

Value-at-Risk for US Bank Portfolio Based on a New Fama-French 5-Factor Model

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Abstract

In this paper, we suggest a new method to calculate Value-at-Risk, which uses the model in Li et.al.(2017). Empirical results show the model in Li et.al.(2017) clearly outperforms the one used in Riskmetrics. Results of Backtesting techniques show SSAEPD errors and EGARCH-type volatilities lead to an improvement in the validity of VaR calculations.

Key words: Value-at-Risk; Asymmetric Exponential Power Distribution (AEPD); EGARCH; Riskmetrics.

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