
Abstract: Optimization models play a critical role in determining portfolio strategies for investors. The traditional mean variance optimization approach has only one objective, which fails to meet the demand of investors who have multiple investment objectives. This paper presents a multi-objective approach to portfolio optimization problems. The proposed optimization model simultaneously optimizes portfolio risk and returns for investors and integrates various portfolio optimization models. Optimal portfolio strategy is produced for investors of various risk appetite. Detailed analysis based on convex optimization and application of the model are provided and compared to the mean variance approach.
