SUMMARY

PARDOMUAN SIHOMBING. Determinants of Government Bond Yield Curve. Supervised by HERMANTO SIREGAR, ADLER H. MANURUNG and PERDANA W. SANTOSA.

The bond market plays an important role as an alternative source of financing and investment in today's economic growth. The development of government bonds experienced a rapid growth. This is evident from the outstanding government bonds grew by 13.04 percent and 29.23 percent per year for government bond issuance. The general guideline used by investors and market participants to be able to monitor the portfolio value progress of government bonds in hand is to monitor the progress of the yield curve movement. The yield curve movement will have an impact on the interest expense to be borne by the government on the bonds issued. For companies, the yield curve is very useful when used as a benchmark to issue bonds with the same period. Coupons can be determined by increasing risk premium (premium) above the government bond yield with the same time period. While for investors, the yield curve may be a reference to the expected yield or used to measure the performance of their bonds’ portfolio.

Yield curve is identified in three factors called the slope, curvature, and level. These factors represent the short-term, medium-term and long-term interest rates. This study aims to analyze the determinants of yield curve in Indonesia government bond market (Surat Utang Negara or government securities) within a study period of July 2003 to September 2013. Determinants of the yield curve broadly consist of macroeconomic fundamentals, liquidity/solvency factors, external factors (external shock), and market risk. The variables used to explain these factors are Industrial Production Index, Consumer Price Index (CPI), money supply, exchange rate against the U.S. dollar, BI rate, Jakarta Composite Index, foreign reserves, foreign ownership in government bonds, world oil price, The Fed rate, and S&P volatility index.

By using impulse response function (IRF) and forecast error variance decomposition (FEVD) analysis, this study generally aims to: (i) analyze the factors that affect the movement of the yield curve of Surat Utang Negara (SUN) in Indonesia by observing the response of the yield curve to shocks resulted from these factors and (ii) analyze the contribution of the factors that influence the movement of the yield curve of Surat Utang Negara (SUN) in Indonesia.

Based on the results of impulse response function (IRF) analysis, the development of the yield curve on government bonds experienced fluctuating movements influenced by liquidity/solvency factors, macroeconomic fundamentals, external factors (external shock), and market risk factors. While based on the results of the forecast error variance decomposition (FEVD) analysis, the study found that the movement of interest rates and stock indices contribute dominantly to the slope fluctuations. Meanwhile, curvature fluctuations were more contributed by the movement of interest rates. Finally, the movement of exchange rate, inflation, foreign ownership and foreign reserves contributed significantly to the movement of level.

The analysis and findings of this study resulted in several managerial implications addressed to relevant stakeholders. For the government, as the economic authority, the issuance of government bonds (SUN) should be done with
attention to the economic need to achieve a healthy and sustainable growth. Issuance of government bonds could take into consideration the inflation rate, Bank Indonesia interest rate, rupiah exchange rate, foreign ownership and foreign reserves in order to obtain low interest expense (cost of fund).

On the monetary policy side, Bank Indonesia must be careful in determining the interest rate since BI rate is very effective in affecting investment and economic growth. In the context of fiscal policy, the research found that the exchange rate and foreign reserves are very influential on long-term interest rates. Therefore, a government policy is necessary to balance the budget in order to increase foreign exchange earnings so as to avoid obstacles in investment growth due to high interest rates.

In order for government bond investors to maximize profits on their investment, they must be able to respond to bond price fluctuations in the market. The study found that innovations in Bank Indonesia interest rate, inflation rate as measured in the CPI, the rupiah exchange rate against the U.S. dollar, foreign ownership and foreign reserves have an impact on the price of government bonds. Strategically, the action of selling short-term government bonds and buying medium-term government bonds that they have upon receiving news on shocks to BI interest rate is a profitable strategy. Investors may buy medium-term bonds and hold them for fourteen months before selling them along with the disappearance of the volatility effects.

Meanwhile, investors will benefit from selling medium-term government bonds and buying short-term government bonds upon receiving news on shocks to the inflation rate. Investors may buy short-term government bonds and sell them within two months as the price of these medium-term government bonds can recover immediately. For issuers, government bond yield curve fluctuations greatly affect the price and yield of bonds that will be offered to investors. Errors in understanding the development of variables that affect the movement of government bond yield curve would result in high cost of borrowing.

Keywords: curvature, level, slope, vecm, yield curve