Price Discovery in China's Corporate and Treasury Yield Curves

Eric Girardin

Aix-Marseille University, CNRS, EHESS, AMSE

Sandrine Lunven

TAC Economics

Hongyi Chen

Hong Kong Institute for Monetary and Financial Research

March 2021

Summary

As financial development progresses, the maturity structure of bond yields plays a rising role not only in the financial system but also as a key transmission channel of monetary policy. China is likely to be no exception. However, specific characteristics in China's bond markets raise two major questions. First do China's Treasury bonds offer the benchmark term structure of yields, or is this role fulfilled by the young but fast expanding corporate bond market? In other words, where does price discovery take place in the Chinese bond market in terms of the different components of the yield curve?

We identify both dynamic and long-run relationships between each of the level, slope and curvature factors of the Treasury and corporate bond markets yield curve in China. We aim at determining which market plays a leading role in the discovery of each factor of the yield curve.

We obtain three main results. First, we document for the first time the presence of a long-run relationship between the corporate and Treasury bond markets in China both for the level and the slope of their yield curve. Second, such a long-run relationship appears to be stable between the slopes over the full sample 2006-2017, but shows a break for the level factor in 2012. Third, the

source market for price discovery varies with the parameters of the yield curve. While the corporate bond market is the source of price discovery for the level factor, this function is fulfilled by the government bond market for the slope parameter.

The finding that the Treasury bond market is not fully dominant in level bond-pricing may not come as a surprise. Although China's corporate bond market has developed rapidly in the past fifteen years, there were few default cases during that period. It is believed investors treat the default risk of corporate bonds as similar to that of Treasury bonds, and benefit from the high corporate spread. Our results for the slope parameter imply that market-oriented reform has progressed enough for the Treasury bond market to already provide a benchmark slope for the yield curve of corporate bonds. When the reform progresses further, we would expect corporate bonds to be priced according to their risk profile which should make the Treasury market lead in price discovery also for the level of the yield curve.