

## Abstract

Risk scale is an important things for people or a company for taking some decision to avoid a risk to happen. There are several methods to calculate the risk on the portofolio. One of which is VaR at confidences  $(1-\alpha)$ . However, risk has a great chance for above VaR. Expected Shortfall is an coherent risk scale, has an useful range for alternative in calculating risk estimation to avoids loss rate exceed the VaR. Portofolio from some assets to deciding the risk score at portofolio need an each Marginal Distribution Information from the assets and combination distribution function. Combined distribution function approach with Copula considering the level of dependence on one another assets, measured using Kendall's Tau. At this Final Project expected shortfall estimation with Archimedean Copula especially Copula Clayton and Gumbel. Copula Gumbel is a good alternative for calculating the Expected Shortfall Portofolio with score 0.0160 at Confidences 90% , Confidences 95% is 0.0214 and Confidences 99% is 0.0329 at the 998th periods..

**Keywords:** Portfolio, VaR, Expected Shortfall, Archimedean copula, joint distribution