

## ABSTRACT

This paper investigates the performance of DCC-GARCH and Bayesian estimation technique in predicting stock market volatility, using the test for Superior Predictive Ability (SPA). Bayesian framework is increasingly used in studying the predictability of stock returns as it can provide a more accurate measure of ex-ante stock price volatility. Our study employs four different priors- Inverse Wishart (IW), Scaled Inverse Wishart (SIW), Hierarchical Inverse Wishart (HIW) and Separation Strategy (SS). We evaluate these priors through an application to the return dataset of top 50 companies of three different financial markets (United States, United Kingdom and India). We also use three different portfolio allocation methods (Minimum Variance portfolio, Inverse Volatility portfolio and Equal Risk contribution portfolio) to examine whether the one step ahead forecasts of Bayesian approach outperform the true model. The findings demonstrate that the DCC-GARCH and Bayesian estimation using IW outperform the true model under all three portfolio allocation techniques. The results of this study are expected to lead to a comprehensive understanding of stock market volatility with relevant applications in the world of risk management.