UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

FORECASTING THE PRICE OF RUBBER IN MALAYSIA BY USING GEOMETRIC BROWNIAN MOTION MODEL

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ABSTRACT

This study forecast the prices of rubber in Malaysia. The main objective of this study is to evaluate the accuracy of GBM model in forecasting the prices of rubber. The monthly data of average rubber price is obtained from Official Website Malaysian Rubber Board. The price of rubber was retrieved in RM/kg on monthly basis from January 2008 until December 2017. The accuracy of the model is evaluated using Mean Absolute Percentage Error (MAPE) by comparing the actual and forecasted rubber prices. Next, another objective in this project is to identify the trend of the actual and forecasted rubber prices. The actual and forecasted price of rubber, were compared based on the graph that shows the volatility of these prices. In addition to determine the reliability of GBM, this project compare the error by using the Moving Average model. The mean absolute percentage error (MAPE) for GBM model are less than 10%. It shows that the forecasted prices are highly accurate. Thus, this model can be applied to perform the forecasting method and predict the future prices for commodity market in Malaysia.