## Physics-Based Sentiment Forecasts - US Stocks | Jan 24 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 (periods between shifts)			
Physics- Based	Long-Term Sentiment (qtrs):	3 (1-4, with 4=Strongly Optimistic)	Figure 1
	Short-Term Sentiment (wks):	Optimistic but shifting to pessimistic	Figure 1
	Flash Sentiment:	None	Figure 1
<u> </u>	Market Price Momentum:	Positive trend peaking 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: <a href="https://youtu.be/nOhGlFnqs3w">https://youtu.be/nOhGlFnqs3w</a>

### Summary (data as of Jan 24 2025):

**Outlook -** The Long-Term Physics-Based Driver continues to suggest a moderately optimistic stance while the Macro MRI, which most closely reflects that Driver's impact, has shifted to the downleg of its cycle. The shallow slope of the Macro MRI suggests the possibility that it may revert to an upward trend over the coming weeks. However, the Short-Term Driver indicates a period of naturally occurring pessimism in early February, which may accelerate the loss of longer-term price momentum tracked by the Macro MRI. If a meaningful stock market decline is needed for economic reasons, the most vulnerable time within the forecast horizon is in early February.

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.

Predicted price momentum (14-week RSI) shows a strong positive trend for the next week, followed by a period of weaker price momentum.

**Recent Market Dynamics -** Last week's stock market price gains align with the Short-Term Drivers indication of investor optimism and the Micro MRI moving into the upleg of its cycle shown in Figure 1. recent stock market price gains have also been supported by the strong predicted price momentum (14-week RSI) shown in Figure 3.

#### Notes:

Introductory video: <a href="https://youtu.be/CzI67Md1s1w">https://youtu.be/CzI67Md1s1w</a>

See this page for written notes: <a href="https://cpminvesting.com/notes">https://cpminvesting.com/notes</a>

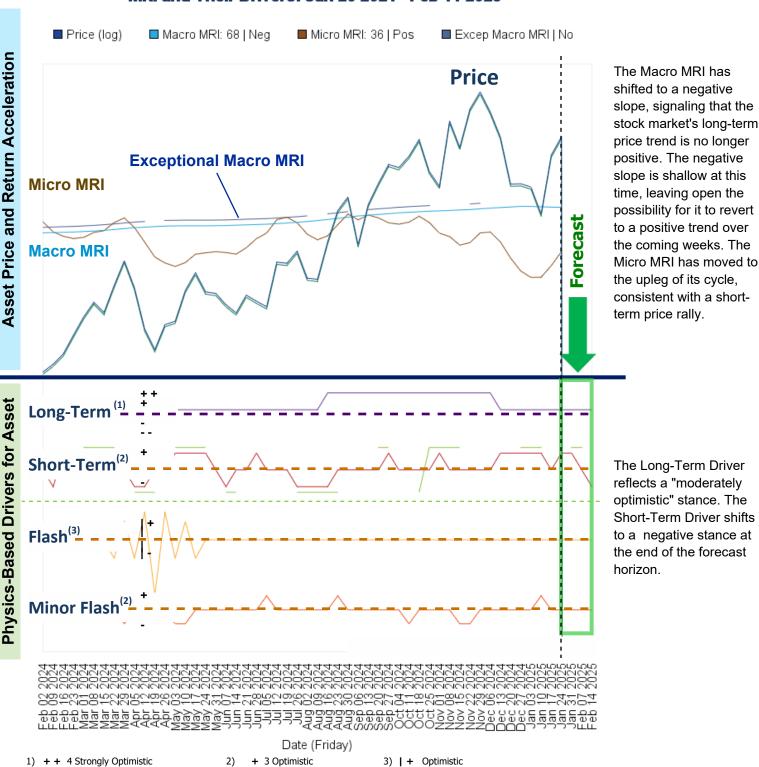


## **MRI and Sentiment Drivers**

Fig. 1

Video - Indicator Descriptions: <a href="https://youtu.be/YOpocz">https://youtu.be/YOpocz</a> C8is

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MRI and Their Drivers: Jan 26 2024 - Feb 14 2025





3 Moderately Optimistic

2 Moderately Pessimistic

1 Strongly Pessimistic

Pessimistic with description

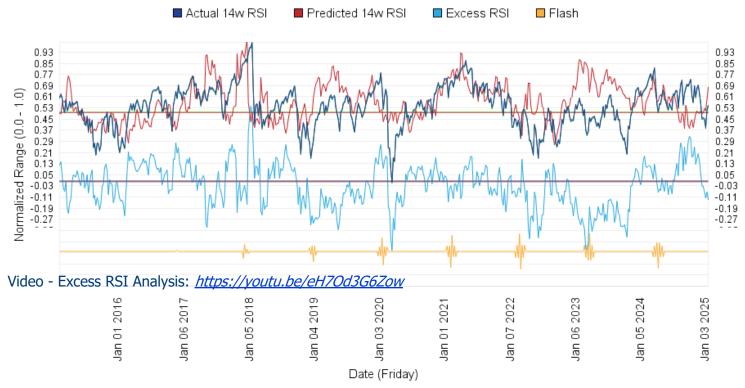
2 Neutral

1 Pessimistic

# **RSI Analysis - 10-Year**

Fig. 2

## ETF "RSP" | S&P 500® Equal Weighted Index 14-Week RSI - Actual and Predicted: Feb 6 2015 - Jan 24 2025



The 14-week RSI is a 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, which may be caused by positive economic or market conditions. Conversely, low values suggest weaker-than-expected momentum, likely reflect negative conditions. Excess RSI reflects investor sentiment related to a range of factors including investor views of stock valuations, inflation, interest rates, and economic growth. | The Flash Driver is included for reference.

**Comments (data as of Jan 24 2025):** [No change from last week] 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.

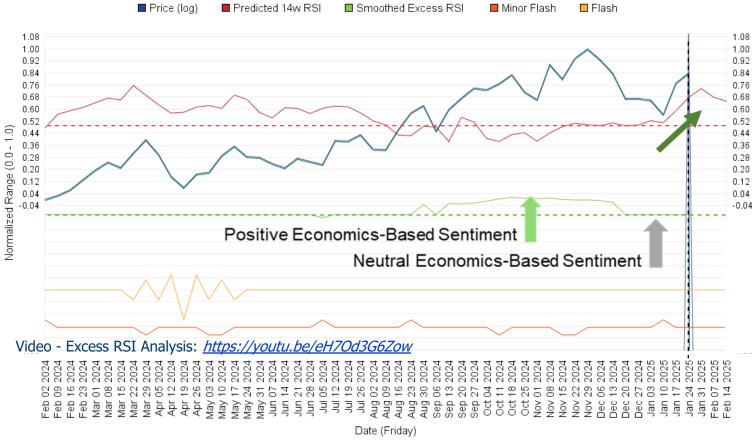
If the 'Excess RSI' remains in negative territory and affects the 'Smoothed Excess RSI' shown on the following page, it would signal negative 'Economics-Based Sentiment' and a bearish outlook for the stock market. This could potentially accelerate price declines during periods of naturally occurring investor pessimism and market vulnerability.



# **RSI Analysis - 1-year with EMA**

Fig. 3

ETF "RSP" | S&P 500® Equal Weighted Index Index Price, Predicted 14-Week RSI: Jan 26 2024 - Feb 14 2025



The upper panel of Figure 3 shows the asset price (heavy blue line) and the predicted price momentum, measured as the 14-week Relative Strength Index (RSI, red line). The "Smoothed Excess RSI" is displayed as the light green line, which deviates from its neutral level (represented by the dashed light green line) when the actual 14-week RSI of the market (not shown) remains meaningfully higher or lower than the expected expected level over several weeks. | Smoothed Excess RSI represents the "Implied Economics-Based Sentiment" and can signal unusually strong or weak economic conditions. | Smoothed Excess RSI is calculated as the exponential moving average (EMA) of the difference between the actual 14-week RSI and the predicted 14-week RSI (labeled "Excess RSI" on the prior page). To emphasize meaningful deviations, only z-score values exceeding ±0.5 are shown. A horizontal line indicates that the actual 14-week RSI is not significantly different from what is expected due to natural sentiment shifts.

**Comments (data as of Jan 24 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 week and then decline. If market prices fail to increase meaningfully during the next week, it may signal further weakening of implied economics-based sentiment.



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### **Additional Notes**

#### Links

Please contact us with questions: <a href="mailto:contact@cpminvesting.com">contact@cpminvesting.com</a>

See additional notes: <a href="https://www.cpminvesting.com/notes">www.cpminvesting.com/notes</a>
General information: <a href="https://www.cpminvesting.com/notes">www.cpminvesting.com/notes</a>

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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