



Bayesian inference for the tangent portfolio

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Abstract

In this paper we consider the estimation of the weights of tangent portfolios from the Bayesian point of view assuming normal conditional distributions of the logarithmic returns. For diffuse and conjugate priors for the mean vector and the covariance matrix, we derive stochastic representations for the posterior distributions of the weights of tangent portfolio and their linear combinations. Separately we provide the mean and variance of the posterior distributions, which are of key importance for portfolio selection. The analytic results are evaluated within a simulation study, where the precision of coverage intervals is assessed.

Keywords: asset allocation, tangent portfolio, Bayesian analysis

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