Abstract

Portofolio required by the investors is an optimal portofolio that has a small risk but the return is given greater. The optimal portofolio is obtained by finding efficient frontier of the mean *semivariance* portofolio. The mean *semivariance* portofolio represents an improvement over the previous portofolio of the mean variance portofolio in terms of the risk value obtained. This is because the mean variance portofolio only considers the risks measured only by the variance or the average deviation of the return value of the reference value ie the expectation return. Both deviations of return value are greater or smaller. While the portofolio mean semivariace consider the risk based on the deviation of the smaller return value.

In this final project, we discussed the implementation of Interior Point method to find efficient frontier of portofolio mean *semivariance*. Method of Interior Point is used to solve the problem of optimization with constraints. The result of the final duty experiment is efficient frontier mean *semivariance* formed coinciding with efficient frontier mean variance using *semivariance* portofolio. Of course, in the efficient frontier, the portofolio of mean *semivariance* is below the mean variance portofolio because the semivarian value of the mean *semivariance* portofolio is smaller than the semivarian value of the mean variance portofolio.

Keywords: *efficient frontier*, *mean semivariance*, *interior point* **method**