Physics-Based Sentiment Forecasts - US Stocks | Oct 18 2024

S&P 500 Equal Weighted Index

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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.

Comments (data as of Oct 18 2024): Our physics-based sentiment drivers, along with MRI and RSI analysis, continue to indicate a resilient stock market over the next few weeks. As mentioned last week, the lower panel of Figure 1 (following page), the Short-Term Driver will shift quickly to a higher level of optimism by late October. The Long-Term Driver, which indicates continued optimism, provides crucial support to the market, helping to limit widespread investor panic. Looking just beyond the forecast horizon, we expect more shifts in the physics-based drivers. Although some may attribute any related market volatility to the U.S. presidential election, the drivers are entirely independent of such influences.

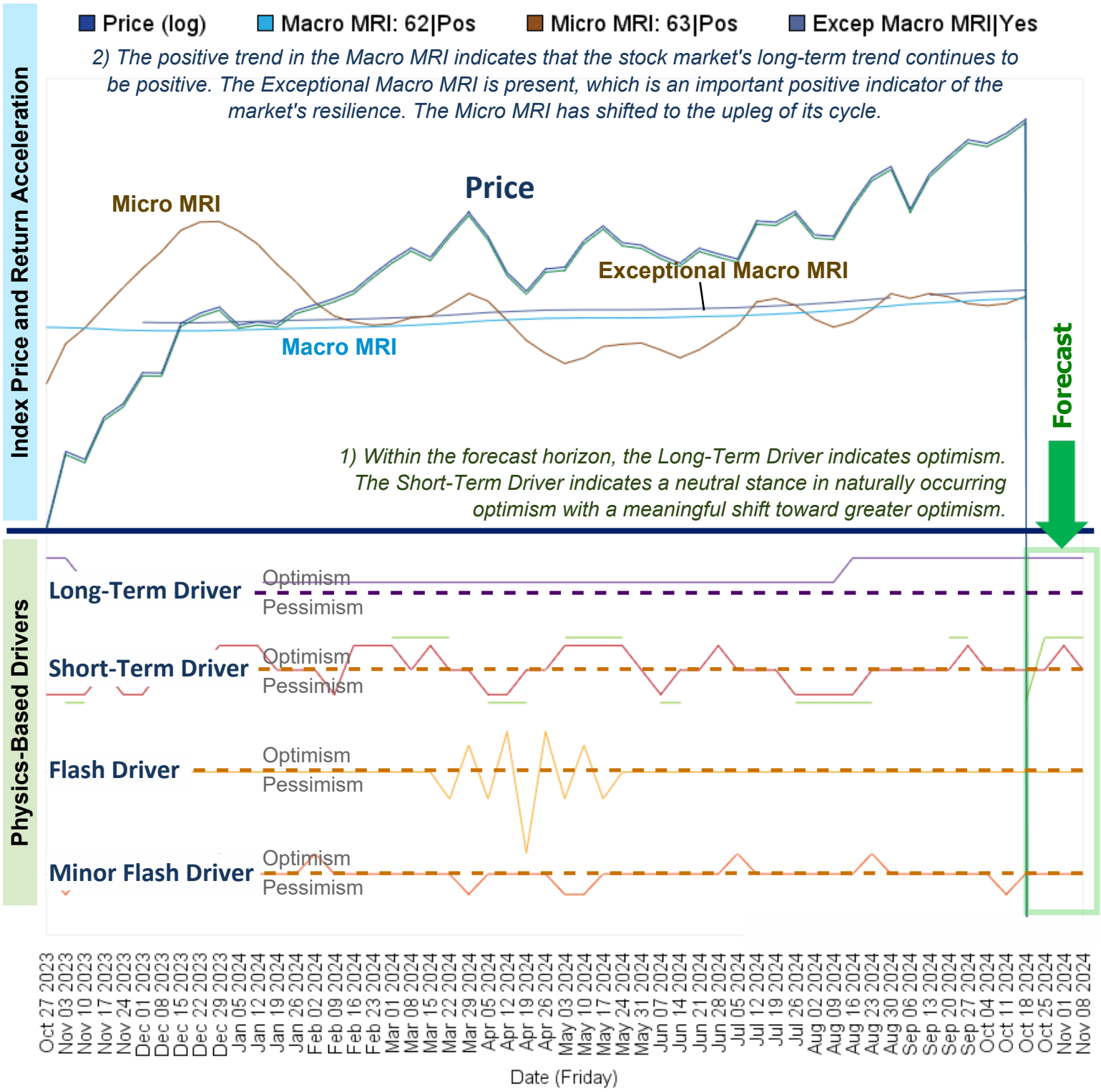
As of October 18, the MRI (upper panel, Figure 1) indicate that the stock market remains resilient. The Macro MRI is trending upward, and the Exceptional Macro is present (denoted by the "Yes" in the legend). In addition, the Micro MRI is in the upleg of its cycle, signaling short-term resilience. This chart shows the S&P Equal Weighted Index. The cap-weighted S&P 500 has a longer history and its Micro MRI is at the 76th percentile of levels since 1931, which is toward the upper end of its range. When the Micro MRI makes a more definitive shift to its downleg, and future price gains of both the S&P 500 cap- and equal-weighted index may be more muted. Pages 3 and 4 feature the RSI analysis, highlighting evidence of investor optimism about economic, market, and other (e.g., presidential election) factors.

Figures on the Following Pages: Notes linked here: https://cpminvesting.com/notes and Endnotes of this report are useful background for this report. Figure 1 on the following page contains two panels. The upper panel displays the index price and our Market Resilience Index® series. The MRI are derived solely from the index price and measure its return acceleration over different time frames, from a few weeks (Micro MRI) to several quarters (Macro MRI). The MRI are shown with its current level (ranging from 0 to 100) and its 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, that 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.

Figures 2 and 3 show an analysis of expected and actual 14-week Relative Strength Index (RSI) levels.

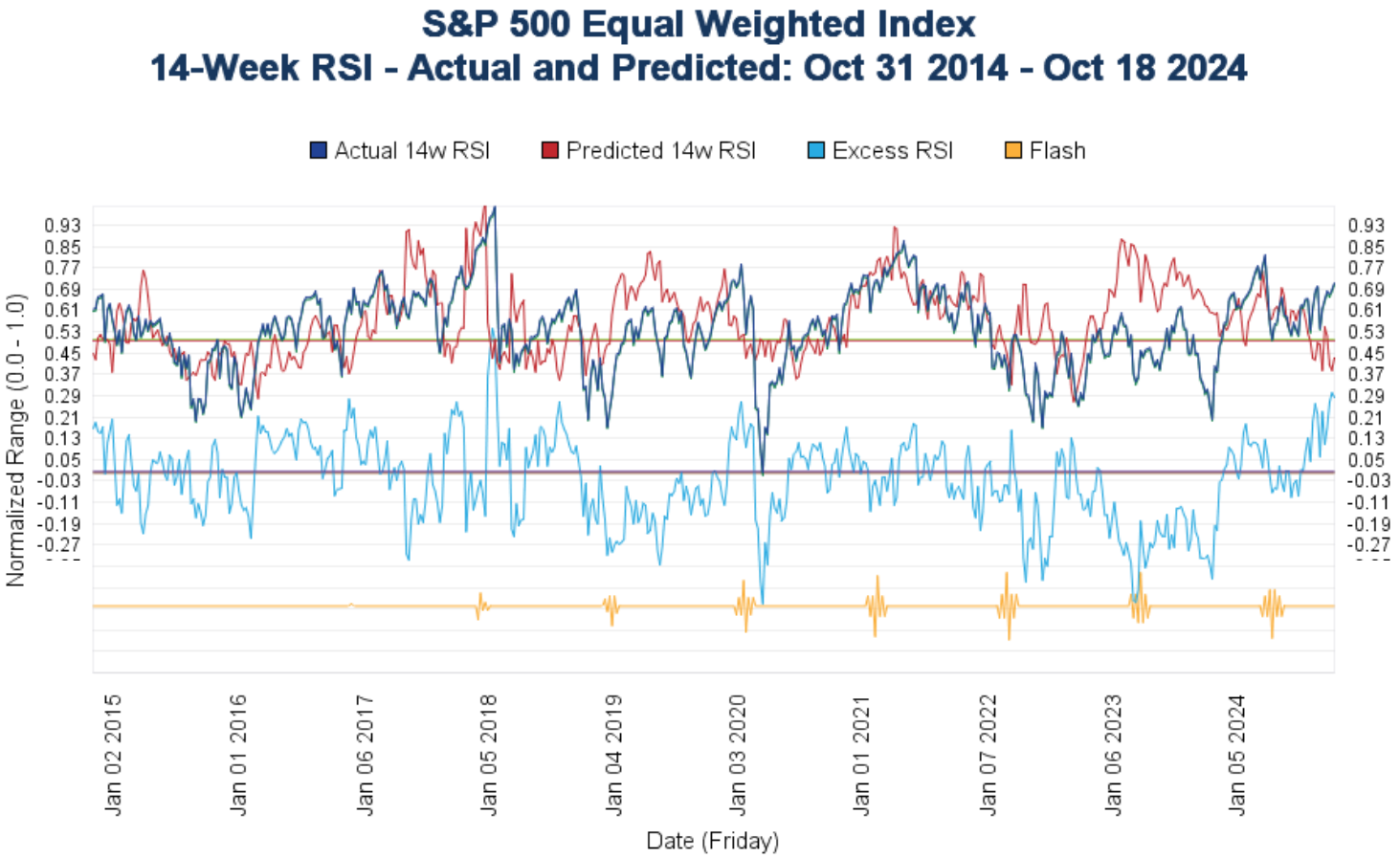
MRI and Sentiment Drivers

Fig. 1



RSI Analysis

Fig. 2



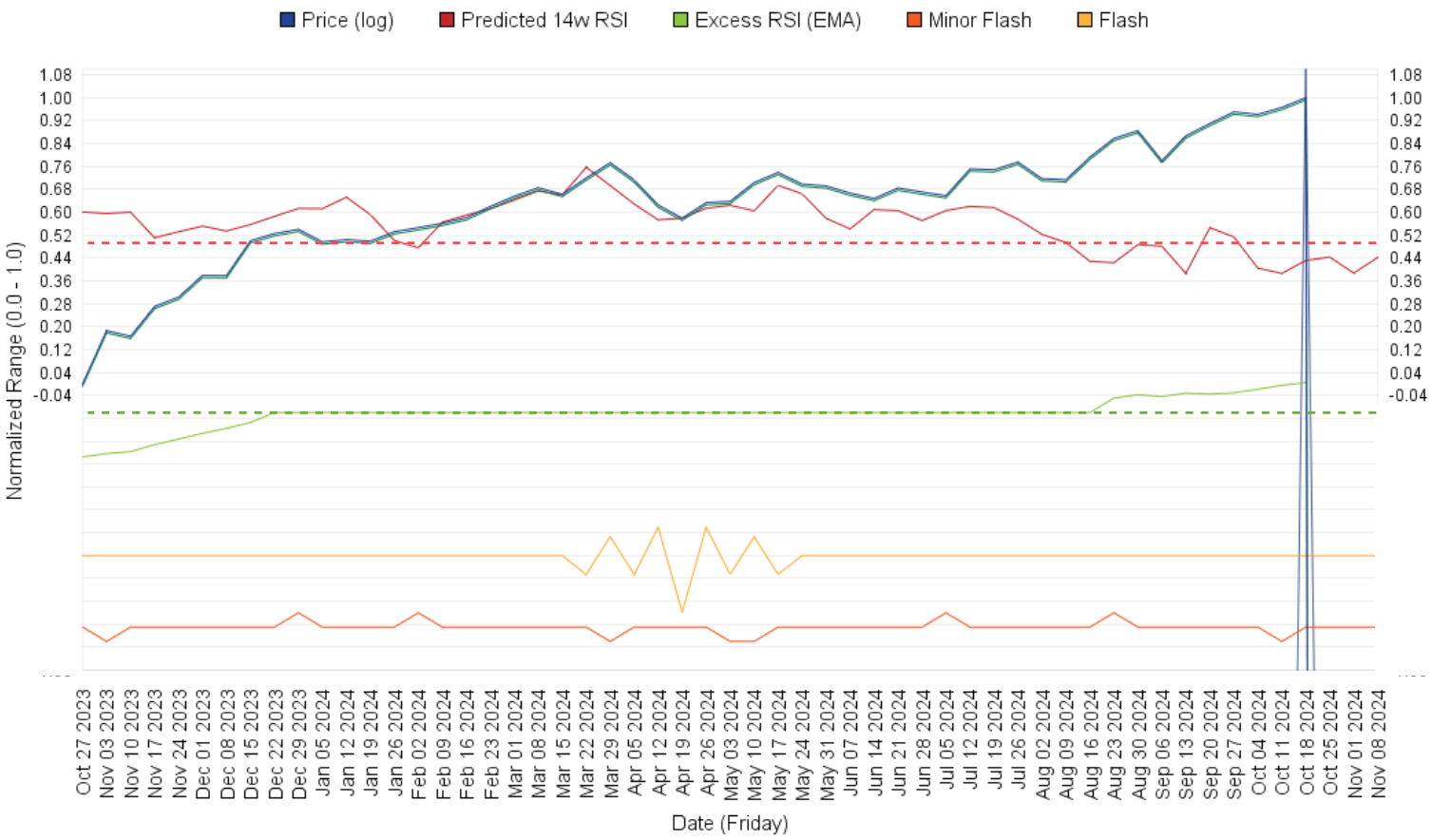
The upper portion of Figure 2 shows the predicted and actual 14-week RSI for the market index (not shown) for the last 10 years. The light blue line in the middle of the figure indicates the difference ("Excess RSI") between these two RSI series. High values of the light blue line indicate that the market 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. See link for description of RSI: https://en.wikipedia.org/wiki/Relative_strength_index

Comments (data as of Oct 18 2024): 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 conditions.

Concerns about negative economic factors, such as recession and high valuation measures, do not appear to significantly impact price momentum, as reflected in the RSI. While investor sentiment surrounding the U.S. 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

Fig. 3



The index 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. This 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 values in excess of a z-score of +/-0.5 are shown 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 Oct 18 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 lower expected price momentum after the week ending Oct 25.

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See additional notes: www.cpminvesting.com/notes
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Endnotes

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 sentiment shifts have a bigger impact than many investors realize, and typically explain over 70% of the 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.

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.

In general, a key early indicator of an impending market correction is when an actual sentiment metric, such as one of our Market Resilience Indexes, converges with a negatively trending predicted metric.

Two types of Physics-Based 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.

See this page (https://cpminvesting.com/notes) for descriptions of each driver.

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

See this page (https://cpminvesting.com/notes) for descriptions of the MRI.

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