



Testing the Expectation Theory of the Term Structure of Interest Rates in Turkish Fixed-Income Securities Market.

Mehmet ARSLAN

Gazi University

Commerce and Tourism Education Faculty

Department of Banking Education

mehars@gazi.edu.tr

SUMMARY

The fixed-income securities market in Turkey, have been gaining important developments in terms of both volume and depth. In parallel with these developments the level of efficiency is also increasing which contribute economic growth and competitive structures of the markets. With the increase in national and international fixed-investment, the need for larger amount of financing arrangements and development of instruments that corresponds those needs have become a compulsory component of the market. Besides, Turkish fixed income markets are dominated by public instruments which's share need to be lowered to allow private financial institutions to take part in financing of investments. The banking sector that enjoys about 90% of the Turkish financial market also need means that enable them forecast behavior of the interest rates for increasing efficiency and smooth functioning of financial markets.

The volume, depth and importance of the fixed-income securities markets dictate the researcher and authorities to investigate and model behavior of the term-structure of interest rates, since Central banks could only affects short-term interest rates directly while longer terms interest rates are determined by the expectations' of market participants.

Three theories have been developed to explain the term structure of interest rates, that is, the relationship among interest rates on bonds of different maturities reflected on the yield curve pattern: (1) Pure expectation theory, (2) Market segmentation theory, and (3) Liquidity premium theory. Expectation theory of interest rates; which states that, the interest rates on long term bond will equal an geometric average of short-term interest rates that market participants expect to occur over the life of the long term bond.

This study empirically tests the expectations hypothesis of term structure of interest rates, in Turkish fixed-income securities market. In the study Johansen and Juselius (JJ test) co-integration test has been applied to determine the existence of at least one common trend between short and long term bond interest rates, and it has determined. Therefore both $r = 0$ and also $r \leq 1$ co-integration vector hypothesis have been rejected. In other words, based on the data covering January 3, 2003 through June 2010, and consist of 89 observation on each of the 8 different maturity ranging from 3 months to 5 years, it was determined that there were more than 1 co-integration ($r > 1$) vector in the series. The results indicate that in Turkish fixed-income securities market shorter-term interest rates effects longer-term interest rates. In fact, granger causality test applied and its results also confirm the findings cited above. Besides, bearing some very important implications for Turkish monetary authorities that they could predict and observe behavior of the longer-term interest rates based on the given change in short-term interest rates.