

Physics-Based Sentiment Forecasts - US Stocks | May 16 2025



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RSP | Invesco® S&P 500® Equal Weight ETF
Three-week Horizon
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This three-week forecast of investor sentiment is an example of our sentiment forecasts.

Request a subscription to our six-week forecast: contact@cpminvesting.com

Three-Week Forecasts (periods between shifts)

Physics-Based	Long-Term Sentiment (qtrs):	4 (1-4 scale, 4=Most Optimistic)	Figure 1
	Short-Term Sentiment (wks):	Neutral, then optimistic end of May	Figure 1
	Major Flash Sentiment:	Optimism for the next three weeks	Figure 1
	Minor Flash Sentiment:	Neutral	Figure 1
	Market Price Momentum:	Higher over forecast horizon	Figure 3
Implied Economics-Based Sentiment:		Meaningfully Negative	Figure 3

Summary (data as of May 16 2025):

Physics-induced optimism will be present over the three-week forecast period.

Predicted price momentum is notably higher.

See charts on the following pages.

Notes:

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

Web page for written notes: <https://cpminvesting.com/notes>



Source: CPM Investing LLC. Data using USD prices, except as noted. For more information, see the citations and legal disclaimer at the end of this document.
Backtested/hypothetical results do not indicate actual or future returns. Current decision rules and parameters are used to simulate historical performance.
If and when the rules and parameters are revised, those revisions may affect previously reported simulated historical performance characteristics.
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MRI and Sentiment Drivers

Fig. 1

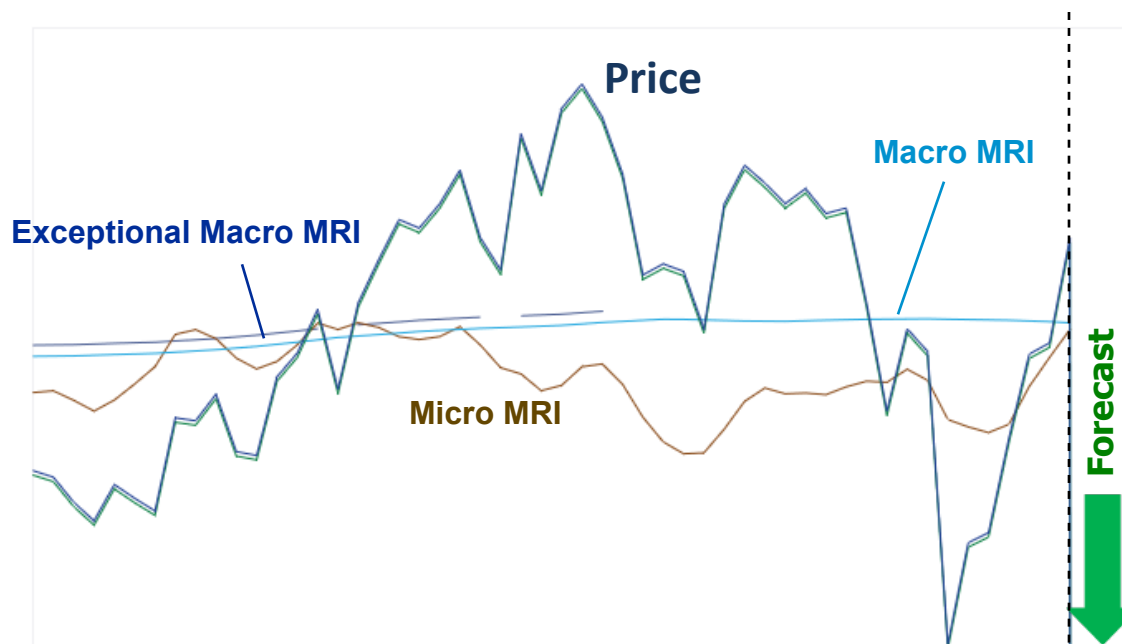
Explanatory Video: https://youtu.be/YOpocz_C8is

Physics-Based Sentiment Forecasts ETF "RSP" | S&P 500® Equal Weighted Index as of May 16 2025 MRI and Their Drivers: May 17 2024 - Jun 6 2025

Asset Price and Return Acceleration

Physics-Based Drivers for Asset

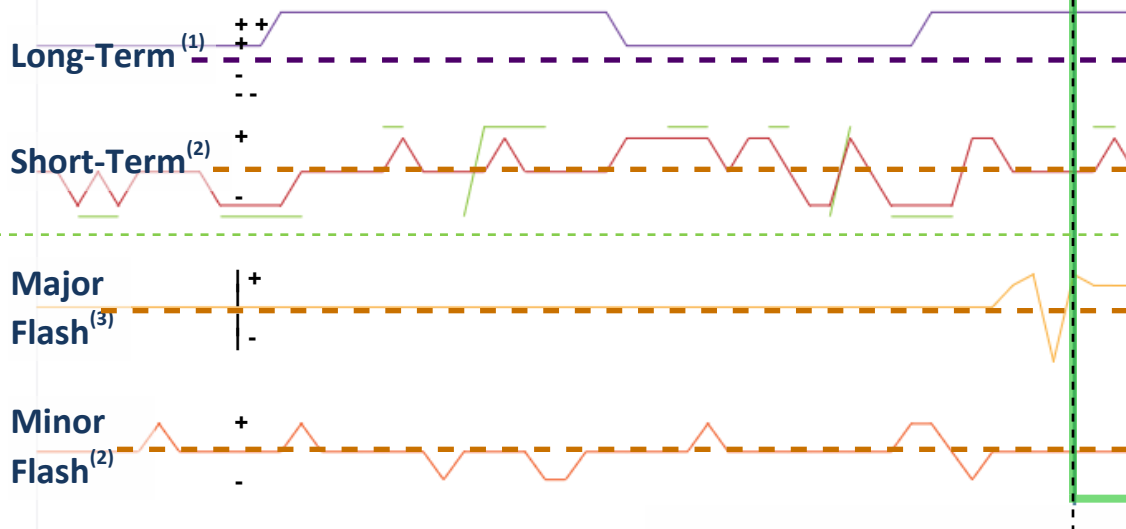
Price (log) Macro MRI: 65 | Neg Micro MRI: 62 | Pos Excep Macro MRI | No



The Macro MRI is relatively high in its range (a level of 65 on a 0-100 scale). This suggests the long-term trend of the market could move lower. It is in the downleg of its cycle, which suggests that the long-term trend of the market is now negative. However, the negative slope is not steep.

The Micro MRI is now in the upleg of its cycle at a moderate level of 62 on a 0-100 scale.

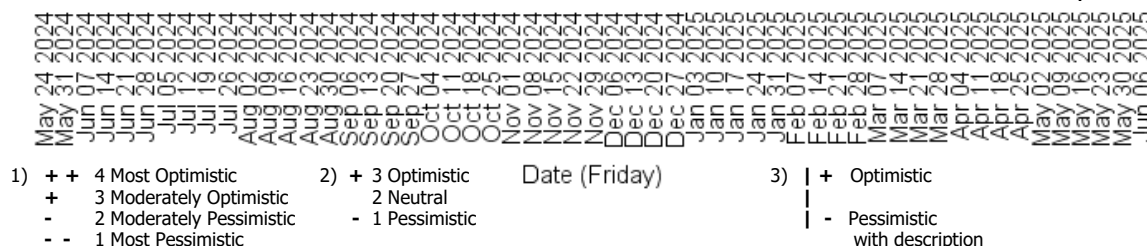
The Exceptional Macro MRI is not present.



The Long-Term Driver remains Most Optimistic.

The Short-Term Driver is currently neutral and will shift to optimistic over the forecast horizon.

The optimistic leg of the M-Flash will be taking place over the next few weeks.

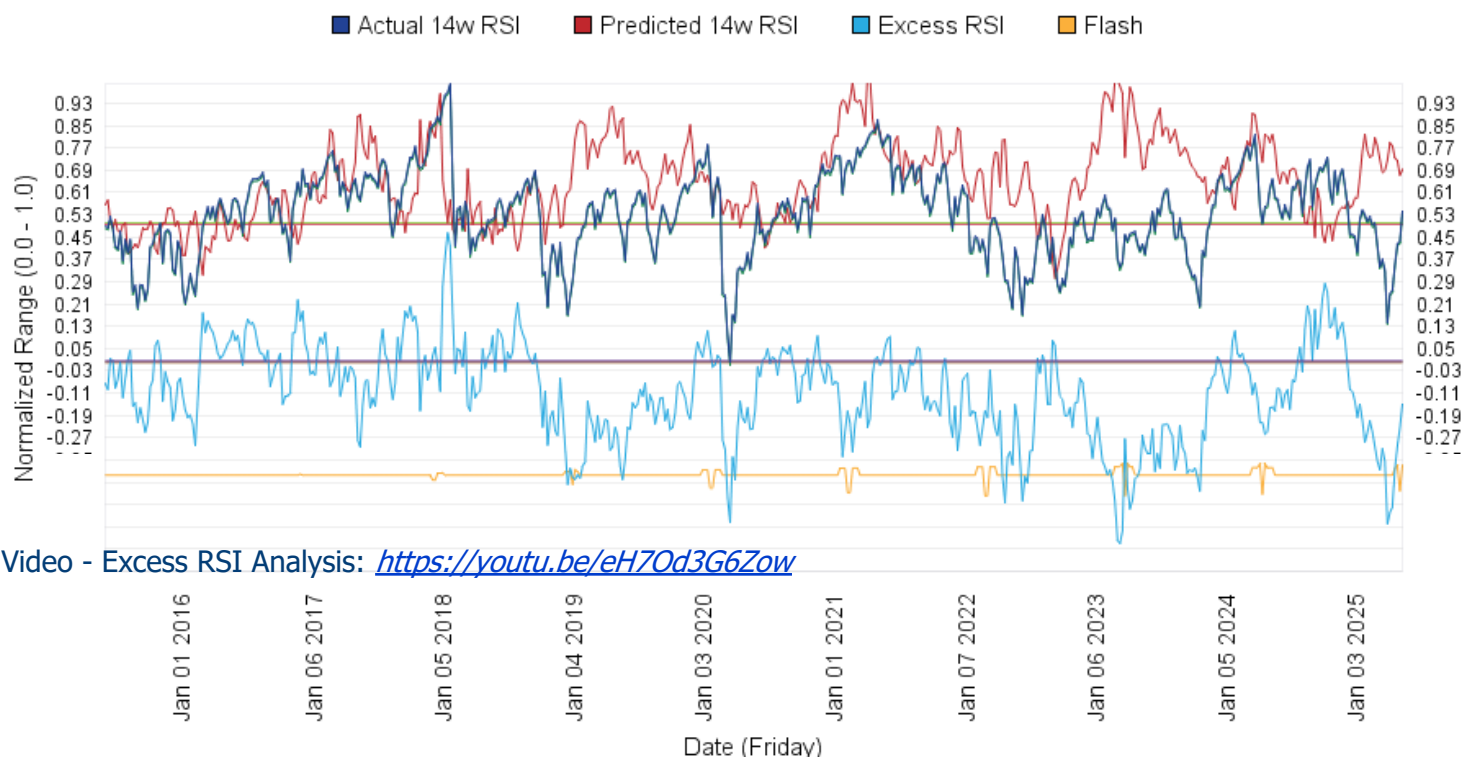


RSI Analysis - Excess RSI Over 10-Year Horizon

Fig. 2

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14-Week RSI - Actual and Predicted: May 29 2015 - May 16 2025



Video - Excess RSI Analysis: <https://youtu.be/eH7Od3G6Zow>

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 May 16 2025): On the far right of Figure 2, the light blue line indicates that the 'Excess RSI' remains below the center line, although it has moved higher over the last few weeks. Despite the recent upward trend, it suggests that investors have a pessimistic outlook on economic, market, and other conditions.



RSI Analysis - Predicted RSI, Implied Econ Sentiment

RSP | Invesco® S&P 500® Equal Weight ETF
Index Price, Predicted 14-Week RSI: May 17 2024 - Jun 6 2025

Fig. 3

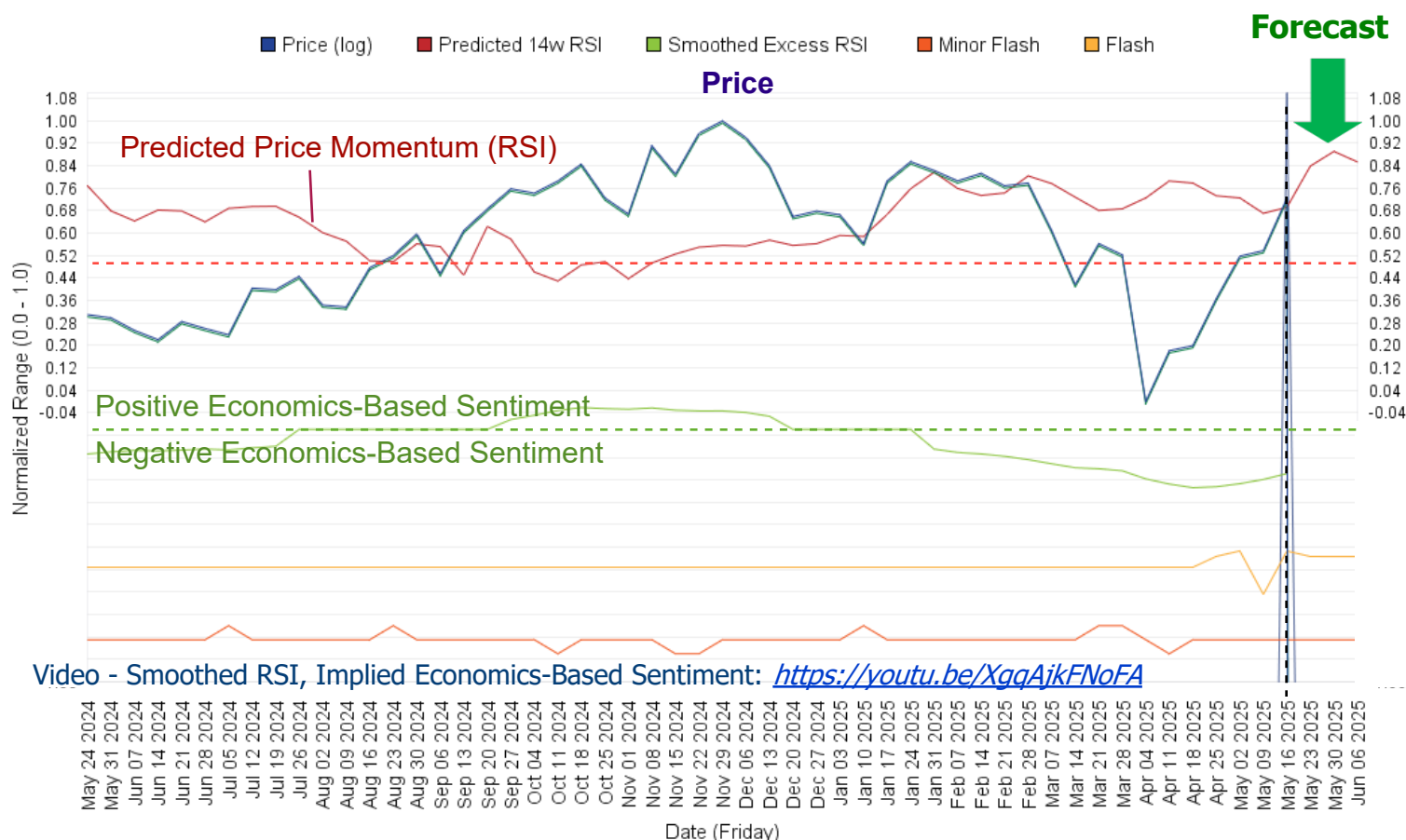


Figure 3 shows the asset price (upper panel, heavy blue line) and the predicted price momentum, measured as the 14-week Relative Strength Index (RSI, red line). The "Smoothed Excess RSI" is displayed as the light green line, which deviates from its neutral level (represented by the dashed light green line) when the actual 14-week RSI of the market (not shown) remains meaningfully higher or lower than the expected level over several weeks. | Smoothed Excess RSI represents the "Implied Economics-Based Sentiment" and can signal unusually strong or weak sentiment related to economic and market conditions. It can identify when investors have a negative view of economic conditions even when the stock market moves higher. | 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 meaningfully different from what is expected due to natural sentiment shifts.

Comments (data as of May 16 2025): The solid red line shows the predicted price momentum moving higher through May 30.

Implied Economics-Based Sentiment is below the neutral level, shown as the dashed green line, indicating meaningfully negative sentiment related to real economic and market factors. This condition began at the end of January 2025 and is likely to continue over the next few weeks, even if the stock market moves higher. Should this condition continue, it will amplify price declines and dampen price recoveries.



Additional Notes

Links

Please contact us with questions: contact@cpminvesting.com

See additional notes: www.cpminvesting.com/notes

General information: www.cpminvesting.com

Join our Discord Server: <https://discord.gg/3c6327VwbW>

Citations

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

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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 14-week 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 Forces: 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 three dozen physics-based drivers. There are two general types:

> Cyclic Drivers - sentiment changes gradually over time. The Long- and Short-Term drivers are cyclic.



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> 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 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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