Estimation and Testing of Portfolio Value-at-Risk based on L-Comoment Matrices

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The estimation performance of portfolio value-at-risk (PVAR) hinges on the approximation of the multivariate profit-and-loss distribution (PL). This study applied the multivariate L-moments developed by Serfling and Xiao (2007) and resorts to nonparametric multivariate estimators and descriptive measures. The PVAR estimates are examined via four backtesting methods. In addition to the three backtesting approaches: unconditional coverage, independence, and conditional coverage (Christoffersen 2003), the new approach developed by Wong (2008), based on saddlepoint approximation technique, is included.

References


