

Comparative Analysis of Business Management of Chinese and Foreign Commercial Banks—Based on the Perspective of Non-Performing Loans of Commercial Banks

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Abstract

After the outbreak of the financial crisis, the problem of non-performing loans in the banking sector represented by European countries continued to attract attention. As the impact of the crisis weakened, the non-performing loan ratio declined, but it still faced severe challenges. The problem of non-performing loan ratio has improved in the context of the deepening of financial sector reform in China's banking industry. However, in recent years, data show that non-performing loan ratios of commercial banks have increased. This paper focuses on the non-performing loans of commercial banks in Europe and China. By analyzing the influencing factors of non-performing loans of commercial banks, this paper analyzes the management problems of Chinese and foreign commercial banks and proposes policy recommendations.

Keywords

Commercial Bank, Non-Performing Loan Ratio

1. Introduction

The problem of non-performing loans in the banking industry has long constrained the development of the European economy after the financial crisis. By the end of 2014, compared with the high peak after the crisis, only a few countries had a decline in the non-performing loan ratio, and the rate of non-performing loans in most depressed economies rose rapidly. In 2014, the size of non-performing assets in the euro zone countries was 932 billion euros, more than double the size in 2008. Some non-performing loans in the euro zone

countries have exceeded 10%. In comparison, non-eurozone countries in Europe have seen a larger increase in non-performing loans. Affected by the economic downturn after the crisis, the non-eurozone countries' NPL ratios have increased rapidly.

The non-performing loan ratio of China's commercial banks has been declining and "double-down" year after year. According to data from the China Banking Regulatory Commission, from 2006 to 2011, the balance of non-performing loans of Chinese commercial banks fell from 125.42 billion yuan to 427.9 billion yuan, and the non-performing loan ratio fell from 7.09% to 1.00%. However, as China's economic growth slows down and the business situation continues to deteriorate, the banking industry that serves and is attached to the real economy has also experienced the acceleration of non-performing assets. The rising trend has made the issue of non-performing loans once again attract people's attention.

Based on the above background, this paper compares the non-performing loans of banks in Europe and China, analyzes the influencing factors of non-performing loan ratios of commercial banks in Europe and China, and proposes policy recommendations for the development of China's banking industry.

2. Literature Review

Bank non-performing loans have broad and narrow meanings. Broadly refers to the assets of the bank in the asset business, the risk of operating assets exceeds the pre-estimation, resulting in some or all of the lost assets; narrowly means that the bank in the traditional credit business, the borrowing cannot be for various reasons A loan that is lost to the bank if the interest or principal is repaid. This paper mainly analyzes the non-performing assets in the narrow sense.

Foreign scholars' research on bank non-performing loans began earlier, mainly analyzing macroeconomics, micro factors and bank specific business. Bernanker (1983) first explored the relationship between non-performing loans and the macroeconomic environment from the perspective of external environment, and found that the volatility of economic operation is an important factor affecting the increase or decrease of credit costs, thus affecting the repayment ability of enterprises. Bank non-performing loans have deteriorated or improved [1].

According to a study by the International Monetary Fund's investigation team, Mwanza Nkusu (2011) found a strong negative correlation between macroeconomic development and rising non-performing loans. Lower economic growth, exchange rate depreciation and trade reduction are the reasons for the deterioration of credit asset quality [2].

De bock and Demyanets (2012) used a sample of 25 emerging market countries such as China, Colombia, Brazil, Argentina, and Chile from 1995 to 2010 to conclude that there is a certain correlation between non-performing loans and the macro economy, indicating economic growth. As the speed slows, non-performing

loans will increase and the quality of credit assets will deteriorate [3].

Louzis and Voulds (2011) used the dynamic panel data of the nine major banks in Greece from the first quarter of 2003 to the third quarter of 2009, and analyzed that the bank's internal factors (such as non-interest income ratio, shareholder equity ratio, etc.) are also on the bank. The quality of the loan has an impact [4].

The domestic use of macro-level analysis of non-performing loans is Li Sihui and Yan Xiangnong (2007). They select gross domestic product, total urban fixed asset investment, total retail sales of social consumer goods, and total import and export volume as macroeconomic variables. The empirical results show that the four economic variables are negatively correlated with non-performing loans [5].

In addition, Yu Weiqun (2000) starts from the financial system and regards economic structure, enterprise mechanism, financial supervision and financial system as a collection of financial systems. He believes that China's existing financial system is the root cause of bank non-performing loans [6].

Li Lin and Suo Yanfeng (2009) explored the relationship between economic fluctuations and non-performing loans. The regression results from 1994-2008 time series analysis showed that commercial banks are pro-cyclical, and nearly 75% of non-performing loans are caused by economic fluctuations [7].

Xie Bing (2009) selected seven types of macroeconomic indicators, and speculated that macroeconomic factors are the deep factors affecting the emergence of non-performing loans. Based on the data of principal component regression from the first quarter of 2004 to the first quarter of 2009, it is concluded that there is a negative relationship between macroeconomic indicators and the balance of non-performing loans, which confirms this conjecture. Among the seven types of indicators, the total retail sales of social consumer goods and the total amount of imports and exports have the most significant impact on non-performing loans [8].

Song Xiaozhong and Luo Hongwei (2010) put forward the analysis of the status quo of non-performing loans of commercial banks, and proposed that banks can prevent credit risks by cultivating the quality of credit personnel, establishing a sound risk management system, and establishing a suitable corporate legal person system [9].

Tan Jinsong *et al.* (2012) started from the perspective of incentives and constraints in the process of government transition in China, and answered the relationship between government and bank non-performing loans from the perspective of government intervention. The study found that government intervention is the main cause of bank non-performing loans [10].

Guo Yaozhong (2012) believes that solving the non-performing loans of commercial banks should fundamentally control the incremental generation while disposing of the stock in a timely manner, so that the non-performing loans are kept within a certain scale. Internal methods can prevent and resolve non-performing loans by divesting non-performing assets and improving internal management structures [11].

Wu Jingmei and Fan Wei (2015) analyzed the causes of non-performing assets

of commercial banks from the perspectives of commercial banks, institutional mechanisms, supervision, legal and social credit systems, and proposed corresponding solutions to prevent and resolve financial risks and promote the healthy and stable development of commercial banks [12].

3. The Status of Non-Performing Loans in the European Banking Industry

Table 1 shows the non-performing loan ratios of commercial banks in several major European countries from 2005 to 2015.

After experiencing the subprime mortgage crisis and the subsequent financial crisis, European countries have generally experienced a period of rising non-performing loan ratios. In the UK before the crisis broke out, the non-performing loan ratio of the banking industry was only 0.9%. Then, after the crisis broke out, the average non-performing loan ratio of the banking industry rose to 2.64%, an increase of 193%. France was 3% before the crisis, and the average non-performing loan ratio after the crisis was 3.84%, a slight increase from before the crisis. The average non-performing loan ratio in Germany after the crisis broke down to 2.87%, down 15.8% from 2006. For the hard-hit countries with deep debt crisis, Italy, Spain, Portugal, and Greece, the average non-performing loan ratio of the banking industry increased by 85.4%, 693.7%, 490.7%, and 236.2%, respectively. On the whole, the non-performing loan ratio of banking in Europe has risen with the global subprime mortgage crisis. With the gradual elimination of the crisis, the non-performing loan ratio of some countries has gradually declined. However, a large number of countries in central and southern Europe are still in high non-performing loans. At the rate stage, these countries are represented by countries such as Italy, Portugal,

Table 1. Comparison of countries in the European banking non-performing loan ratio (%).

Year	England	France	Germany	Italy	Spain	Portugal	Greece	Serbia
2005	1	3.5	4.05	7	0.79	1.5	6.3	23.8
2006	0.9	3	3.41	6.57	0.7	1.3	5.4	4.1
2007	0.9	2.7	2.65	5.78	0.9	2.83	4.6	8.4
2008	1.56	2.82	2.85	6.28	2.81	3.61	4.67	11.3
2009	3.51	4.02	3.31	9.45	4.12	4.82	6.95	15.7
2010	3.95	3.76	3.2	10.03	4.67	5.19	9.12	16.9
2011	3.96	4.29	3.03	11.74	6.01	7.51	14.43	20
2012	3.59	4.29	2.86	13.75	7.48	9.8	23.27	18.6
2013	3.11	4.5	2.7	16.54	9.38	10.65	31.9	21.37
2014	1.76	4.16	2.34	18.03	8.45	11.89	33.78	21.54
2015	1.44	3.98	-	17.97	6.26	12.81	34.67	22.33

Data source: wind.

Greece, and Serbia. Non-eurozone countries in Europe have seen a larger increase in non-performing loan ratios compared to eurozone countries. “European Banking Non-performing Loan Disposal Strategy Report” shows the non-performing loan ratio reached 20% or more in Albania, Montenegro, Romania and other countries.

The higher non-performing loan ratios in European countries have severely curbed the credit and economic activities of banks. On the one hand, non-performing loans affect bank credit through three interrelated channels: capital, capital, and profit. A higher non-performing loan ratio means that banks need to increase loan loss provisions and occupy bank capital, which in turn affects the bank’s profitability. Affected by lower expected income, the balance sheet is gradually deteriorating, some investors’ risk expectations are rising, and the bank’s capital cost is forced to rise, leading to a series of problems such as rising bank lending rates, shrinking credit scale, and increased risk aversion. Banks with high non-performing loans tend to reduce loan issuance. According to the data of the euro zone national banking industry for the past five years, banks with higher non-performing loan ratios tend to have lower profits, weaker capital buffering capacity and higher capital costs, so they are more cautious in issuing loans.

On the other hand, non-performing loans are related to corporate debt levels. Based on the data analysis from 2005 to 2013, overall, the non-performing loan ratio of European banking industry is positively correlated with corporate debt level. Since debt repayment will also occupy a large amount of corporate profits, the lack of investment in enterprises will lead to insufficient credit demand, which will affect the bank’s efficiency and the resolution of non-performing loans. In addition, corporate debt burdens are associated with weak investment and slow economic recovery. Based on enterprise-level data for the highly indebted countries in the Eurozone from 2000 to 2011, Goretti and Soutuo (2013) have shown that debt ratios above a certain threshold (12% debt-to-equity ratio) have a negative impact on corporate investment, *i.e.* corporate debt burden. The heavier, the smaller the level of corporate investment. A large number of literature studies have found that the level of debt is an important determinant of corporate decision-making and investment decisions. For example, in the face of good sales, the investment of highly leveraged companies is smaller than that of low-leverage companies. In addition, when the non-performing loan ratio continues to be high, it is more difficult to rely on the economic recovery cycle to resolve non-performing loans. On the contrary, high non-performing loan ratio will drag down the pace of economic recovery.

4. Analysis of the Reasons for the High Non-Performing Loan Ratio in European Banking

4.1. First, the Root Cause Is the Weak Growth of the European Economy

After the 2008 financial crisis, the long-term growth of the European economy

was weak. Comparing the economic growth of the United States and Europe after the financial crisis, it can be found that the GDP growth rate of the 27 EU countries is significantly slower than that of the United States, and in September 2011, the US economy began to recover, while the European economy has not recovered and is still in the process of decline. Since 2013, the European economy has recovered slowly, but the growth rate is still low. At the micro level, the lack of economic growth has led to the inability to return due debts, and the bad assets of the banking industry have risen.

4.2. Second, the Impact of the Sovereign Debt Crisis

In 2010, a sovereign debt crisis broke out in Europe. Holding large amounts of sovereign debt in European banks, the outbreak of sovereign debt crisis has seriously damaged the quality of bank assets. The cost of financing from European banks has also risen sharply, making banks face financing difficulties. As the quality of European banking assets deteriorates, the capital adequacy ratio of banks has gradually deteriorated.

4.3. Finally, Banks Face Some Structural Obstacles to Disposing of Non-Performing Loans

1) The current accounting system for prudential supervision is not conducive to the disposal of non-performing loans. First of all, the use of the loss generation method in accordance with International Financial Reporting Standards (IFRS) to make provision for loan losses has a lag, and the adjustment space is large, which may lead to insufficient preparation. Secondly, IFRS does not stipulate the operational guidelines for asset impairment and collateral valuation in the disposal of non-performing loans, leaving a problem for the regulatory authorities. Finally, IFRS allows the accumulation of interest income from non-performing loans, which may lead to exaggerated bank earnings, thereby curbing its enthusiasm for disposing of non-performing loans.

2) In terms of law, the bankruptcy system of enterprises is not perfect. According to the IMF survey, nearly half of the countries surveyed have established pre-packaged bankruptcy reorganization or out-of-court bankruptcy reorganization procedures, but most have not been activated; 50% of countries lack a simple and effective legal system for SME bankruptcy; 60% of the euro zone There are obstacles in restricting shareholder decision-making or resetting management during the national debt restructuring process. And the family bankruptcy system is not perfect; the bankruptcy law also has problems such as poor implementation and insufficient incentive mechanism.

3) In other respects, the European bad debt market is lagging behind, with major transactions concentrated on commercial real estate loans and consumer loans. There are also structural defects in the bad debt market, including the incomplete credit information of borrowers, the lack of licensing and supervision mechanisms for non-bank institutions that own and manage non-performing

loans, the overvaluation of collateral, the lack of liquidity in the real estate market, and the value of non-performing loans. Low, provision for non-performing loans is insufficient. These factors all lead to a lower success rate of non-performing loan disposal.

5. Analysis of Non-Performing Loans in China's Banking Industry

With the slowdown in economic growth and the continued deterioration of the business situation, the non-performing assets of the Chinese banking industry have also undergone subtle changes. Statistics from the National Bureau of Statistics show that during the period from the first quarter of 2007 to the third quarter of 2015, China's economy experienced a period of rapid growth to slow growth. The quarterly average growth rate of GDP was 9.28%, the first, second and third industries. The quarterly average growth rate was 3.99%, 9.86%, and 9.78%, respectively, and the quarterly average NPL ratio of commercial banks was 2.21%. With the growth of the economy, the money supply has also increased substantially. The 4 trillion investment plan at the end of 2008 took the lead in driving the economic recovery. Since 2009, the GDP growth rate and the growth rate of the primary and secondary industries have risen rapidly. The demand for credit is strong, the bank's liquidity is well developed, and the non-performing loan ratio of the banking industry has declined. Since 2012, after the economy entered the new normal, some risk hidden dangers in the original lending system were gradually released, so the non-performing loan ratio continued to rise. This paper analyzes the changes in non-performing loan ratios of commercial banks by attribute, and finds that foreign banks have the lowest non-performing loan ratio, with an average of 0.67%; large commercial banks have the highest non-performing loan ratio, with an average of 2.64%; other commercial banks, such as joint-stock businesses The average non-performing loan ratios of banks, city commercial banks and rural commercial banks were: 1.16%, 1.58%, 2.53%. Before the third quarter of 2008, the non-performing loan ratio of large commercial banks was close to 10%, and then fell rapidly, which was lower than the non-performing loan ratio of rural commercial banks. Foreign banks are superior to other types of banks in terms of management methods and management concepts, and their ability to withstand crises is also strong.

According to the relevant data disclosed by the China Banking Regulatory Commission, the changes in non-performing loans of China's commercial banks in 2006-2016 are shown in **Figure 1**.

The changes in non-performing loans of commercial banks in 2006-2016 can be roughly divided into two stages. First of all, the non-performing loans of China's commercial banks in 2006-2011 generally maintained a steady decline. Unlike European countries, the balance of non-performing loans of Chinese commercial banks fell from a high of 1254.92 billion yuan in 2006 to 427.9 billion yuan in 2011, a total reduction of 827.02 billion yuan in non-performing

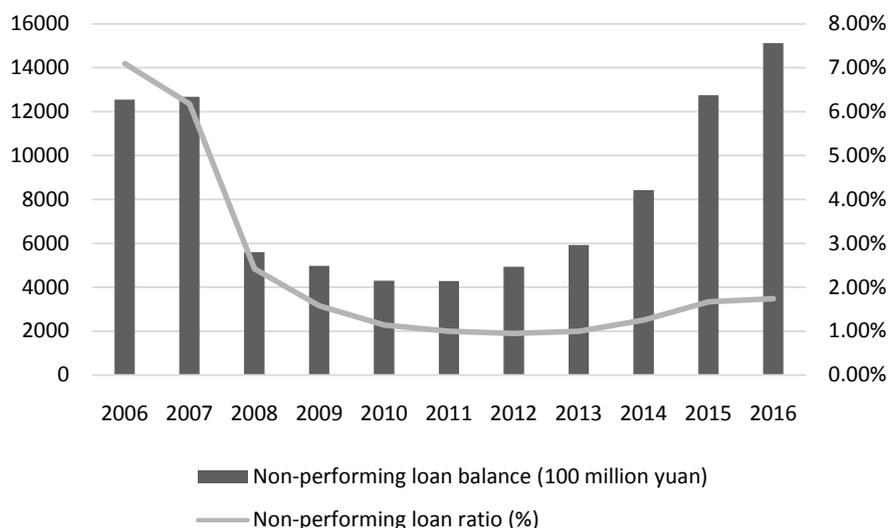


Figure 1. Non-performing loan balance and non-performing loan ratio of China's commercial banks from 2007 to 2015. Source: China Banking Regulatory Commission.

loans. Among them, the decline in 2007-2008 was mainly due to the fact that the Agricultural Bank of China was preparing to apply for listing, which led to the divestment of 815.7 billion yuan of non-performing loans. At the same time, the non-performing loan ratio of Chinese commercial banks was always controlled within the regulatory standards, and quickly fell to less than 1% in 2011. However, since 2012, non-performing loans of commercial banks have begun to rebound. Since 2011, the non-performing loans of 427.9 billion yuan have increased to 1512.3 billion yuan in 2016, a total increase of 1084.4 billion yuan, returning to the level before 2008 and the amount is higher, setting the highest value of non-performing loans in the past decade. The non-performing loan ratio also rose to 1.74%.

6. Analysis of the Causes of Non-Performing Loans of Chinese Commercial Bank

This paper believes that the causes of non-performing loans of commercial banks in China are mainly divided into external factors and internal factors. The external factors are mainly macroeconomic conditions and government administrative interventions. The internal factors are mainly the bank's operating conditions and internal control.

6.1. External Factors

6.1.1. Drastic Fluctuations in Macroeconomic Forms

The non-performing loans of Chinese commercial banks fluctuated with the fluctuation of macroeconomics. The change of non-performing loan ratio showed a good negative correlation with the change of GDP growth rate. In order to ensure the normal operation of the macro economy, the state has introduced monetary and fiscal policies in accordance with the form. When fiscal

policy and monetary policy change from easing to austerity, excessive economic contraction leads to low total effective demand, and most enterprises default, resulting in a sharp increase in bank non-performing loans. In addition, the macro economy also has an impact on the development of the industry. Affected by the state's macroeconomic regulation and control, the business environment of the company has changed, and it may face higher operational risks, so that the bank is facing increasing pressure on the collection of credit assets due. The introduction of national policies to curb excessive housing prices has made the real estate industry's capital chain tight, and commercial banks' credit risk has increased, increasing the possibility of non-performing loan growth.

6.1.2. Government Administrative Intervention

Commercial banks are often subject to greater administrative intervention by the government in the economic operation, which is in the process of national economic transformation. Tan Jinsong (2012) conducted a study on a non-performing loan of a commercial bank from 1988 to 2005 and found that government intervention has a great impact on the generation of non-performing loans. In order to achieve certain goals or implement new policies, commercial banks will be intervened by local governments to lend to some enterprises with inefficient operations, and some enterprises will not be able to adapt to changes in the market economy. As a result, commercial banks will not be able to recover their loans, and non-performing loans will grow sharply.

6.1.3. The Information Asymmetry Credit System Is Not Sound

It is difficult for banks to fully grasp the operating conditions of the borrowing enterprises and the use of funds. Non-normative communication methods and inefficient communication forms between enterprises and banks often lead to information asymmetry causing "reverse selection" and "moral hazard" and "reverse selection" to cause banks to issue loans to high-risk borrowers. The insurance "motivates the borrower to engage in high-risk economic activities after borrowing".

6.2. Internal Factors

6.2.1. The Bank's Own Management Is Not Good

The different levels of management and management of banks have led to different aspects of the portfolio of loan assets in terms of liquidity, risk and profitability. The level of bank management is low, and the stock and ratio of non-performing loans are generally low. If the internal management of commercial banks is not good, it will lead to heavy internal lending, and only pay attention to short-term interests when lending loans, ignoring the use and flow of loans in borrowing enterprises, and lacking of good inspection and supervision of the subsequent business conditions and market prospects of the borrowing enterprises. In addition, compared with foreign banks and state-owned large commercial banks and joint-stock banks, foreign banks have the lowest non-performing loan ratio. Foreign banks are superior to other types of banks in

terms of management methods and management concepts, and their ability to withstand crises is also strong.

6.2.2. Bank Risk Awareness and Risk Appetite

There is no awareness of risk and benefit, insufficient understanding of the formation of non-performing loans, weak risk awareness and increased non-performing loans. The common loan-to-deposit ratio of commercial banks reflects the risk appetite of banks. The larger the deposit-to-deposit ratio, the larger the relative deposits of bank loans, and the relative preference of banks, which increases the non-performing loan ratio. The risk-oriented operators generally have a rapid expansion of the credit scale of their banks, and the capital adequacy ratio declines, and the ability to withstand risks will be weakened. The risk-averse operators will maintain a stable credit level for their banks. The capital adequacy ratio will not decline rapidly, and the ability to withstand risks is strong.

6.2.3. The Internal Control System of the Bank Is Invalid

The internal control system of the bank is invalid in two aspects. First, there are loopholes in the design of the internal control system, and the internal control system is poor in overallity and adaptability. Second, the internal control design is reasonable but it is obtained among the internal staff of the bank. Not effective execution. The ineffectiveness of internal control can not only control the generation of new non-performing loans, but also have a negative impact on the internal management level of banks.

7. Conclusions and Policy Recommendations

Through comparing the status of non-performing loans between European and Chinese banks, this paper finds that the problem of non-performing loans of commercial banks in Europe is serious and China has also rebounded after a long period of non-performing loans decline, and analyzes the causes of the problem of non-performing loans. The high non-performing loan ratio of the European banking industry is closely related to its economic weakness, sovereign debt crisis and structural barriers to the disposal of non-performing loans. The causes of non-performing loans in China's banking industry are mainly due to external macroeconomics, government intervention, and internal banking factors. The shortcoming of this paper is the lack of some quantitative analyses, and it is expected that in the future, the measurement model can be used for more accurate analysis. Finally, based on the analysis of this paper, the following suggestions are made:

- 1) At the macro level, accelerate the operation of the capital market, improve the construction of the capital market, change the financing pattern, and provide a more diversified financing platform. In addition, support emerging industries and actively adjust the macroeconomic structure, so that the external economic environment provides opportunities for the banking industry to hedge stock risks.
- 2) Develop international cooperation to achieve win-win development. Chi-

na's banking industry can strengthen international cooperation and deeper and broader banking cooperation with developed countries. After the renminbi is included in the SDR, many countries will use the renminbi as a reserve currency, and under the "One Belt, One Road" strategy, the demand for services such as overseas renminbi settlement will increase substantially, requiring financial enterprises to go out and provide overseas financial services for enterprises. The internal and external environment has brought rare opportunities for development in China's banking industry. Therefore, in the face of a more complex international environment, the state should reduce the interference of political factors on market behavior, regulate market development through market forces, and establish regulatory laws that adapt to different levels of banks and financial institutions.

3) Reasonably distribute credit, support emerging industries, and seize opportunities to hedge stock risks. When the economy is in the upward stage, the bank's non-performing loan ratio is relatively low. Although there is still downward pressure on the economy in the short term, the inertia of some traditional industries and excess capacity adjustment is still large, but at the same time, the state has introduced a large number of policies to promote industrial upgrading. Transforming, stimulating the development of emerging industries to provide new growth points for the economy, and actively adjusting the macroeconomic structure, so that the contribution of consumption to economic growth continues to increase, the proportion of the tertiary industry is further increased, and the macroeconomic fundamentals are turning better. These external economic environments provide opportunities for banks to hedge their stock risks.

4) For the internal control level of the bank, the internal risk management system of commercial banks should be improved, the development and construction of risk management systems should be strengthened, the pressure of risk supervision should be strengthened, and the generation of non-performing loans of banks should be curbed. At the same time, the credit management system should be improved. It is not possible to blindly expand the scale of loans in order to maintain the continuous growth of credit volume, not to pay attention to the quality of loans, and effectively control the formation of non-performing loans of commercial banks.

5) Develop diversified operations and expand the scope of Internet business. Commercial banks should conform to the development trend of Internet finance, increase relevant resources, and develop Internet finance services in multiple dimensions and at multiple levels. These businesses will bring more non-interest income to commercial banks, because non-interest income is not vulnerable to interest fluctuations. And the impact of economic cycle fluctuations, high stability, thereby expanding the safety margin of the banking industry and enhancing the ability to respond to risks.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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