The RMB Central Parity Formation Mechanism after August 2015: A Statistical Analysis

Yin-Wong Cheung

City University of Hong Kong

Cho-Hoi Hui

Hong Kong Monetary Authority

Andrew Tsang

Hong Kong Institute for Monetary Research

March 2017

Summary

We investigate the renminbi (RMB) central parity formation mechanism following the August 2015 reform. Statistical models are formulated to assess the linkages between the central parity and the alternative variants of the RMB exchange rate, market volatility and selected control variables. In a linear regression framework, we identify the roles of the onshore and offshore RMB exchange rates and the US dollar index, but not the RMB currency basket index. However, the marginal effect of the RMB index is revealed via a multiplicative interaction model that incorporates a condition variable given by the volatility of the offshore RMB market. Our empirical results reconcile the market's skeptical view and the repeated official messages about the reference to a currency basket. The offshore RMB volatility exerts a dampening effect on the links between the central parity and its determinants, reflecting that Chinese authorities do not hesitate to adjust their policy actions under threat of high volatility.