Impact of Interest Rate Liberalization on the Financing of SMEs in China: Taking the LPR Reform as an Example

Zhuoyu Fang

School of Mathematics, Jilin University, Changchun, 130012, Jilin Province, China.
fengzheng23@mails.jlu.edu.cn

Abstract. China used to prioritize high-speed expansion, but in recent years, high-quality development has replaced it. To better achieve these economic development objectives, China's monetary policy framework is transitioning from a quantitative to a price-based approach. Small and medium-sized enterprises (SMEs) are essential to China's economic growth. However, there has been ongoing credit discrimination in China's credit market as a result of the dual-track interest rate transmission system and long-standing administrative control over interest rates. Large enterprises have encroached upon the financing space of SMEs, leading to a series of issues such as difficulty, high cost, and slow speed in financing for SMEs. To address the financing problems of SMEs, A multitude of scholarly investigations have collectively discovered that the liberalization of interest rates can serve as a catalyst in addressing this issue. In August 2019, the LPR reform was launched in China, marking a significant step in the liberalization of interest rates. The paper examines whether the LPR reform is capable of addressing the financing challenges faced by SMEs. By summarizing and reviewing relevant domestic and international research literature in recent years, this study first collates conclusions related to LPR reform and SME financing costs. This paper clarifies the theoretical achievements and practical conclusions of China's interest rate liberalization in solving these financing questions of SMEs, proving that the LPR reform is effective in this regard.

Keywords: Interest Rate Liberalization, LPR Reform, SME Financing; Financing Costs.

1 Introduction

The economic development environment in China has changed significantly in recent years, and the country's financial development momentum has accelerated. To further improve the socialist market economy system, more comprehensive reforms must be implemented to support the market-based allocation of production factors and to build a more complete system and mechanism for this purpose. Yi Gang, the governor of the People's Bank of China, has stated that interest rates are the most important

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financial factor price and that one of the most important financial sector reforms is to promote interest rate liberalization.

China started the Loan Prime Rate (LPR) reform in August 2019 and created a range of policy interest rates to meet the demands of interest rate liberalization. This is another important step forward in the reform of interest rate liberalization. Since 2013, China's loan and deposit interest rates have successively lifted their upper and lower limits. But because of the ongoing dual-track phenomena, the policy interest rate transmission mechanism is still blocked, and the money market and loan market interest rates continue to run concurrently. In August 2019, the People's Bank of China promoted the reform and improvement of the LPR quoting mechanism, promoting the "dual track to single-track" integration. China's interest rate liberalization reform has a very clear goal: it wants to create a system in which market supply and demand decide the interest rates at which financial institutions lend money, allowing the market to take the lead in allocating resources.

According to Xu Ning et al., the LPR reform has improved the transmission efficiency of interest rates, drew some monetary policy dredging from the transmission channel, and laid the groundwork for future stabilization of China's financial sector. LPR is now the primary reference benchmark for loan interest rate pricing [1]. Under such circumstances, Lin Xiaowei et al. claimed that the liberalization of bond yields caused by interest rate liberalization reform has changed the expectations of enterprises, especially SMEs, for future financial constraints, which may have some adverse effects on corporate financing [2].

This paper aims to start from two specific time points: before and after the invention of the LPR reform in 2013 and before and after the LPR reform in 2019. It compares the impact of the LPR reform on the financing of SMEs in China both horizontally and vertically, summarizing whether enterprises can further develop and improve under these conditions. This study provides some groundwork for investigating how SMEs might thrive sustainably in the context of interest rate marketization.

The significance of this paper is reflected in two aspects: First, at the theoretical development level, this paper sorts out the efforts and research methods and achievements made by China in the LPR reform in recent years, showing the process of research related to the LPR reform and SME financing, providing a theoretical basis for exploring how to continue to encourage interest rate liberalization reform to further reduce the financing costs of SMEs and achieve sustainable development; Second, at the market practice level, this paper analyzes the development trend of SMEs under interest rate liberalization in recent years, and makes pertinent recommendations for the SMEs' own healthy development, which has some guiding significance for their growth.

2 Role of LPR Reform to Financing Status of SMEs

2.1 Theoretical and Model Analyses

Zhang Xing, in his research, used a generalized difference-in-differences (DID) model for analysis [3]. Due to the fact that all research subjects were more or less simultaneously affected by the policy, the data classification lacked a control group and only had a treatment group, thus a continuous type DID model could effectively handle such data [4]. In terms of data processing, the individual dimension was set as the enterprise risk, and the continuous type DID was used to assess the policy impact of the LPR reform, along with a parallel trend test. The raw data for analysis was chosen from ten quarters before and after the LPR reform in 2013 and 2019 based on a study of a sample of businesses from the TDX customer that are listed on the SME index 300. The data mainly came from the Wind and GTA databases. In terms of variable selection, a fixed-effects model was used. The empirical research demonstrated that the 2013 reform had a favorable impact on SMEs' financing costs, suggesting that this reform may raise SMEs' financing costs; the data analysis of 2019 showed that this reform significantly reduced the financing costs of SMEs. There was a significant difference in the results of the two experiments, and the main reasons were twofold: first, compared with 2013, the monetary policy transmission mechanism was more unobstructed in 2019; second, the LPR reform enhanced the competitiveness of the loan market, leading commercial banks to start favoring SMEs when allocating credit resources [5]. Xu Mingwen et al., in their research, used the DID method [6]. This approach is being employed because the DID method is one of the most widely used techniques for evaluating the effects of policies. Its main distinction from other approaches is its capacity to examine the impact of dummy variables using panel data. The test methods selected were PSM-DID methods, placebo tests, etc. In model construction, the level of enterprise risk undertaking was used as the standard to divide the control group and the experimental group, with high-risk undertaking enterprises as the control group and low risk undertaking enterprises as the experimental group. The implementation time of the LPR reform policy in August 2019, lagged by one period to December 2019, was taken as the dividing time node, and the quarterly data of listed companies on the Shanghai and Shenzhen A-shares from 2017 to 2022 were selected for analysis. Through model fitting and parallel trend tests, the results found that after the LPR reform, the financing scale of low risk undertaking enterprises increased significantly after two lags, and the scale of short-term loans in the financing term structure increased significantly. Therefore, it can be concluded that the LPR reform can better increase the financing scale of enterprises with low risk undertaking levels and more effectively promote enterprises to choose short-term loans.

Previous research has indicated that the LPR reform can help lower the financing costs for small and medium-sized enterprises. The aim is to continuously deepen the LPR reform in order to steer the interest rate downward and lower the cost of borrowing for businesses.

2.2 Financing Status after LPR Reform

There are many factors that affect the development of enterprises themselves, such as the population density and industrial concentration, and the salary protection limits for enterprises, but the most significant factor among all is the market interest rate. The two primary ways that interest rate liberalization reform impacts business financing costs are the level of market interest rates and the financial institutions' independent pricing power.

One the one hand, interest rate regulation was somewhat loosened following the LPR reform, meaning that interest rate levels are now essentially set by the market. The profitability of commercial banks is inversely U-shapedly correlated with interest rate liberalization. That is, in order to offset the increase in their own financing costs as a result of the initial rise in market interest rates, commercial banks will raise the equivalent loan interest rates when lending to businesses. Bank profitability will rise in the early phases of interest rate liberalization, while commercial bank profitability will somewhat decline in the later stages [7,8]. Compared with large enterprises, SMEs are often at a disadvantage when negotiating loan pricing with commercial banks, resulting in high financing costs that have a certain impact on the business development and scale expansion of SMEs. The effectiveness of LPR reform has shown itself in the short term, primarily helping SMEs; in the long run, however, interest rate liberalization will reduce SMEs' financing costs by breaking down the barriers to monetary interest rate transmission as a result of the monetary policy framework's transformation. Therefore, in terms of market interest rate levels, the LPR change will have an impact on SMEs' financing costs.

On the other hand, commercial banks now have more independent pricing power in China thanks to the relaxation of interest rate regulations following the LPR reform, which has increased competition amongst commercial banks. Interest rate variations have a major effect on commercial banks' profitability, as demonstrated by Kang Kuan et al. These changes will force commercial banks to concentrate on providing a variety of financial products in order to increase their own stability [9]. Before the LPR reform, banks were more inclined to deal with large enterprises with large asset scales or creditworthy state-owned enterprises and were not enthusiastic about SMEs; due to the information asymmetry between banks and enterprises, commercial banks considered the overall risk of SMEs to be relatively high, and often raised the interest rates when pricing loans [10]. For these two reasons, the financing costs of SMEs are often high. After the LPR reform, the interest spread of banks further narrowed [5]. and the survival and operational pressure on banks increased, which has led banks to turn their attention to SMEs to expand their business scope, thus helping to reduce the financing costs of SMEs. Jianfang Zhou et al. have pointed out that the liberalization of loan interest rates significantly reduced the dependence of private enterprises on short-term loans, which is also conducive to reducing the financing costs of SMEs [11].

3 Ideas for Further Cutting SMEs' Financing Expenses

Firstly, the role of central regulatory authorities in stabilizing the national financial system is immense, and the two are interdependent in today's financial opening environment [12]. As a result, the People's Bank of China ought to concentrate more on policy preferences for private SMEs that are typically riskier. This will allow the LPR reform to support the wholesome development of SMEs on a bigger scale, which will more successfully lower SMEs' financing costs and resolve their financing crises [13]. Secondly, it is essential to enhance the service capabilities of Chinese financial institutions, especially commercial banks. Commercial banks should appropriately increase their risk appetite when considering the financing needs of different types of SMEs, taking into account the prospects for development and management models. For most SMEs, commercial banks are the primary source of loan financing, and if commercial banks can make some concessions to support SMEs, it can also alleviate the financing crises they face. Thirdly, enterprises should strengthen their own management, improve their internal operational structures, enhance work efficiency and capital utilization efficiency, reduce the operational risks they face, and improve their financing capabilities. In order to capitalize on the advantages of interest rate liberalization and post-LPR reform, businesses might choose to go in several ways, such as the green finance sector.

4 Conclusion

China's economy is currently in a phase of high-quality development after moving from one of rapid growth. China's monetary policy framework is changing from a quantitative to a price-based strategy in order to better meet economic development goals. SMEs are an essential part of China's economic growth and a powerful force behind the country's high-quality economic development. However, due to various long-standing issues between Chinese banks and enterprises and within the enterprises themselves, the financing costs for SMEs remain high, presenting a persistent financing dilemma that urgently needs to be addressed. Research indicates that interest rate liberalization can solve the financing issues of SMEs to a certain extent, and the LPR reform is even more effective in addressing these series of problems. The LPR reform is useful in lowering the financing costs of SMEs and can affect them in two areas: the level of market interest rates and the independent pricing power of financial institutions, according to an analysis of numerous domestic and international research publications.

The limits of this paper stem from the inability to examine this problem from a variety of viewpoints and from the narrow range of data statistical tools available. In future research, various statistical models should be established, and more time nodes should be selected for analysis to obtain more comprehensive research results.

References

1. Xu, N., Ding, Y.B., Liu, W.X.: A Further Discussion on China's Gradual Interest Rate Marketization Reform: A Comparative Study Based on LPR Reform and Full Interest Rate Marketization Simulation. Economic System Reform. **31**(3), 140-149 (2024).
2. Liu, X.W.; Wang, J.Y.; Zhang, L.L., et al.: Real Effect of Bond Yield Liberalization on Corporate Investment. Finance Research Letters. **52**, (2023).
3. Zhang, X.: The Impact of LPR Reform on the Financing Costs of Small and Medium-sized Enterprises. Zhengzhou University, (2022).
4. T, M.M.; A, D.L.; Rosana, A.: Causal Measures Using Generalized Difference-in-Difference Approach with Nonlinear Models. Statistics and Its Interface. **15**(4), 399-413 (2022).
5. Xing, Y.: A DSGE Decision Model for Investigating the LPR Transmission Effect. Computational Intelligence and Neuroscience. 2981558-2981558 (2022).
6. Xu, M.W.; Liu, Y.S.: Does LPR Reform Alleviate the Difficulty of Corporate Financing? A Quasi-Natural Experiment Based on the Level of Corporate Risk Taking. Economic Issues. **38**(3), 45-52 (2024).
7. Wang, L.; Zhao, H.; Li, R.: Research on the Influence of Interest Rate Liberalization on Commercial Banks' Profitability in China. Proceedings of Business and Economic Studies. **4**(5), 78-83 (2021).
8. Zhang, J.M.; Dong, X.R.: Interest Rate Liberalization and Bank Liquidity Creation: Evidence from China. China Finance Review International, (2020).
9. Kang, K.; Ashhari, M.Z.; Yahya, H.D.H.M., et al.: Interest Rate Liberalization and the Stability of the Chinese Banking System: Exploring Chained Mediation Effects of Deposit Competitiveness and Wealth Management Products. Finance Research Letters. **62**(PB), 105222 (2024).
10. Zhou, J.; Wang, J.; Ding, J.: How Loan Interest Rate Liberalization Affects Firms' Loan Maturity Structure. China Finance Review International. **4**(2), 153-167 (2014).
11. Cai, Y.; Pei, X.F.; Yu, L.F.: Interest Rate Liberalization and Firm Leverage in China: Effects and Channels. Discrete Dynamics in Nature and Society. (2023).
12. Anginer, D.; Demirguc-Kunt, A.: Has the Global Banking System Become More Fragile Over Time? Journal of Financial Stability. **13**, 202-213 (2014).
13. Hu, W.; Huang, W.; Wu, J., et al.: Place-Based Policies and Local Human Capital Accumulation: Evidence from China's Special Economic Zone Program. China Economic Review. **85**, 102163 (2024).