Value at Risk based on Skewed Distributions: Evidence from Asian Equity Markets

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ABSTRACT

It has been twenty years since the Basel Committee on Banking Supervision (BCBS) first announced the Capital Accord. Then, the concept of downside risk or Value at Risk (VaR) was launched by Morgan (1997), which is a concept that has received significant attention from both investors and market risk management scholars. Furthermore, Polanski and Stoja (2010) apply the parametric density function of three skewed distributions to model VaR. Subsequently, we contribute to current literature by predicting one-day-ahead VaR to backtest the risk measurement performance of six Asian markets that receive less attention in academia.

By evaluating the risk modeling performance, the GHD-based model shows more reliable and efficient outcomes in terms of market volatility prediction compared to the NID- and STD-based models. Thus, we believe that this finding is useful for investors who want to minimize their risks before doing investment decisions. In addition, all derived risk forecast models are likely applied in Asian countries, especially in South Korea where has tight financial mechanism.

Keywords: Value at risk, expected shortfall, risk management, equity market, skewed distributions.

JEL Classification: C22, C25, C52, O30

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