\*\*\* This document includes information on the steps taken to complete team project 1. \*\*\*

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* We have decided to analyze data which is relevant to the beginning of economic downturns. The goal is to find observable signals that can be used for trading or monetizing on the prediction of a potential downturn.
* The first steps taken were to set up group responsibilities, create questions that we wanted to answer, and decide which data sets would be utilized for analysis.
* The team decided that each section of the project would be worked on together. We would focus on individual parts of each “next-step” subjects, reconvene to share answers, and come to agreed upon answers and conclusions for each section.
* We decided that “quandl.com” would be the source of all financial data. A kudos must be given to Benjamin Aubry for suggesting the data site.
* A meeting was held that involved everyone scanning the website, “quandl.com”, for data that would be meaningful and impactful in our analysis.
* After reviewing the data site, it was concluded that we will analyze the following:
  1. Differences between corporate bond yields with ratings of AAA, BBB, and B ratings, vs the 5-year Treasury Bond yield. These ratings represent the highest credit quality, average investment grade credit quality, and a very low-grade credit quality vs the highest credit quality issued by the United States Treasury, respectively.
  2. The S&P 500’s average dividend yield vs the US 10-year Treasury Bond yield.
  3. Gold 1-month futures vs copper 1-month futures.
  4. S&P 500 Price to Earnings ratio (P/E ratio) per month.
  5. Comparisons between each calculated metric mentioned above and the S&P 500 1-month futures.
* A shared github repository was created to complete the project.
* The team decided that we wanted to analyze data after 1985 for each realized economic downturn.
  1. 1987 (Black Monday)
  2. 1999/2000 (Dot-com bubble)
  3. 2001 (September 11th)
  4. 2008 (The Great Recession)
  5. 2020 (Coronavirus)

\*Some data is not available for the specified dates, so the next earliest date available is used for comparison when necessary.

* The team collected data and began merging appropriate datapoints for analysis.