

Time-varying Term Premium: Evidence from Thailand

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The Expectation Hypothesis (EH) states that long-term interest rates are weighted average of expected future short-term rates over the lifetime of the long term asset plus the term premium which is held to be constant. However, several empirical evidence is still controversial on whether the EH holds in both developed countries (e.g. Fama and Bliss, 1987; Gordon, 2004; Cochrane and Piazzesi, 2005; and Gravelle and Morley, 2005) and emerging markets (Guillen and Tabek, 2008). Therefore, this paper applies a Kalman filter approach to test the EH and characterize how term premium have changed over time for short-term Thai interest rates. Monthly data from January 2001 to February 2015 is used in this study. The advantage of Kalman filter approach is that it does not require a prior specification of state variables that affect the changes in the term premium. Specifically, the Kalman filter approach is used to extract unobserved term premium from forward rate premium, which is defined as the difference between the implied three-month forward rate and the expected three-month spot rate. Our results show that the term premium are time-varying which implies that the EH is strongly rejected. Furthermore, the macroeconomic variables are investigated for possible drivers of the term premium. GARCH model is used to estimate the conditional volatility of exchange rate, inflation rate, output growth and money supply, in particular. There is positive relationship between term premium and inflation rate volatility; however there is no significant relationship between term premium and other variables. Even though the inflation rate volatility does not completely explain the time-varying term premium, it does provide some evidence for monetary policy implementation. Accordingly, if the long-run inflation rate volatility is lower, the term premium would be more stable to facilitate monetary policy transmission mechanism.

Keywords: Expectation hypothesis; Time-varying term premium; Kalman filter

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