

Visualizations from the project: Analysis of Twitter Data to Predict Stock Market Swings

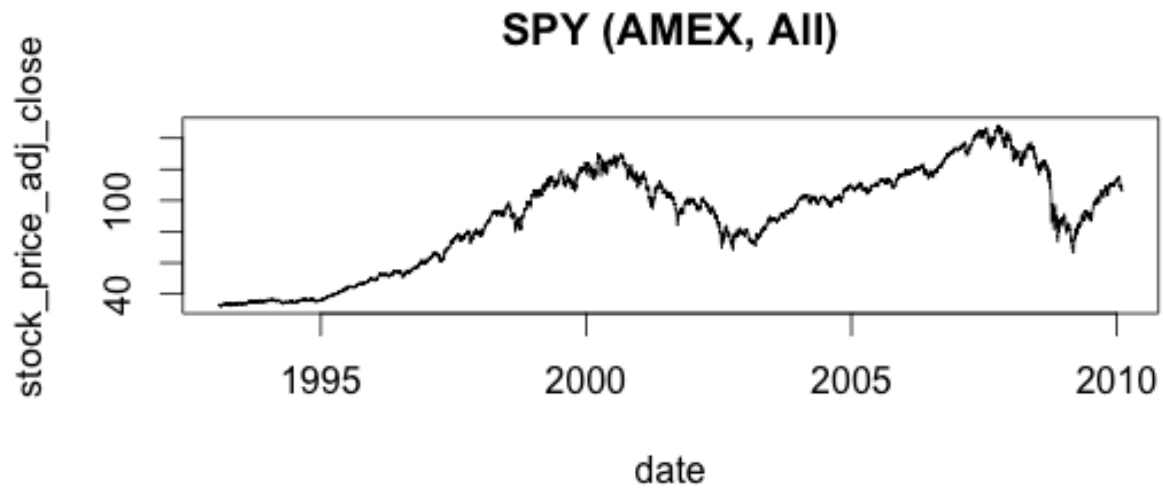
Team Members: AK, Brennen Smith, Padma Vaithyam, Wenxuan Zheng

[Contents](#)

1. Graphs.....	2
2. Heat Maps.....	31

Graphs

Stock Market Swing for SPY (All Dates)

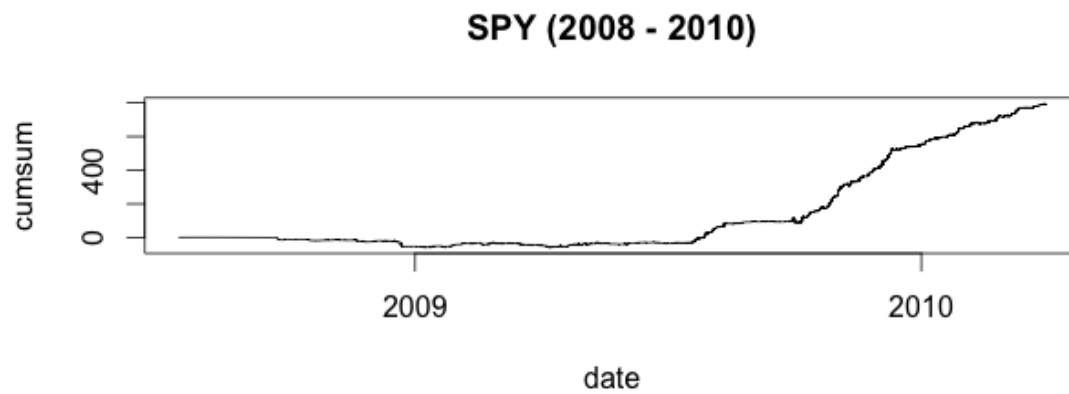


2-year Analysis (2008 - 2010, for example)

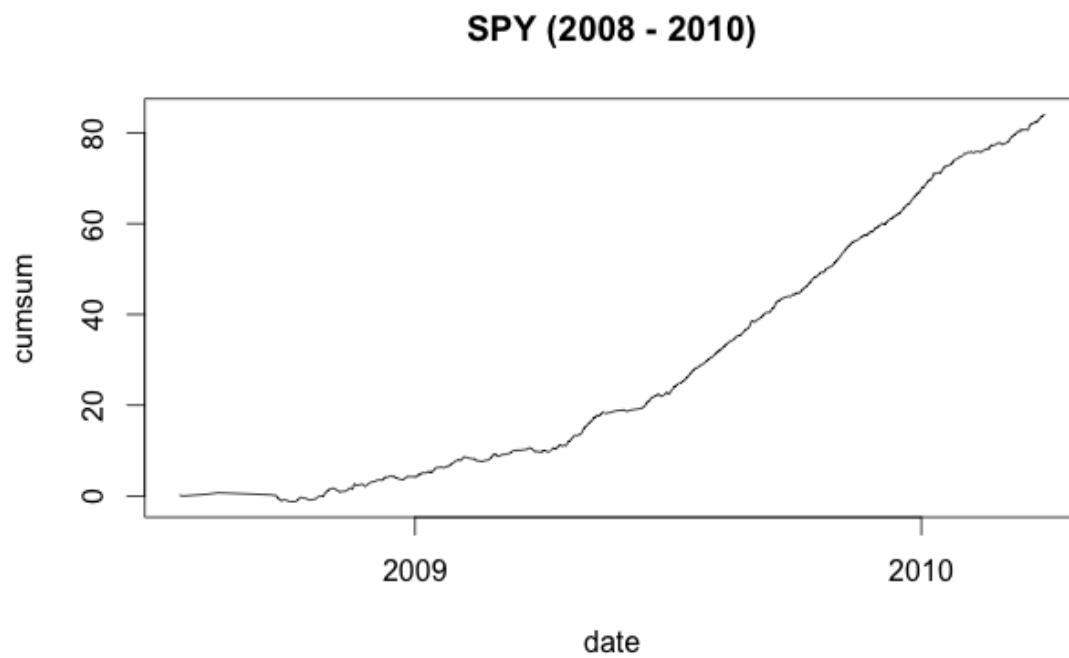
Stock Market Swing for SPY (2008 to 2010)



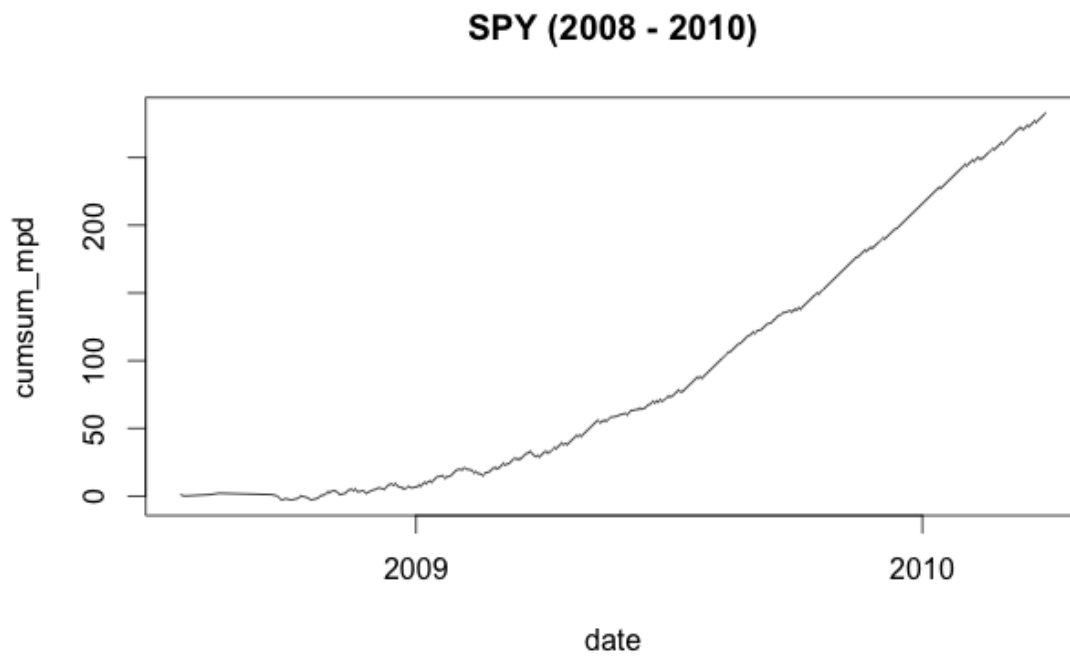
Sentiment Analysis for SPY (All Dates - from 2008 to 2010)



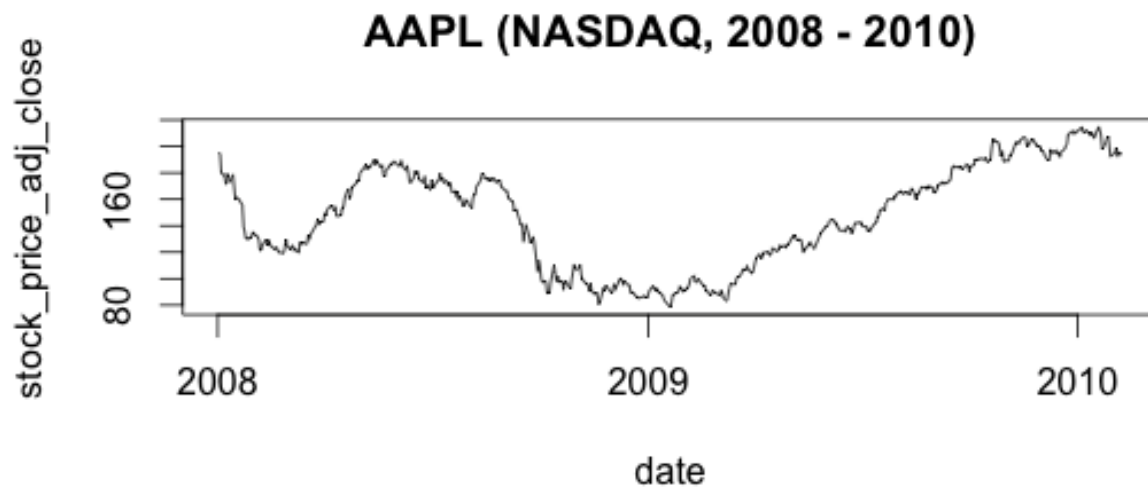
TF-IDF Analysis for SPY (2008 to 2010)



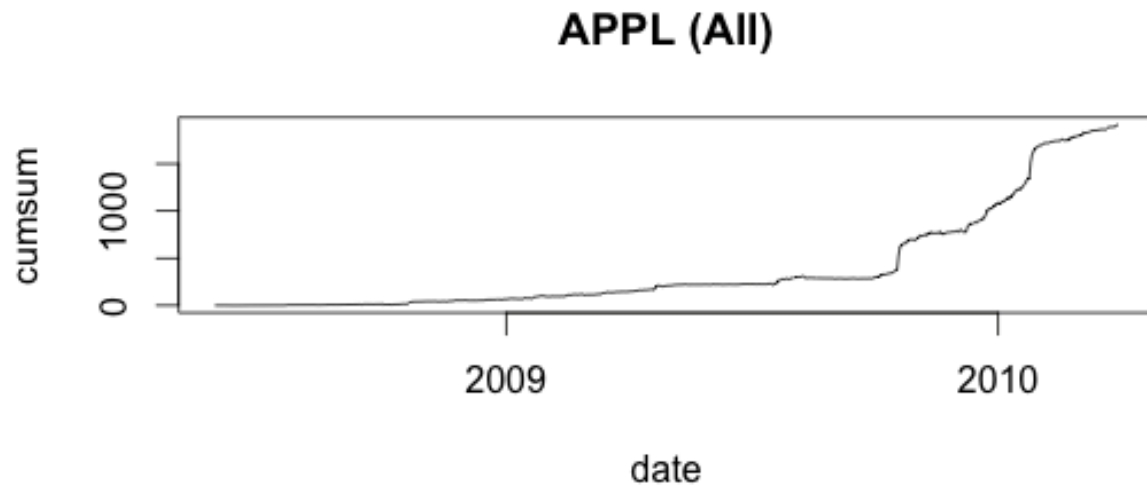
Boolean Analysis for SPY (2008 to 2010)



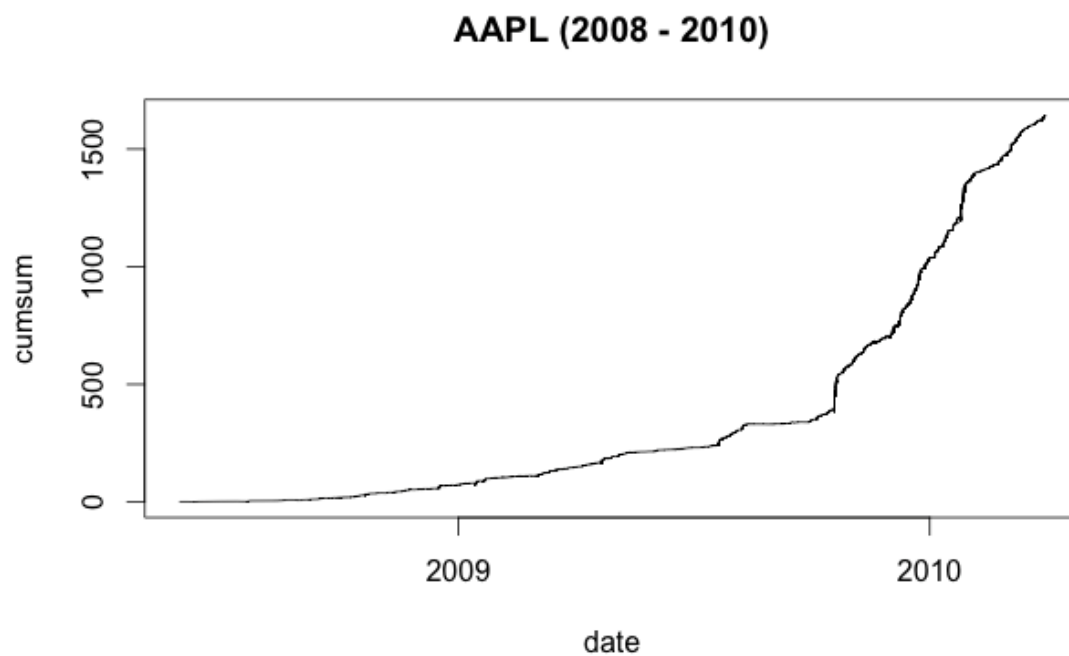
Stock Market Swing for Apple (2008 to 2010)



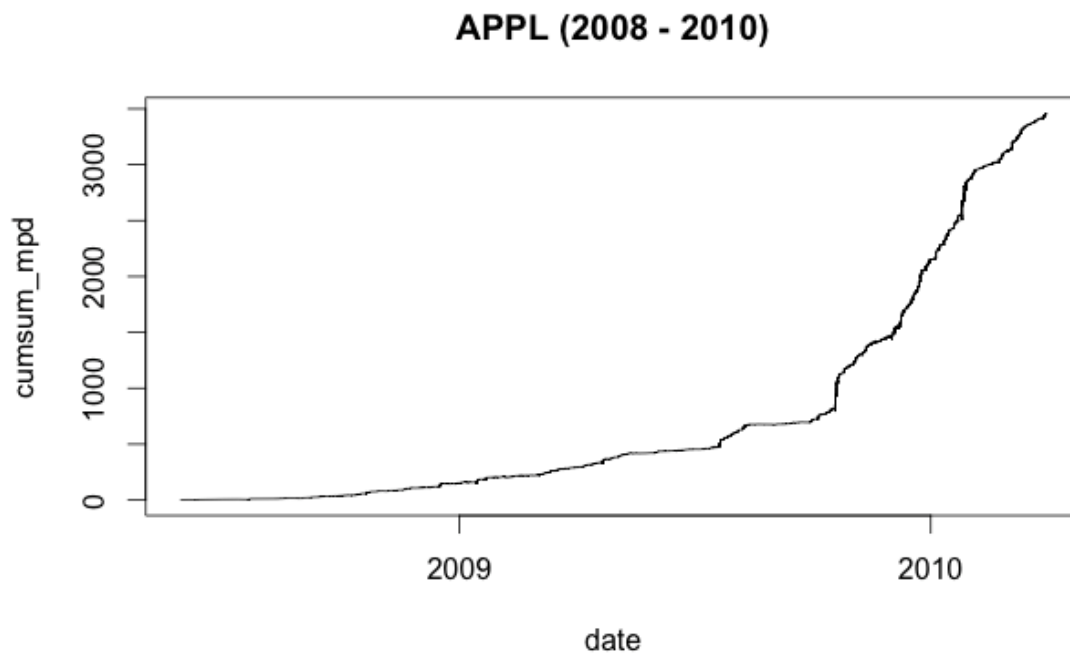
Sentiment Analysis for Apple (All Dates - from 2008 to 2010)



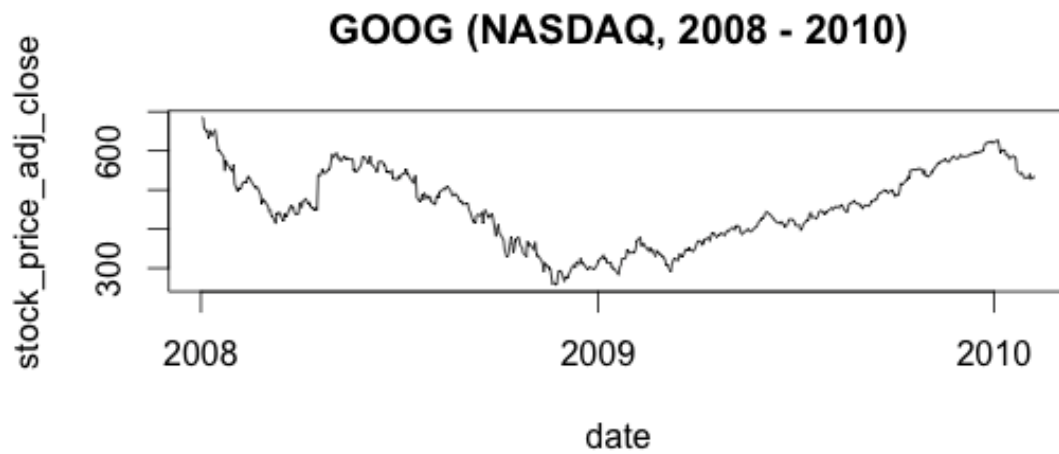
TF-IDF Analysis for Apple (All Dates - from 2008 to 2010)



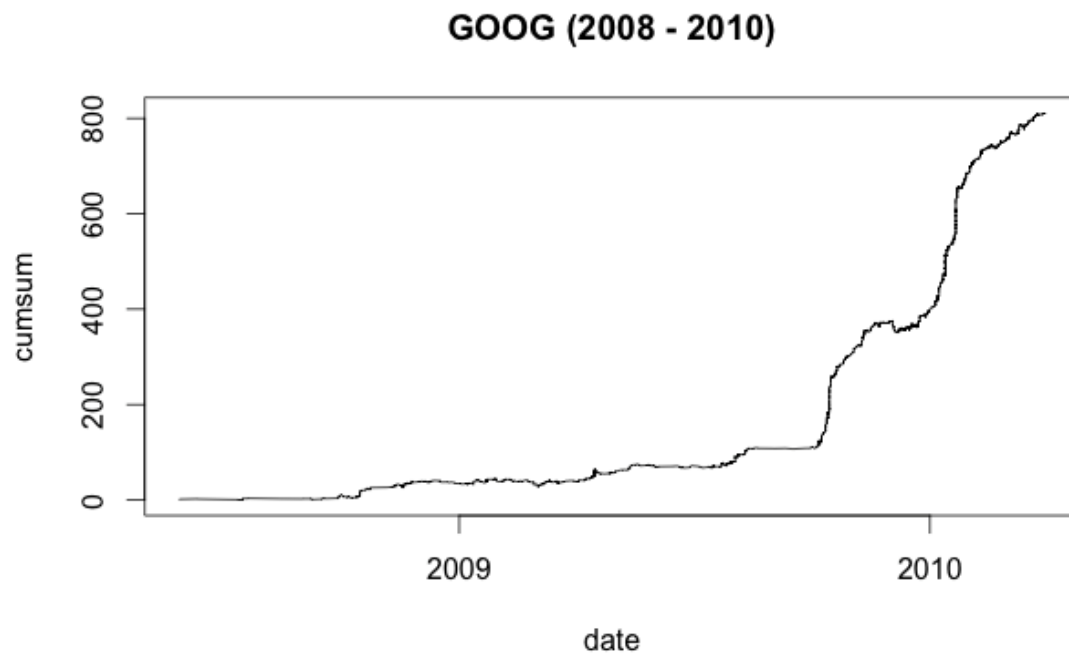
Boolean Analysis for Apple (All Dates - from 2008 to 2010)



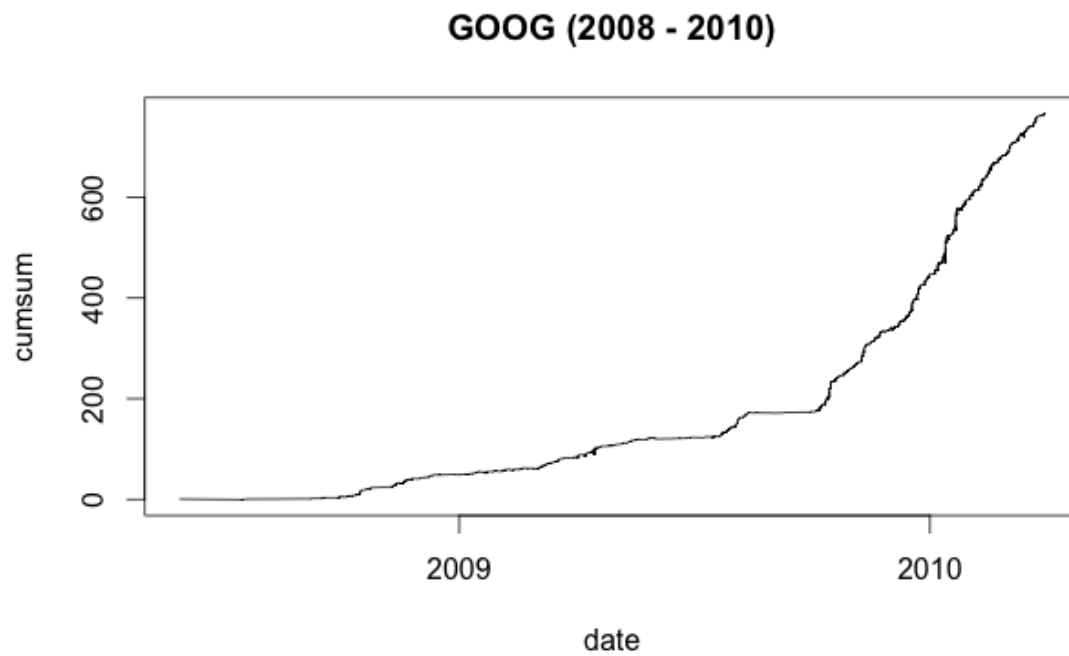
Stock Market Swing for Google (2008 to 2010)



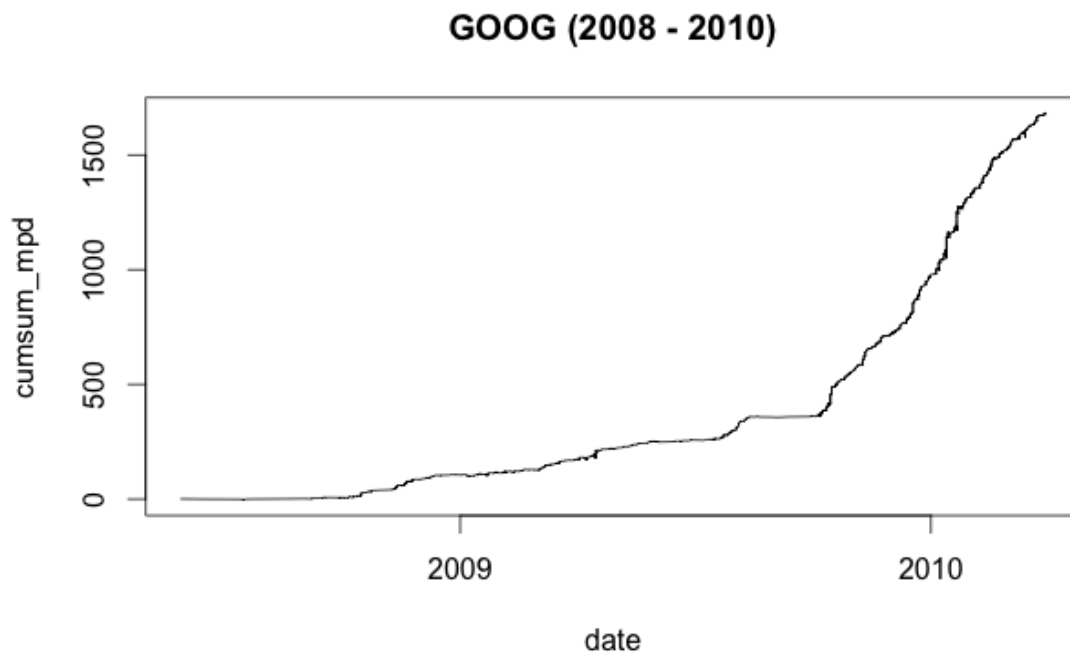
Sentiment Analysis for Google (All Dates - from 2008 to 2010)



TF-IDF Analysis for Google (All Dates - from 2008 to 2010)



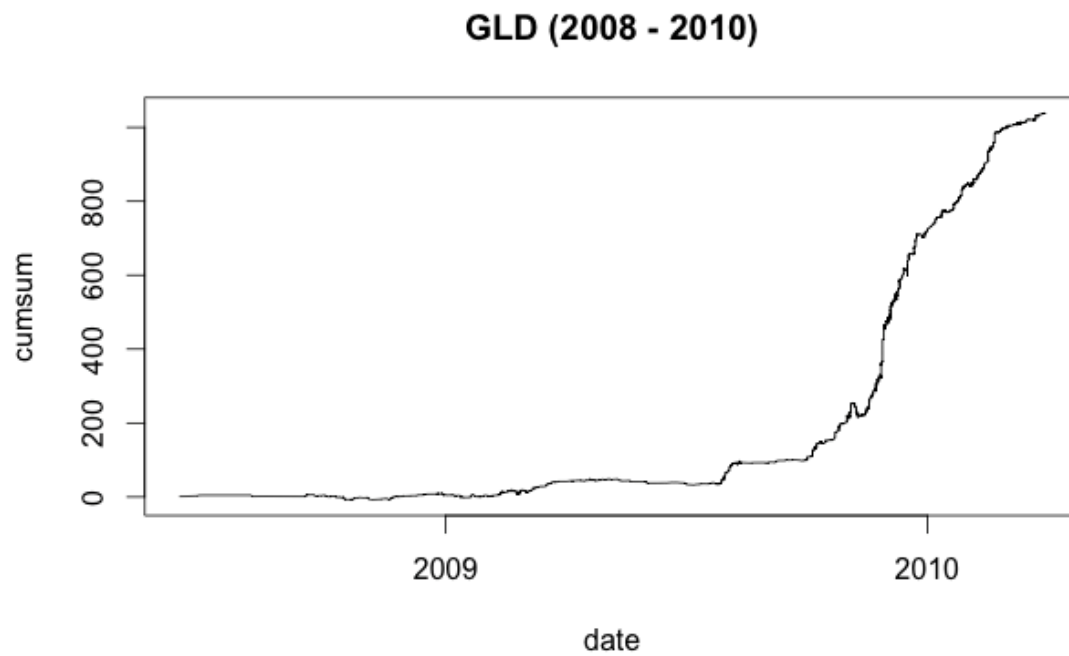
Boolean Analysis for Google (All Dates - from 2008 to 2010)



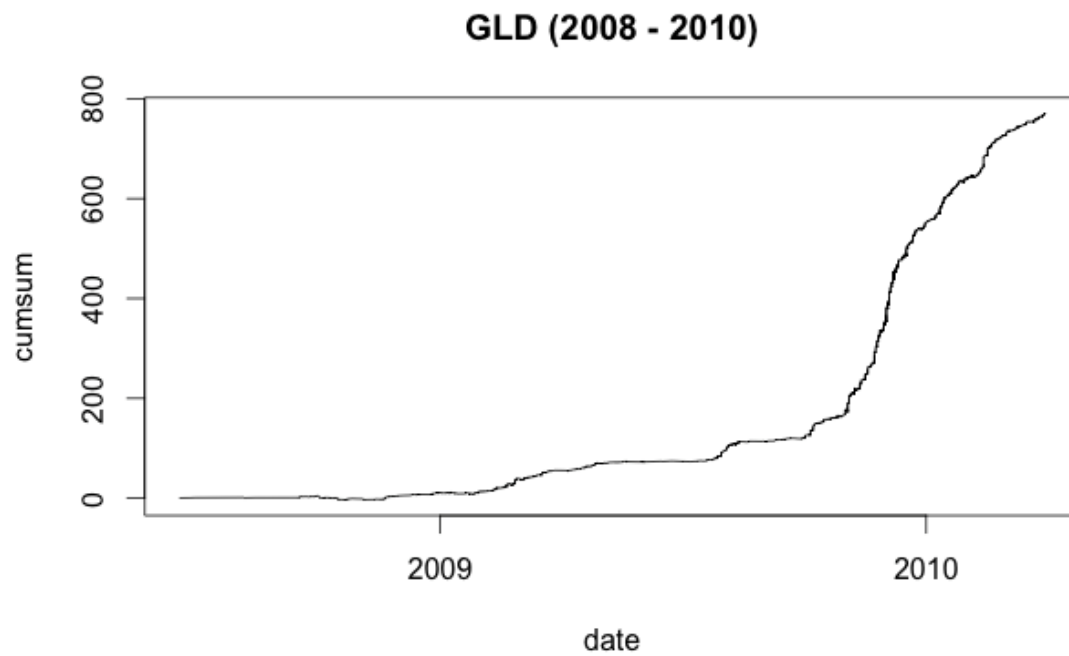
Stock Market Swing for GLD (2008 to 2010)



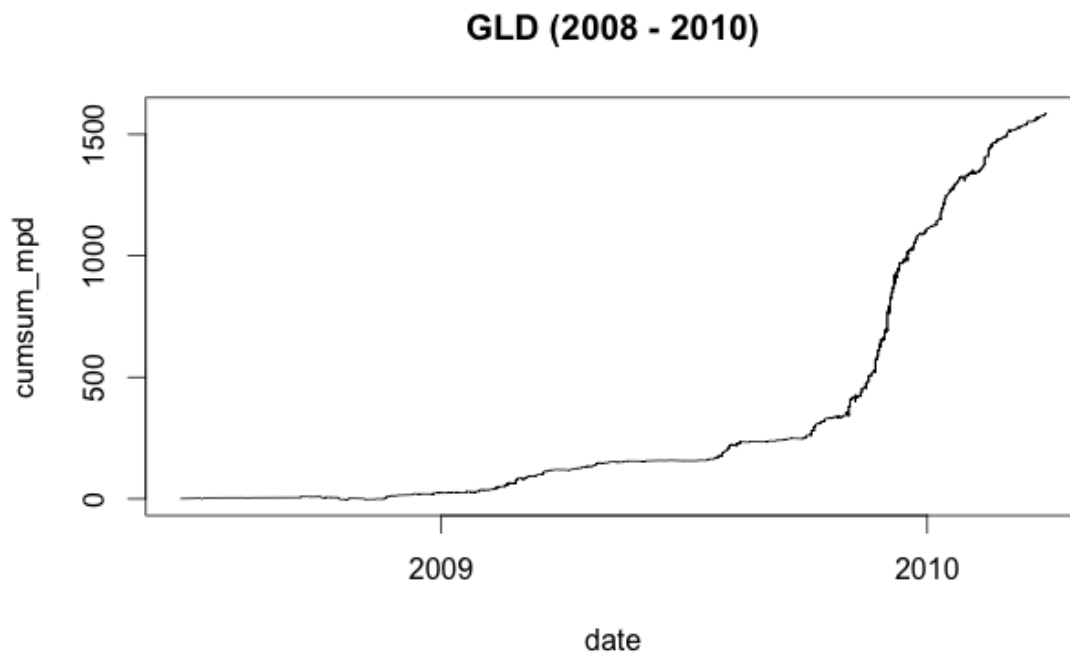
Sentiment Analysis for GLD (All Dates - from 2008 to 2010)



TF-IDF Analysis for GLD (All Dates - from 2008 to 2010)



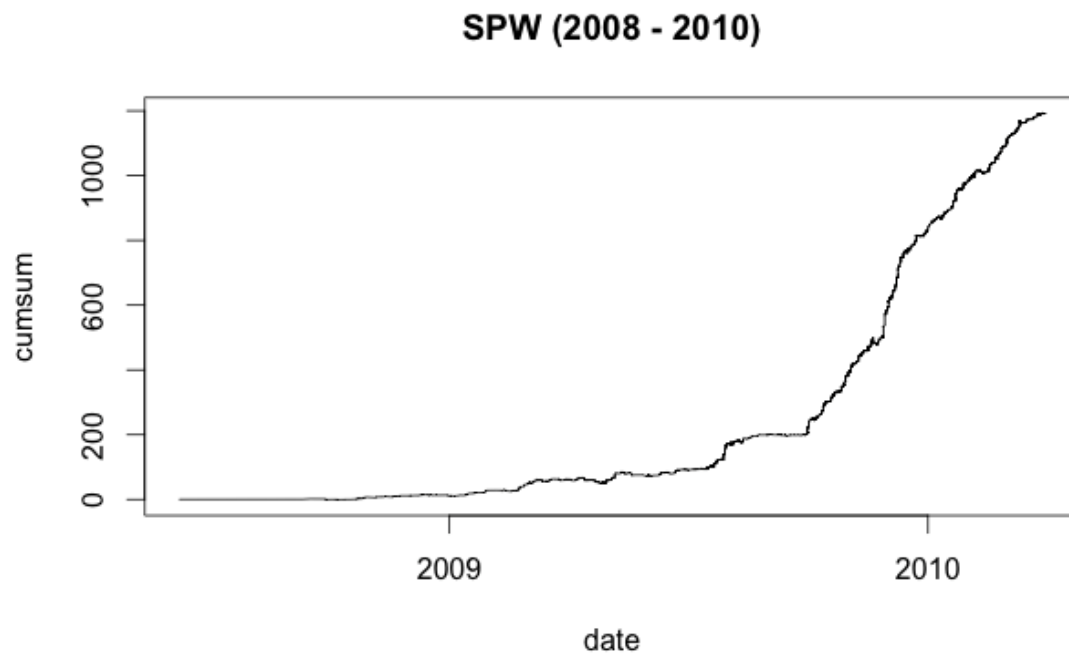
Boolean Analysis for GLD (All Dates - from 2008 to 2010)



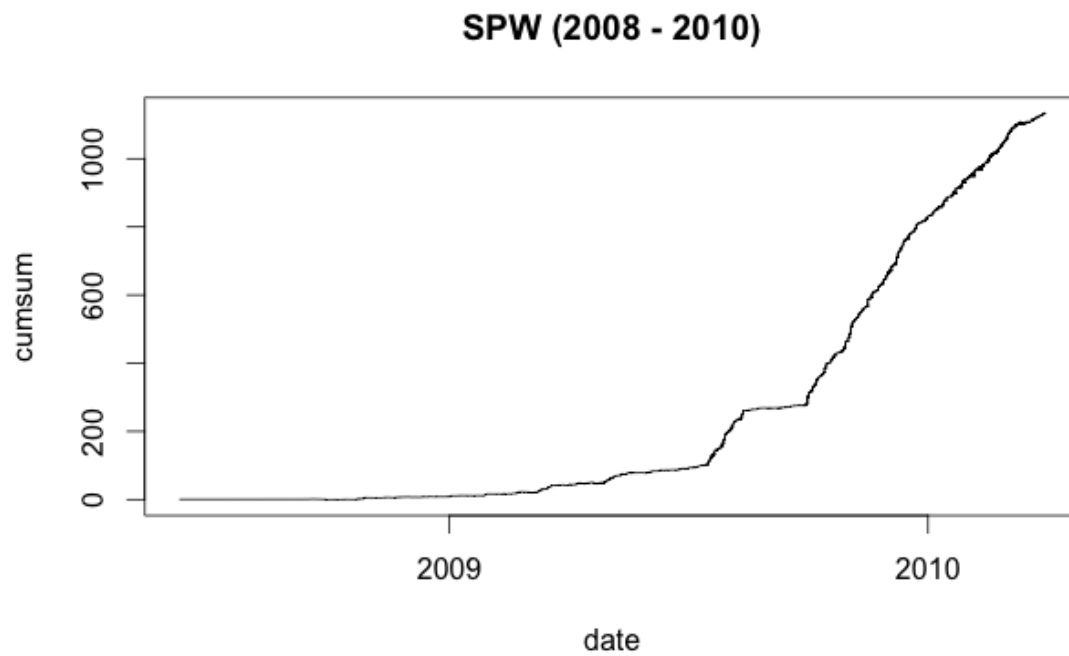
Stock Market Swing for SPW (2008 to 2010)



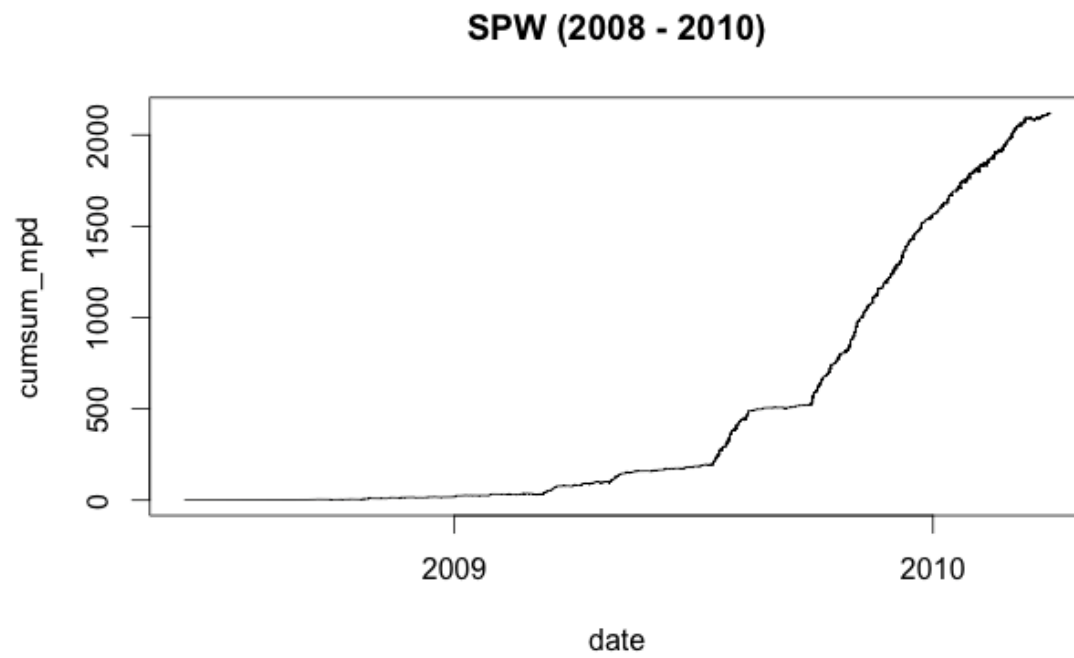
Sentiment Analysis for SPW (All Dates - from 2008 to 2010)



TF-IDF Analysis for SPW (All Dates - from 2008 to 2010)



Boolean Analysis for SPW (All Dates - from 2008 to 2010)

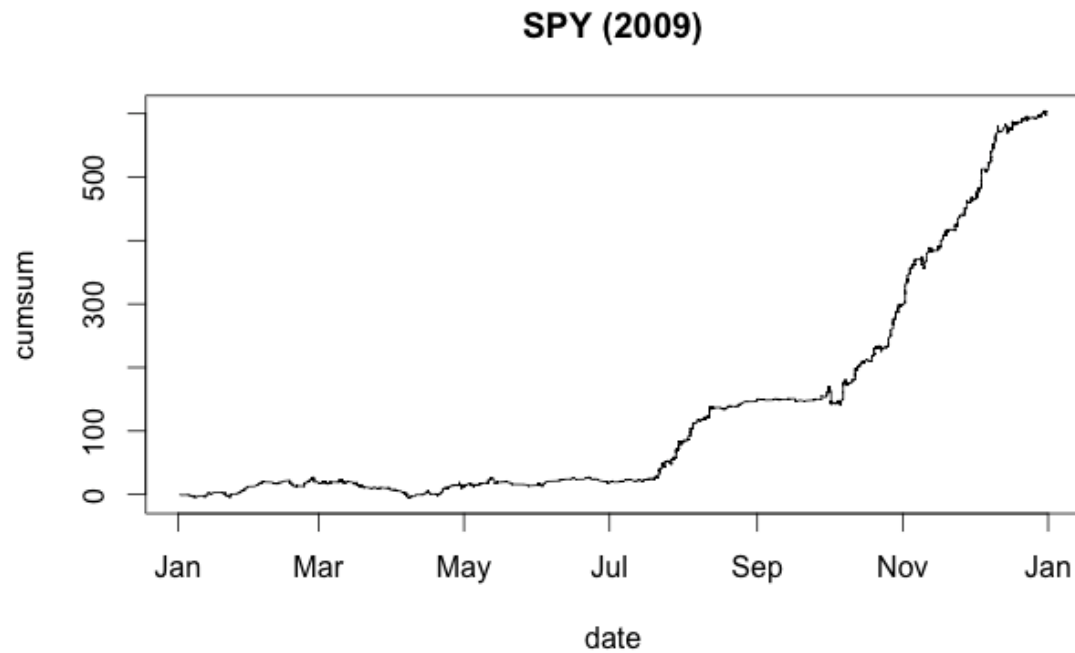


1-year Analysis (SPY, 2009, for example)

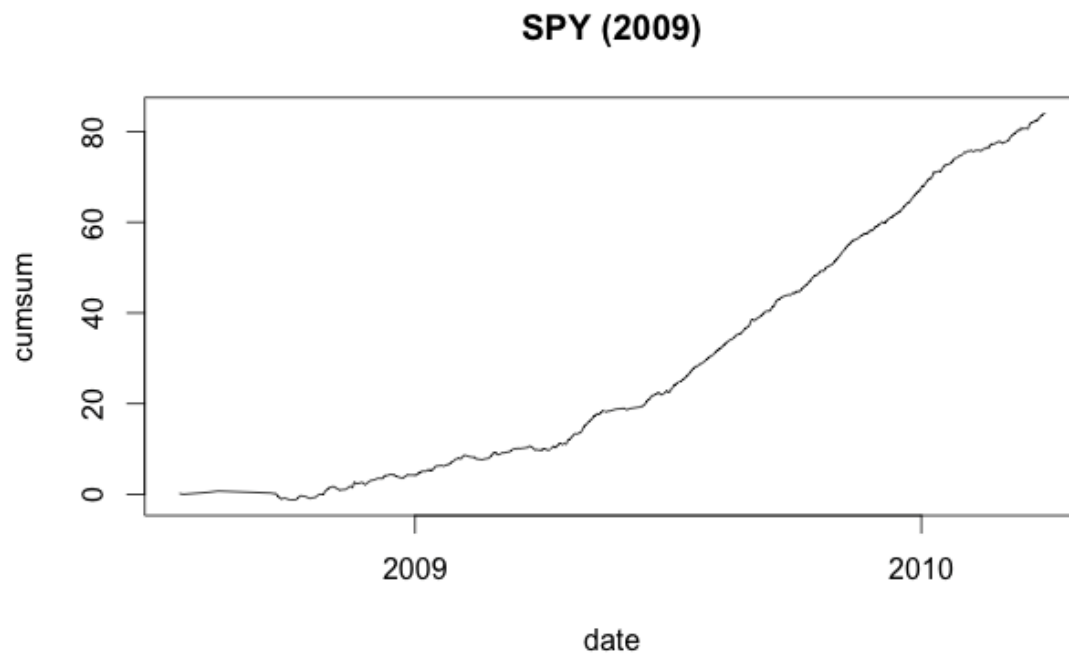
Stock Market Swing for SPY (in 2009)



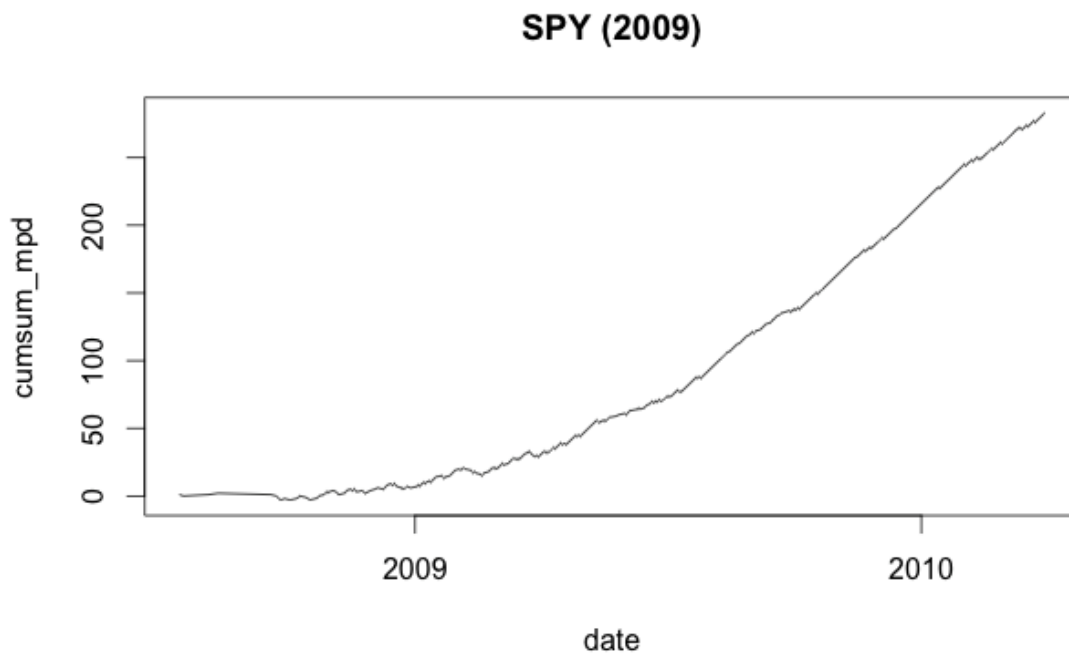
Sentiment Analysis for SPW (in 2009)



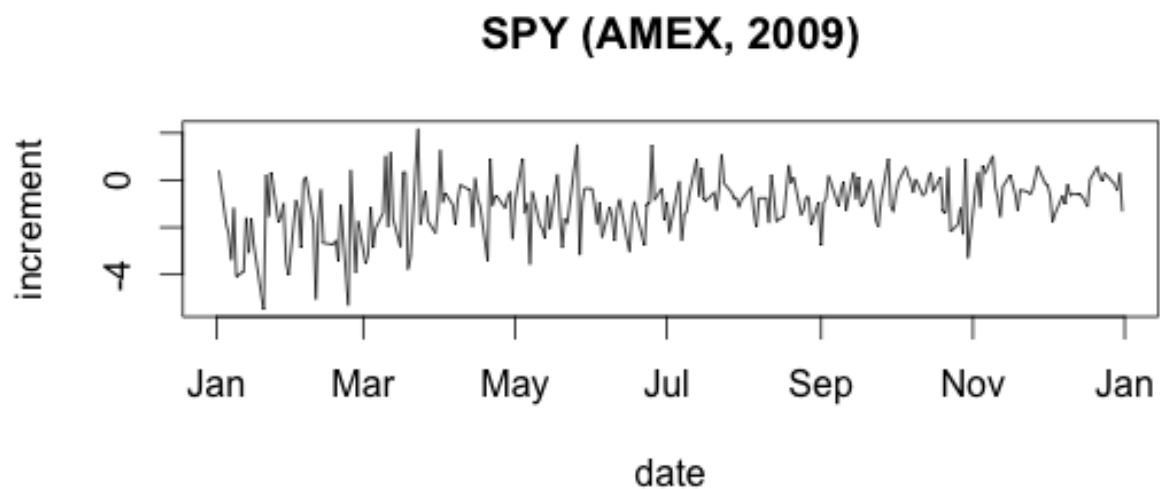
TF-IDF Analysis for SPW (in 2009)



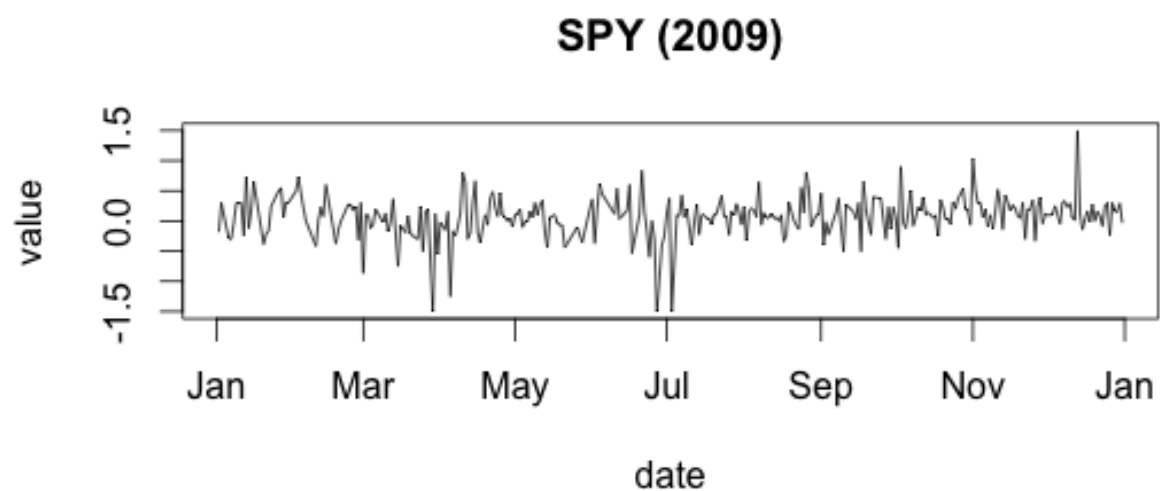
Boolean Analysis for SPW (in 2009)



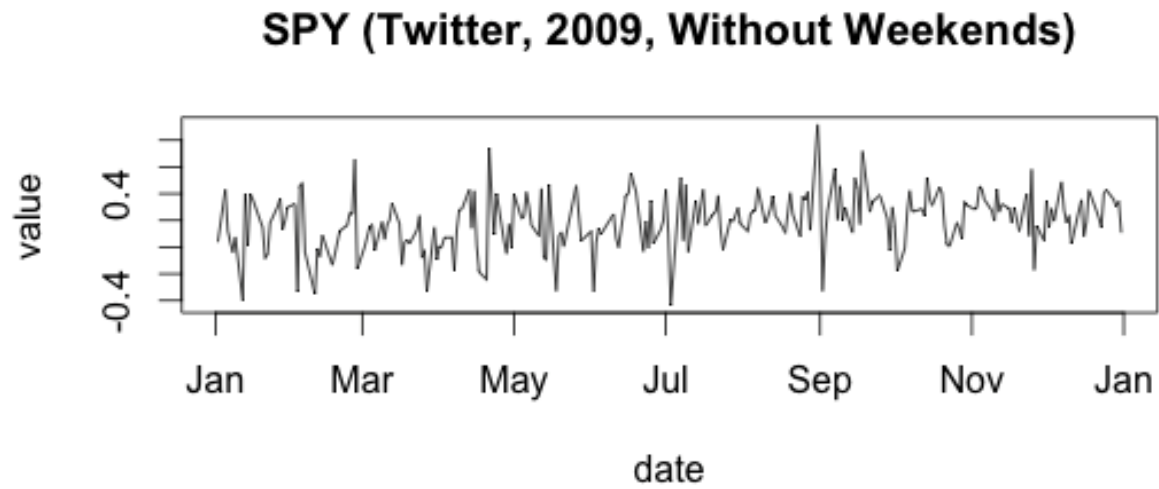
Daily Increment for Stock Market Swing for SPY (in 2009)



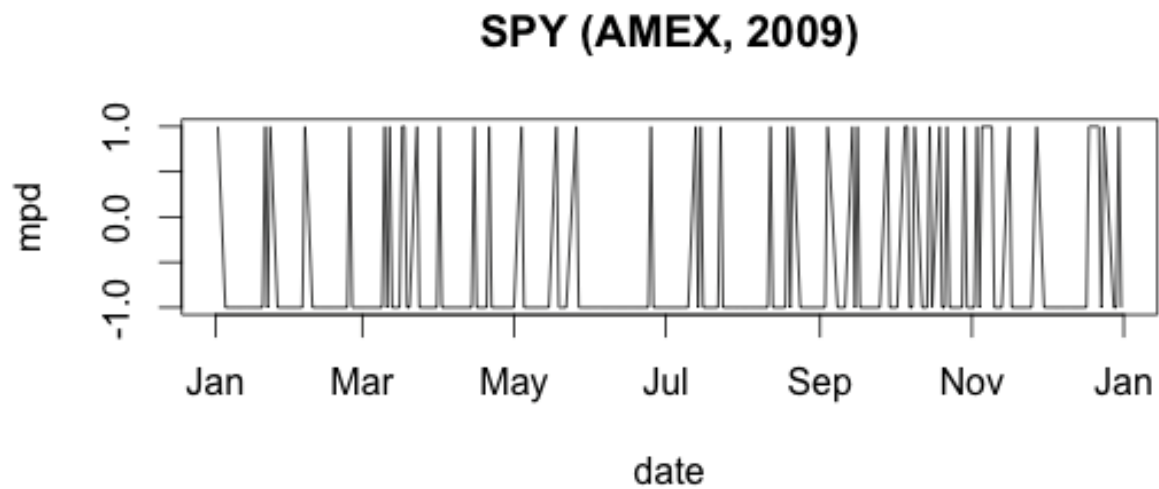
Daily Value for TF-IDF Analysis for SPY (in 2009)



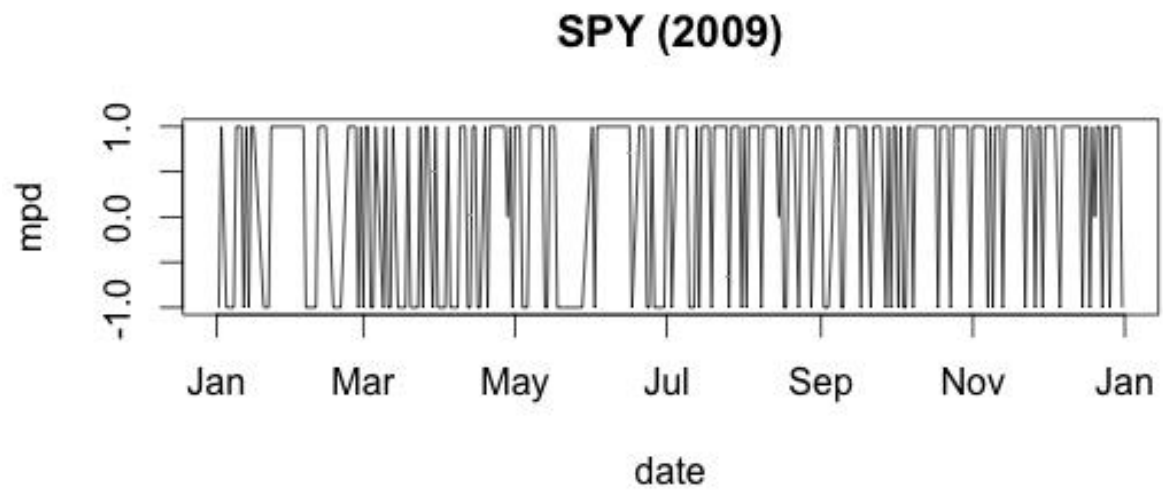
Daily Value for TF-IDF Analysis for SPY (2009, without weekends)



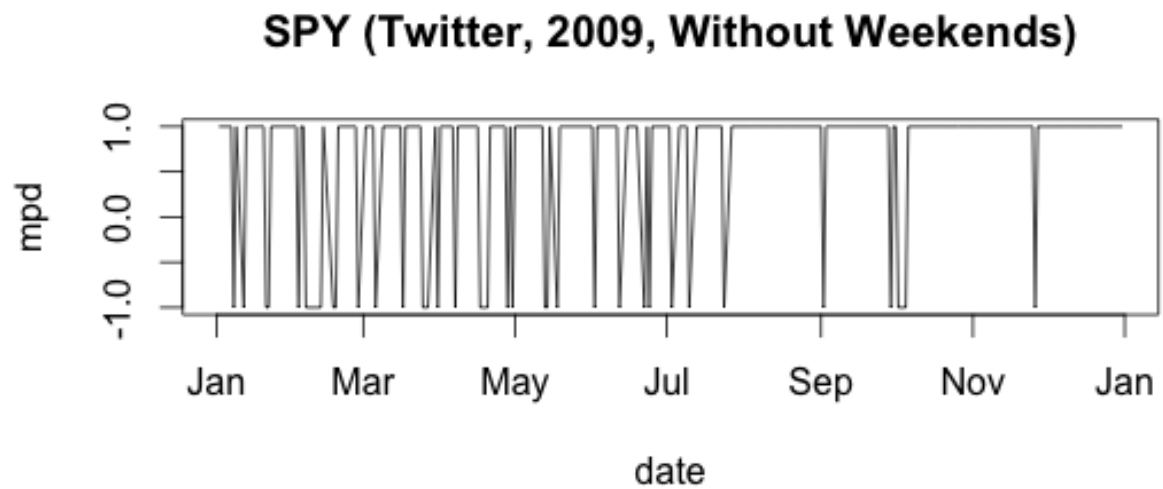
Boolean Value for Stock Market Swing for SPY (2009)



Boolean Value for SPY (2009)

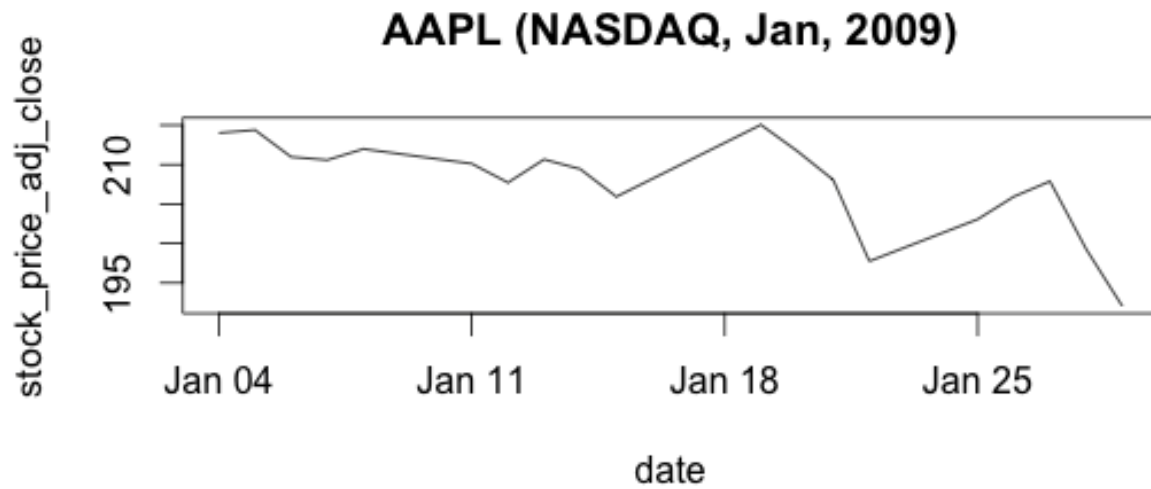


Boolean Value for SPY (2009, without weekends)

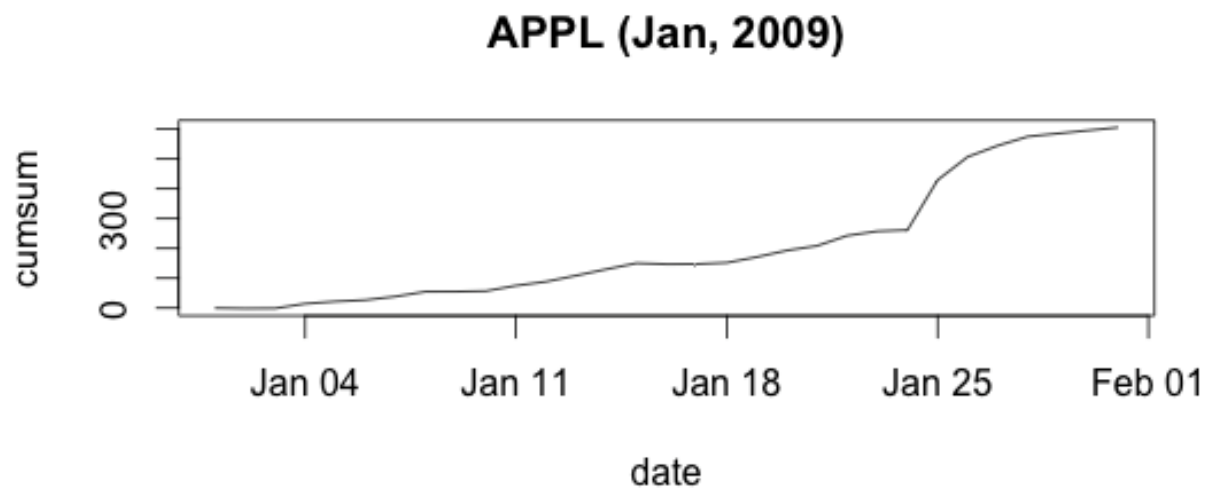


1-month Analysis (Jan, 2009 for example)

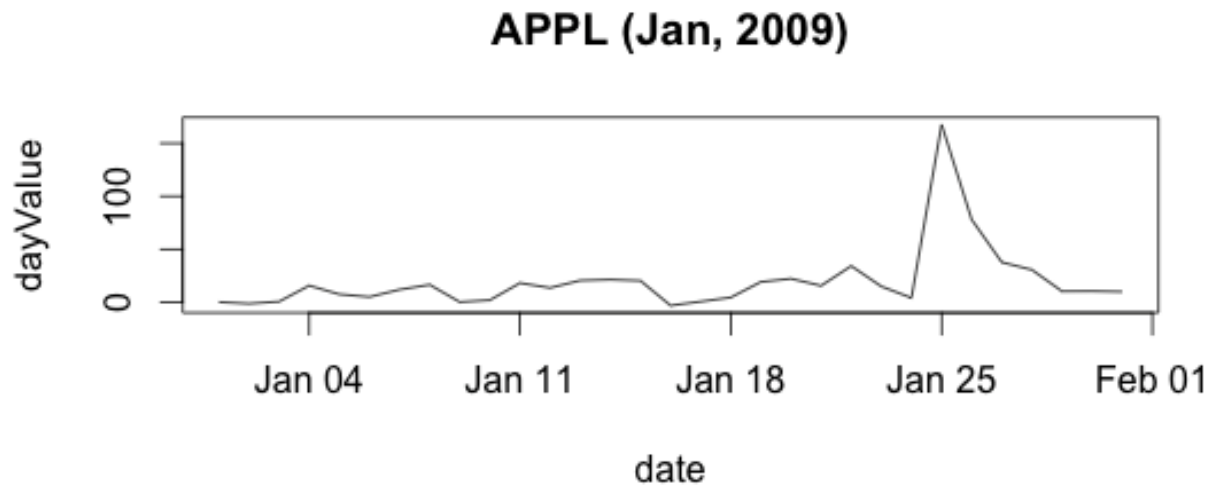
Stock Market Swing for Apple (Jan, 2009)



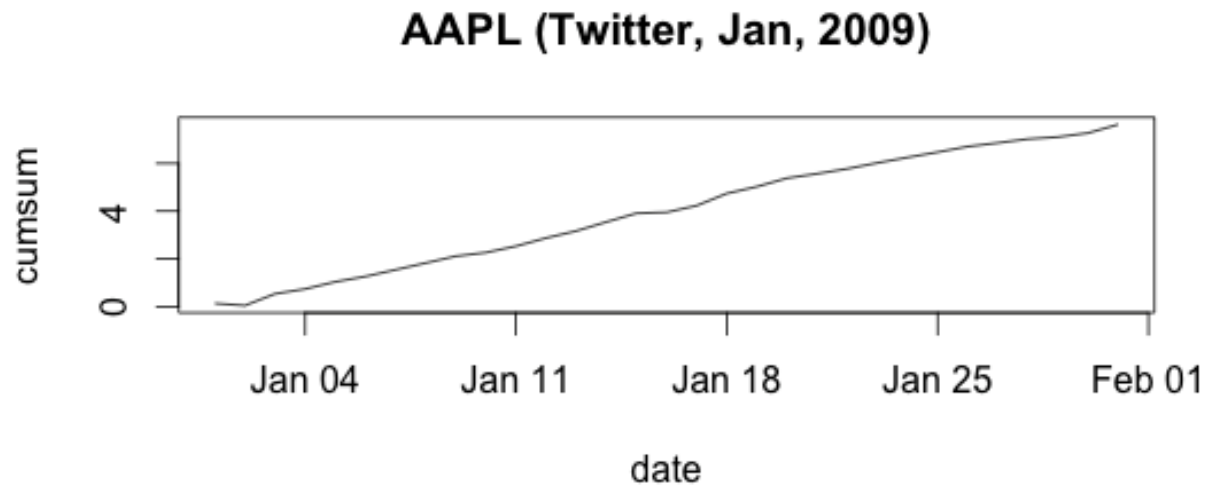
Sentiment Analysis for Apple (Jan, 2009)



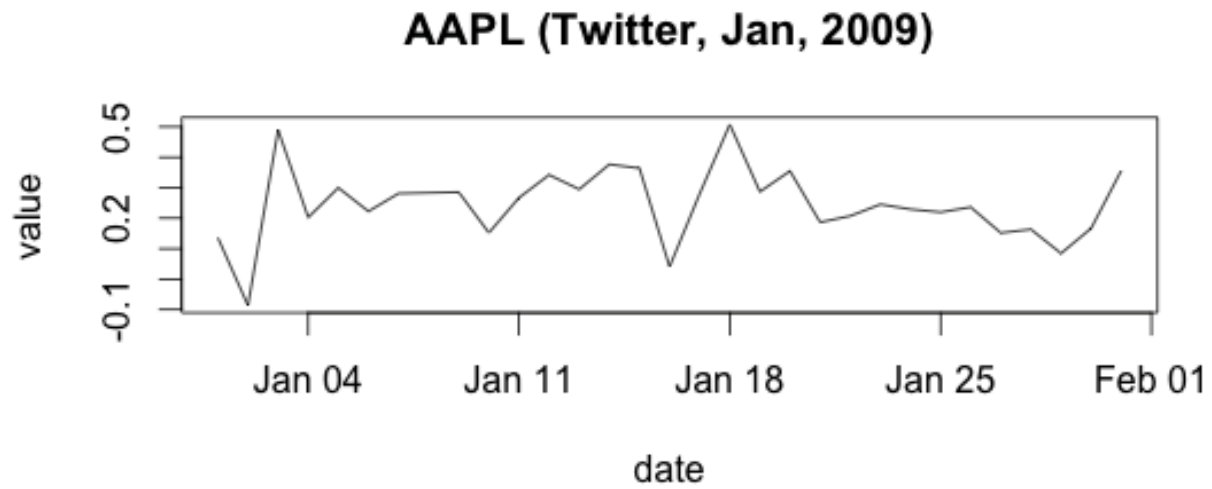
Daily Value for Sentiment Analysis for Apple (Jan, 2009)



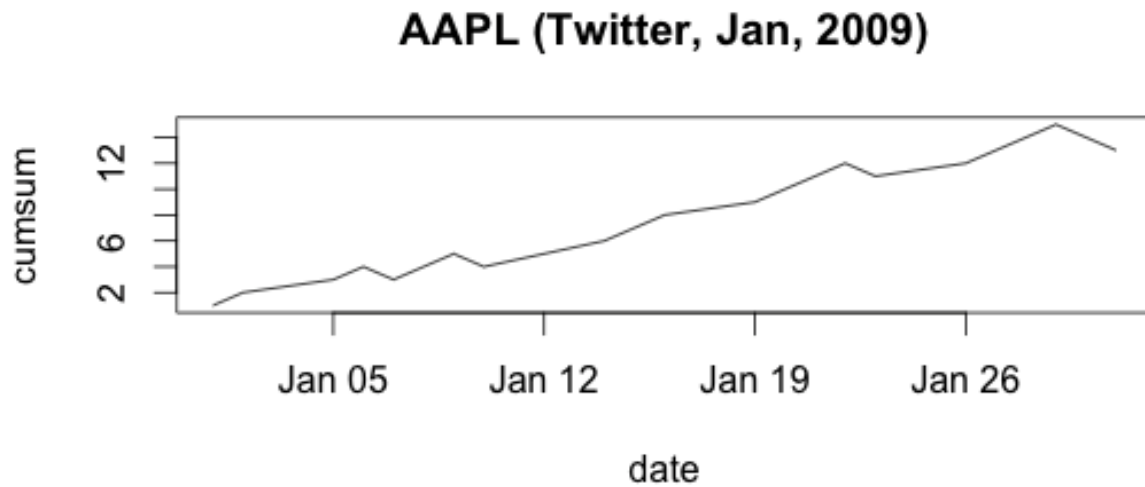
TF-IDF Analysis for Apple (Jan, 2009)



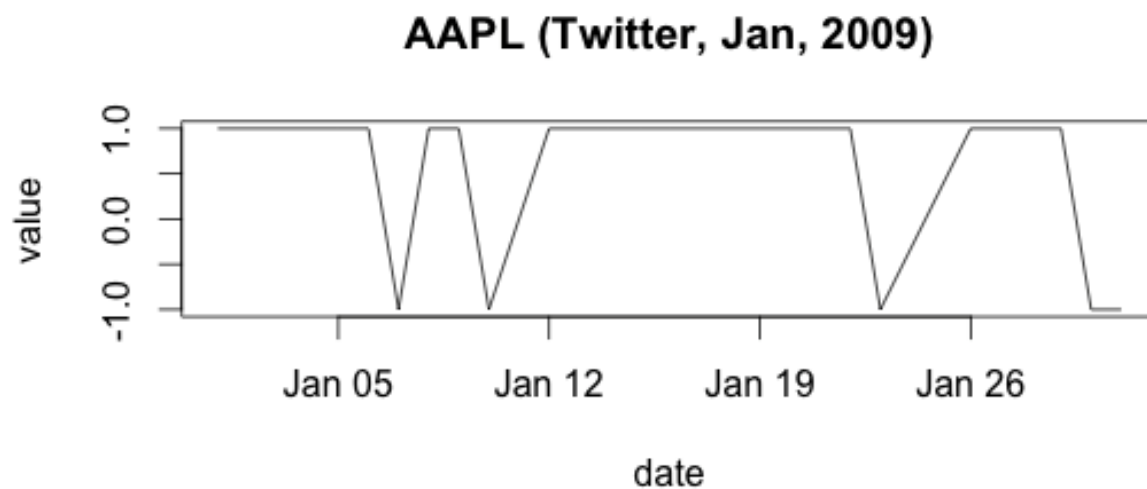
Daily Value for TF-IDF Analysis for Apple (Jan, 2009)



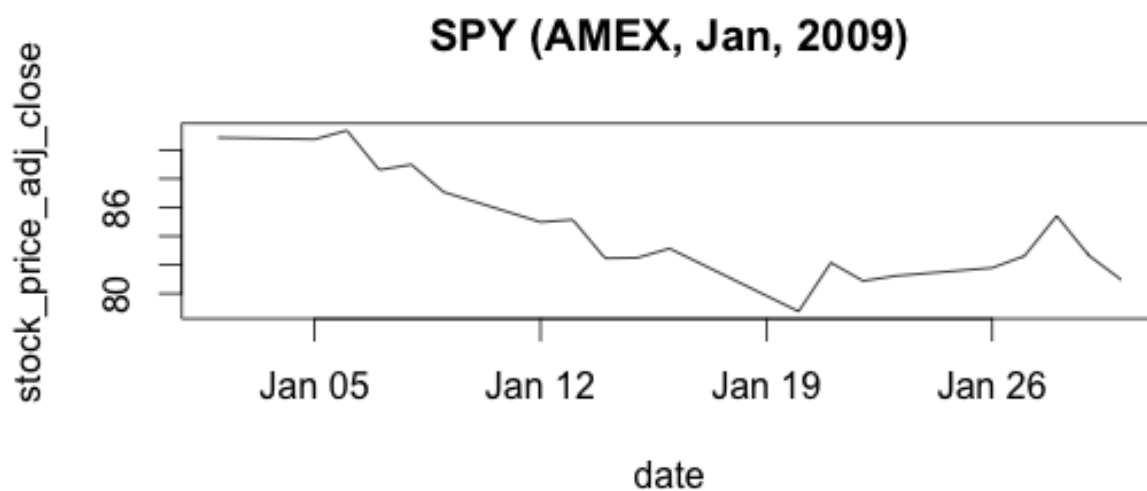
Boolean Analysis for Apple (Jan, 2009)



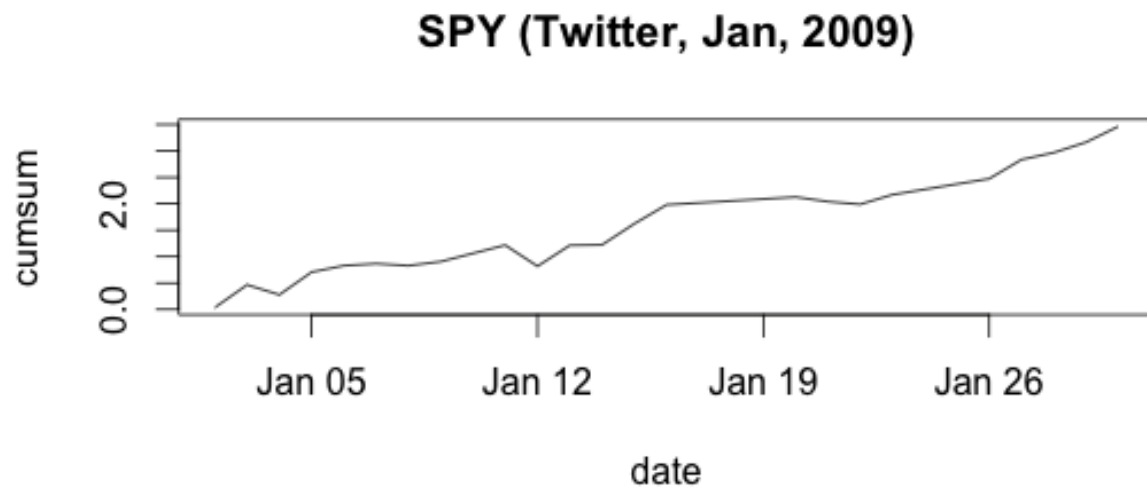
Boolean Value for Apple (Jan, 2009)



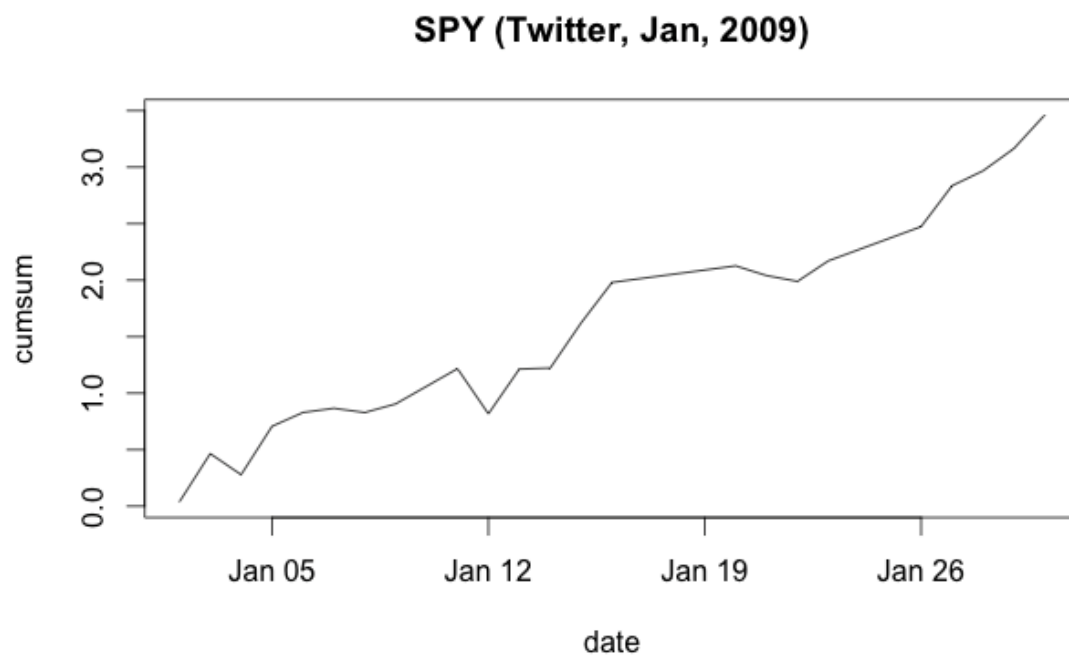
Stock Market Swing for SPY (Jan, 2009)



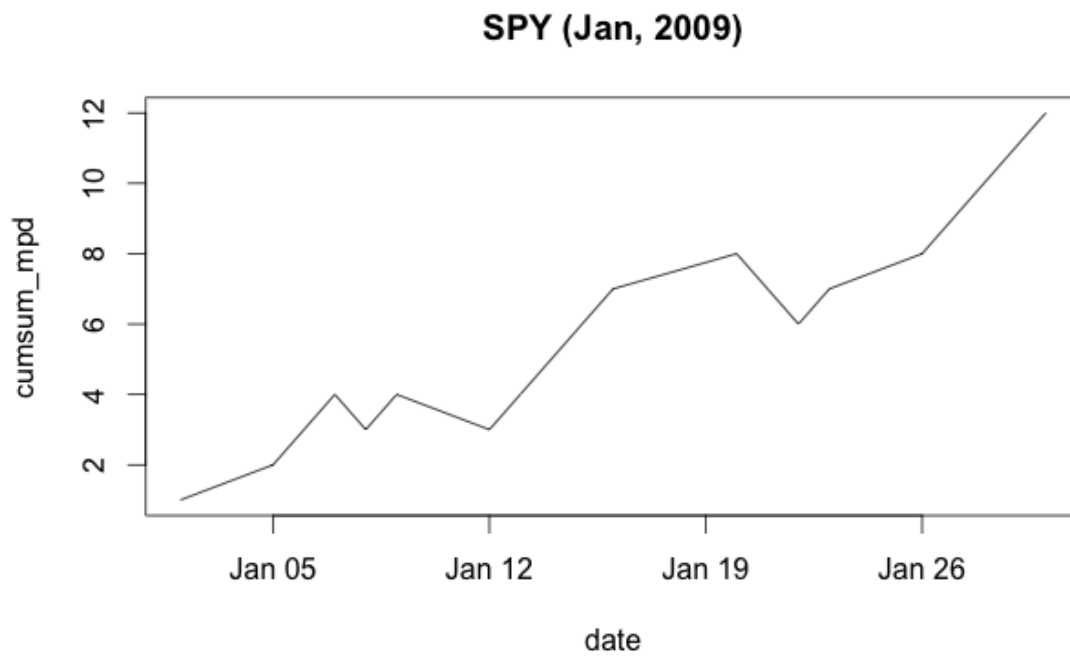
Sentiment Analysis for SPY (Jan, 2009)



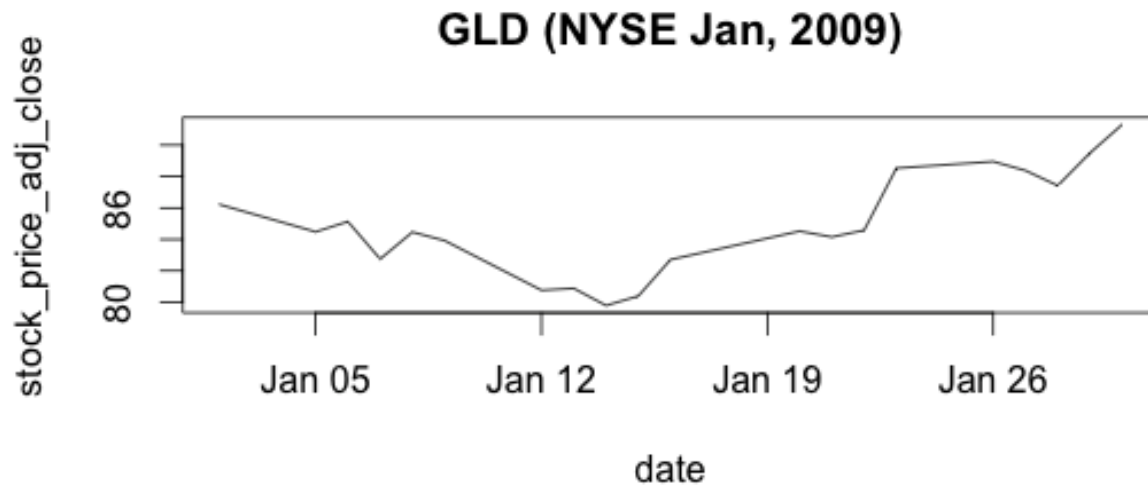
TF-IDF Analysis for SPY (Jan, 2009)



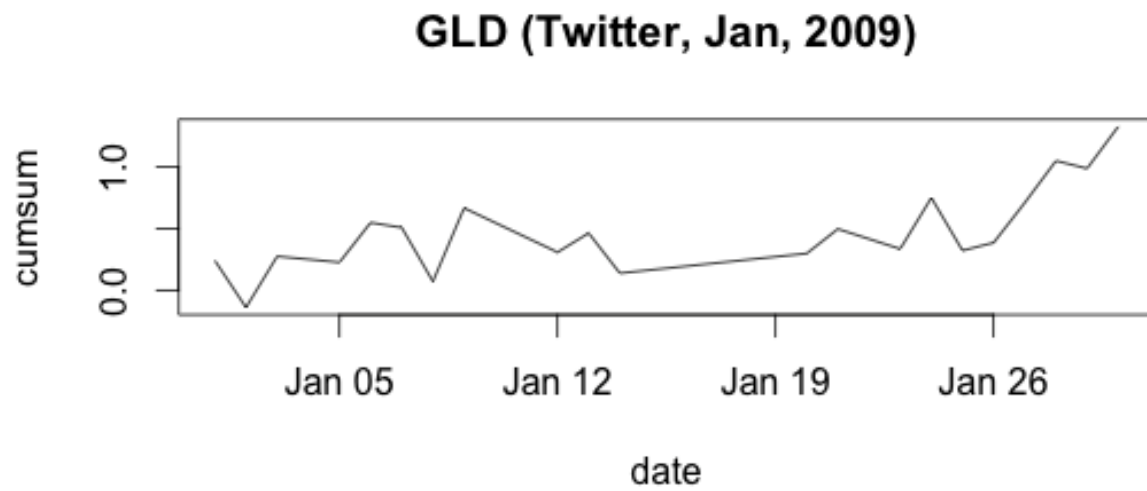
Boolean Analysis for SPY (Jan, 2009)



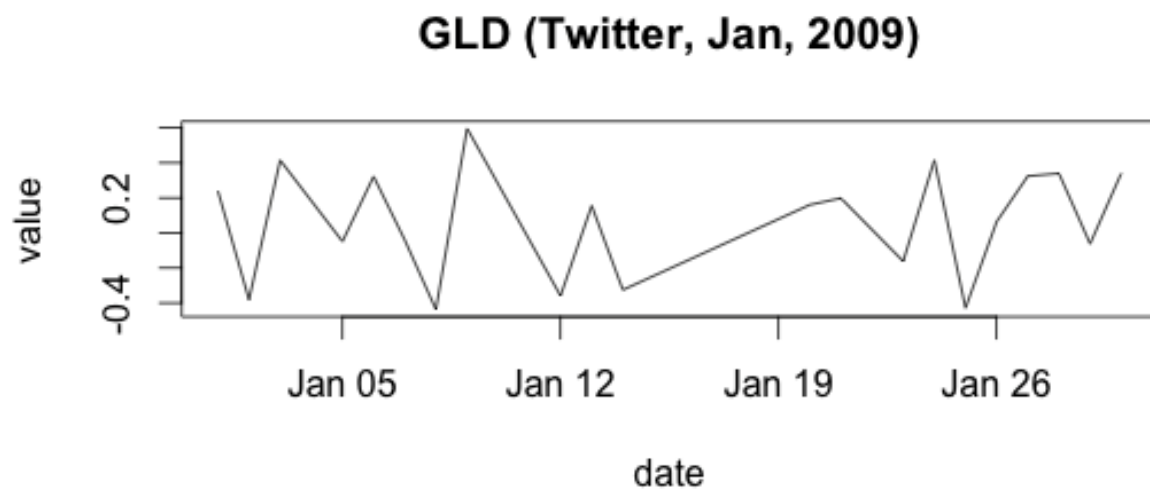
Stock Market Swing for GLD (Jan, 2009)



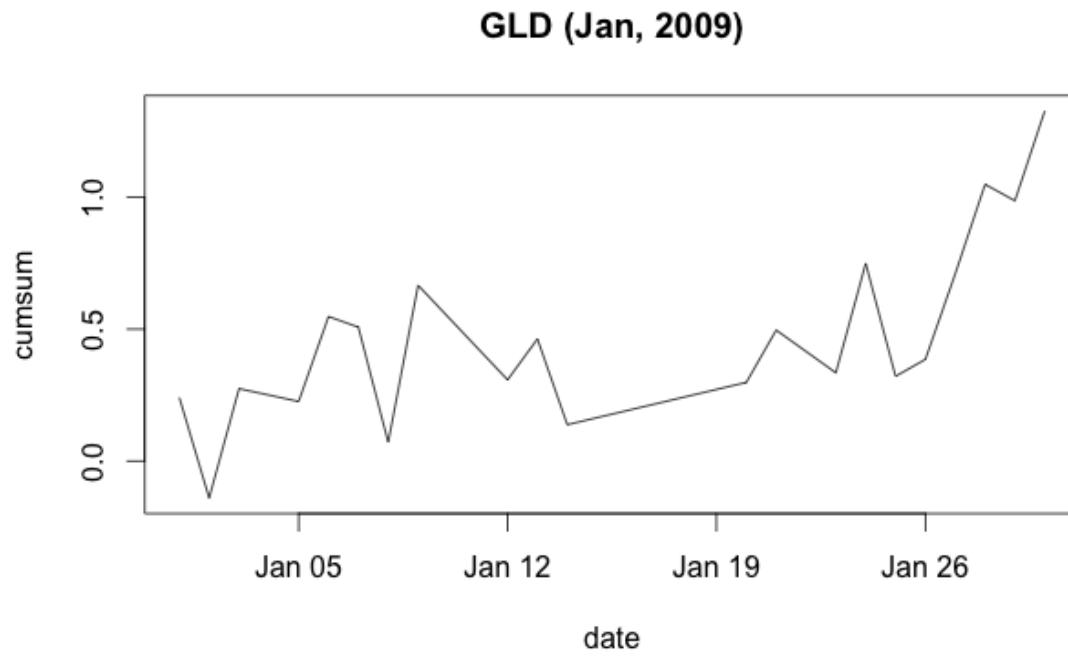
Sentiment Analysis for GLD (Jan, 2009)



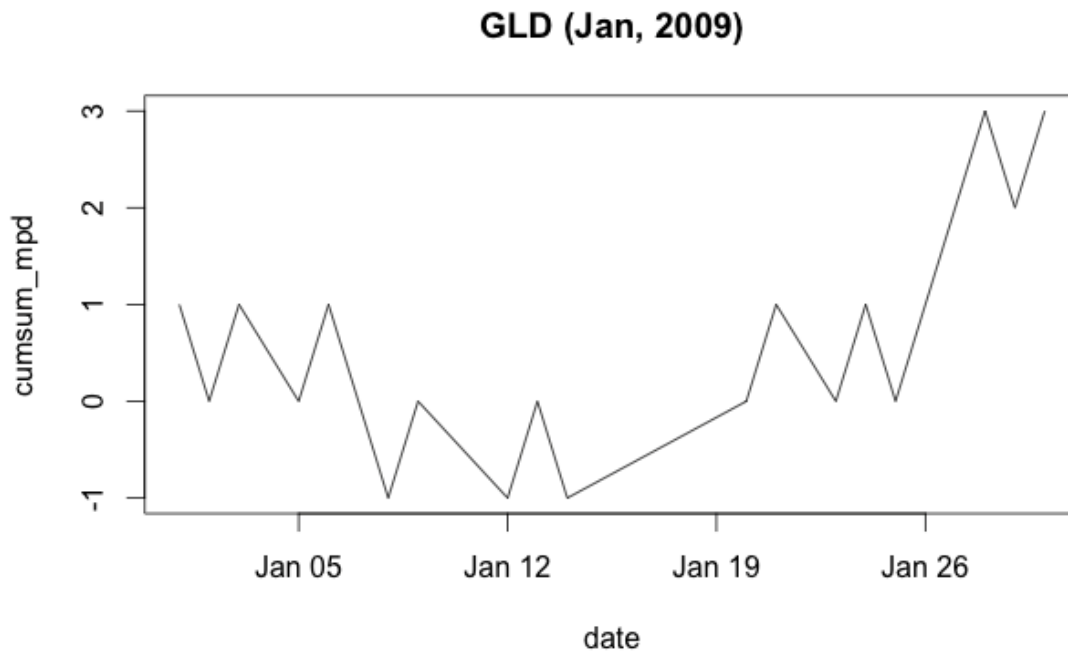
Daily Value for TF-IDF Analysis for GLD (Jan, 2009)



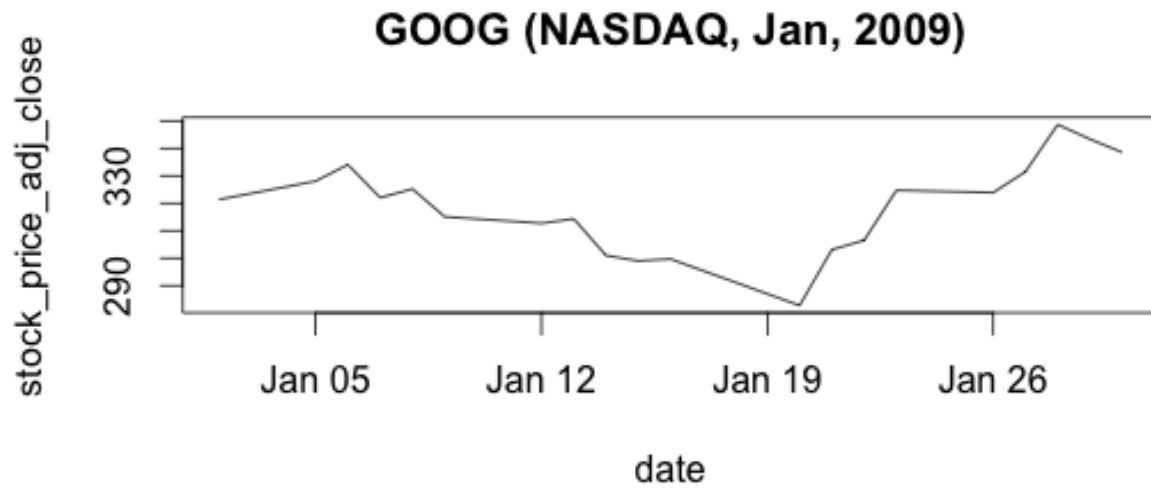
TF-IDF Analysis for GLD (Jan, 2009)



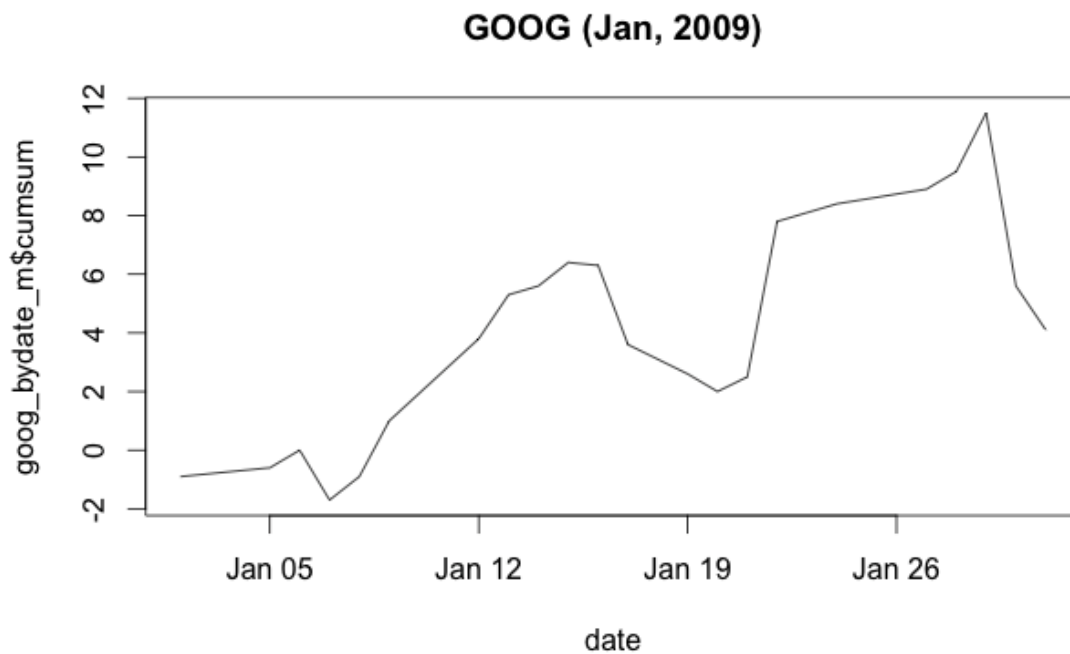
Boolean Analysis for GLD (Jan, 2009)



Stock Market Swing for Google (Jan, 2009)

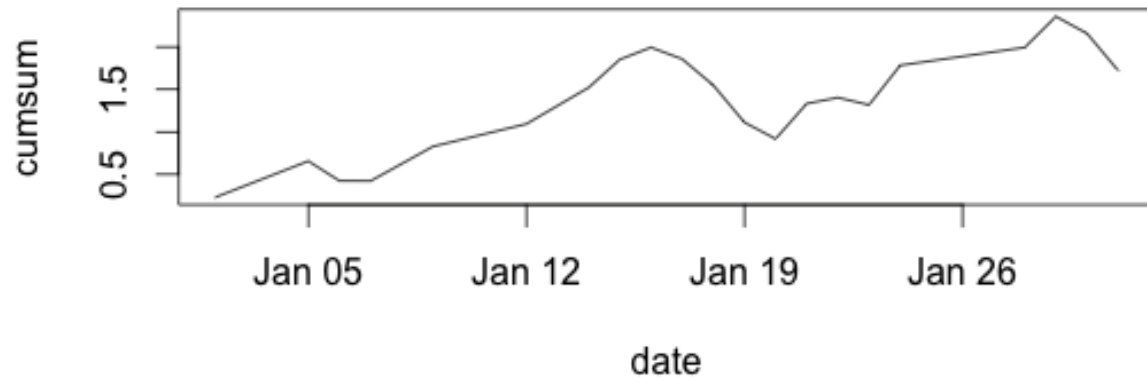


Sentiment Analysis for Google (Jan, 2009)



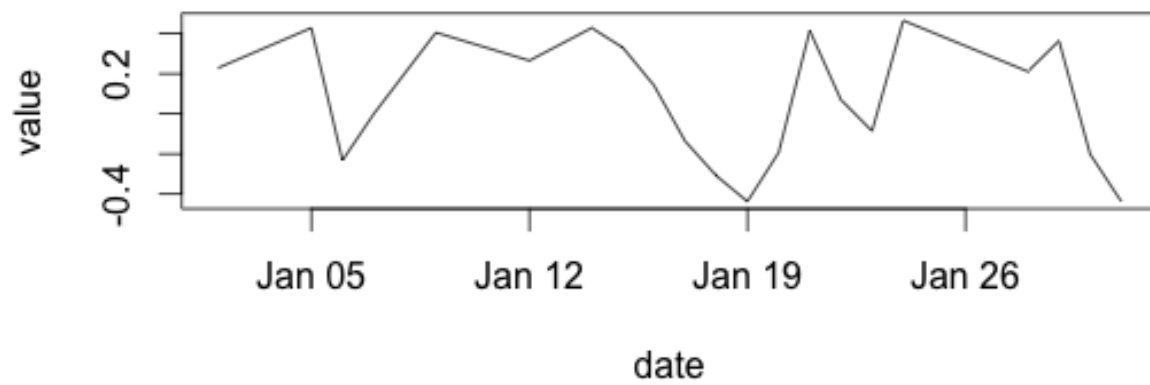
TF-IDF Analysis for Google (Jan, 2009)

GOOG (Twitter, Jan, 2009)

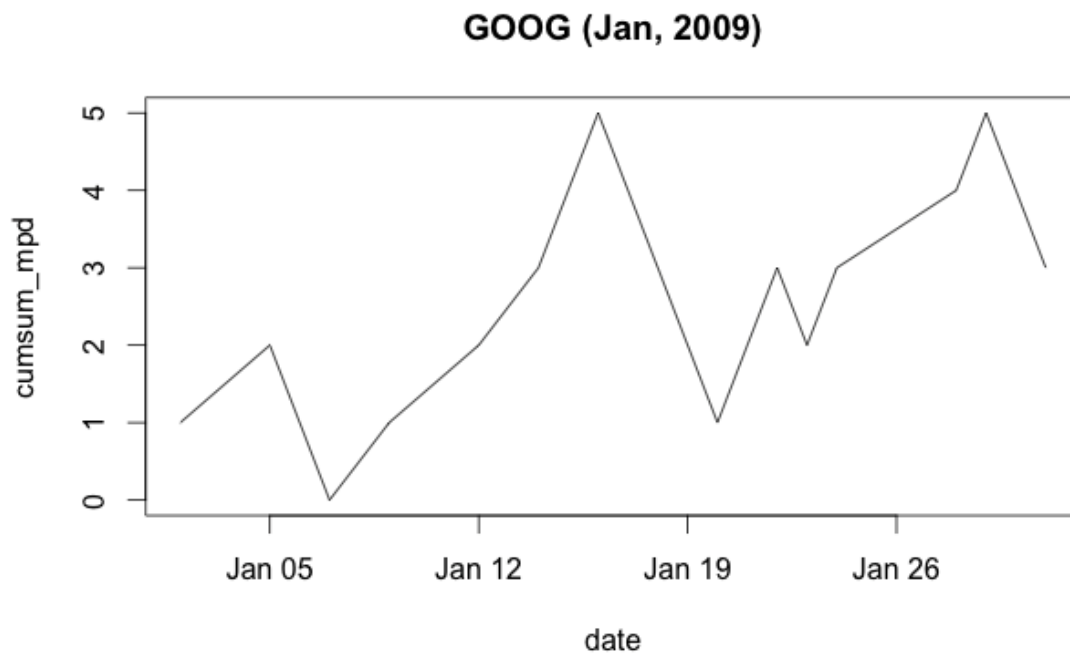


Daily Value for TF-IDF Analysis for Google (Jan, 2009)

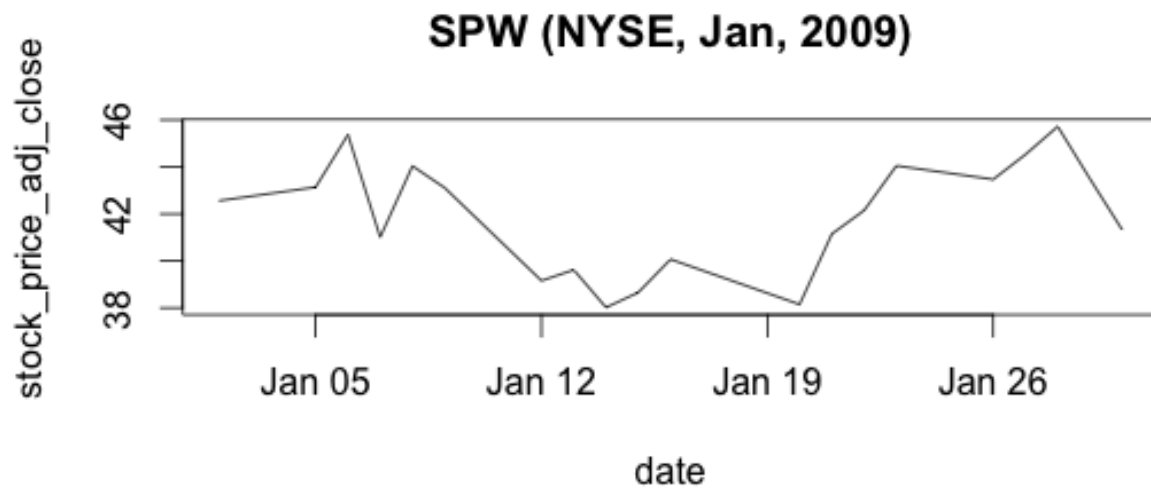
GOOG (Twitter, Jan, 2009)



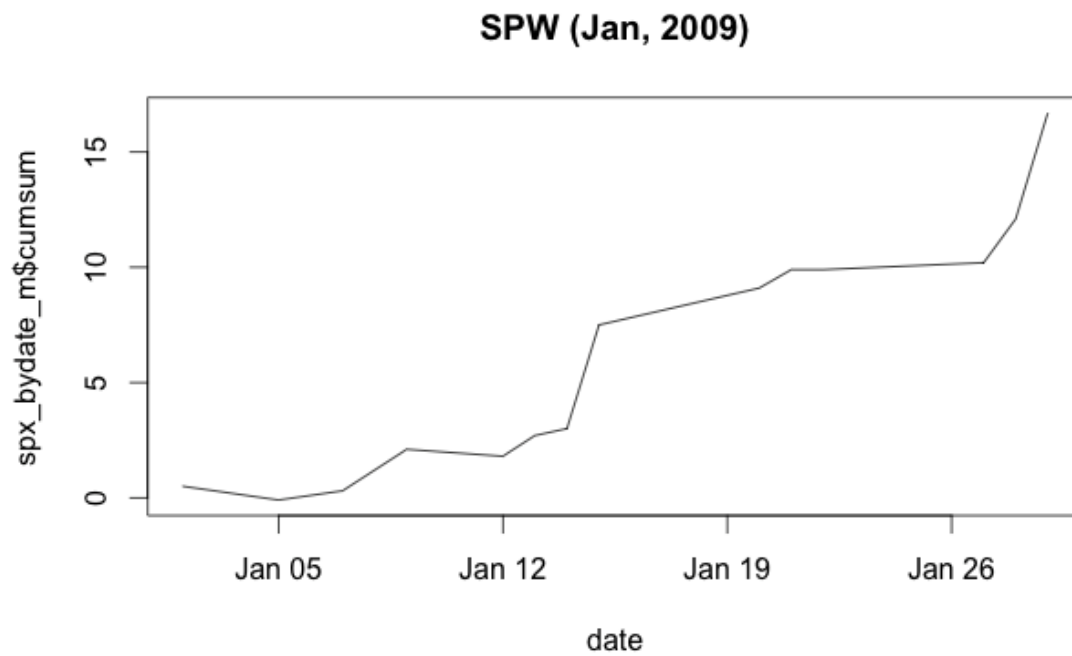
Boolean Analysis for Google (Jan, 2009)



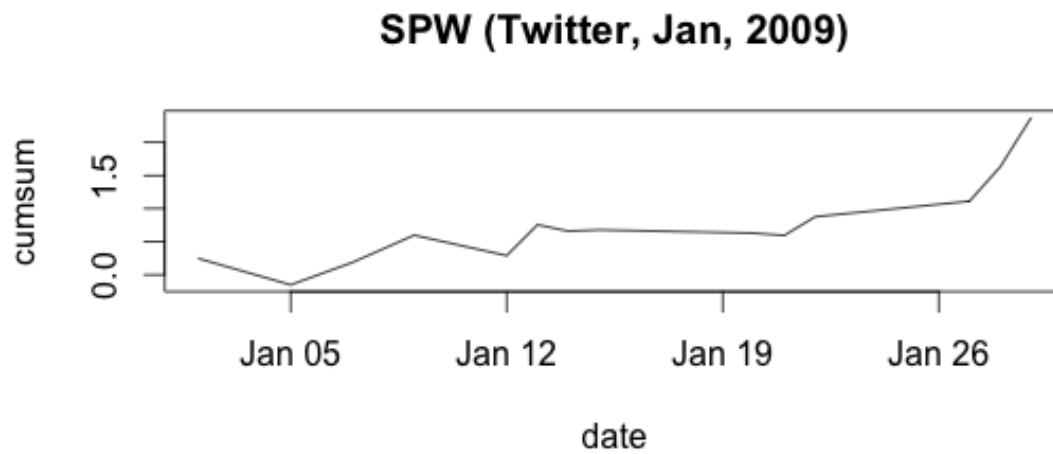
Stock Market Swing for SPW (Jan, 2009)



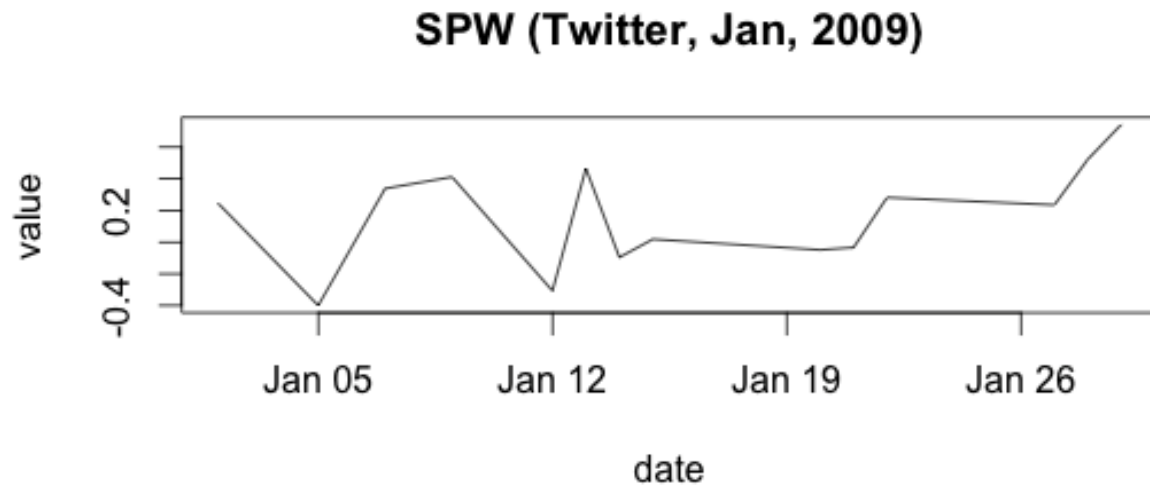
Sentiment Analysis for SPW (Jan, 2009)



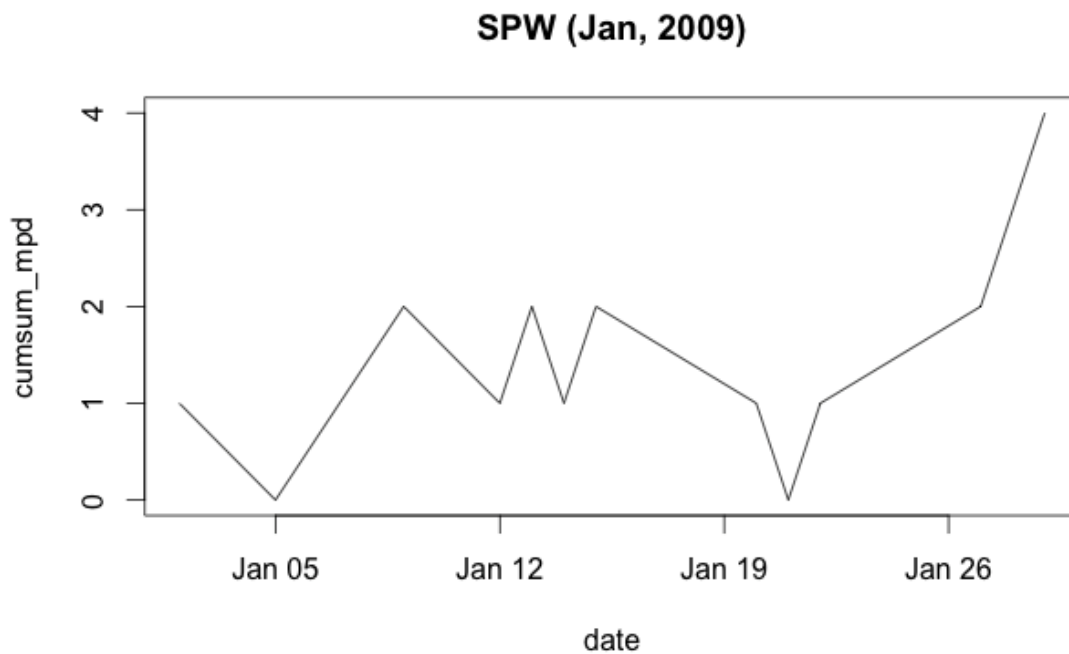
TF-IDF Analysis for SPW (Jan, 2009)



Daily Value for TF-IDF Analysis for SPW (Jan, 2009)



TF-IDF Analysis for SPW (Jan, 2009)



Heat Maps

Visualizations (Calendar Heat Maps based on our Twitter data Analysis and Stock Market)

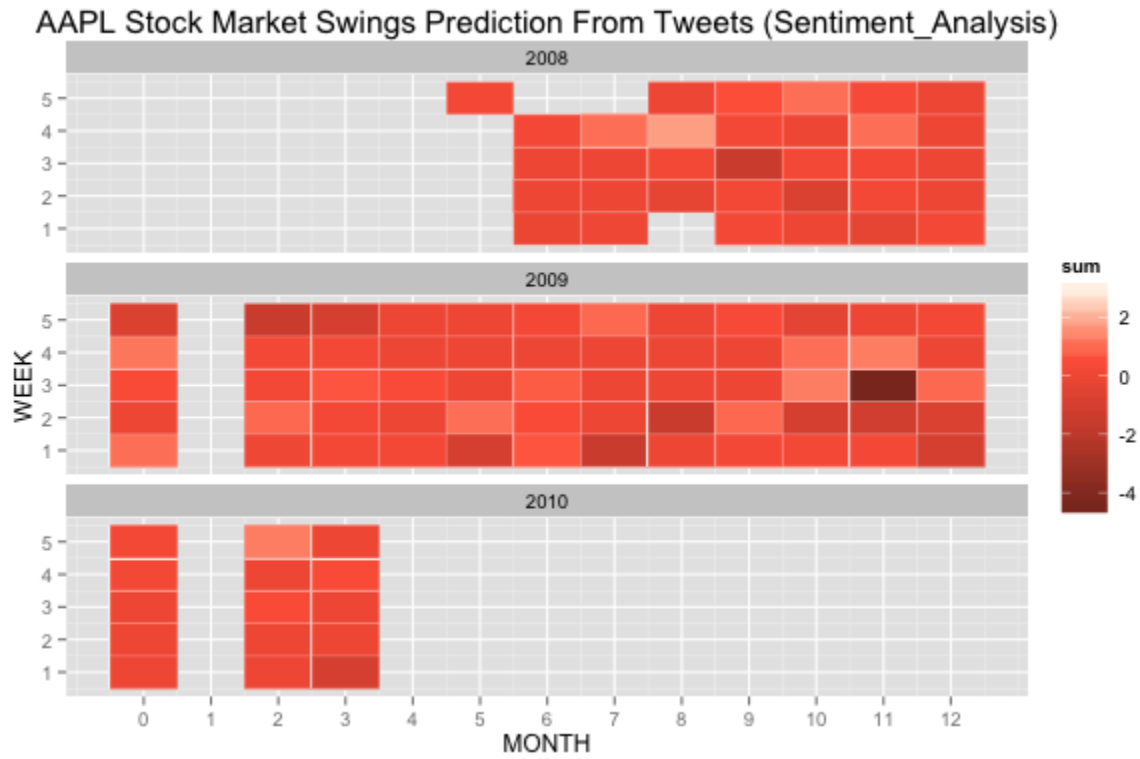


Fig 14.1 Apple Stock Market Swings Prediction as per Sentiment Analysis

AAPL Stock Market Swings Prediction From Tweets (TF-IDF)

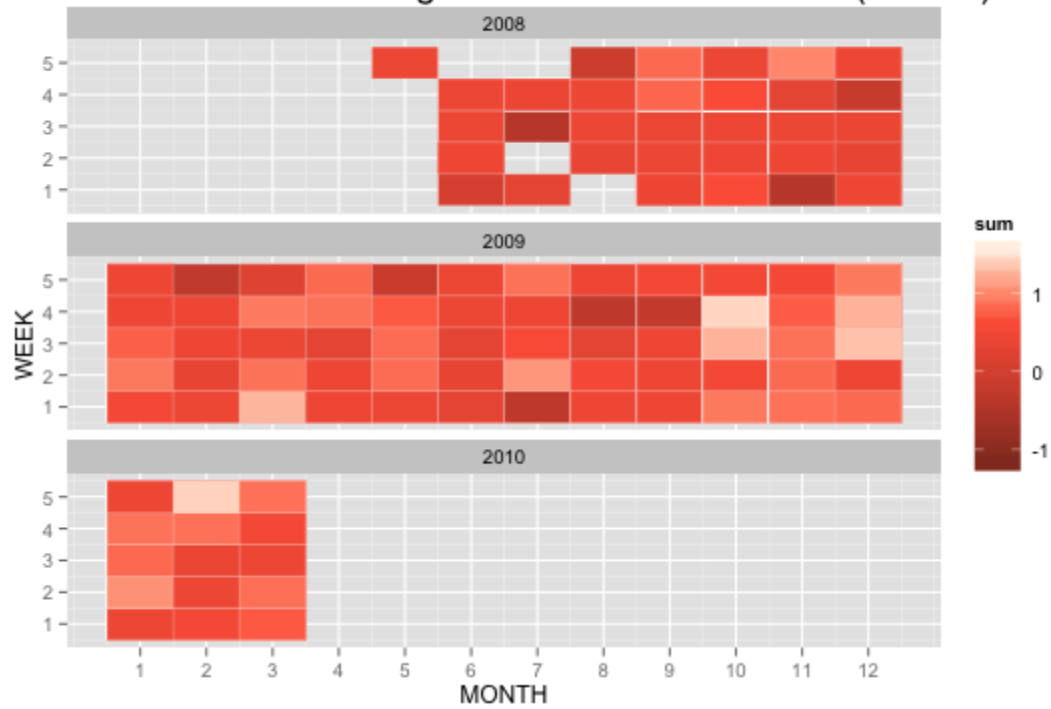


Fig 14.2 Apple Stock Market Swings Prediction as per TF-IDF

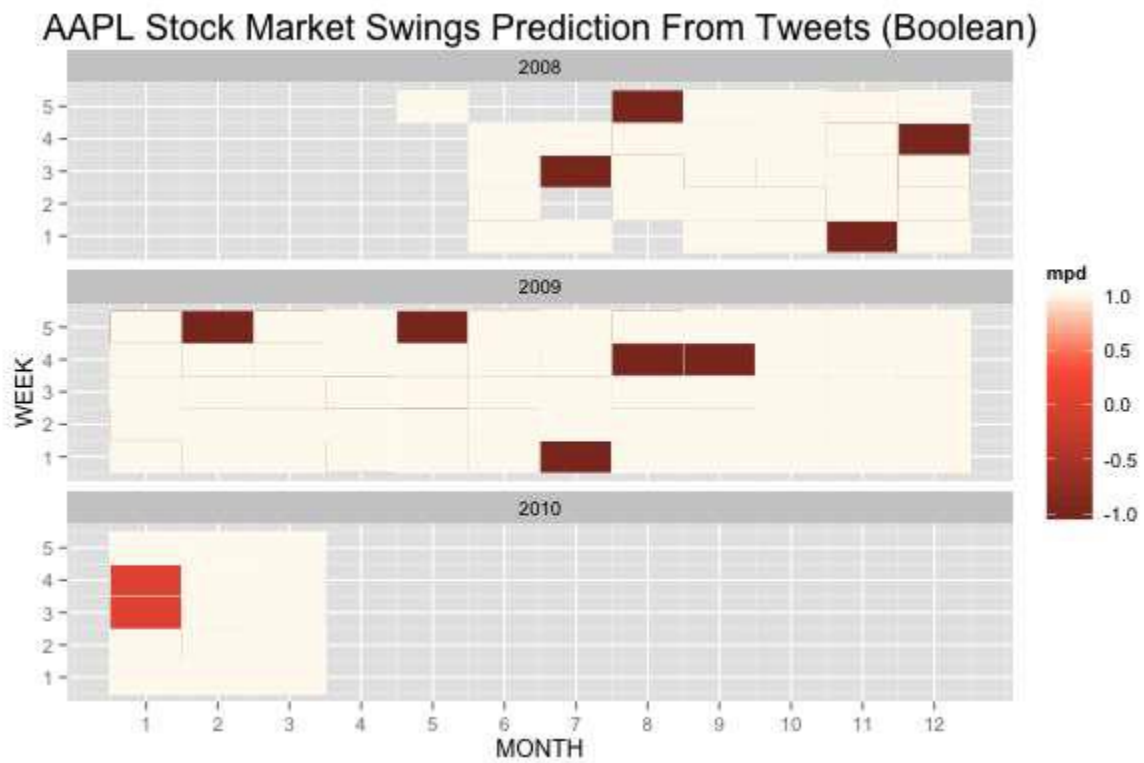


Fig 14.3 Apple Stock Market Swings Prediction as per Boolean Method

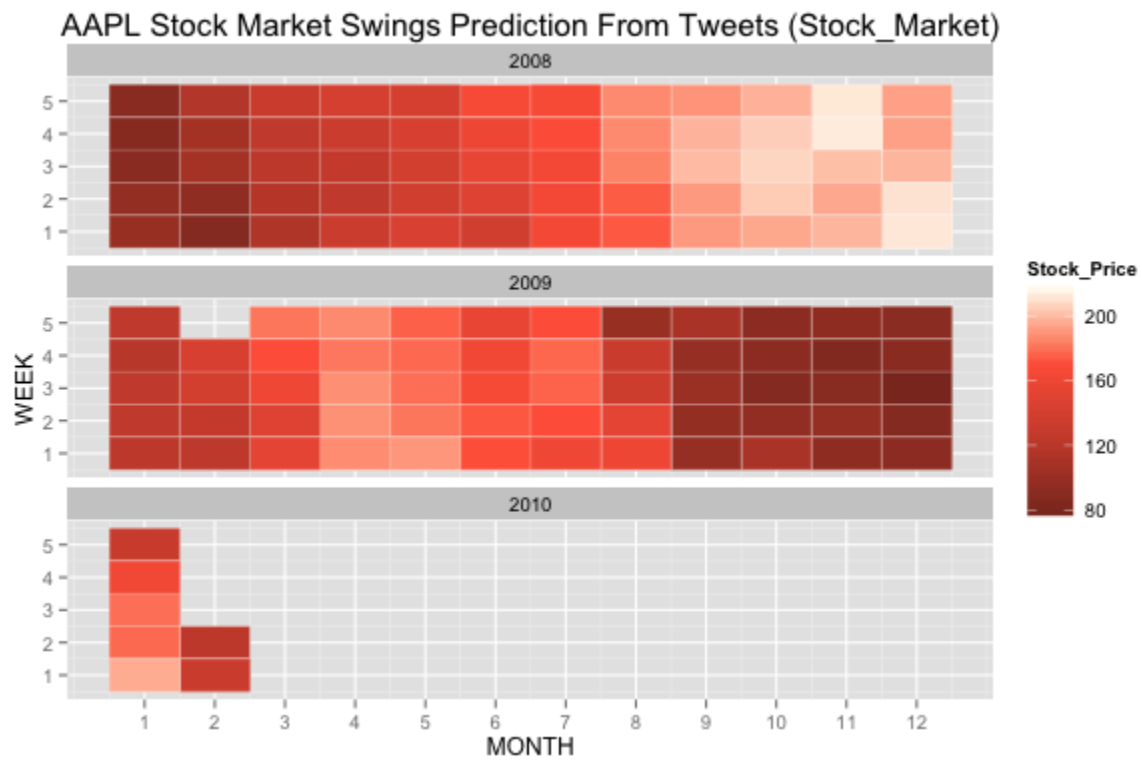


Fig 14.4 Apple Stock Market Swings as per actual stock data
It is clear that the stock market data and the tweet data do not correlate.