Nick Calomeris

DATA 606 – Summer ‘20

Deliverable 1

**Predicting Investing Opportunities in the Post Coronavirus Vaccine World using Trend Comparison, Time Series Analysis, and Machine Learning.**

Project Purpose

A time of Global Pandemic, protests, and presidential changes, but mainly a time of uncertainty. No one knows how long it will take the world to develop a vaccine, and until then, our financial markets are going to be very unstable. As I write this, I realize that the past two weeks showed on of the fastest stock rebounds in history. Then today (6/11/2020), the Dow experienced the 27th largest 1-day decline in history after experiencing one the fastest stock rebounds in history. My goal is to find lucrative investment opportunities when a vaccine is created and the year that follows it.

Dataset and Data Source

For EDA, datasets will consist of daily closing prices of well-known indices (i.e. S&P 500, S&P 500 Pure Value, VIX, etc.). This is to serve the purpose of determining what sectors outperform after times of stress.

I am fortunate enough to have a Bloomberg Terminal License, so almost anything financial data related will be queried from this software. That datasets I determine useful for building my model will then be queried from Yahoo! Finance or other publicly available datasets so my project can be a reproducible experiment. Karl Popper said it best in The Logic of Scientific Discovery: “non-reproducible single occurrences are of no significance to science.”

Rationale

People are unsure what to do with their money. And unfortunately, my project will not be an investment strategy, far from that. Everyone’s financial background and risk tolerance is different, not me or anyone can develop an investment strategy for everyone. What I do aim for is to glean significant insights from this downturn and make some predictions on how certain sectors of the market will behave.