SUMMARY

MIVTHAHL RAHMA. Asymmetric Volatility in Indonesian Government Bond: E-GARCH Approach. Supervised by NOER AZAM ACHSANI and TONY IRAWAN.

High composition of government bond to total government debt could be seen as an Indonesian government’s strategy in obtaining sources of financing with favorable payment scheme. Currently, for about 91% of government bond is being tradable in secondary market. Therefore, it can be said that mostly, government financing portfolio will be due in the long run. Yet, most of government bond which tradeable absorbed by foreigners, regardless of Non-Rupiah bond target in international market. Adding ownership on government bond, as much 37.59% or equal to 523 trillion owned by foreigners.

Huge amount owned by foreigners presumably due to high expected return in line with its risk. High risk is minimized with the long term bond ownership. This research is conducted to see and analyze the existence of asymmetric volatility in Indonesia government bond observed which tradeable either in domestic or international market by comparing type, denomination and bond maturity.

This study concludes that the E-GARCH asymmetric volatility model for the Indonesian Government Bond in Rupiah denomination which traded domestically shows that significance negative asymmetric volatility return increasingly found with shorter conventional bond period while there is no asymmetric volatility in any Islamic bond maturities. Therefore, the shorter conventional bond maturities, negative shocks will have a greater impact than positive shocks in the same magnitude. Meanwhile, significance negative asymmetric volatility found both in the Indonesia government bond series in US Dollar denomination which traded internationally.

Moreover, volatility which measured by standard deviation showing that high return associated with low risk is shown on comparison conventional bond or Islamic bond based on maturities where the shorter maturities of bond series, receive the higher return yet bear the lower risk. But when comparing between conventional and Islamic bond series in Rupiah denomination which traded domestically, high risk and high return applies where Islamic bond series has both return and risk higher compared to conventional bond series. Besides, either in domestic market or international market, Islamic bond is more risky than conventional bond. Unfortunately, higher risk is associated with lower return for Islamic bond rather than conventional bond in US Dollar denomination which traded internationally. Therefore, whether in domestic market or international market, either investor or fund manager could combine conventional and Islamic bond series in order to minimize portfolio risk. Moreover, high risk and high return also applies when comparing between Islamic bond series in Rupiah denomination which traded domestically and in US Dollar denomination which traded internationally.

Keywords: asymmetric volatility, Indonesian government bond, E-GARCH