Physics-Based Sentiment Forecasts - US Stocks | Jan 17 2025



ETF "RSP" | S&P 500® Equal Weighted Index
Three-week Horizon
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This three-week forecast of investor sentiment is an example of our perspective on stock market corrections and recoveries.

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	Three-Week Forecasts			
	Physics-Based	Long-Term Sentiment:	3 (1-4, with 4=Strongly Optimistic)	Figure 1
		Short-Term Sentiment:	Optimistic with variation	Figure 1
		Flash Sentiment:	None	Figure 1
		Market Price Momentum:	Positive trend with peak at end of Jan	Figure 3
	Implied Economics-Based Sentiment:		Negative, but within normal range	Figures 2,3

Video summary of this week's report: https://youtu.be/_qsUo-xFKRk

Summary (data as of Jan 17 2025):

Outlook - The long-term trend of the market, as indicated by the Macro MRI measuring return acceleration, has just turned negative, even as physics-based drivers continue to suggest a moderately optimistic stance. This contradiction warrants caution as we move through the spring.

The Long-Term Driver (Figure 1, lower panel) signals "moderately optimistic" sentiment over the next three weeks, suggesting a mildly positive market price trend, while the Short-Term Driver remains optimistic but varied. A dramatic decline (over 30%) during this period is unlikely unless economic news is exceptionally negative.

The Excess RSI in Figure 2 is now negative but has not yet reached a level considered meaningful. If this negative trend continues and registers as meaningful in Figure 3, the market may be more prone to large declines during the next period of naturally occurring pessimism and heightened market vulnerability later this year.

Predicted price momentum (14-week RSI) shows a strong positive trend for the next two weeks, followed by a pause later in the forecast period. Near-term price gains could obscure emerging signs of negative economics-based sentiment, as detected by the Excess RSI (Figures 2 and 3).

Recent Market Dynamics - Last week's stock market price gains align with the Micro MRI moving into the upleg of its cycle shown in Figure 1, supported by the strong predicted price momentum (14-week RSI) shown in Figure 3.

Notes:

Introductory video: https://youtu.be/Czl67Md1s1w

See this page for written notes: https://cpminvesting.com/notes

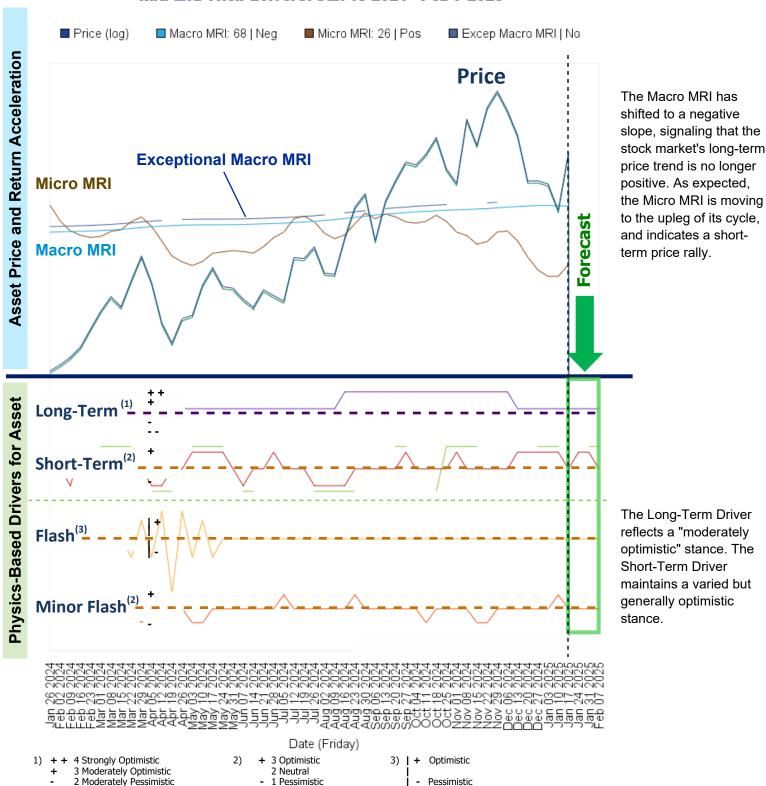


MRI and Sentiment Drivers

Fig. 1

Video - Indicator Descriptions: https://youtu.be/YOpocz C8is

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ETF "RSP" | S&P 500® Equal Weighted Index as of Jan 17 2025
MRI and Their Drivers: Jan 19 2024 - Feb 7 2025





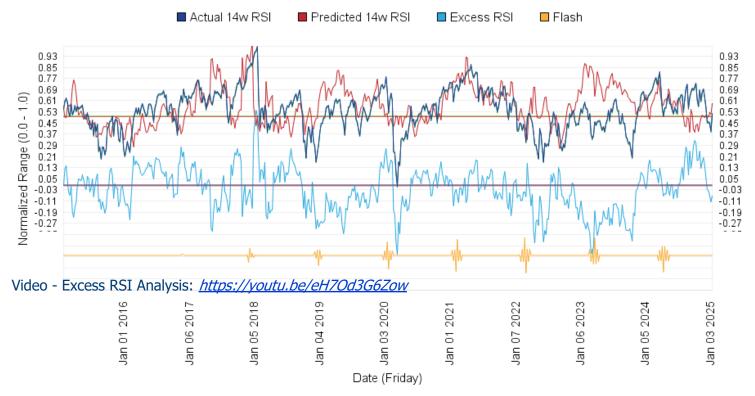
1 Strongly Pessimistic

with description

RSI Analysis - 10-Year

Fig. 2

ETF "RSP" | S&P 500® Equal Weighted Index 14-Week RSI - Actual and Predicted: Jan 30 2015 - Jan 17 2025



The 14-week RSI is an important component within the Short-Term Driver shown in Figure 1. RSI is a widely used measure of asset price momentum. Our predicted RSI explains much of the weekly volatility in the actual RSI over the last several decades. | The upper portion of Figure 2 displays the predicted and actual 14-week RSI for an asset price (not shown) over the past 10 years. The light blue line in the middle of the figure, labeled "Excess RSI," represents the difference between the two series. High values of "Excess RSI" indicate stronger-than-expected price momentum, often driven by positive economic or market conditions. Conversely, low values suggest weaker-than-expected momentum, likely reflecting negative conditions. We consider "Excess RSI" a measure of "Implied Economics-Based Sentiment. | The Flash Driver is included as a reference point.

Comments (data as of Jan 17 2025): On the far right of Figure 2, the light blue line indicates that the 'Excess RSI' has dropped below the center line. This movement marks a departure from the optimism observed in the latter half of 2024, suggesting that investors have adopted a more neutral outlook on economic, market, and real-world conditions.

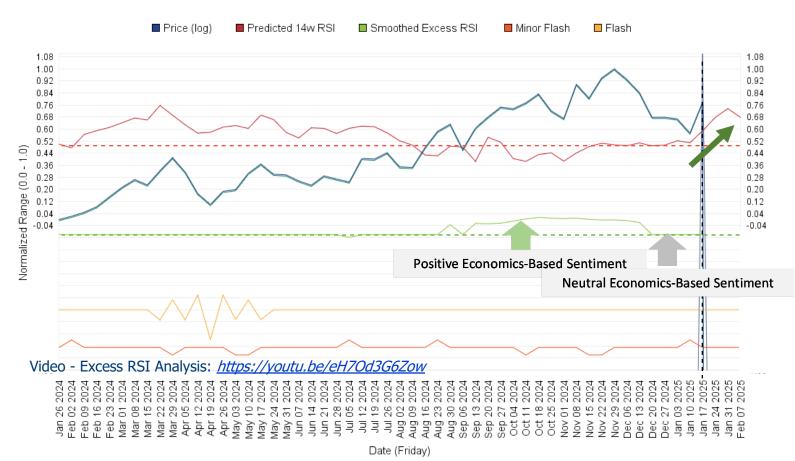
If the 'Excess RSI' remains in negative territory and affects the 'Smoothed Excess RSI' shown on the following page, it would signal negative 'Economics-Based Sentiment' and a bearish outlook for the stock market. This could potentially accelerate price declines during periods of naturally occurring investor pessimism and heightened market vulnerability. The 'Excess RSI' reflects investor sentiment related to valuations, inflation, interest rates, and other critical factors.



RSI Analysis - 1-year with EMA

Fig. 3

ETF "RSP" | S&P 500® Equal Weighted Index Index Price, Predicted 14-Week RSI: Jan 19 2024 - Feb 7 2025



The asset price (heavy blue line) and predicted price momentum measured as the 14w RSI (red) are shown in the upper panel of Figure 3. "Smoothed Excess RSI" is shown as the light green line. This line deviates from its neutral reading, indicated by the dashed light green line, when the actual 14w RSI of the market (not shown) is meaningfully higher or lower than what can be expected from the natural shifts in sentiment as measured by the predicted RSI. | This line can call attention to economic conditions that are unusually strong or weak based on the sustained deviation of the actual RSI relative from the predicted RSI. Smoothed Excess RSI is calculated as the exponential moving average (EMA) of the actual 14w RSI less the predicted 14w RSI (labeled "Excess RSI" on the prior page). Only z-score values in excess of +/-0.5 are shown in order to highlight meaningful deviations. When the line is horizontal, the actual 14w RSI is not meaningfully different than what we expect from the natural shifts in sentiment.

Comments (data as of Jan 17 2025): The Smoothed Excess RSI shown by the green line continues to be neutral, indicating that investor sentiment about real-world conditions is within the range of normal expectations.

The solid red line shows that the predicted RSI will rise over the next three weeks. If market prices fail to increase meaningfully during this period, it will likely signal further weakening of implied economics-based sentiment.



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Additional Notes

Links

Please contact us with questions: contact@cpminvesting.com

See additional notes: www.cpminvesting.com/notes
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Join our Discord Server: https://discord.gg/3c6327VwbW

Citations

RSP is an ETF issued by Invesco that seeks to track the performance of the S&P 500® Equal Weight Index, providing equal exposure to each of the 500 largest publicly traded U.S. companies.

For more information, visit: https://www.invesco.com

Background

Sentiment shifts occur periodically and are described as changes between:

Optimism|Pessimism Risk-on|Risk-off Resilience|Vulnerability Euphoria|Panic Aspirational thinking|Critical thinking

Total sentiment reflects economic forces and the naturally occurring forces that directly affect human behavior:

- > Economic forces
 - Investor views on economic conditions
 - Investor views on market fundamentals
 - Investor behavior (e.g., trend following, mean reverting, calendar effects, response to current events)
- > Natural forces Our focus is here

Naturally Occurring Shifts Have a Big Impact: Naturally occurring sentiment shifts have a bigger impact than many investors realize, and typically explain over 70% of the weekly variability of widely used index price momentum measures such as the Relative Strength Index (RSI). In addition, systematically predicting the future strength of the natural forces can be done more easily and reliably than predicting the future strength of economic forces.

We can Infer Impact of Economic and Market Conditions: When total sentiment deviates meaningfully from the natural shifts, we can infer that economic forces have a higher impact. If we take the actual RSI, for example, which reflects both economic and natural forces, and subtract the effect of the natural forces (represented by the predicted series), the difference is a reasonable gauge of the impact of the economic forces.

Early Indicators of Market Declines: Key early indicators of an impending market correction are a) when Excess RSI (EMA) moves to negative levels, and b) when actual sentiment metrics, such as one of our Market Resilience Indexes or the 14-week RSI, converges with a negatively trending predicted metric. See Note #4 on this page:

https://cpminvesting.com/notes

Two types of Physics-Based Sentiment Drivers: We maintain over two dozen physics-based drivers. There are two general types:

- > Cyclic Drivers sentiment changes gradually over time. The Long- and Short-Term drivers are cyclic.
- > Episodic Drivers sentiment changes abruptly. The Flash and Minor Flash drivers are episodic. Our forecasts of Episodic Drivers tend to be more accurate than those for the Cyclic Drivers.

For descriptions of each driver, see Note #2 on this page (https://cpminvesting.com/notes).

Two Sentiment-Related Metrics: We use two different metrics in our forecasts of sentiment. We forecast the 14-week



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Relative Strength Index (RSI) to measure price momentum for a market index. Upward sloping RSI indicates positive sentiment:

https://en.wikipedia.org/wiki/Relative strength index

We also forecast our own Market Resilience Index® (MRI) series. The MRI measure return acceleration. Upward sloping MRI indicate positive sentiment. MRI indicate short- and long-term shifts in market resilience for each market index:

- > Micro MRI short-term trends lasting several weeks
- > Macro MRI long-term trends lasting several quarters

The RSI and MRI have different features.

RSI (Relative Strength Index)

- Widely used in investment industry
- Effective in identifying market bottoms
- Less effective in identifying market tops. RSI can peak several months before the index price peaks.

MRI (Market Resilience Index)

- Designed to identify accurately both market tops and bottoms

For descriptions of each driver, see Note #1 on this page (https://cpminvesting.com/notes).

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