



**CPM**  
INVESTING

ETF "RSP" | S&P 500® Equal Weighted Index

Jeffrey Hansen

[www.cpminvesting.com](http://www.cpminvesting.com)

*We provide this three-week forecast of investor sentiment as an example of our perspective on stock market corrections and recoveries.*

*We provide clients with multi-month forecasts and strategy sessions followed by periodic status reports. We also offer technology transfer engagements for those wanting to make physics-based sentiment forecasts in-house.*

**Overview (data as of Nov 01 2024):** Our physics-based sentiment drivers, along with the MRI and RSI analyses, continue to indicate a resilient but volatile stock market over the next few weeks.

**Recent Market Dynamics** - Recent stock market losses are consistent with the forecasts of RSI shown in Figure 3. The 14-week RSI is an important component of the Short-Term Driver shown in Figure 1 and tends to show most clearly the week-to-week price variations. While one cannot accurately determine the relative impacts of news/events and physics-based drivers for any given week, the underlying factors associated with the RSI forecast suggest investors overreacted to negative news over the last few weeks. **Continued on page 5.**

**Outlook** - As shown in the lower panel of Figure 1 (following page), the Short-Term and Minor Flash drivers indicate periods of pessimism toward mid-November. The Long-Term Driver, which indicates continued optimism, provides crucial support to the market, helping to limit widespread investor panic.

As of November 1, the MRI (upper panel, Figure 1) indicate that the stock market has shifted to a less resilient stance. The Exceptional Macro has ceased to be present as of last week (denoted by the "No" in the legend). **Continued on page 5.**

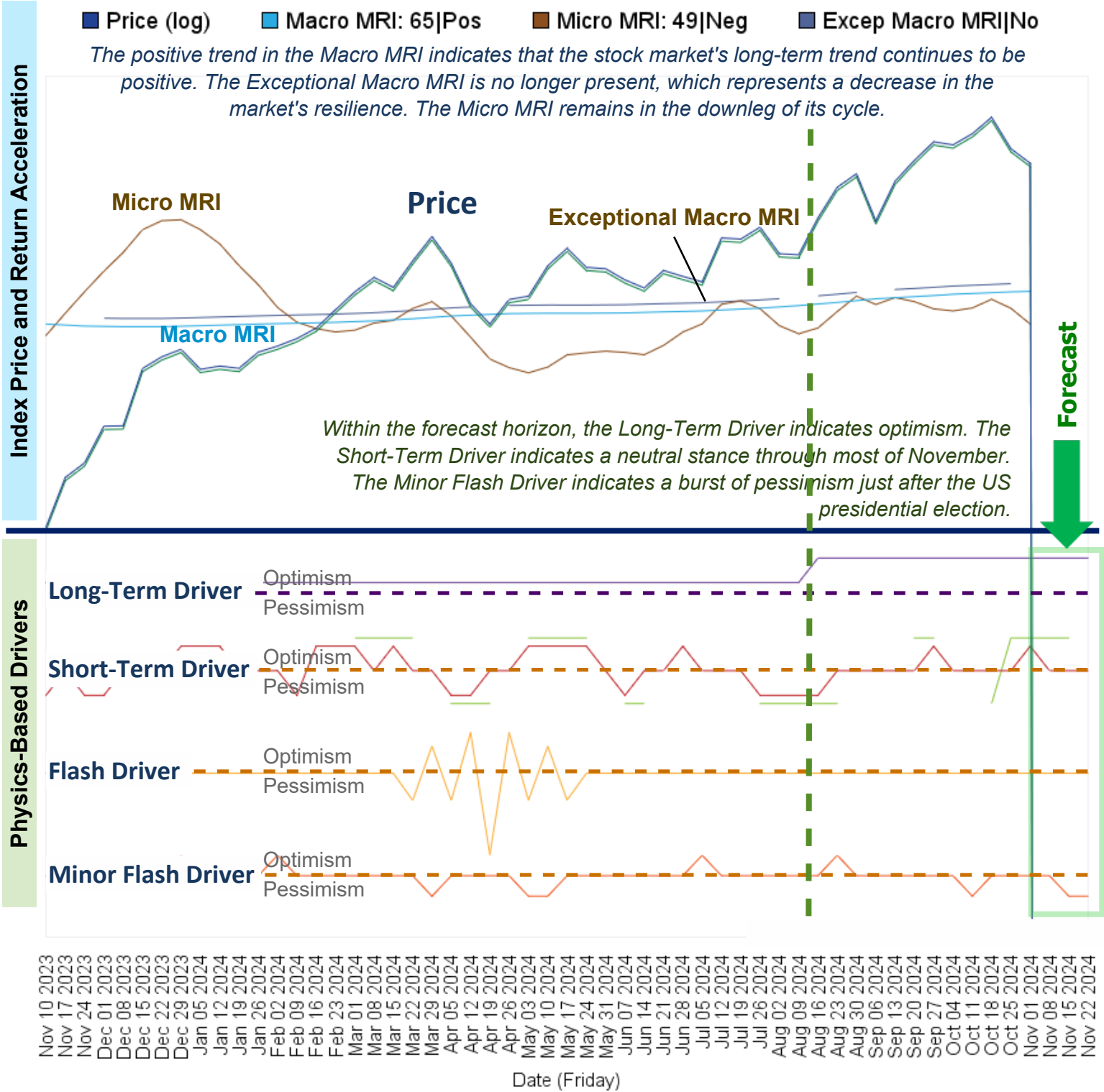
**Figures on the Following Page:** Notes linked here: <https://cpminvesting.com/notes> and the Additional Notes of this report are useful background for this report. Figure 1 on the following page contains two panels. The upper panel displays the asset price and our Market Resilience Index® series. The MRI are derived solely from the asset price and measure its return acceleration over different time frames, from a few weeks (Micro MRI) to several quarters (Macro MRI). These MRI are shown with their current levels (ranging from 0 to 100) and their recent slope/trend (Pos=Positive, Neg=Negative) indicated in the legend. The Exceptional Macro MRI is shown as a line above the Macro MRI and is indicated as being present (Yes) or not (No) in the legend. See note #1 on <https://cpminvesting.com/notes> for background on the MRI. The lower panel on Figure 1 shows the physics-based drivers of investor sentiment, which have been calibrated to show naturally occurring shifts affecting the MRI. The predicted status of each driver is shown in the light green vertical box on the right. See #2 on <https://cpminvesting.com/notes> for background on the physics-based drivers and note #4 regarding these indicators converging on a negative trend.



MRI and Sentiment Drivers

Fig. 1

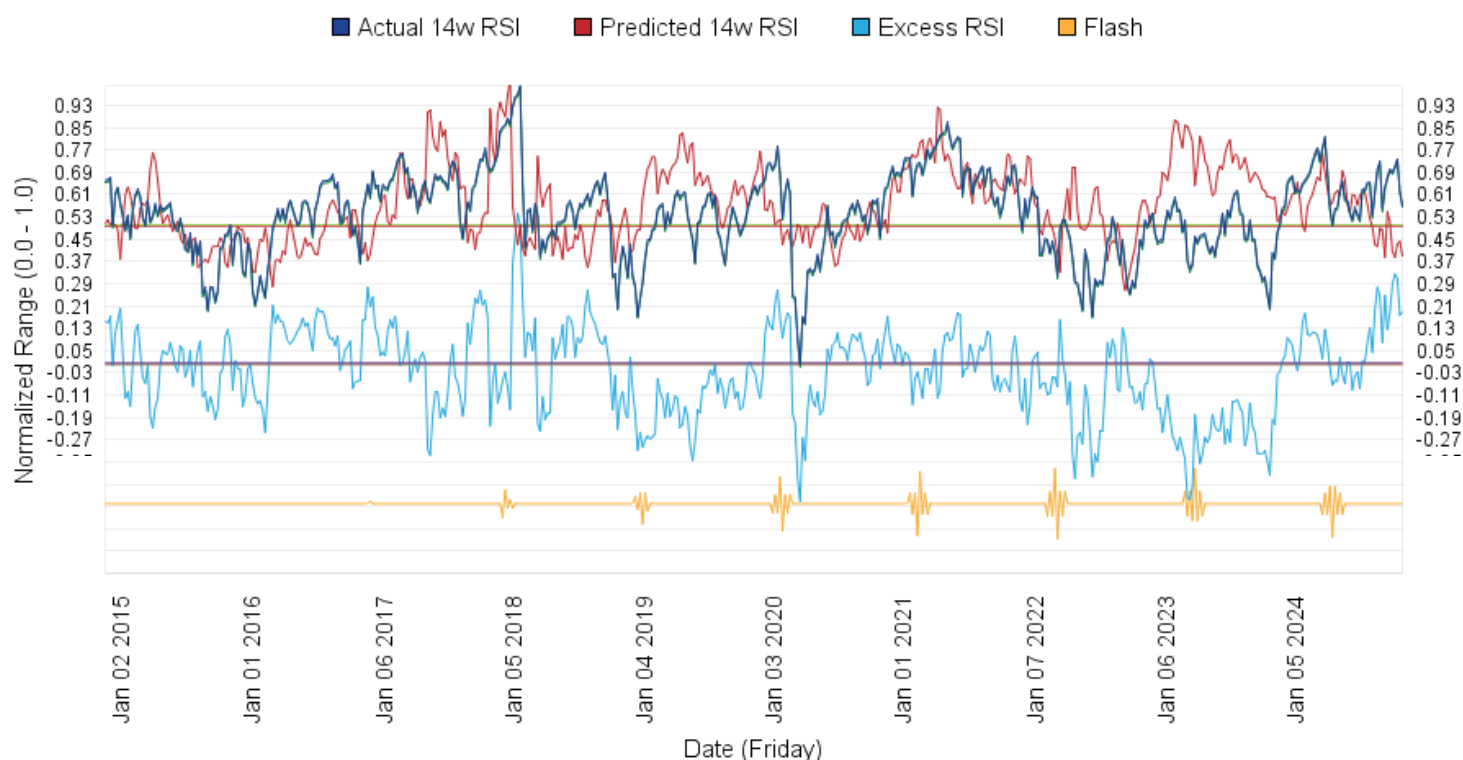
Physics-Based Sentiment Forecasts  
 ETF "RSP" | S&P 500® Equal Weighted Index as of Nov 01 2024  
 MRI and Their Drivers: Nov 3 2023 - Nov 22 2024



## RSI Analysis - 10-Year

Fig. 2

### ETF "RSP" | S&P 500® Equal Weighted Index 14-Week RSI - Actual and Predicted: Nov 14 2014 - Nov 1 2024



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 and our RSI forecasts explain most of the weekly volatility of the actual RSI. The upper portion of Figure 2 shows the predicted and actual 14-week RSI for the asset price (not shown) for the last 10 years. The light blue line in the middle of the figure ("Excess RSI") indicates the difference between these two RSI series. High values of the light blue line indicate that the market has stronger price momentum than can be expected from the natural shifts indicated by the predicted RSI, presumably due to positive economic and/or market conditions. Low values indicate that the market has weaker price momentum than expected, presumably because of negative conditions. The Flash Driver is shown for reference.

**Comments (data as of Nov 01 2024):** No change from last week. On the far right of Figure 2, the light blue line shows a positive spike, indicating that the index's price momentum has exceeded what can be attributed to naturally occurring shifts in sentiment. The current level of Excess RSI is among the highest observed over the last ten years, suggesting that investors hold a positive outlook on economic, market, and other real-world conditions.

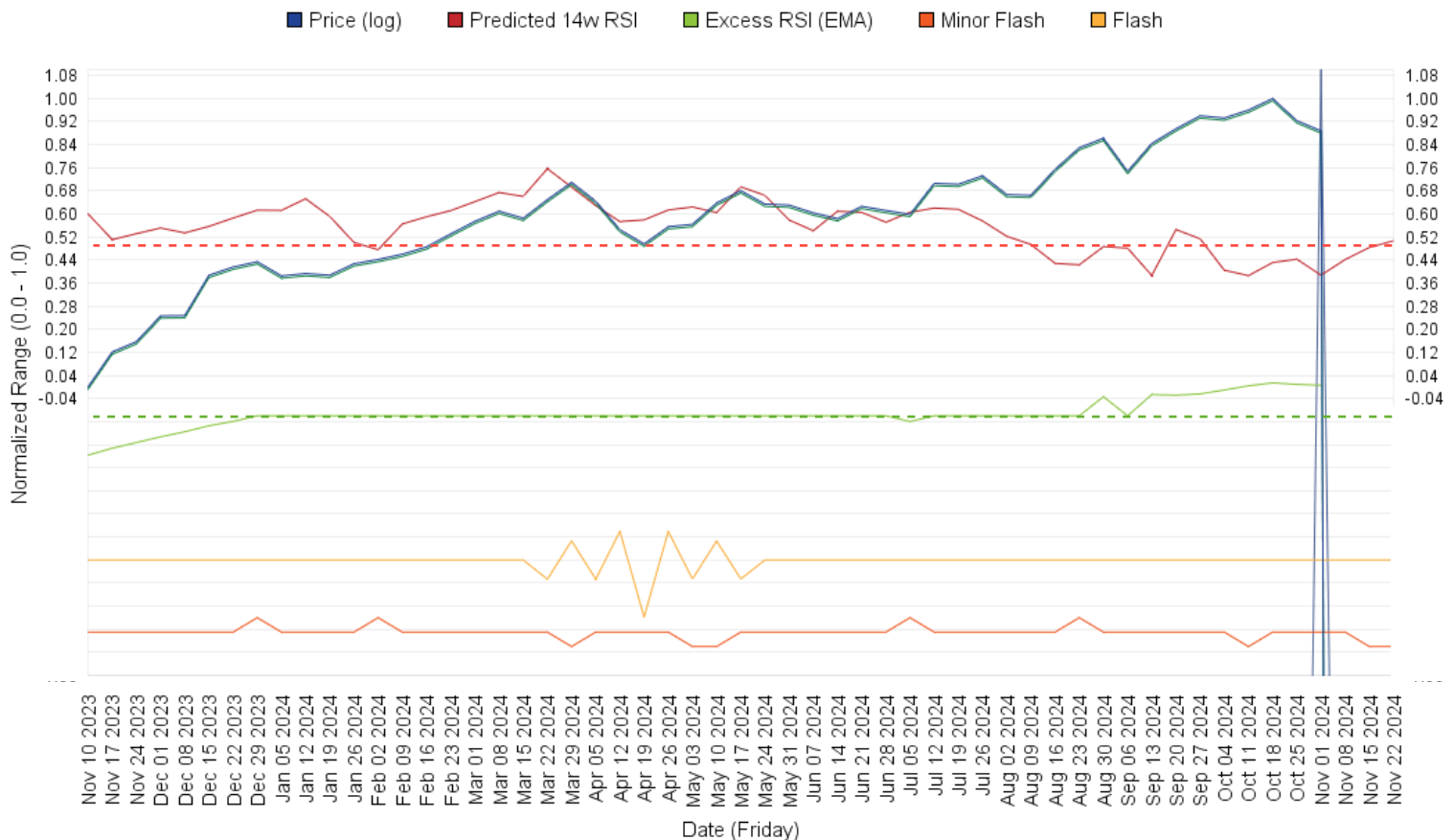
Concerns about potential negative economic factors, such as recession and high valuation measures, do not appear to significantly impact price momentum, as reflected by the RSI. While investor sentiment surrounding the US presidential election is likely reflected in the Excess RSI, we cannot determine its specific influence relative to other factors (e.g., economic or market conditions) in this analysis.



## RSI Analysis - 1-year with EMA

Fig. 3

ETF "RSP" | S&P 500® Equal Weighted Index  
Index Price, Predicted 14-Week RSI: Nov 3 2023 - Nov 22 2024



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. "Excess RSI (EMA)" is shown as the light green line. Conceptually, this line deviates from its neutral stance, 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 embodied in 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 to the predicted RSI. Excess RSI (EMA) 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  $\pm 0.5$  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 Nov 01 2024):** The Excess RSI (EMA) currently has a positive deviation, suggesting positive investor views about economic, market, and other conditions. The predicted RSI (red line) signals higher expected price momentum beginning in early November.



## Continued...

**Continued from page 1 'Recent Market Dynamics'** - The legs of the Micro MRI cycles have been unusually short over the last several months. Although this pattern is seen in other technical measures, it is not typical of the Micro MRI and may foreshadow more dramatic moves in the future. At this time, only one of the three MRI is indicating resilience. Viewed by itself, this condition indicates a stock market that is more vulnerable to declines compared to a few weeks ago.

**Continued from page 1 'Outlook'** - The Micro MRI has once again shifted to the downleg of its cycle, signaling short-term market vulnerability. When the Micro MRI makes a more definitive and continued shift to its downleg, future price gains of the US stock market may be more muted. A mitigating factor is that the Micro MRI is not currently at a high level in its normal range. It is roughly at the middle of its range with a score of 49 (in a range of 0 to 100).

Figures 2 and 3 show the RSI analysis. These highlight evidence of investor optimism about economic, market, and other real-world factors. These figures show that the stock market continues to exhibit "excess price momentum."

While beyond the 3-week forecast horizon of this report, the Long-Term Driver will shift in the first two weeks of December to an only moderately optimistic stance from its current very optimistic stance. This could be an important shift. This shift may be the reverse of the shift that took place in August of this year, which is highlighted by the dashed green vertical line on Figure 1. In August, the Long-Term Driver shifted to its most optimistic reading from only a moderately optimistic level prior to early August. At the time of that shift, the Short-Term Driver also shifted away from a negative reading and there was a burst of optimism shown by the Minor Flash Driver. Since that time, the stock market has moved higher. As we move through November and into December the market will move to a mildly optimistic and resilient stance and price gains going forward may be more muted.

An early indicator of greater overall stock market vulnerability would be the a reduction of the Excess RSI (EMA) shown in Figure 3. At this time, Excess RSI (EMA) remains positive.

## Additional Notes

### Links

Please contact us with questions: [contact@cpminvesting.com](mailto:contact@cpminvesting.com)

See additional notes: [www.cpminvesting.com/notes](http://www.cpminvesting.com/notes)

General information: [www.cpminvesting.com](http://www.cpminvesting.com)

### 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 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](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>).

## Legal Disclaimer:

The S&P 500® and the S&P 500 Equal Weight Index® are registered trademarks of S&P Dow Jones Indices LLC, a division of S&P Global. Dow Jones Industrial Average®, DJIA®, and Dow Jones® are trademarks of Dow Jones Trademark Holdings LLC. All index data used in this report is sourced from Bloomberg L.P. under license. S&P Dow Jones Indices LLC, Dow Jones Trademark Holdings LLC, Bloomberg L.P., and their respective affiliates do not sponsor, endorse, or promote the content of this report, nor do they make any representation regarding the advisability of investing in any securities, financial products, or strategies discussed in this report.

