Project URL: [Forecasting S&P 500 returns using macroeconomic data](#)

Project type: Data analysis

Course code: 5741

Question Addressed

We (Purvesh Jain and Songyan Xu) propose a ORIE 5741 project in analyzing relationship between macroeconomics data and S&P 500 price. The question we want to address in this project is "Can macroeconomic data accurately forecast future S&P 500 returns, and if so, to what extent?"

Data Set

The dataset we want to use in this project is past 10 years of &P 500 prices as well as macroeconomics data including GDP, CPI, Non-Farm Payroll etc., which are accessible from federal reserve website and third-party data provider like Alpha Advantage.

Why this project is useful

The ability to accurately forecast market trends is invaluable for making solid investment decisions. This project might be useful for hedge fund manager as well as financial service firm.

Why we think we can success

Intuitively, there might be some relationship between Macroeconomics data and S&P 500 prices (e.g. high GDP implies bull market which might suggest

higher S&P 500 prices). Also, we can easily access extensive macroeconomic

datasets and financial market data online, which provides a solid basis for

building and testing our models.