Abstract

In this paper we identify the most efficient ARCH-type model that can be applied to the Nairobi stock exchange data for forecasting and prediction of volatility which in turn is important in pricing financial derivatives, selecting portfolios, measuring and managing risks more accurately. The establishment of an efficient stock market is indispensable for an economy that is keen on utilizing scarce capital resources to achieve its economic growth. The purpose of this study was to determine the most efficient model from the symmetric and the asymmetric GARCH models. The models were evaluated by use of the Shwartz Bayesian Criteria (SBC), Akaike Information Criteria (AIC) and the Mean Squared Error (MSE). The results show that the AR-Integrated GARCH (IGARCH) models with student's t-distribution are the best models for modelling volatility in the Nairobi Stock Market data.