

Abstract: We consider the estimation of the weights of optimal portfolios from the Bayesian point of view when log-returns are normally distributed. Using the standard priors for the mean vector and the covariance matrix, we derive the posterior distributions for the weights of the global minimum variance portfolio.

Moreover, we reparametrize the model to allow informative and non-informative priors directly for the weights of the global minimum variance portfolio. For almost all models the posterior distributions for the portfolio weights are derived in explicit form. The models are compared by using the coverage probabilities for credible intervals. In an empirical study we analyze the posterior densities of the weights of an international portfolio.