

Optimal portfolio of UniSuper Madhubashini Gunasingha, School of Mathematical Sciences, Monash University

UniSuper is a superannuation fund that is designed to provide an income for retirement. Most investments can be categorised as either Growth assets or Defensive assets. Growth assets are the most volatile despite producing a higher return. Defensive assets consist of less risk while offering a lower return. UniSuper investment strategies offer seven investment strategies namely, Cash, Capital Stable, Conservative Balanced, Balanced, Growth, Socially Responsible Shares and Shares. These strategies are a mix of Growth and Defensive assets. A flexible Unisuper feature is called Investment Choice, which allows people to invest in one or more of the above investment strategies. The purpose of my project was to find the optimal portfolio that caters the individuals' specific needs.

I used the Markowitz theory to identify all feasible portfolios that

- > Minimise risk for a given level of expected return
- > Maximise expected return for a given level of risk

The optimal portfolio was chosen from the above set of portfolios by considering different scenarios. Throughout this analysis it has been assumed that the returns follow a normal distribution.

I enjoyed this project very much and will be investigating this topic further in another project. I'd like to thank AMSI very much for giving me the opportunity to gain an insight into research. Presenting the results of my project at the "Big Day In" helped me massively to enhance my self-confidence and also to get to know a lot of people with the same interests.