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## **TERM STRUCTURE OF CREDIT SPREADS AND THE MACROECONOMY IN JAPAN : A GLOBAL FACTOR APPROACH**

### **Abstract:**

The purpose of this study is to extract the common factor from individual credit spreads of major Japanese corporate bonds using state-space modeling and examine the predictive contest of the credit spread for the real economy. Exploring the relationship between credit spreads and future real activity can be motivated by the "financial accelerator" theory. A key concept in this framework is the external finance premium," the difference between the cost of external funds and the opportunity cost of internal funds due to financial market frictions. A rise in this premium makes outside borrowing more costly, reduces the borrower's spending and production, and consequently hampers aggregate activity.

Empirical evidence on the performance of credit spreads as predictors of GDP on the other hand is very scarce. Existing studies use the aggregate credit spread by rating categories in US corporate bond market. However it is difficult to analyze the corporate bond spread by using the aggregated credit spread in Japan the problems lie in the fact that the size of Japanese corporate bond market is so small that the average value of the yield depends mainly on the issuers with the large amount of the issuers such as electric power. To overcome the difficulty I apply Diebold, Li and Yue (2008) method and extract the common factors in the term structure of credit spreads in the Japanese corporate bond yield spreads.

The results indicate estimated common factors are important drivers of individual credit spreads. My results also show that credit spreads common factors have a substantial predictive power for future Japanese economic activity. This study makes a contribution to forecasting the future macro variables.

### **Keywords:**

Term Structure Model; Credit Spreads; Global Factor; State-Space Model; Forecasting Macroeconomic Variables

**JEL Classification:** C58, E47, F47