

Optimal Portfolio Selection under Treynor Ratio Using Genetic Algorithms

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Abstract : In this paper a genetic algorithm was developed to construct the optimal portfolio based on the Treynor method. The GA maximizes the Treynor ratio under budget constraint to select the best allocation of the budget for the companies in the portfolio. The results show that the GA was able to construct a conservative portfolio which includes companies from the three sectors. This indicates that the GA reduced the risk on the investor as it choose some companies with positive risks (goes with the market) and some with negative risks (goes against the market).

Keywords : Optimization, genetic algorithm, portfolio selection, Treynor method

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