Physics-Based Sentiment Forecasts - US Stocks | Nov 29 2024

CPM INVESTING

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

Three-week Horizon

Jeffrey Hansen
www.cpminvesting.com

This three-week forecast of investor sentiment as an example of our perspective on stock market corrections and recoveries. A six-week forecast is available at contact@cpminvesting.com

Summary (data as of Nov 29 2024): [No material change from last week] Recent market dynamics have been generally consistent with our forecasts. Going forward, our Market Resilience Indexes (MRI, Figure 1) and the Excess RSI analysis (Figure 3) both indicate a resilient stock market over the coming weeks. The physics-based sentiment drivers (Figure 1) indicate a strong optimistic stance through approximately the week ending Dec 13 and then a slight shift to a mildly optimistic stance. Changes in the Long- and Short-term Drivers during roughly the week of Dec 13 will likely offset one another.

Recent Market Dynamics - [No change from last week] We expected the stock market to be resilient over the last several weeks because of the strong optimistic readings of the Long-Term Driver (Figure 1), and this has been the case. We expected short-term price volatility because of changes in the Short-Term and Minor Flash drivers (Figure 1). This has also been the case.

Outlook - [No material change from last week] The Long-Term Driver (lower panel Figure 1) indicates continued strong optimism over the next few weeks with a shift to a less optimistic stance the week ending Dec 13. At roughly the same time, the Short-Term Driver will shift to a more optimistic stance, partly counteracting the shift to a less optimistic stance of the Long-term Driver.

The Excess RSI (EMA) analysis (Figure 3) indicates a high level of price momentum related to economic and market factors. If that condition continues, stock market sentiment will not be meaningfully affected (negatively) by the less optimistic stance we anticipate in December.

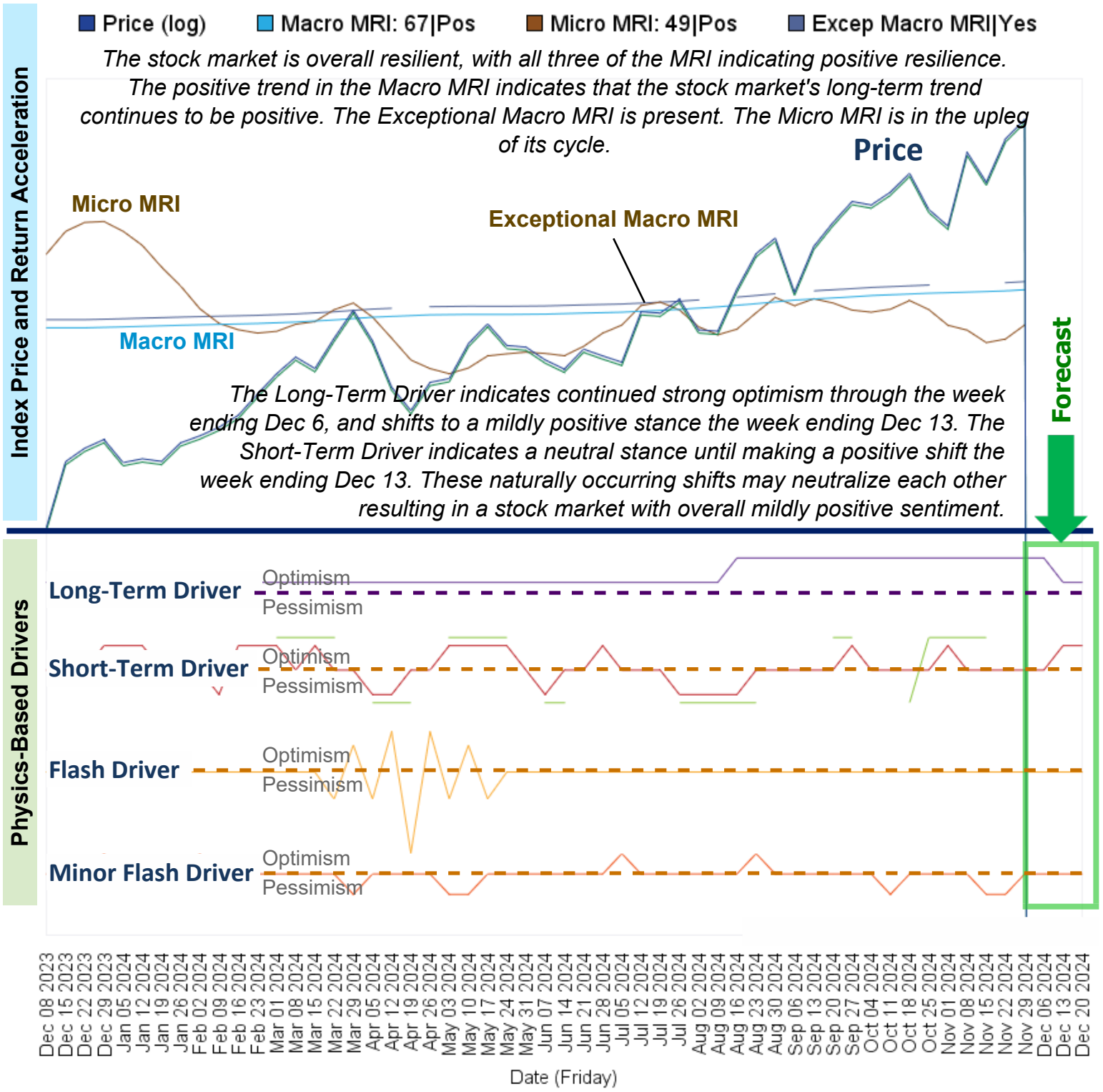
The MRI (upper panel Figure 1) suggest a resilient stock market over the next few weeks. The Macro MRI is in the upleg of its cycle indicating a positive long-term trend to the stock market. The Micro MRI is in the upleg of its cycle. The Exceptional Macro is present (indicated by the "Yes" in the legend in Figure 1).

Figure 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

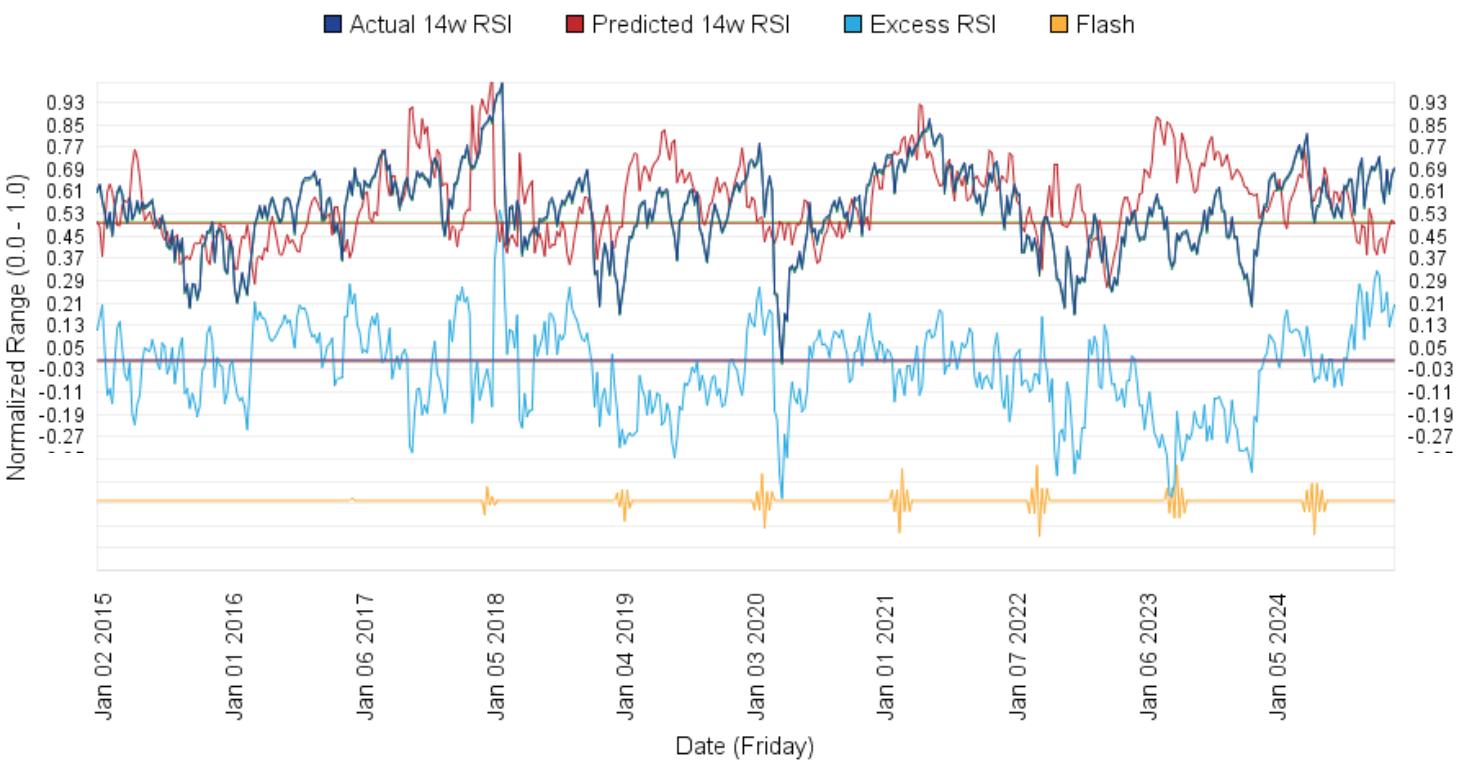
Fig. 1

Physics-Based Sentiment Forecasts
ETF "RSP" | S&P 500® Equal Weighted Index as of Nov 29 2024
MRI and Their Drivers: Dec 1 2023 - Dec 20 2024



RSI Analysis - 10-Year

Fig. 2



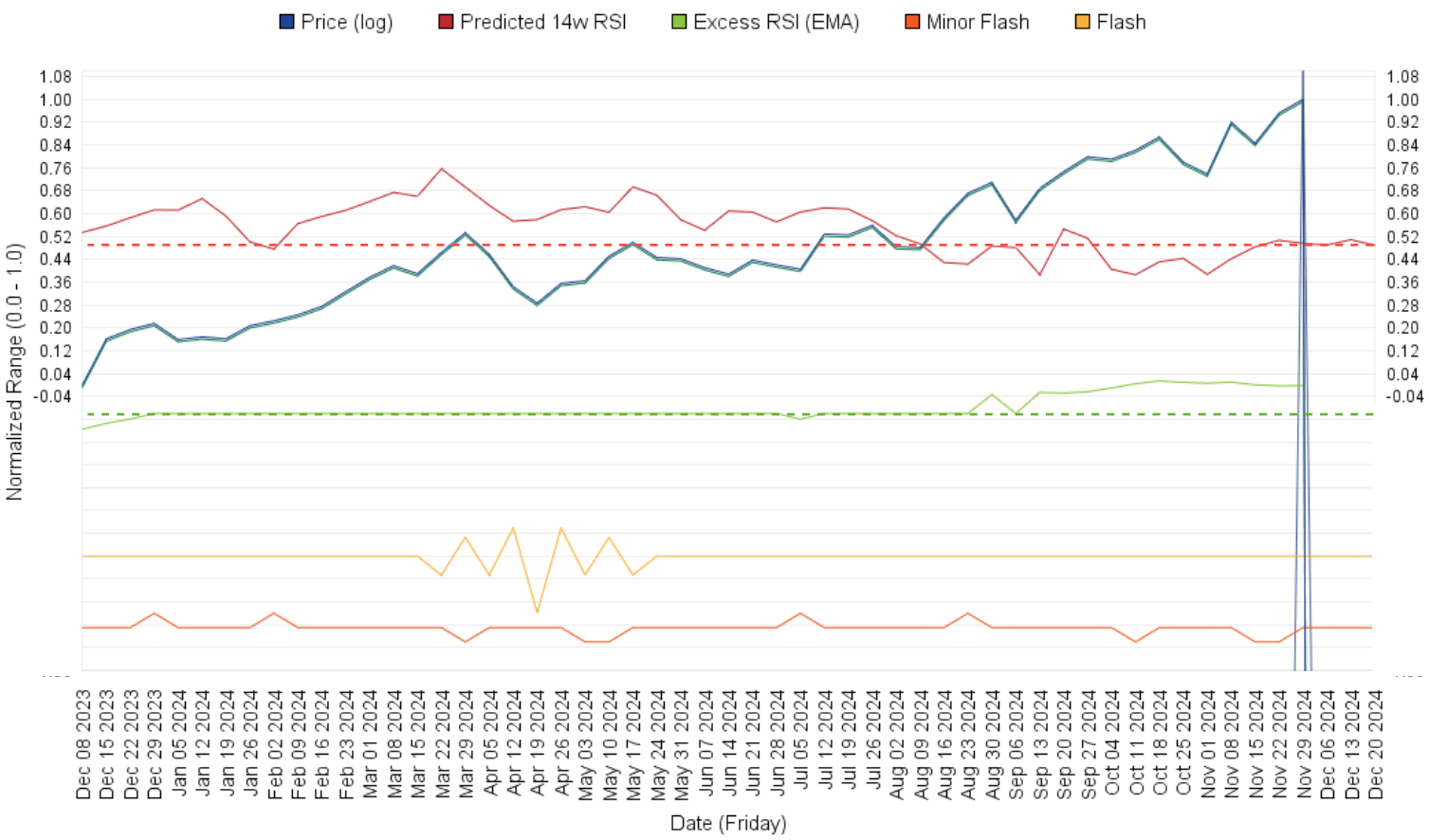
The 14-week RSI is an important component within the Short-Term Driver shown in Figure 1. RSI is a widely used measure of asset price momentum and our RSI forecasts explain most of the weekly volatility of the actual RSI. The upper portion of Figure 2 shows the predicted and actual 14-week RSI for the 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 29 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 affect 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



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 +/-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 29 2024): [No material change from last week] The Excess RSI (EMA) continues to have a positive deviation, suggesting positive investor views about economic, market, and other conditions. The Excess RSI (EMA) tends to decline to a neutral or negative condition in advance of major market declines.

Additional Notes

Links

Please contact us with questions: contact@cpminvesting.com
See additional notes: www.cpminvesting.com/notes
General information: 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

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: