Targeted Reserve Requirement Ratio Reduction

Subjects: Business, Finance Contributor: Jiaqi Fang, Lihui XIONG

In China's bank-centered financial and economic environment, bank risk attitudes have an important impact on the effective implementation of structural monetary policy, and monetary policy can have an impact on the corporate ecosystem through risk taking by banks. To make an economic assessment of the evolution of the banking ecosystem and empirically explore the correlation between targeted Reserve Requirement Ratio (RRR) cuts and banks' risk-taking levels in the context of financial supply-side structural reforms, multiple regression analysis and a fixed-effects model are used to analyze the causal impact of targeted RRR reduction on the risk taking of Chinese commercial banks.

Keywords: targeted RRR cuts policy

1. Introduction

Preventing financial systemic risks has become the focus of financial regulators in various countries after the 2008 global financial crisis. At the same time, traditional monetary policies rely on frequent adjustment of the deposit reserve ratio and interest rate, which not only cannot guarantee the policy effect continuously, but also lead to increasingly prominent problems such as the imbalance of the economic structure and unreasonable resource allocation. The traditional monetary policy cannot effectively identify the actual situation of macroeconomic operation, and cannot implement effective measures to prevent the instability of the financial system from spreading to the real economy in case the financial system is unstable. The academic and practical circles began to reflect on the defects and deficiencies of the traditional monetary policy framework, and explored the structural optimization of the monetary policy regulation framework on the basis of the financial supply-side structural reform.

In order to avoid the "flood" of monetary policy and the "disenchantment from real to virtual" of the economy, the people's Bank of China (central bank) launched the targeted Reserve Requirement Ratio (RRR) reduction policy in 2014. This policy can effectively shorten the transmission chain of monetary policy, reasonably guide the flow of funds, and focus on supporting weak links in the economy. Targeted RRR reduction is a structural monetary policy that encourages financial institutions to allocate targeted funds by reducing the legal deposit reserve ratio of some deposit financial institutions, so as to provide greater financial support for industries and fields that need support in the real economy. At present, only a few studies have been conducted on the risk-taking behavior of banks after the implementation of structural monetary policy. In China, banks' risk attitude has an important impact on the effective implementation of structural reform. At present, there are few research studies on the risk-taking behavior of banks after the implementation of the targeted RRR reduction policy. In China, banks' risk attitude RRR reduction policy. In China, banks' risk attitude has an important impact on the effective implementation of the targeted RRR reduction policy. In China, banks after the implementation of the targeted RRR reduction policy. In China, banks' risk attitude has an important in the context of financial supply-side structural reform. At present, there are few research studies on the risk-taking behavior of banks after the implementation of structural monetary policy. In China, banks' risk attitude has an important impact on the effective implementation of structural monetary policy. The correlation between targeted RRR reduction and bank risk-taking level is particularly important in the context of financial supply-side structural monetary policy. The correlation between targeted RRR reduction and bank risk-taking level is particularly important in the context of financial supply-side structural r

The third edition of the Basel Accord adds the regulatory standard of the leverage ratio and defines the leverage ratio as the ratio of tier 1 capital and its main form to the sum of on-balance sheet and off-balance sheet risk assets. The China Banking and Insurance Regulatory Commission defines the leverage ratio as the ratio between the net amount of tier 1 capital and the adjusted balance of on-balance sheet and off-balance sheet assets of commercial banks. The commission stipulates that the leverage ratio shall not be less than 4%. Leverage regulation focuses on the scale of banking business, which helps curb the excessive expansion of the banking business scale, so as to make up for the limitations of the single regulatory target of CAR, reduce regulatory capital arbitrage, reduce the probability of bank default loans, and reduce the risk bearing of banks. However, increasing the leverage ratio will weaken the profitability of banks and reduce the competitiveness of commercial banks. In order to improve returns, banks may increase the proportion of high-risk assets, which is not conducive to financial stability.

2. Targeted RRR Cuts and Bank Risk-Taking

Borio and Zhu proposed the "risk taking channel" of monetary policy in 2008. According to their definition, changes in monetary policy can affect banks' risk perception (Risk Perception) and risk tolerance (Risk Tolerance), and influences the bank's risk, credit decisions, and asset portfolios, which ultimately affect financial stability and transmission to the real economy. According to the review of past literature, monetary policy has four main transmission paths for bank risk-taking.

The first path is the amplification effect of financial accelerators. Wei et al. pointed out that the loose monetary policy represented by low interest rates can usually optimize the cash flow of borrowers and improve their income and valuation, and the value of the collateral provided by borrowers will also increase $^{[1]}$. The risk tolerance of borrowers will also increase accordingly. In a low-interest-rate environment, banks speculate that the default risk of borrowers will decrease, and the expected default loss and related volatility will also decrease, prompting banks to increase their risk-taking levels $^{[2]}$. Wang found that loose monetary policy prompted banks to significantly reduce the incentive to screen subprime investors strictly, face adverse selection risk when selecting borrowers, and thus actively expand credit, thus increasing the level of risk-taking $^{[3]}$.

The second path is the pursuit of the income effect. When monetary policy tends to loosen and market interest rates gradually decline, the rate of return of risk-free assets relative to risky assets drops sharply, causing investors to reduce the proportion of risk-free assets in their investment portfolios. Zhang et al. pointed out that when the market is in a low-interest-rate environment, in order to maintain the nominal return on portfolio investment under the original high-interest-rate environment, market investors will reduce their holdings of low-risk bonds and increase their holdings of high-risk bonds ^[4]. For example, from 2003 to 2004, market investors generally reduced their holdings of low-yield government bonds in their asset portfolios, and replaced corresponding shares with high-risk and high-yield corporate bonds or other new types of bonds. Given that the financial industry is flooded with various ranking lists, and fund managers generally accept the compensation system with investment income as the main evaluation index, fund managers have further enhanced the pursuit of income effect under the impetus of the "herd effect" ^[5].

The third path is the mindset effect. The mindset effect means that the consumption and investment habits of experienced investors will form a mindset to a certain extent and affect their current consumption and investment. The mindset effect will have an impact on the risk-taking level of individual investors and institutional investors in the market ^[6]. When the economy develops rapidly, the consumption level of the whole society will be improved, and the risk of investors will increase. The degree of aversion will also decrease as a whole; with loose monetary policy and sufficient liquidity, commercial banks will also have confidence in the market, thereby reducing the degree of risk aversion and increasing the level of risk taking ^[2].

The fourth path is the feedback effect of central bank communication. The monetary transparency and predictability implemented by the central bank can significantly affect the risk-taking behavior and level of commercial banks. If investors expect that monetary policy will tend to be loose and market interest rates will decline in the short term, then they will accordingly chase high-risk assets and increase the proportion of risky assets in their asset portfolios. Accordingly, in order to pursue higher profits, commercial banks will follow monetary policy, change their risk-taking level, and increase their risk tolerance and risk tolerance in anticipation of monetary policy easing. Such behaviors are evident during periods of rapid economic development ^[8].

3. Leverage and Bank Risk-Taking

In 2011, the China Banking Regulatory Commission stipulated in the Measures for the Management of The Leverage Ratio of Commercial Banks that the regulatory requirement of the leverage ratio of commercial banks should not be less than 4%. This requirement attempted to intervene in the excessive risk-taking behavior of commercial banks and make up for the deficiency and defect of the single CAR regulation. In the long run, the regulation of the bank leverage ratio can guide banks to publish risk reports in a timely manner, thus weakening the motivation for false statements, reducing bank risk-taking, and alleviating the degree of information asymmetry between banks and regulatory authorities ^[9]. Blum showed that the leverage ratio index can fully expose the risk level of banks, thus restricting the risks of banks ^[10]. The supervision of the bank leverage ratio and liquidity can not only reduce the risk-bearing level of banks, but also reduce the probability of bank loan default ^[9].

A large number of empirical studies have found an obvious relationship between leverage ratio regulation and bank risktaking. Koehn et al. pointed out that the increase in the bank leverage ratio, on the one hand, increased the proportion of the bank's own capital ^[11]. On the other hand, it eased and reduced bank risks. The increase in the bank leverage ratio will also reduce its profit level, change the original ratio of high-risk assets and low-risk assets, and play a role in controlling the overall risk of banks ^[12]. Kiema et al. found that the regulation of the bank leverage ratio would prompt banks to change their loan schemes ^[13]. For the purpose of obtaining high profits from investment portfolios, banks would increase the level of risk taking and eventually expose banks to greater risks. Leverage ratio regulation can reduce the probability of default of bank loans, and also reduce the asset level of banks. However, in the case of information asymmetry, a low asset level may cause depositors to worry about the normal operation of banks and the occurrence of bank runs, which is ultimately not conducive to the stable development of banks ^[14]. Zhang et al. found that the regulation of the leverage ratio could promote banks to increase their own capital and slow down their risk taking, thus contributing to the stable development of banks ^[15]. Song et al. also pointed out that leverage can change the impact of macro-prudential policies on bank risk-taking turns from negative to positive. Yuan et al. investigated the relationship between the leverage ratio and bank risk taking on the basis of the data of 15 listed banks ^[127].

References

- 1. Wei, X.; Han, L. Targeted reduction in reserve requirement ratio and optimal monetary policy in China. Int. Rev. Econ. Financ. 2020, 69, 209–230.
- Svabova, L.; Michalkova, L.; Durica, M.; Nica, E. Business failure prediction for Slovak small and medium-sized companies. Sustainability 2020, 12, 4572.
- Wang, Y.; Li, X.; Huang, D.; Wang, A. Revision of the Effectiveness of China's Sterilization Policies Considering the Role of the Reserve Requirement Ratio Adjustment. Emerg. Mark. Financ. Trade 2021, 57, 1420–1436.
- 4. Zhang, G.; McCalley, J.D. Estimation of Regulation Reserve Requirement Based on Control Performance Standard. IEEE Trans. Power Syst. 2018, 33, 1173–1183.
- Dvorkin, V.; Delikaraoglou, S.; Morales, J.M. Setting Reserve Requirements to Approximate the Efficiency of the Stochastic Dispatch. IEEE Trans. Power Syst. 2019, 34, 1524–1536.
- 6. Bitar, J. A note on reserve requirements and banks' liquidity. Int. J. Financ. Econ. 2020, 25, 1–16.
- 7. Chawwa, T. Impact of reserve requirement and Liquidity Coverage Ratio: A DSGE model for Indonesia. Econ. Anal. Policy 2021, 71, 321–341.
- Garcia, M.; Baldick, R. Requirements for Interdependent Reserve Types Providing Primary Frequency Control. IEEE Trans. Power Syst. 2022, 37, 51–64.
- 9. Blum, J.M. Why 'Basel II' may need a leverage ratio restriction. Bank. Financ. 2008, 32, 1699–1707.
- 10. Hugonnier, J.; Morellec, E. Bank capital, liquid reserves, and insolvency risk. Financ. Econ. 2017, 125, 266–285.
- Koehen, M.; Santomero, A.M. Regulation of Bank Capital and Portfolio Risk. Wharton School Rodney, L. White Center for Financial Research, 1980. Available online: https://EconPapers.repec.org/RePEc:fth:pennfi:9-79 (accessed on 22 March 2022).
- 12. Hellmann, T.; Murdock, K.; Stiglitz, J. Liberalization, Moral Hazard in Banking, and Prudential Regulation: Are Capital Requirements Enough? Am. Econ. Rev. 2000, 90, 147–165.
- 13. Kiema, I.; Jokivuolle, E. Does a leverage ratio requirement increase bank stability? Bank. Financ. 2014, 39, 240–254.
- 14. Dermine, J. Basel III leverage ratio requirement and the probability of bank runs. Bank. Financ. 2015, 53, 266–277.
- Zhang, Q.; Chen, S. Does the Introduction of Leverage Regulation Have a Slow-release Effect on Commercials Banks' Risk-taking?—Empirical Analysis Based on 96 Commercial Banks in China. Res. Econ. Manag. 2019, 40, 29–44.
- 16. Song, K.; Li, Z. Macroprudential policy, leverage ratio and bank risk-taking. Financ. Regul. Res. 2019, 93, 1–19.
- 17. Yuan, K.; Rao, S. Bank Capital, Risk-taking and Leverage Constraints: An Empirical Study based on Chinese Listed Banks (2003–2012). Stud. Int. Financ. 2014, 8, 52–60.