022 and look primed to break out of this recent consolidation. Movement back over this resistance (shown in green) would be bullish for outperformance into year-end

Source: Optuma

Emerging markets have begun to stabilize a bit and India stands out as being one of the most attractive. Intermediate-term downtrends have been exceeded for INDA, the India ETF, vs SPY



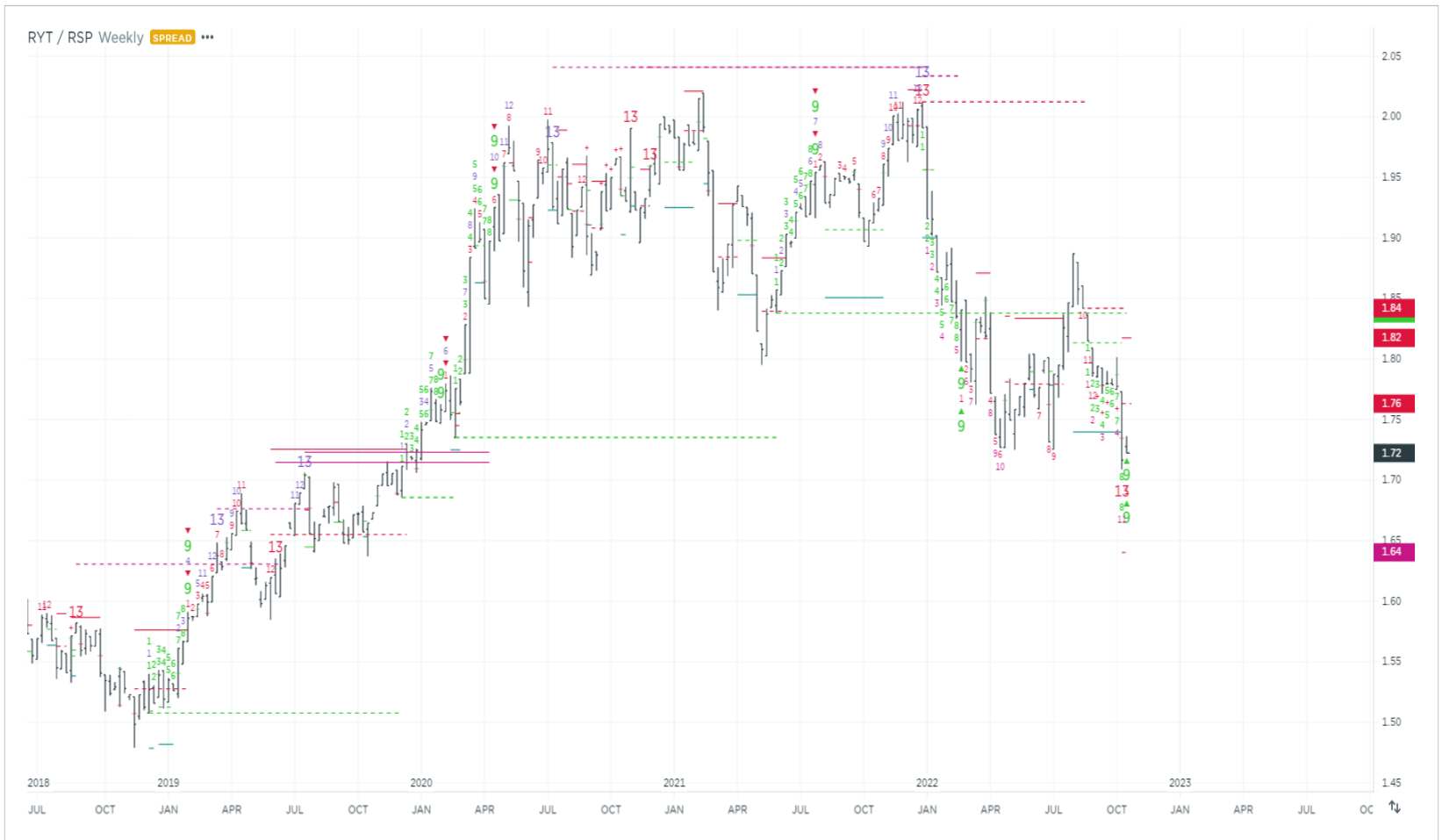
www.symbolik.com

SYMBOLIK

OCT 12, 2022 10:20:13

Source: Symbolik

Technology vs SPY- (Equal-weighted Ratio chart of Invesco $RYT vs. Equal-weighted S&P (RSP) DeMark related buy signals are apparent now and 1 more could trigger within 2 weeks. Bottom line- Tech close to bottoming



Source: Symbolik

Large-Cap Growth Vs Value on Russell 1k Growth (IWF) vs Russell 1k Value (IWD) maintains intermediate-term

Source: Optuma

Small-Cap growth vs Value remains in a persistent downtrend from early 2021. Yet, growth vs Value is nowhere near Spring 2022 lows and has held up

Source: Optuma

Energy's outperformance has lifted this back to 1st place over the past month, while Insurance and Capital goods and Pharma/biotech has been good. Autos have been notably quite the laggard, as have Utilities, Semis and Real estate

Code	Name	Change (%)	1Wk %	1Mo %	12Mo %	YTD%	% from 52Wk High
SP500-10	S&P 500 Energy Index Industry Group	0.75%	2.98%	5.61%	44.80%	48.97%	-10.80%
SP500-40	S&P 500 Insurance Index Industry Group	1.28%	3.58%	1.56%	2.40%	0.08%	-10.92%
SP500-20	S&P 500 Capital Goods Index	2.76%	3.53%	1.21%	-13.21%	-13.81%	-16.68%
SP500-35	S&P 500 Pharmaceuticals Biotechnlgy and Life Sciences I	0.49%	3.38%	0.94%	2.67%	-8.07%	-10.01%
SP500-30	S&P 500 Food Beverage & Tobacco Index	1.22%	3.24%	-0.72%	4.92%	-2.06%	-10.72%
SP500-40	S&P 500 Index Banks Industry Group	1.79%	11.58%	-1.24%	-25.62%	-21.96%	-29.98%
SP500-15	S&P 500 Materials Index Industry Group	1.91%	3.04%	-1.92%	-15.13%	-21.35%	-22.76%
SP500-20	S&P 500 Commercial Professional Services Index Industr	1.83%	2.49%	-2.23%	-9.45%	-13.86%	-14.43%
SP500-35	S&P 500 Health Care Equipment & Services Index	0.66%	2.95%	-2.32%	-4.36%	-13.17%	-14.95%
SP500-25	S&P 500 Index Retailing Industry Group	1.78%	2.25%	-2.88%	-25.40%	-27.36%	-32.11%
SP500-30	S&P 500 Food & Staples Retailing Index Industry Group	1.96%	0.65%	-3.24%	-3.20%	-12.85%	-20.19%
SP500-45	S&P 500 Software & Services Index	0.92%	5.03%	-3.41%	-27.67%	-28.98%	-30.89%
SP500-20	S&P 500 Transportation Index	1.33%	5.00%	-3.70%	-17.37%	-23.53%	-24.72%
SP500-40	S&P 500 Diversified Financials Index	1.70%	3.85%	-4.04%	-19.63%	-20.28%	-23.55%
SP500-25	S&P 500 Consumer Services Index	1.33%	6.00%	-4.05%	-19.47%	-20.80%	-22.85%
SP500-50	S&P 500 Media & Entertainment Index Industry Group	0.48%	4.35%	-4.29%	-41.10%	-39.76%	-42.92%
SP500-45	S&P 500 Technology Hardware & Equipment Index	0.97%	3.51%	-4.69%	-6.17%	-21.61%	-23.34%
SP500-30	S&P 500 Household & Personal Products Index	0.88%	3.39%	-6.70%	-12.43%	-23.54%	-23.96%
SP500-50	S&P 500 Telecommunication Services Index Industry Gro	0.91%	2.94%	-7.69%	-19.19%	-18.27%	-24.30%
SP500-25	S&P 500 Consumer Durables & Apparel Index	0.85%	1.33%	-8.81%	-38.83%	-42.07%	-44.00%
SP500-60	S&P 500 Real Estate Index Industry Group	1.27%	2.92%	-11.51%	-23.10%	-31.49%	-31.96%
SP500-45	S&P 500 Semiconductors & Semiconductor Equipment In	0.31%	0.72%	-12.68%	-34.09%	-45.49%	-48.01%
SP500-55	S&P 500 Utilities Index Industry Group	1.79%	1.42%	-12.79%	-0.77%	-9.81%	-17.00%
SP500-25	S&P 500 Automobiles & Components Index	0.68%	2.40%	-25.30%	-26.72%	-38.50%	-45.96%

Source: Optuma

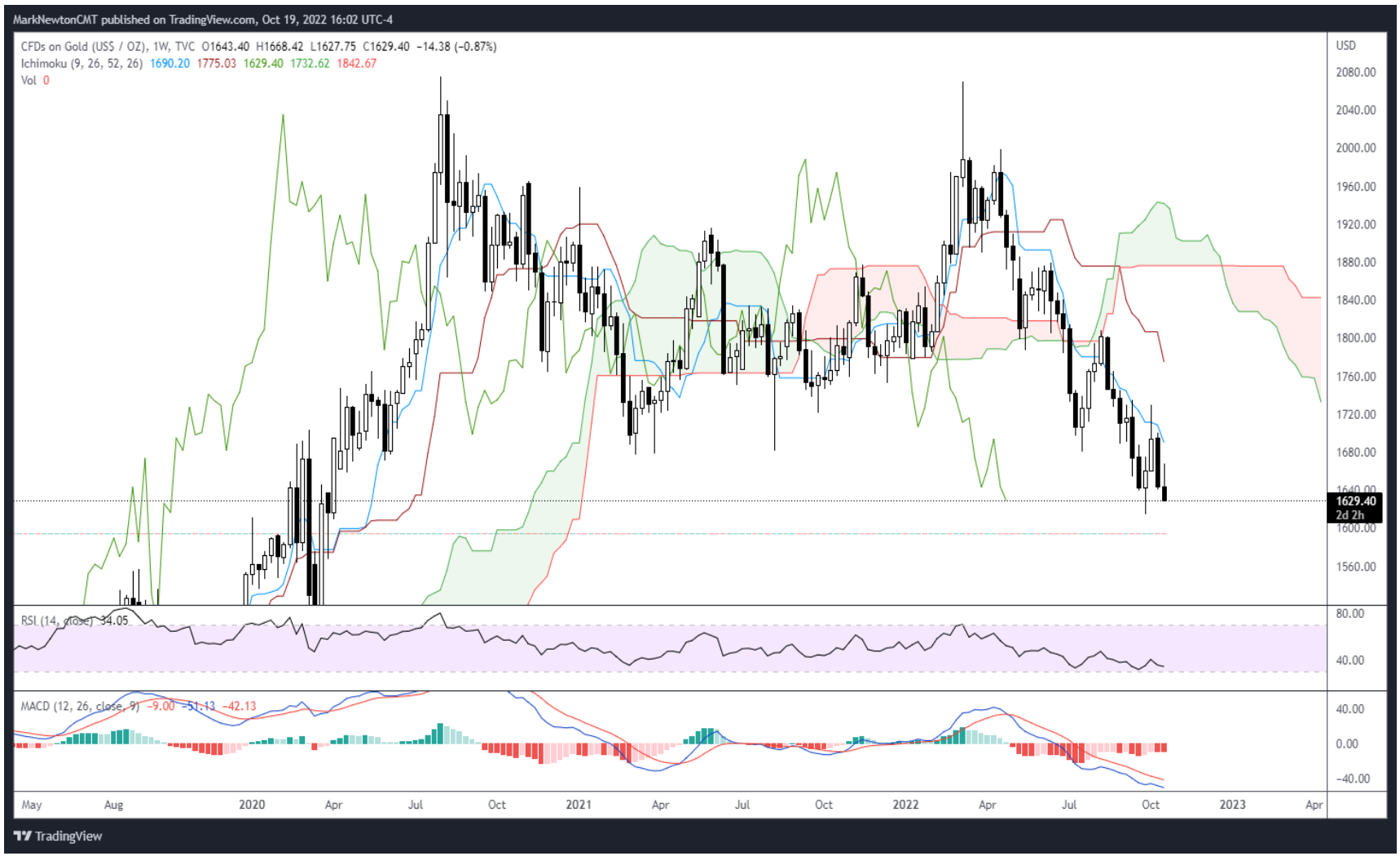
DXY has gotten stretched on multiple timeframes and should peak out in late October to begin a minor selloff into December- EURUSD, GBPUSD likely to bottom out by early November

Source: TradingView

US Dollar likely peaks short-term from October into December but then moves briefly back to new highs in 2023 before making a larger peak

Source: Elliott-wave Forecast

Gold and Silver likely bottom out into November coinciding with rates peaking out, CFTC positioning, short-term cycles, and near-term oversold conditions.



Source: Trading View

Bitcoin looks close to bottoming along with Equities but looks to require a possible final flush to test recent lows into early October. Buying dips looks prudent for a strong October reversal of trend and push higher into November

Source: Trading View

Newton's New Upticks Portfolio

Newton's Upticks…

Ticker	Sector	Price*	Support	Resistance
$VRTX	Health Care	302	276	350-409
$REGN	Health Care	746	678	791-860
$LLY	Health Care	332	296	358-390
$HUM	Health Care	505	454	573-601
$HD	Cons Disc	290	265	359-372
$ORLY	Cons Disc	732	680	793-862
$CASY	Cons Disc	203	192	228-243
$DG	Cons Disc	243	212	264-310
$LEN	Cons Disc	80	62.5	98-114
$AAPL	Info Tech	146	129	157-176
$ADP	Info Tech	239	225	261-290
$ON	Info Tech	70	61	77-81
$WM	Industrials	167	152	177-197
$NOC	Industrials	484	440	515-558
$PWR	Industrials	135	124	148-155
$PGR	Financials	122	116	132-143
$PFG	Financials	79	70	89-96
$MTB	Financials	186	173	201-217
$MPC	Energy	108	89	118-129

Continued…	Sector	Price*	Support	Resistance
$LNG	Energy	171	147	182-199
$OXY	Energy	68	57	79-88
$HES	Energy	127	100	140-155
$CEG	Utilities	88	82	100-105
$NEE	Utilities	82	75	90-102
$SRE	Utilities	154	136	166-179
$GIS	Staples	78	74	85-90
$MNST	Staples	92	85	100-114
$HSY	Staples	225	210	238-251
$ALB	Materials	277	240	334-398
$NEM	Materials	44	39	51-57
$FCX	Materials	31	24.75	38.50-44
$GOOGL	Comm Services	101	90	115-123
$NFLX	Comm Services	237	214	279-329
$TMUS	Comm Services	141	130	150-187
$PSA	Real Estate	294	270	320-355
$EXR	Real Estate	178	156	193-215
$IRM	Real Estate	47	43	50-56

All prices as of 10/5/2022

Disclosures

This research is for the clients of Fundstrat Global Advisors only. For important disclosures and rating histories regarding sectors or companies that are the subject of this report, please contact your sales representative or Fundstrat Global Advisors at 150 East 52nd Street, New York, NY, 10022 USA.

Analyst Certification (Reg AC)

Mark Newton, the research analyst denoted by an "AC" on the cover of this report, hereby certifies that all of the views expressed in this report accurately reflect his personal views, which have not been influenced by considerations of the firm's business or client relationships.

Neither I, nor a member of my household is an officer, director, or advisory board member of the issuer(s) or has another significant affiliation with the issuer(s) that is/are the subject of this research report. There is a possibility that we will from time to time have long or short positions in, and buy or sell, the securities or derivatives, if any, referred to in this research

Conflicts of Interest

This research contains the views, opinions and recommendations of Fundstrat. As of the time of writing and publication of this presentation, Fundstrat does not know of, or have reason to know of any material conflicts of interest at the time of the publication of this presentation. The Company has no contractual relationship, nor have we received any compensation from any of the companies listed in this research report.

Analyst Industry/Sector Views

Positive (+): The analyst expects the performance of his industry/sector coverage universe over the next 6-18 months to be attractive vs. the relevant broad market benchmark, being the S&P 500 for North America.

Neutral (N): The analyst expects the performance of his or her industry/sector coverage universe over the next 6-18 months to be in line with the relevant broad market benchmark, being the S&P 500 for North America.

Negative (-): The analyst expects his or her industry coverage universe over the next 6-18 months to underperform vs. the relevant broad market benchmark, being the S&P 500 for North America.

General Disclosures

Fundstrat Global Advisors is an independent research company and is not a registered investment advisor and is not acting as a broker dealer under any federal or state securities laws. Fundstrat Global Advisors is a member of IRC Securities' Research Prime Services Platform. IRC Securities is a FINRA registered broker-dealer that is focused on supporting the independent research industry. Certain personnel of Fundstrat (i.e. Research Analysts) are registered representatives of IRC Securities, a FINRA member firm registered as a broker-dealer with the Securities and Exchange Commission and certain state securities regulators. As registered representatives and independent contractors of IRC Securities, such personnel may receive commissions paid to or shared with IRC Securities for transactions placed by Fundstrat clients directly with IRC Securities or with securities firms that may share commissions with IRC Securities in accordance with applicable SEC and FINRA requirements. IRC Securities does not distribute the research of Fundstrat, which is available to select institutional clients that have engaged Fundstrat.

As registered representatives of IRC Securities our analysts must follow IRC Securities' Written Supervisory Procedures. Notable compliance policies include (1) prohibition of insider trading or the facilitation thereof, (2) maintaining client confidentiality, (3) archival of electronic communications, and (4) appropriate use of electronic communications, amongst other compliance related policies.

Fundstrat does not have the same conflicts that traditional sell-side research organizations have because Fundstrat (1) does not conduct any investment banking activities, (2) does not manage any investment funds, and (3) our clients are only institutional investors. Fundstrat is not endorsed by, directly affiliated with, maintained, authorized, or sponsored by Cliffs Notes. All product and company names are the registered trademarks of their original owners. The use of any trade name or trademark is for reference purposes only and does not imply any association with the trademark holder of their product brand.

This research is for the clients of Fundstrat Global Advisors only. Additional information is available upon request. Information has been obtained from sources believed to be reliable but Fundstrat Global Advisors does not warrant its completeness or accuracy except with respect to any disclosures relative to Fundstrat and the analyst's involvement (if any) with any of the subject companies of the research. All pricing is as of the market close for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, risk tolerance, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies. The recipient of this report must make its own independent decision regarding any securities or financial instruments mentioned herein. Except in circumstances where Fundstrat expressly agrees otherwise in writing, Fundstrat is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice, including within the meaning of Section 15B of the Securities Exchange Act of 1934. All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client website, fundstrat.com. Not all research content is redistributed to our clients or made available to third-party aggregators or the media. Please contact your sales representative if you would like to receive any of our research publications.

Fundstrat is not endorsed by, directly affiliated with, maintained, authorized, or sponsored by Cliffs Notes. All product and company names are the registered trademarks of their original owners. The use of any trade name or trademark is for reference purposes only and does not imply any association with the trademark holder of their product brand.

Copyright 2022 Fundstrat Global Advisors LLC. All rights reserved. No part of this material may be reprinted, sold or redistributed without the prior written consent of Fundstrat Global Advisors LLC.