

Abstract

Optimization of the stock portfolio is needed by investors to obtain satisfactory results with value high return or low risk value. To get the expected portfolio, good calculations and algorithms are needed for optimization problems. In this final project will be discussed about portfolio optimization with Genetic Algorithms which will produce weights that will be used to calculate returns and choose the portfolio with the smallest risk. From the results that have been implemented in several previous studies it can be concluded that the Genetic Algorithm can be used as a method that is quite successful optimization problems. The stock data used in this final project are shares in the LQ45 index. Among them are BBNI, BBCA, TLKM, AKRA, KLBF, ASII. The results of this study also prove that risk calculation using semivariance is more optimal than using variance.

Keywords: *Genetic Algorithm, mean-semivariance, portfolio optimization, semivariance, LQ45*

