

OPTIMAL WEIGHTS IN A PORTFOLIO: MOVING FROM A TWO-RISKY ASSET CASE TO MULTIPLE RISKY-ASSETS AND RISK-FREE SCENARIO

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ABSTRACT

There has been an increase in the use of software packages to aid students' understanding of the efficient frontier. This development has been accompanied by quantitative disciplines seeking to illustrate concepts in portfolio theory by incorporating these topics into courses in statistics. Students must be exposed to graphical versions, the calculus involved in the equations governing optimal weights and also the simultaneous equations that form the underpinning of the mathematical approach to determining optimal weights in a scenario comprising multiple risky assets and a risk-free security. This phased exposure would ensure that students have a better appreciation of the packages that are increasingly being utilized in courses on Portfolio Theory and Investments.

Keywords: *efficient frontier, optimal weights, minimum variance portfolio, simultaneous equations*