

Investigating the Influence of Global Events and FOMC Sentiment on U.S. Markets

OVERVIEW

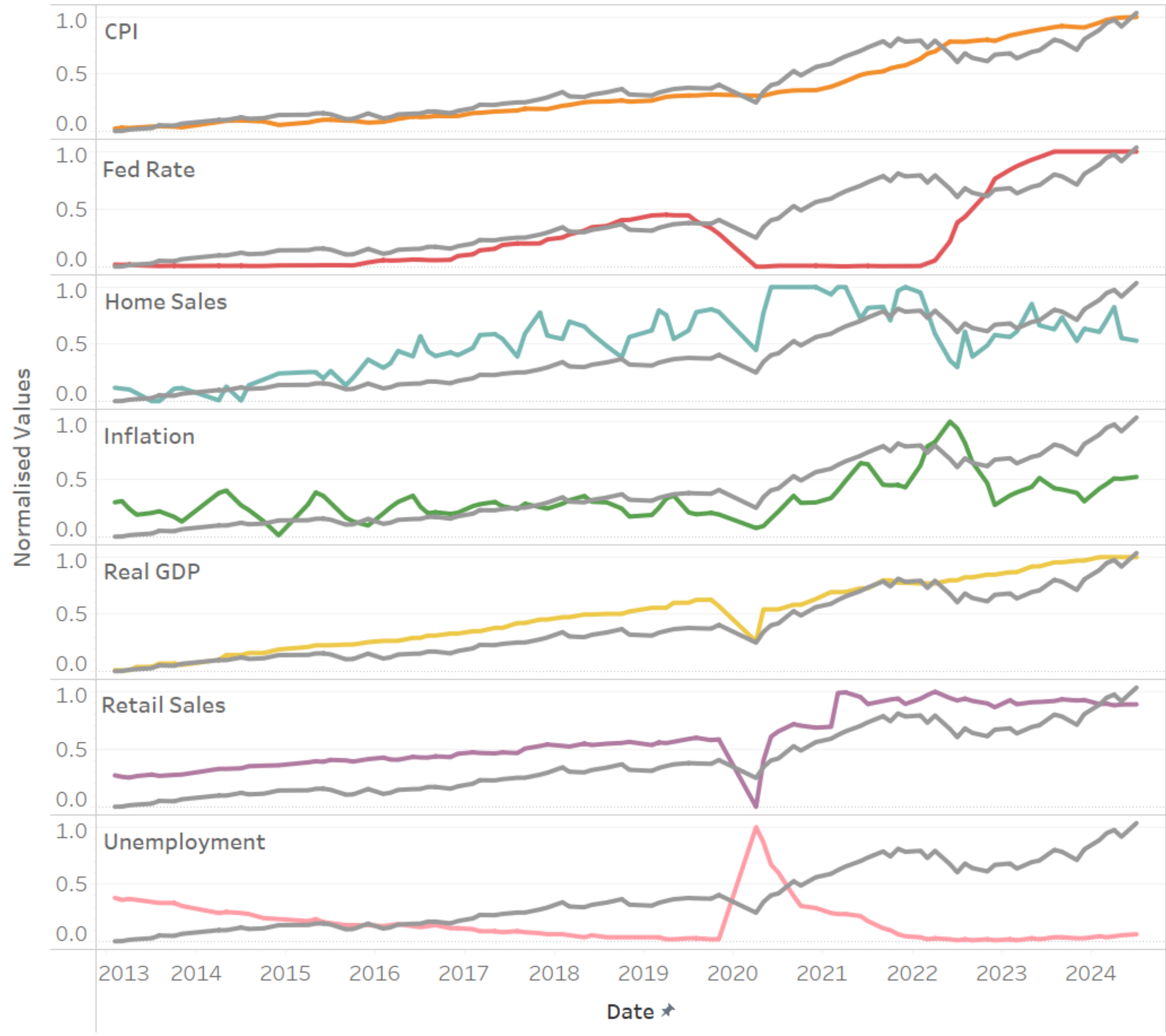
This project presents an interactive dashboard that visualizes how major U.S. market indices (S&P 500, Nasdaq-100, Dow Jones) respond to macroeconomic indicators and global events. By combining financial market data with FOMC sentiment analysis and the GDELT global events dataset—an external, event-driven source capturing worldwide media coverage and geopolitical developments—the dashboard provides a multidimensional perspective on market behavior. This integration allows retail investors to explore how news sentiment and real-world events may influence market movements, supporting more informed investment decisions.

OBJECTIVES

- Analyze the correlation between global events (GDELT) and U.S. financial indices using sentiment analysis.
- Investigate how FOMC announcements influence investor sentiment and stock market volatility.
- Provide an interactive visualization to help retail investors understand market behavior in response to economic events.

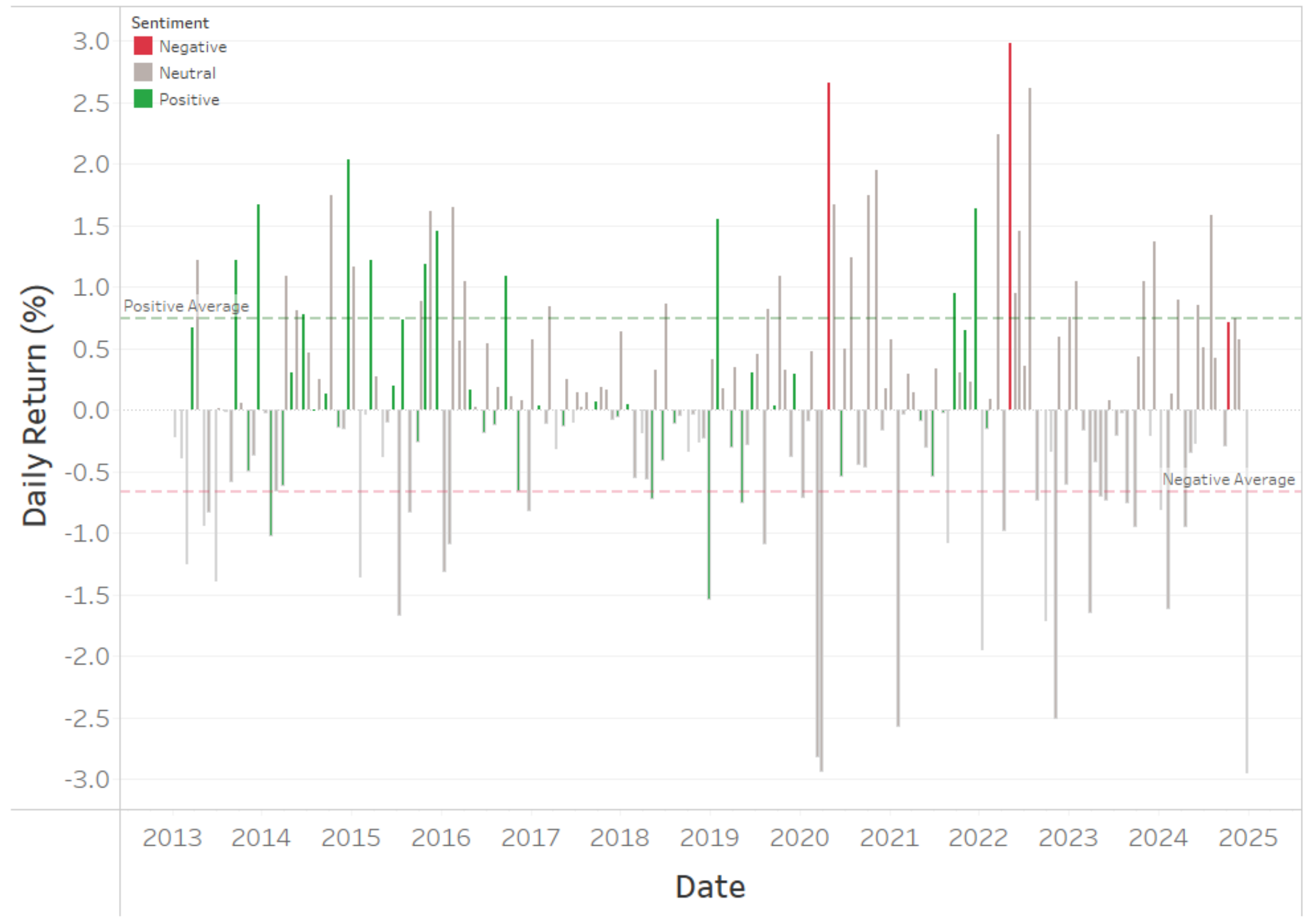
Economic Indicators vs. Major Indices (2013–2024)

Compare the correlation between index price and economic trends over the Selected Period, using **normalised** price and economic indicator values.



How Fed Statements Affect Index Returns

Explore Daily Gains or Losses on Fed Announcement Days

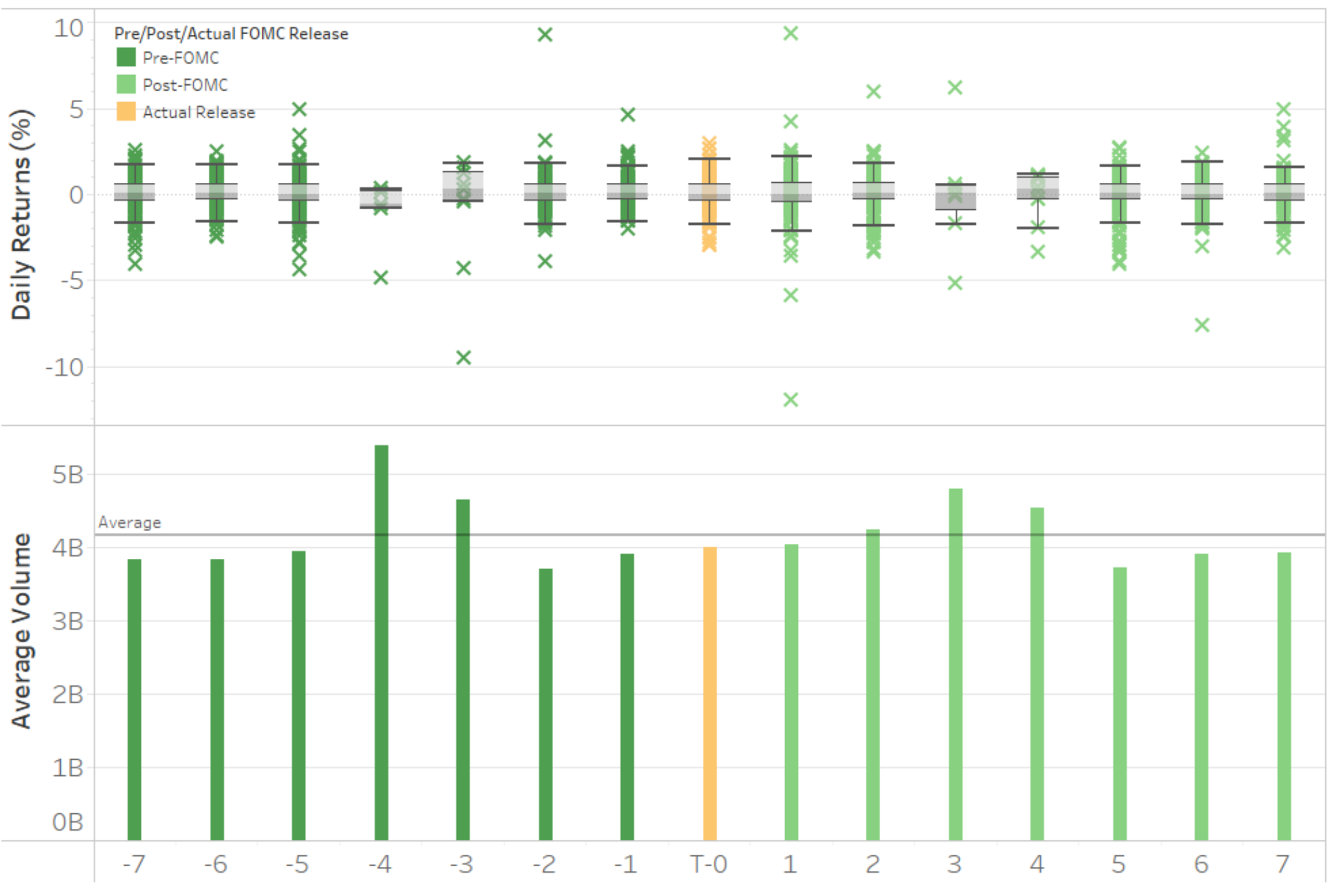


CONCLUSION

Analyzing the interactions between U.S. market performance, macroeconomic indicators, and global events reveals crucial patterns for investors. The interactive dashboard highlights how global events, sourced from GDELT, significantly influence market movements, while FOMC sentiment plays a pivotal role in shaping short-term market reactions. Positive FOMC language tends to coincide with market rallies, while more hawkish tones are often linked to increased volatility. Moreover, geopolitical and economic disruptions clearly affect market dynamics, emphasizing the need for real-time monitoring by investors. By visualizing these relationships, the dashboard offers a powerful tool for navigating the complexities of the financial landscape and making data-driven investment decisions.

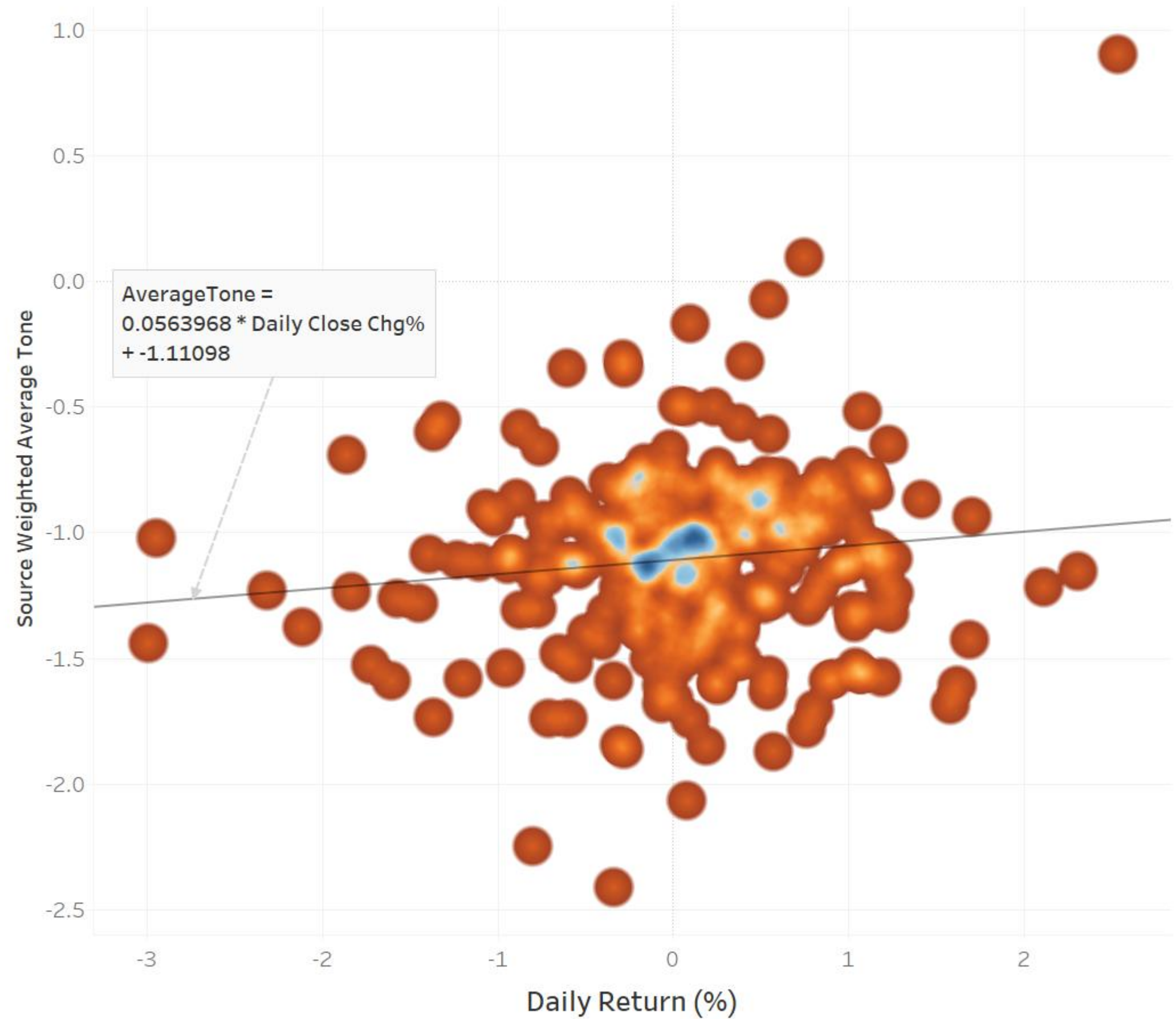
Distribution of SPX Daily Returns By Days Relative to FOMC Release (2013 - 2024)

See How SPX Daily Returns and Volume Change Before and After FOMC Releases



Relationship Between GDELT Source-Weighted Average Tone and S&P 500 Daily Returns

Analyzing Sentiment Impact on Market Performance



Rolling Correlation Heatmap of GDELT Average Tone and S&P 500 Daily Returns

Examining Sentiment and Market Correlation Across Time Windows (2019–2024)

