SENSITIVITY ANALYSIS OF RISK FREE INTEREST RATE TO OPTIMIZE PORTFOLIO GAIN WITH REFERENCE TO COLOMBO STOCK EXCHANGE

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Declaration

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Abstract

Historically, investors made their investments based on the gain that they can earn out of it. Although there had been high risk involved in high return gaining investment activities, it was the habit of people to expect more gain from an investment. In modern world, investment strategies and investment evaluating methods are rapidly used to create optimal portfolios. These methods were mainly used to optimize investments on financial assets such as stocks, bonds, deposits, treasury bills etc. The application of Markowitz model is of rare use in Sri Lankan context and on Colombo Stock Exchange. Main objective of this study is to explore a range of optimal portfolios an investor can approach with changes in risk free rate and identify a safe range of risk free rate for optimal portfolio investment. In order to conduct this study monthly closing stock prices of 18 companies listed under ASPI were used as the data sample. Mainly secondary data was used in this study and the data were collected from Bloomberg official web site. Data was analyzed using simple mathematical equations, statistical methods with MS excel and MATLAB software. Findings of the study reveal that there is safe risks free rate range 6.72% - 8.64% where investor can diversify investment between Ceylon Cold Stores PLC and Teejay Lanka PLC, 83% and 17% respectively.

Key Words: *Optimal risky portfolio, risk free rate, Safe range*

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List of Abbreviations

Abbreviation	Description
CSE	Colombo Stock Exchange
MVP	Minimum Variance Portfolio
MRP	Maximum Return Portfolio
RFR	Risk Free Rate
AWPR	Average Weighted Prime Rate
RA	Risk Aversion
OP	Optimal Portfolio