UNIVERSITI TEKNOLOGI MARA

MODELLING HETEROGENEOUS VOLATILITY BEHAVIOUR IN MALAYSIAN STOCK MARKET

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MSc

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

This study examines the volatility behavior in the Malaysian stock market by considering the heterogeneous issue highlighted. To examine and modelling the persistency and leverage effect in volatility by using different frequencies of data in different indices characteristics in Malaysian stock Market and taking into account different distribution assumption. Another objective is to examine and modelling the persistency and leverage effect in volatility by using before, during and after crisis sample period. This study employed General Autoregressive Conditional Heteroscedasticity (GARCH), Exponential General Autoregressive Conditional Heteroscedasticity (EGARCH) and Threshold General Autoregressive Conditional Heteroscedasticity (TGARCH) with the inclusion of different distribution which are normal distribution, student-t distribution and generalized error distribution in measuring volatility behavior. Scope of data starting from 2000 until 2018, consisting of daily and weekly data on FTSE BM KLCI, FTSE BM Top100, FTSE BM Mid70 and FTSE BM Small Bursa Malaysia. The study's sample period included overall period and three different economic conditions, namely; 1) before the global financial crisis; 2) during the global financial crisis and; 3) after the global financial crisis. The result showed that daily data is more persistent than weekly data and most of the return series shows the presence of leverage effect in the Malaysian stock market in daily data. In terms of modelling, most of the volatility model with non-distribution is an appropriate model to measure the persistence and leverage effect in the Malaysian stock market.

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