

Midterm Presentation

Sentiment and a Company's Stock Price

Jingwei Feng, Moritz Wilksch
June 5th 2020

NASDAQ



Research Question

Does public sentiment towards a company hold predictive power regarding the company's stock return?

Hypotheses

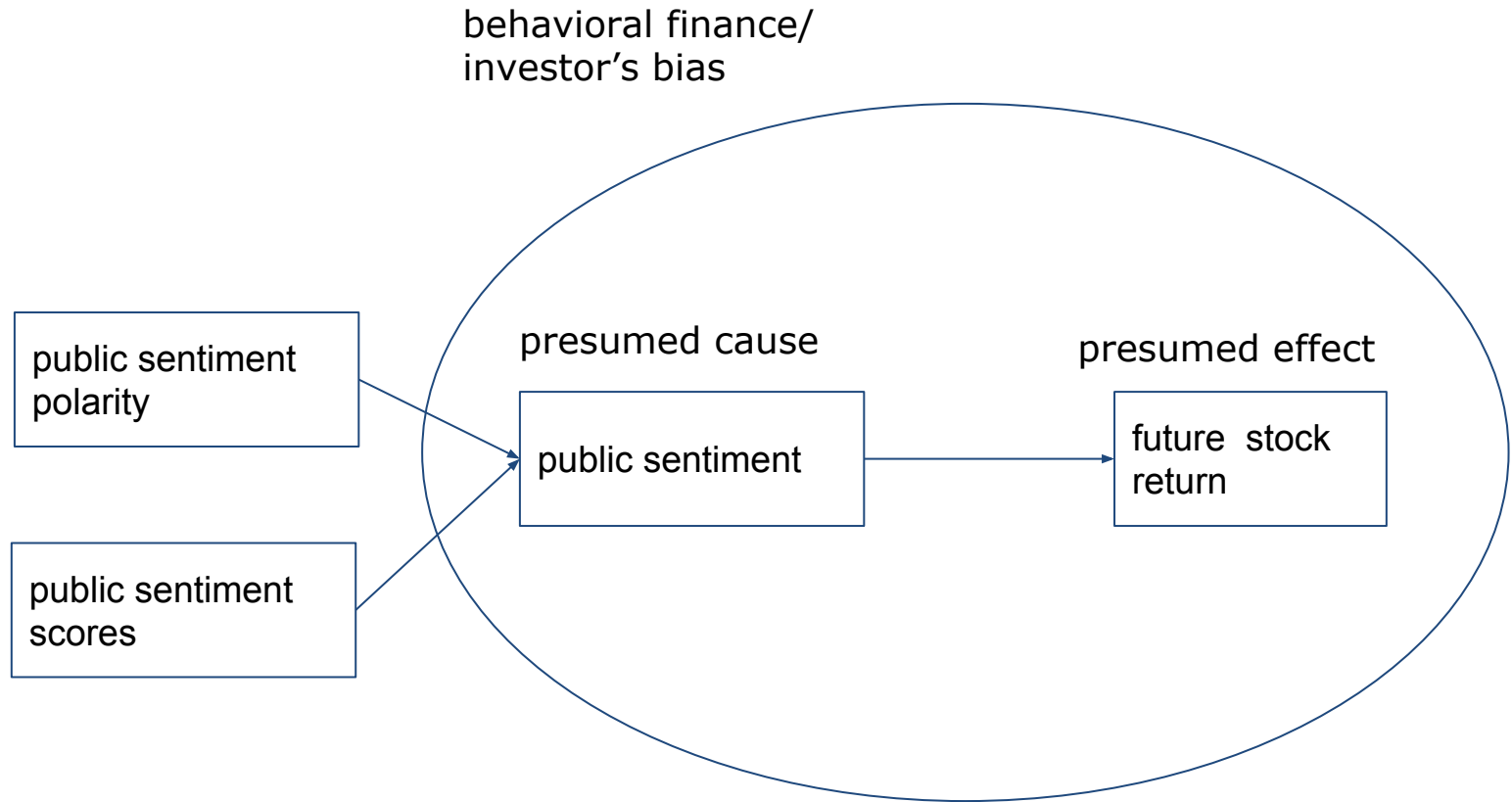
H1: Positive public sentiment is predictor for positive future returns.

H2: Negative public sentiment is predictor for negative future returns.

Key Idea

- People do *not* act rationally
 - They are subject to many different psychological biases
 - Risk aversion [1], intuitive assessment of probabilities [2]
- It's been shown that public sentiment influences investment decision [4]
- Successfully found a relationship between Social Media sentiment and performance of financial markets [5]

Conceptual Framework



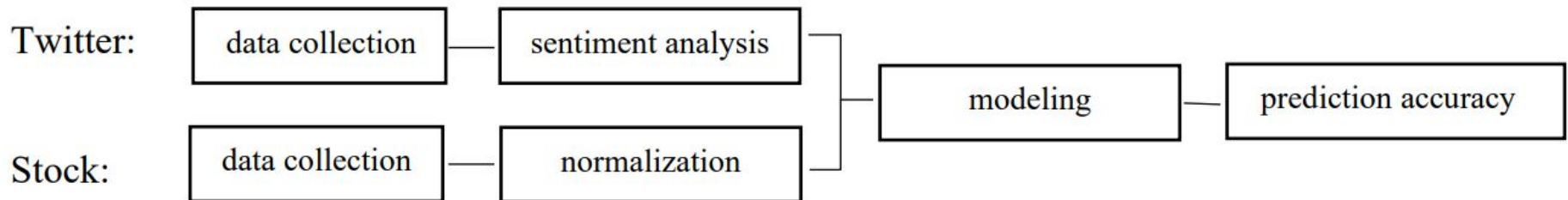
Analytical Framework



Tesla

- Twitter: \$TSLA widely discussed in Twitter, with more than 30,000 tweets per month
- Stock: traded actively in the market, with an average volume of 17,430,325

Analytical Framework



Expected Results

Expected Results

- Significant predictive power
- Sentiment analysis is a useful tool for investors

Further Research

- Is the technique generalizable?
 - Different stocks/markets/tools

[1] Tversky, A., & Kahneman, D. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.

[2] Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *science*, 185(4157), 1124-1131.

[3] finance.yahoo.com (visited on 28.Mai.2020)

[4] Hammond, R. C. (2015). Behavioral finance: Its history and its future.

[5] Bollen, J., Mao, H., & Zeng, X. (2011). Twitter mood predicts the stock market. *Journal of computational science*, 2(1), 1-8.