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ARE THE INTRADAY VOLATILITY ESTIMATIONS MORE REPRESENTATIVE THAN THE CONVENTIONAL MEASURES? EVIDENCE FROM THE EURTRL FX.

Abstract:

This paper aims to assess the accuracy and representativeness of Value at Risk (VaR) estimation models for the highly volatile Turkish lira (TRY) and Euro (EUR) FX rate. We compare the performance of various VaR models commonly used in the financial and banking industry and examine the effectiveness of intraday models, particularly the Garman and Klass (1980) and the Parkinson (1980) approaches, in improving VaR estimation relative to conventional models such as Variance Covariance and Exponential Weighted Moving Average. Additionally, we highlight certain shortcomings of the VaR legislation proposed by Vasileiou (2016, 2017). Our findings demonstrate that intraday volatility estimations not only enhance the accuracy of VaR estimations, but also provide a more representative assessment of real risk. The results of this study have significant implications for scholars, regulators, portfolio managers, and investors seeking to better understand and manage risk in the TRY-EUR FX market.

References

Garman, M. B., & Klass, M. J. (1980). On the estimation of security price volatilities from historical data. Journal of business, 67-78.

Parkinson, M. (1980). The extreme value method for estimating the variance of the rate of return. Journal of business, 61-65.

Vasileiou, E. (2016). Overview of the Greek value at risk (VaR) legislation framework: Deficiencies, proposals for future revision and a new suggested method. Journal of Financial Regulation and Compliance, 24(2), 213-226.

Vasileiou, E. (2017). Value at Risk (VaR) historical approach: Could it be more historical and representative of the real financial risk environment?. Theoretical Economics Letters (ABS 1), 7, 951-974.

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Value at Risk; Intraday Volatiity; VaR Legislation

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