

Efficient Frontier: Comparing Different Volatility Estimators

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Abstract : Modern Portfolio Theory (MPT) according to Markowitz states that investors form mean-variance efficient portfolios which maximizes their utility. Markowitz proposed the standard deviation as a simple measure for portfolio risk and the lower semi-variance as the only risk measure of interest to rational investors. This paper uses a third volatility estimator based on intraday data and compares three efficient frontiers on the Croatian Stock Market. The results show that range-based volatility estimator outperforms both mean-variance and lower semi-variance model.

Keywords : variance, lower semi-variance, range-based volatility, MPT

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