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ABSTRACT

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Abstract

The purpose of this paper is to analyze the information content of term structure of interest rates and its continuous depiction known as yield curve. The yield curve is a comprehensive indicator of the economy and has different usages in finance and in macro economy. The study proceeds from factors forming the term structure and the related financial details to observable yield curve and its informational content and interpretation.

The term structure of interest rates has three main shapes. So called normal form is the upward sloping yield curve, the second one is the downward sloping yield curve and the third one is the flat term structure of interest rates. In the case of normal yield curve better economic outcome is expectable in the future than at present whereas the downward sloping yield curve is considered as a sign of weaker economic periods. In the case of flat term structure no substantial changes in present spot rates are expectable.

The yield curve has three principal components which describe the nature of the term structure of interest rates. These components are determined so that the first principal component accounts for the most variance of the term structure where the second one accounts for the most of the remaining variance etc. The level-factor of the yield curve is the first principal component, the slope of the yield curve is the second and the curvature of the yield curve is the third principal component. The principal component analysis is an important method of interest rate study and it is also examined in the empirical part this study.

The three main theories of term structure of interest rates are rational expectations theory, liquidity preference theory and the preferred habitat-theory which is considered as most convenient theory to explain the observable yield curves.

In the macroeconomical context the yield curve is one of the leading indicators of the economy. Its significance is in forecasting future interest rates and inflation, future state of the economy and in formulation of monetary policy. Besides the present level of interest rates the interest rate difference known as an interest rate spread is crucial measure. The two best known categories of spread are term spread and spread between corporate and government securities. The term spread determines the shape of the yield curve and the latter one is a risk measure for corporate securities.

In the empirical section of this study the US Treasury term structure of time period Q1/1982 – Q4/2006 is examined. Individual characteristics of one month to thirty year rates are covered and the interrelationships of the time series are tested. Furthermore the properties of the entire term structure and its relationship towards selected macro variables are examined.

Key words	term structure of interest rates/yield curve, principal components, growth rate
Further information	