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Bank capital and liquidity creation: Evidence from the Russian experience

In this paper we examine the relationship between regulatory bank capital and liquidity creation. We test the "financial fragility-crowding out hypothesis" and the "risk absorption hypothesis" on the sample of 885 Russian banks over the 2010–2019 period. Inspired by Berger and Bouwman's (2009) approach, we develop a liquidity creation measure that simultaneously considers the category and maturity of secondary accounts. After conducting several robustness checks, we report that bank capital is negatively related to liquidity creation which supports the "financial fragility-crowding out hypothesis". We also show that this relationship is independent of the bank size and the economic cycle. Our findings suggest that the Central Bank of Russia faces a trade-off between financial stability and liquidity creation by the banking system, as tougher regulatory capital requirements decrease banks' abilities to finance the real sector of the economy.

Keywords: liquidity creation; total capital ratio; the Russian banking system; Basel III.
JEL classification: G21; G28.

1. Introduction

The 2008–2009 global financial crisis revealed the mechanism of how the inability of financial institutions to quickly solve liquidity provision problems can lead to aggregate macroeconomic instability. To ensure the health of the financial system the Basel Committee on Banking Supervision released a new regulatory framework known as Basel III. The new accord requires banks to substantially increase capital ratios compared to the Basel II standards and build up countercyclical capital buffers. While increasing the solvency of banks, this new regulation has an ambiguous effect on an important function of the banking system — liquidity creation.

One strand of theoretical literature predicts that when liquid short-term liabilities are replaced by illiquid long-term capital the bank lending and investment activities in the economy will decline (Diamond, Rajan, 2000, 2001; Gorton, Winton, 2017). This is known as the "financial fragility-crowding out hypothesis".

Another theory predicts that higher capital ratios increase the risk-bearing capacity of banks and induce them to lend more, in other words, create more liquidity on their asset side. The more liquidity is created, the greater is the likelihood that some loans would be non-performing, the more capital is needed to accept associated expenses caused by increased provisions for non-performing

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