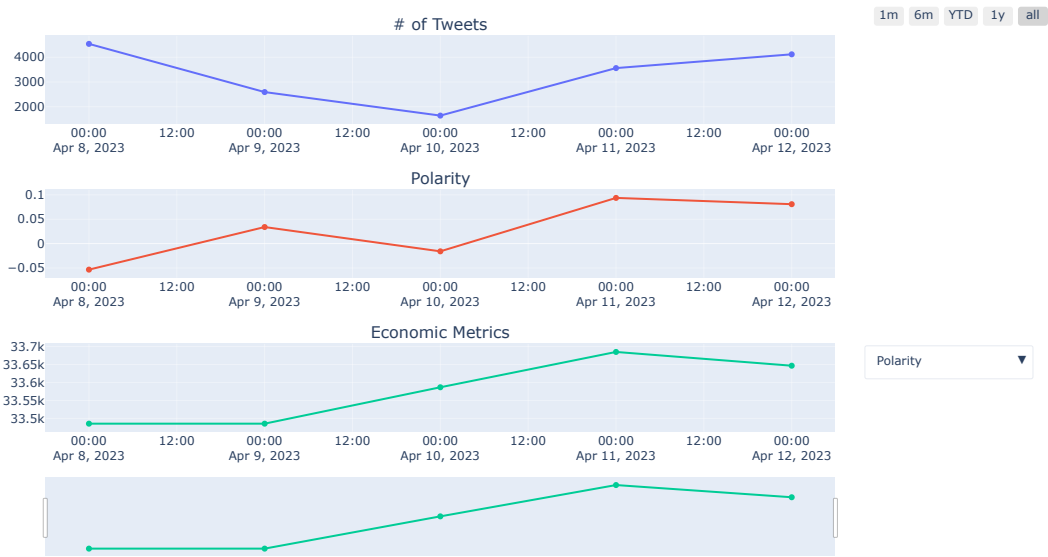


# Sentiment Analysis of the U.S. Economy with Twitter

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**Overview:**

The goal for this project is to conduct sentiment analyses of the US economy using Twitter data. Scraped Tweets are fed into the Sentiment Analysis library TextBlob. Currently, elevated Twitter access only allows searching for the past 7 days of Tweets. Initial questions to explore: What are the current overall sentiments of the economy? Are they positive or negative or neutral? How has it varied over time? Is there a correlation between economic sentiment and perhaps certain economic metrics such as stock market performance? Economic data is downloaded from the U.S. Federal Reserve's FRED API. In the future once enough data is collected, the data will be fed into scikit-learn machine learning models to best fit a model and determine if any of the economic indicators have correlations with sentiment polarity as the target variable.

**Methodology:**

1. Download tweets mentioning the U.S. Economy, determine tweet counts, assess polarity by day
2. Download important economic metrics from the FRED API
3. Create a pandas dataframe with combined data from both APIs
4. Visualize data with Plotly Dash
5. Deploy as a website using AWS EC2, RDBMS etc...

**Skills:**

Python, Twitter API, FRED API, Tweepy, Pandas, TextBlob, Matplotlib, Seaborn, Plotly Dash, AWS, Data Munging.

**Resources:**

Link to portfolio for the full code in Jupyter Notebook:  
<https://github.com/lflnr/Portfolio/tree/main/3.%20Economy%20and%20Twitter>  
Twitter API docs  
<https://developer.twitter.com/en/docs/twitter-api/>  
Federal Reserve Bank of St. Louis - FRED API docs  
<https://fred.stlouisfed.org/docs/api/fred/>

**Disclaimers:**

"This product uses the FRED® API but is not endorsed or certified by the Federal Reserve Bank of St. Louis."  
Furthermore, this exercise is for demonstration purposes only. This dashboard, the underlying code, technologies involved and their related organizations and the author does not assume any liability for the use or misuse of any of the aforementioned resources nor claim their veracity, timeliness, or conclusions stated or inferred.