

Abstract

In stock investment an investor should make optimal portfolio in order to obtain satisfactory results with high return value or low risk value. Therefore, as an investor must be able to compromise in dealing with 2 objectives, the intended purpose is objective 1 which is expected return while for objective 2 is the Risk and to solve the that problem can be used Multiobjective NSGA (Non-Dominated Shorting Genetic Algorithm) algorithm. Therefore, as an investor must be able to compromise in dealing with 2 objectives, the intended purpose is objective 1 which is expected again while for objective 2 is the problem and to solve the problem that can be used Multiobjective NSGA (Non-Dominated Shorting Genetic Algorithm) algorithm. There have been several studies related to the Algoritma Multiobjective NSGA-II and it is evident that this algorithm is a pretty good recipient for the problem of 2 goal optimization problems. The data used at this time is the data belonging to the LQ45 index. The final result of the application of the Multi-objective Genetic Algorithm of NSGA-II will result in a weight that the weight will be used to calculate portfolio return and risk using semivariance then establish an efficient frontier. In this study the risk of using semivariance proved to produce an optimal risk when compared with the variance.

Keywords: NSGA-II , Multiobjective , Optimasi portofolio , semivariance, efficient frontier