

Market Sentiment and Trading Performance Analysis

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Abstract

This report analyzes trading performance in relation to market sentiment. Using account-level trade data, we compute rolling profit-and-loss (PnL) metrics, compare sentiment-driven results, and visualize patterns through bar plots, line charts, and heatmaps.

1 Introduction

Market sentiment can significantly influence trading outcomes. This analysis investigates how different sentiment states (*Extreme Fear*, *Fear*, *Neutral*, *Greed*, and *Extreme Greed*) impact average PnL over time.

2 Data Preparation

Raw trade data included fields such as `Account`, `Coin`, `ClosedPnL`, and `classification` (market sentiment). The following steps were applied:

- Date parsing and format standardization
- Grouping trades by `Account` and `classification`
- Calculating mean daily PnL
- Adding rolling 7-day average PnL per account

3 Rolling PnL Analysis

Figure 1 shows the 7-day rolling average PnL by sentiment classification.

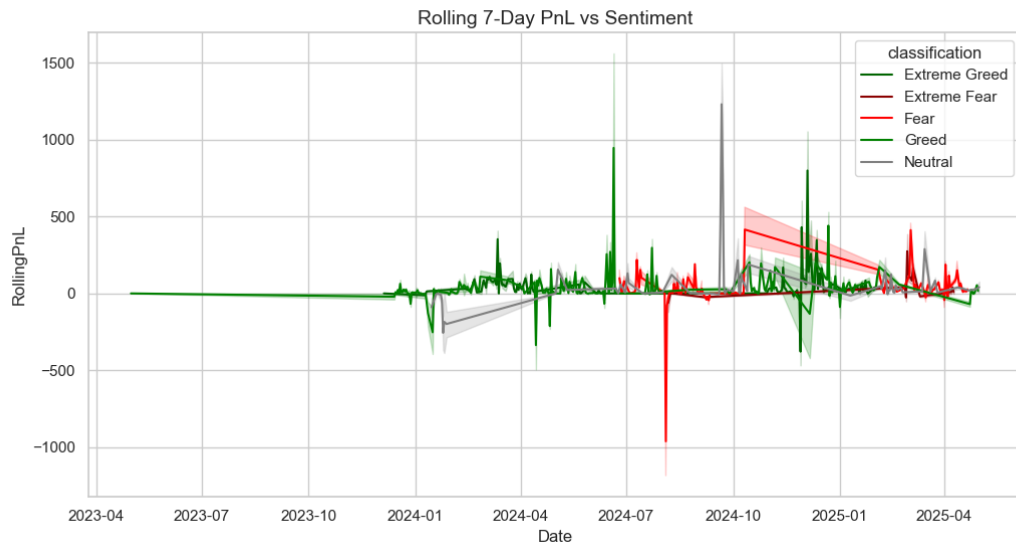


Figure 1: Rolling 7-Day PnL vs Sentiment

4 Mean PnL by Sentiment

Figure 2 presents the average PnL for each sentiment category.

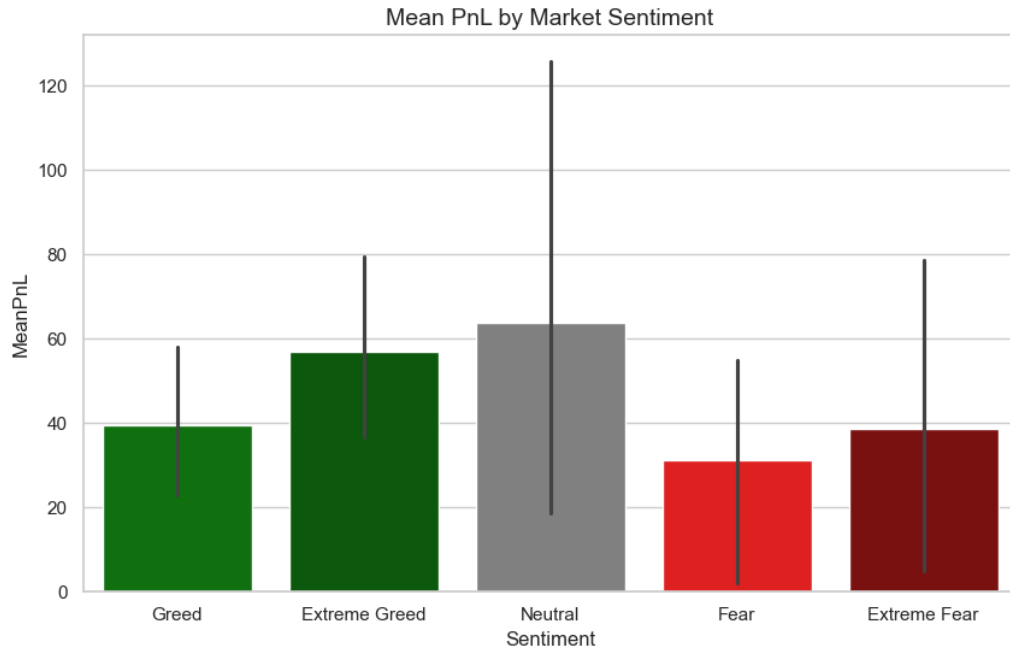


Figure 2: Mean PnL by Market Sentiment

5 Sentiment Heatmap

We also analyzed daily sentiment patterns using a heatmap (Figure 3).



Figure 3: PnL Heatmap by Date and Sentiment

6 Conclusion

The analysis highlights the influence of sentiment on trading outcomes. For some accounts, contrarian strategies (trading against the prevailing sentiment) showed improved performance. Further research could involve incorporating volatility and volume data.