

# ***The Impact of Shadow Banking Risk on Systemic Financial Risk in China***

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**Abstract:** After the subprime crisis, China's shadow banking industry has expanded rapidly, becoming an important financing channel outside the traditional banking system. However, because it is not subject to the conventional regulatory framework, shadow banking has increased systemic financial risks while raising financial leverage. Inadequate regulation of shadow banking could lead to systemic financial risks in the financial system and jeopardize economic stability. This paper discusses the advantages and disadvantages of shadow banking and its impact on monetary policy. Meanwhile, this paper further elaborates on the importance of macro and macroprudential regulation, and at the same time proposes some solutions to further emphasize the importance of macro and macroprudential regulation, and suggests that regulators should strengthen the regulation of shadow banks activities, such as shadow banking, no longer jeopardize the financial system. Then, this study also suggests that the regulator should provide awareness of the risk of shadow banking for the borrowers or investors, especially trying to avoid those borrowers who are not able to repay the loan joining shadow banking institutions. When the risk of shadow banking system accumulates into a crisis, the regulator needs to respond in the first instance and identify timely contingency measures for that crisis. This will minimize the risk of shadow banking and increase the probability of China's prevention of systemic financial risks.

**Keywords:** Shadow banking, systemic financial risk, financial system, macroprudential supervision.

## **1. Introduction**

During the period of subprime financial crisis, China and other advanced countries opted for accommodative policies to promote economic recovery. However, Si and Li argue that shadow banking has begun to grow rapidly in China due to economic policy uncertainty and severe capital mismatches between firms and industries. In addition, many China's non-financial companies have begun to joined in shadow banking activities due to the widening gap in yields between real and financial investments. Shadow banking activities, in turn, consist mainly of investing in financial assets and releasing entrusted and private loans to cash-strapped companies. Meanwhile, for Chinese non-financial corporations, shadow banking activities have emerged as a critical investment channel for Chinese non-financial corporations, and the rapid growth of shadow banking has attracted attention [1]. Shadow banking is a financial activity outside the traditional banking system, which provides financing support for the real industry, while it also accumulates certain risks. Its high leverage and behaviors such as regulatory arbitrage can exacerbate the fragility of the financial system.

Second, it can also weaken the effectiveness of monetary policy to trigger regional financial risks. This can be a major impediment to the financial system stability that means supervision of shadow banking system is important. However, Pozsar, Allen et al. find that because shadow banking is less regulated, financial and nonfinancial firms engaged in this activity hide relevant information, making supervision more difficult [2,3]. Hsu and Moroz point out that although the risk associated with shadow banking is off-balance sheet risk. However, once the risk occurs, banks are liable for debts and guarantees, which can be interpreted as exposing traditional banks to significant contingent liabilities to a certain extent, making both on-balance-sheet and insolvency risks higher [4].

Most previous studies have focused on the harm that shadow banking activities increase the financial risks, while some have argued that shadow banking loans are beneficial to the development of real industries, although solutions have been mentioned, the circumstances under which macro-prudential supervision is effective have rarely been emphasized. Based on the above background, this paper aims to discuss how shadow banking and inadequate macro-prudential supervision by the central bank have enhanced the probability of systemic risk in China. On the basis of diversification of policy tools and coordination with monetary and fiscal policies, macro-prudential supervision may effectively address the risks of shadow banking. By analyzing the above issues, this paper attempts to propose policy recommendations for strengthening shadow banking regulation. Therefore, according to the analysis of shadow banking risks and the above scenarios, this study further explores the influence of shadow banking on China's financial system to suggest that the national macroprudential regulatory authority should increase its regulatory efforts and emphasize the optimal timing of macroprudential supervision. Therefore, in the second part of this paper, the shadow banking risk will be described through the relevant literature, and the third part will indicate the relevant data that will be prepared for the search. The final section will further elaborate on the influence of shadow banking risks and explain solutions. Also, this paper will explain the appropriate timing of macroprudential supervision.

## **2. Literature Review**

### **2.1. Impact and Benefits of Shadow Banking**

Shadow banking, as a new financing way, has indeed promoted the rapid growth of China's economy while the influence of shadow banking is highly controversial. In addition, Chen, Allen et al. argue that the government has been worried about the occurrence of systemic financial risks since 2014, and therefore has been curbing the expansion of shadow banking. At the same time, it is argued that the increase in shadow banking precisely reflects the shortage of financial resources in China. In such a situation, shadow banking can provide a supplement to bank credit in a financially depressed economy [3,5]. Then, Adrian et al. find that shadow banking is a form of credit intermediation outside of supervision [6,7]. At the same time, Plantin, Buchak, Hachm, et al. feel that the main reason why shadow banking can flourish may be due to regulatory burden and arbitrage [8-10]. Many are worried that shadow banking is a form of regulatory arbitrage that has not brought any benefits to the real economy, and that risk spillovers and high leverage from shadow banking can lead to the outbreak of systemic financial risks. However, in response to the above facts, Tian et al. find that the largest portion of China's shadow banking sector is business-to-business entrusted lending, which arguably allows the borrower's innovation output to be raised. However, this becomes more prominent when borrowers experience capital constraints, information asymmetry, and acquisition risk. At the same time, the normal scenario is for capital to be reallocated from very low-productivity and relatively easy lenders to innovative and financially poor borrower firms. Then, they also argue that there is a good side to shadow banking in that it helps correct bank credit mismatches and can provide a suboptimal market design for financing the real economy [11].

## 2.2. Shadow Banking and Monetary Policy

Ferrante feels that shadow banking disperses intermediated credit across a network of different financial entities by relying on asset securitization and complex financial products [12]. At the same time, Gong et al. found that shadow banks would transfer funds to some restricted firms using loans would trigger systemic financial risks. However, traditional monetary policy is inadequate for new market patterns like shadow banking and financial asset bubbles. Then, they argued that although the People's Bank of China (PBOC) started implementing a more prudent monetary policy to maintain financial stability in 2015. However, shadow banking continues to expand due to the lack of financial liquidity. While shadow banking is said to be less sensitive to monetary policy while also mitigating the misallocation of credit resources, it can weaken the effectiveness of monetary policy and thus increase financial instability. Macroprudential supervision can therefore guard against systemic financial risks and, together with macroprudential, stabilize the financial system. For developing countries, however, it is of utmost importance to establish effective long-term mechanisms for systemic financial risks [13].

Indeed, shadow banking has its pros and cons, but once it emerges, timely macroprudential supervision and monetary policy become very important. This is because monetary policy cannot control the risks and other problems posed by shadow banking in the first place, and untimely macroprudential policies can also worsen the situation, thereby creating systemic financial risks.

## 3. Methodology

### 3.1. Data

For this purpose, this paper will search the database of the PBOC for data on total loans to non-financial enterprises and loans to residents from 2008 to 2023. Then, this study will also search the database of the PBOC for entrusted loans from financial institutions from 2008 to 2023. Then, this paper will obtain the data on entrusted loans of narrow shadow banks and the data on the total size of narrow shadow banks in 2019 from the databases of the PBOC and the CBIRC, and calculate the share of entrusted loans in China's narrow shadow banks. Finally, this study will display the calculation results in the form of a pie chart.

### 3.2. Results

Figure 1 shows the changes in the scale of loans to non-financial enterprises and total loans to residents in China from 2008 to 2023. It is easy to see that the size of loans to non-financial enterprises fluctuates, but the growth is not significant. However, the growth in residential lending is significant, suggesting that macroprudential regulation of nonfinancial enterprises is effective, while regulation of residential lending is inadequate. Since residential lending includes private lending, this could allow shadow banking to lead to systemic financial risks. Figures 2 and Figure 3 show the change in entrusted lending by financial institutions and the size of entrusted lending as a share of the size of shadow banking in the narrow sense, respectively. The growth is larger in the early period while it does not appear to be very large in the later period in the figures 2. Although financial institutions are regulated, it is difficult to rule out whether shadow banking has helped them bypass Basel III regulation. It is clear from Figure 3 that the size of entrusted loans accounts for a relatively large share of the size of shadow banking in 2019. Therefore, since the performance of shadow banking includes entrusted loans, regulation must be strengthened in this area as well.

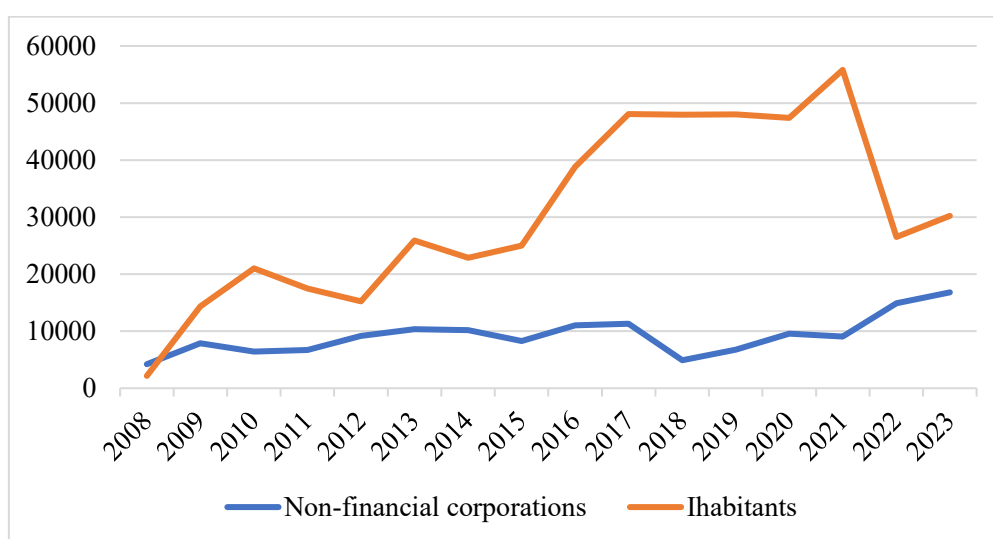


Figure 1: Change in total loans to nonfinancial businesses and residents, 2008-2023

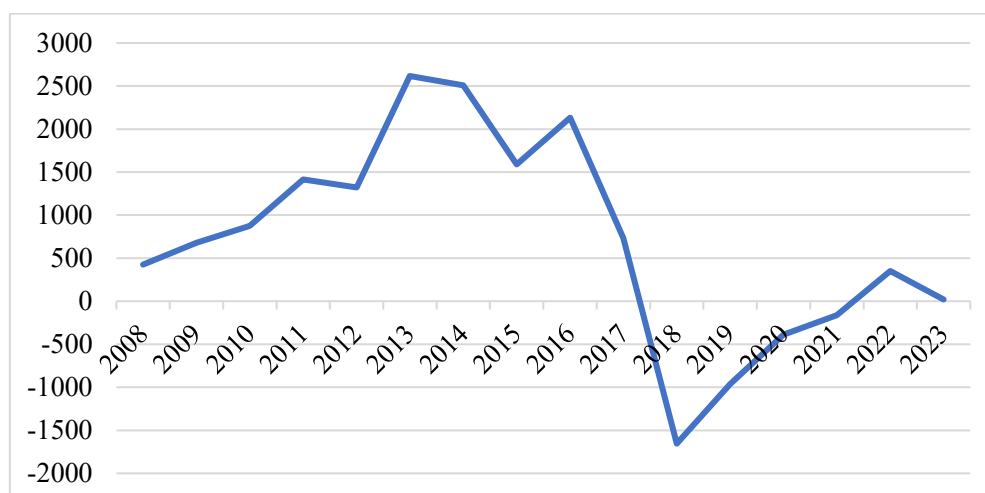


Figure 2: Change in entrusted loans to financial institutions, 2008-2023

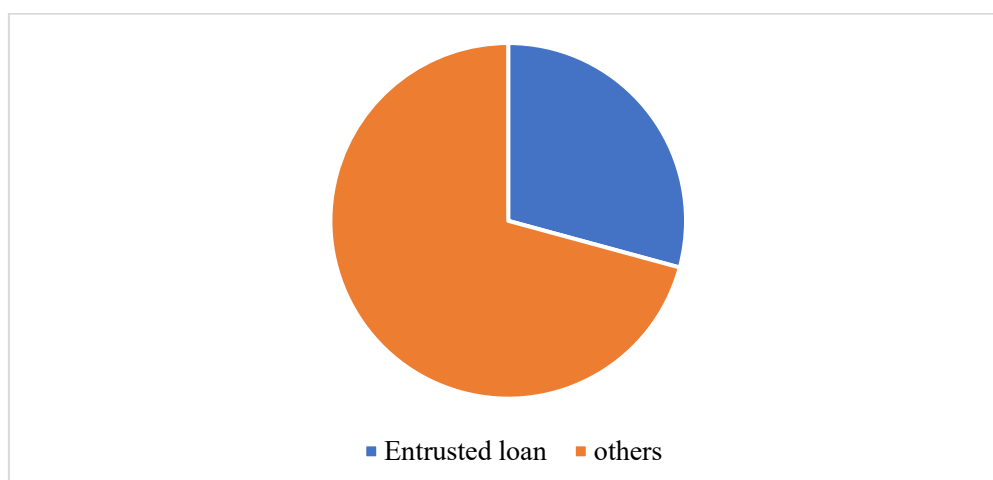


Figure 3: Proportion of entrusted loans in narrow shadow banking

As China's financial system remains fragile, the high leverage ratio brought by the growing scale of shadow banking institutions has increased the hidden danger to the security of domestic financial system. According to data from the CBIRC, the loan growth rate of some high-risk shadow banks reached 50% from 2010 to 2015, however, in 2016, the risks of shadow banks such as Internet finance and P2P began to focus on the explosion, causing serious losses to the people's wealth. In addition, since shadow banking can be highly profitable by adding high leverage, many financial institutions are almost all engaged in shadow banking. In this way, China's financial market began to distort. At the same time, the savage growth of high-risk shadow banks has also caused the growth of those legal and compliant financial businesses to begin to slow or shrink. However, the biggest harm of shadow banking is that it not only increases the economic burden of society but also reduces the utilization efficiency of capital turnover. While issuing loans, shadow banks do not take into account the deposits of borrowers and their ability to repay, but still lend to them, so some borrowers who cannot repay will not be able to do so in the end. Shadow banking also masks the true nature of asset quality, as commercial banks can package shadow banking to turn loans on their accounting books into investments or move them directly off-balance sheets. As a result, they can bypass Basel III regulations and create inaccuracies in asset quality. Shadow Banks could easily over agreements in Basel III due to the inadequate regulation of the central bank.

The vulnerability of the domestic financial system is further exacerbated by the high leverage and regulatory avoidance of shadow banks. To address the above challenges, the government urgently should take the following measures. Firstly, the central bank increases the diversity of policy tools by establishing a macroprudential department to strengthen the supervision of shadow banking. Second, improve the microprudential framework to control individual risks and ensure that risks could be identified and resolved in a timely manner. Finally, due to the period difference between the economic cycle and the financial cycle, the central bank should coordinate monetary policy and macroprudential policy to smooth the cyclical fluctuations from the aggregate and structural aspects.

#### 4. Conclusion

The influence of shadow banking risks on China's systemic financial risks is far-reaching, and its high leverage and regulatory arbitrage, among other behaviors, can undermine the stability of China's financial system. Moreover, a prolonged period of monetary policy alone would also allow shadow banking to expand further. Despite Basel III constraints, many financial institutions have tried to circumvent Basel III supervision through the ability to transfer risk across different markets. From the perspective of preventive measures, the regulator sets the maximum financing scale according to the economic fundamentals to prevent excessive financing. Then, it is recommended that regulators set up a firewall between shadow and traditional banks to prevent risk transmission. In terms of monitoring mechanisms, the impact of shadow banking on systemic financial risk should be regularly assessed to identify potential threats to the financial system. It is recommended that regulation be strengthened promptly in times of economic boom to prevent the accumulation of risks. However, it is important to be appropriately loose in times of economic downturn to prevent excessive tightening. At the same time, there is a need to enhance borrowers' or investors' understanding of shadow banking and to raise their awareness of the risks involved. Regulators should, as far as possible, eliminate shadow bank lending to those who cannot repay their loans. In response to a particular shock, it is recommended that contingency plans be developed for shadow banking crises to ensure that timely measures can be taken in the event of systemic financial risks. In the event of a crisis, liquidity support would also be needed to prevent panic in the market. Only through firewall prevention, real-time monitoring and flexible response strategies could make the regulation of shadow banking, which is a combination of macro-prudential and micro-prudential, effective. Besides, this paper re-emphasizes that if commercial banks need to be prevented from being kidnapped by shadow banking, they need

to be prevented from evading Basel III and regulators through shadow banking.in other words. Thus, this is the only way to truly bring shadow banking within the scope of regulation.

## References

- [1] Si, D. K., & Li, X. L. (2022) *Shadow Banking Business and Firm Risk-Taking: Evidence From China*. *Research in International Business and Finance*, 62, 101729.
- [2] Pozsar, Z., Adrian, T., Ashcraft, A. B., & Boesky, H. (2010) *Shadow Banking*. *Federal Reserve Bank of New York Staff Reports*, 458, 3–9.
- [3] Allen, F., Qian, Y., Tu, G., & Yu, F. (2019) *Entrusted Loans: A Close Look at China's Shadow Banking System*. *Journal of Financial Economics*, 133(1), 18–41.
- [4] Hsu, J. C., & Moroz, M. (2010) *Shadow Banks and the Financial Crisis of 2007–2008*. In *Banking Crisis Handbook*, 2, 39–56.
- [5] Chen, K., Ren, J., & Zha, T. (2018) *The Nexus of Monetary Policy and Shadow Banking in China*. *American Economic Review*, 108(12), 3891–3936.
- [6] Adrian, T., & Ashcraft, A. B. (2012) *Shadow Banking Supervision*. *Annual Review of Financial Economics*, 4(1), 99–140.
- [7] Allen, F., & Gu, X. (2021) *Shadow Banking in China Compared to Other Countries*. *The Manchester School*, 89(5), 407–419.
- [8] Plantin, G. (2015) *Shadow Banking and Bank Capital Regulation*. *The Review of Financial Studies*, 28(1), 146–175.
- [9] Buchak, G., Matvos, G., Piskorski, T., & Seru, A. (2018) *Fintech, Regulatory Arbitrage, and the Rise of Shadow Banks*. *Journal of Financial Economics*, 130, 453–483.
- [10] Hachem, K. (2018) *Shadow Banking in China*. *Annual Review of Financial Economics*, 10, 287–308.
- [11] Tian, X., Tu, G., & Wang, Y. (2024) *The Real Effects of Shadow Banking: Evidence From China*. *Management Science*, 70(12), 8556–8582.
- [12] Ferrante, F. (2018) *A Model of Endogenous Loan Quality and the Collapse of the Shadow Banking System*. *American Economic Journal: Macroeconomics*, 10(4), 152–201.
- [13] Gong, X. L., Xiong, X., & Zhang, W. (2020) *Shadow Banking, Monetary Policy and Systemic Risk*. *Applied Economics*, 53(14), 1672–1693.