Independent study title COMPARISON OF SINGLE-REGIME

GARCH-TYPE MODELS WITH THE MARKOV SWITCHING MODEL ON FORECASTING SET50 AND SET100

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## **ABSTRACT**

In this paper, we investigate the performance of the single-regime GARCH-type models and the two-regime GARCH-type models in forecasting volatilities of SET50 and SET100 index returns. We implement two techniques in the out-of-sample forecasting which are the fixed window and the rolling window. Moreover, we select 1 week, 1 month and 3 months to compare the k-period ahead volatility forecasting performance generated from these models. The root mean squared error (RMSE) is applied in this study to select the best accuracy model. For the SET50 index return, MRS-GARCH model outperforms in case of fixed-window and GARCH model outperforms in case of rolling-window. In the case of the SET100 index return, the GJR-GARCH model performs the best.

Keywords: Volatility forecast, GARCH-type models, SET50 index return, SET100 index return, out-of-sample forecasting, Root Mean Squared Error (RMSE)