Term Premium in International Yield Curves: Role of Global and Local Factors

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Abstract

This study aims to develop joint model of government yields curves in multiple countries and decompose term premium into global and local factors. Our approach has extended Diebold, Li and Yue (2008) to an arbitrage-free setting, proposing a Global Factor Model in which country yield curves may depend on global-level, slope and curvature factors as well as country-specific local factors. The results indicate strongly that global yield-level, slope, and curvature factors do indeed exist and are economically important, accounting for a significant fraction of variation in country bond yields.%% with interesting differences across countries. Moreover, the global yield factors appear linked to global macroeconomic fundamentals and sentiment factors. We decompose model implied forward term premium into global and local factors and level, slope and curvature and shows that global factors have an important role for explaining time variation of term premium for Germany and UK while local part is dominant for Japan. In the low interest rate period, the curvature factors appear more important to explaining term premium dynamics especially for US Germany and UK.

JEL classification codes : C13;C32;E43;F3;G12;G15.

Keywords: No-arbitrage affine term structure, Nelson-Siegel Model, Global Factor, Term Premium