Team members: Hsiao-Han Chen

Zeyu Hua

Liangquan Zhou

**Research Proposal**

Research question: Do Technology Sector stocks outperform other sector of stocks

Introduction: After the financial crisis, technology stocks always attract extensive attention in the news and in stock market. We will like to analyze all the stock and sector data from S&P 500 since financial crisis to explore whether technology sector outperforms other sectors.

Data link:

We will scrap data from the following website:

1. Daily stock data: https://finance.yahoo.com/quote/AAPL/history?p=AAPL
2. S&P 500 stock compoents and industry <https://en.wikipedia.org/wiki/List_of_S%26P_500_companies>

Method:

Data process: 500 stock prices scrapped from Yahoo Finance

Calculate return of stocks

combine the stock data with sector data

Calculate weighted return of each sectors

Exploratory Data Analysis

Inference of research questions.

Our research paper will be broken out into these sections below:

· Abstract

· Introduction

· Methods

o Descriptive Analysis

o Hypothesis Testing

o Inference Analysis

· Results

· Discussion

· References