The Dynamics of Stock-Bond Return Relations and Stock Market Volatility: Evidence from Wavelet Analysis

Fu-Lai Lin, Yu-Fen Chen, Sheng-Yung Yang
E-mail: fllin@mail.dyu.edu.tw

ABSTRACT
This paper adopts continuous wavelet analysis to investigate the time variation features of stock-bond return relations across different frequencies from 1988 to 2014. We also examine whether the time variation features of stock-bond return relations can be linked on two dimensions: fundamental factors and stock market uncertainty. The empirical results show that the short-run and long-run dependences between stock and bond did vary over time. In addition, no matter whether annual frequency or quarterly frequency is observed, stock and bond returns have positive sign sensitivity to short rate and the slope of term structure, while their sensitivity to stock market volatility is negative. Moreover, the impact of crisis on long-term stock-bond relation is significantly negative while the impact on short-term relation is significantly positive. Hence, depending on which factors dominate, the realized correlation can be either positive or negative. The findings provide economic implications to investors who determine portfolio allocations as well as the policy makers who conduct macroeconomic policy and monitor financial markets by observing changes in these state variables.

Keywords: Stock-bond return relations, Stock market uncertainty, Wavelet analysis

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