

Calculating excess returns using factor models

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Abstract

- **Problem:** This dissertation is to build a Java program which interfaces to the data.txt which includes excess returns and the variable data of the Single-index model formula
- **Objectives:** The purpose of this dissertation is to help users calculate stock excess returns quickly and analyse the significant of it. Moreover, the program helps users decide to invest in specific stocks or not.
- **Methodology:** Single-index model formula is used to build this Java program to easy calculate the stock excess return. To calculate each part of the formula, there is some regression formulas applied. And the analysis of the significant of the model will be showed in the program.
- **Achievements:** A Java program was created to help investors evaluate the effective of invests throughout single-index model. Using this model to calculate excess return of a security is the easy way to make a good decision. However, users may have to collect data and save txt file to make sure it can be applied to the java program. The significant of the analysis will be concluded after calculating data.