

The Informed InvestorSM

RUSSELL UP SOME WINNERS | SPX YE 5,800

A timely analysis of sector/microgroup trends
for the professional investor

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THE INFORMED INVESTOR

A Timely Analysis of *MicroGroup*/Sector Trends for the Professional Investor

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TABLE OF CONTENTS

Table of Contents

Strategy	V – LXVII
Model Portfolio	LXIX – LXXIX
Sector Allocation	LXX
MicroGroup Model Portfolio.....	LXXI – LXXIV
Model Portfolio Changes	LXXV
Sector Overweight/Underweight/Neutral Charts.....	LXXVI – LXXIX
Technical Indicators & War Plan Data	1 – 13
Market Indicators.....	2 – 5
Indicator Summary	6
New-Highs/Lows Indicator.....	7 – 8
40-Week Technique Indicator.....	9 – 10
M.A.C.E. Data	11
NYSE Composite Overbought/Oversold Oscillator.....	12
S&P 500 Overbought/Oversold Oscillator	13
Foreign Markets/Rates/Commodities/Currencies	15 – 49
Sector/Group Analysis	51 – 229
Sector/Market Performance	52 – 54
Relative-Strength Highs	55 – 56
Leaders & Laggards	57
Sector Overview.....	58
Energy Sector.....	59 – 72
Basic Materials Sector.....	73 – 83
Industrial Manufacturing Sector.....	84 – 96
Utilities Sector	97 – 107
Services Sector	108 – 123
Financial Sector.....	124 – 142
Transportation Sector.....	143 – 153
Healthcare Sector.....	154 – 171
Consumer Staples Sector	172 – 183
Consumer Cyclical Sector	184 – 200
Technology Sector	201 – 217
Communications/Media Sector.....	218 – 229
Definitions	231 – 233
Company Index	234
Charts Courtesy	235

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TECHNICAL TAKEAWAYS:

- The combination of a well-telegraphed shift in Fed policy, normalization of the yield curve, and a shift in market leadership suggests that investors should turn their focus toward SMID-cap stocks—those small- and mid-cap companies often underappreciated but with significant growth potential—to "RUSSELL Up Some Winners!"
- We believe now is the time for SMID-cap stocks to outperform for several reasons:
 - The improving breadth of equity markets looks similar to 2012/2013 when the Piper Sandler MicroGroup Index (Unwtd) reversed an 18-month downtrend. The Russell 2000 index appreciated 37% in 2013, outpacing the major averages, and we could see history repeat itself.
 - S&P equal-weighted index (SPW) leads the S&P market-cap index (SPX) into all-time highs.
 - The primary trend in the major indices remains up, with the DJIA and SPX hitting record highs.
 - The Magnificent Seven stocks have lagged the broader market's performance since mid-July—a shift in leadership that often occurs when interest rates and the macro environment change.
 - Three months after the Fed's first rate cut after a tightening cycle, value stocks outperformed.
 - Historically, when the 10/2's inverted yield curve normalized, equity markets incrementally rose over the next 4/13/26/52 weeks, led by the Healthcare and Technology sectors.
 - Small-cap value stocks, especially among Financials, tend to outperform from September through December during election years.

RECOMMENDATIONS/MODEL TAKEAWAYS:

- No change to our SPX year-end price objective at 5,800.
- No sector recommendation changes.
- Model Changes: Based on our trend and relative strength work, we made the following changes:
 - Adds: ABCB, ALKT, ENB, FRPT, GOLD, HBAN, MNDY, MUSA, SITM
 - Deletes: AAP, CDNS, CRBG, DIS, HCC, INTU, MLM, PPC, PSTG, SCHW
- Piper Sandler Technical Opportunities Portfolio YTD performance: **+17.71%**

Piper Sandler Technical Research Sector Weighting Recommendations			
Overweight	Underweight	Neutral	
Financials	Basic Materials	Energy	Healthcare
Industrials	Consumer Staples	Utilities	Consumer Cyclical
Technology	Transportation	Services	Communications/Media

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Large-cap stocks, specifically the Magnificent Seven stocks (NVDA, MSFT, AAPL, AMZN, META, and TSLA), have dominated the investment narrative over the past several years. However, the weekly charts of these companies are now starting to mark time on an absolute or relative basis—which suggests that while they still may be great companies, they may not be great stocks.

The combination of a well-telegraphed shift in Fed policy, normalization of the yield curve, and a shift in market leadership suggests that investors should turn their focus toward SMID-cap stocks—those small- and mid-cap companies often underappreciated but with significant growth potential—to "RUSSELL Up Some Winners." Historically, investors have sifted through the Russell 2000, 2500, 3000, or S&P Small-/Mid-cap indices to identify "Small (SMID and MID), But Mighty stocks."

This month's Informed Investor publication lays out compelling technical evidence for why we believe now is the time for SMID-cap stocks to outperform. So, keep reading, and let's "RUSSELL Up some Winners!"

SPX Equal Weight Leading:

The S&P Equal Weight Index (SPW) has broken out to a new all-time high, while the SPX Weighted Index (SPX) has not.

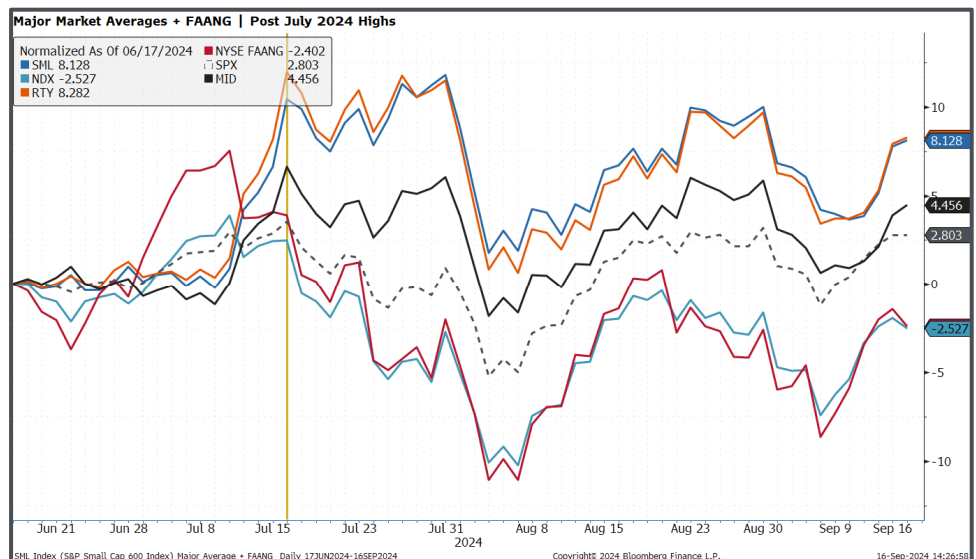
This suggests that market participation is starting to expand beyond just the Magnificent Seven stocks. We continue to view this as a bullish sign for equity markets.



SMID-Cap Stocks Leading:

Market leadership has shifted down-cap toward SMID-cap stocks over the last several months. The chart to the right depicts the rotation, with FAANG stocks leading into the mid-July '24 highs and then MID-cap stocks (SML, MID, and RTY) outperforming afterward.

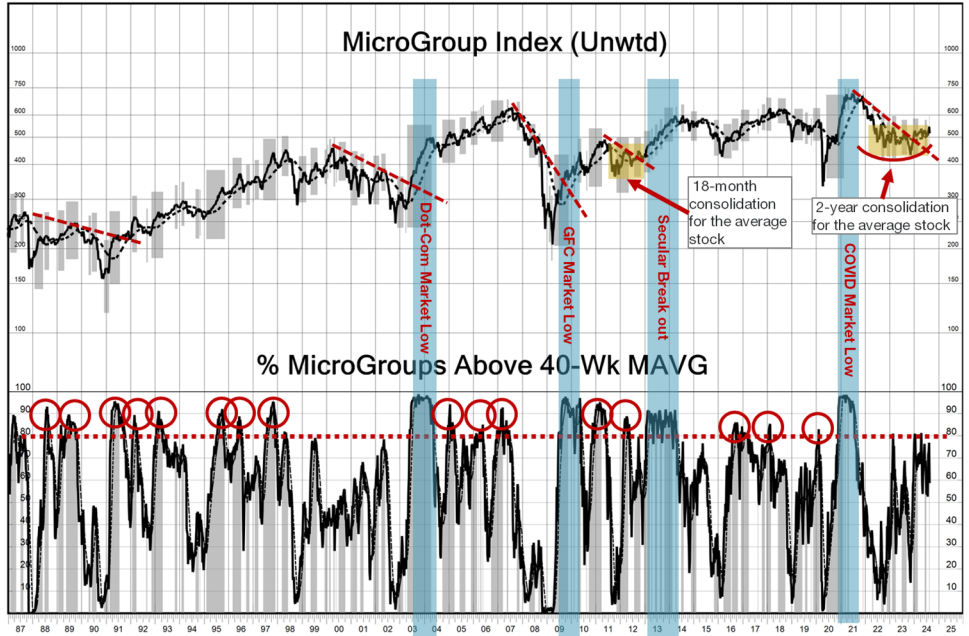
This sort of "Style Shift" would be consistent with prior Fed rate cuts dating back to the late 1980s (see this month's Fed rate cut study).



Improving Market Breadth:

The improving breadth of equity markets looks similar to 2012/2013 when the Piper Sandler MicroGroup Index (Unwtd) reversed an 18-month downtrend. That reversal corresponded with the SPX breaking above the prior 2000/2007 highs.

The Russell 2000 index appreciated 37% in 2013, outpacing the major averages. While history may not repeat itself, SMID-cap stocks could be poised to outperform if it does rhyme.



Source: Piper Sandler Technical Research

Yield Curve Steepening=Bullish:

The 10/2's yield curve has been inverted for over two years—its longest and widest since 1980.

Expectations are for the Fed to cut interest rates at least once this year, normalizing the yield curve.

The table below shows which market sectors typically "lead or lag" after a yield curve normalization.



Source: Piper Sandler Technical Research

PSC Sector Performance When the 10-/2-year Yield Spread Rise From Negative to Positive (1977-YTD)												
Sector	Average Forward Returns				Median Forward Returns				% Positive			
	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week
Energy	0.56%	0.74%	-2.72%	0.56%	1.58%	0.72%	-3.51%	1.58%	64%	57%	43%	64%
Materials	0.93%	2.74%	1.54%	11.10%	1.66%	2.83%	-1.61%	5.19%	71%	64%	50%	57%
Industrials	0.56%	2.60%	2.50%	11.23%	1.65%	1.28%	-5.25%	0.98%	64%	57%	43%	57%
Utilities	1.24%	2.07%	1.45%	4.89%	0.95%	1.26%	2.84%	1.13%	57%	71%	57%	57%
Services	0.66%	2.97%	6.89%	14.95%	0.94%	-1.05%	-2.67%	2.06%	57%	50%	43%	50%
Financials	0.01%	1.06%	-0.63%	1.56%	0.85%	0.76%	-3.72%	-4.98%	57%	50%	43%	43%
Transportation	1.47%	4.59%	4.69%	12.73%	1.11%	4.87%	-3.11%	-2.61%	71%	57%	43%	50%
Healthcare	0.22%	3.48%	8.78%	20.93%	1.38%	-0.23%	1.26%	11.56%	64%	50%	57%	64%
Staples	0.67%	3.33%	5.27%	15.52%	1.95%	2.06%	1.72%	7.54%	71%	57%	57%	50%
Cyclicals	0.64%	2.46%	3.89%	17.61%	1.53%	2.58%	-5.71%	1.85%	57%	57%	43%	57%
Technology	1.79%	2.27%	8.89%	23.36%	1.16%	-0.43%	-2.21%	14.18%	57%	50%	43%	57%
Communication	2.58%	0.87%	3.09%	9.52%	1.03%	1.78%	1.30%	3.71%	57%	50%	57%	50%
SPX	1.89%	3.64%	6.81%	10.89%	2.04%	3.36%	5.31%	11.16%	79%	57%	57%	71%

Source: Piper Sandler Technical Research/Bloomberg

Major Indices | Major Trend is Higher:

S&P 500: The recent weakness in the SPX proved to be just a pullback within the context of a longer-term uptrend.

The SPX is at an all-time new high and its primary uptrend remains intact.

Dow Jones Industrial Average: The "Blue Chip" index has recently reached an all-time high of 10.4% year-to-date.

Its bull cycle remains intact above key support around the 36,000 level.

Nasdaq Composite: The tech-heavy index is 5.5% off its record high and is up 17.5% year-to-date.

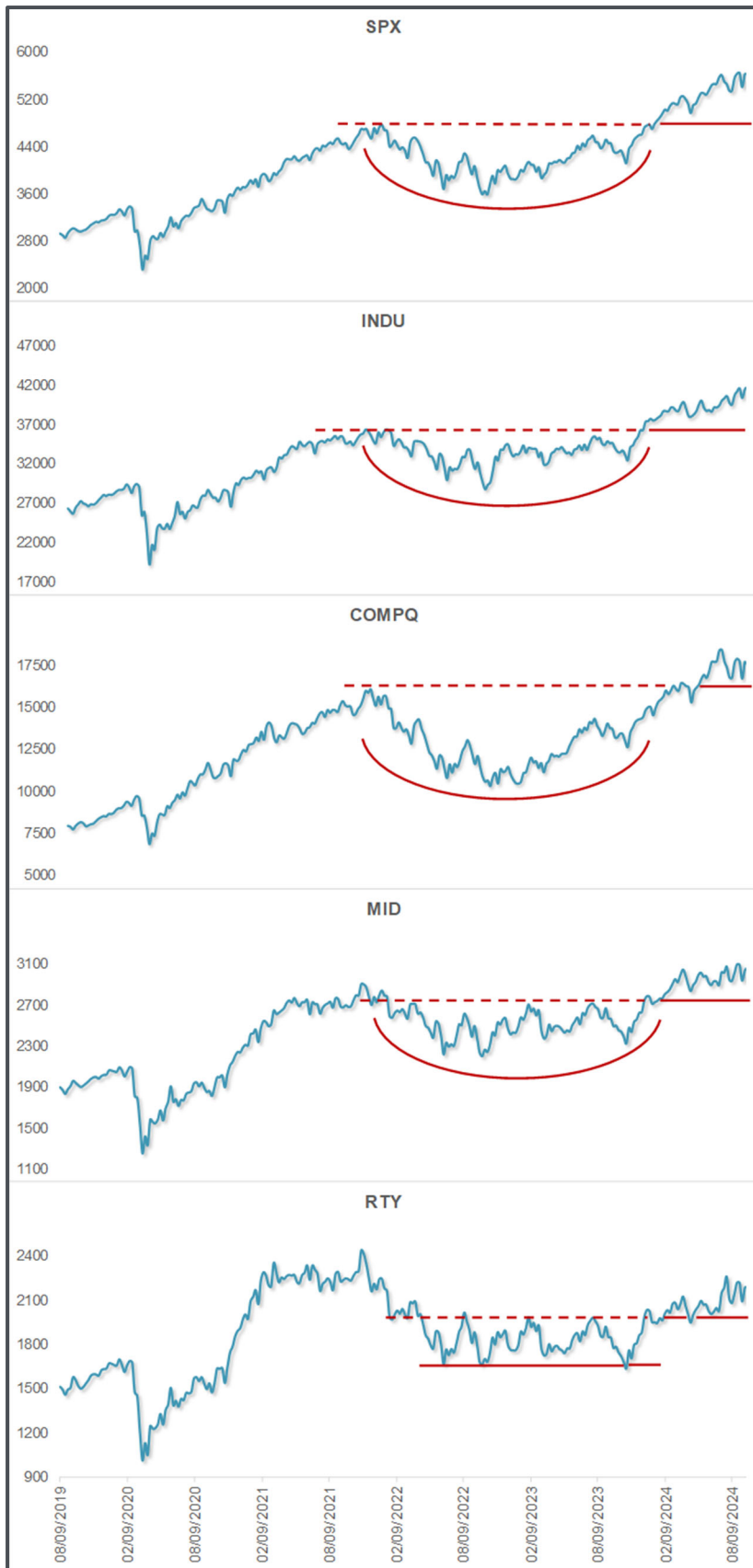
The key support area to watch is 16,000, the price around the previous years' highs.

S&P 400 Mid-cap: The index has successfully retested support and remains in a well-defined uptrend in our work.

It is up more than 10% year-to-date and is above a rising 50-/200-day MA.

Russell 2000 Small Cap: The index has broken out of a multi-year consolidation range and is above its rising 50-/200-day MA.

The RUT is 10.2% off its all-time highs.



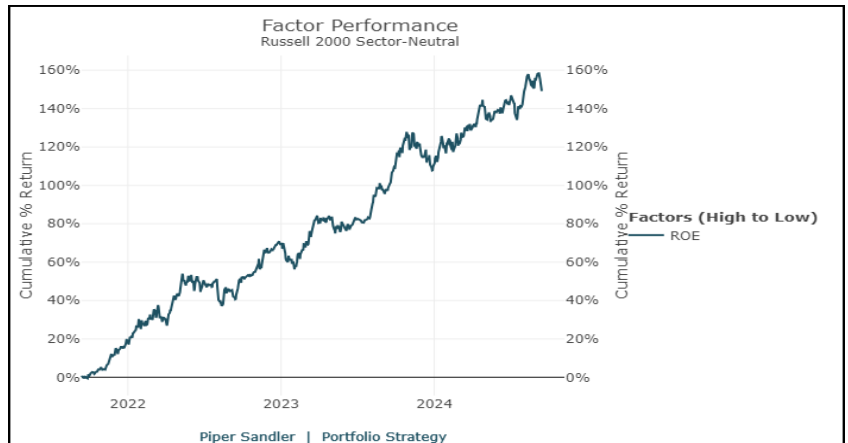
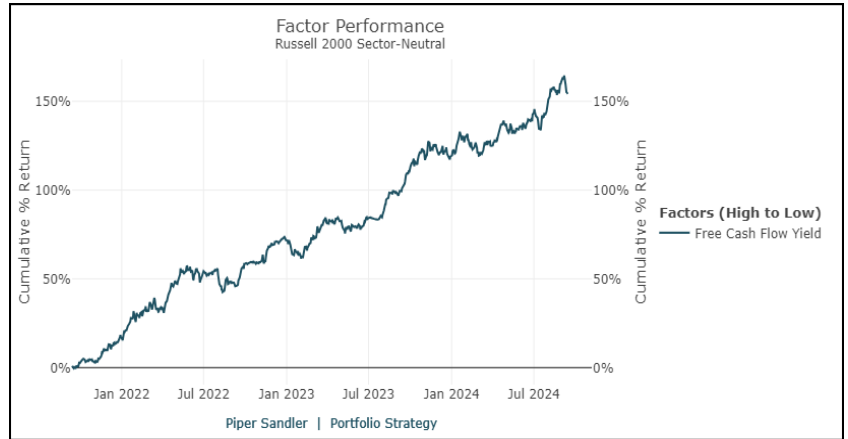
Source: Piper Sandler Technical Research/Bloomberg

Macro Meets Micro & Technical:

To identify the most actionable SMID-Cap stocks in the Russell 2000 index (RUT), we collaborated with the Portfolio Strategy team and their [Strategy Portal](#) to screen the RUT on the two most important factors driving the index—Free Cash Flow Yield and ROE.

These two factors narrowed the list of attractive stocks to 151 from 2,000. We then built a *Weekly Homework Grid* to identify stocks with a bullish technical setup.

Please click the links below to see all our Weekly Homework Grids or the full suite of factors from the Portfolio Strategy team.



Additional Research:

Technical Research:
[Weekly Homework Grids](#)

Macro Research:
[Visit Strategy Portal](#)

*Tickers with a red box denote a bullish trend phase/stock

Macro Meets Micro Weekly Homework Grids

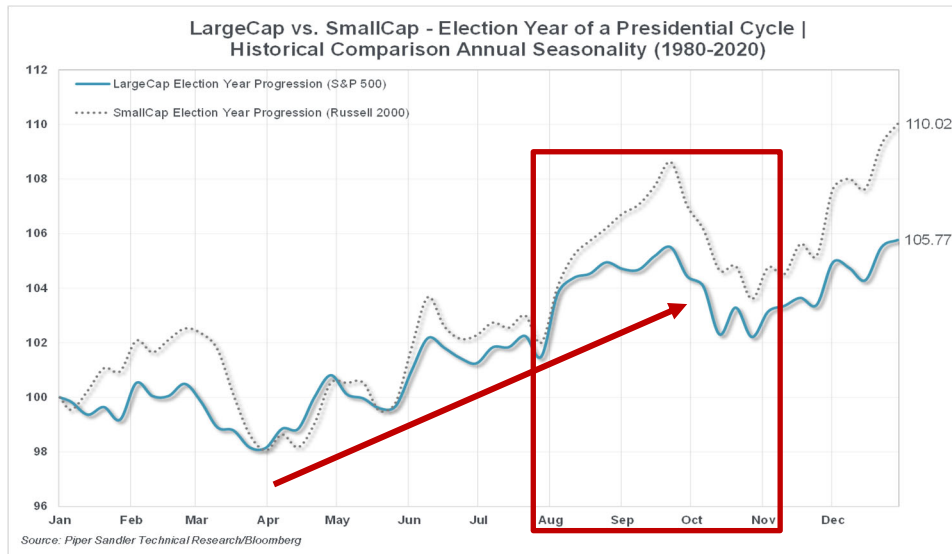
Bottom Fishing	Positive Developing	Positive Trending	Pullback Opportunity	Negative Developing	Negative Trending
ARRY CNMD DVAX FC IMXI INMD LIVN OMCL PGNY PLX RMR SGRY TCMD TGNA TH VMD	ALKS AMPH ATLC AVNS COLL CON CRD.A GMS HCI HIMS HOY HRMY NSIT OPCH OPFI PRGS SBH SIG WRLD	APOG BBSI BCO BELFA BLX BOX CORT CPRX ENSG HBB IDCC INVA ITGR MMSI NECB PAHC PBH PJT PNTG STRL STRW TPB UVE	ACIC SNEK ADUS SSBK AGM SUPN BELFB UFPT BFH UNTY BSVN VIRC CNO CRVL DAKT ENVA FIHL HALO HG HOV HRTG HSTM JXN KNSA LGND LNTH NHC OSBC PAYS PFBC PLUS POWL SEM SIGA SKWD	ACAD SMLR AIRS STAA ALRM STNG AMR TNK ANIP USPH AOMR UTMD CAL VREX CCRN VYGR DNOW YELP ENR ZYXI GCT HAE HDSN HY IMMR INFU JILL LPG MDXG MED METC MFIN MRAM OEC OSUR OTTR PCRX PLAB PRVA REPX	AMCX AMN ATKR CABO CLW CVGI EGAN IART JBI METCB PARR PBYI SLP

Source: Piper Sandler Macro and Technical Research

SMID-Cap's Outperform During Election Years:

Since 1980, small-cap stocks have historically outperformed large-cap stocks during election years.

An interesting observation is the sharp pullback in small caps that has historically occurred from mid-September through the end of October, before the November elections.



Conclusion:

The weight of the technical evidence, as illustrated in this month's *Informed Investor* publication, suggests a rotation toward SMID-cap stocks is underway. We believe this rotation results from a changing Fed policy, interest rates, and a normalizing yield curve. While the economic outlook remains somewhat hazy, the major averages remain technically constructive.

We anticipate equity markets will remain choppy ahead of the November U.S. Presidential election. SMID caps have historically outperformed large caps in the second half of the fourth year of a Presidential cycle. Hence, we are willing to "roll with the changes" and look "down-cap" to "RUSSELL Up Some Winners." We maintain our year-end SPX price objective of 5,800.

Major Averages Performance | After the First Rate Cut:

The table below shows the three-month forward returns after the Federal Reserve's first rate cut after a tightening cycle since 1989.

On average, the Russell Value Index outperformed over the next three months, with a 67% positivity rate. It was followed by strength in the S&P 500 and Russell Growth Index. The Nasdaq Composite was a notable laggard with a small 0.25% loss.

From a median return perspective, growth, value, and the S&P indices outperformed three months after the first rate cut, while Mid-caps lagged.

Major Averages Performance After the First Rate Cut (1989-YTD)							
First Rate Cut Date	3-month Forward Returns						
	MID	RLV	SPX	INDU	RUT	RLG	COMPQ
06/01/1989	-	7.81%	9.16%	9.90%	2.97%	10.49%	4.69%
07/06/1995	5.37%	5.55%	5.17%	2.12%	5.26%	6.18%	6.43%
09/02/1998	20.06%	15.82%	18.25%	16.48%	12.70%	21.35%	25.26%
01/03/2001	-15.65%	-9.83%	-18.13%	-13.07%	-12.11%	-29.86%	-37.37%
09/18/2007	-3.92%	-7.46%	-4.26%	-3.69%	-6.52%	-0.84%	-2.10%
07/31/2019	0.16%	1.70%	2.23%	1.20%	-0.11%	1.97%	1.57%
Average	1.21%	2.27%	2.07%	2.16%	0.36%	1.55%	-0.25%
Median	0.16%	3.63%	3.70%	1.66%	1.43%	4.08%	3.13%
% Positive	60%	67%	67%	67%	50%	67%	67%
Maximum	20.06%	15.82%	18.25%	16.48%	12.70%	21.35%	25.26%
Minimum	-15.65%	-9.83%	-18.13%	-13.07%	-12.11%	-29.86%	-37.37%

Source: Piper Sandler Technical Research/Bloomberg

PSC Sector Performance | After the First Rate Cut:

The table below shows that most sectors performed better three months after the Federal Reserve's first rate cut after a tightening cycle since 1989.

Utilities and Staples were particularly strong, followed by Cyclical with at least a 67% positivity rate.

Energy, Technology, and Communications were often laggards three months after the first rate cut.

PSC Sector Performance After the First Rate Cut (1989-YTD)												
First Rate Cut Date	PSC Sector Performance 3-month Forward Returns											
	Energy	Materials	Industrials	Utilities	Services	Financials	Transportation	Healthcare	Staples	Cyclicals	Technology	Communications
06/01/1989	6.64%	5.73%	3.93%	5.02%	0.73%	6.79%	10.47%	1.95%	6.79%	6.70%	-1.74%	9.68%
07/06/1995	0.43%	-0.44%	2.06%	5.61%	8.03%	9.79%	1.58%	16.00%	3.73%	3.12%	5.79%	9.28%
09/02/1998	-2.80%	10.06%	7.34%	8.83%	10.75%	4.77%	7.36%	20.31%	9.73%	9.06%	31.21%	11.17%
01/03/2001	-1.95%	1.17%	-1.34%	-0.69%	-11.73%	-0.99%	-4.88%	-17.31%	6.11%	4.48%	-36.68%	-23.87%
09/18/2007	-0.74%	-5.34%	-5.59%	2.70%	-4.78%	-12.08%	-11.62%	-5.74%	-3.23%	-14.73%	-6.41%	-6.56%
07/31/2019	-10.01%	3.76%	4.74%	0.19%	-1.15%	3.76%	9.06%	-2.68%	-1.81%	5.10%	1.95%	-3.91%
Average	-1.41%	2.49%	1.86%	3.61%	0.31%	2.01%	1.99%	2.09%	3.55%	2.29%	-0.98%	-0.70%
Median	-1.35%	2.46%	3.00%	3.86%	-0.21%	4.27%	4.47%	-0.36%	4.92%	4.79%	0.11%	2.68%
% Positive	33%	67%	67%	83%	50%	67%	67%	50%	67%	83%	50%	50%
Maximum	6.64%	10.06%	7.34%	8.83%	10.75%	9.79%	10.47%	20.31%	9.73%	9.06%	31.21%	11.17%
Minimum	-10.01%	-5.34%	-5.59%	-0.69%	-11.73%	-12.08%	-11.62%	-17.31%	-3.23%	-14.73%	-36.68%	-23.87%

Source: Piper Sandler Technical Research

Yield Curve Inversion | Reversion to Normal:

Last week, the 10/2s yield curve normalized for the first time in over two years. Our research showed that the equity markets often advanced over the next 4/13/26/ and 52 weeks after the yield curve normalizes.

Major Averages Performance When the 10-/2-year Yield Spread Rise From Negative to Positive (1977-YTD)																				
Date	SPX - Forward Returns				INDU - Forward Returns				COMPO - Forward Returns				RTY - Forward Returns				MID - Forward Returns			
	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week
05/30/1980	4.28%	10.01%	26.32%	19.19%	3.64%	9.61%	16.75%	16.56%	5.80%	20.65%	38.35%	48.53%	5.01%	23.01%	40.63%	53.32%	-	-	-	-
10/30/1981	2.63%	-1.22%	-4.47%	9.70%	3.92%	2.18%	-0.49%	16.32%	2.96%	-3.51%	-5.40%	8.91%	2.39%	-2.88%	-4.75%	10.68%	-	-	-	-
05/31/1982	-1.45%	5.17%	19.95%	47.00%	-0.93%	9.00%	22.37%	48.39%	-4.18%	-1.22%	27.92%	74.78%	-4.08%	0.59%	28.34%	77.91%	-	-	-	-
07/30/1982	9.36%	24.86%	34.94%	51.80%	9.26%	22.65%	31.68%	48.31%	6.12%	27.06%	47.55%	81.63%	6.54%	27.16%	49.36%	89.38%	-	-	-	-
06/30/1989	7.60%	9.80%	11.14%	12.59%	8.00%	10.36%	12.83%	18.06%	4.03%	8.64%	4.49%	6.20%	3.52%	6.24%	0.51%	1.07%	-	-	-	-
10/31/1989	1.59%	-5.11%	-2.38%	-10.67%	2.15%	-3.85%	0.90%	-7.45%	0.23%	-9.86%	-7.42%	-27.61%	0.55%	-8.64%	-5.15%	-28.72%	-	-	-	-
07/31/1998	-8.35%	-1.96%	14.19%	18.56%	-9.36%	-3.28%	5.35%	19.95%	-12.43%	-5.39%	33.83%	40.92%	-14.63%	-9.91%	1.68%	5.91%	-13.28%	-3.39%	8.95%	17.84%
12/29/2000	2.63%	-12.11%	-7.26%	-12.06%	-1.18%	-8.42%	-2.64%	-6.02%	12.58%	-25.51%	-12.52%	-19.56%	3.13%	-6.83%	6.09%	2.08%	0.44%	-11.00%	0.46%	-0.50%
03/31/2006	1.22%	-1.90%	3.17%	9.73%	2.32%	5.13%	11.21%	-0.74%	-7.17%	-3.48%	3.50%	-0.08%	-5.29%	-5.17%	4.65%	1.34%	-3.44%	-4.78%	7.12%	
07/31/2006	1.97%	7.93%	11.28%	15.45%	1.49%	8.05%	11.67%	19.42%	3.31%	13.02%	16.72%	23.52%	0.87%	9.96%	13.21%	11.94%	-0.17%	6.23%	10.80%	16.67%
03/30/2007	5.15%	5.81%	7.45%	-7.43%	6.21%	8.53%	12.48%	-1.12%	5.60%	7.50%	11.56%	-6.63%	3.62%	4.12%	0.59%	-14.68%	4.47%	5.54%	4.31%	-8.96%
06/29/2007	-2.95%	1.56%	-1.65%	-14.96%	-1.07%	3.63%	-0.32%	-15.38%	-1.57%	3.77%	2.74%	-11.05%	-6.70%	-3.39%	-7.43%	-16.26%	-4.10%	-1.17%	-3.62%	-8.07%
09/30/2019	2.11%	8.22%	-11.76%	12.59%	0.65%	5.74%	-17.05%	2.48%	4.08%	11.83%	-2.82%	38.98%	3.19%	9.24%	-23.96%	-0.86%	1.82%	6.47%	-24.61%	-3.89%
04/29/2022	0.64%	-0.04%	-5.59%	0.91%	0.71%	-0.40%	-0.35%	3.40%	-1.65%	0.45%	-9.99%	-0.88%	1.28%	1.13%	-0.92%	-5.10%	1.58%	0.50%	-2.61%	-0.39%
Average	1.89%	3.64%	6.81%	10.89%	1.84%	4.58%	7.02%	12.44%	1.72%	2.88%	10.11%	18.66%	0.33%	3.18%	6.64%	13.67%	-0.99%	-0.03%	-1.39%	2.48%
Median	2.04%	3.36%	5.31%	11.16%	1.82%	4.69%	5.24%	13.77%	3.14%	2.11%	3.61%	7.55%	1.83%	0.86%	0.55%	3.36%	0.89%	-0.33%	-1.08%	-0.45%
% Positive	79%	57%	57%	71%	71%	71%	64%	71%	64%	57%	57%	64%	71%	57%	57%	64%	63%	50%	50%	38%
Maximum	9.36%	24.86%	34.94%	51.80%	9.26%	22.65%	31.68%	48.39%	12.58%	27.06%	47.55%	81.63%	6.54%	27.16%	49.36%	89.38%	4.47%	6.47%	10.80%	17.84%
Minimum	-8.35%	-12.11%	-11.76%	-14.96%	-9.36%	-8.42%	-17.05%	-15.38%	-12.43%	-25.51%	-12.52%	-27.61%	-14.63%	-9.91%	-23.96%	-28.72%	-13.28%	-11.00%	-24.61%	-8.96%

Source: Piper Sandler Technical Research/Bloomberg

The table below shows how our PSC sectors performed after the yield curve rose from negative to positive.

In the short term (4 to 13 weeks), the average return of **Transportation, Staples, and Healthcare** have performed best, while **Financials** and **Energy** underperformed.

The **Technology, Healthcare, and Services** sectors performed well over the intermediate-to-long term (26 to 52 weeks), while the **Energy, Financials, and Utilities** underperformed.

PSC Sector Performance When the 10-/2-year Yield Spread Rise From Negative to Positive (1977-YTD)												
Sector	Average Forward Returns				Median Forward Returns				% Positive			
	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week
Energy	0.56%	0.74%	-2.72%	0.56%	1.58%	0.72%	-3.51%	1.58%	64%	57%	43%	64%
Materials	0.93%	2.74%	1.54%	11.10%	1.66%	2.83%	-1.61%	5.19%	71%	64%	50%	57%
Industrials	0.56%	2.60%	2.50%	11.23%	1.65%	1.28%	-5.25%	0.98%	64%	57%	43%	57%
Utilities	1.24%	2.07%	1.45%	4.89%	0.95%	1.26%	2.84%	1.13%	57%	71%	57%	57%
Services	0.66%	2.97%	6.89%	14.95%	0.94%	-1.05%	-2.67%	2.06%	57%	50%	43%	50%
Financials	0.01%	1.06%	-0.63%	1.56%	0.85%	0.76%	-3.72%	-4.98%	57%	50%	43%	43%
Transportation	1.47%	4.59%	4.69%	12.73%	1.11%	4.87%	-3.11%	-2.61%	71%	57%	43%	50%
Healthcare	0.22%	3.48%	8.78%	20.93%	1.38%	-0.23%	1.26%	11.56%	64%	50%	57%	64%
Staples	0.67%	3.33%	5.27%	15.52%	1.95%	2.06%	1.72%	7.54%	71%	57%	57%	50%
Cyclicals	0.64%	2.46%	3.89%	17.61%	1.53%	2.58%	-5.71%	1.85%	57%	57%	43%	57%
Technology	1.79%	2.27%	8.89%	23.36%	1.16%	-0.43%	-2.21%	14.18%	57%	50%	43%	57%
Communication	2.58%	0.87%	3.09%	9.52%	1.03%	1.78%	1.30%	3.71%	57%	50%	57%	50%
SPX	1.89%	3.64%	6.81%	10.89%	2.04%	3.36%	5.31%	11.16%	79%	57%	57%	71%

Source: Piper Sandler Technical Research/Bloomberg

SPX | Historical Percentage from a New High When Fed Has Cuts Rates:

Our research showed that since 1989, the SPX has been approximately 5% to 7% below its all-time high when the Federal Reserve made its first rate cut after a tightening cycle. Also, the median number of days to recover to a new high has been 69 days. Thus, any near-term seasonal weakness should be considered a buying opportunity.

SPX % of Distance From New High When Fed Cuts Rates (1989-YTD)				
One Day Before the First Rate Cut Date	Price	All-time Highs	% of Distance From New Highs	# of Days to Recover New Highs
05/31/1989	320.52	336.77	-4.83%	55
07/05/1995	547.26	551.07	-0.69%	1
09/01/1998	994.26	1186.75	-16.22%	82
01/02/2001	1283.27	1527.46	-15.99%	2338
09/17/2007	1476.65	1553.08	-4.92%	17
07/30/2019	3013.18	3025.86	-0.42%	89
Average			-7.18%	430
Median			-4.87%	69
Maximum			-0.42%	2338
Minimum			-16.22%	1

Source: Piper Sandler Technical Research/Bloomberg

Major Asset Class Seasonality Analysis | September:

From a macro perspective, our research showed that **WTI Crude Oil** and **Gold** outperformed while equities historically declined during September.

Among stock indices, SMID-caps typically performed better than Large-caps (SPX) during September.

Major Asset Class September Month Seasonality							
Stat Metrics	SPX (1928-2023)	MID (1991-2023)	RTY (1979-2023)	DXY (1967-2023)	10-year Yield (1962-2023)	Gold (1971-2023)	WTIC (1983-2023)
Average	-1.20%	-0.67%	-0.80%	-0.29%	0.20%	1.25%	1.63%
Median	-0.56%	-0.49%	0.17%	-0.16%	0.06%	0.59%	0.93%
% Positive	43.75%	48.48%	51.11%	40.35%	51.61%	52.83%	51.22%
Maximum	14.40%	11.15%	12.30%	5.99%	19.92%	26.07%	44.62%
Minimum	-29.94%	-12.51%	-13.59%	-5.39%	-13.85%	-11.61%	-13.86%

Source: Piper Sandler Technical Research/Bloomberg

Major Averages and PSC Sector Performance | September to December (Election Years):

From a style perspective, the Russell 1000 Growth Index had significantly underperformed the Russell 1000 Value Index and the S&P 500 during election years since 1979. The Value index was up an average of 3.6% with a median of 5.5% approximately 91% of the time.

Style Performance September to December (1979-YTD)						
Stat Metric	All-Years			4th Year of a Presidential Cycle		
	Russell 1000 Growth	Russell 1000 Value	S&P 500	Russell 1000 Growth	Russell 1000 Value	S&P 500
Average	4.07%	3.13%	3.57%	-0.24%	3.58%	1.39%
Median	4.09%	3.60%	3.64%	5.86%	5.49%	5.24%
% Positive	75.56%	73.33%	75.56%	63.64%	90.91%	81.82%
Maximum	36.03%	22.45%	28.41%	15.48%	13.33%	13.61%
Minimum	-32.17%	-28.80%	-29.59%	-32.17%	-28.80%	-29.59%

Source: Piper Sandler Technical Research/Bloomberg

Evaluating the same parameters from a market-cap performance, large-caps significantly underperformed SMID-caps by 3% to 6% during election years since 1994.

Market-Cap Performance September to December (1994-YTD)						
Stat Metric	All-Years			4th Year of a Presidential Cycle		
	Large-cap	Mid-cap	Small-cap	Large-cap	Mid-cap	Small-cap
Average	4.13%	5.17%	5.43%	-2.08%	2.46%	5.15%
Median	5.26%	5.09%	4.36%	3.27%	6.12%	9.97%
% Positive	76.67%	73.33%	73.33%	71.43%	71.43%	71.43%
Maximum	28.19%	39.56%	29.02%	14.35%	19.73%	24.49%
Minimum	-26.96%	-34.00%	-30.62%	-26.96%	-34.00%	-30.62%

Source: Piper Sandler Technical Research/Bloomberg

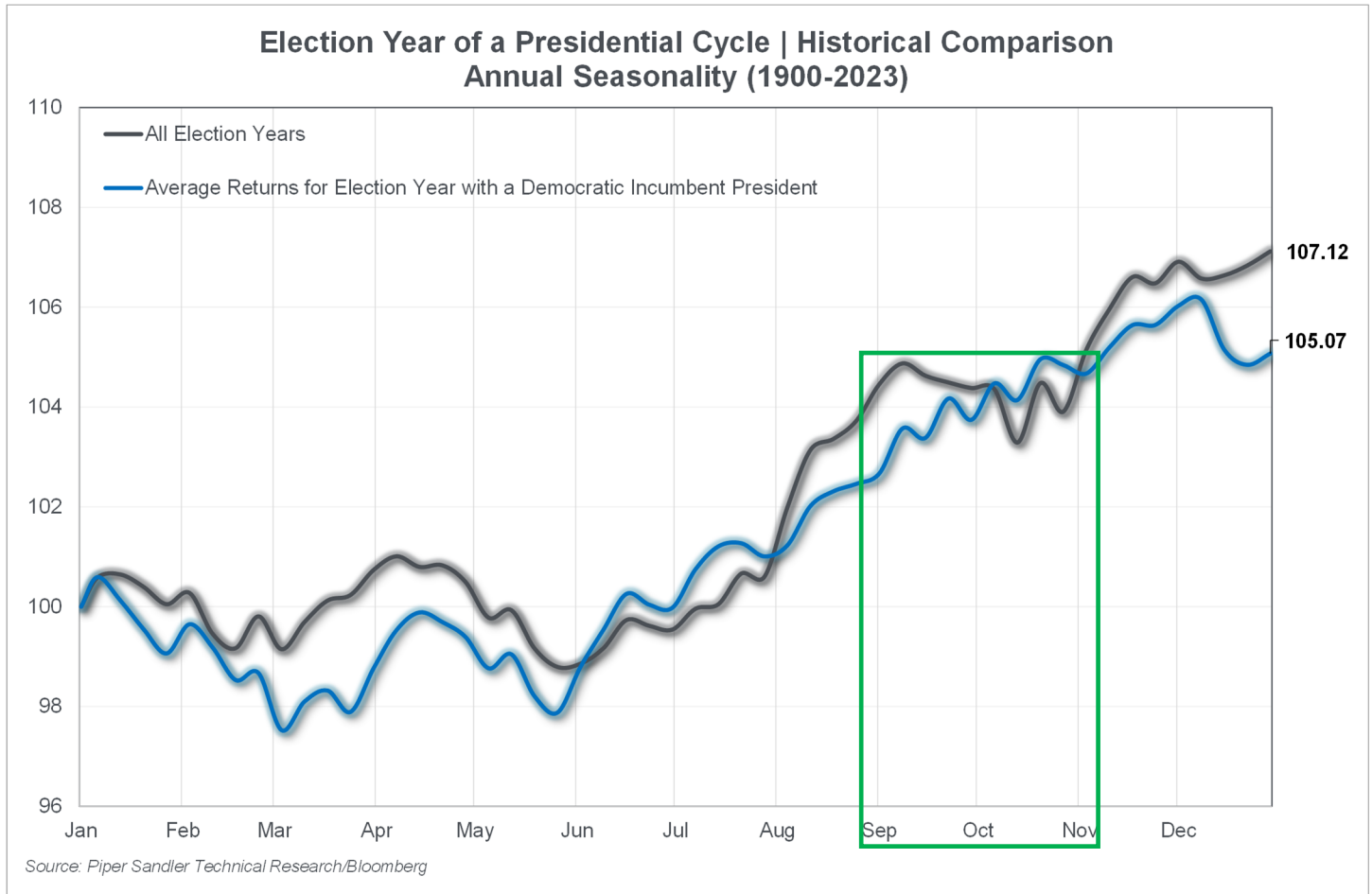
Our research showed that the best four-month performance between September and December among our PSC sectors during an election year since 1969 has been *Financials* (up an average of 6.4% with an 84% positivity rate), while the weakest sector has been *Technology* (down 2.9% with a 69% positivity).

PSC Sector Performance September to December (1969-YTD)										
Sector	All-Years					4th Year of a Presidential Cycle				
	Average	Median	%Positive	Maximum	Minimum	Average	Median	%Positive	Maximum	Minimum
Energy	↓ -0.48%	1.99%	52.73%	30.10%	-71.28%	3.31%	13.05%	69.23%	24.42%	-71.28%
Basic Materials	0.46%	0.26%	54.55%	30.91%	-51.79%	0.34%	1.71%	69.23%	21.14%	-51.79%
Industrials	0.90%	1.15%	52.73%	27.33%	-47.88%	2.39%	6.49%	76.92%	23.36%	-47.88%
Utilities	2.12%	2.70%	63.64%	16.94%	-25.80%	3.52%	2.75%	76.92%	15.91%	-25.80%
Services	2.09%	3.57%	61.82%	35.03%	-39.48%	1.90%	4.62%	69.23%	21.20%	-39.48%
Financials	↑ 1.28%	2.74%	61.82%	24.73%	-30.62%	↑ 6.41%	8.35%	84.62%	20.30%	-29.36%
Transportation	0.37%	2.07%	56.36%	29.71%	-49.29%	1.78%	5.27%	69.23%	23.17%	-49.29%
Healthcare	↑ 2.59%	5.42%	61.82%	35.58%	-35.75%	-0.10%	-0.46%	46.15%	17.07%	-35.75%
Consumer Staples	1.27%	2.72%	63.64%	26.73%	-28.24%	2.49%	3.90%	76.92%	12.31%	-28.24%
Consumer Cyclical	0.72%	1.86%	52.73%	36.50%	-47.97%	1.41%	3.65%	61.54%	22.66%	-47.97%
Technology	2.51%	3.38%	63.64%	48.46%	-57.46%	↓ -2.93%	4.28%	69.23%	25.83%	-57.46%
Communications	1.80%	2.68%	58.18%	30.97%	-53.58%	-2.12%	3.77%	69.23%	16.31%	-53.58%
S&P 500	3.05%	3.18%	70.91%	28.41%	-29.59%	2.00%	5.24%	84.62%	13.61%	-29.59%

Source: Piper Sandler Technical Research/Bloomberg

DJIA | Election Year Analysis:

Historically, September is the worst-performing month of the year. However, in Election years when there is a Democratic incumbent, there tends to be more of a choppy uptrend leading up to November. Therefore, we suspect the next several weeks could consist of a modest backing and filling underpinned with a bullish tone.



Voting With Your Wallet:

It has been said that when people vote, they often "vote with their wallets." In other words, they choose the candidate who will be best for the economy, their investments, and their spending habits.

We analyzed the returns of the DJIA during all election years since 1900. We found that when returns are positive three months before an election, the incumbent party usually is re-elected (77.42% accuracy).

The table below highlights the results of our analysis and the success rate of using market returns to predict presidential elections.

DJIA Performance Leading Into an Election - Historical Perspective					
Election Year	DJIA % Change (-3 M)	Recessionary Env.	Winning Party	Incumbent/Non-Incumbent	As Predicted
1900	3.94%	Yes	Republican	Incumbent	Yes
1904	20.93%	No	Republican	Incumbent	Yes
1908	3.21%	No	Republican	Incumbent	Yes
1912	1.11%	No	Democratic	Non-Incumbent	No
1916	17.21%	No	Democratic	Incumbent	Yes
1920	-2.05%	Yes	Republican	Non-Incumbent	Yes
1924	1.88%	No	Republican	Incumbent	Yes
1928	16.74%	No	Republican	Incumbent	Yes
1932	14.86%	No	Democratic	Non-Incumbent	No
1936	7.45%	No	Democratic	Incumbent	Yes
1940	6.71%	No	Democratic	Incumbent	Yes
1944	0.29%	No	Democratic	Incumbent	Yes
1948	3.83%	No	Democratic	Incumbent	Yes
1952	-3.70%	No	Republican	Non-Incumbent	Yes
1956	-7.33%	No	Republican	Incumbent	No
1960	-5.90%	Yes	Democratic	Non-Incumbent	Yes
1964	3.80%	No	Democratic	Incumbent	Yes
1968	7.86%	No	Republican	Non-Incumbent	No
1972	3.33%	No	Republican	Incumbent	Yes
1976	-2.00%	No	Democratic	Non-Incumbent	Yes
1980	-1.16%	No	Republican	Non-Incumbent	Yes
1984	8.26%	No	Republican	Incumbent	Yes
1988	0.94%	No	Republican	Incumbent	Yes
1992	-4.94%	No	Democratic	Non-Incumbent	Yes
1996	9.05%	No	Democratic	Incumbent	Yes
2000	4.27%	No	Republican	Non-Incumbent	No
2004	-1.11%	No	Republican	Incumbent	No
2008	-18.04%	Yes	Democratic	Non-Incumbent	Yes
2012	0.67%	No	Democratic	Incumbent	Yes
2016	-1.57%	No	Republican	Non-Incumbent	Yes
2020	0.28%	No	Democratic	Non-Incumbent	No

Source: Piper Sandler Technical Research/Bloomberg

Accuracy

77.42%

Price Action Into & Out of an Election – Since 1900:

This study analyzes the performance of the DJIA index going into and out of an election on a +/- 3-month basis. In summary:

- Incumbent (Republican and Democrat): Average returns going into an election usually start strong in August, followed by a flat/negative return in the next two months. November is generally a comeback month.
- Incumbent (Republican): After a strong August, average returns going into an election (-1/-2 months particularly) are negative. Once the election is finalized, November is generally a comeback month.
- Incumbent (Democrat): Average returns going into an election (-1/-2/-3 months) are positive, but November posted relatively small average returns, around 0.5% after the election.
- From a performance perspective, the highest average returns are observed during August, followed by November (suggesting a positive environment for stocks after the election results).

INDU Market Performance During U.S. Elections (1900-2020)							
Incumbent (Both Republican and Democrat)	-3 month (Aug.)	-2 month (Sep.)	-1 month (Oct.)	Election (Nov.)	+1 month (Dec.)	+2 month (Jan.)	+3 month (Feb.)
Average	2.88%	-0.22%	0.34%	2.25%	1.08%	0.45%	-1.25%
Median	1.47%	-0.92%	0.24%	2.44%	1.90%	0.51%	-1.01%
% Positive	71%	39%	61%	65%	61%	61%	42%
Maximum	35.76%	12.44%	9.45%	16.35%	8.47%	8.01%	5.36%
Minimum	-4.56%	-7.32%	-14.06%	-10.63%	-10.35%	-8.84%	-15.62%
# of occurrences: 31							
Incumbent (Republican)	-3 month (Aug.)	-2 month (Sep.)	-1 month (Oct.)	Election (Nov.)	+1 month (Dec.)	+2 month (Jan.)	+3 month (Feb.)
Average	4.42%	-1.54%	-0.47%	3.71%	2.44%	-0.34%	-2.00%
Median	1.96%	-1.26%	0.06%	2.91%	2.56%	-1.78%	-1.01%
% Positive	76%	29%	59%	65%	71%	47%	35%
Maximum	35.76%	5.53%	9.45%	16.35%	8.47%	8.01%	5.36%
Minimum	-4.56%	-7.32%	-14.06%	-8.97%	-3.71%	-8.84%	-15.62%
# of occurrences: 17							
Incumbent (Democrat)	-3 month (Aug.)	-2 month (Sep.)	-1 month (Oct.)	Election (Nov.)	+1 month (Dec.)	+2 month (Jan.)	+3 month (Feb.)
Average	1.02%	1.38%	1.32%	0.47%	-0.57%	1.41%	-0.34%
Median	0.62%	0.45%	1.17%	0.92%	0.23%	0.98%	-0.72%
% Positive	64%	50%	64%	64%	50%	79%	50%
Maximum	6.59%	12.44%	5.60%	8.17%	3.58%	5.81%	4.77%
Minimum	-1.62%	-5.03%	-2.54%	-10.63%	-10.35%	-5.34%	-4.32%
# of occurrences: 14							

Recession Study I Announcement vs. Declaration:

In the studies presented on the following two pages, we show the National Bureau of Economic Research (NBER) has announced that a recession began (on average) approximately eight months from their backdated declaration start dates and announced a recession has ended (on average) about fifteen months from their backdated declaration end dates.

Our research also showed that the average length of the past fifteen recessions (since 1929) declared by the NBER was approximately thirteen months.

In addition, we analyzed which sectors from our unweighted MicroGroups outperformed and underperformed during each declared recession since 1969. The Healthcare sector outperformed three times during the last eight recessions. *Staples* outperformed on two occasions. The *Energy* sector underperformed three times, and the *Communications* group underperformed twice.

Forward returns for the S&P 500 after a recession's declared end date showed average returns of 4.9%, 12.4%, 14.4%, 17.5%, and 20.3% over the next 4/13/26/52/104 weeks. The mean return was 2.5%, 6.9%, 12.7%, 12.1%, and 20.4% during those same periods. Positivity of those following weeks after the declared end date of the recession was greater than 73%.

U.S. Business Cycle Contraction S&P 500 (1929-YTD)										
Recession				S&P 500 Forward Returns After Ending Recession					Sector Leaders	Sector Laggards
Start Date	End Date	% Return	# Months	+4-week	+13-week	+26-week	+52-week	+104-week	During Recession	During Recession
08/01/1929	03/31/1933	-79.88%	43	33.85%	86.50%	66.15%	81.54%	44.44%	-	-
05/03/1937	06/30/1938	-29.81%	13	6.66%	5.88%	13.67%	-6.06%	-13.67%	-	-
02/01/1945	10/31/1945	23.33%	8	3.24%	11.53%	12.67%	-10.87%	-7.33%	-	-
11/01/1948	10/31/1949	-3.95%	11	0.12%	6.30%	11.97%	21.76%	43.02%	-	-
07/01/1953	05/31/1954	20.42%	10	0.07%	2.19%	17.30%	29.87%	54.85%	-	-
08/01/1957	04/30/1958	-9.10%	8	1.50%	8.63%	18.16%	32.57%	25.16%	-	-
04/01/1960	02/28/1961	14.45%	10	2.55%	4.92%	7.30%	10.28%	1.34%	-	-
12/01/1969	11/30/1970	-6.46%	11	5.68%	10.95%	14.25%	7.79%	33.80%	Utilities	Technology
11/01/1973	03/31/1975	-22.59%	16	4.73%	14.19%	0.61%	23.28%	18.07%	Basic Materials	Financials
01/02/1980	07/31/1980	15.04%	6	0.58%	4.77%	6.48%	7.60%	-11.98%	Healthcare	Communications
07/01/1981	11/30/1982	6.76%	16	1.52%	6.87%	17.22%	20.11%	18.07%	Staples	Energy
07/02/1990	03/29/1991	4.36%	8	0.03%	-1.08%	3.37%	7.59%	20.37%	Healthcare	Energy
03/01/2001	11/30/2001	-8.20%	8	0.76%	-2.87%	-6.35%	-17.83%	-7.13%	Cyclicals	Communications
12/03/2007	06/30/2009	-37.56%	18	7.41%	14.98%	21.30%	12.12%	43.65%	Staples	Transportation
02/03/2020	04/30/2020	-10.36%	2	4.53%	12.32%	12.28%	43.56%	41.87%	Healthcare	Energy
Average		-8.24%	13	4.88%	12.41%	14.43%	17.55%	20.30%	-	-
Median		-6.46%	10	2.55%	6.87%	12.67%	12.12%	20.37%	-	-
% Positive		40%	-	100%	87%	93%	80%	73%	-	-
Maximum		23.33%	43	33.85%	86.50%	66.15%	81.54%	54.85%	-	-
Minimum		-79.88%	2	0.03%	-2.87%	-6.35%	-17.83%	-13.67%	-	-

Source: Piper Sandler Technical Research/nber.org/Bloomberg

The table shown below highlights the forward returns of the S&P 500 index, starting from 1980 when the National Bureau of Economics (NBER) began to announce a declared start date for recessions.

On average, the NBER has backdated the declaration of the start of a recession by approximately eight months from its actual announcement date. From its announcement date, forward returns for the S&P have averaged 1%, -0.26%, 6.17%, and 15.44% over the next 4/13/26/52 weeks.

NBER - Announcement of Recession S&P 500 (1980-YTD)											
Announcement Date				Declaration Date		# of Months from Announcement Start Date – Declaration Start Date	# of Months from Declaration End Date – Announcement End Date	S&P 500 Forward Returns From Announcement Start Date			
Start Date	End Date	% Return	# of Months	Start Date	End Date			+4-week	+13-week	+26-week	+52-week
06/03/1980	07/08/1981	16.12%	13.3	01/02/1980	07/31/1980	5.1	-11.4	4.00%	11.96%	23.94%	18.28%
01/06/1982	07/08/1983	40.19%	18.3	07/01/1981	11/30/1982	6.3	-7.3	-2.27%	-3.21%	-10.04%	18.60%
04/25/1991	12/22/1992	16.10%	20.2	07/02/1990	03/29/1991	9.9	-21.1	-1.13%	0.45%	2.29%	8.53%
11/26/2001	07/17/2003	-15.18%	19.9	03/01/2001	11/30/2001	9.0	-19.8	-1.10%	-4.11%	-7.76%	-19.40%
12/01/2008	09/20/2010	40.00%	21.9	12/03/2007	06/30/2009	12.1	-14.9	9.12%	-12.66%	14.16%	35.85%
06/08/2020	07/19/2021	31.74%	13.5	02/03/2020	04/30/2020	4.2	-14.8	-2.69%	6.02%	14.44%	30.78%
Average		21.50%	18	-	-	8	-15	0.99%	-0.26%	6.17%	15.44%
Median		23.93%	19	-	-	8	-15	-1.12%	-1.38%	8.22%	18.44%
% Positive		83%	-	-	-	-	-	33%	50%	67%	83%
Maximum		40.19%	22	-	-	12	-7	9.12%	11.96%	23.94%	35.85%
Minimum		-15.18%	13	-	-	4	-21	-2.69%	-12.66%	-10.04%	-19.40%

Announcement Start Date = the date the NBER announced the start a recession *Announcement End Date* = the date the NBER announced the end of recession Source: Piper Sandler Technical Research/nber.org/Bloom
 Declaration Start Date = the date the NBER back-dated as the start of the recession *Declaration End Date* = the date the NBER back-dated as the end of the recession

The table below shows the *U.S. Dollar's* performance since 1980 when the NBER announced that a recession had started. For the following 4/13/26/52 weeks, it had average forward returns of -0.69%, +1.61%, +0.13%, and +0.49%. The *U.S. 10-year Yield* showed average forward returns of -8%, -0.67%, +8.9%, and +11% for the following 4/13/26/52 weeks after the announcement that a recession had begun.

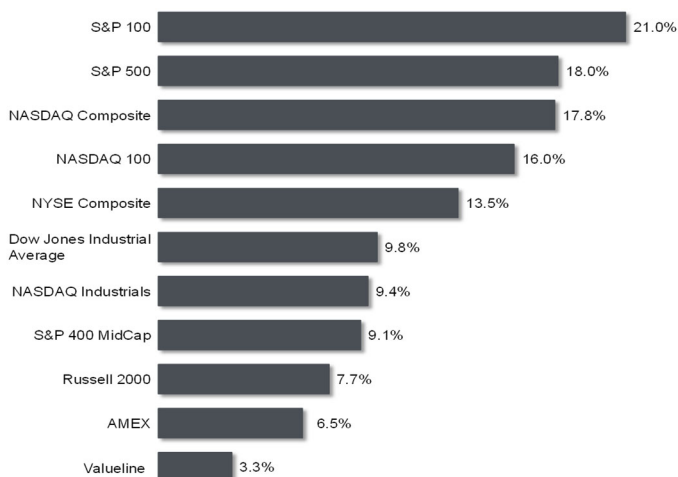
NBER - Announcement of Recession US Dollar Index and US 10-year Yield (1980-YTD)															
Announcement Date				Declaration Date		# of Months from Announcement Start Date – Declaration Start Date	# of Months from Declaration End Date – Announcement End Date	US Dollar Forward Returns From Announcement Start Date				US 10-year Yield Forward Returns From Announcement Start Date			
Start Date	End Date	% Return	# of Months	Start Date	End Date			+4-week	+13-week	+26-week	+52-week	+4-week	+13-week	+26-week	+52-week
06/03/1980	07/08/1981	16.12%	13.3	01/02/1980	07/31/1980	5.1	-11.4	-1.13%	-1.02%	4.84%	26.03%	-0.30%	11.42%	27.06%	31.49%
01/06/1982	07/08/1983	40.19%	18.3	07/01/1981	11/30/1982	6.3	-7.3	4.37%	9.38%	15.35%	10.75%	1.17%	-4.18%	-3.84%	-29.26%
04/25/1991	12/22/1992	16.10%	20.2	07/02/1990	03/29/1991	9.9	-21.1	-1.46%	1.00%	-1.76%	-3.27%	0.12%	1.42%	-5.31%	-6.62%
11/26/2001	07/17/2003	-15.18%	19.9	03/01/2001	11/30/2001	9.0	-19.8	0.68%	1.75%	-3.68%	-10.26%	2.41%	-3.63%	0.92%	-15.09%
12/01/2008	09/20/2010	40.00%	21.9	12/03/2007	06/30/2009	12.1	-14.9	-6.72%	2.56%	-8.51%	-13.42%	-24.82%	8.92%	29.62%	23.92%
06/08/2020	07/19/2021	31.74%	13.5	02/03/2020	04/30/2020	4.2	-14.8	0.11%	-4.01%	-5.49%	-6.88%	-26.91%	-17.96%	4.88%	63.60%
Average		21.50%	18	-	-	8	-15	-0.69%	1.61%	0.13%	0.49%	-8.05%	-0.67%	8.89%	11.34%
Median		23.93%	19	-	-	8	-15	-0.51%	1.37%	-2.72%	-5.08%	-0.09%	-1.10%	2.90%	8.65%
% Positive		83%	-	-	-	-	-	50%	67%	33%	33%	50%	50%	67%	50%
Maximum		40.19%	22	-	-	12	-7	4.37%	9.38%	15.35%	26.03%	2.41%	11.42%	29.62%	63.60%
Minimum		-15.18%	13	-	-	4	-21	-6.72%	-4.01%	-8.51%	-13.42%	-26.91%	-17.96%	-5.31%	-29.26%

Announcement Start Date = the date the NBER announced the start a recession *Announcement End Date* = the date the NBER announced the end of recession Source: Piper Sandler Technical Research/nber.org/Bloomberg
 Declaration Start Date = the date the NBER back-dated as the start of the recession *Declaration End Date* = the date the NBER back-dated as the end of the recession

In conclusion, our research shows that 10 of the 15 recessions since 1929 have lasted less than one year, the average being 13 months. Forward returns on the SPX have been higher 26 weeks after the announcement of a recession 67% of the time. The U.S. Dollar has generally strengthened, and the benchmark 10-year bond yield has initially fallen but quickly recovered 26 weeks later.

Top-Down Analysis | Index & Sector Performance YTD

Market Performance (YTD) - Popular Averages

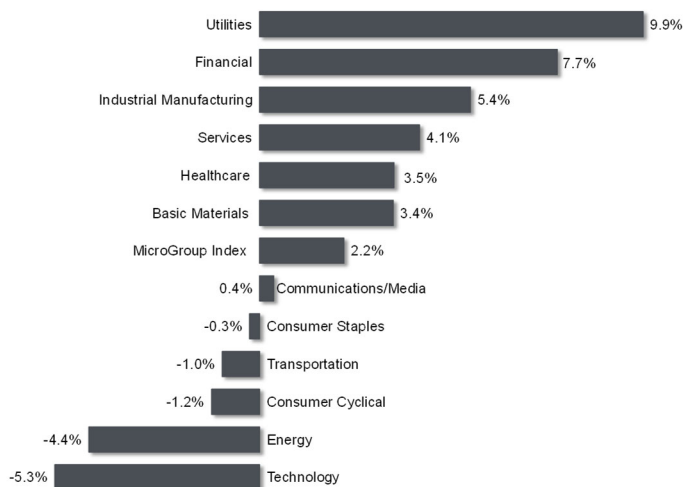


From a performance perspective, the S&P 100, S&P 500, *NASDAQ 100*, and *NASDAQ Composite* have led equities higher, advancing at least 16.0% YTD.

The *Dow Industrials* index is up 9.8% YTD.

The *Value line* and *AMEX* are at the bottom of the index leaderboard, up at least 3.3% YTD.

Market Performance (YTD) - Unwtd Sectors

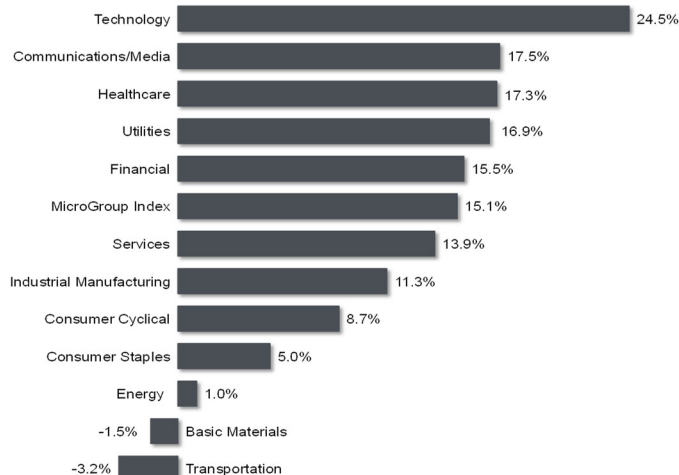


Six of the twelve Piper Sandler sectors were positive YTD on an unweighted basis (equally weighted).

Utilities have outperformed with 9.9% gain.

Energy and *Technology* are the worst performing sectors YTD, with at least -4.4% decline.

Market Performance (YTD) - Wtd Sectors



On a weighted sector basis (market-cap weighted), *Communications/Media* and *Technology* are leading with at least a 17.5% return YTD.

Note the performance deltas between select unweighted and weighted sectors. For example, the weighted or large-cap focused *Technology* sector was up 24.5%, while its unweighted counterpart had declined -5.3%. The 29.8% performance gap illustrates why we look at our sector work on both an Unwtd and Wtd basis.

Source: Piper Sandler Technical Research

Top-Down Analysis | Best & Worst Industry Groups YTD

The table below highlights the best/worst-performing MicroGroups (MGs) YTD. On the leadership side (left), MGs are the most prevalent in the *Industrials* and *Services* sectors. *Technology* sector MG comprised most of the YTD laggards list.

Leaders & Laggards - YTD							
Rank	MG	Name	Leaders	Rank	MG	Name	Laggards
1	836	Cannabis, Pri.	79.22%	416	1002	Automobile Manufacturers, Sec.	-55.06%
2	1213	Network Infrastructure, Sec.	64.78%	415	1038	Extreme Value Stores	-49.43%
3	1406	Wireless Service Providers Non-U.S.	61.51%	414	921	Drugstore Chains	-49.11%
4	218	Gold & Silver, North & South Amer, Pri.	57.29%	413	1235	Robotics/Machine Vision	-48.81%
5	1236	Satellite Equipment/Services	56.92%	412	1225	Sftwr., Educational/e-learning	-46.50%
6	533	Tech/Engr. Svcs., Telecomm	56.81%	411	530	Educ/Training/Productivity Svcs.	-41.53%
7	815	Nursing Homes/Assisted Living	56.24%	410	1231	3-D Printing	-41.05%
8	532	Tech/Engr/Constr Svcs, Sec	53.86%	409	1024	Jewelry, Watches & Gifts	-35.74%
9	807	Medical Supplies, Sec.	53.35%	408	1242	Alternative Energy Sources	-35.07%
10	1405	Wireless Service Providers	49.54%	407	1224	Sftwr., Customer/Contact Mgmt.	-34.58%
11	321	Pollution Control Equipment	48.05%	406	702	Airlines, Regional/Low Cost	-33.15%
12	220	Gold & Silver, North & South Amer, Emrg.	44.23%	405	216	Mining, Diversified, Emrg.	-32.76%
13	332	Railroad Equipment	43.13%	404	1208	Semiconductors, Micro Cap	-31.89%
14	1055	Pet Supplies & Services	40.31%	403	823	Diagnostic Reagents/Test Kits	-31.15%
15	219	Gold & Silver, North & South Amer, Sec.	37.43%	402	1241	Optical Equip./Components, Sec.	-30.47%
16	535	Waste Management, Sec.	35.15%	401	1211	Semiconductors Suppliers, Micro Cap.	-30.12%
17	1258	Wireless Comp. & Subsystems	34.91%	400	916	Toiletries & Cosmetics, Pri.	-29.86%
18	316	Containers - Metal, Glass & Plastic	34.42%	399	1232	Digital Animation/Video/Audio	-28.10%
19	536	Transportation Equipment Leasing	33.73%	398	1410	Broadcasting, Radio/TV, Sec.	-27.61%
20	1006	Residential Building, Pri.	33.35%	397	914	Housewares	-26.69%
21	512	Federal Gov't IT Services	32.65%	396	331	Auto Parts & Components, Micro Cap.	-26.57%
22	705	Marine, Dry Good Carriers, Pri.	32.36%	395	1043	Restaurants, Full Service	-26.34%
23	907	Natural Foods	32.17%	394	313	Metals Servicing/Distribution	-26.18%
24	325	Electrical Equipment	32.10%	393	1230	Imaging Systems	-24.85%
25	664	Insurance, Non-Standard Auto	31.94%	392	1053	Health Products/Services	-23.97%

Source: Piper Sandler Technical Research

Top-Down Analysis | Best & Worst S&P 500 Constituents YTD

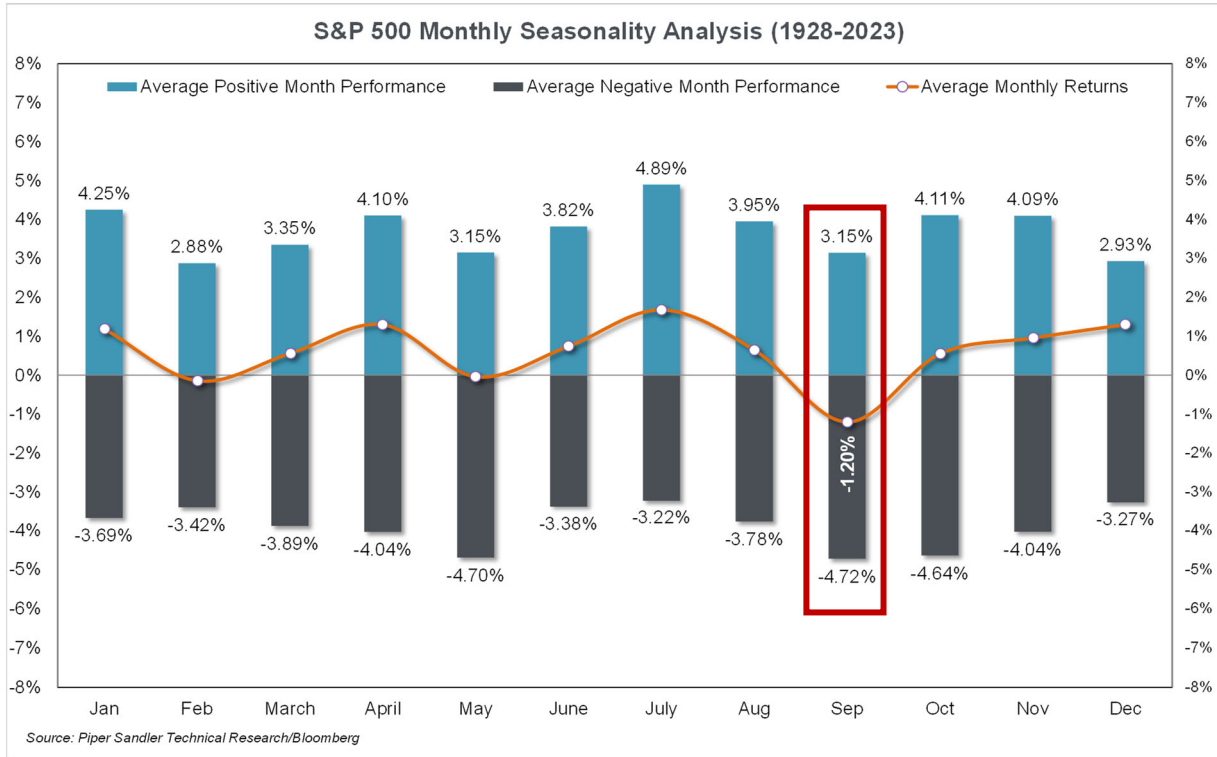
We also drilled down to the S&P 500 constituent level, and the table below highlights the best/worst-performing stocks within the index YTD. NVIDIA (NVDA) topped its *Information Technology* peers with a 140.50% rally. Walgreens Boots Alliance (WBA) has been the worst-performing stock in the index, declining 64.73% YTD.

S&P 500 Top & Bottom 10 YTD Performance							
Ticker	Name	Sector	% Change	Ticker	Name	Sector	% Change
NVDA	NVIDIA Corp	Information Technology	140.50%	WBA	Walgreens Boots Alliance Inc	Consumer Staples	-64.73%
VST	Vistra Corp	Utilities	122.09%	INTC	Intel Corp	Information Technology	-60.88%
HWM	Howmet Aerospace Inc	Industrials	76.05%	DLTR	Dollar Tree Inc	Consumer Staples	-50.93%
GE	GE Aerospace	Industrials	75.15%	LULU	Lululemon Athletica Inc	Consumer Discretionary	-47.83%
TRGP	Targa Resources Corp	Energy	70.59%	DXCM	Dexcom Inc	Health Care	-43.98%
CEG	Constellation Energy Corp	Utilities	67.66%	EL	Estee Lauder Cos Inc/The	Consumer Staples	-42.18%
IRM	Iron Mountain Inc	Real Estate	67.28%	LW	Lamb Weston Holdings Inc	Consumer Staples	-40.63%
SMCI	Super Micro Computer Inc	Information Technology	60.82%	BA	Boeing Co/The	Industrials	-39.86%
FICO	Fair Isaac Corp	Information Technology	60.56%	ALB	Albemarle Corp	Materials	-39.48%
PGR	Progressive Corp/The	Financials	60.38%	DG	Dollar General Corp	Consumer Staples	-37.66%

As of: 09/13/2024

S&P 500 Seasonality Analysis | September

The chart below shows the average monthly performance of the S&P 500 (SPX) since 1928. Historically, the index has generated average returns of -1.2% in September and finished the month in positive territory 45% of the time, or 43 out of the last 96 years. When returns were positive during the month, they historically averaged 3.1%. Conversely, the SPX declined an average of -4.7% when September was down.



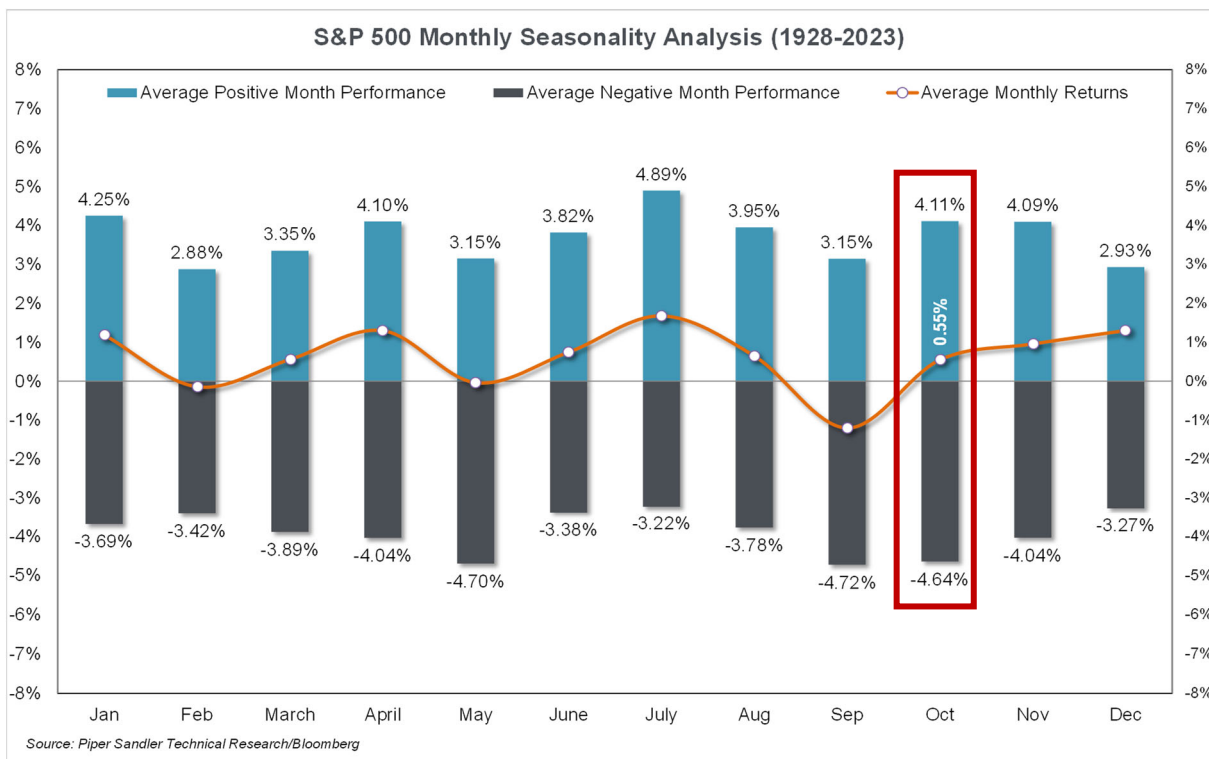
The table below shows the performance of Piper Sandler's proprietary sectors during September based on data dating back to 1969. Historically, *Healthcare* outperformed with an average monthly gain of 0.5%. The *Transportation* sector has underperformed, with an average return of -1.8%.

September Seasonality Analysis (1969-2023)						
	Avg. Returns	% Positive	Max	Min	Std. Deviation	
Sector	Energy	-0.47%	54%	13.29%	-18.96%	7.56%
	Basic Materials	-1.45%	43%	10.88%	-17.28%	5.98%
	Industrials	-1.14%	43%	10.73%	-15.50%	5.70%
	Utilities	-0.64%	52%	5.85%	-13.85%	3.96%
	Services	-0.60%	46%	16.44%	-18.10%	6.27%
	Financials	-0.57%	50%	7.65%	-11.13%	4.54%
	Transportation	↓ -1.84%	43%	14.28%	-30.99%	7.40%
	Healthcare	↑ 0.46%	56%	14.26%	-17.37%	5.56%
	Consumer Staples	-0.57%	48%	9.24%	-12.98%	4.42%
	Consumer Cyclicals	-0.80%	43%	10.84%	-20.62%	6.09%
	Technology	-0.56%	56%	19.64%	-25.55%	7.83%
	Communication	-1.07%	54%	9.01%	-20.58%	6.28%
	S&P 500	-0.92%	43%	8.76%	-11.93%	4.49%

Source: Piper Sandler Technical Research/Bloomberg

S&P 500 Seasonality Analysis | October

The chart below shows the average monthly performance of the S&P 500 (SPX) since 1928. Historically, the index has generated average returns of 0.5% in October and finished the month in positive territory 59% of the time, or 57 out of the last 96 years. When returns were positive during the month, they historically averaged 4.1%. Conversely, the SPX declined an average of -4.6% when October was down.



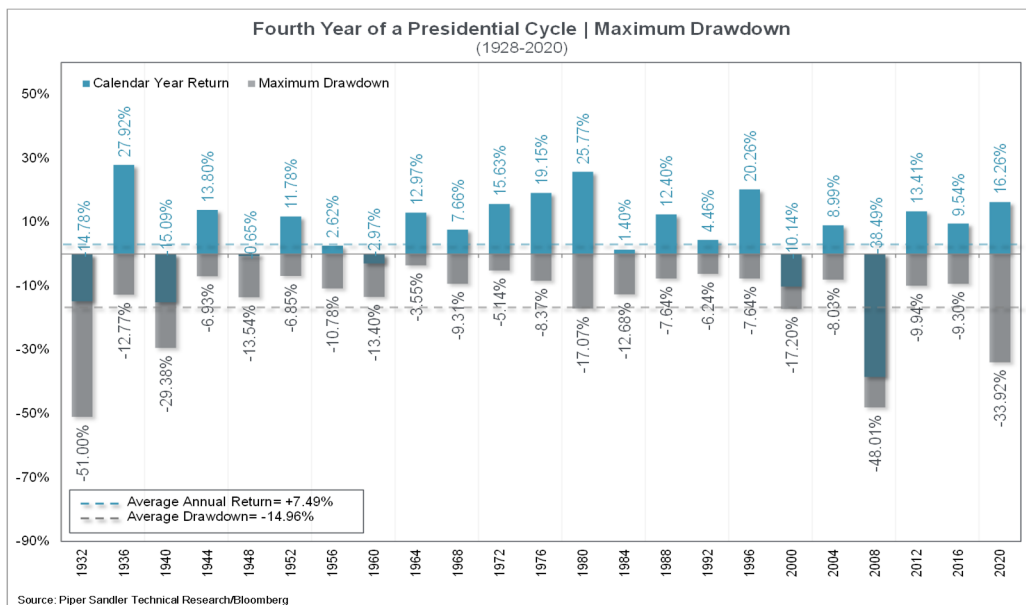
The table below shows the performance of Piper Sandler's proprietary sectors during October based on data dating back to 1969. Historically, *Utilities* outperformed with an average monthly gain of 0.6%. The *Healthcare* sector has underperformed, with an average return of -1.6%.

October Seasonality Analysis (1969-2023)					
	Avg. Returns	% Positive	Max	Min	Std. Deviation
Energy	-0.06%	46%	22.82%	-33.52%	10.27%
Basic Materials	-1.52%	44%	20.75%	-37.85%	9.08%
Industrials	-1.02%	44%	20.75%	-36.64%	8.51%
Utilities	0.56%	57%	7.82%	-16.07%	4.56%
Services	-0.85%	54%	15.67%	-39.38%	8.60%
Financials	-0.20%	54%	12.89%	-28.93%	6.68%
Transportation	-0.04%	52%	17.50%	-38.77%	8.91%
Healthcare	-1.56%	41%	18.54%	-42.55%	9.24%
Consumer Staples	-0.55%	43%	9.97%	-32.58%	6.67%
Consumer Cyclical	-0.81%	43%	15.88%	-37.74%	8.57%
Technology	-0.63%	54%	19.68%	-40.77%	9.76%
Communication	-0.24%	50%	13.74%	-30.65%	7.96%
S&P 500	1.07%	59%	16.30%	-21.76%	6.26%

Source: Piper Sandler Technical Research/Bloomberg

Election Year Analysis | Presidential Cycle: S&P 500 Fourth-Year Maximum Drawdowns

Many investors have asked about the magnitude of pullbacks/corrections in the S&P 500 (SPX) Index during Presidential Election years. This study analyzed the SPX's election-year performance and identified maximum drawdowns and annual returns. We then calculated the forward returns after each maximum drawdown to provide perspective on the recovery period.



The bar chart to the left breaks down the average annual returns and maximum drawdowns observed within the fourth year of the Presidential Cycle.

Historically, annual SPX returns have averaged 7.5%, with yearly maximum average drawdowns of -15.0% and a median drawdown of -9%.

Year	High Date	High	Low Date	Low	Maximum Drawdown	Forward Returns Following a Maximum Drawdown			
						+4-Weeks	+13-Weeks	+26-Weeks	+52-Weeks
1928	05/14/1928	20.44	06/12/1928	18.34	-10.27%	5.94%	14.94%	23.99%	38.66%
1932	03/08/1932	8.98	06/01/1932	4.40	-51.00%	2.50%	90.68%	48.86%	119.09%
1936	04/06/1936	15.51	04/29/1936	13.53	-12.77%	6.58%	17.96%	25.20%	18.18%
1940	01/04/1940	12.73	06/10/1940	8.99	-29.38%	10.57%	17.02%	18.02%	7.45%
1944	07/12/1944	13.27	09/14/1944	12.35	-6.93%	5.34%	6.40%	13.93%	29.15%
1948	06/15/1948	17.06	11/30/1948	14.75	-13.54%	2.24%	-0.27%	-3.80%	8.61%
1952	08/08/1952	25.55	10/22/1952	23.8	-6.85%	6.43%	9.62%	2.77%	1.64%
1956	08/02/1956	49.74	11/29/1956	44.38	-10.78%	4.44%	-2.52%	6.15%	-7.05%
1960	01/05/1960	60.39	10/25/1960	52.3	-13.40%	6.54%	15.58%	24.86%	29.98%
1964	11/20/1964	86.28	12/15/1964	83.22	-3.55%	2.87%	4.70%	1.53%	10.41%
1968	01/12/1968	96.72	03/05/1968	87.72	-9.31%	5.61%	14.43%	13.22%	13.22%
1972	08/14/1972	112.55	10/16/1972	106.77	-5.14%	6.68%	10.93%	4.37%	3.07%
1976	09/21/1976	107.83	11/10/1976	98.81	-8.37%	5.33%	1.94%	-0.03%	-5.90%
1980	02/13/1980	118.44	03/27/1980	98.22	-17.07%	6.29%	18.30%	31.05%	38.74%
1984	01/06/1984	169.28	07/24/1984	147.82	-12.68%	13.54%	13.04%	18.71%	30.26%
1988	04/13/1988	271.57	05/23/1988	250.83	-7.64%	7.22%	2.45%	6.14%	28.37%
1992	01/15/1992	420.77	04/08/1992	394.5	-6.24%	5.65%	4.00%	2.47%	12.23%
1996	05/24/1996	678.51	07/24/1996	626.65	-7.64%	6.13%	12.87%	25.47%	49.46%
2000	03/24/2000	1527.46	12/20/2000	1264.74	-17.20%	5.12%	-11.28%	-3.29%	-9.11%
2004	02/11/2004	1157.76	08/13/2004	1064.8	-8.03%	5.55%	11.21%	13.19%	15.55%
2008	01/03/2008	1447.16	11/20/2008	752.44	-48.01%	17.65%	3.52%	18.06%	45.51%
2012	04/02/2012	1419.04	06/01/2012	1278.05	-9.94%	6.58%	10.06%	10.81%	27.60%
2016	01/05/2016	2016.71	02/11/2016	1829.08	-9.30%	8.77%	12.85%	19.50%	26.18%
2020	02/19/2020	3386.15	03/23/2020	2237.4	-33.92%	22.31%	39.35%	46.65%	74.78%
Average					-14.96%	7.33%	13.24%	15.33%	25.25%
Median					-10.10%	6.21%	11.07%	13.58%	22.18%
% Positive					0.0%	100.0%	87.5%	87.5%	87.5%
Maximum					-3.55%	22.31%	90.68%	48.86%	119.09%
Minimum					-51.00%	2.24%	-11.28%	-3.80%	-9.11%
Std. Deviation					12.76%	4.61%	19.06%	14.06%	28.14%

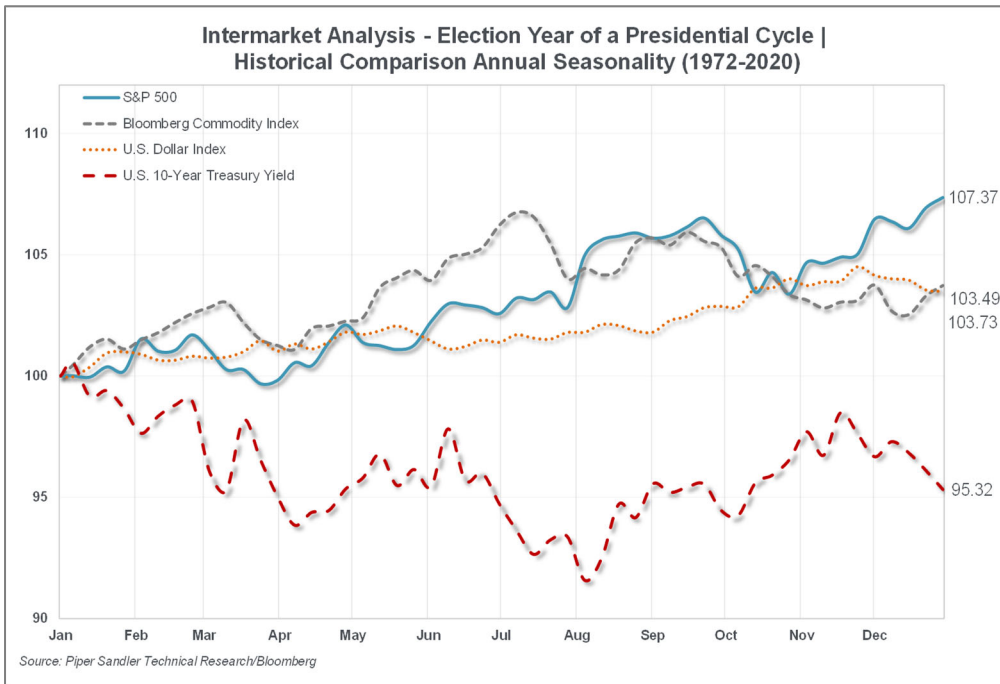
Source: Piper Sandler Technical Research/Bloomberg

The table to the left shows the SPX's forward performance after a maximum drawdown was recorded (during the fourth year of the Presidential Cycle).

Our research shows that after a maximum drawdown was observed, the index posted positive returns of 7.3% over the next four weeks.

We also found that the SPX generated average returns of 13.2% and 15.3% over the following 13- and 26-week periods, respectively.

Election Years | Intermarket Analysis (1972-2020)



The chart on the left compares the average progression of different asset classes during election years since 1972.

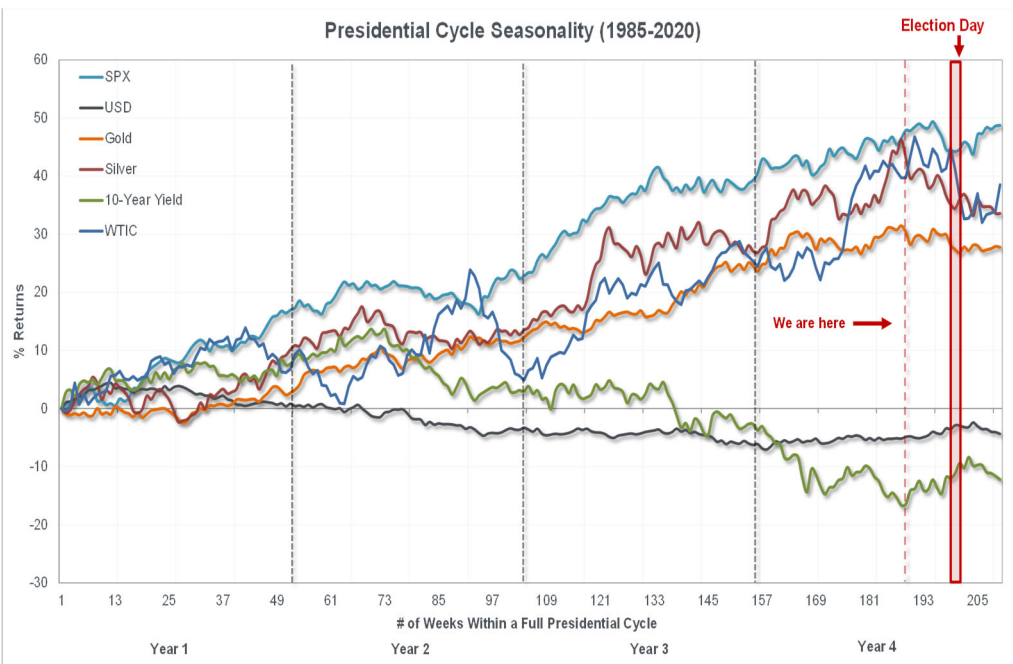
Typically, equities (S&P 500) have outperformed with a 7.4% return.

Commodities (BCI) outperformed during the first half of the year but tend to retreat in the second half.

The U.S. Dollar has generally seen a moderate rise throughout most election years.

The benchmark 10-year U.S. Treasury yield historically decreased during the first eight months of election years, and then recovered some of those losses during late Q2 and early Q3, but slipped again into year-end.

Intermarket Seasonality during a 4-year Presidential Cycle



The chart on the left displays the average progression of various asset classes throughout a 4-year Presidential cycle since 1985.

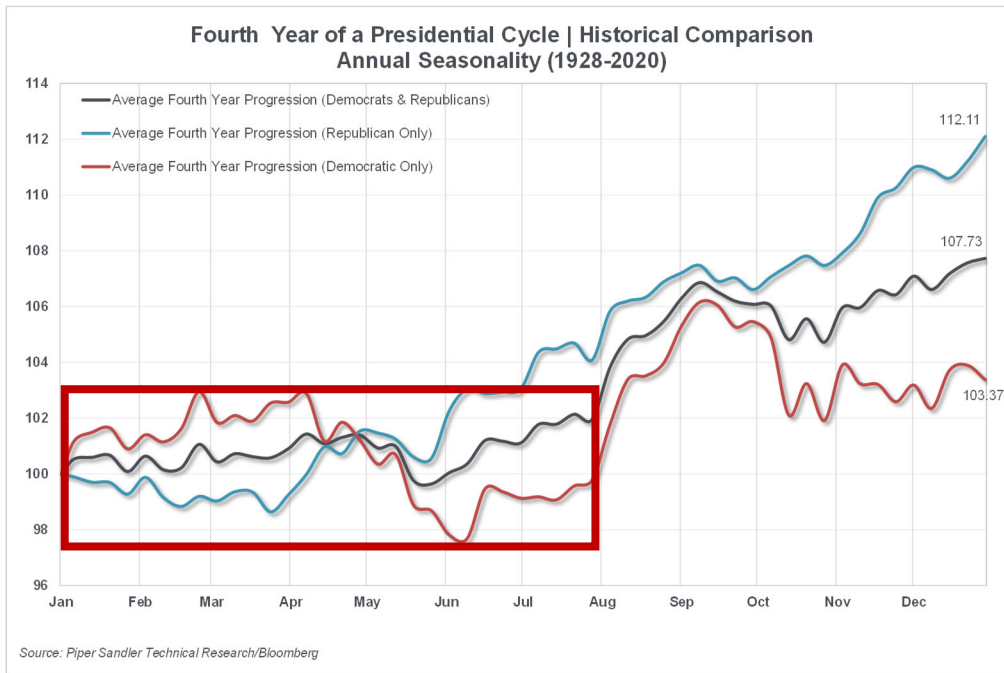
In the first half of Year 4, equities are predicted to outperform other asset classes. This will be followed by advances in Commodities (Silver, Gold, and Oil, etc).

During the second half of Year 4, Commodities are likely to retreat while equities maintain their relative strength.

Furthermore, during Year 4 of a Presidential cycle, the U.S. Dollar tends to gradually rise until after Election Day.

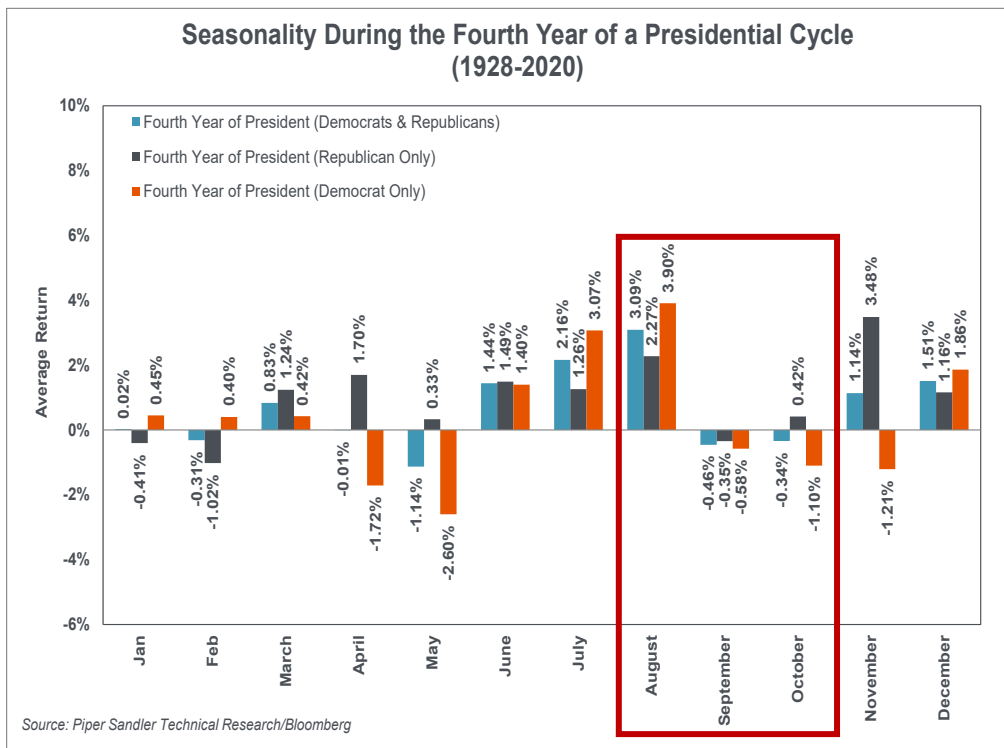
The benchmark 10-year UST yield has typically declined in the first half of the year and then rebounded around the November election.

Fourth (Election) Year of a Presidential Cycle by Political Party



The chart on the left displays the average S&P progression during the fourth year of the presidential cycle. It covers performance for all years, including those under Democratic and Republican presidents.

Since 1928, the S&P 500 has averaged 3.4% during Democratic-led years. Q1 has often outperformed the historical average but underperformed the rest of the year, especially during Q2 and Q4.

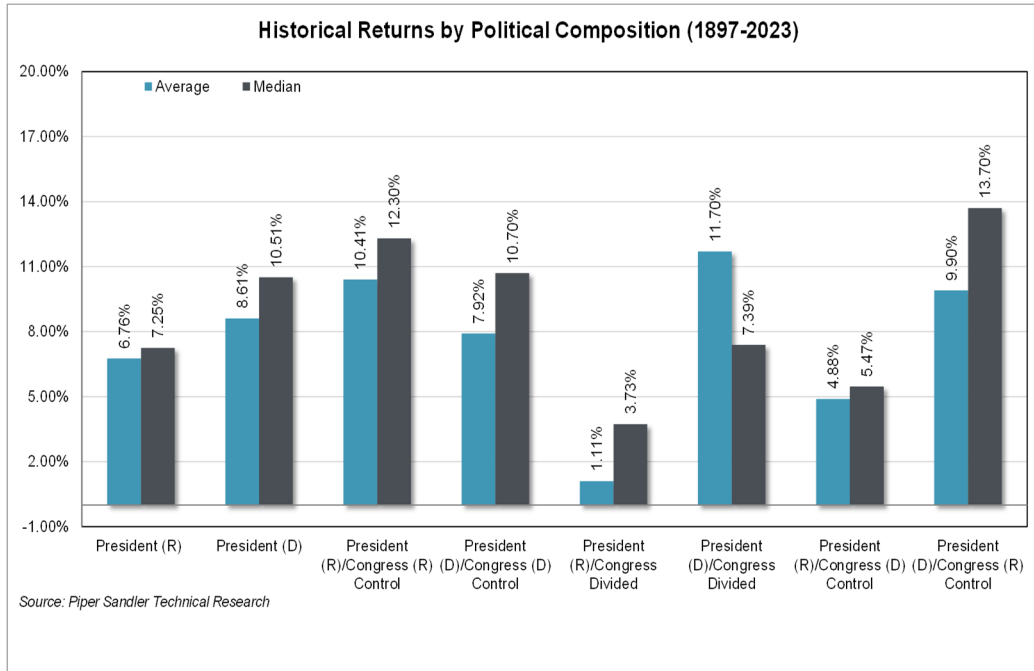


The table to the left compares the historical monthly returns during the fourth year of each party's presidency.

The greatest returns occurred between the June and August timeframe, especially under a Democratic presidency.

However, some of the worst returns also occurred under a Democratic presidency, especially in the April-May and October-November timeframes.

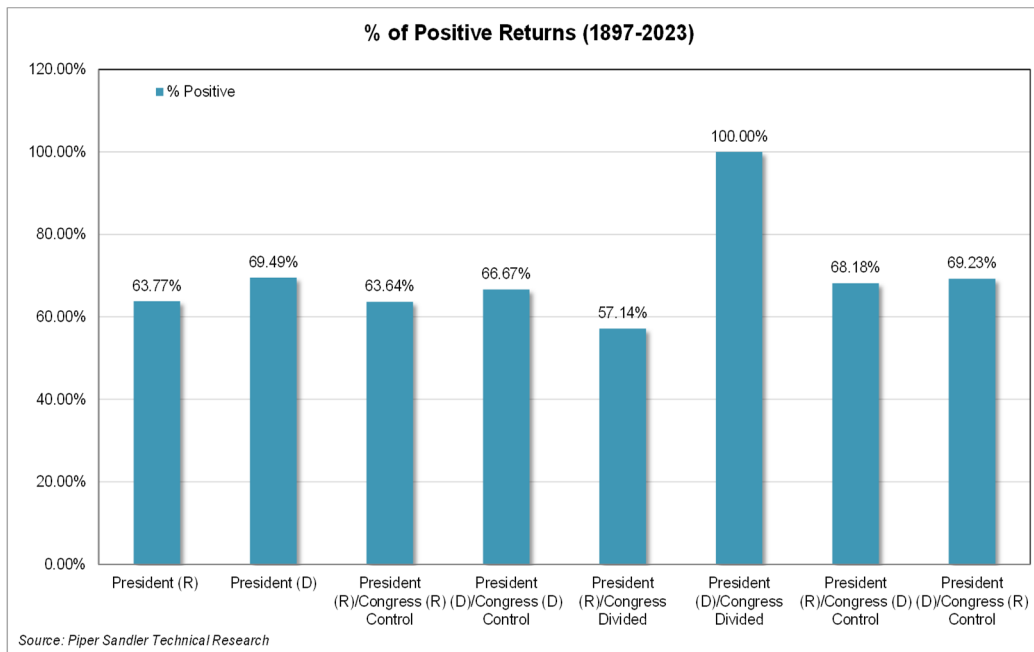
Historical Returns by Political Composition



The stock market experienced its strongest median returns during both a Democrat and Republican presidency with a Republican-controlled Congress.

On the other hand, the market's performance underperformed during a Republican presidency in combination with either a divided or Democrat-controlled Congress.

Conclusion—The party that controls Congress has had a significant impact on the stock market's performance. Historically, a Republican-controlled Congress produced the strongest returns.



The chart on the left shows the positivity rate of stock returns categorized by which political party controlled the Presidency and Congress.

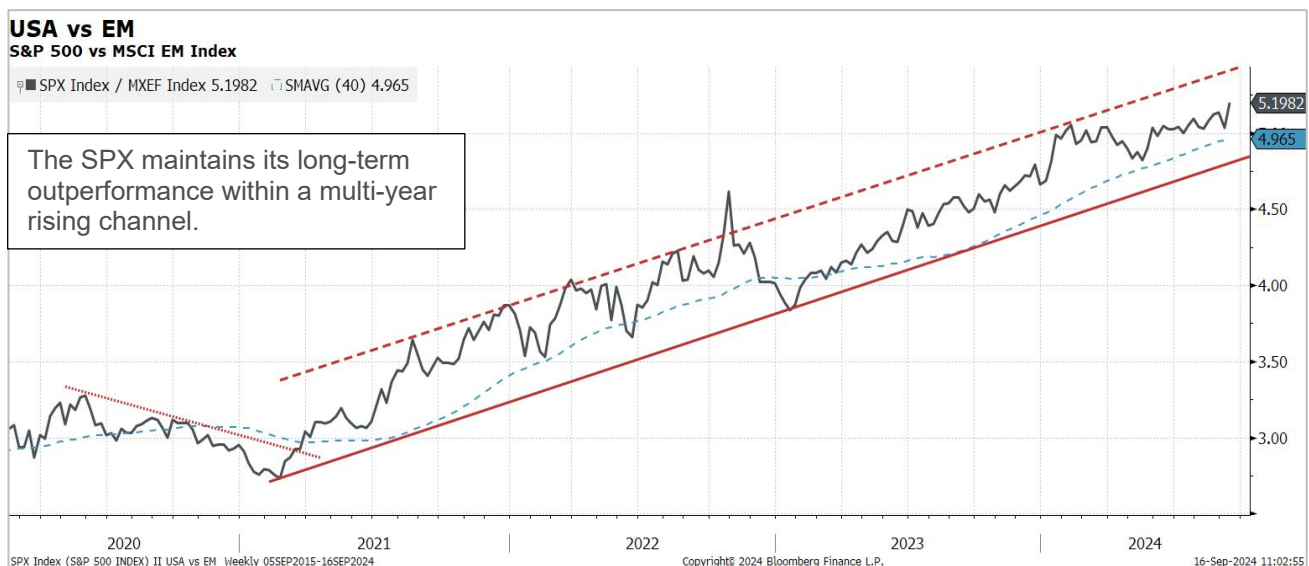
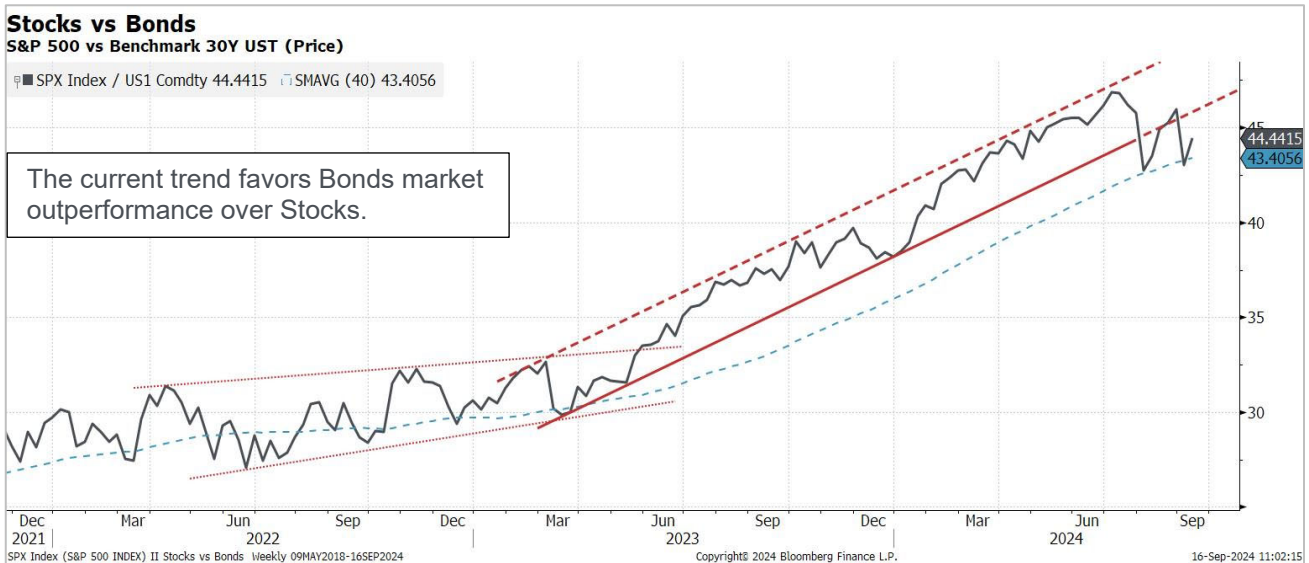
In sum, the stock market experienced a 100% positivity when there was a Democrat president paired with a divided-Congress.

Market Style | Ratio Chart Analysis

Ratio charts provide a visually transparent snapshot of relative performance between two time-series data sets. They are one of the simplest and most powerful ways to analyze investment style and macro-level trends. The following ratio charts provide an overview of current market trends related to investment style, market cap, and relative performance across developed and emerging markets.



Market Style | Ratio Chart Analysis



Trend Analysis | Technical Indicator Snapshot

The tables below provide an overview of the absolute and relative strength sector trends based on our Moving Average Cycle Evaluation (MACE). As a reminder, MACE uses the relative position of short-term (S), intermediate-term (M), and longer-term (L) moving averages to classify a current trend. Based on the position of each moving average, trends are broken down into the following categories:

- **Uptrends:** U1=possible uptrend | U2=confirmed uptrend | U3=well-defined uptrend
- **Downtrends:** D1=possible downtrend | D2=confirmed downtrend | D3=well-defined downtrend

We also included a snapshot of several other sentiment and momentum indicators we closely monitor.

Sector Absolute Trend

Sector Absolute Trend (M.A.C.E)					
Sector	Unwtd	Wtd	Sector	Unwtd	Wtd
Energy	D3	D3	Transportation (UW)	D3	U1
Basic Materials (UW)	U1	D3	Healthcare	U2	U3
Industrial Manufacturing (OW)	U2	U3	Consumer Staples (UW)	U2	U3
Utilities	U3	U3	Consumer Cyclical	U2	U3
Services	U3	U3	Technology (OW)	D3	D1
Financials (OW)	U3	U3	Communications / Media	U3	D1

Sector RS Trend

Sector RS Trend (M.A.C.E)					
Sector	Unwtd	Wtd	Sector	Unwtd	Wtd
Energy	U3	D3	Transportation (UW)	U3	D3
Basic Materials (UW)	U3	D3	Healthcare	U3	U3
Industrial Manufacturing (OW)	U3	U1	Consumer Staples (UW)	U3	U2
Utilities	U3	U3	Consumer Cyclical	U3	D3
Services	U3	U3	Technology (OW)	U3	D2
Financials (OW)	U3	U3	Communications / Media	U3	D3

Market Relative Trend

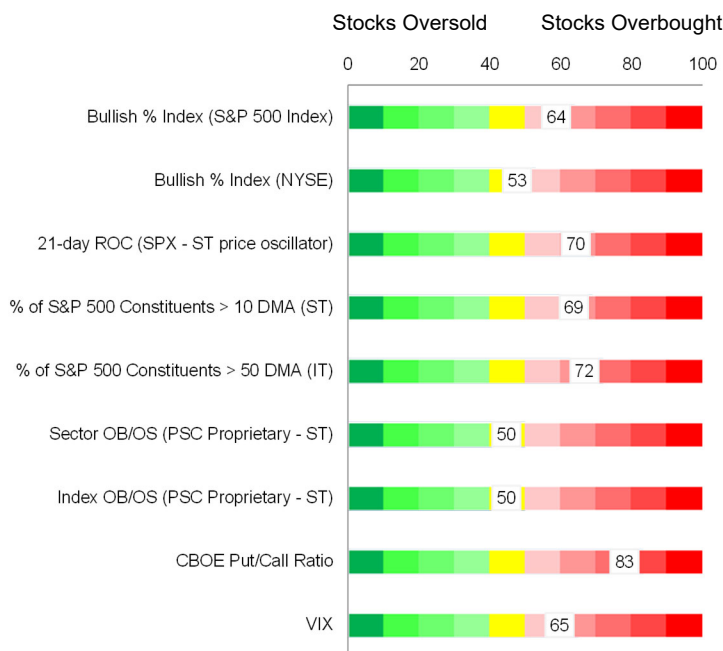
RS	Benchmark	RS	Benchmark
↑	Large-cap vs. Small-cap (OEX/SML)	↑	SPX vs. Bonds (SPX/IEF)
↑	SPX vs. EAFE Index (SPX/EFA)	↑	SPX vs. Commodities (SPX/CRB)
↑	SPX vs. Emerging Mkts (SPX/EEM)	↓	SPX vs. Gold (SPX/GLD)
↑	SPX vs. Europe/Pacific (SPX/VEA)	↑	SPX vs. USD (SPX/USD)

As of 09/13/2024

SUMMARY

- **Size Matters:** Based on our MACE trend model, absolute Wtd sector trends add to the evidence of large-cap outperformance. For example, 7 out of 12 Wtd sectors remain in a well-defined uptrend (U3), while only 4 of 12 Unwtd sectors have the same rating.
- **Asset Classes:** The S&P 500 is outperforming bonds, Emerging markets, Europe/Pacific, EAFE, commodities (except Gold) and the U.S. Dollar. Large-cap stocks are outperforming small-cap stocks.
- **Sentiment & Momentum:** The CBOE put/call ratio has violated the 50-/200-day MAs, which indicates a risk-on backdrop.
- **Bullish Percent:** The Bullish Percent Index has improved. Bullish Percent tracks how many stocks are bullish within an index based on point and figure analysis (P&F). The current percentage of P&F buy signals for the S&P 500 and NYSE Composite is 64% and 53%, respectively.

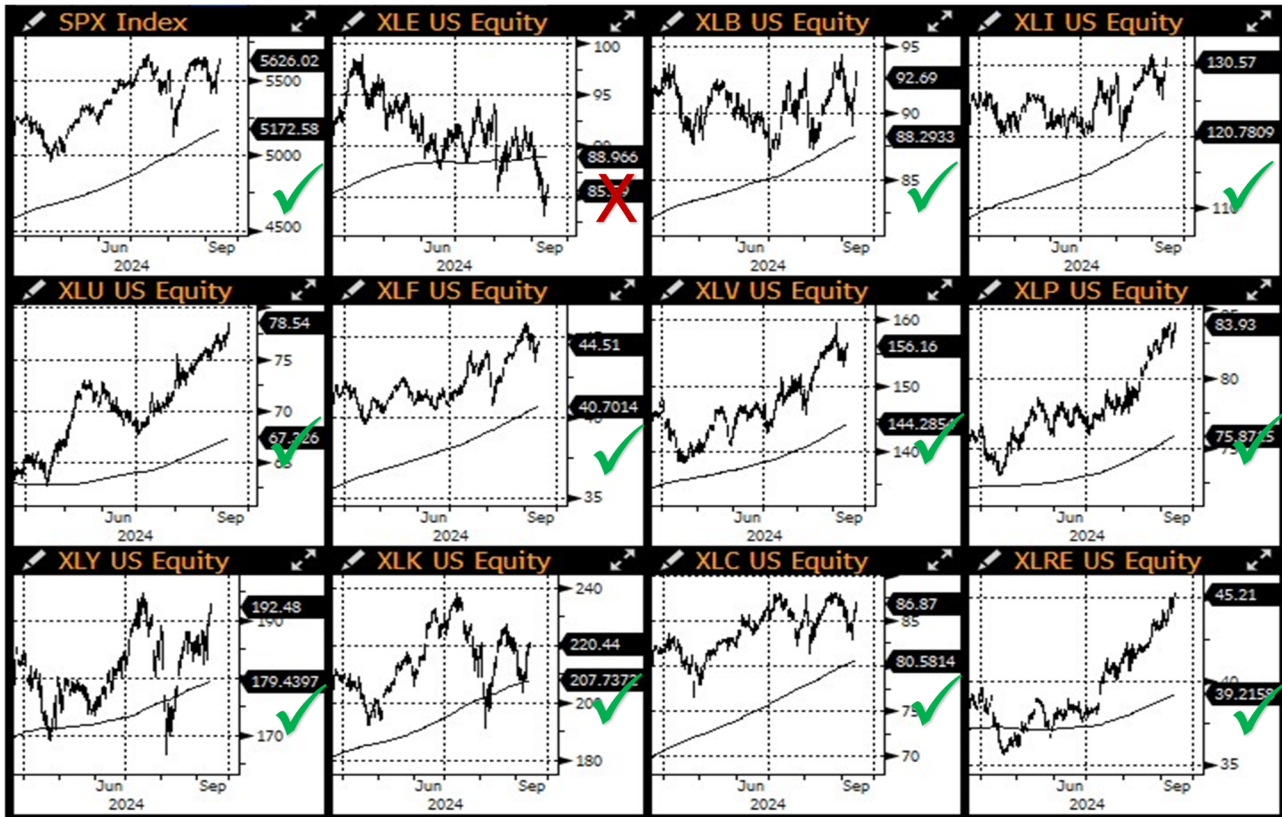
Sentiment & Momentum Indicators



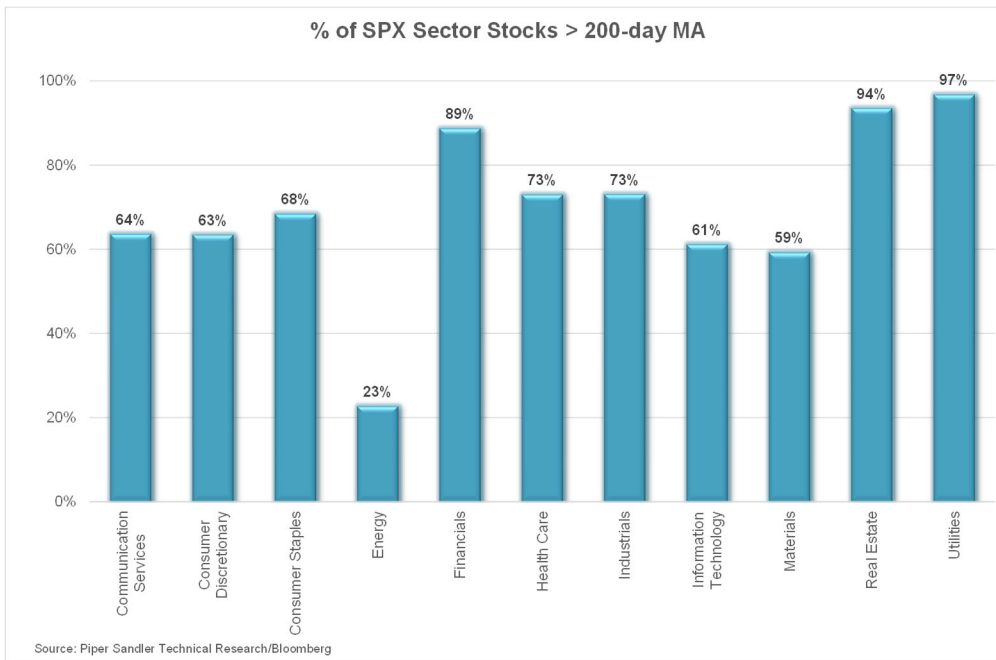
Abbreviations: ST=Short-term, IT=Intermediate-term

S&P 500 | Sector Stocks > 200-day SMA

The chart montage below highlights the S&P sector's price compared to its 200-day SMA. Eleven sectors are above their 200-day MA as of September 13, 2024.



Source: Piper Sandler Technical Research/Bloomberg



Source: Piper Sandler Technical Research/Bloomberg

The table to the left shows the percentage of stocks in each SPX sector that are above their 200-day MA.

Utilities have the highest percentages at 97%, followed by *Real Estate* and *Financials* with at least 89%.

Energy has the fewest percentage of stocks above their 200-day MA.

Key Risks to Our Market Narrative and Equity Markets

As the end of summer draws near, equity markets could enter a backing and filling phase (or *High-Level Trading Range*) over the next several weeks ahead of the U.S. Presidential election. While we anticipate SMID-cap and value stocks to outperform into year-end, there are several key risks listed below that could disrupt our bullish market outlook:

1. Elevated Market Volatility: Our primary measure of market breadth, the 40-Week Technique, has been volatile, flipping back and forth between buy and sell signals over several months. Given the changing market leadership, we suspect the *40-Week Technique* will be noisy for several quarters.
2. Yield Curve Normalization/Economic Recession: Historically, yield curve inversions have warned of pending economic recessions. The benchmark U.S. bond 10/2-year spread recently normalized after being inverted for over two years. Our research showed that recessions are often declared several months after the yield curve normalizes.
3. Rate Cut Inadequacy: As the Federal Reserve continues to engineer a soft economic landing, it walks a fine line between cutting rates too much/too fast and not enough/too slow, thus potentially leading to a hard landing or recession.
4. A Higher Unemployment Rate: The U.S. unemployment rate has risen above 4% for the first time since November 2021. While this is an incentive for the Fed to cut rates eventually, it will likely affect consumer spending habits and thus lead to slower economic growth, lower corporate profits, and a decline in stock prices.
5. A Slowdown in Earnings Growth: Equity markets rise based on higher top and bottom-line corporate growth expectations. Lower revenue and sales guidance will likely stymie an advance in stock prices.
6. Change in Leadership/Unwinding Concentration Risk: The S&P 500 remains heavily concentrated in mega-cap stocks, comprising about 27% of the index. A sharp decline in the Mag Seven stocks could disproportionately impact the popular market indices (DJIA, SPX, CCMP, MID, and RUT).
7. Sticky Inflation/Higher For Longer Interest Rates: The Federal Reserve's historically aggressive rate hikes a year ago and the efforts to reach its 2% inflation target have essentially been accomplished. Should inflation start to trend higher again, the Fed would need to raise rates or slow the rate cuts.
8. Geopolitical Risk:
 - a. The Israel-Hamas conflict keeps fears elevated around the Eastern Mediterranean as turmoil sporadically scatters to other countries in the region.
 - b. The Russia-Ukraine war remains a destabilizing geopolitical factor with no resolution in sight.
 - c. Tensions between the U.S. and China remain elevated, especially regarding tariffs and Taiwan's sovereignty.

CONCLUSION

The stock market will likely be volatile for the next several weeks leading into the November election. However, we expect SMID-caps to outperform Large-caps as Fed rate cuts will likely mark the start of a new liquidity cycle for investors. We maintain our year-end S&P 500 price objective at 5,800.

The Trend is Your Friend,

Craig W. Johnson, CMT, CFA

Scott K. Smith, CMT

September 18, 2024

September 2024 – MicroGroup Summary/Overview

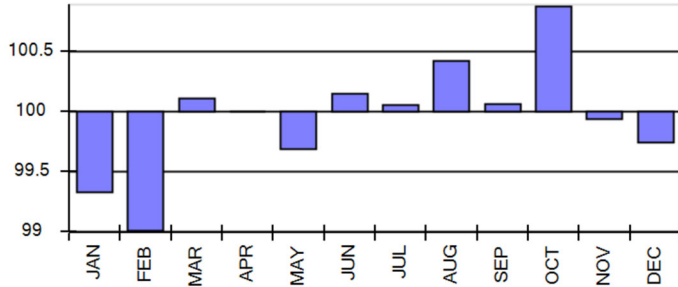
The following table highlights some actionable-looking *MicroGroups* (M.G.) in this month's publication. The \uparrow/\downarrow arrows denote a rating change in that M.G. since our last publication. The symbols (+), (-), (=), (PB), (BF), and (RR) denote Positive, Negative, Neutral, Pullback Opportunity, Bottom Fishing, and Relief Rally, respectively.

MicroGroup Sectors	Positive Relative Rated Groups		Negative Relative Rated Groups	
	Groups	Tickers	Groups	Tickers
Energy (Sector weight = 1.0x)	\uparrow 114 – Pipelines, Pri. (pg. 69)	ENB (+)	\downarrow 106 – Oil Drilling (pg. 66) \downarrow 113 – Oil Ref. & Marketing, Sec. (pg. 68) \downarrow 121 – Coal Mining (pg. 71)	HP (-) DINO (-) AMR (-)
Basic Materials (Sector weight = 0.7x)	\uparrow 209 – Plastics & Rubber/Prod. (pg. 81) \uparrow 218 – Gold & Silver, N&S Amer, Pri (pg. 83)	BERY (PB) GOLD (PB)	\downarrow 205 – Chemicals, Diversified (pg. 80) \downarrow 217 – Copper Mining (pg. 82)	DOW (-) SCCO (-)
Industrial Mfg. (Sector weight = 0.7x)	\uparrow 301 – Cong., Industrial, Pri (pg. 90) \uparrow 316 – Containers - Metal, Glass & Plastic (pg. 92) \uparrow 325 – Electrical Equipment (pg. 95) \uparrow 326 – Adhesives & Coatings (pg. 96)	PNR (+) AMCR (BF) GEV (+) AXTA (PB)	None	
Utilities (Sector weight = 0.4x)	\uparrow 401 – Electric, Heavy Nuclear (pg. 103) \uparrow 404 – Electric, Southeast (pg. 105) \uparrow 408 – Gas, East Coast (pg. 107)	D (BF) DUK (+) NI (+)	None	
Services (Sector weight = 1.9x)	\uparrow 512 – Federal Gov't IT Services (pg. 115) \uparrow 517 – Office Furn. & Fixtures (pg. 116) \uparrow 519 – Insurance Brokers (pg. 118) \uparrow 542 – Advisory/Credit-Ratings Services (pg. 123)	LDOS (+) HNI (+) AON (+) SPGI (+)	\downarrow 537 – Travel Services (pg. 122)	ABNB (-)
Financial (Sector weight = 1.3x)	\uparrow 602 – Banks, Super-Regional (pg. 132) \uparrow 611 – Banks, Midwest, Pri. (pg. 134) \uparrow 622 – Banks, Puerto Rico (pg. 136) \uparrow 624 – Banks, Canadian (pg. 137) \uparrow 647 – REITs, Multi-family Housing, Sec. (pg. 140) \uparrow 669 – Market Makers/Electronic Trading (pg. 142)	CMA (+) HBAN (+) BPOP (+) TD (BF) UMH (+) CME (+)	None	
Transportation (Sector weight = 0.7x)	\uparrow 704 – Railroads (pg. 150) \uparrow 712 – Freight Forwarding/Logistics (pg. 153)	UNP (+) FWRD (BF)	\downarrow 701 – Airlines, Legacy (pg. 149) \downarrow 707 – Marine, Energy Carr., Pri (pg. 151) \downarrow 710 – Trucking, Less-than-Truckload (pg. 152)	AAL (RR) FRO (-) ODFL (-)
Healthcare (Sector weight = 0.7x)	\uparrow 803 – Pharmaceuticals, Pri. (pg. 160) \uparrow 805 – Generic Pharmaceuticals (pg. 161) \uparrow 815 – Nursing Homes/Assisted Living (pg. 165) \uparrow 830 – Molecular Diagnostics (pg. 167) \uparrow 834 – Surgical Devices/Equip. (pg. 169) \uparrow 835 – Home Healthcare, Svcs./Prod. (pg. 170)	ABBV (+) TEVA (PB) ENSG (+) NTRA (+) PRCT (+) RMD (+)	\downarrow 811 – Orthopedic Devices (pg. 163)	ZBH (-)
Consumer Staples (Sector weight = 0.4x)	\uparrow 912 – Tobacco, Diversified, Pri. (pg. 182)	PM (+)	\downarrow 901 – Processors, Commodities (pg. 178) \downarrow 917 – Toiletries & Cosmetics, Sec. (pg. 183)	ADM (-) COTY (-)
Consumer Cyclical (Sector weight = 0.5x)	\uparrow 1009 – Real Estate, Manag. (pg. 194) \uparrow 1036 – Discount Mass Merc. (pg. 198) \uparrow 1055 – Pet Supplies & Services (pg. 200)	FSV (+) COST (+) FRPT (+)	\downarrow 1004 – Auto Parts Stores (pg. 191) \downarrow 1028 – Designer Label Apparel (pg. 196) \downarrow 1043 – Restaurants, Full Service (pg. 199)	AAP (-) GES (-) PLAY (-)
Technology (Sector weight = 0.5x)	\uparrow 1214 – Software, OS (pg. 213) \uparrow 1240 – Optical Equip./Components, Pri. (pg. 216)	MNDY (+) GLW (+)	\downarrow 1206 – Semiconductors, Pri. (pg. 209) \downarrow 1209 – Semi. Suppliers, Pri. (pg. 211) \downarrow 1212 – Network Infra., Pri. (pg. 212) \downarrow 1217 – Sftwr., Data Mgmt. Systems (pg. 214)	STM (-) ENTG (-) SMCI (-) SNOW (-)
Comm./Media (Sector weight = 0.9x)	\uparrow 1405 – Wireless Service Providers (pg. 226) \uparrow 1407 – Cable Television (pg. 227)	TMUS (+) CMCSA (+)	\downarrow 1415 – Internet Content (pg. 228) \downarrow 1416 – Internet Content, Asia (pg. 229)	YELP (-) BIDU (-)

Bullish October Seasonality: Several *Utilities* and *Financial* sector MGs have historically had a strong relative performance compared to our MicroGroup Index in October.

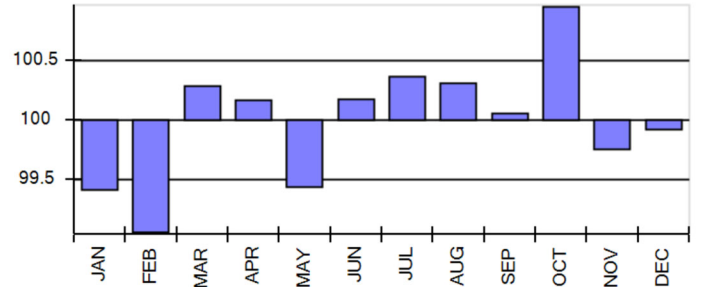
401, Electric, Heavy Nuclear

Average Relative Perf. vs. MicroGroup Index (Unwtd)



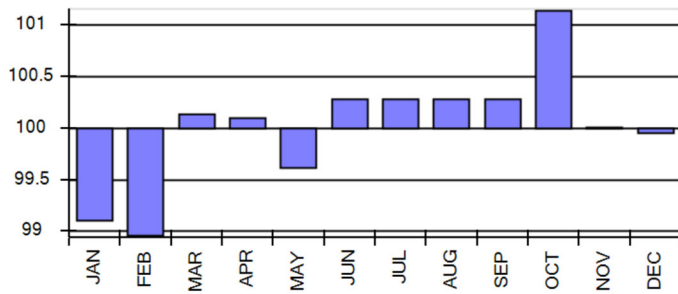
403, Electric, Midwest

Average Relative Perf. vs. MicroGroup Index (Unwtd)



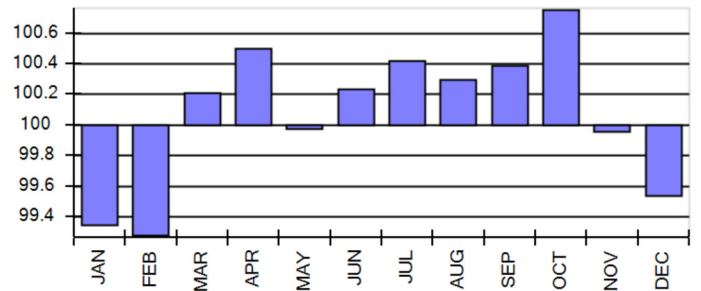
404, Electric, Southeast

Average Relative Perf. vs. MicroGroup Index (Unwtd)



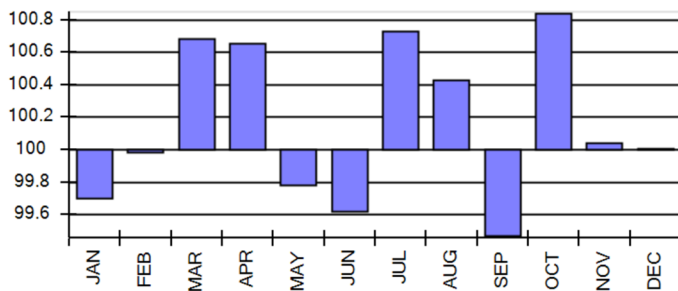
409, Gas, Mid-Continent

Average Relative Perf. vs. MicroGroup Index (Unwtd)



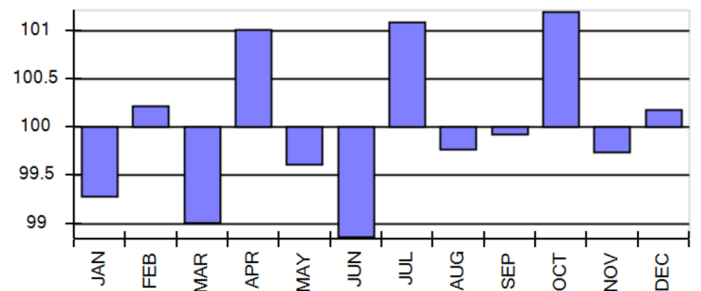
601, Banks, Money Center

Average Relative Perf. vs. MicroGroup Index (Unwtd)



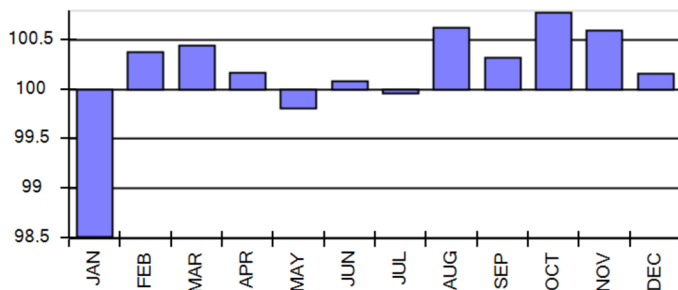
625, Banks, European

Average Relative Perf. vs. MicroGroup Index (Unwtd)



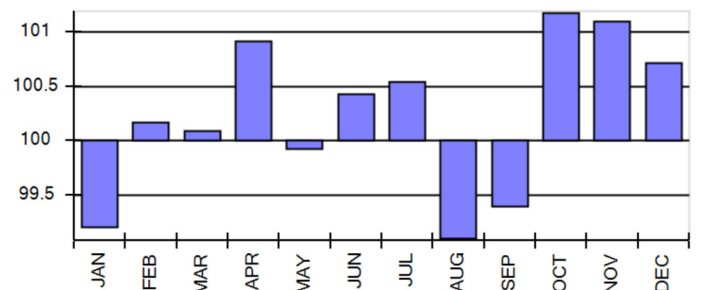
660, Insurance, Property & Casualty, Pri.

Average Relative Perf. vs. MicroGroup Index (Unwtd)



667, Investment Banks, Middle Markets

Average Relative Perf. vs. MicroGroup Index (Unwtd)

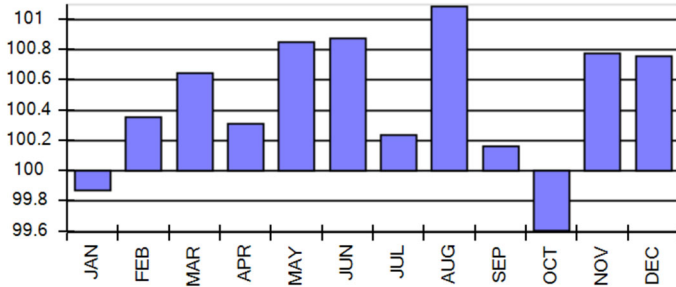


Past performance is not indicative of the future. Such matters as future earnings, dividends, or price action cannot be predicted with certainty.

Bearish October Seasonality: Select *Industrial Manufacturing* and *Healthcare* sector MGs have historically underperformed relative to our MicroGroup Index during October.

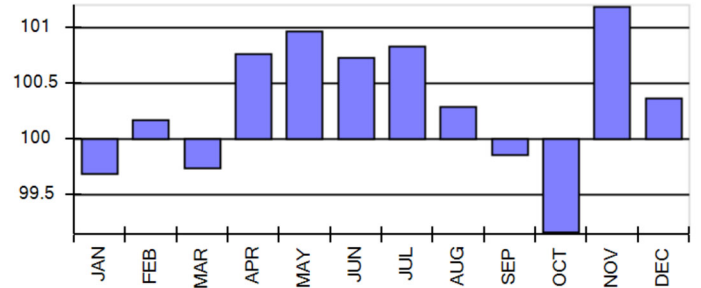
306, Aerospace, Avionics

Average Relative Perf. vs. MicroGroup Index (Unwtd)



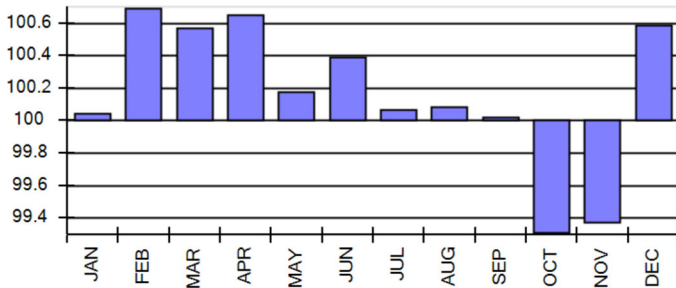
308, Aerospace, Components, Sec.

Average Relative Perf. vs. MicroGroup Index (Unwtd)



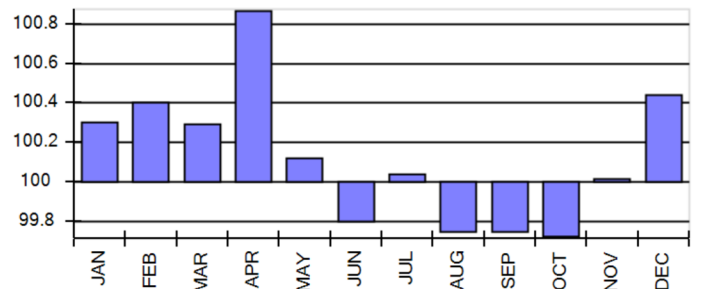
311, Tubing

Average Relative Perf. vs. MicroGroup Index (Unwtd)



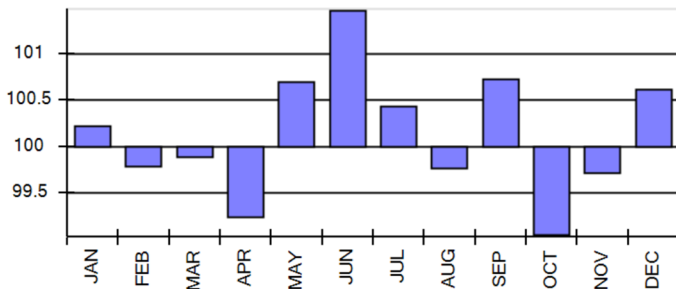
328, Trucks & Equipment

Average Relative Perf. vs. MicroGroup Index (Unwtd)



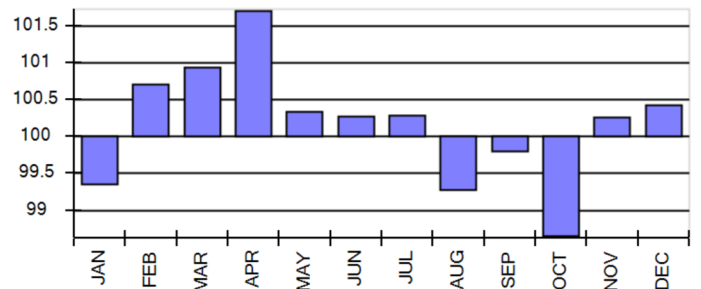
809, Medical Devices, Specialty

Average Relative Perf. vs. MicroGroup Index (Unwtd)



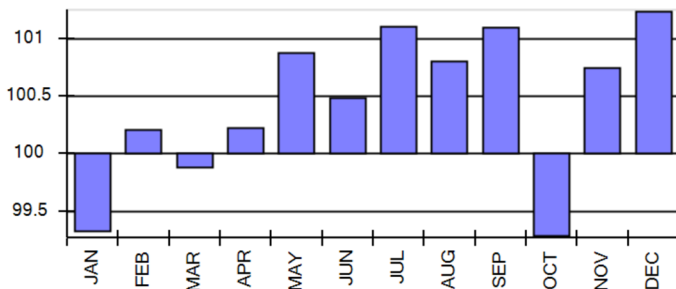
814, Hospital Management

Average Relative Perf. vs. MicroGroup Index (Unwtd)



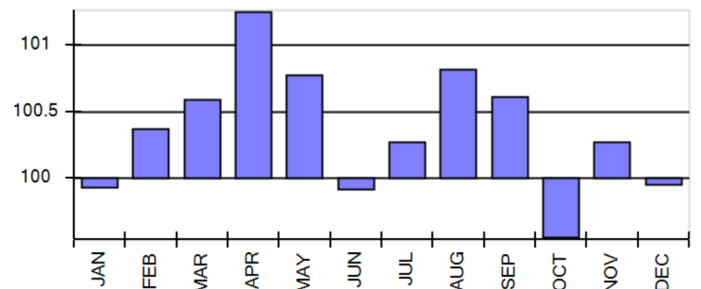
821, Healthcare Inf. Sys./Svcs., Pri.

Average Relative Perf. vs. MicroGroup Index (Unwtd)



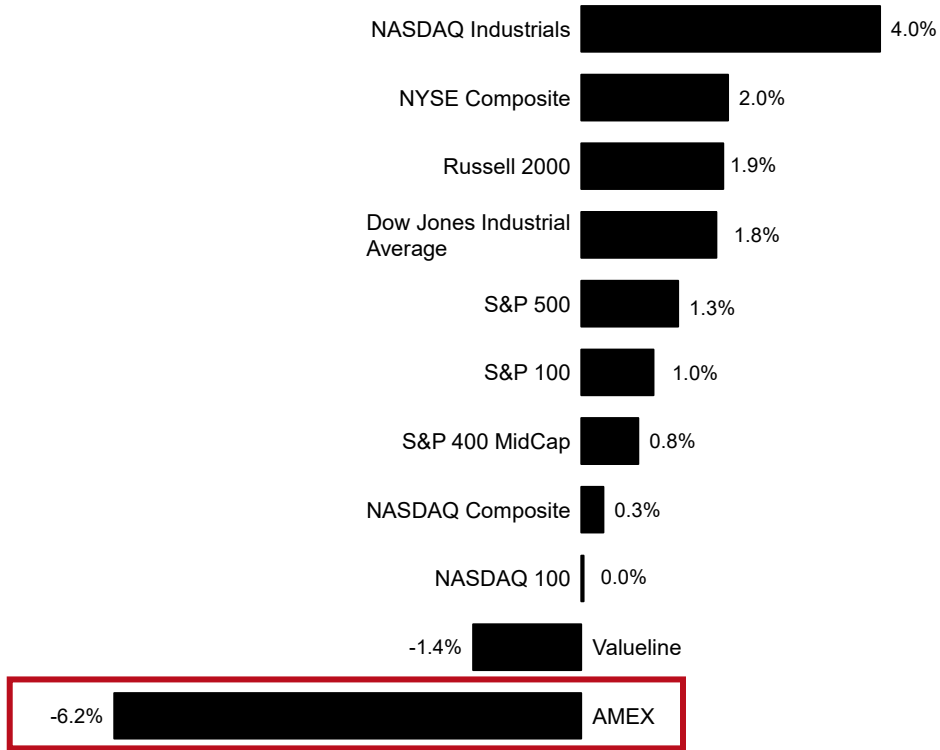
826, Eyeglasses/Contacts, Mfg.

Average Relative Perf. vs. MicroGroup Index (Unwtd)

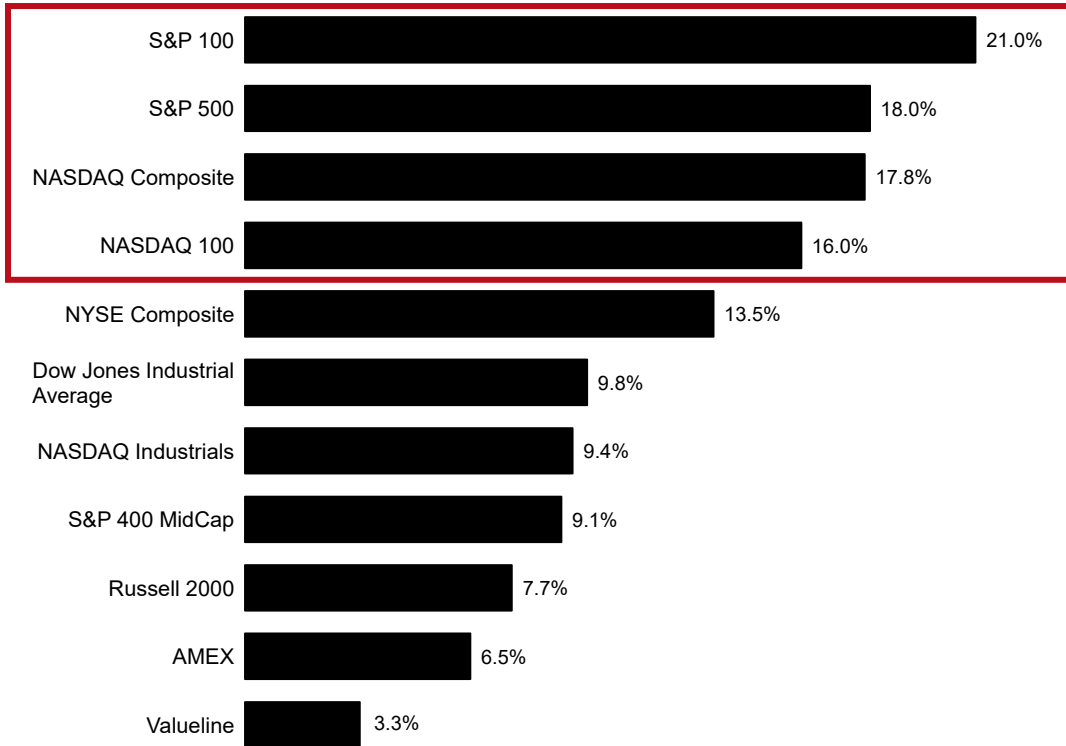


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MARKET PERFORMANCE
4-Week

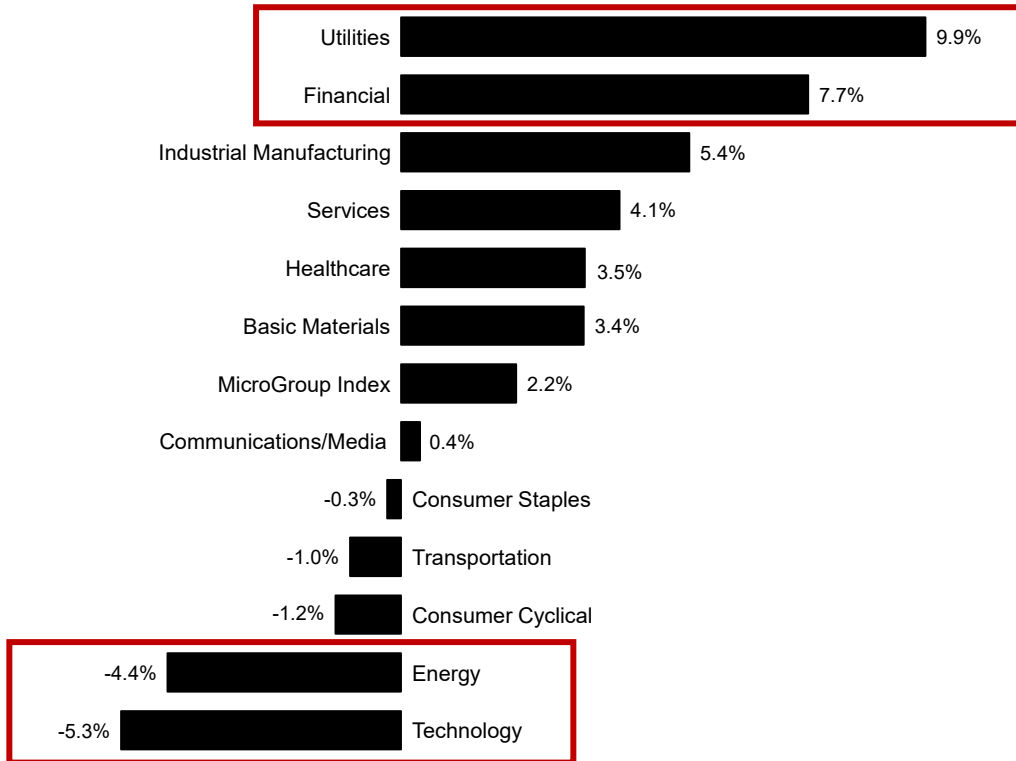


MARKET PERFORMANCE
YTD

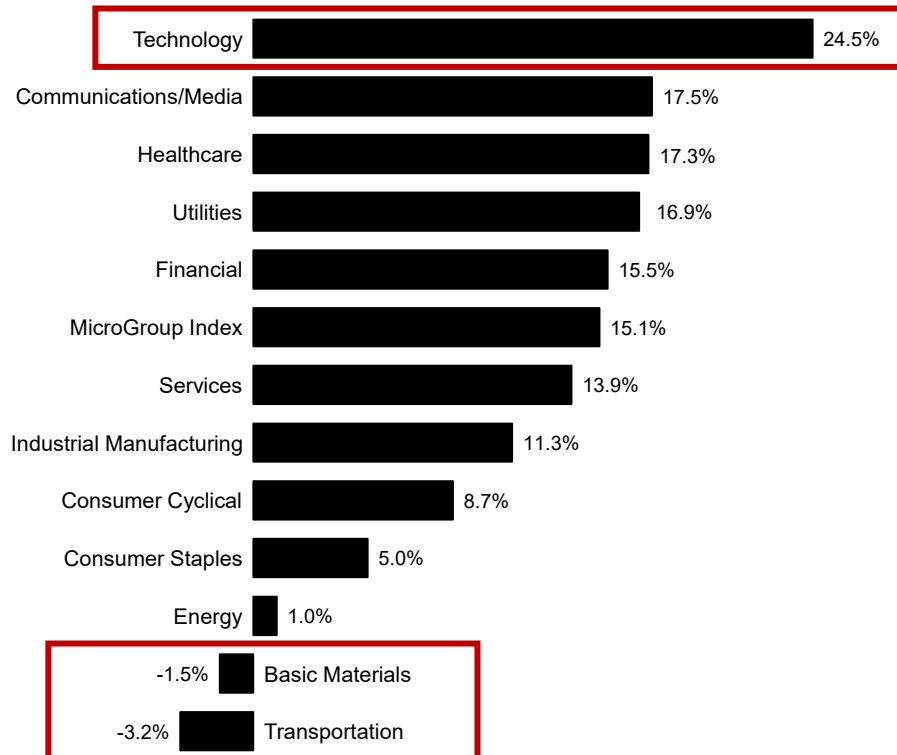


As of 09/13/2024

**UNWTD SECTOR PERFORMANCE
YTD**



**WTD SECTOR PERFORMANCE
YTD**



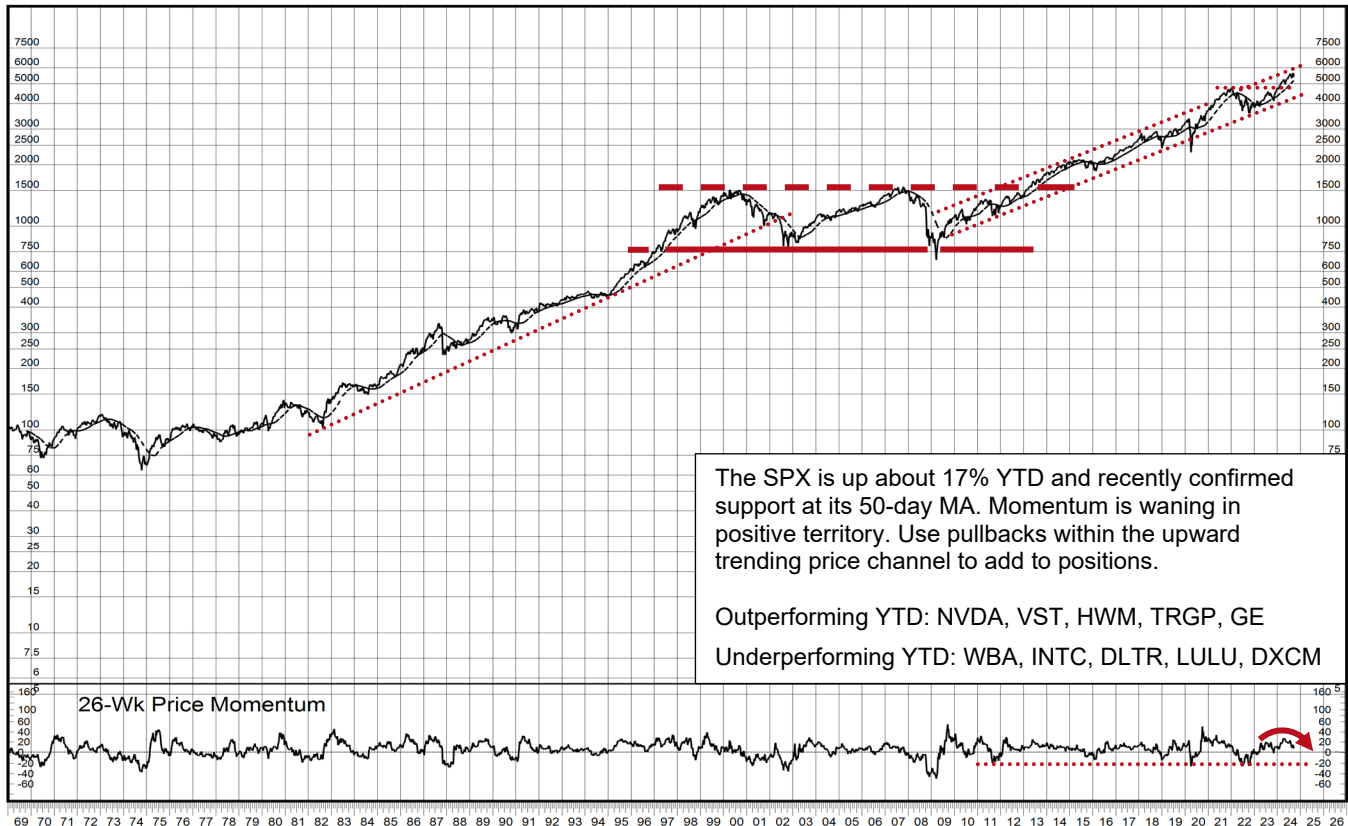
As of 09/13/2024

Sector Performance Sorted by TechniGrade

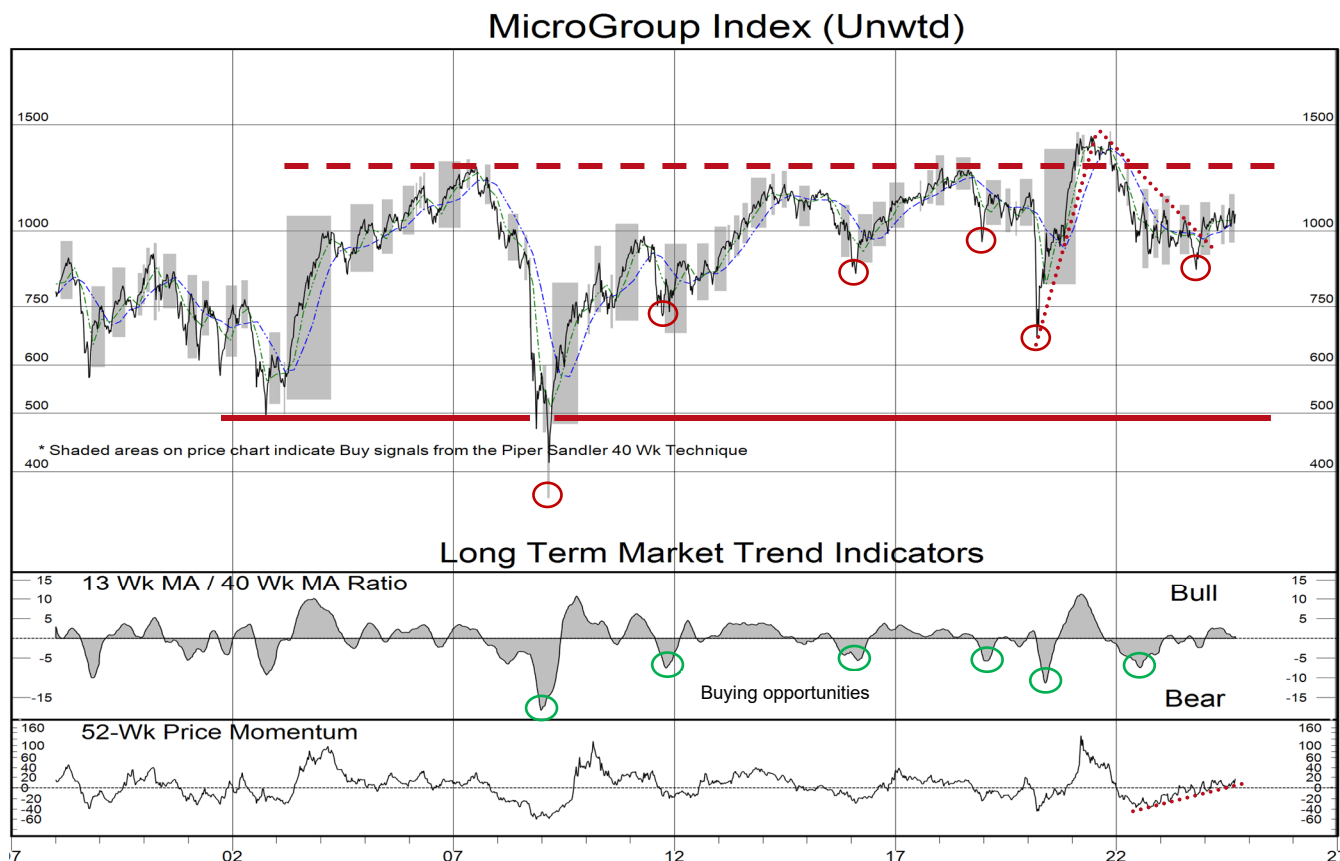
Sectors (Unweighted)		Current	TechniGrade				Absolute Performance					
Sector Name			1 wk	2 wk	3 wk	4 wk	1 wk	4 wk	13 wk	26 wk	52 wk	YTD
400	Utilities (Unwtd)	5	6	8	8	7	3.22%	4.55%	12.72%	15.72%	12.23%	9.86%
600	Financial (Unwtd)	6	6	6	6	7	2.65%	3.05%	14.22%	12.85%	20.05%	7.65%
1400	Communications/Media (Unwtd)	10	9	11	10	10	2.38%	1.66%	6.99%	7.09%	8.19%	0.36%
800	Healthcare (Unwtd)	10	12	12	12	13	4.45%	3.5%	6.03%	-1.25%	11.26%	3.45%
500	Services (Unwtd)	11	12	10	11	11	3.7%	1.77%	6.24%	3.54%	15.0%	4.11%
1000	Consumer Cyclical (Unwtd)	11	12	13	11	12	4.16%	2.39%	5.11%	1.77%	6.98%	-1.23%
900	Consumer Staples (Unwtd)	12	10	13	13	12	1.0%	1.26%	3.72%	-0.84%	2.88%	-0.26%
300	Industrial Manufacturing (Unwtd)	13	13	12	12	13	4.19%	1.37%	3.51%	1.64%	14.69%	5.42%
200	Basic Materials (Unwtd)	13	15	14	13	14	7.11%	2.85%	2.61%	5.22%	7.23%	3.44%
700	Transportation (Unwtd)	15	14	15	16	15	3.1%	1.01%	-0.86%	-0.21%	9.29%	-0.96%
1200	Technology (Unwtd)	15	16	14	14	14	4.97%	-0.14%	-0.89%	-2.61%	1.71%	-5.26%
100	Energy (Unwtd)	18	17	16	16	15	0.34%	-6.27%	-5.25%	-7.15%	-10.24%	-4.39%

Sectors (Weighted)		Current	TechniGrade				Absolute Performance					
Sector Name			1 wk	2 wk	3 wk	4 wk	1 wk	4 wk	13 wk	26 wk	52 wk	YTD
400	Utilities (Wtd)	4	3	7	7	6	2.95%	6.14%	13.62%	20.69%	19.69%	16.89%
800	Healthcare (Wtd)	7	6	7	7	7	1.77%	2.31%	8.01%	10.24%	19.85%	17.3%
500	Services (Wtd)	7	7	8	9	9	3.36%	3.81%	10.75%	7.1%	25.31%	13.93%
600	Financial (Wtd)	8	7	8	9	8	2.03%	2.8%	10.04%	10.32%	26.98%	15.51%
900	Consumer Staples (Wtd)	10	7	11	11	10	0.28%	2.7%	6.12%	4.55%	6.68%	5.01%
1000	Consumer Cyclical (Wtd)	10	12	13	13	12	4.45%	3.3%	5.0%	2.75%	13.7%	8.74%
1200	Technology (Wtd)	10	13	10	9	7	6.97%	-0.93%	-2.91%	12.38%	39.63%	24.48%
300	Industrial Manufacturing (Wtd)	11	12	10	11	11	4.16%	2.1%	5.33%	4.6%	23.56%	11.34%
1400	Communications/Media (Wtd)	12	12	12	12	10	3.62%	0.01%	1.1%	10.48%	23.51%	17.45%
700	Transportation (Wtd)	14	12	15	16	16	1.4%	2.81%	3.3%	-6.12%	2.87%	-3.2%
200	Basic Materials (Wtd)	15	16	15	15	15	4.87%	0.92%	0.23%	0.17%	4.82%	-1.47%
100	Energy (Wtd)	17	15	14	15	13	-0.24%	-5.35%	-1.46%	-4.35%	-4.68%	1.02%

S&P 500



MicroGroup Index | Breadth & Momentum Indicator Overlay



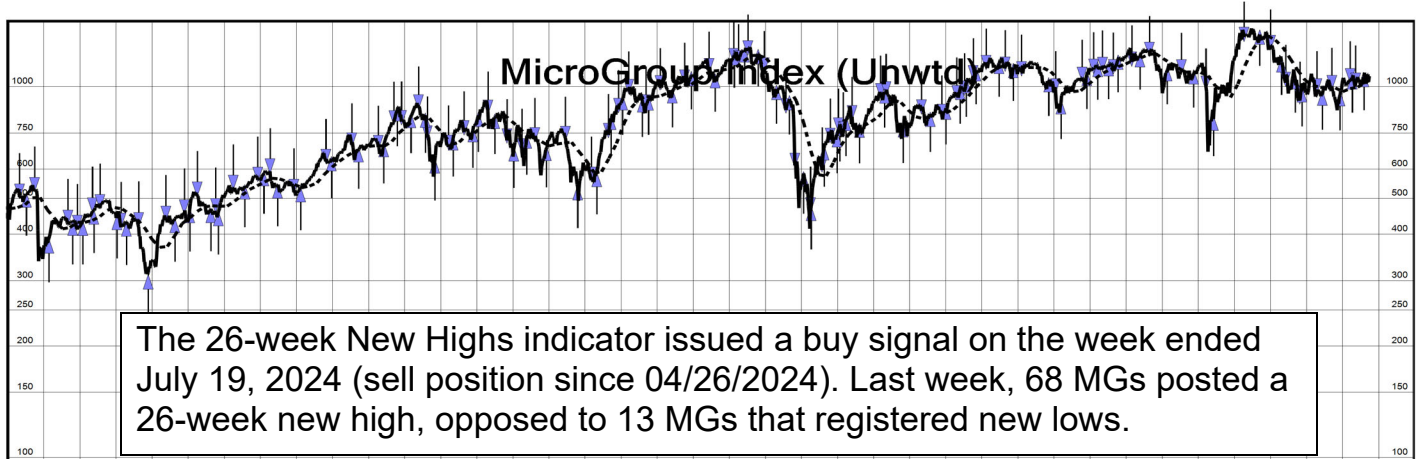
Fund Flow Activity (in \$ billions)

As of 9/11/2024

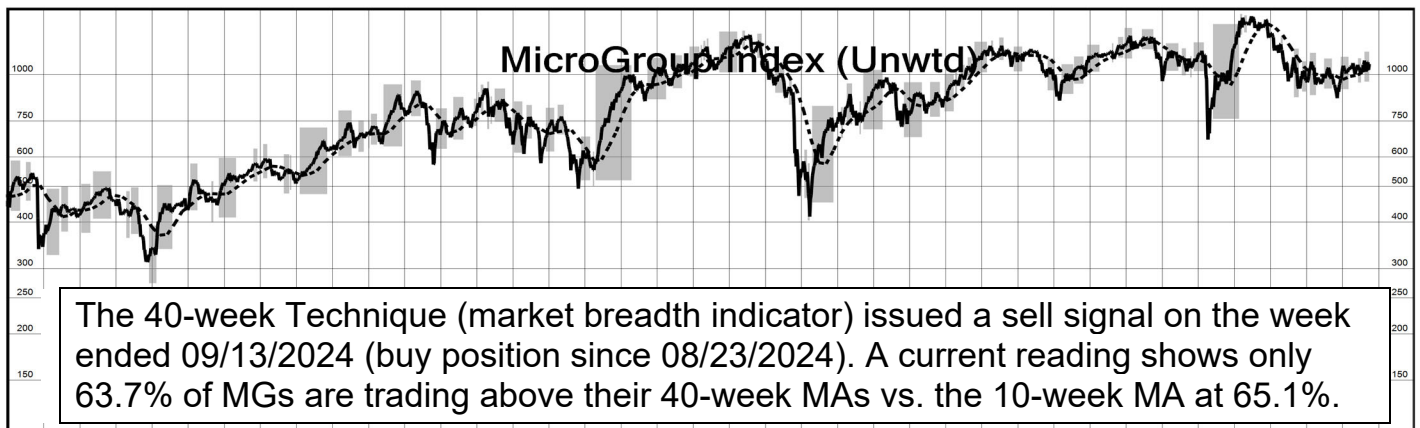
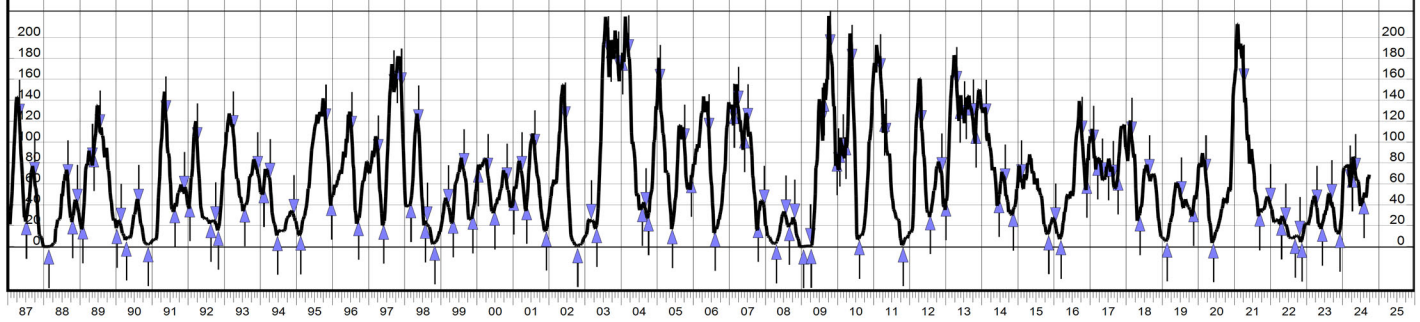
Name	Total Net Assets	Estimated Net Flows	Flows as Percent of TNA
Include ETFs			
Equity	10,724,296.00	(7,812.46)	(0.07)
Money Market	5,653,402.24	18,171.49	0.32
Bond	3,611,662.90	4,694.52	0.13
Exclude ETFs			
Money Market	5,653,402.24	18,171.49	0.32
Equity	5,482,482.77	(8,326.64)	(0.15)
Bond	2,339,770.56	(2,846.56)	(0.12)
Only ETFs			
Equity	5,241,813.23	514.18	0.01
Bond	1,271,892.35	7,541.09	0.60

Source: Refinitiv/Lipper

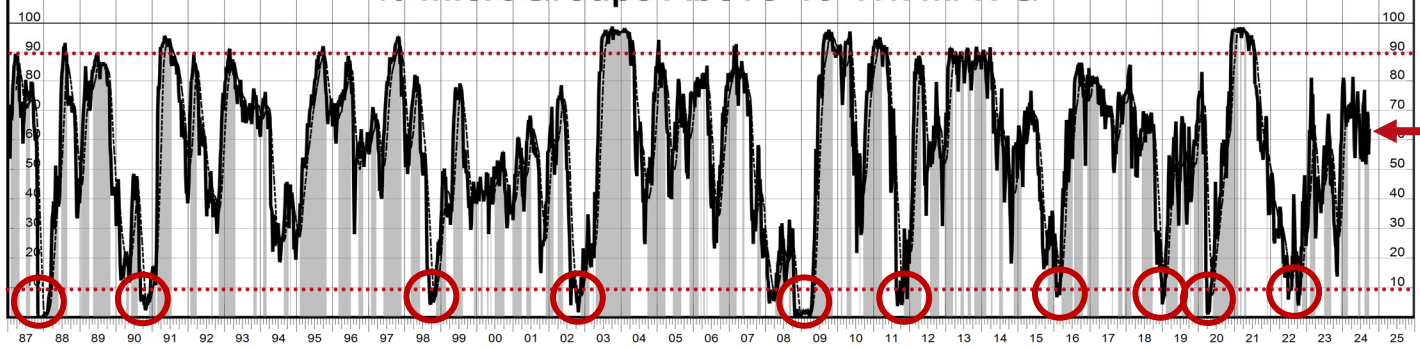
- For the week ending 9/11/2024, U.S. equity funds saw an estimated net outflow of \$7.8 billion, while money markets and bonds saw estimated net inflows of \$18 billion and \$4.7 billion, respectively.
- Excluding ETFs, domestic equity and bond funds saw outflows while money markets reported an inflow.
- For only ETFs, equities had a modest inflow of \$514 million while bonds had a big inflow of \$7.5 billion.
- Money Markets reported a moderate estimated inflow of \$18.1 billion, or 0.32% of its Total Net Assets. Excluding ETFs, Money Markets surpassed Equities net assets and is more than double Bonds assets.



26 Week New Highs: 10-Wk MAVG

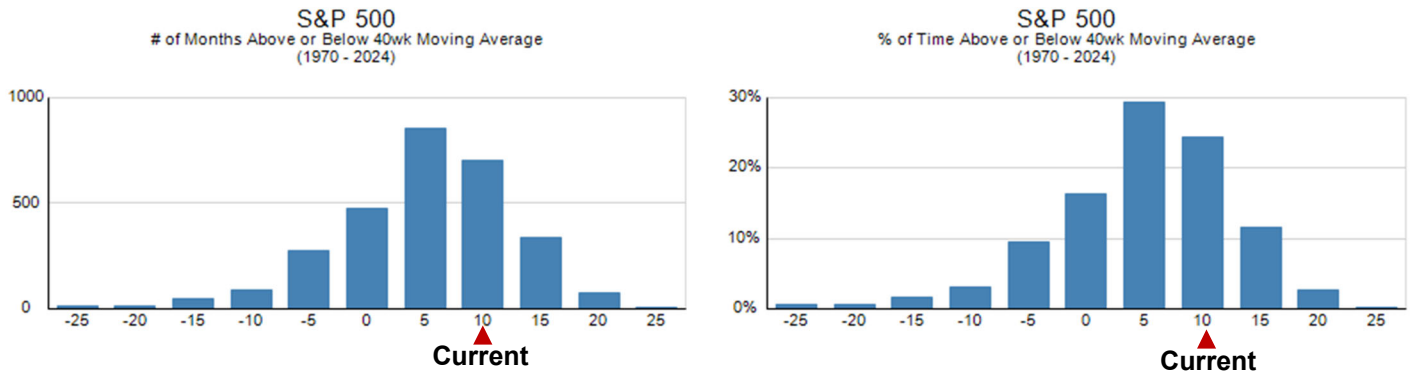


% MicroGroups Above 40-Wk MAVG

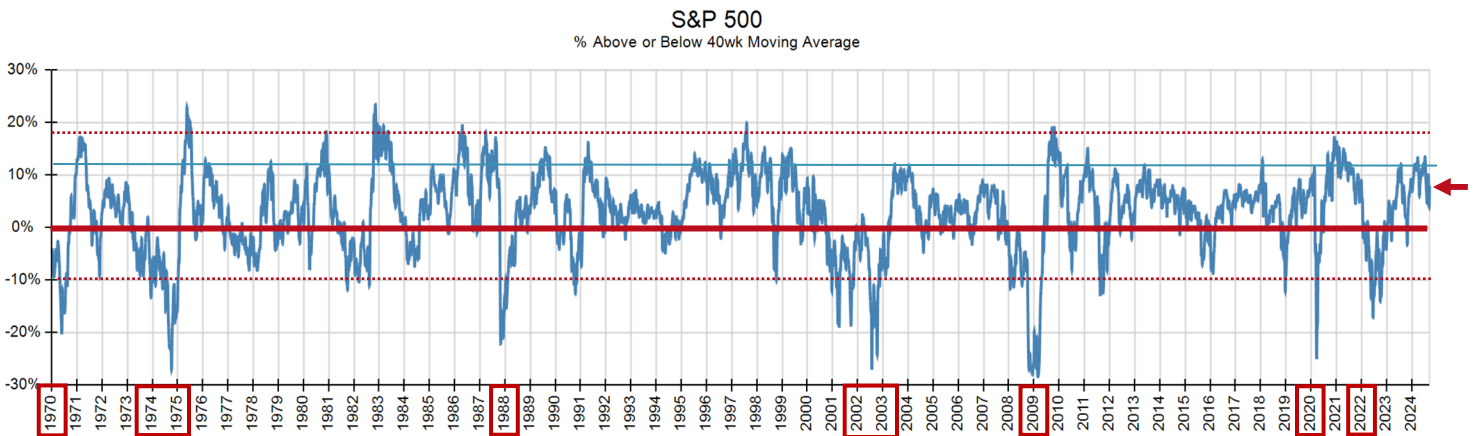


S&P 500 Price Relative to the 40-week MA:

The S&P 500 has traded above the 40-week MA for the last ten months. Historically, the index has traded above the 40-week MA for an average timeframe of around five months.



The S&P 500 trades at an 8% premium to its 40-week MA (shown in the chart below), which is above the historical average 5% premium that the index has traded over the 40-week MA since 1970.

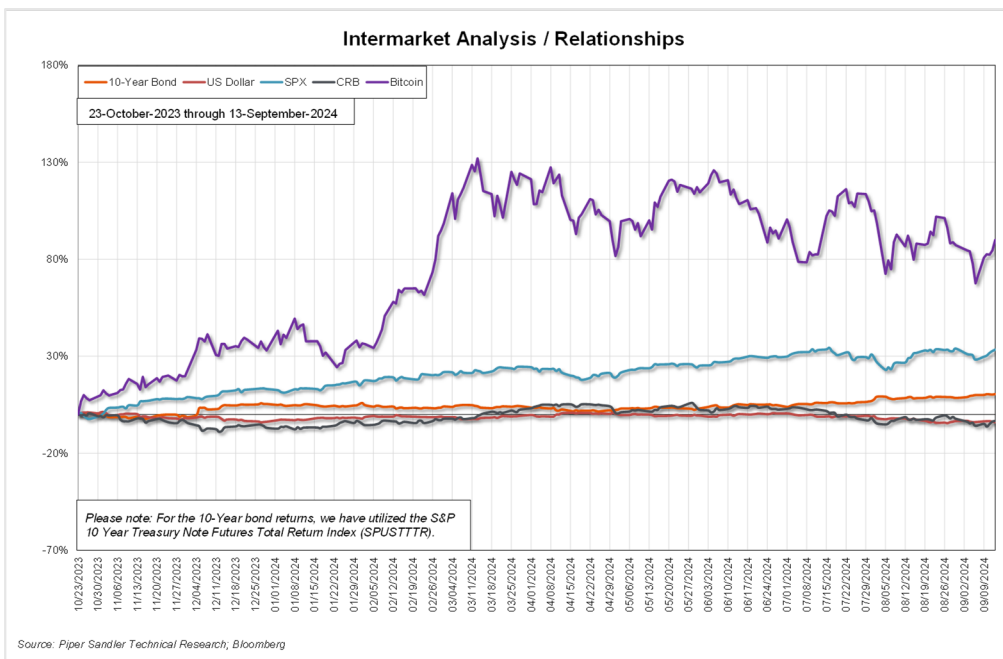


MACE Sector Analysis: Currently, 72% of stocks within the S&P 500 are trading in some form of a MACE-defined uptrend (U1, U2, or U3 rating), as opposed to 65% at the time of our last publication on 08/07/2024.

Sector	U1	U2	U3	D1	D2	D3	Uptrend	Downtrend	Technigrade	Relative Rating	Absolute Rating
100 Energy	7%	4%	20%	4%	13%	52%	31%	69%	18	3	C
200 Basic Materials	9%	9%	18%	4%	10%	40%	46%	54%	13	4	D
300 Industrial Manufacturing	11%	12%	31%	4%	3%	35%	55%	45%	13	2	B
400 Utilities	1%	11%	74%	4%	6%	5%	86%	14%	5	3	C
500 Services	9%	8%	43%	4%	10%	27%	59%	41%	11	3	C
600 Financial	4%	7%	67%	4%	3%	14%	77%	23%	6	2	B
700 Transportation	6%	8%	19%	13%	13%	42%	33%	67%	15	4	D
800 Healthcare	12%	8%	30%	4%	10%	37%	50%	50%	10	3	C
900 Consumer Staples	9%	13%	33%	3%	9%	32%	56%	44%	12	4	D
1000 Consumer Cyclical	9%	9%	36%	4%	9%	33%	54%	46%	11	3	C
1200 Technology	8%	6%	30%	8%	12%	37%	44%	56%	15	2	C
1400 Communications/Media	7%	10%	39%	7%	13%	23%	56%	44%	10	3	C
S&P 500	6%	12%	54%	5%	2%	20%	72%	28%	9		

Intermarket Analysis:

- Commodities (CRB) have declined for several months but are still up 4% year-to-date. WTI Crude Oil has dropped to a 52-week new low below \$70/barrel, while Gold has risen to a new record high of \$2617/oz.
- The DJIA and S&P 500 have climbed to a new all-time high, up approximately 10% and 18% year-to-date. The Nasdaq is up 18% YTD but much slower to recover from its August correction. SMID-caps confirmed support at their 200-day MAs and are expected to outperform into year-end.
- Bond prices are rising to year-to-date highs, with the 10-year UST yield falling toward 3.0%-3.50% support. The U.S. Dollar (DXY) has weakened to 52-week new lows, with next support near 101.



U.S. Dollar Index & S&P 500 Correlation:

- The 40-day correlation between the U.S. Dollar and the S&P 500 index has been slightly positive since August.
- Slower economic data and higher unemployment have increased expectations that the Fed will start cutting rates, weakening the U.S. Dollar.
- We expect the positive relationship between the dollar and equities to remain near neutral for the coming months as prices back and fill at long-term support around the 100-level.

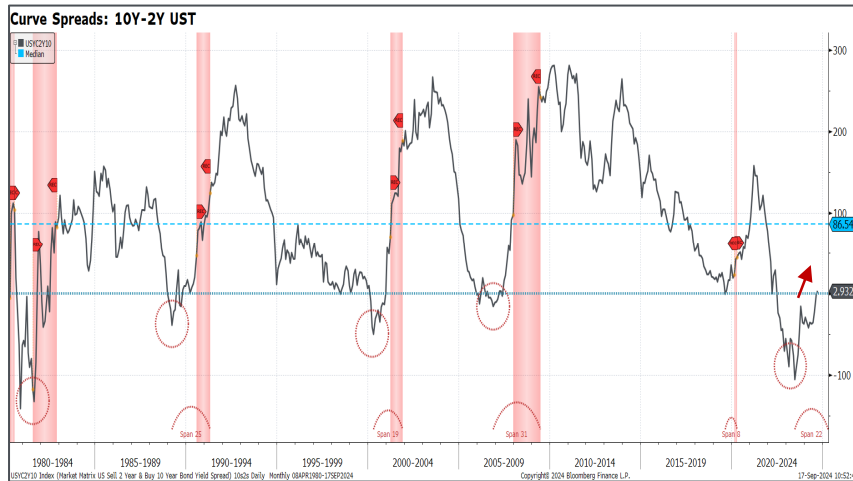


• **Fixed Income Market:**

- The Federal Reserve is expected to start cutting rates based on slowing economic growth, which has caused the 10/2 yield curve to normalize for the first time in over two years. Historically, a recession has occurred several months after the yield curve normalized.
- As bonds rise and yields decline, the benchmark 10-year UST yield has fallen to a 52-week new low at 3.6%. However, from a longer-term perspective, we view this as a normal retracement after a parabolic advance to 5%. Look for new support to be established in the coming months, around 3.0% to 3.50%.



In August, the 10-year bond yield violated a long-term uptrend and has continued sliding toward next support near 3.50%. Below that, the next support is at 3.25%. According to Bloomberg’s Fed fund futures, the probability of at least a 25-basis point rate cut is 100% at the September FOMC meeting.



The normalization of the 10/2’s inverted yield curve has historically preceded the NBER’s declaration of a recession by several months.

Investors are eager to lock in high bond interest rates as the Fed is expected to begin its first rate-cutting cycle since March 2020.



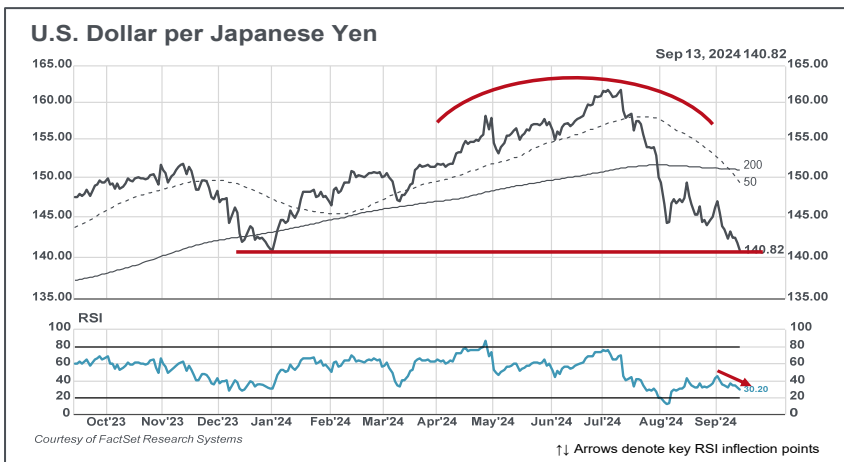
From a longer-term perspective, yields have reversed a secular downtrend off the '81 highs. The higher high above 3.25% ('18 highs) also validated the breakout from the multi-decade bottom, implying a new secular uptrend has begun. However, given the unsustainable parabolic advance to 5%, rates will likely retrace to prior resistance/new support around 3.00% to 3.50%—a decisive break below that would imply the economy is in more serious trouble.

FX Market:

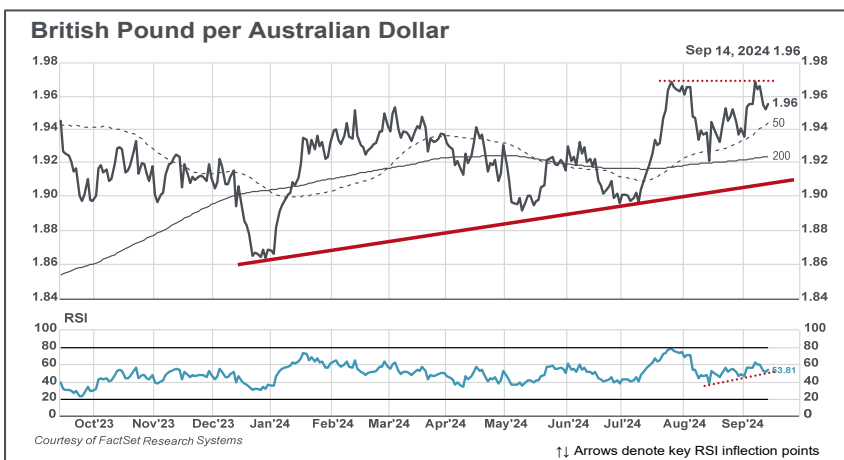
- Investors' expectations remain high for at least a 25-basis point cut in the Fed funds rate at the upcoming FOMC meetings, lowering the rate from 5.25%-5.50% to back below 5.0% by year-end.
- The *U.S. Dollar* has fallen to 52-week new lows on the prospect of lower interest rates, driven by the evidence of slowing economic growth, higher unemployment, and the unwinding of global carry trades.
- The *Japanese Yen* reversed a multi-year downtrend against the U.S. dollar as the carry trade unwound following the Bank of Japan's decision to raise interest rates to 0.25%—the highest level since 2008.



The dollar is consolidating above support near 100.30; recent death crossover between the 50-/200-day MAs; RSI has rolled over; reduce positions on a violation of support.



The pair is approaching support off the December '23 lows near 140; recent death crossover between the 50-/200-day MAs; RSI has rolled over at the midline; reduce positions on a violation of support.



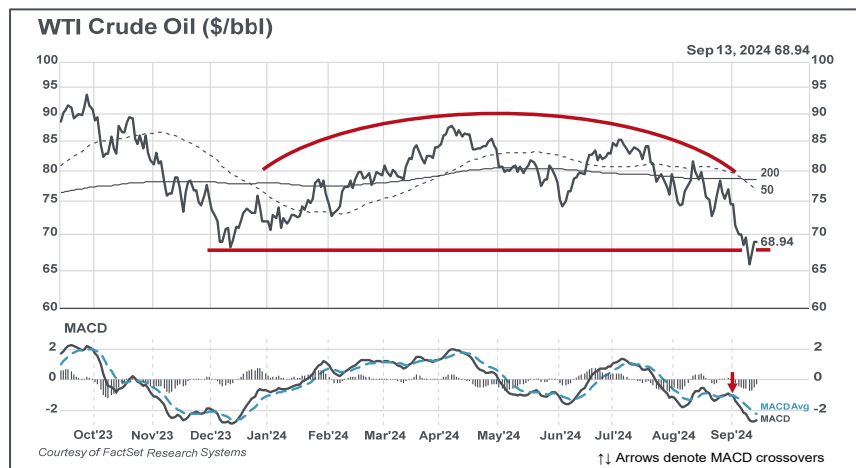
The pair has pulled back from overhead resistance near 1.97; back above the 50-/200-day MAs (golden crossover); RSI has eased to the midline; add to positions on a confirmed topside breakout.

Commodities:

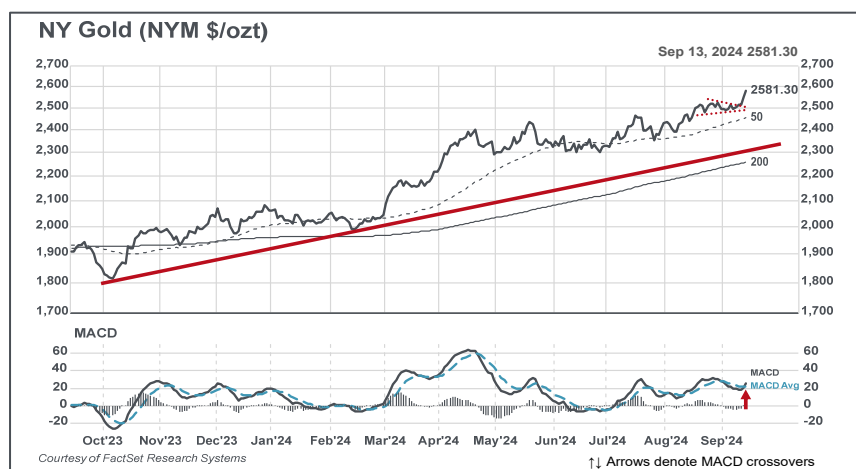
- Most commodities have pulled back from their year-to-date highs over the last few months, indicating that inflationary pressures have eased. The CRB index has fallen 11% from its YTD high, with a recent 50-/200-day bearish crossover, to retest the lower end of a two-year channel.
- WTI Crude Oil has broken down under key \$70 support to a 52-week new low. The next support below lies near \$62-\$63/barrel. Gold futures reached a new all-time high above \$2,600/oz, benefiting from a weaker U.S. Dollar and ongoing geopolitical turmoil.



The CRB Index is retesting the lower end of a rising price channel; recent death crossover between the 50-/200-day MAs; reduce positions on a violation of support.



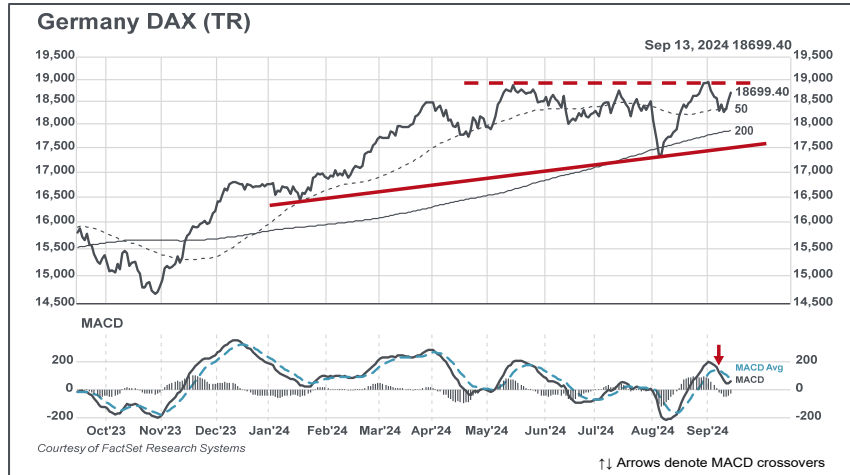
WTI crude oil is consolidating around support off the December '23 lows; recent death crossover between the 50-/200-day MAs; reduce positions on a violation of support.



Gold has broken out from a bullish pennant formation; above the rising 50-/200-day MAs; recent buy signal in MACD; add to positions.

Foreign Markets:

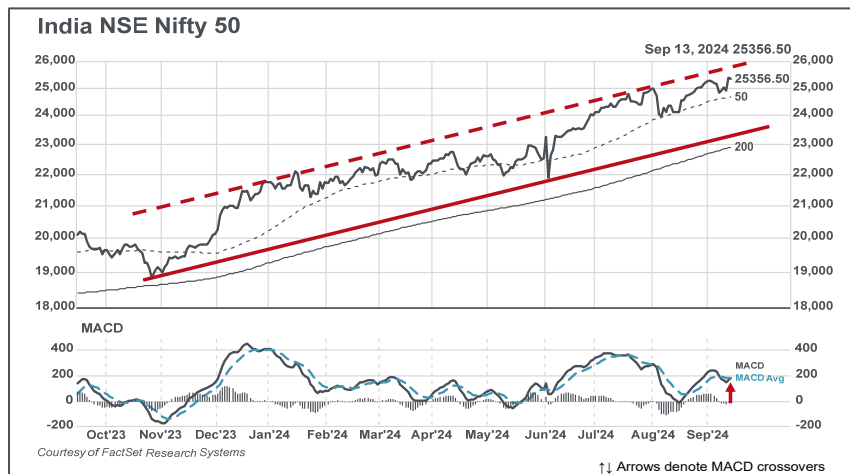
- Due to currency and interest rate changes, the performance of global equity markets has been bifurcated.
- While most European bourses have recovered from their August corrections, Japan's Nikkei and TOPIX have weakened below their 200-day MAs after correcting sharply due to the Yen carry trade unwinding.
- India's Nifty 50 index displays relative strength among global equity markets, climbing into new high territory and nearing the upper end of a multi-month rising price channel.



The index is approaching resistance off the May '24 highs; back above the 50-/200-day MAs; add to positions on a confirmed topside breakout.

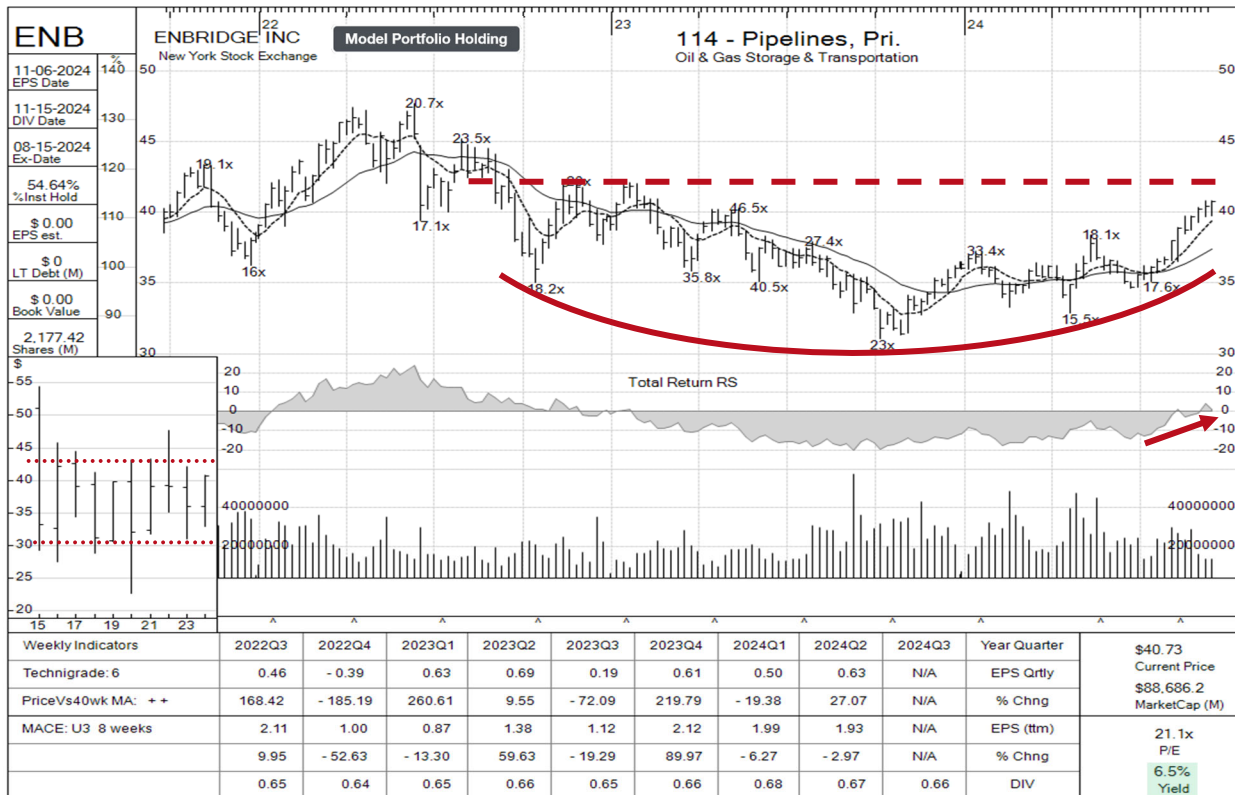
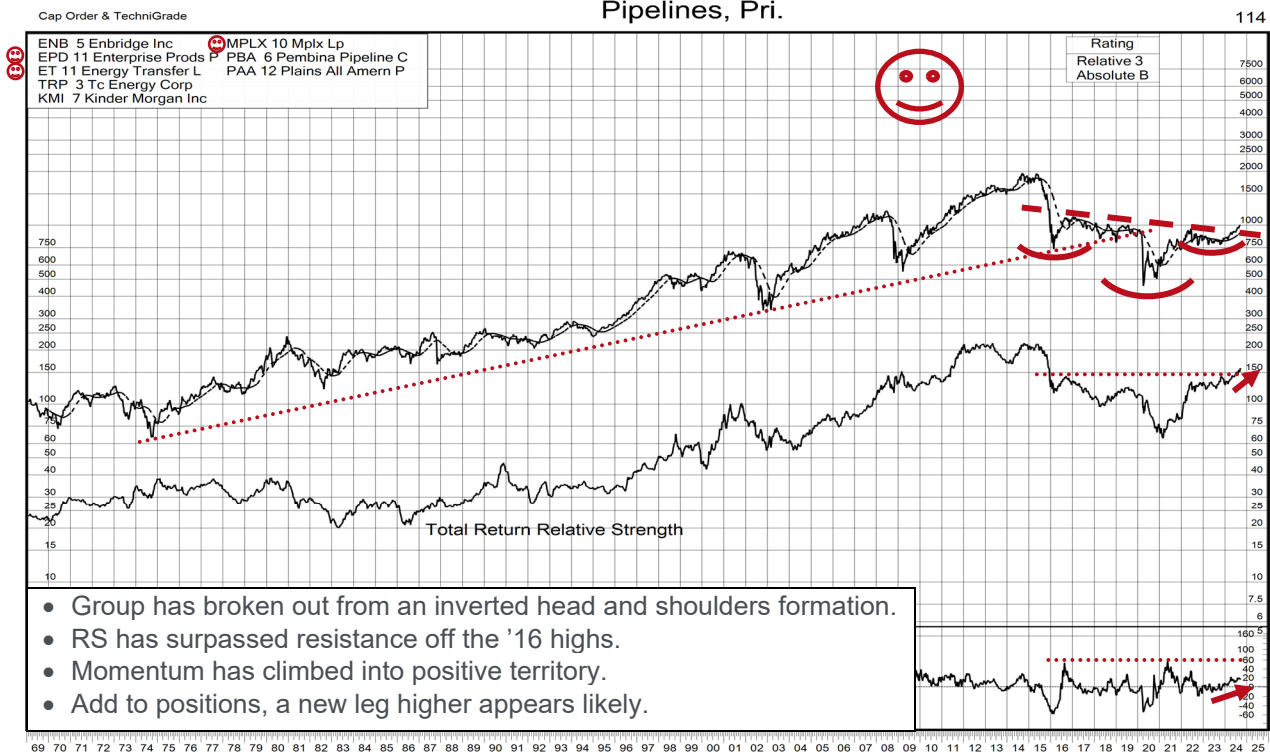


The index has failed at the 50-/200-day MAs; recent sell signal in MACD; reduce positions, a new leg lower appears to be underway.

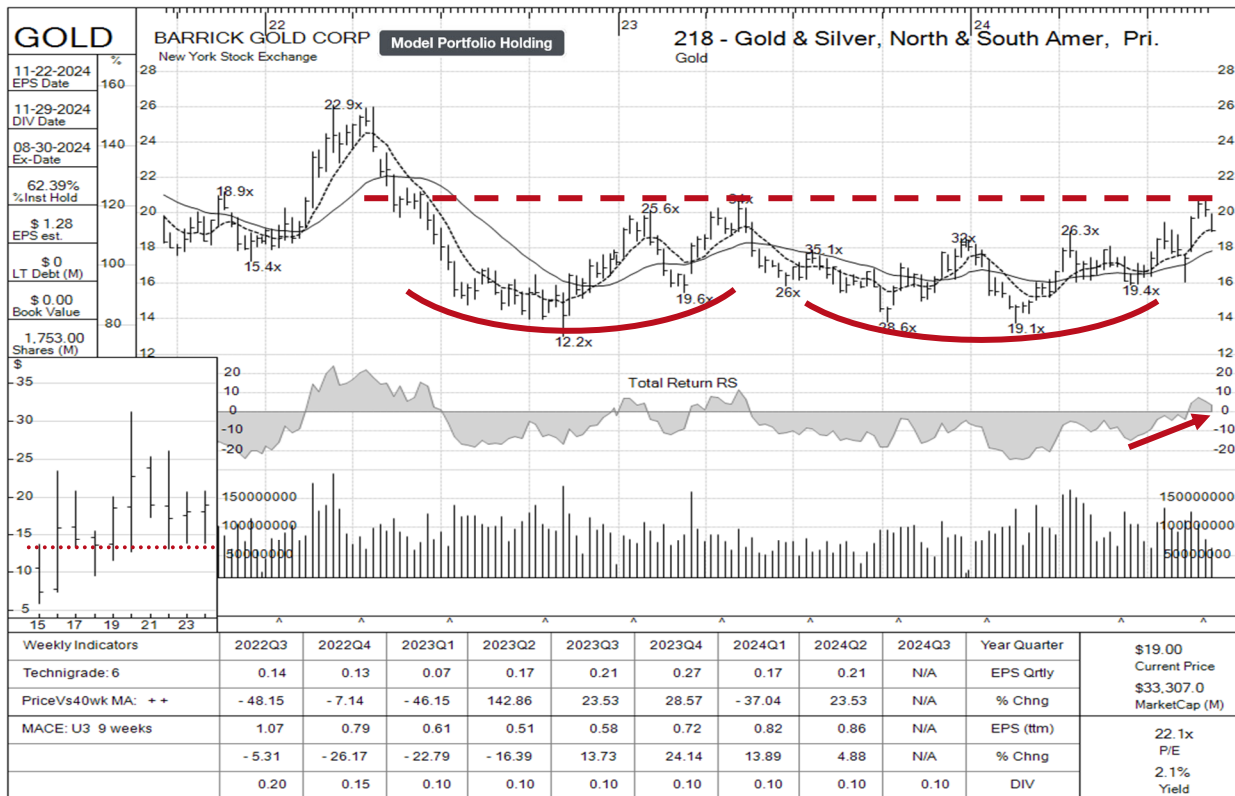
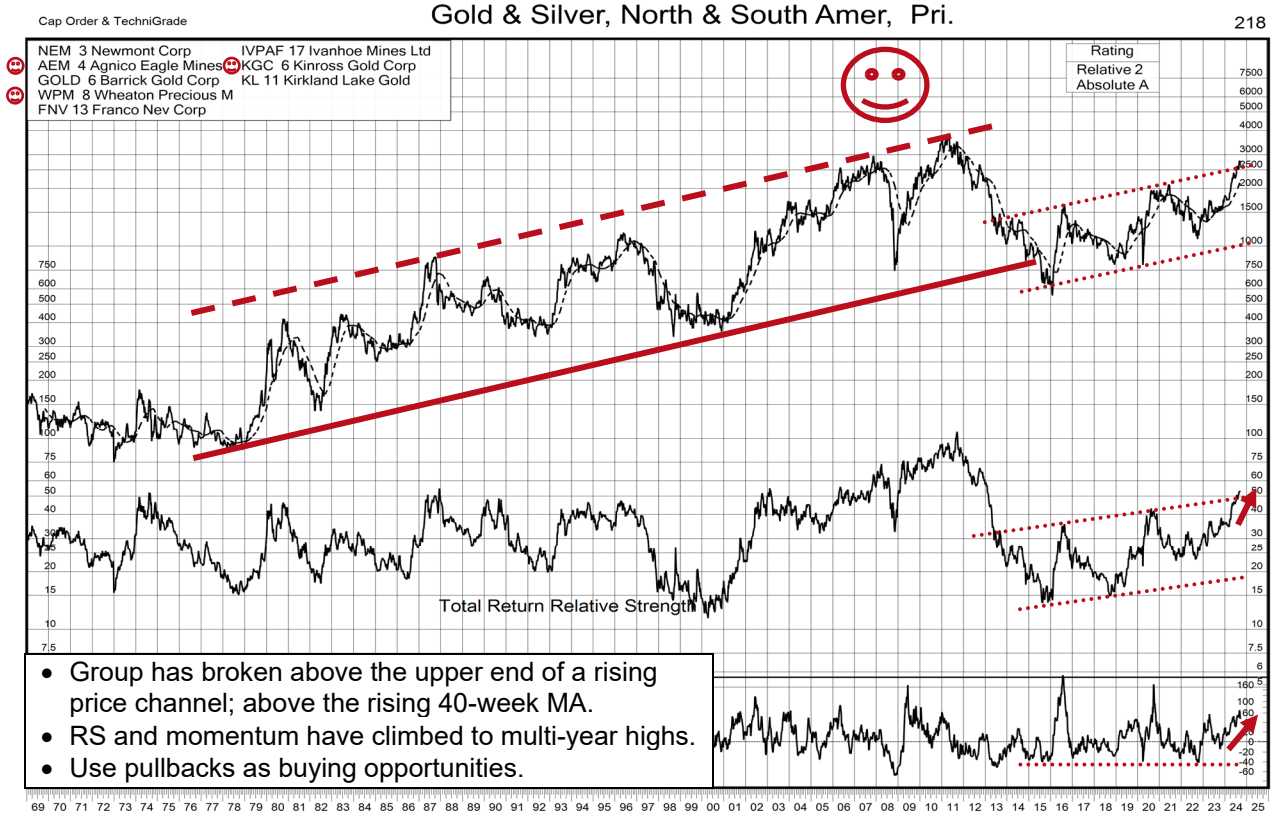


The index is approaching the upper end of a rising price channel; above the rising 50-/200-day MAs; recent buy signal in MACD; use pullbacks within the price channel to add to positions.

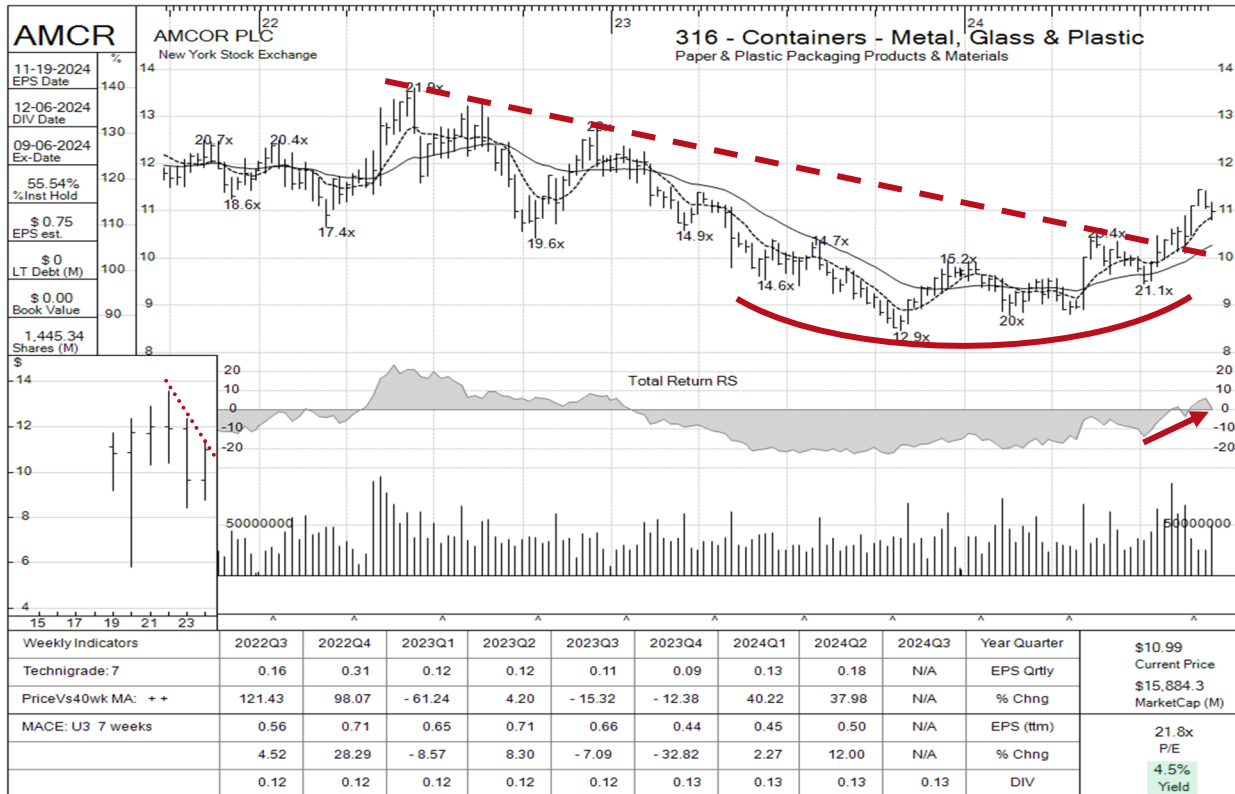
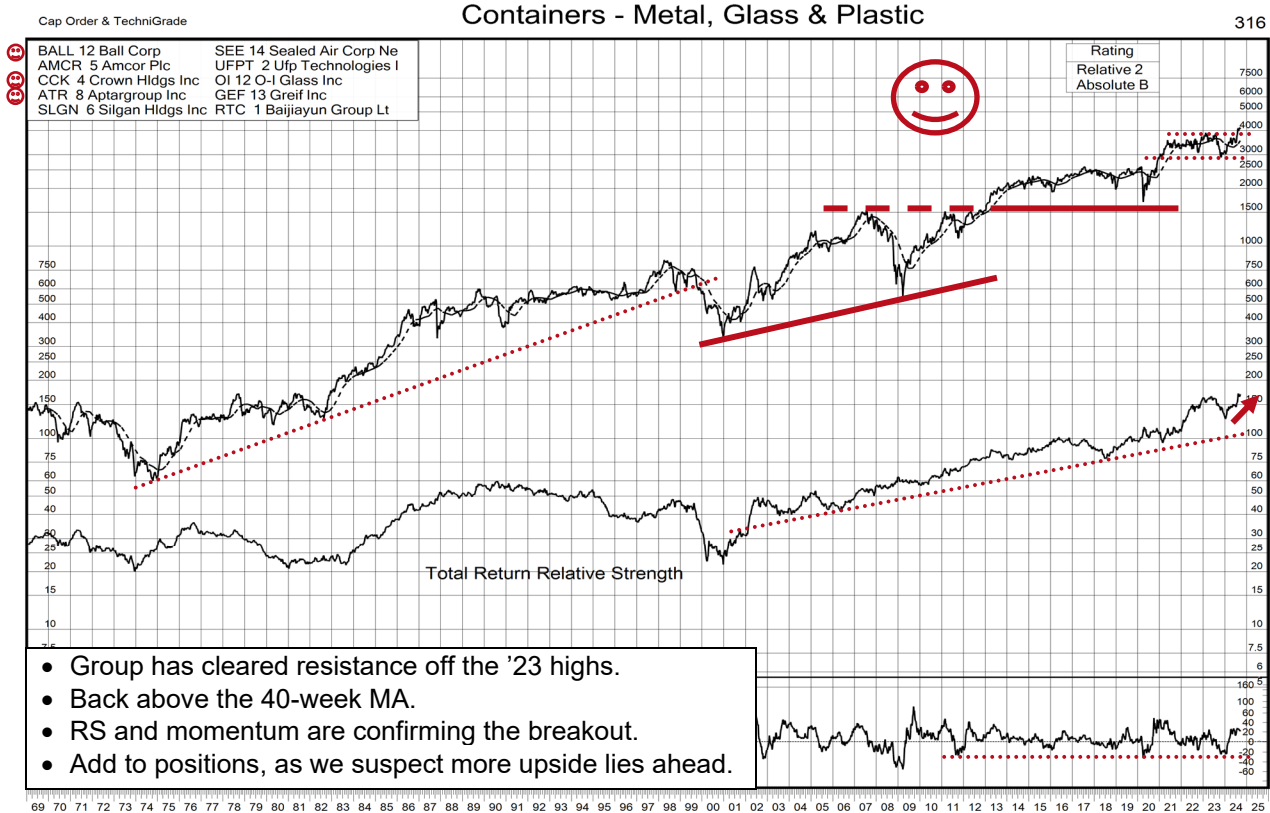
MicroGroup Highlights: This section includes several of our favorite bullish trade ideas in this month's Informed Investor publication.



- ENB—Shares are approaching overhead resistance near \$42.
- Back above the 10-/30-week WMAs (bullish crossover).
- RS has climbed into positive territory and attractive dividend yield.
- Add to positions on a confirmed topside breakout.



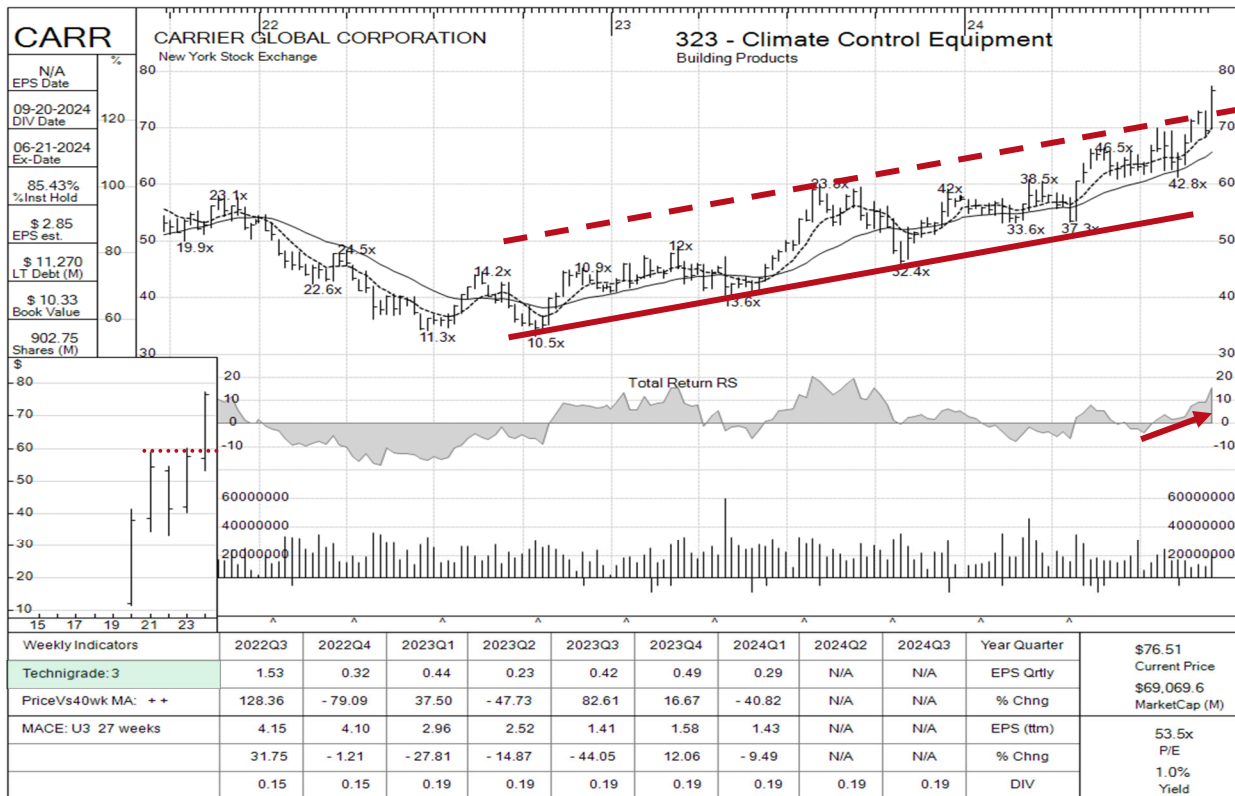
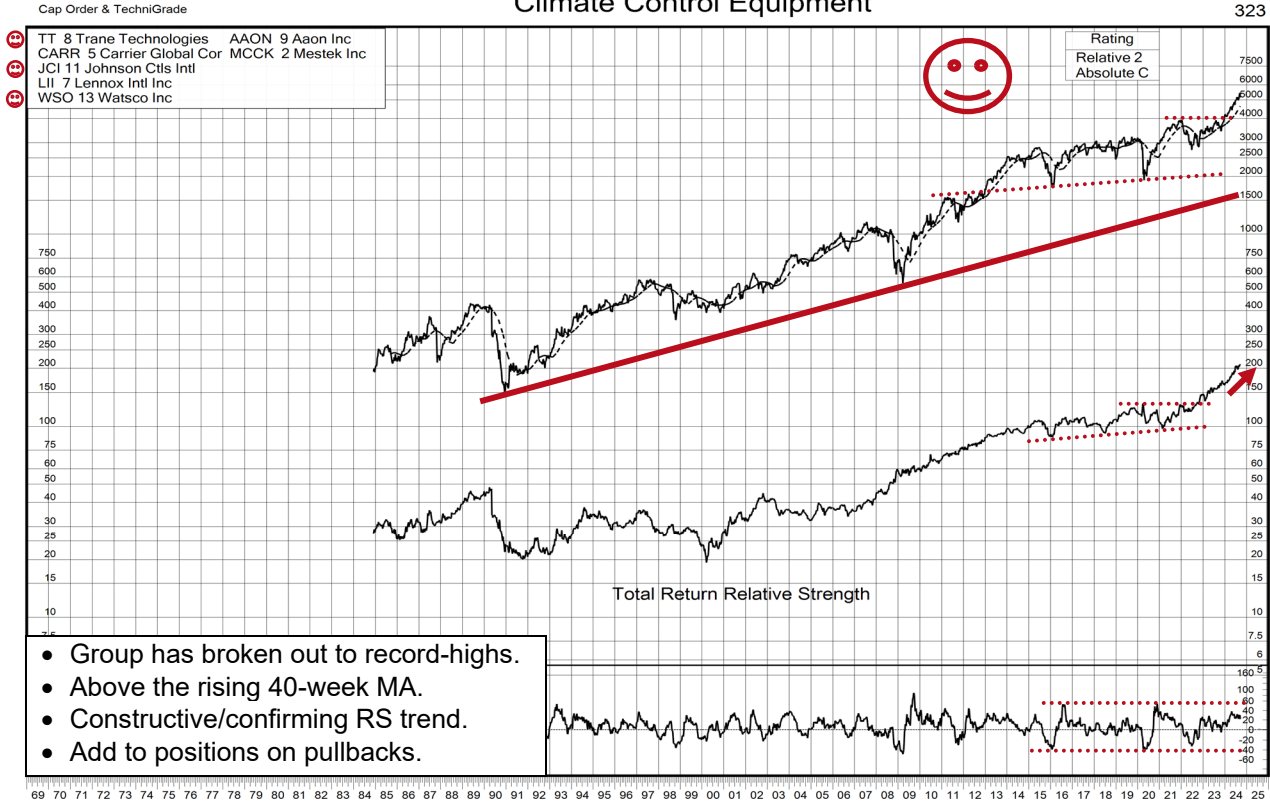
- GOLD—Double-bottom: Shares have pulled back from overhead resistance near \$21.
- Currently retesting the rising 10-week WMA.
- RS has climbed into positive territory.
- Add to positions on a confirmed topside breakout.



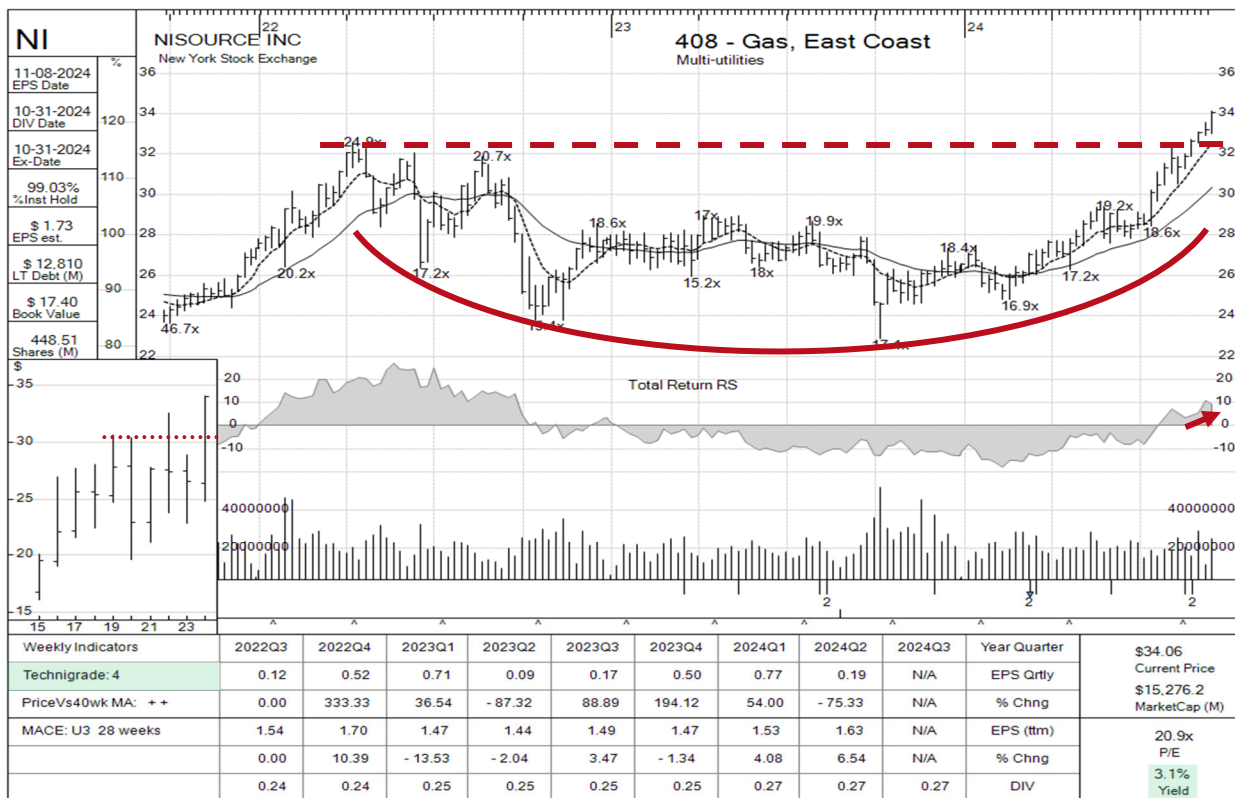
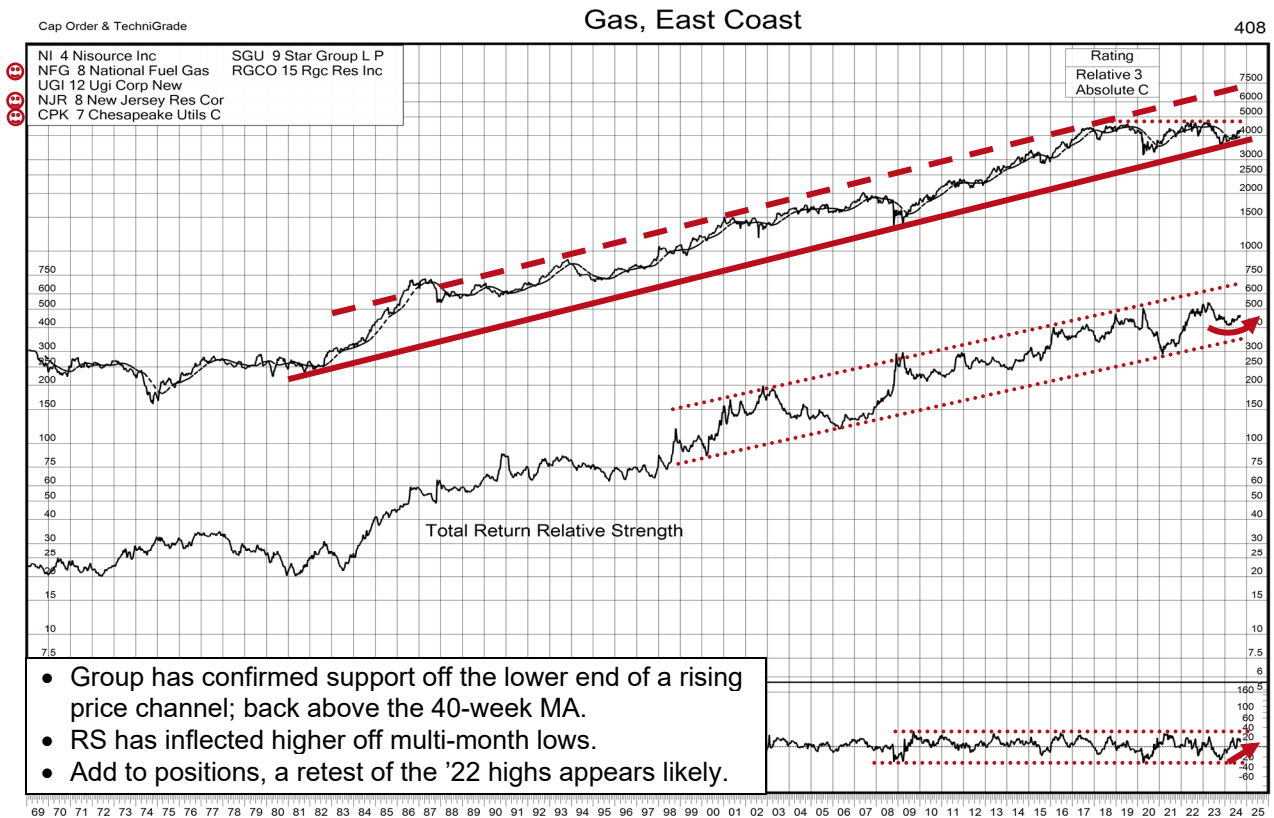
- AMCR—Shares have reversed a downtrend off the '22 highs.
- Currently retesting the rising 10-week WMA.
- RS has climbed into positive territory and attractive dividend yield.
- Use the current pullback as a buying opportunity.

Climate Control Equipment

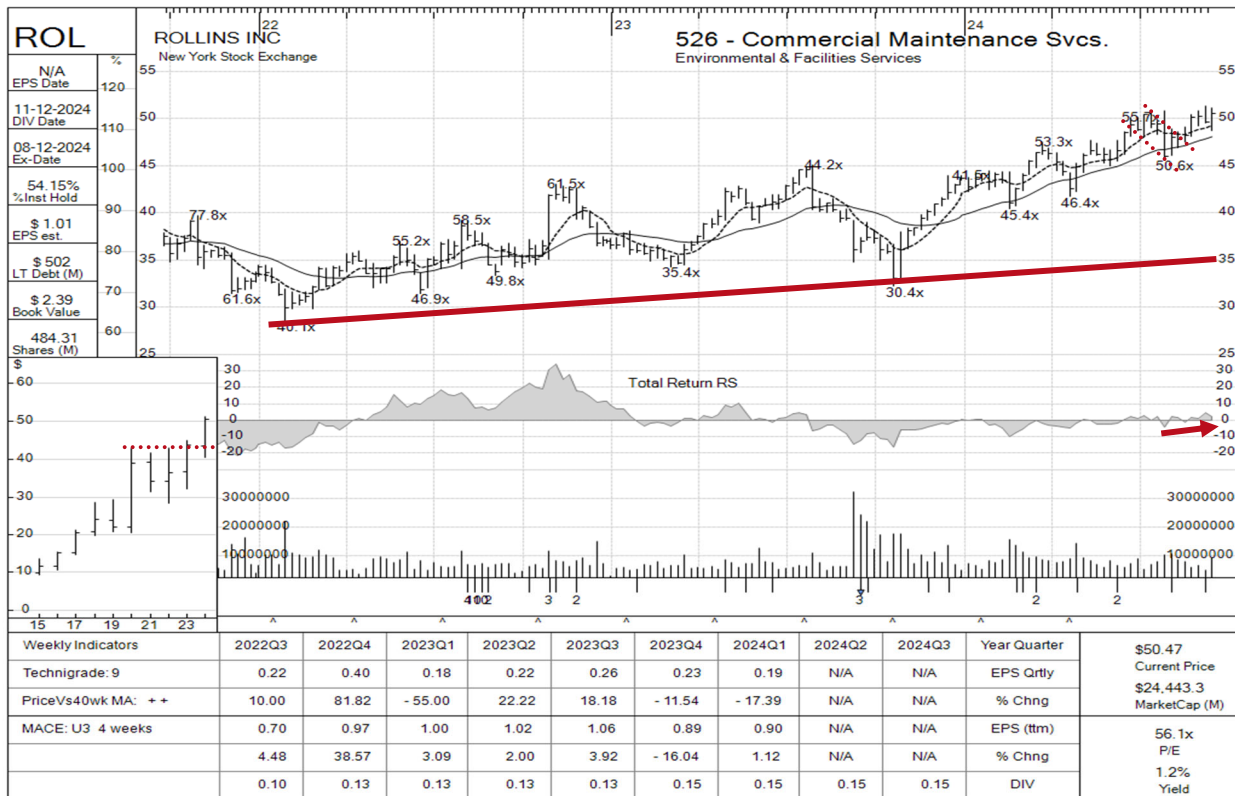
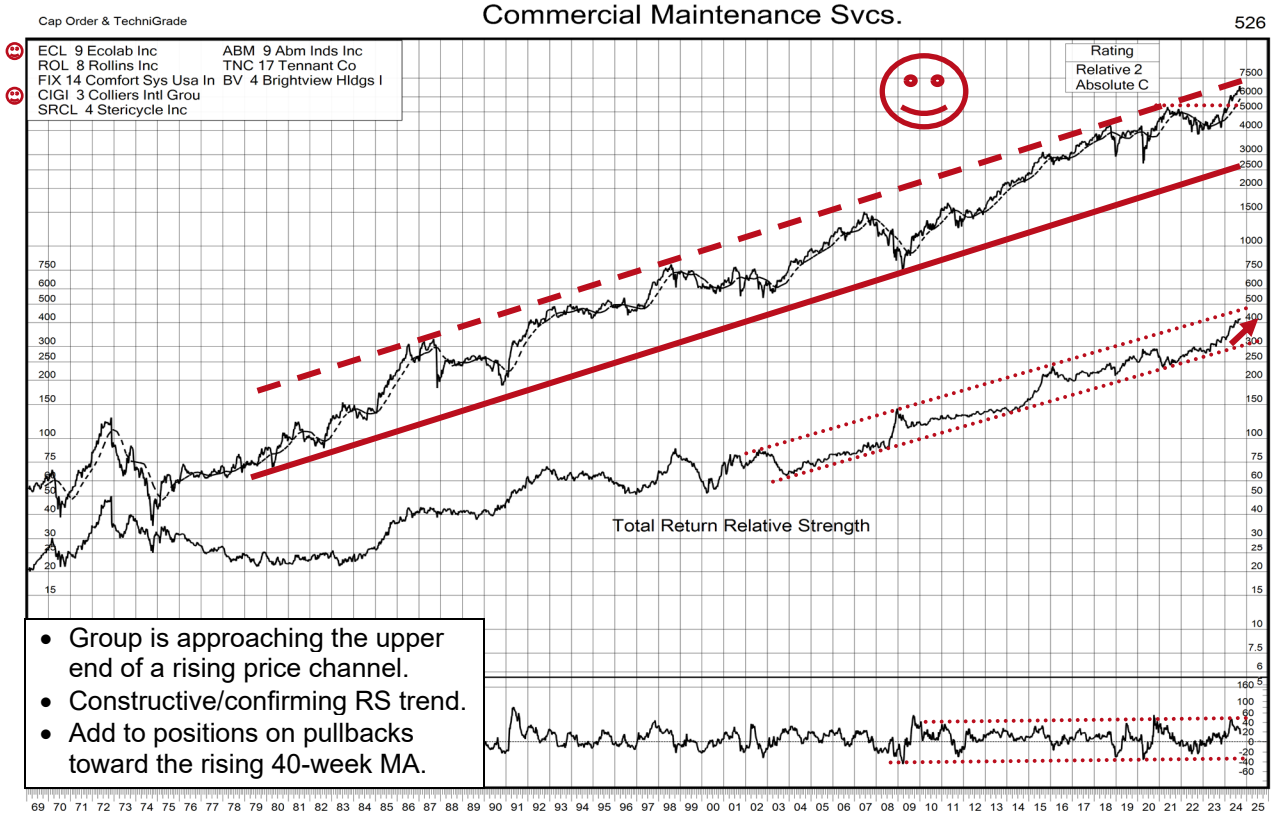
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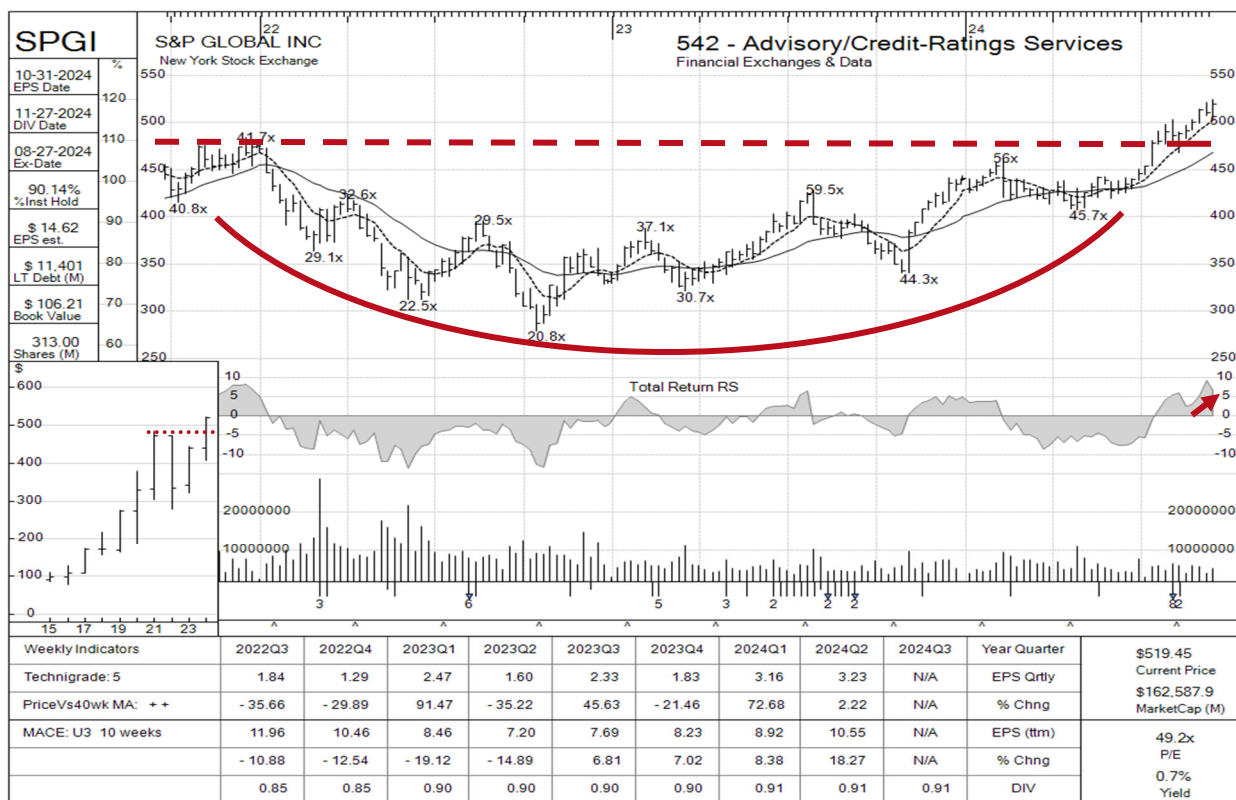
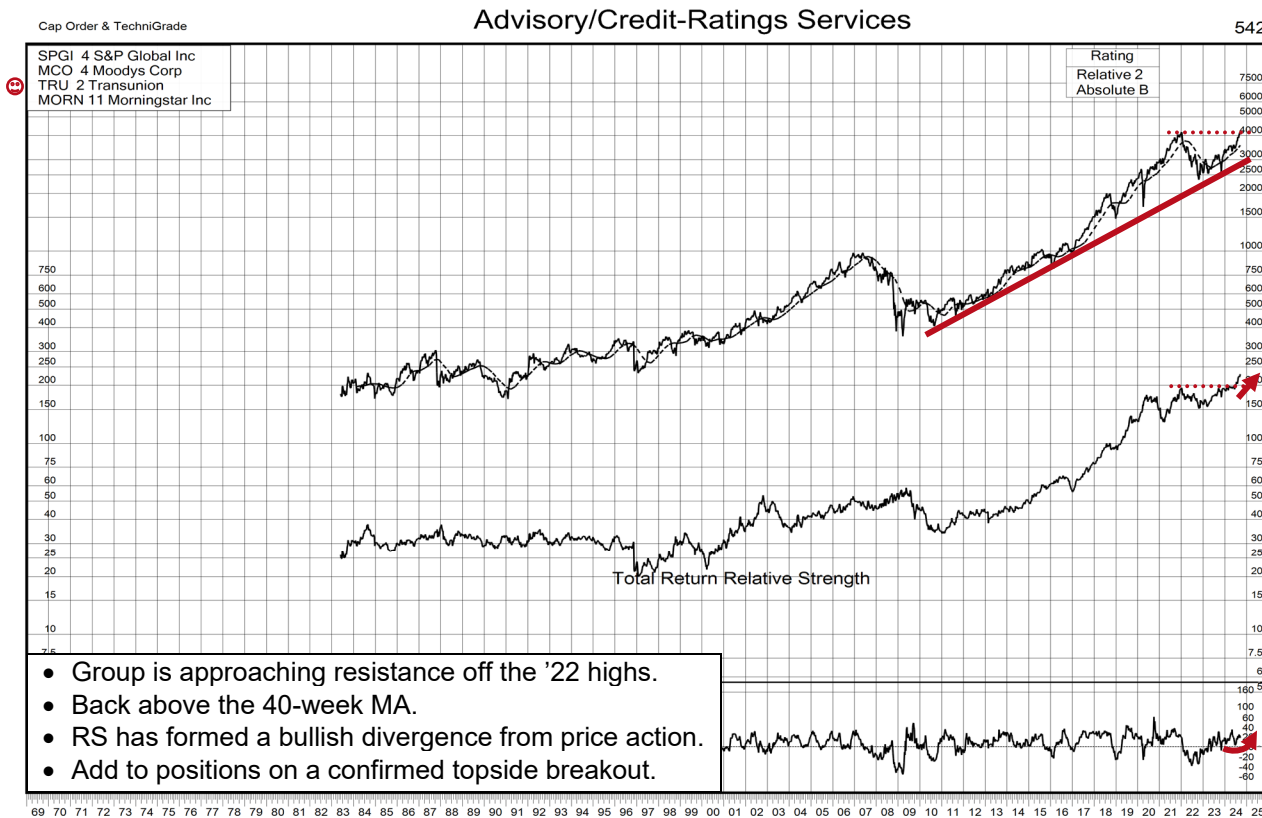
- CARR—Shares have broken above the upper end of a rising price channel.
- Back above the 10-/30-week WMAs.
- RS is confirming the breakout and impressive TechniGrade ranking.
- Add to positions, as we suspect more upside lies ahead.



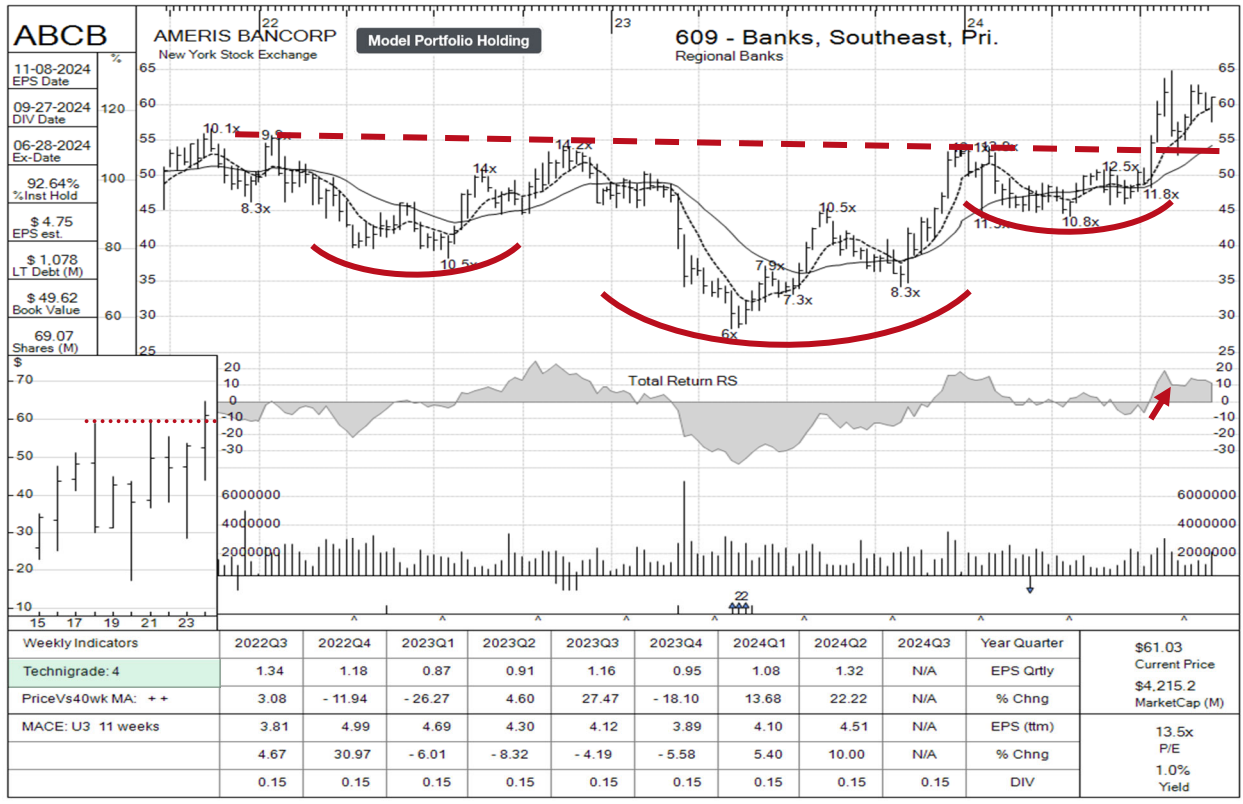
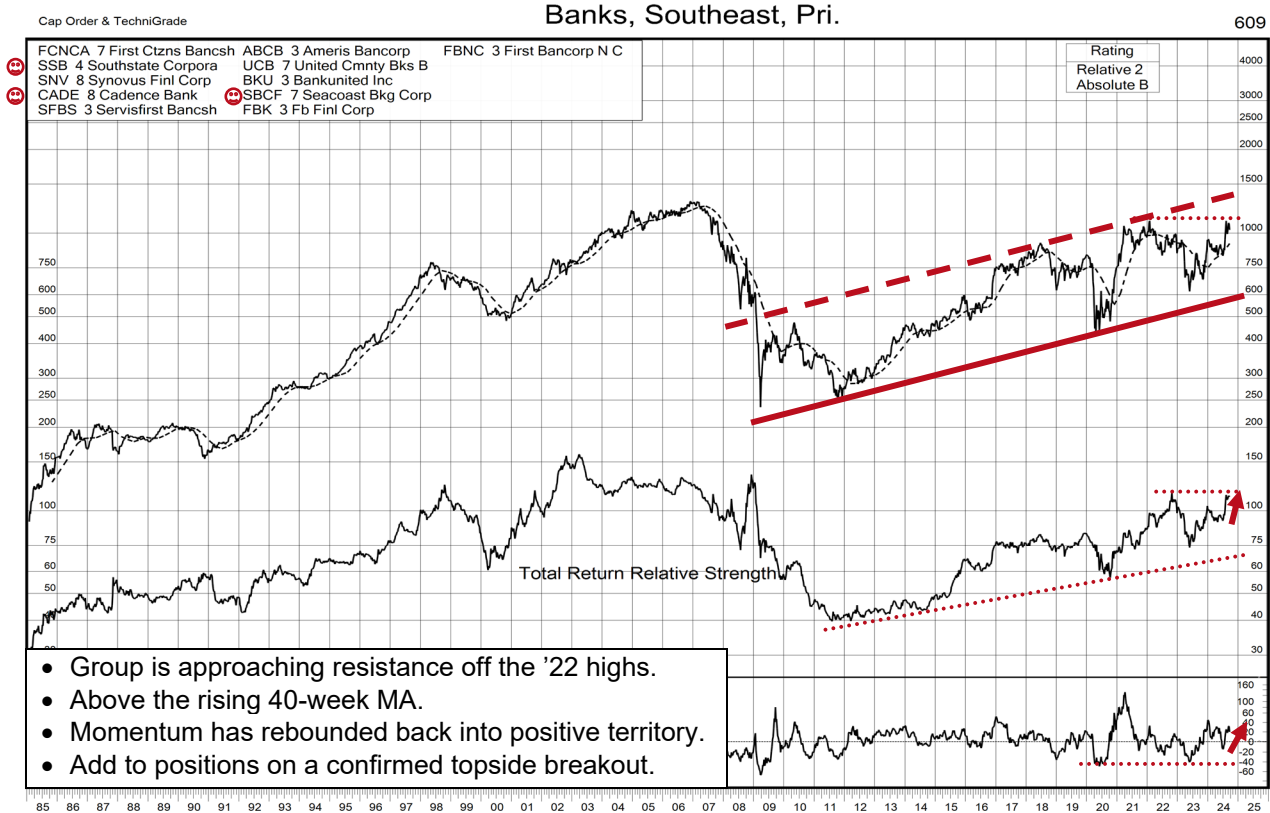
- NI—Shares have cleared resistance off the '22 highs.
- Above the rising 10-/30-week WMAs.
- RS is confirming the breakout and impressive TechniGrade ranking.
- Add to positions, as we suspect more upside lies ahead.



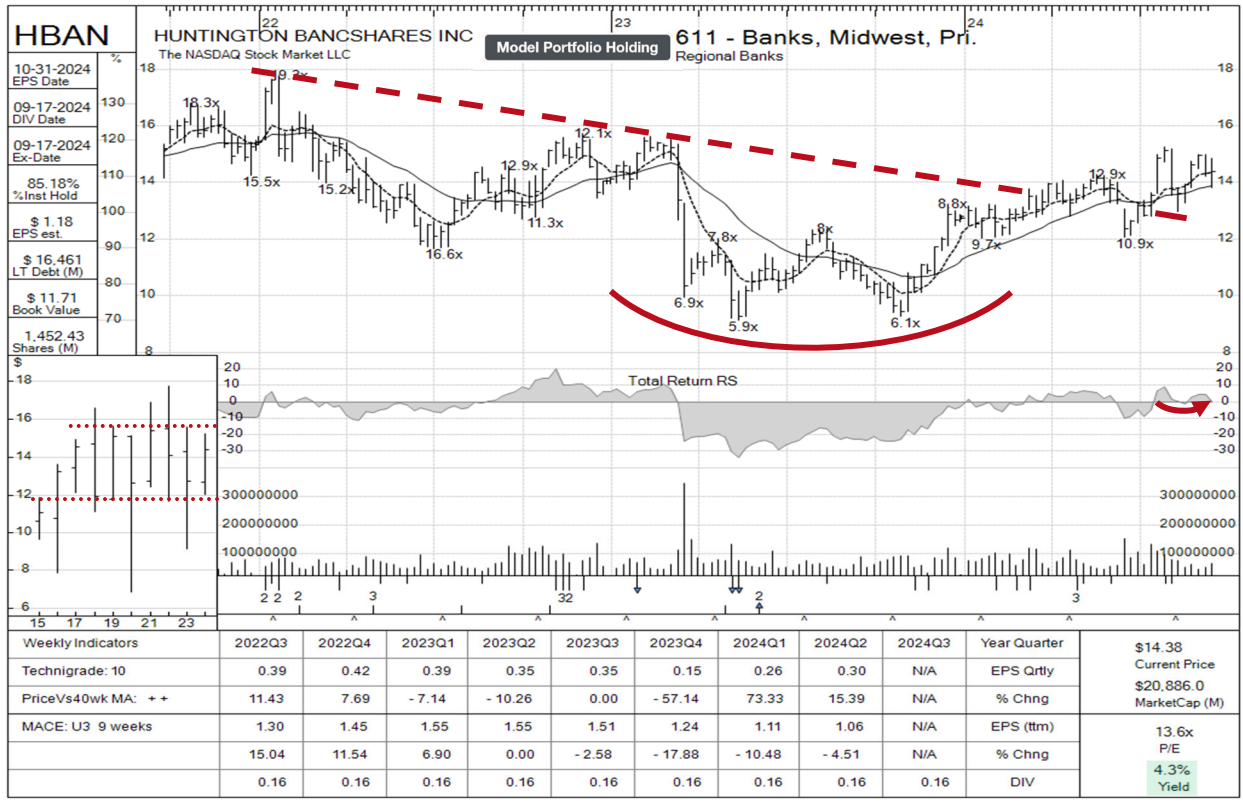
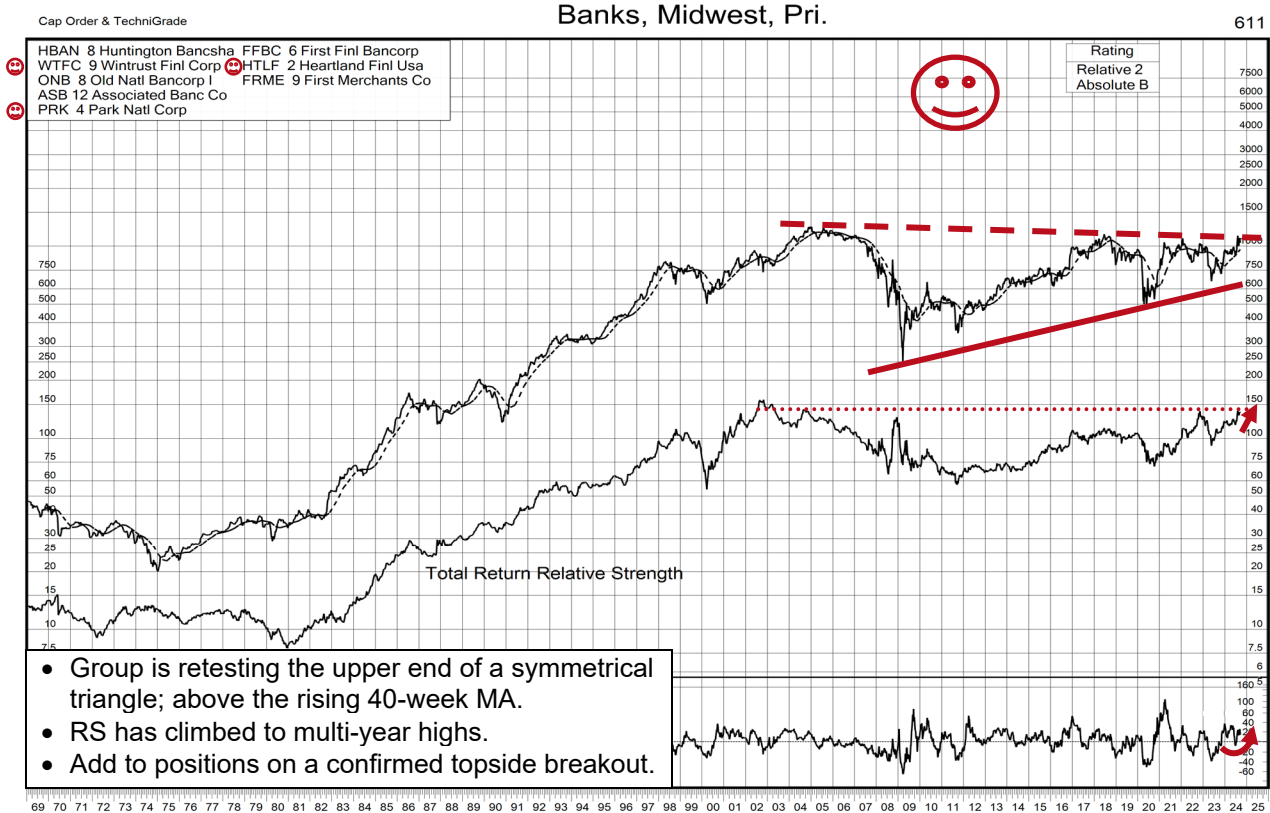
- ROL—Shares have broken out from a bullish flag formation.
- Above the rising 10-/30-week WMAs.
- RS has climbed into positive territory.
- Add to positions, a new leg higher appears to be underway.



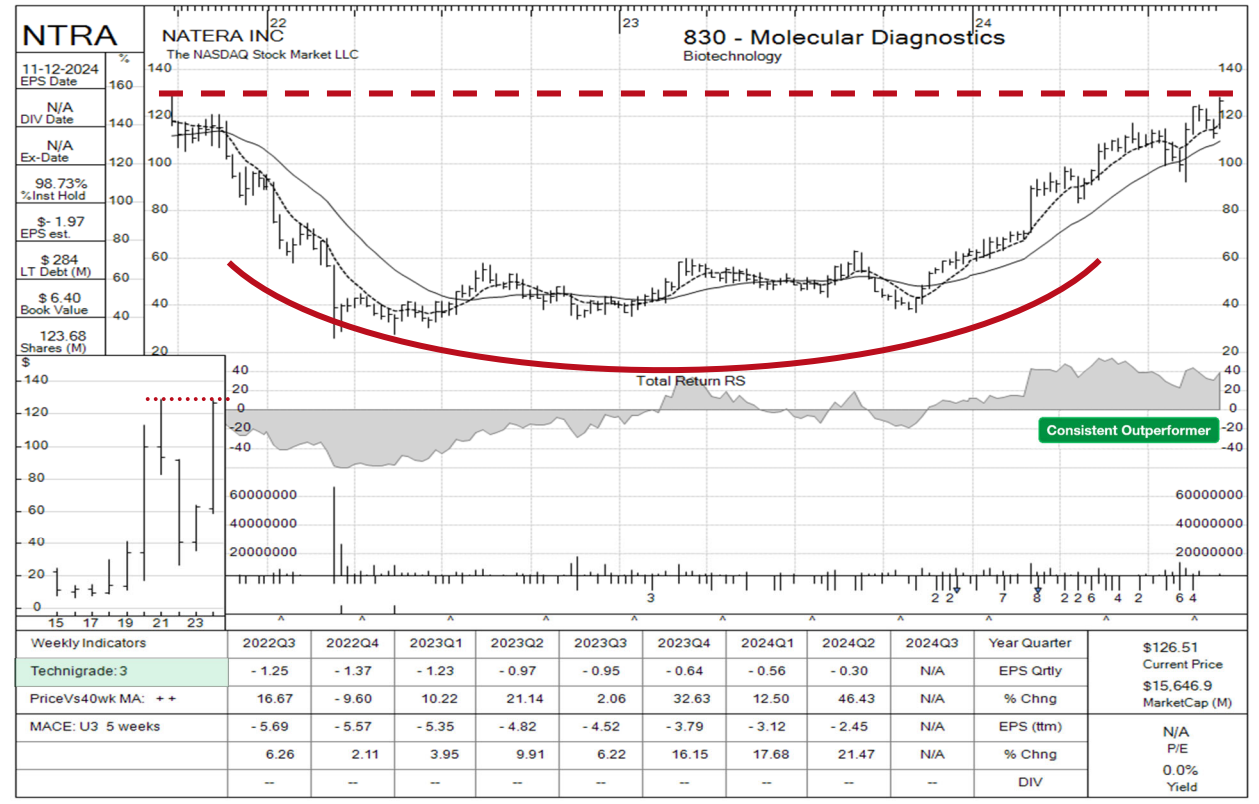
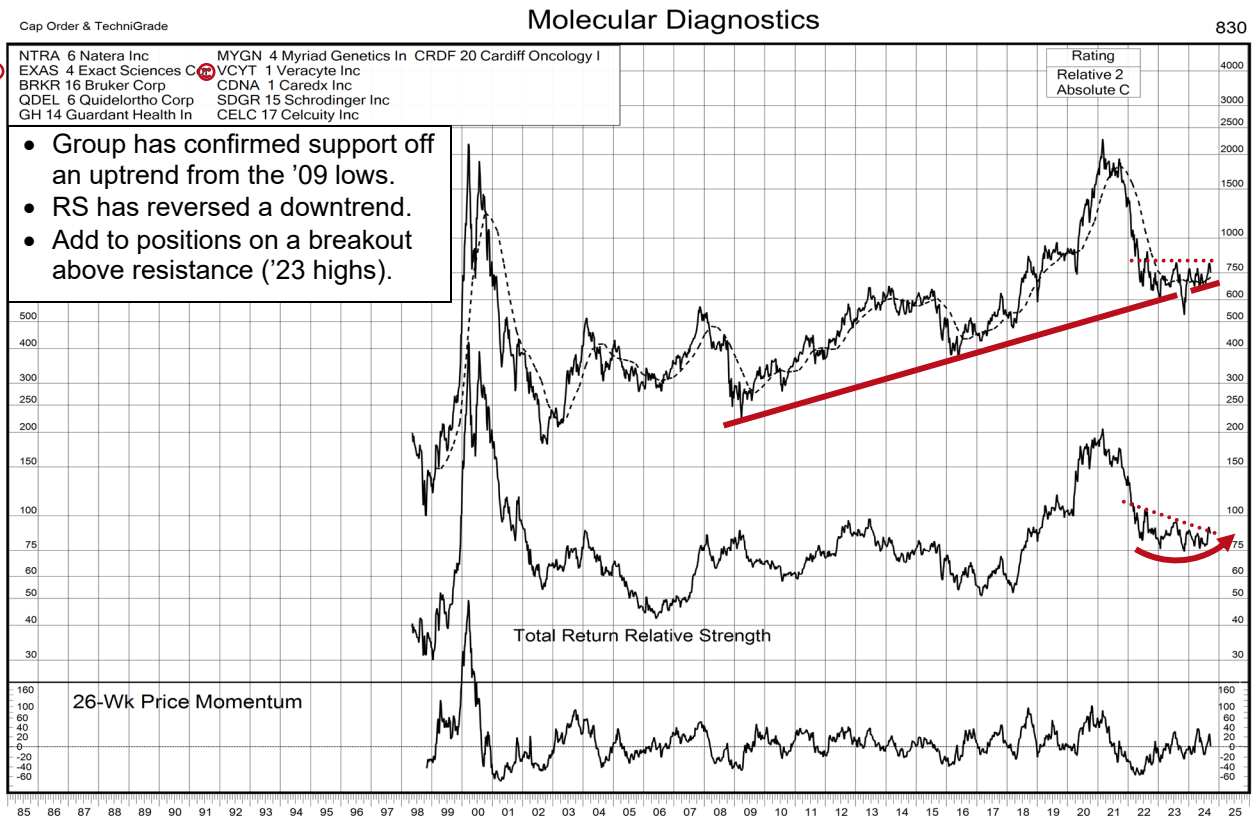
- SPGI—Shares have cleared resistance off the '21 highs.
- Above the rising 10-/30-week WMAs.
- RS has climbed to multi-year highs.
- Add to positions, as we suspect more upside lies ahead.



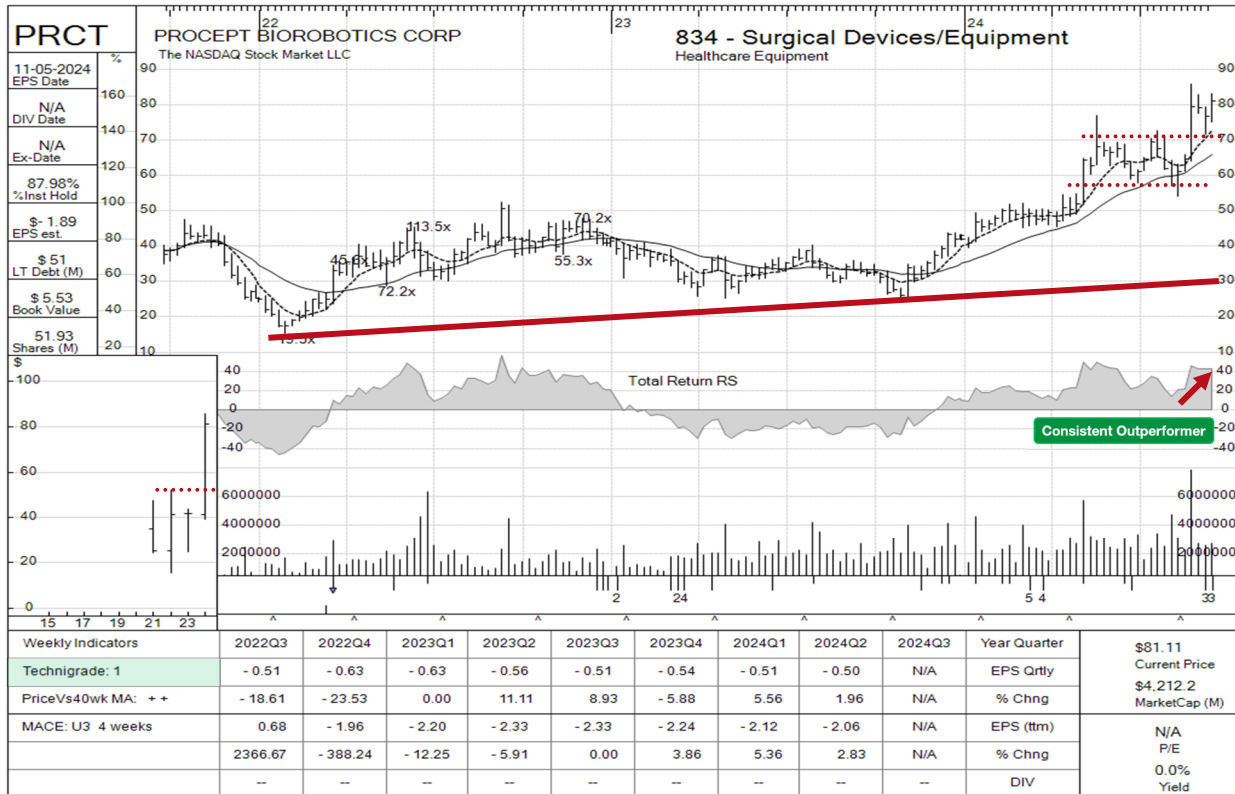
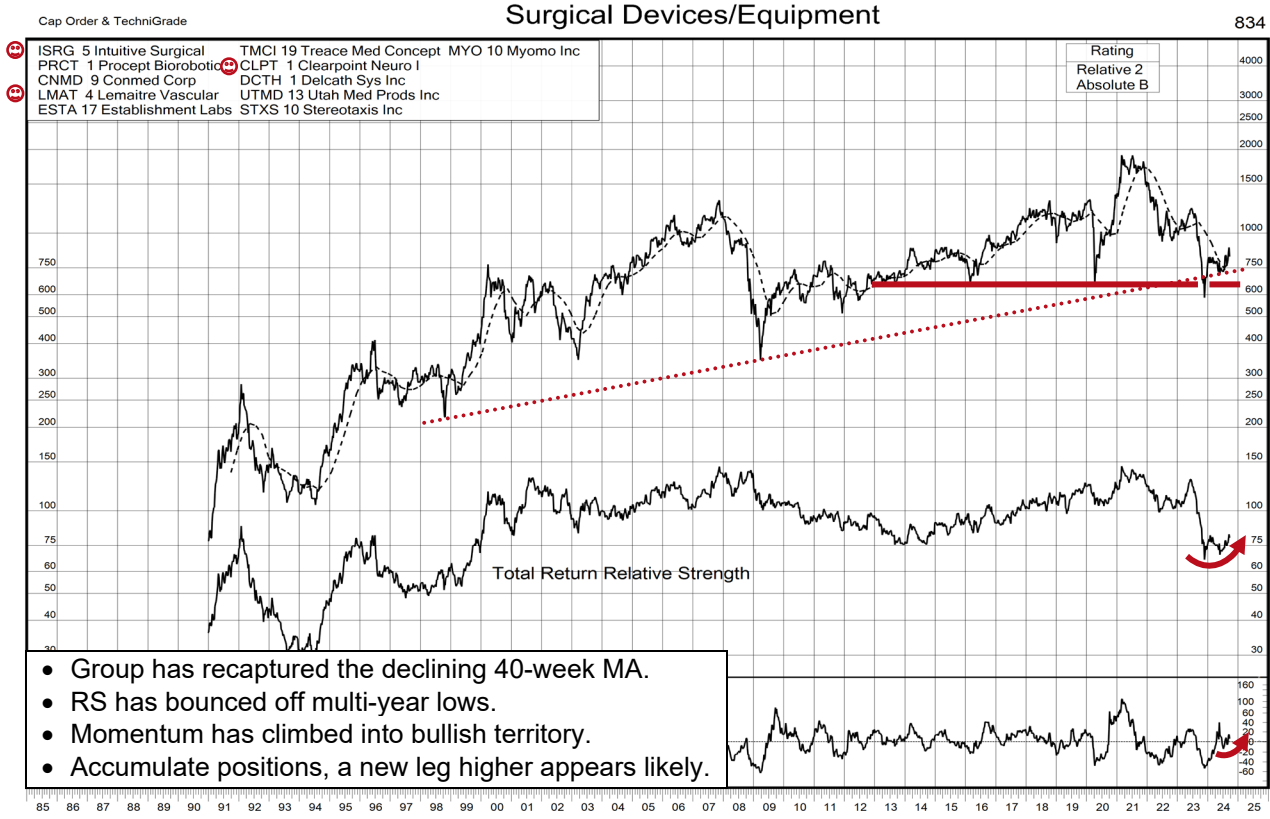
- ABCB—Shares have broken out from an inverted head and shoulders formation.
- Back above the 10-/30-week WMAs.
- RS has climbed into positive territory and impressive TechniGrade ranking.
- Add to positions, as we suspect more upside lies ahead.



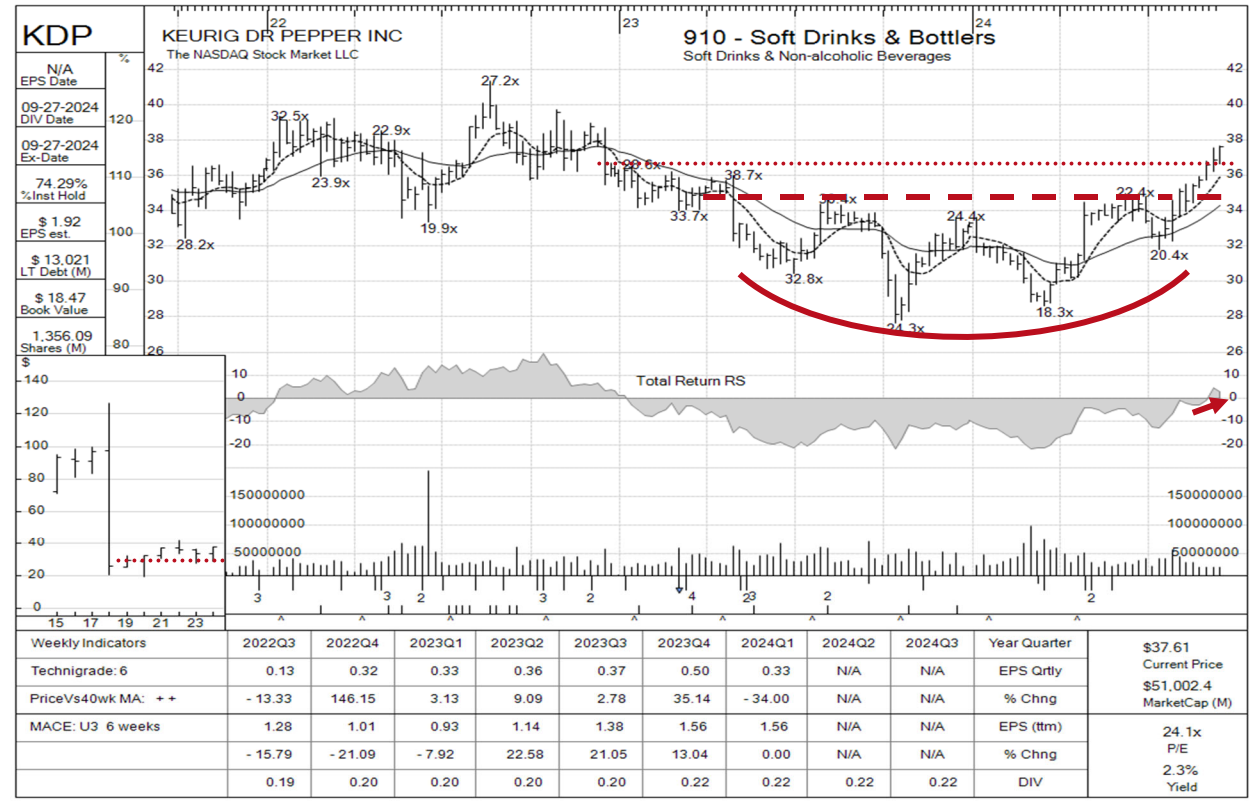
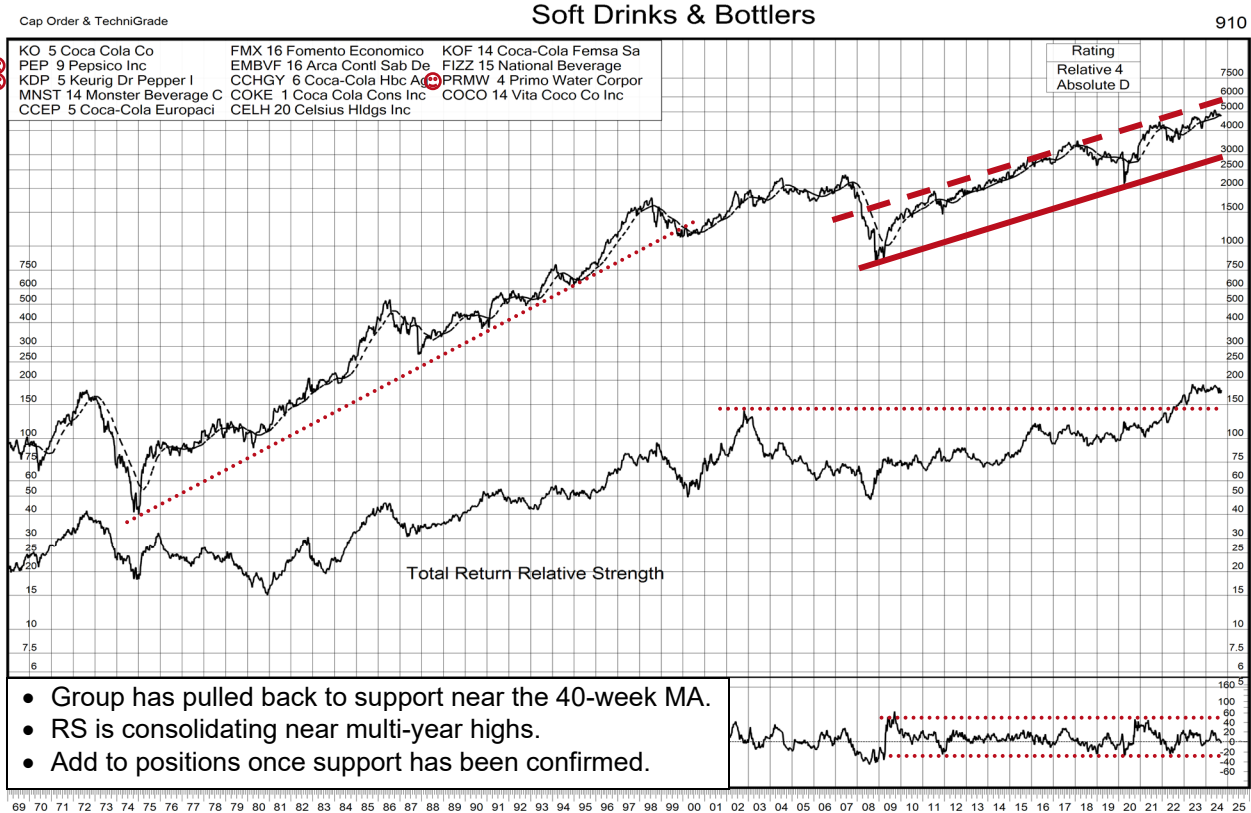
- HBAN—Shares have reversed a downtrend off the '22 highs.
- Back above the 10-/30-week WMAs.
- RS has inflected higher off the midline and attractive dividend yield.
- Add to positions, the next levels of resistance set up near \$16 and \$18.



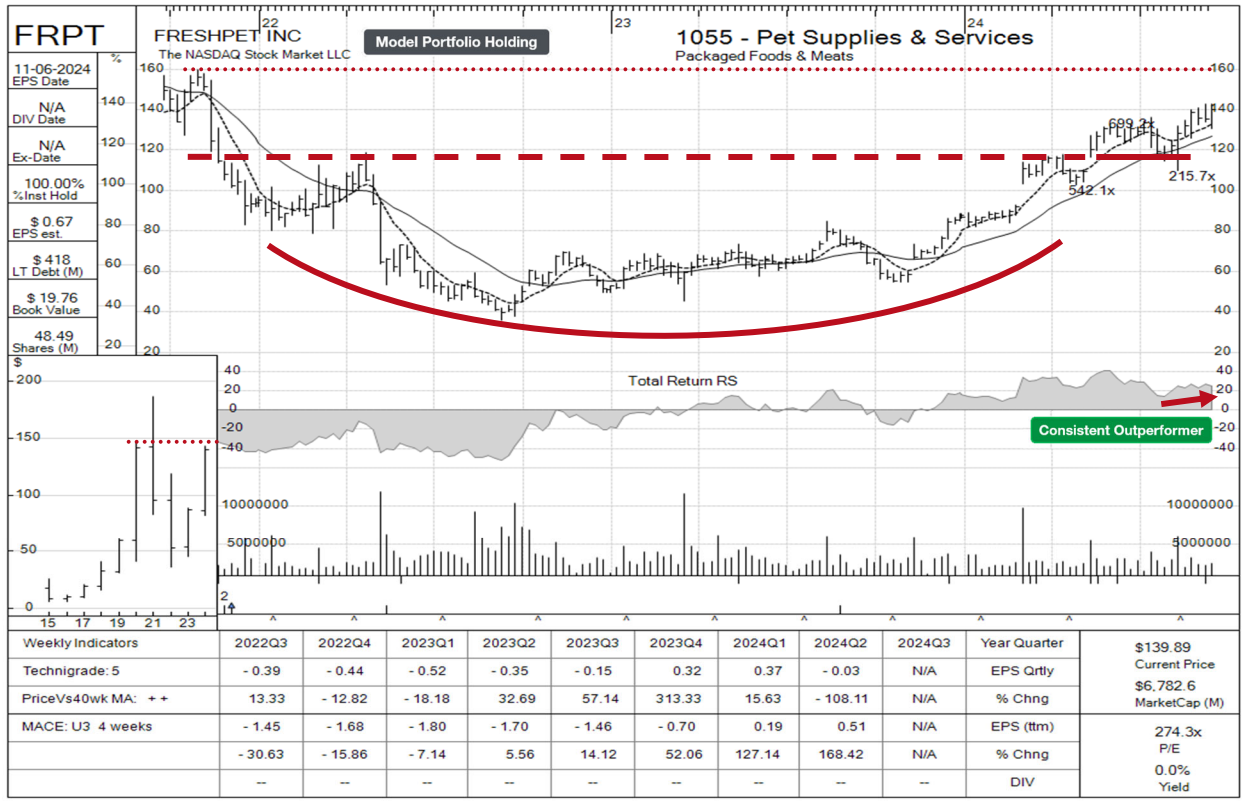
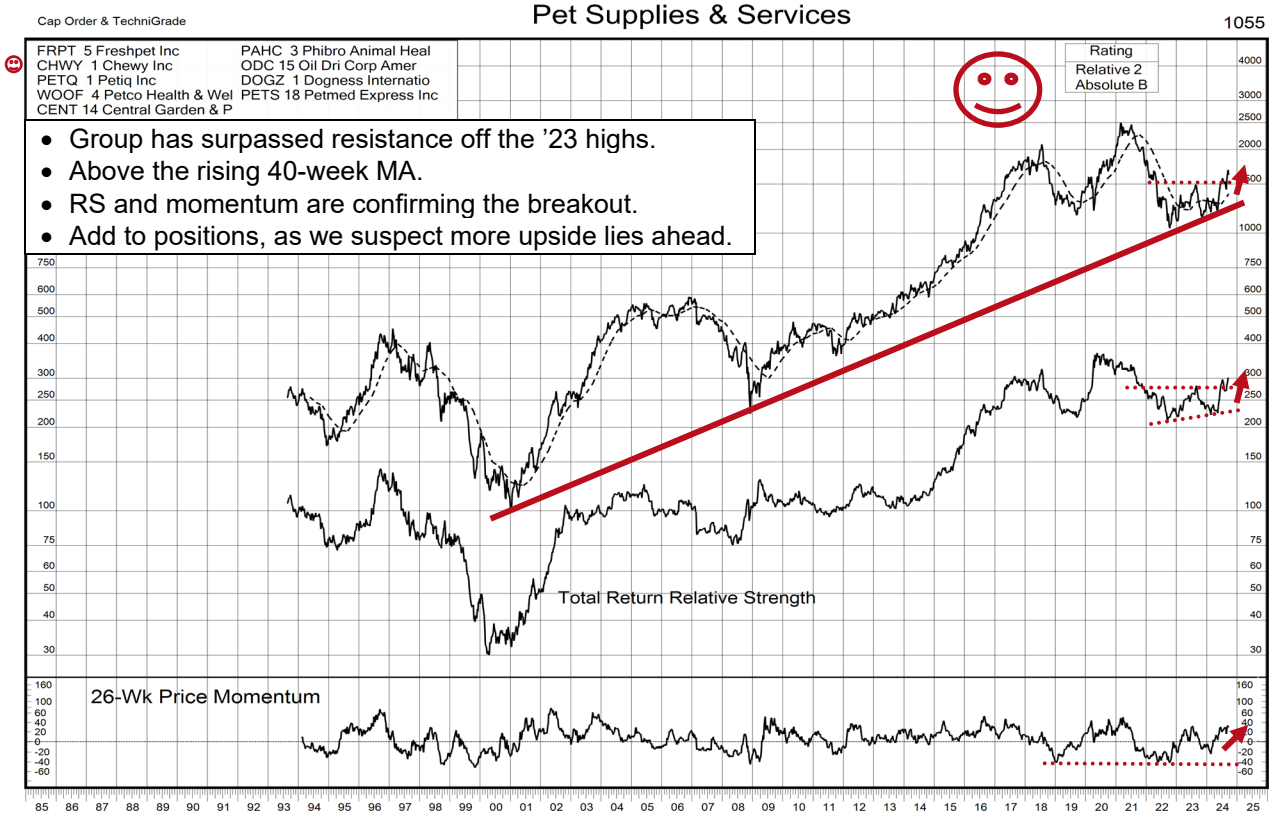
- NTRA—Shares are approaching overhead resistance near \$127.
- Back above the 10-/30-week WMAs.
- Consistent RS outperformer and impressive TechniGrade ranking.
- Add to positions on a confirmed topside breakout.



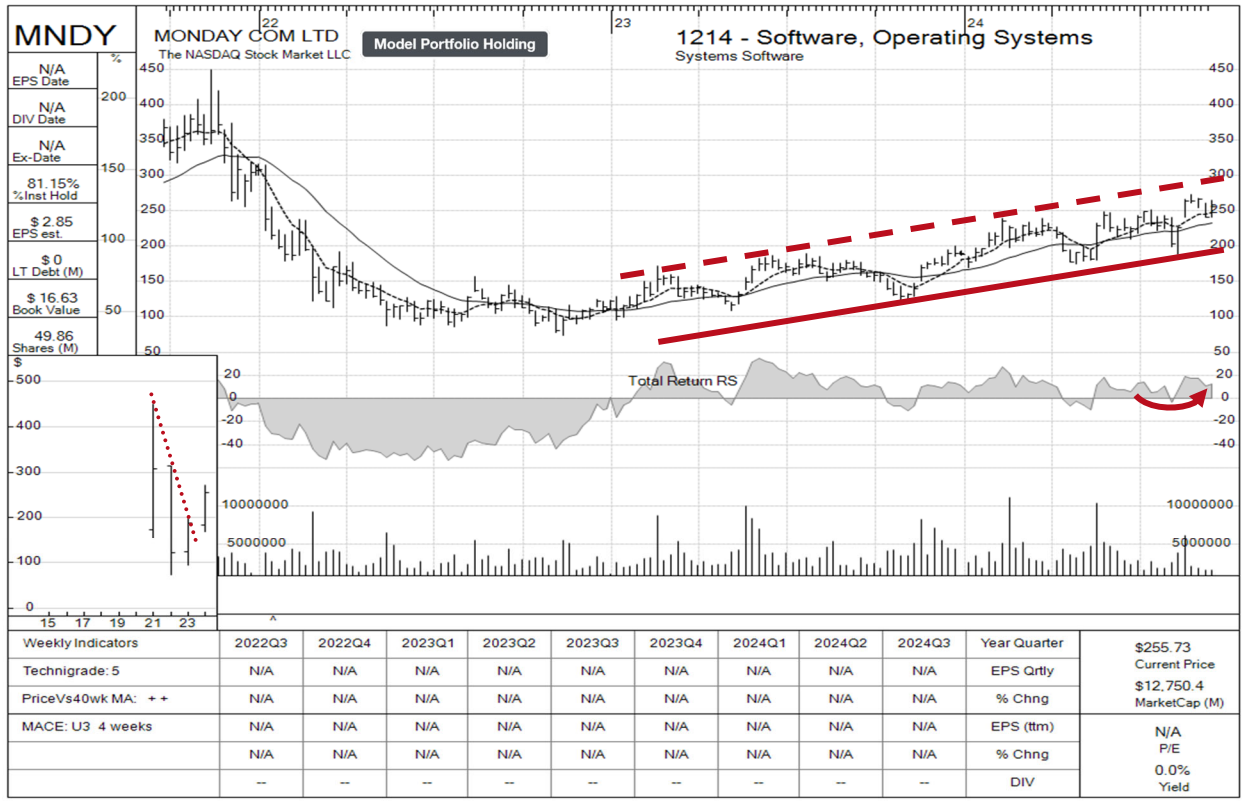
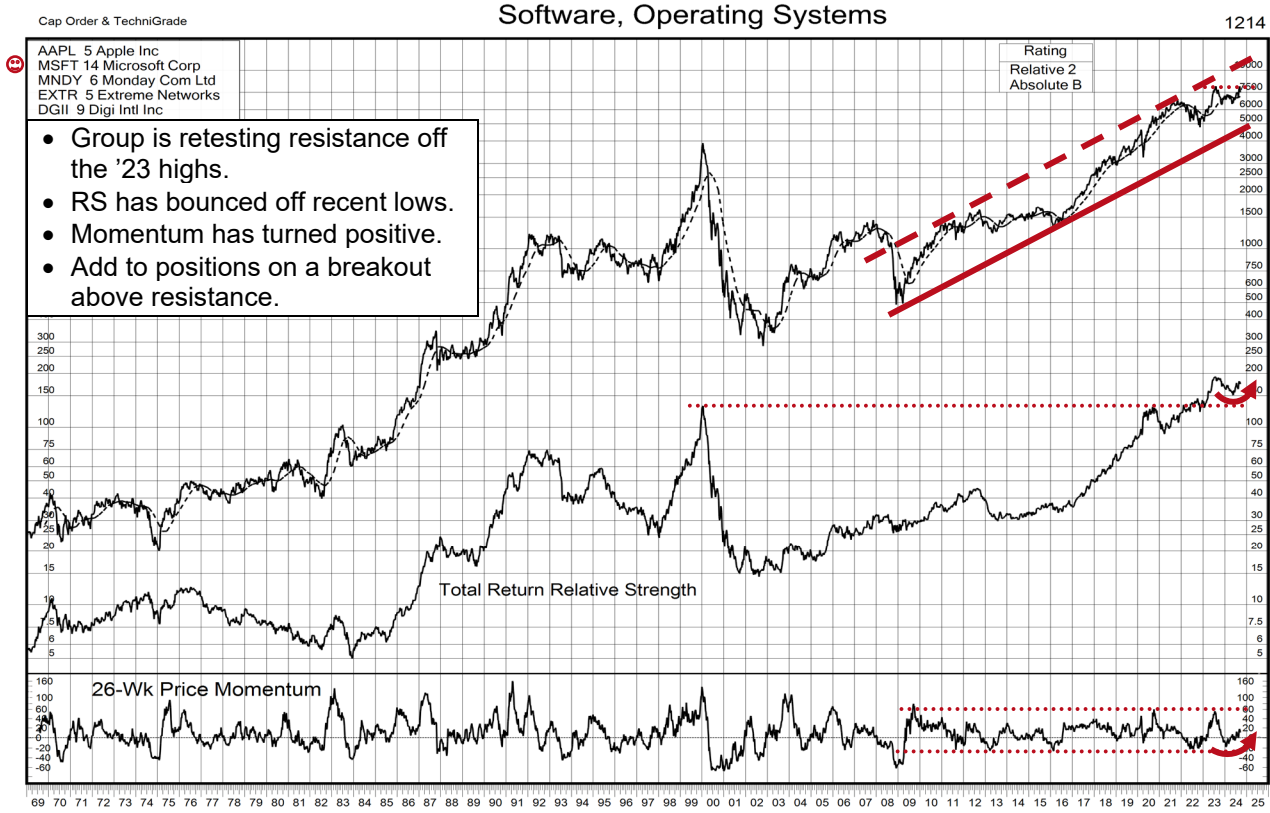
- PRCT—Shares have confirmed support off a prior breakout level.
- Above the rising 10-/30-week WMAs.
- Consistent RS outperformer and notable TechniGrade ranking.
- Add to positions, a new leg higher appears to be underway.



- KDP—Shares have surpassed multiple resistance levels.
- Above the rising 10-/30-week WMAs.
- RS has climbed into positive territory.
- Add to positions, as we suspect more upside lies ahead.



- FRPT—Shares have confirmed support from a prior breakout level.
- Above the rising 10-/30-week WMAs.
- RS has inflected higher in positive territory.
- Add to positions, a retest of the '21 highs appears likely.

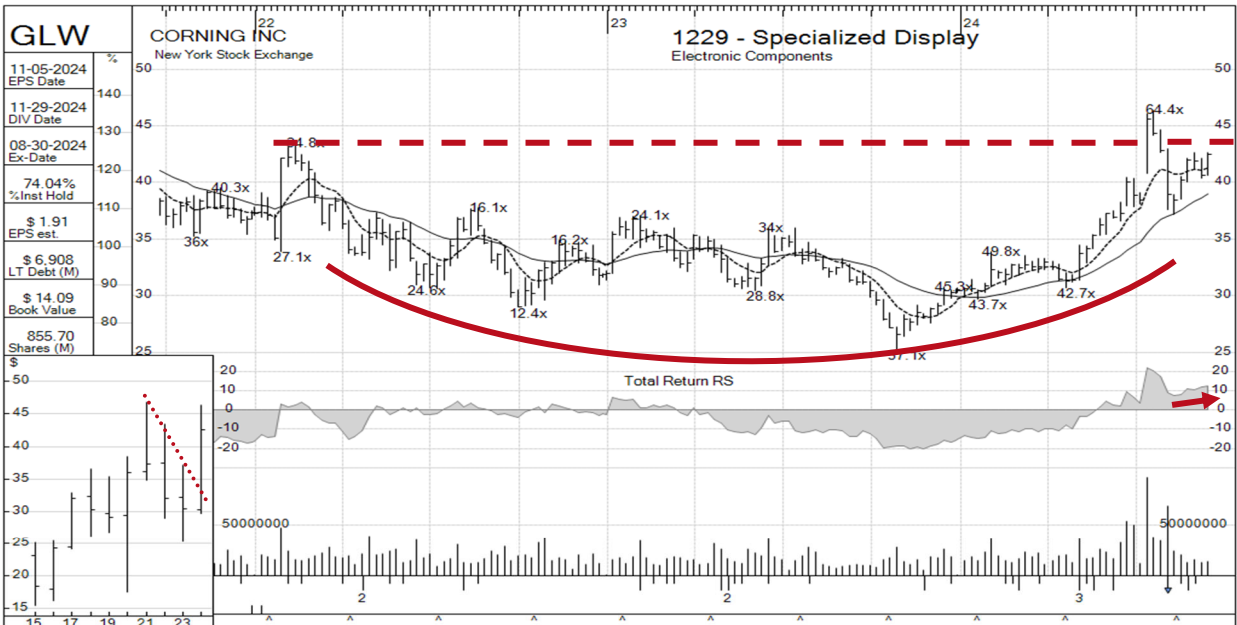
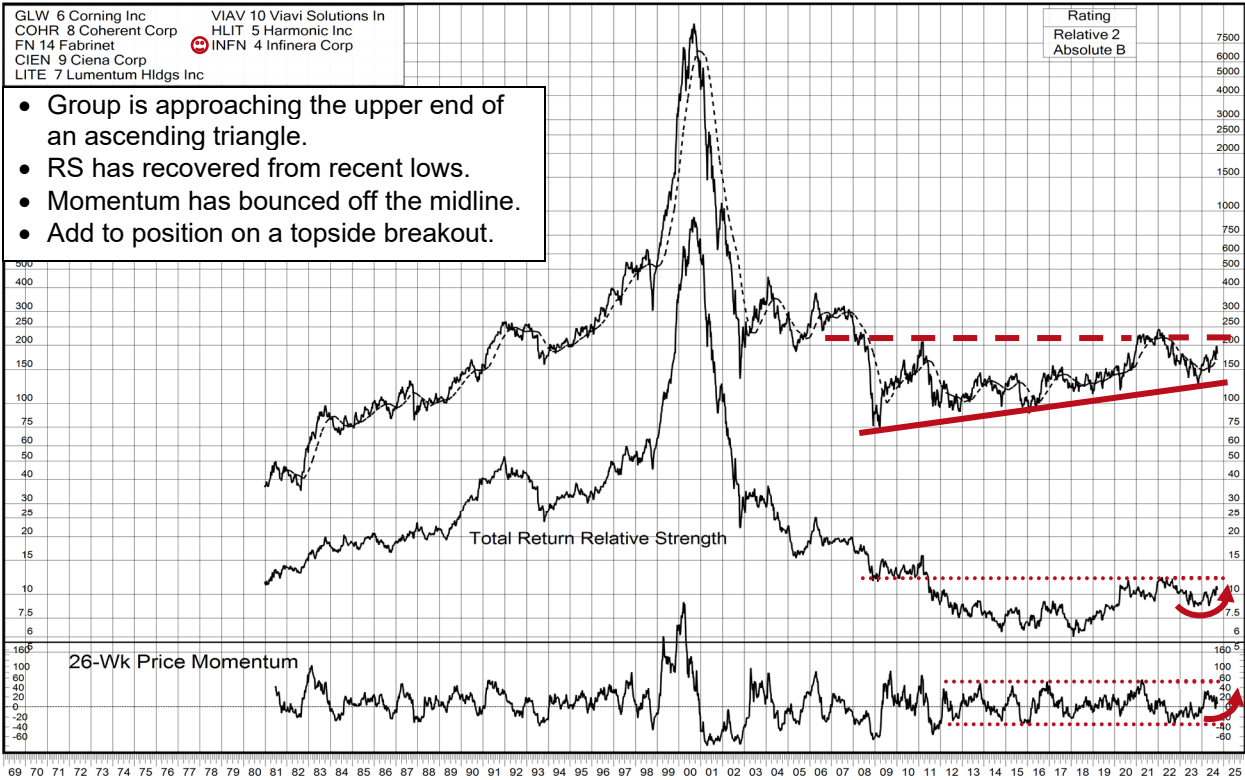


- MNDY—Shares are approaching the upper end of a rising price channel.
- Above the rising 10-/30-week WMAs.
- RS has inflected higher off the midline.
- Add to positions, as we suspect more upside lies ahead.

Cap Order & TechniGrade

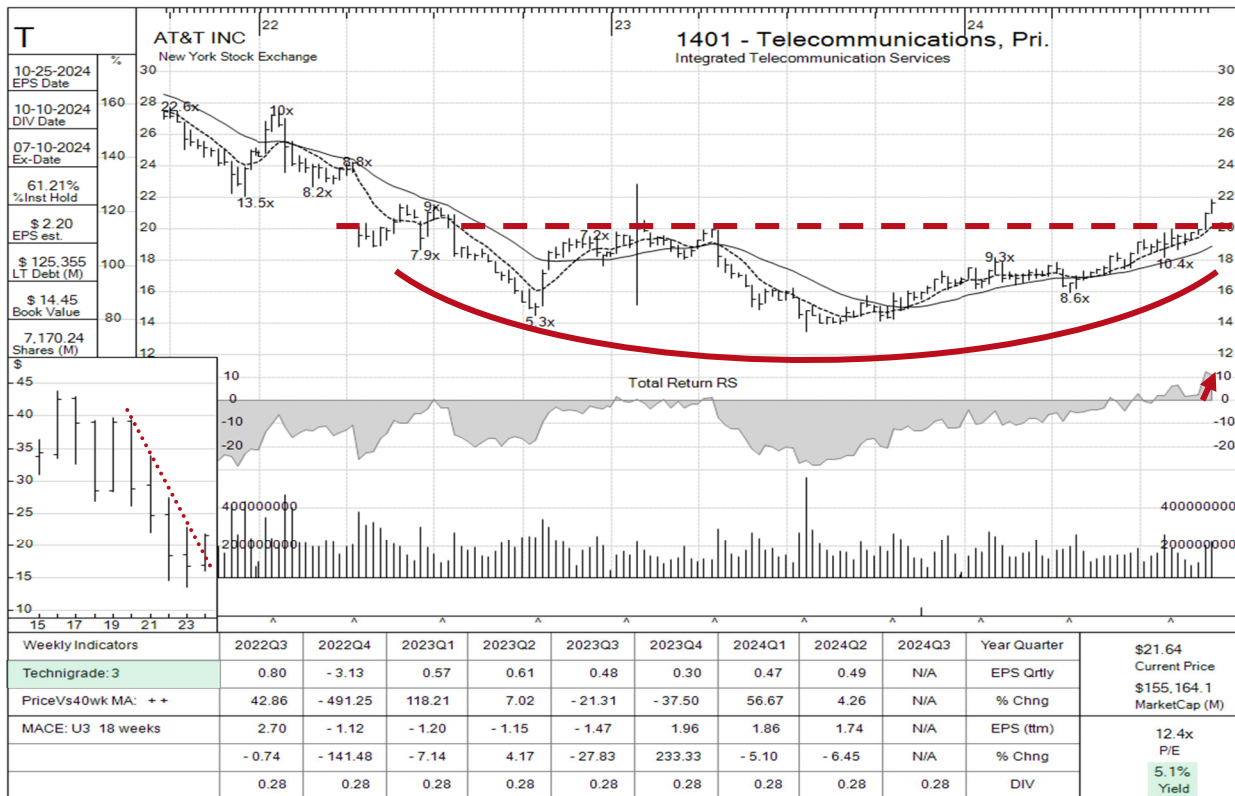
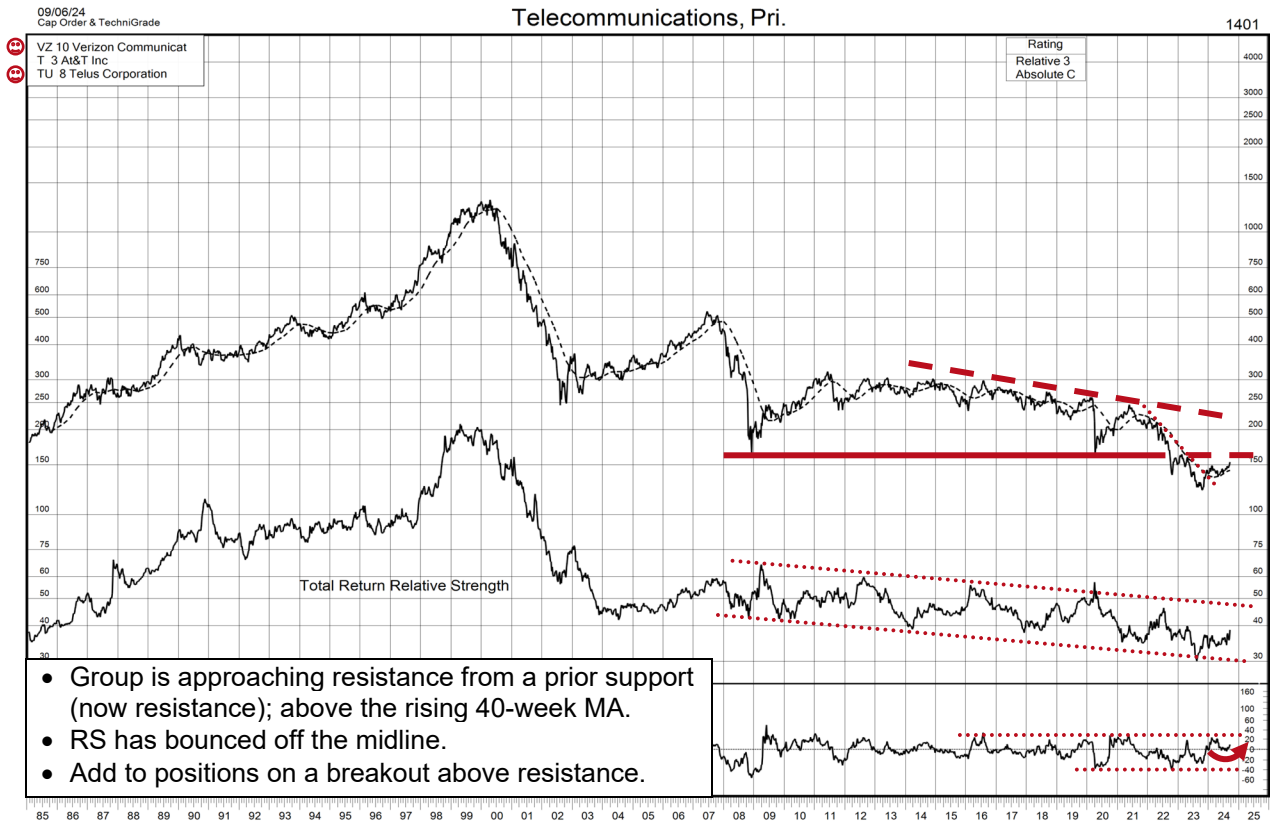
Optical Equip./Components, Pri.

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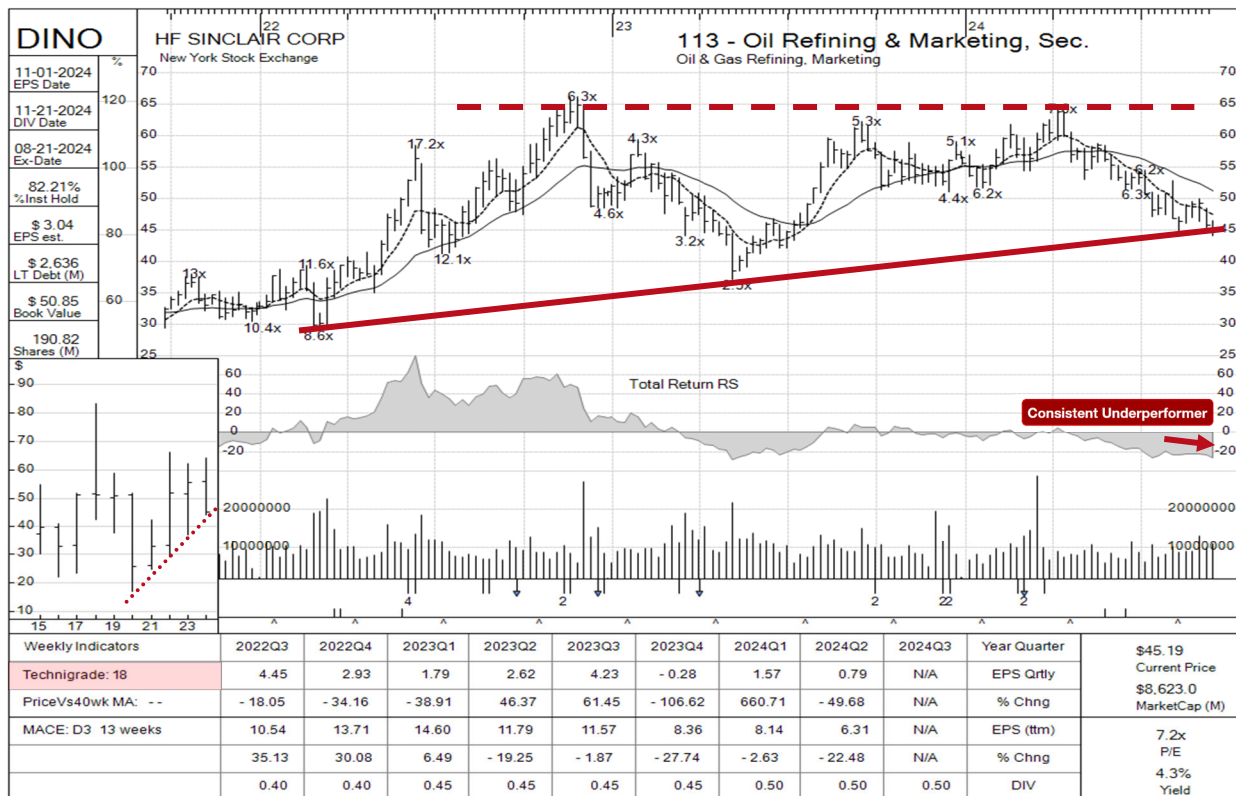
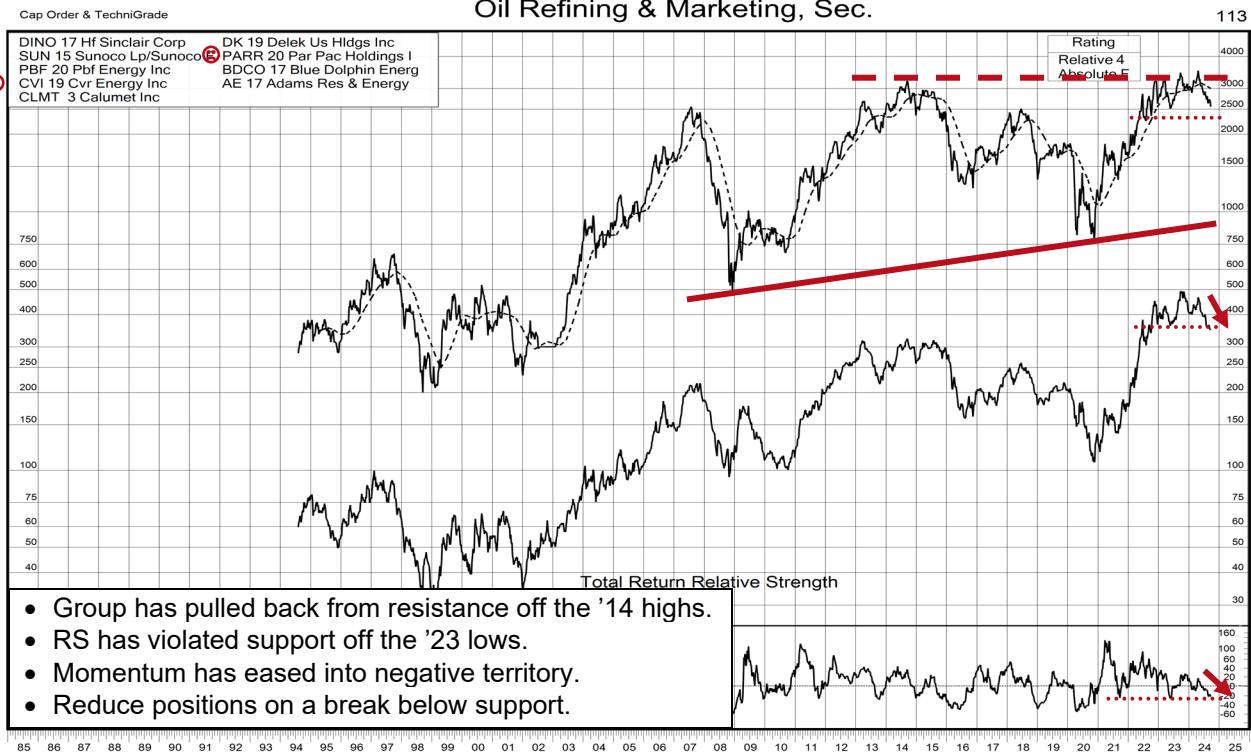
Weekly Indicators	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	Year Quarter	
TechniGrade: 5	0.24	-0.04	0.20	0.33	0.19	-0.04	0.24	0.12	N/A	EPS Qrtly	\$42.50 Current Price
PriceVs40wk MA: ++	-63.64	-116.67	600.00	65.00	-42.42	-121.05	700.00	-50.00	N/A	% Chng	\$36,367.3 MarketCap (M)
MACE: U3 3 weeks	2.15	1.54	1.06	0.73	0.68	0.68	0.72	0.51	N/A	EPS (ttm)	83.3x P/E
	-8.12	-28.37	-31.17	-31.13	-6.85	0.00	5.88	-29.17	N/A	% Chng	2.6% Yield
	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	DIV	

- GLW—Shares are approaching resistance off the '22 highs.
- Back above the 10-/30-week WMAs.
- RS has inflected higher in positive territory and attractive dividend yield.
- Add to positions on a confirmed topside breakout.

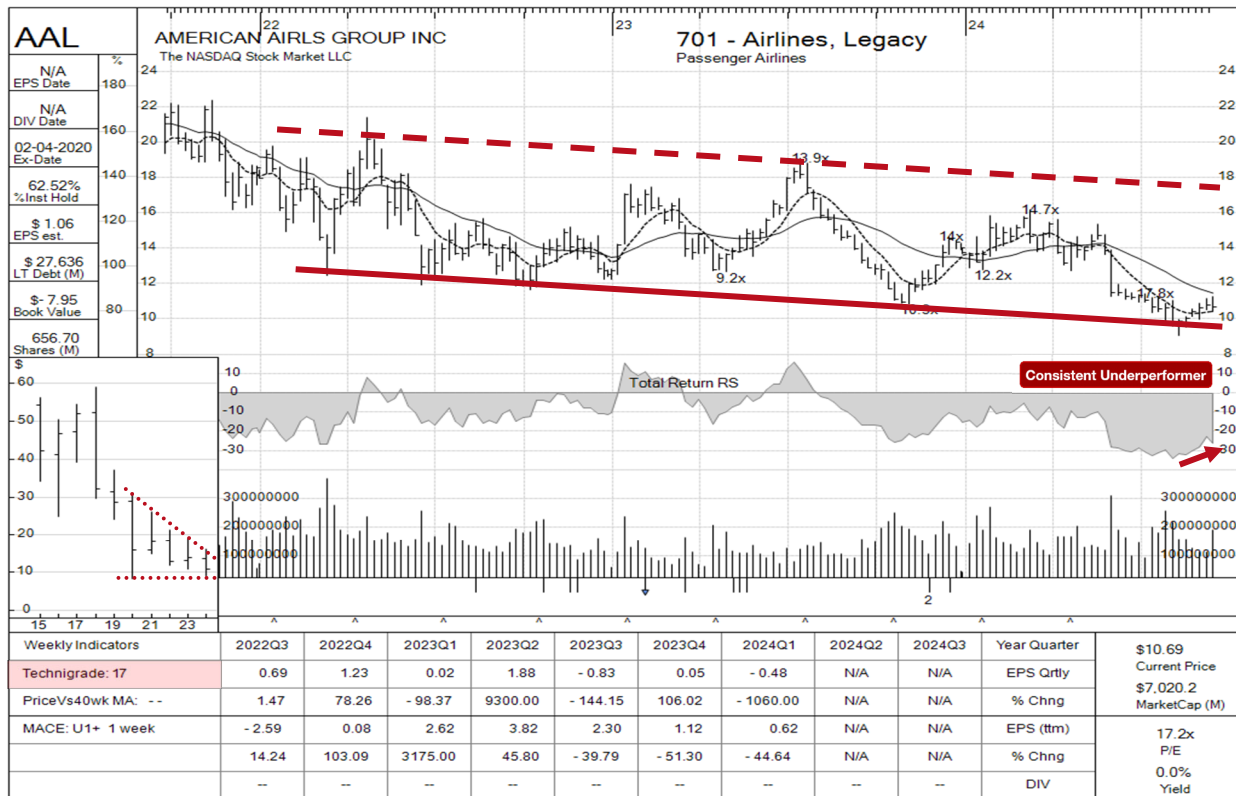
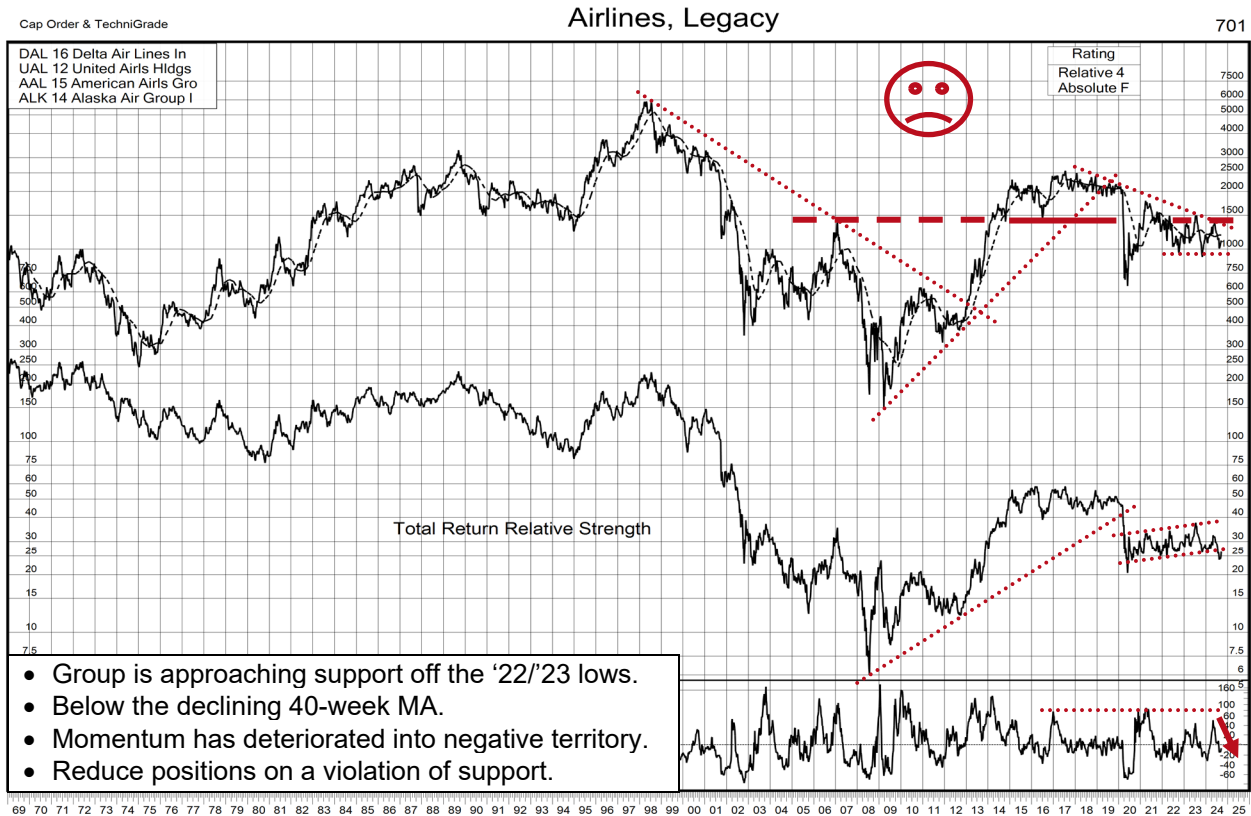


- T—Shares have broken out from a LT rounding bottom.
- Back above the 10-/30-week WMAs.
- RS is confirming the breakout and impressive techniGrade ranking.
- Add to positions, as we suspect more upside lies ahead.

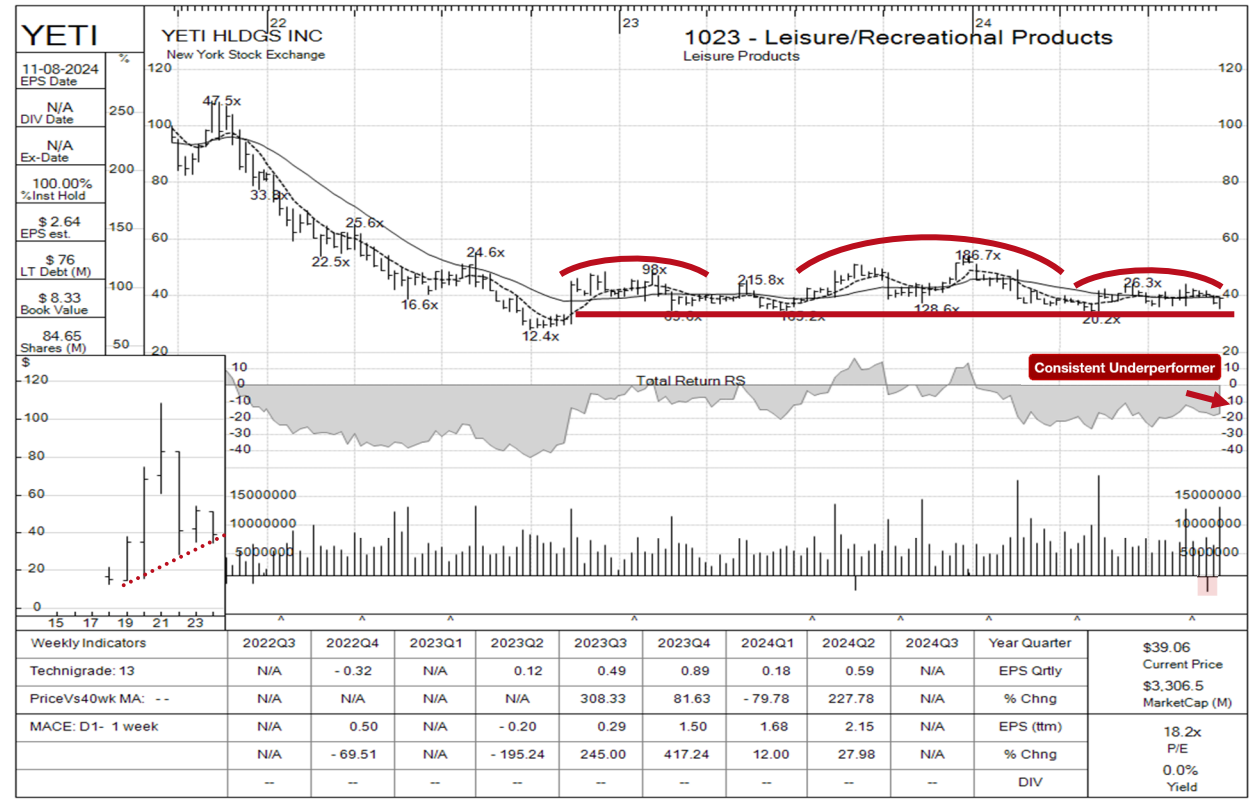
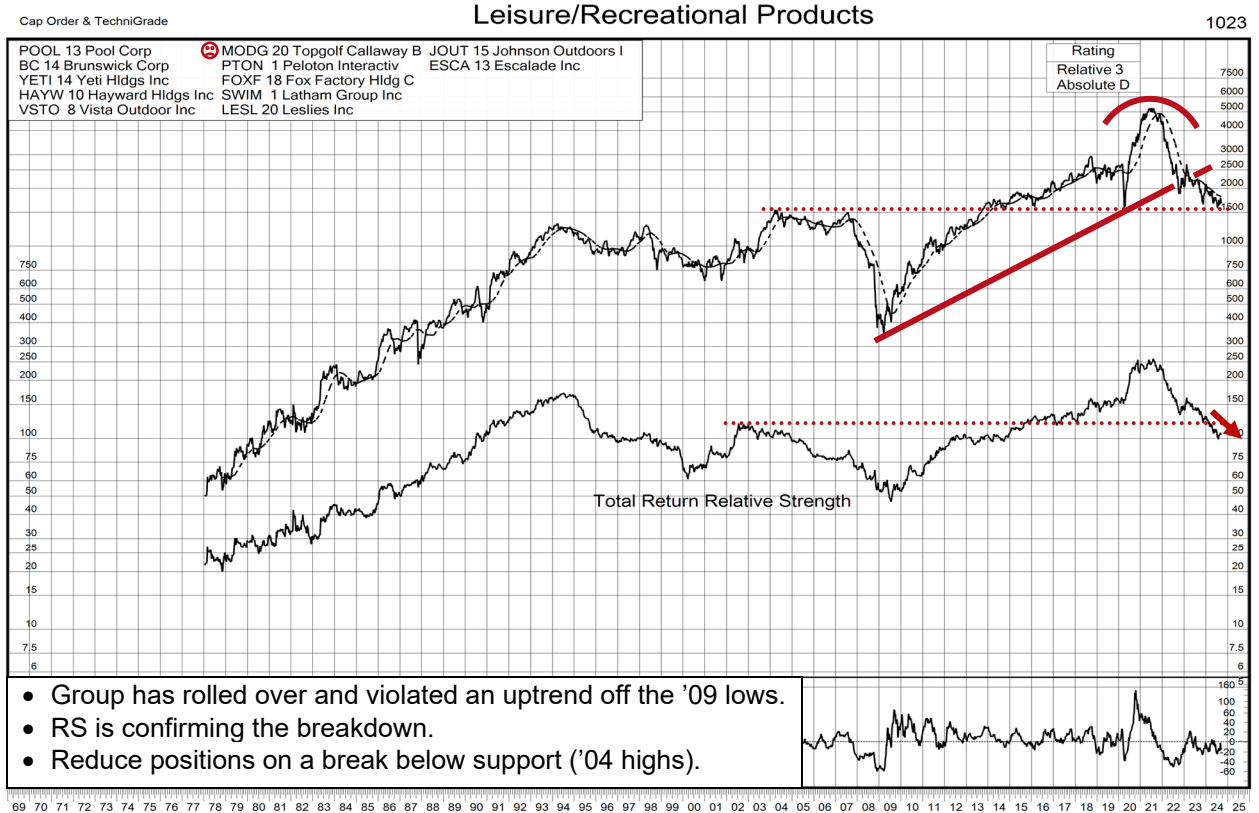
MicroGroup Highlights: This section includes several of our favorite bearish trade ideas in this month's Informed Investor publication.



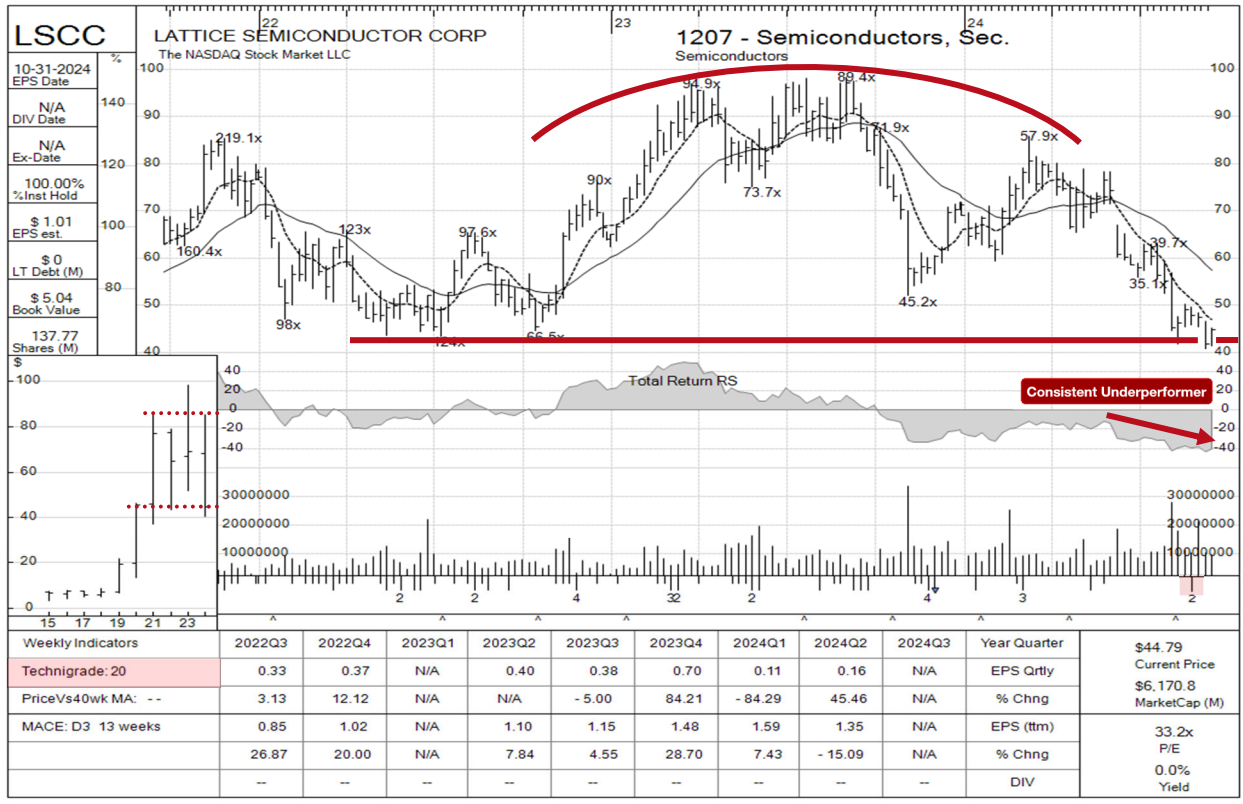
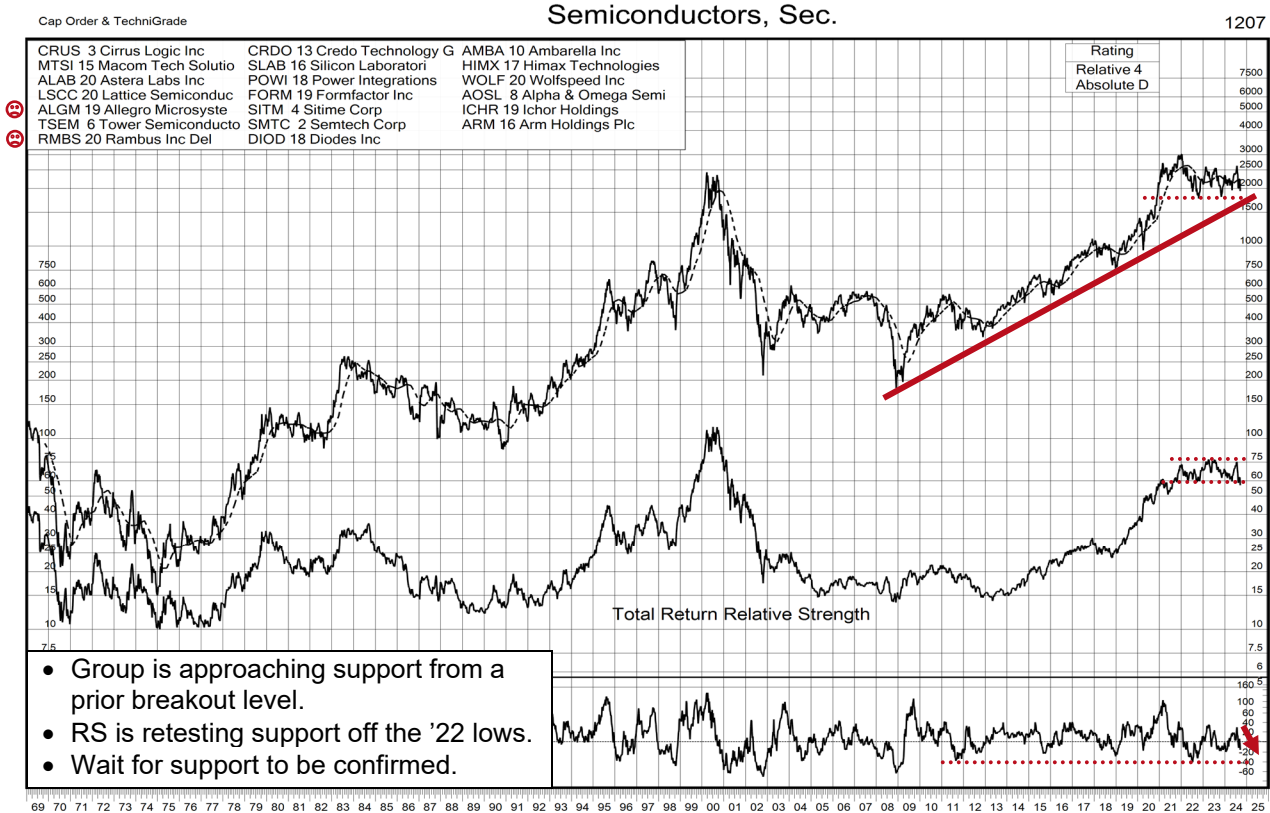
- DINO—Shares are retesting the lower end of an ascending triangle.
- Below the declining 10-/30-week WMAs.
- Consistent RS underperformer and weak TechniGrade ranking.
- Reduce positions on a break below support.



- AAL—Shares have bounced off the lower end of a declining price channel.
- Below the declining 30-week WMA.
- RS has recovered from oversold levels and weak TechniGrade ranking.
- Use relief rallies to reduce positions.



- YETI—Shares are approaching the neckline of a head and shoulders top formation.
- Back below the 10-/30-week WMAs.
- Consistent RS underperformer and insider selling activity.
- Reduce positions on a break below the neckline.



- LSCC—Shares are retesting support off the '22 lows.
- Below the declining 10-/30-week WMAs.
- Consistent RS underperformer and concerning TechniGrade ranking.
- Reduce positions on a violation of support.

Relative & Absolute Ratings:

All the numerical data in this publication is computer-generated, e.g., M.A.C.E, TechniGrade, etc., except for the MicroGroup and Sector Rating System. Each Group and Sector is subjectively rated on a relative and absolute basis, relying on many inputs, including fundamental and technical data. While the allowable relative ratings will be skewed to represent a bell-shaped curve, i.e., 30% outperform, 40% neutral, 30% underperform, the absolute ratings can, in theory, and may in practice, be highly skewed toward a decidedly bullish or bearish position.

UNWEIGHTED RELATIVE RATING -- YTD
2024 YTD — 09/13/24



Relative Ratings:

A numerical relative ranking from two through four signifies projected performance compared to the entire market.

Since the spectrum of securities prices can be said to be normally distributed (a bell curve), it follows that at any given juncture, a full range of performances from worst to best will be available. Thus, when assigning relative ratings, we adhere to these constraints by maintaining guideline allowable percentages for each number as outlined below:

Positives:

2= Outperform the market
(30.0 % of MicroGroups)

Neutral:

3= Perform in line with the market
(40.0% of MicroGroups)

Negatives:

4= Underperform the market
(30.0% of MicroGroups)

Absolute Rating

- A Buy
- B Accumulate on weakness
- C Hold
- D Sell on strength
- F Sell

UNWEIGHTED RELATIVE RATING -- CUMULATIVE

12/31/77 — 09/13/24

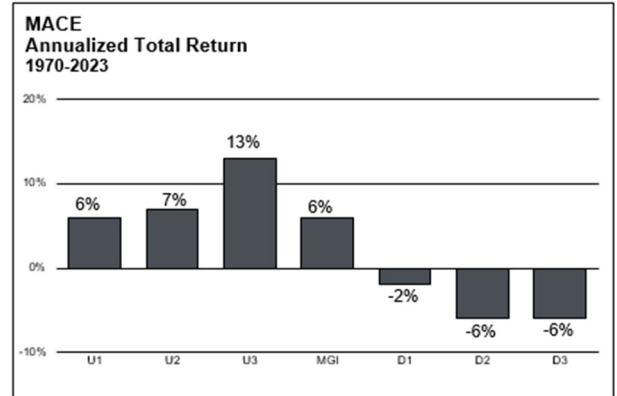
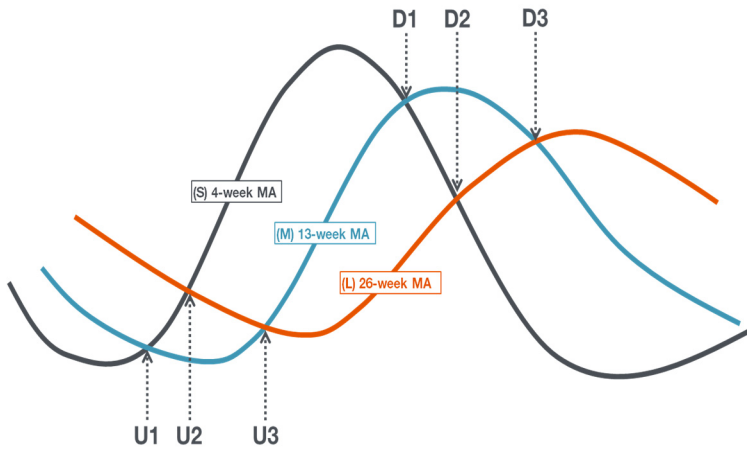


DEFINITIONS

INDICATOR DEFINITIONS & HISTORICAL PERFORMANCE

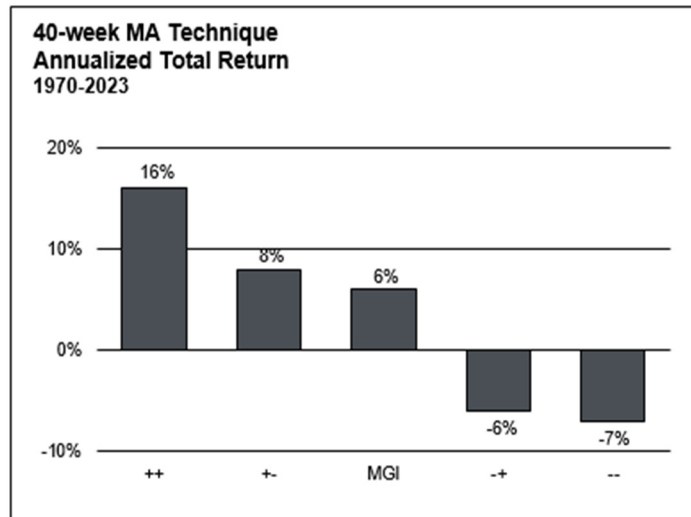
MACE (Moving Average Cycle Evaluation)

Entails looking at precise position of each Group's short (4-week, denoted by an "S"), intermediate (13-week, "M"), and longer term (26-week, "L") moving averages and related crossovers.



- U1 Possible uptrend (L > S > M)
 - U2* Confirmed uptrend (S > L > M)
 - U3* Well-defined uptrend (S > M > L)
 - D1 Possible downtrend (M > S > L)
 - D2 Confirmed downtrend (M > L > S)
 - D3 Well-defined downtrend (L > M > S)
- * Historically best performance

40-WEEK TECHNIQUE



Definitions

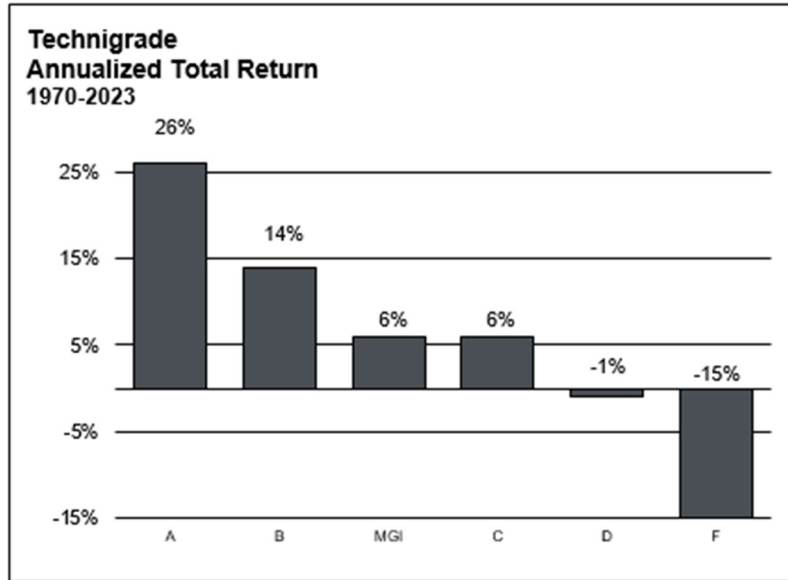
Price Avg. Explanation

- + + Price is above a rising 40-week Moving Average*
- + - Price is above a falling 40-week Moving Average*
- + Price is below a rising 40-week Moving Average
- - Price is below a falling 40-week Moving Average

* Historically best performance

TECHNIGRADE

The “*TechniGrade*” concept is simply a numerical way of looking at the relative (comparative) Performance of each Sector, *MicroGroup*, and issue over time. With this concept, the performance of each *MicroGroup* is compared to the performance of the *MicroGroup* universe of nearly 6,000 stocks, known as the “*MicroGroup Index*.” This process is then repeated until a ratio has been calculated over the last six-month period that supplies a heavier weighting to the most recent weeks. Based on these computer calculations, a *TechniGrade* rating from 1 (top 5% of performers) to 20 (bottom 5% of performers) is automatically assigned to each *MicroGroup* on an ongoing basis.



KEY

TechniGrade

A ranking from 1 (best) to 20 (worst) based on relative performance. Historically Groups with a *TechniGrade* of 1 - 4 give the best performance, but the trend in *TechniGrade* is also important. Read from the right to the left to identify the *TechniGrade* trend.

MACE

- U1 Possible uptrend
- *U2 Confirmed uptrend
- *U3 Well-defined uptrend
- D1 Possible downtrend
- D2 Confirmed downtrend
- D3 Well-defined downtrend

* Historically best performance

40-Week Moving Average

P* A* Explanation

- + + Price is above a rising 40-week Moving Average**
- + - Price is above a falling 40-week Moving Average**
- + Price is below a rising 40-week Moving Average
- - Price is below a falling 40-week Moving Average

* P= Price, A=Average

** Historically best performance

COMPANY INDEX

Ticker	Company Name	Page	Ticker	Company Name	Page
AAL	American Airlines Group Inc.	149	HNI	HNI Corporation	116
AAP	Advance Auto Parts, Inc.	191	HP	Helmerich & Payne, Inc.	66
AAPL	Apple Inc.	208	HUM	Humana Inc.	166
ABBV	AbbVie, Inc.	160	HWM	Howmet Aerospace Inc.	91
ABCB	Ameris Bancorp	133	IIPR	Innovative Industrial Properties Inc	171
ABNB	Airbnb, Inc. Class A	122	JPM	JPMorgan Chase & Co.	131
ADM	Archer-Daniels-Midland Company	178	KDP	Keurig Dr Pepper Inc.	181
AEP	American Electric Power Company, Inc.	104	LDOS	Leidos Holdings, Inc.	115
AMCR	Amcor PLC	92	LSCC	Lattice Semiconductor Corporation	210
AMR	Alpha Metallurgical Resources, Inc.	71	MNDY	monday.com Ltd.	213
AN	AutoNation, Inc.	192	MTH	Meritage Homes Corporation	193
AON	Aon Plc Class A	118	NI	NiSource Inc	107
AXTA	Axalta Coating Systems Ltd.	96	NTRA	Natera, Inc.	167
BCO	Brink's Company	117	NUE	Nucor Corporation	79
BERY	Berry Global Group Inc	81	ODFL	Old Dominion Freight Line, Inc.	152
BIDU	Baidu Inc Sponsored ADR Class A	229	ONON	On Holding AG Class A	197
BLFS	BioLife Solutions, Inc.	162	ORAN	Orange SA Sponsored ADR	225
BP	BP p.l.c. Sponsored ADR	65	PB	Prosperity Bancshares, Inc.(R)	135
BPOP	Popular, Inc.	136	PFC	Premier Financial Corp.	138
BXP	BXP Inc	139	PLAY	Dave & Buster's Entertainment, Inc.	199
CARR	Carrier Global Corp.	94	PM	Philip Morris International Inc.	182
CMA	Comerica Incorporated	132	PNR	Pentair plc	90
CMCSA	Comcast Corporation Class A	227	PRCT	PROCEPT BioRobotics Corp.	169
CME	CME Group Inc. Class A	142	PWR	Quanta Services, Inc.	121
COST	Costco Wholesale Corporation	198	REGN	Regeneron Pharmaceuticals, Inc.	168
COTY	Coty Inc. Class A	183	RKLB	Rocket Lab USA, Inc.	215
CVE	Cenovus Energy Inc.	72	RMD	ResMed Inc.	170
CWEN	Clearway Energy, Inc. Class C	106	ROL	Rollins, Inc.	119
D	Dominion Energy Inc	103	SCCO	Southern Copper Corporation	82
DCI	Donaldson Company, Inc.	93	SLB	SLB	67
DINO	HF Sinclair Corporation	68	SMCI	Super Micro Computer, Inc.	212
DOW	Dow, Inc.	80	SNOW	Snowflake, Inc. Class A	214
DUK	Duke Energy Corporation	105	SPGI	S&P Global, Inc.	123
ENB	Enbridge Inc.	69	STM	STMicroelectronics NV ADR RegS	209
ENSG	Ensign Group, Inc.	165	T	AT&T Inc.	224
ENTG	Entegris, Inc.	211	TD	Toronto-Dominion Bank	137
F	Ford Motor Company	190	TEVA	Teva Pharmaceutical Industries Limited	161
FRO	Frontline Plc	151	THC	Tenet Healthcare Corporation	164
FRPT	Freshpet Inc	200	TMUS	T-Mobile US, Inc.	226
FSV	FirstService Corp	194	TRGP	Targa Resources Corp.	70
FWRD	Forward Air Corporation	153	TTEK	Tetra Tech, Inc.	120
GES	Guess?, Inc.	196	UMH	UMH Properties, Inc.	140
GEV	GE Vernova Inc.	95	UNFI	United Natural Foods, Inc.	179
GLW	Corning Inc	216	UNP	Union Pacific Corporation	150
GOLD	Barrick Gold Corporation	83	YELP	Yelp Inc	228
GOOGL	Alphabet Inc. Class A	217	YETI	YETI Holdings, Inc.	195
HBAN	Huntington Bancshares Incorporated	134	ZBH	Zimmer Biomet Holdings, Inc.	163

PSC Technical Research

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Historical Data Prior to 1969 Provided By:

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Bloomberg
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New York, NY 10022

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