Dissecting the Segmentation of China's Repo Markets

Xiaoqing Eleanor Xu
Seton Hall University

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Summary

China repos trade in the over-the-counter interbank market as well as the stock exchange, but repo rates in these two markets are associated with large and persistent spreads that indicate market segmentation instead of integration. This paper examines the behaviours, sources, and drivers of the spread between China's exchange and interbank repo rates from December 2006 to June 2018. After adjusting for different day-count quoting methods, I dissect the exchange to interbank repo spread into two components: cross-market segmentation between exchange and interbank markets for non-depository institutions (NDIs), and within-market counterparty segmentation between NDIs and depository institutions (DIs) in the interbank market.

Although NDIs can participate in both markets, the exchange to interbank cross-market spread for NDIs is large and positive for 1-day repos. However, this cross-market spread for NDIs on 1-day repos does not generate economically significant arbitrage opportunities in most scenarios after considering trade size, cross-market transaction costs, and additional trading frictions. On the other hand, the average exchange to interbank spread for NDIs is small and negative for 7-day repos, reflecting the outcome of less barriers for cross-market arbitrage in the longer tenor and benefit of the

exchange's counterparty guarantee. Finally, the within-market counterparty spread in the interbank repo market is much larger and more dominating for the 7-day repos. With greater counterparty credit risk and more liquidity constraints, NDIs face higher rates than DIs in the interbank repo market. This is most evident for the 7-day repos due to the PBOC's frequent liquidity injection to DIs through open market operations in the 7-day tenor.

Further analysis uncovers the impacts of quarter-end effect, monetary policies, and shadow banking activities on the degree of cross-market segmentation between the exchange and interbank repo rates for non-depository institutions, and within-market segmentation between depository and non-depository institutions in the interbank repo market. This study sheds light on the sources and drivers of the segmentation between exchange and interbank repos in China, and provides an important basis for the formulation of macroprudential policies to mitigate systematic risk in China's financial sector.