UBS Quant Hackathon 2019

Members: Andrew J Morse, Michael Setyawan, Manaswi Mishra

Sector Rotation Strategy:

# Project Overview:

To explore a quantitative strategy which takes advantages of rotation among different sectors or countries within the equity market according to different market conditions. Design a strategy which invests in equity-only, and diversifies the portfolio with a dynamic weighting to have different risk exposure based on different market conditions. The performance will be measured by return, Sharpe ratio, and maximum drawdowns, in both absolute term and versus benchmark.

# Introduction:

Sector rotation is the action of shifting investment assets from one sector of the economy to another. Sector rotation involves using the proceeds from the sale of securities related to a particular investment sector for the purchase of securities in another sector. This strategy is used as a method for capturing returns from market cycles and diversifying holdings over a specified holding period.

Data procurement:

1. Refinitiv Data Source

* Stock prices
* ETF prices

2. Federal Reserve

* Risk free treasury rates for Sharpe Ratio

# Methods:

* Procure all S&P500 stock prices from Refinitive Database (Nov 1, 2016 to May 1, 2018)
* Based on the sector of the stock group all common stocks together to form a sector database
* After group sectors we are divided into 11 groups
* Communications
* Consumer Discretionary
* Consumer Staples
* Energy
* Financials
* Healthcare
* Industrials
* Information Technology
* Materials
* Real Estate
* Utilities

# Results:

Task 1 Outline the project requirements. What task(s) should the students complete?

Task 2

Task 3

# Discussion:

This is where students can record their ideas and research as they gather the information needed to complete their project.

# Future Scope:

After students complete any research necessary, this is where they will create a plan for their project. Consider requiring teacher approval before they continue to the creation/implementation phase of the project.

# Link to Project on GitHub:

Link to access project