Task 3 — Correlation between News Sentiment and Stock Returns

News file: data\raw_analyst_ratings.csv
Stock file: stock_data\AAPL.csv
Days merged: 2226

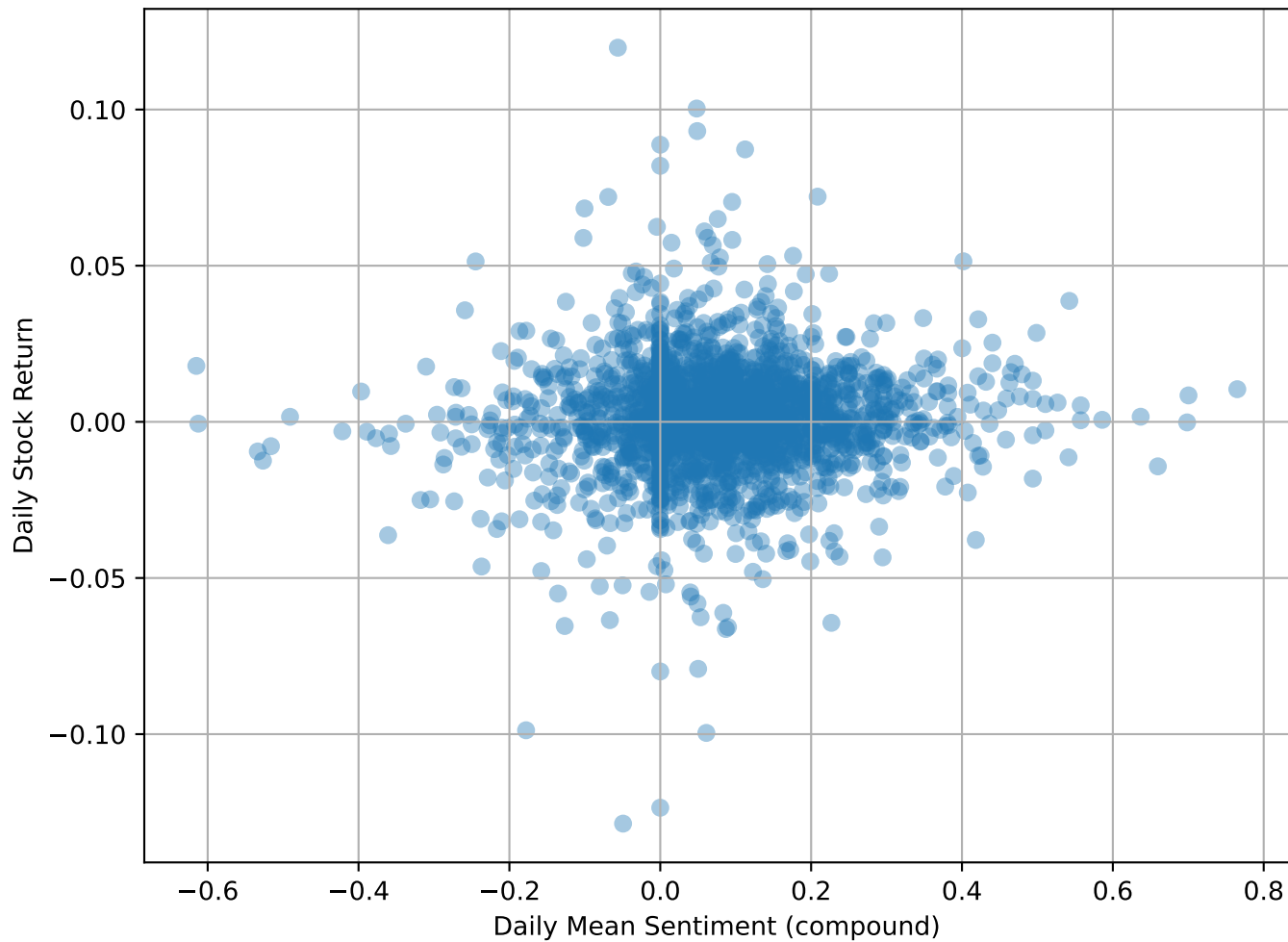Pearson correlation (sentiment_mean vs stock_return): 0.045257
Spearman correlation: 0.028964 (p-value: 0.17192)
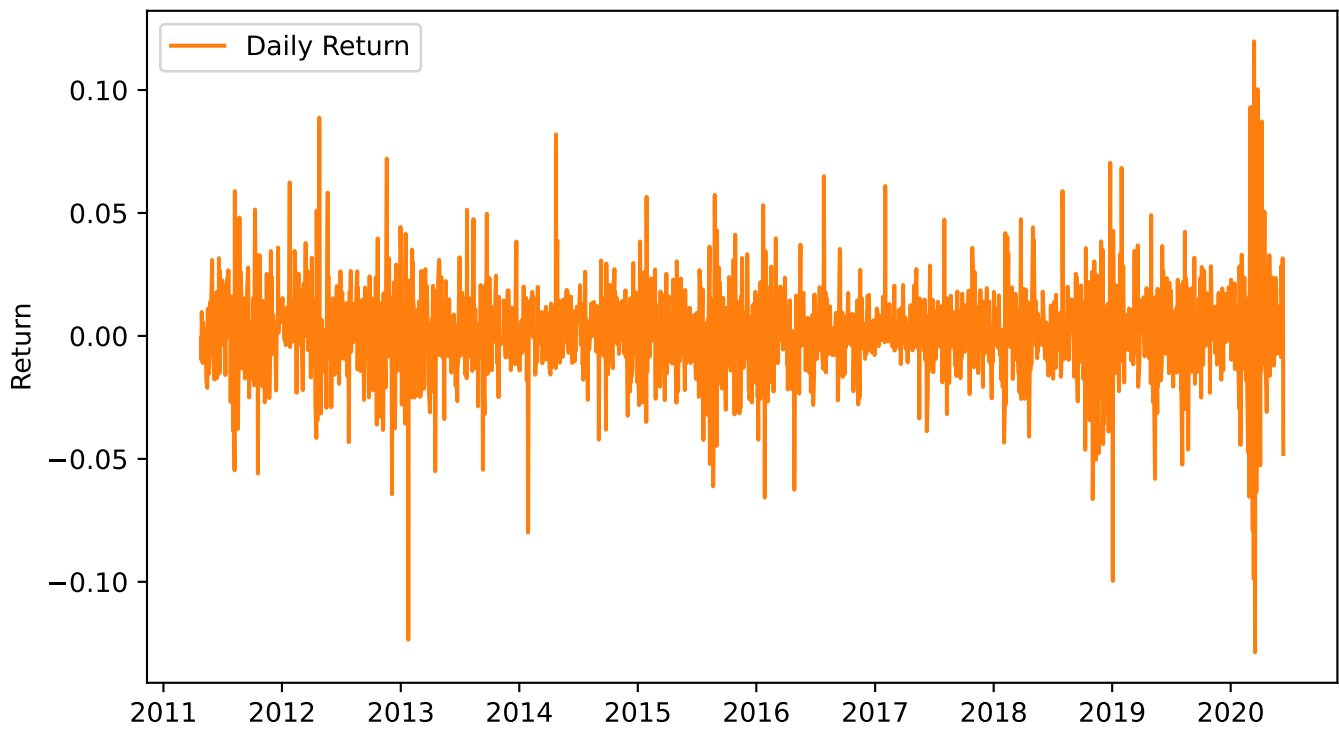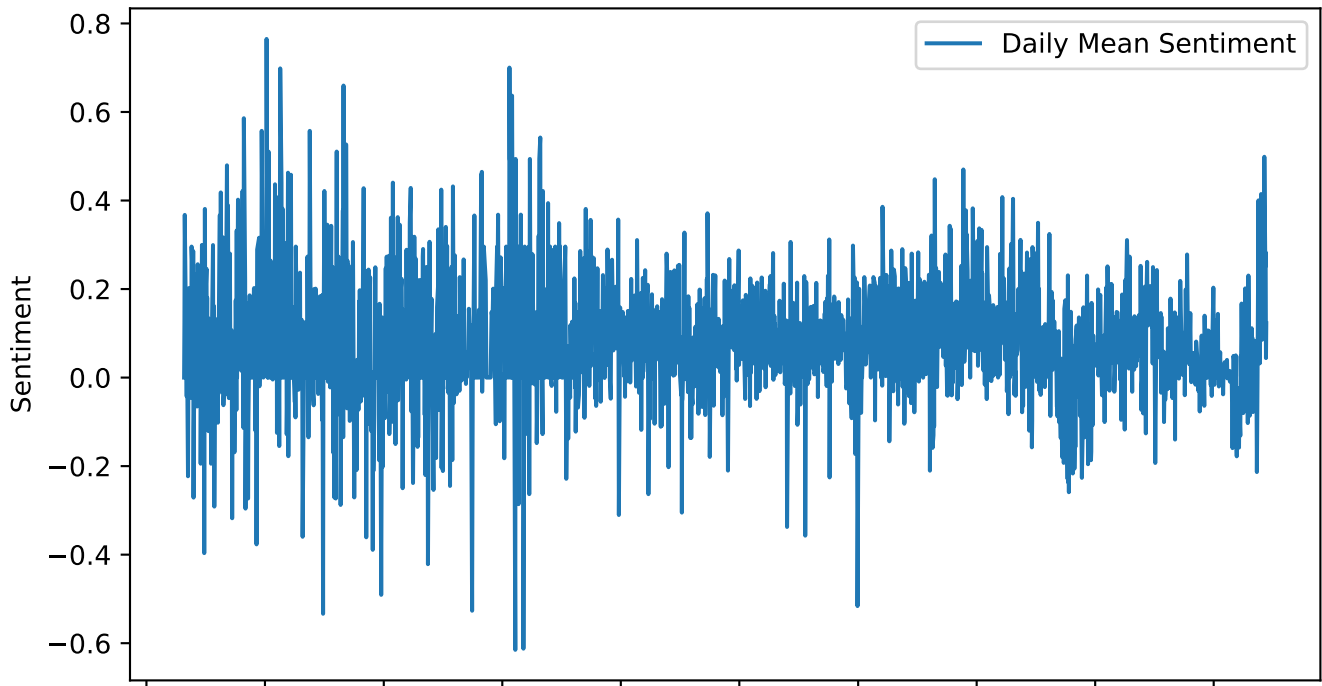Lagged Pearson (sentiment -> next day return): -0.007221

Notes:
- Sentiment computed with NLTK VADER (compound score).
- Daily sentiment aggregated by mean of per-article compound scores.
- Stock returns are daily percent change of Close price.

Sentiment vs Daily Return

Time Series: Sentiment and Returns

Rolling correlation (90 days)