

## The Influence of Shadow Banking System on Monetary Policy

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**Abstract.** In recent years, the number of shadow banking system in China has been increasing rapidly. As a quasi-banking system, it intersects with the credit intermediary function of traditional commercial banks. Therefore, the implementation effect of the monetary policy that mainly aimed at the traditional commercial banks is affected to a certain extent. This paper focuses on the impact of shadow banking system on monetary policy. It can be divided into the influence of shadow banking system on monetary policy instrument, the influence of shadow banking system on the intermediary target of monetary policy and the influence of shadow banking system on the ultimate target of monetary policy. The results show that the influence of shadow banks on monetary policy actually is comprehensive.

### Introduction

The concept of shadow banking originated abroad. Shadow banking is essentially a "quasi-banking system", which has similar institutions and functions to banks but can avoid the supervision of the Central Bank and the National Financial Safety Net. Changes in China's economic environment in recent years have also given rise to shadow banking. First of all, the competition between banks is becoming fiercer, and the gap between the interest rate of loans issued by banks and the interest rate of deposits is getting smaller and smaller. Besides, the scale of credit of banks is also limited. Therefore, commercial banks are beginning to consider moving some of their operations off balance sheet to achieve the purpose of regulatory arbitrage. From the perspective of residents, they are more inclined to deposit their money into shadow banking, which offers higher interest rate. Therefore, the emergence of shadow banking is actually the result of rational choice of both parties in the financial market. In addition, shadow banking has not received enough regulation, so it has had an impact on monetary policy.

Wang Shuyi et al. (2019) [1] analyzed the impact of shadow banking on China's monetary policy by establishing Var model. The result showed that the shadow banking system weakened the role of monetary policy to some extent. Li Yi (2019) [2] built a Var model based on monthly data from 2004 to 2017, and found that the expansion of the shadow banking system was conducive to the growth of macroeconomic output in the short run but would harm the macroeconomic output in the long run. Wu Junling and Chen Qin (2018) [3] pointed out that the expansion of shadow banking scale enhanced the independence of the policy-oriented bank loan of the People's Bank of China, while it also weakened the impact of monetary policy based on restricted interest rate. Gan Yinghong (2018) [4] drew the conclusion that shadow banking system did harm to monetary regulation and control. Zhang Shining and Fu Yaping (2018) [5] pointed out that shadow banking system had a stronger offsetting effect on loose monetary policy than on tight monetary policy. Xu Yunsong (2018) [6] believed that shadow banking magnified the effect of loose monetary policy to a certain extent and increased the difficulty of policy regulation.

Oncu (2016) [7] argued that shadow banking was essentially an Anglo-American phenomenon because together North America, Europe, and United Kingdom accounted for about 80 percent of global shadow banking. Buchak et al. (2017) [8] stated that shadow banking in many countries had emerged from taking advantage of differential regulatory regimes for banking and non-banking institutions. Tian et al. (2016) [9] found that trust companies were the main culprit of financial solvency and banks assumed the main risks over 2007-2012 in the Chinese shadow banking system. Chen et al. (2018) [10] proved that contractionary monetary policy during 2009-2015 in China caused

shadow banking loans to rise rapidly, offsetting the expected decline of traditional bank loans and hampering the effectiveness of monetary policy on total bank credit.

In summary, most scholars at home and abroad have found that the influence of shadow banking system on monetary policy is complex, and shadow banking system will play a certain role in hindering the implementation of monetary policy. However, because the variables selected in the literature are relatively single, they cannot best show the influence of each other, which may lead to the deviation of the results.

### **The Composition of Shadow Banking in China**

Although China's shadow banking has just emerged, it takes a variety of forms. China's shadow banking system mainly includes bank-trust cooperation, entrusted loans and private lending.

As the main form of shadow banking, bank-trust cooperation refers to that commercial banks deliver the funds obtain from wealth management products to the trust companies, then the trust companies act as the trustee and manage ,use and dispose the funds.

Entrusted loan means that some enterprises with idle funds give out their spare funds in the form of trust loans in order to obtain the intermediate spread. In the process of releasing and borrowing funds, it is necessary for a bank to act as the middleman of the two enterprises but it does not bear the risk of credit default. Meanwhile it needs the bank to fulfill certain responsibilities and obligations and the bank can charge a certain amount of handling fees.

Private lending is an essential part of China's shadow banking system. In recent years, due to the strict management of bank loan scale, private lending has developed rapidly, and the emerging network lending platform is one of the typical examples. Due to the lack of clear norms and effective supervision, private lending is in the gray area of social financing.

### **The Influence of Shadow Banking System on Monetary Policy Instruments**

Legal deposit reserve policy, rediscount policy and open market operation are the three major tools for central banks to implement monetary policy and important means for central banks to regulate the economy.

Legal deposit reserve ratio means that commercial banks are required by law to deposit a certain percentage of their deposits into the central bank in order to prevent cash run during the financial crisis and maintain the stability and security of the financial system. Shadow banks, with their higher interest rates, have been able to absorb large amounts of household deposits, thereby squeeze out the share of bank deposits and correspondingly reduce the reserves. In this way, banks indirectly circumvent the regulation of legal deposit reserve, thus weakening the implementation effect of legal deposit reserve policy.

Rediscount policy is a kind of financial policy that the central bank intervenes and influences the market interest rate and the supply and demand of the money market by setting or adjusting the rediscount rate, so as to regulate the market money supply. Commercial banks can make up the short-term capital demand through the rediscount policy. Rediscount can only be initiated by commercial banks while the central bank is in a passive position. The effectiveness of rediscount policy depends on the extent to which financial institutions such as commercial banks rely on rediscount policy. The existence of shadow banks not only broadens the financing channels of commercial banks, but also reduces the cost of capital raising, so commercial banks rely less on rediscount policy. As a result, the effect of the central bank to intervene in the credit of commercial banks through the discount policy has been weakened.

Open market operation is the sale and purchase of securities by the central bank in the open market, so as to adjust the money supply and interest rate. When the economy overheats, central banks can sell government bonds to reduce the money supply, thereby curbing excessive expansion. However, the existence of shadow banking will expand the sources of funds of commercial banks, thus increasing the credit scale of commercial banks, which runs counter to the goal of central banks to curb excessive economic development. From this point of view, shadow banking system

weakens the effectiveness of open market operations.

### **The Influence of Shadow Banking System on the Intermediate Target of Monetary Policy**

China regards money supply as the intermediary target of monetary policy. A good monetary policy intermediary objective needs to meet the three criteria of testability, relevance and controllability.

The existence of the shadow banking in China has a certain effect on the controllability of the medium target of the monetary policy. In the subprime crisis of the United States in 2008, the securitized products were purchased in a large amount and the money supply grew out of control. Under normal circumstances, monetary policy makers only need to implement and adjust the three monetary policy tools to control the money supply. However, shadow banks do not need to retain a certain proportion of the funds to act as reserve, thus their credit expansion function far exceeds that of traditional deposit financial institutions and the effectiveness of using monetary policy to control the money supply is greatly reduced.

The money supply can be divided into three levels M0, M1 and M2 according to their liquidity. M0 has the strongest liquidity, including the cash held by the enterprises, institutions and residents. When the demand deposit of enterprises and institutions are added to M0, M1 can be obtained. M2 can be obtained by adding the fixed deposit of the enterprise and public institution deposits and the savings deposit of the residents to the M2.

The currency created by the shadow banking system is so complex that it is difficult to directly define the level of currency it belongs to through liquidity. The existence of shadow banking blurs the boundaries of the original currency and reduce the measurability of money supply.

### **The Influence of Shadow Banking System on the Ultimate Goal of Monetary Policy**

**The Influence of Shadow Banking System on Economic Growth.** The positive impact of shadow banking on economic growth can be carried out from the following two aspects. First of all, non-bank credit intermediary is an essential feature of shadow banking. Under the strict supervision system, the credit scale of traditional commercial banks will be forced to compress, and the function of credit creation will be restricted. Many people in the market cannot obtain the credit support of commercial banks in time, thus hindering the economic development. Shadow banking can provide credit for small and medium-sized enterprises and capital demanders in economically underdeveloped areas who are difficult to obtain credit support from traditional channels. In a sense, it alleviates the problem of insufficient lending by traditional commercial banks, meets the needs of more financiers, and promotes economic prosperity.

Secondly, the shadow banking has the function of liquidity transformation, which can adjust and transform the maturity of assets quickly, thus bringing the source of funds to many investors and traditional commercial banks. In this way, financial market liquidity has been continuously increased. In addition, in the shadow banking system, all kinds of fund companies and stockbrokers have strong demand for investment and hedging. A large number of securitization products have been put into and traded, which has vigorously activated the secondary market and improved the development of the capital market. What's more, the shadow banks are less affected than the traditional commercial banks when the macro-economic policy changes dramatically. Therefore, the existence of shadow banks can alleviate the liquidity risk caused by the sharp turn of macroeconomic policy, and further strengthen the enterprise's ability to cope with the situation.

Although the shadow banking has contributed to the continuous growth of our economy to a certain extent, it has a negative impact on economic growth due to its high leverage ratio and inherent concealment.

The cost of financing through the shadow banking is higher than the traditional credit interest rate. That is, while solving the financing difficulties of small and medium-sized enterprises and private enterprises, it also increases their cost and causes financial burden. In addition, under the attraction of high rate of return, large enterprises with the advantage of raising funds will engage in financial business such as entrusted loans through shadow banks. They neglect the development of

the main business of the company, thus promoting the formation of economic bubbles, and leading to the prevalence of market speculation.

**The Influence of Shadow Banking System on Price Stability.** Now we discuss the influence of shadow banking system on price stability. When traditional commercial banks cannot meet the financing needs of enterprises, shadow banks can play the role of credit intermediary and link the capital surplus and capital demand. Shadow banks may become the key financial intermediaries, the role of shadow banking in the money supply cannot be underestimated. In China, it is very difficult for small and medium-sized enterprises to finance through traditional commercial banks. The procedure of obtaining loans through commercial banks is extremely complicated, and there is also a long time from loan application to loan issuance. In this case, small and medium-sized enterprises do not have access to sufficient funds. In order to obtain sufficient funds, small and medium-sized enterprises can make use of the Internet financial platform that has emerged in recent years to finance. The procedure of obtaining loans in this way will be much easier, thus saving a lot of time cost. Compared with the case that there are only traditional commercial banks and no Internet lending platform in the financial system of our country, the money supply of the whole economy has increased obviously. Moreover, shadow banks are not strictly regulated and do not need to retain reserves, the credit expansion ability of shadow banks exceeds that of traditional commercial banks much. In summary, shadow banking increases the amount of money in circulation, which in turn increases prices, according to the quantity theory of money.

## Conclusion

In recent years, China's shadow banking has been emerging and its growth rate is alarming. It is necessary to study the impact of shadow banking on monetary policy. This paper analyzes the influence of shadow banking on monetary policy from three angles: the influence of shadow banking on monetary policy tools, the influence of shadow banking on the intermediary target of monetary policy and the influence of shadow banking on the ultimate goal of monetary policy. The results show that the influence of shadow banking on monetary policy is comprehensive. First, shadow banking will interfere with the implementation of monetary policy instruments. Second, shadow banking weakens the controllability and testability of money supply, which is the intermediate target of monetary policy. Third, shadow banking has a double-sided impact on economic growth, and will also exacerbate price fluctuations.

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