

Assignment: Pension Funds Shiny

BOUN - ETM 58D

Due Date April 30, 2018

This is a group assignment. In this assignment, you are asked to build an interactive dashboard to help the decision making process of finding the best pension fund using previous weekly portfolio data. The data can be found on Moodle or using this link. The link also contains information regarding the columns.

Your task is to provide comparisons between funds, making forecasts about the future performance of funds with summary tables and plots in an interactive fashion using Shiny. You are required to take the data in, write generalized functions to analyze and compare any pension fund and provide suggestions with strong assessment. Finally, publish your app to shinyapps.io (use free account).

You can see detailed tutorials on Shiny in the course webpage and some links on Moodle. Here are some tips.

- Use `readxl` package to read the Excel file.
- You can use `lubridate::parse_date_time` function to parse the date information.
- Interactive version of `ggplot2` can be generated using `plotly` function. Just google “Plotly Shiny R” phrase.
- Government participation (`gov_contribution`) comes from the government’s own mutual funds (i.e. Katkı Payı Fonu).
- Invested total amount (`size_total`) comes from Contribution Amount (`contribution`) minus expenses. You can calculate the expense per contributed TL to find an “expense ratio” of the fund.
- Fund size is not a direct measure of performance. Return per TL invested is a better way to measure performance.