Compare U.S Financial Market Most Recent Recessions

Dec. 2008 through Feb. 2009— (Housing Bubble) vs. Feb. 2020 through Mar. 2020- (COVID-19)

**Team Members**:

*Zahra Ahmadi, Sumeet Maheshwari, Brian Remite, Bryan Wilson*

**Project Description**: Focus on the financial industry sectors i.e. consumer discretionary, manufacturing, and travel.

**Research focus/questions to be answered:**

1. Focus on the U.S. stock market performance in 12/2008-02/2009 vs. 02/2020-04/2020
2. Find the most significant/severe rate of change in the financial market for each time period, and compare these rates of change.
3. Research the unemployment rate during the same time periods, to compare the unemployment rates of the two crises.
4. Hypothesis: The 2020 recession has been worse statistically, both in terms of the percentage of value lost in the stock market, as well as the unemployment rate (in both total number of unemployed persons, as well as the percentage of U.S. population facing unemployment.)
   1. Is this hypothesis correct? Why or why not?

**Breakdown of Tasks:**

* Research data-
  + Ensure it is applicable to historical stock market data (Dec. 2008- Feb.2009), and current stock market data (Feb. 2020-Apr. 2020)
* Utilize an API or other data source to determine most significant rate of change for each time period (for stock market as a whole)
* Import data into Pandas to clean up and (if necessary, standardize) datasets
* Use GitHub to track project iterations and tasks completed
* Use Matplotlib to create visualizations
  + Create visualizations of the 2008 and 2020 stock market recessions, specifically focusing on the period of time regarding the most significant rate of change.
  + Create visualizations of unemployment data for each recession.
  + Create a visualization to show the effect of the recessions on 4 specific companies, each from a different industry; this will show how a recession can affect companies and industries differently.
* Save all visuals as .png files for sharing with class & instructional team
* Write-up: Summarize all data and visualizations in a PowerPoint (include visuals) for presentation of data & findings to the class.