The Credit Risk Identification of Commercial Banks in China

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Abstract. This paper introduced the concepts and features of credit risks in commercial banks. It mainly discussed the significance, classifications and the major methods of credit risk identification. According to list advantages and disadvantages of identification methods, it made some suggestions about credit risk identification and management at this stage.

Keywords: Credit risk identification; risk management; commercial banks.

1. Introduction

With the development of economic globalization and the opening up of foreign economy, the Chinese economy is affected by the international financial environment. As a special industry, banking is always confronting an intense attack from all sorts of risks. Therefore, the credit risk becomes the largest and the most important risk in banking sector. If there is a set of very imperfect internal risk management mechanism, financial institution must be difficult to survive and develop. In a word, it becomes an urgent task to establish the complete risk management system.

2. The Credit Risk of Commercial Banks

2.1 The Overview of Credit Risk.

Commercial bank is the core of modern finance, which plays a very important role in economic development. It is the foundation of the whole social economic stable development with the smooth operation of commercial banks. The credit risk management level of domestic commercial banks is relatively backward in the last 4 years, especially in 2015. As shown below in Fig. 1, it shows that our commercial banks' higher non-performing loans have become a big hidden danger for our economic healthy development (*All the data from the CBRC).

Credit risk is also called default risk, means commercial banks are obvious to get the influence of various uncertainties during the process of operations management. Commercial banks cannot get the principal and interest of loans repaid, so that they will suffer from the possibility of loss in the future. Thus the credit operation is one of the highest risk businesses in commercial banks and this kind of risk is inevitable [1].

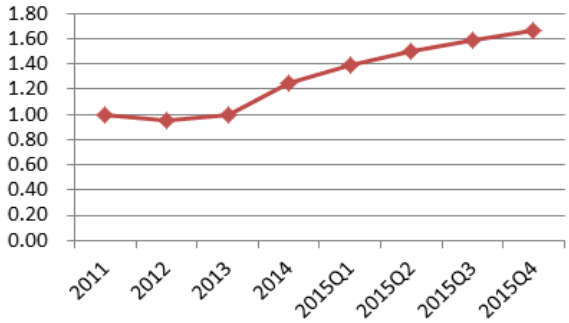

Fig. 1 The non-performing loans ratio (%) of commercial banks in China*

2.2 The Features of Credit Risk.

At present, the credit risk of commercial banks in China mainly has the following features: (1) Objectivity. The credit risk of commercial banks not only exists a commercial bank or a region of commercial banks, even a nation of commercial banks, but it exists all commercial banks from different countries. It states that credit risk is ubiquitous and nobody can eliminate it. (2) Uncertainty.

The credit risk is a natural outcome of economic and social development, the cause of the credit risk is influenced by many factors, so it has the uncertainty. (3) Harmfulness. The prime assets of commercial banks are credit assets, if such loans defaulted, credit assets would have risks to make problems of capital turnover, and then commercial banks would incur significant financial losses. (4) Controllability. Commercial banks can use quantitative and qualitative methods to warn, identify, measure and control risks, and it can help to prevent and transfer risks effectively based on those methods.

3. The Identification of Credit Risk

3.1 The Significance of Credit Risk Identification.

Risk identification is the first step of risk management, and also an important part of the risk management. In other words, risk identification is the basis of the whole risk management, because it determines the direction and scope for risk assessment, risk measurement and risk prevention. Simply, it can be solved these problems like sorts of the risks, reasons to types of risks, probability on risks and the extent of banks' losses.

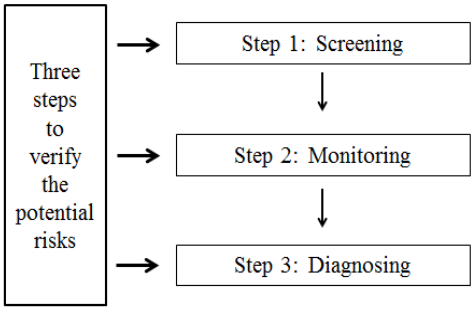

Fig. 2 Three steps to verify the potential risks

There are three basic steps to verify the potential risks (Fig. 2). The first step is screening, risk managers should choose to classify the risk identification by products, processes, events, phenomena or persons which maybe contain the potential risk at the beginning. The second step is monitoring, risk managers should do the overall analysis of risks and losses through the potential risks which are classified by certain procedure. The third step is diagnosing, risk managers must analyze and judge the consequence of risks and losses, and find out the major reasons from the process.

3.2 The Classification of Credit Risk Identification.

The most basic request of risk management is to timely and accurately identify risks. In general the credit risk could be identified from three major parts, they are operational risk, market risk and moral risk.

Operational risk is a kind of risk made the loss by imperfect internal procedure, personnel and external events. According to the causes of risk, operational risk can be divided in two parts. Operation failure risk means persons make some mistakes because of their faults, such as personal risk, process risk and technical risk. Operation strategy risk is caused by adopting inappropriate strategies to create the losses under the condition of politics, taxation, government and market competition. In recent years, as the increasing of opening degree of the financial market, operational risk is more and more highlighted by reasons of absence of property rights, institution defect of internal controls, management inefficiency and lack supervise [2].

Market risk is a potential risk leads to unexpected value which caused by changing prices of interest rate, exchange rate and commodity. Interest rate risk has become the most important risk in the whole financial market because of the credit relation is the most important relationship between banks and clients. Lending funds would be hurt by the rise of the market interest rate. And if these lending funds are foreign currency, commercial banks must suffer the risk of fluctuations in exchange rates. Many commercial banks need to predict the trend of exchange rate and interest rate, and also the range of their possible changes. As the result of the failure of prediction, credit assets must be loss.

Moral risk is produced in principal and agent relationship, which results from the discordance of purpose and unequal information between principal and agent. Because of information asymmetry, the operation of commercial banks inevitably has very large moral risk. Nowadays, the moral risk is a common phenomenon in the realms of commercial banks. What more serious is that, such moral risk will take negative effect to the benefit of whole society. Thus, the issue of moral risk in credit operation has become the focus of research from the risk prevention.

3.3 The Major Methods of Credit Risk Identification.

Risk identification is a process of identifying all potential risks that can cause losses [3]. For risk identification, there are so many methods and techniques for risk managers to identify potential losses. At least basic five techniques are available to supplement the analysis. These methods include financial statements analysis, flowchart analysis, field investigation, statistical analysis of losses and fault tree analysis.

3.4 Financial Statement Analysis.

Credit risk managers in commercial banks can research and analyze financial situation of enterprises to find out the potential risks and they can also discover future exposures with financial forecast and financial budgets. Financial information reflects the valid evidence for the company, and it can reveal information for public, so credit risk managers can get information easily.

Nevertheless, credit risk managers have to face lots of data and figures to calculate, for example liquidity, profitability, solvency, turnover of funds, and other ratios to reflect the financial position for the last year, so the result sometimes maybe not very well.

3.5 Flowchart Analysis.

According to different kinds of process, credit risk managers could investigate and analyze from each stage of activities and operations to find out the reasons of risks. From Fig. 3, the simple flowchart shows a series steps of production from raw materials into finished products output.

However, it focus on production process and management to find risks, also sometimes risk managers need depend on some data or their experience to judge where the potential risks should be, but it cannot verify the losses from other departments and organizations. In a word, this kind of method has its limitation.

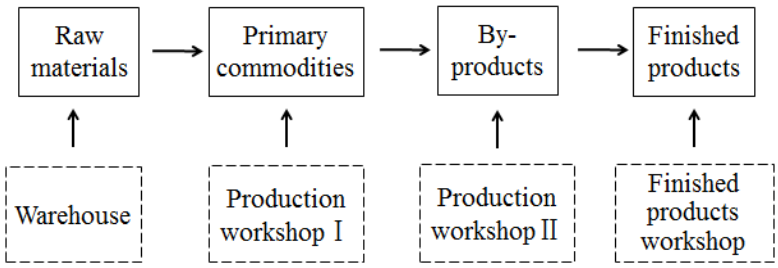

Fig. 3 The simple flowchart

3.6 Method of Field Investigation.

Credit risk managers can understand the way they are conducted, how to do for each link, and learn much about the activities, so they can immediately and sufficiently find out mistakes during the activities which may cause the potential risks.

But there is another problem for it is just suitable for a short time. Risk managers were unable to verify the losses for a long time, because there is not enough time to track the whole process. Credit risk managers may miss some potential risks and losses when products are producing in the process.

3.7 Statistical Analysis of Losses.

It is a method of risk managers or consultants try to verify risks from available records of losses. Credit risk managers need collect information and get the statistical data on past losses to predict costs.

According to this method, credit risk managers merely consider existing risks, so the company should be careful about these risks, but they cannot imagine other potential risks. So this method cannot reflect to comprehensive risk identification.

3.8 Fault Tree Analysis.

Fault tree analysis is one technique of hazard analysis. It can survey the whole potential dangerous situation before losses to judge faults which are the most likely cause of the risks. The objective of fault tree is to prevent the accidents' happen. From the fault trees, credit risk managers can calculate the figure to analyze the loss. But there is no exact standard to contrast, sometimes risk managers can't find out exactly the potential risks.

4. The Suggestions of Credit Risk Identification of Commercial Banks in China

According to these techniques above, each technique has its own limitation, and no one can verify the whole credit risks of commercial banks. Commercial banks need to strengthen risk management and become better able to withstand credit risks.

4.1 Improve the Ability of Credit Risk Identification.

Commercial banks should set up methods of credit rating with multi-levels to distinguish credit rating by different categories of borrowers. Commercial banks would measure and identify all kinds of factors, degree of risk and their properties. The comprehensive risk warning system is very important in commercial banks and it will provide an effective ways to control credit risks [4].

4.2 Enhance the Prevention Level of Credit Risk.

Commercial banks should build an overall effective risk management system to track credit risks in the entire process for each loan transaction. Commercial banks need to comprehensively evaluate the borrowers' assets and liabilities, establish the mechanism of risk aversion and insurance and do supervision and regulation at any moment to avoid the losses when credit risk managers find any problems.

4.3 Foster High-quality Personnel with Risk Identification Capability.

Credit risk identification requires persons have their own judgments depending on professional knowledge and rich experience. In order to attract more professional credit risk managers and foster their credit risk identification capability, commercial banks should institute the system for introducing, cultivating and training, and value the capacity of risk analysis and risk control.

5. Summary

The credit risk identification and management are the significant contents of risk management system, which are the hotspot of researches in the banking sector. The level of credit risk management is directly relevant to the banking operation, so commercial banks need to master the new methods to identify and manage effectively risks. And then it can help commercial banks by raising and using funds scientifically and reasonably to reduce the credit risk and to foster the healthy development of the national economy.

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