**Sentiment analysis of Federal Open Market Committee (FOMC) minutes: are they leading indicators of a recession similar to traditional Metrics?**

**Background**

By law the FOMC must meet at least four times a year, and since 1981 eight meetings have been held each year at regular intervals. The FOMC meetings are to discuss economic and financial conditions and vote on potential changes to monetary policy. This project will explore whether a sentiment analysis of these FOMC meeting minutes are predictive of an impending recession, in say the next 12 to 18 months, similar to traditional leading indicators of a recession similar to metrics like the University of Michigan Consumer Sentiment Index or the Conference Board Leading Economic Index (Conference Board, 2020).

**Dataset**

The minutes are available in .htm files through the Federal Reserve Public Website. I plan to process the.htm files, removing punctuation, and adding a few other data points such as the meeting date and a couple of binary data points. These binary variables will include additional information, such as whether or not a vote to increase or decrease the federal funds rate was held. I plan to store the data in a .json file, or .json file for each decade or in a mongodb .bson file.

**Tools**

Once I’ve collected the data, I plan to utilize the python scikit-learn and vader-analysis modules for EDA. I plan to extract features from text in the .json files using scikit-learn and eventually develop a model. Model development will be done with scikit-learn. I plan to use a jupyter notebook, inside Anaconda navigator, so I will likely store my source code in .pynb files.

**Motivation**

There are three principal reasons to explore developing a model using FOMC minutes and assessing if such a model could serve as a leading indicator of a recession. Firstly, it would bereassuringto know that the monetary policy decision makers planning accordingly for changes in the business cycle. Second, if a model is developed that shows these data are leading indicators then this will be a useful metric to show downturn and indeed an upturn in the economy. Similar models can be developed using central bank meeting minutes in other nations.

**Works Cited:**

The Conference Board Global Leading Indicators. (2020, January 24). Retrieved from [https://www.conference-board.org/data/](https://www.conference-board.org/data/bcicountry.cfm?cid=1)