

VOLATILITY AND ANALYSIS OF BRICS STOCKS

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ABSTRACT

This study investigates financial markets' volatility and verifies the model that is suitable in BRICS stocks (2003-2018). The data were gotten from Yahoo finance. For the methodology, the ADF was applied to test stationary of the BRICS stocks while heteroskedasticity test was used to check if the BRICS stocks were suitable for ARCH family model. All the BRICS stocks were stationary following differencing at first level because statistical values of ADF were less compared to critical ones at 1%, 5% and 10% respectively. The criteria for selecting the suitable model is one with the smallest value of AIC & SIC. TARCH model had the lowest values of SIC & AIC of BRICS stocks. TARCH was model that was best fitted and the stock with the lowest value of AIC and SIC was South Africa stock with AIC = 15.23 and SIC = 15.24. Also, the GARCH model had the lowest AIC and SIC values for BRICS daily returns. GARCH model was the best-fitted model for daily returns with the lowest value of AIC and SIC. This study concludes that the TARCH model performs best in the BRICS stocks while the GARCH model perform best in the BRICS daily return.

Keywords: Financial Market, Volatility, Bricks stocks, ARCH, TARCH, GARCH