Risk Management in the Credit Loan Project

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Abstract: The key to the business success of commercial banks is determined by whether they are willing to take risks, whether they can properly control and manage credit risk. For the past few years, the national and international economic and financial situation has been complicated. With the constant adjustment of national macro-policy and banking supervision measures, solving the problem of national commercial bank credit risk management under the new situation has become the priority of domestic banks. The goal of credit risk management is not only to ensure the safety of the loans but also through credit risk management to improve the quality of examination and approval of new loans and establish a good relationship between banks and enterprises. Based on the relevant data that has been obtained, compared to the statistical data analysis, theory and empirical analysis study, this paper explored the development of China's commercial bank credit markets and the general laws by drawing on foreign commercial bank loan management's advanced experience combined with the status of China's commercial bank loan management and empirical analysis and discussion by the method of its existing loan management issues. Finally, after analysing the current situation of loan management of China's banks, combined with foreign commercial banks' experience, this paper put forward some improving strategies of commercial banks' loan management. We alter, optimize, and control each stage of the project and minimize its risk within one stage to its least possible, and we achieve to manage the risks of the project as a whole.

1 INTRODUCTION

1.1 Background History

Project management refers to the integration of various systems, methods and personnel to complete the various tasks of the project within the specified time, budget and quality objectives. That is to plan, organize, direct, coordinate, control and evaluate the whole process from the beginning of the investment decision of the project to the end of the project so that the project objectives can be completed. For the banking industry, the process of credit risk management can be regarded as a project completion process. Admittedly, the credit risk management of banks has been paid more and more attention by enterprises in practice, not only because the current banking industry is experiencing the impact of an era of crisis, but it is the foundation that determines the survival growth and profitability of banks. The concept of banking credit risk management first appeared in the 1990s. Before the 1990s, credit risk management was used to explain the technology and risks associated with insurance. This kind of risk management refers to purchasing traditional insurance products suitable for any event to prevent future hazards. In the financial investment market, derivatives have also been promoted as risk management tools for hedging activities. Derivatives are not only used for hedging but these tools can also be used for speculation and arbitrage. However, the meaning of banking risk management is slightly different from financial risk management. Even so, in 1997, the Basel Committee on Banking Supervision issued the 'core principles' for effective bank supervision, which provided an important link between capital and risk containment. In particular, banks need to adopt risk measurement and risk management procedures and processes to ensure the

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risk-adjusted return of their enterprises (Information on https://www.bis.org/publ/bcbsc125.pdf). The core concept of credit risk management in the banking industry is to ensure the safety and profitability of the banking industry. In recent years, due to the impact of the macroeconomic downturn, real economy enterprises have encountered certain difficulties in production and operation, credit business default risks have increased significantly, and the quality of credit assets in the banking industry has shown a difficult situation. Therefore, credit risk management in the banking industry has become indispensable.

1.2 Research Status Quo

After almost forty years of research, the Chinese bank sector has developed a relatively efficient and complete risk management system in dealing with credit risk. Our Chinese bank industry has grown to demonstrate awareness and knowledge of identifying and forestalling some credit risks to guarantee the success of enterprises. However, in comparison to western bank institutions, our bank industry is still immature in managing credit risks. In general, this immaturity is due to sufficient practical use of risk management theory. Chinese bank industry adopts certain management methods from prestigious Western management models and integrates them into our own credit risk management. Still, our risk management system is under great improvements and justifications since it is important to apply the management methods that best suits our own economic condition and policy. In addition, part of our Chinese bank industry currently has a limited understanding of risk management, which leads to inattention and neglect to risks that harm the banks. For example, our banks have a relatively uncomprehensive pre-credit management risk system. Our Chinese enterprises are more focused on emergency management in the post-credit phase rather than detecting the potential risks before giving out loans in the pre-credit phase. As a result, the Chinese bank sector is experiencing inadequacies in estimating and judging the underlying credit risk and standardizing performance appraisal systems for credit loans. Hence, our bank industry is challenged to improve, gain better insight and sharp intuition, and set up comprehensive risk management mechanisms and instruments.

1.3 Research Paper Structure

Our research will follow the structures as described below. The first part is an introduction to our research, summarizing the research background and status quo. The second component focuses on our main research content, introducing and analyzing major instruments and tools in managing the credit risk in three phases: pre-credit, mid-credit, and post-credit. We will also demonstrate the process and method of how authors extract and analyze the data pertinent to the credit risk. What follows is the third component displaying the results and discussions. We will reflect on the examples we introduce in our research and analyze the causes of failures and successes. We will also provide conclusions and propose solutions to practical issues in the domain of credit risk loans in the bank industry. In the end, we summarize and reflect on our studies, rethinking how our research provides meaningful insights into the development of prospective credit-risk management in the Chinese bank sector.

2 METHOD

The credit loan project is crucial for commercial banks. The article investigates the question of how to successfully manage the credit loan project from its three phases: pre-loan, mid-loan and post-loan.

There are countless examples that can prove that risk management is essential to bank credit operations. For example, in 2007, the Royal Bank of Scotland chose to develop its credit business, not using depositors' funds, but using short-term loans from other banks. The British Financial Services Authority stated that the bank had not conducted a detailed risk management investigation prior to this. The increase in bad debts, the suspension of funds, and the deterioration of its own financial situation directly led to the bankruptcy of Royal Bank of Scotland and the acquisition of 83% of its shares by the government.

For analyzing risk management during the pre-credit phase, we will use the literature research method and case analysis method to study the risk management of credit projects.

2.1 Risk Management in Pre-loan Phase

2.1.1 Evaluation of Pre-loan Risk Management

Credit risk refers to the possibility that the loan cannot be recovered on time, causing the loss of credit funds and its income. We should be clear: Firstly, credit risk is a probabilistic event, which may or may not occur, and the loss studied only refers to the possibility of loss, not reality; secondly, credit risk runs through the business. The process of bank credit management emphasizes the possible consequences of risks before lending and requires banks to pay attention to risks from time to time throughout the credit activities and control and reduce risks by improving the bank's business management behavior. Credit risk cannot be eliminated. It can only be controlled, reduced and resolved. Credit risk will inevitably exist as long as there is a credit category in social and economic activities (Olaf 2011). Therefore, commercial banks must strengthen the prevention of credit risks in their capital operations and try their best to avoid losses caused by bad debts.

In the bank's pre-credit business, it is necessary to fully understand the customer's credit rating and the customer's financial status. After conducting business with customers, they also need to track and supervise their customers. If supervision is not in place, it is easy to cause customers to default or overdue credits, thereby affecting the bank's business development.

In the pre-credit investigation, some account managers did not pay attention to the authenticity and completeness of the relevant information; they did not clarify the true use of the bank loan (especially when issuing short-term credit); the review was too optimistic and did not analyze the potential of changes in related factors Influencing factors, in-depth market review, insufficient understanding of business management status and the future, and thorough risk reassessment; inaccurate assessments and insufficient coverage of credit risks; and ineffective identification of group customers and related company risks. The above factors damaged the following loans in the initial stage.

In addition, some banks ignore problems such as incomplete loan procedures and insufficient review materials; some implement anti-procedures, such as issuing loans before enterprises apply for loans, signing loan contracts before loan approvals, issuing letters of credit or bank acceptance drafts before approval, etc.; merger credit extensions have not been granted (Olaf 2011). Fully cashed, the credits to some group members were not included in the consolidated credit management; lending in violation of regulations, that is, lending beyond authority, dividing a large sum into several small pieces, avoiding authority restrictions, rolling out bank acceptance bills to capital enterprises, or when there is no actual Issuance of acceptance bills, discounts, etc. in the context of trade.

2.1.2 Existing Problems in the Pre-loan Control of Credit Risk of Chinese Commercial Banks

1) The establishment of functional credit departments is unreasonable. Commercial banks currently set up industrial and commercial credit, project credit, housing credit, and other departments have the same functions, segmentation, easy to indulge in standardization circles such as sub-indices, competition for scale, etc. Commercial banks conduct research on credit markets, develop customers, and formulate credit management strategies. Insufficient research on the objective requirements of credit operations in China is not conducive to effective prevention and control of credit risks. In addition, they have integrated pre-loan inspections, loan-time inspections, and post-loan inspections and lack a mechanism for mutual restraint and checks and balances (Olaf 2011).

2) The risk management institution is not sound. The credit risk management team still cannot be self-contained from top to bottom like Western commercial banks and lacks a strong system. However, the credit business department and the credit management department are not administratively separated. The review opinions of the credit management department often do not have a substantive restrictive effect, and the improper phenomenon of "outsiders managing insiders" is prone to appear (Olaf 2011).

3) Weak implementation of the credit system. Most commercial banks in China have not yet established a dedicated credit decision.

The policy agency is responsible for the bank's credit policy, management system and customer credit rating standards. However, the business department has no rules to follow. It can only conduct business management according to the traditional scale and ratio indicators, which cannot guarantee the effective operation of the entire credit mechanism. In addition, there is no special department to evaluate and inspect the compliance of credit policies, work procedures, and operating standards by business departments, which has led to many business departments appearing in ultra vires loans and illegal loans (Olaf 2011).

2.1.3 Case Study: China Construction Bank

At present, the pre-lending risk management department of CCB's LC branch operates in accordance with the relevant requirements of the Guidelines for Due Diligence of the Construction Bank's Pre-lending of Corporate Credit Business and other documents. In the actual operation process, the account manager account manager of each branch and the risk manager of the bank conduct pre-loan investigations on credit customers. The basic process of the pre-loan investigation includes business acceptance, pre-investigation preparation, implementation of the investigation, and writing of the investigation. Six stages of manuscript, investigation review and investigation review. Every detail in the front and back process is interlinked. If there is an omission in a certain link, it will leave hidden dangers for later risk research and judgment and control. The long management process and high professional knowledge requirements have caused banks to manage the pre-loan inaccurately and superficially. In many cases, problems are discovered and solved in the loan, which cannot be controlled in the pre-loan link (Chen 2019, Christian 2015).

In this case, during the pre-loan review, China Construction Bank discovered that Group B had two companies with credit balances in the CCB LC branch, namely Company A and a new material production company, with credit balances of 89.7 million yuan and 129.87 million yuan, respectively. The group's credit balance in the LC branch of China Construction Bank totalled 21.57 million yuan. As a result, the construction bank LC branch loan is expected to lose 160 million yuan, with a loss rate of 73%. Among them, A company lost 62.98 million yuan, recovered 26.72 million yuan, a loss rate of 70.21%; G new material is expected to lose 97.28 million yuan, recovered 32.59 million yuan, a loss rate of 74.92%. The detailed analysis of the evolution process of company A's credit business quality migration is as follows:

(1) In August 2014, Company A issued a letter of credit advance with ICBC. In January 2015, it owed interest in the local Rural Commercial Bank, and in July, it owed interest in the LC branch of China Construction Bank. The bank's LC branch failed to settle the payment due to the bank acceptance business and formed advances. From November 2015 to January 2016, it handled the refinancing business for it. After that, interest arrears occurred. The classification was lowered on September 30. The loan was overdue in the LC branch of China Construction Bank in November 2016, and it was adjusted to the suspicious category in March 2017 (Chen 2019).

(2) In October 2014, the new material production company had advanced payments and interest owed in other banks. From April to July 2015, the new material production company temporarily suspended production and owed the interest of the LC branch of China Construction Bank. The company settled all the debts at the end of 2015. From 2016 to 2017, the new material production company maintained its operations and repaid the loan interest from the LC branch of China Construction Bank every month. In May and December 2016, the company was involved in the "import and export agency contract dispute" case. The construction was completed on December 30, 2017. As a result, the LC branch of the bank downgraded the classification to substandard. In January 2018, it began to default on the interest of CCB LC Bank. In February 2018, the loan was overdue in LC Bank, and then it was adjusted to the suspicious category in March (Chen 2019).

2.2 Risk Management in the Mid-credit Phase

To analyze risk management during the mid-credit phase, we employ the methods of document analysis and case study.

2.2.1 Mid-credit Risk Management Summary

Right after the loan is issued, the whole loan project enters the phase of mid-credit. Good mid-credit management practice is the second line of defence against potential risks, and it is crucial for the safety and securities of loans belonging to banks. We have seen a great quantity of non-performing loans present because of inadequate pre-credit investigation and review, which further led to a lack of investigation reports and credit-loan documentations regarding the bank's loan customers. As a result, it creates difficulties for banks to perform mid-credit reviews and investigations. For mid-credit loan audit and review, administrators should review the credit loan materials carefully and independently, follow up with borrowers to supplement the missing documentation and materials needed according to law and protocol, and scrutinize financial reports, investigation documentations to expose any potential risks associating with non-performing loans. The auditors of banks should make sure that all documentations are legal and valid and issue investigation and audit reports regarding the loan customers to ensure the validity and safety of loans (Information on https://blog.csdn.net/hajk2017/article/details/81325661).

Through the documentation analysis method, we find out that major Chinese commercial banks employ various mathematical models to perform quantitative analysis, including prediction model, decision model, and linear programming in decision-making regarding credit loans. Banks determine borrowers' loan qualification and loan amount mainly based on analysis of their documentation, such as financial reports. The credit loan project usually starts when company borrowers submit their loan applications to banks, and banks perform their analysis on borrower companies and projects they use loans for. After banks issue the written evaluation report, the Risk Management Department will establish panels of specialists to review the evaluation report and feedback to the Risk Management Committee. Finally, after all the legal process, the loan is issued (Wang 2010, Basic system of credit management, Baidu Wenku).

2.2.2 Case I

Since 2008, The steel market industry opened by Commercial Banks of Fujian began to transfer from Shanghai to Wuxi. During this transfer, the strong investment aspiration of Steel trade business entities coincides with the willingness of Fujian Commercial Banks to expand credit loan business. As a result, the Banks lent too much and bankrolled the bubble, which reached its peak in 2011. At the same time, the number of programs that commercial banks require their branch to achieve is over 40, and commercial banks also require their branch to triple the deposit. Under these requirements, many bank branches start to issue loans without careful investigations, and credit-loan risks arise (Dai 2013).

In late January 2012, Bank A actively made efforts to make sales for Company B. In April 2012, Bank A provided Company B with 50 million comprehensive credit lines, and Shanghai Huashi Company undertook a joint liability guaranty. In June 2012, Bank A issued a total of 60 million bank checks, which utilized 30 million exposures. In June 2012, Bank A granted 200 million indirect credits to Company B, financing for downstream steel distributors in an advance payment mode. Until August 2012, an estimated total of 180 million were used by Company B for the advance payment process. The difference between the purchase price and sale price will be refunded. Company B made advance payments to Shanghai Huashi Company, and Huashi Company shipped the goods to warehouses of Shanghai Guangji Logistics Co., Ltd. All the transactions were made on the spot. The downstream distributors made 30% advance payments, and a third-party Zhongchu Logistics supervised all the steel goods. Company B had the ownership of goods, and downstream distributors could make payments and obtain the goods in batches. If Company B could not make repayments, Shanghai Huashi Company would guarantee to buy the remaining steels. At the end of August 2020, the Head Corporation of Company B found out that parts of steel kept in Shanghai Guangji Logistics Co., Ltd were double pledged by Company B's upstream firm, Shanghai Huacheng materials co., Ltd. On 24th September 2012, the Head Corporation of Company B announced that they will appeal to Municipal Intermediate Court to recover against 803.63 million RMB non-payment and steel goods owed by Company B's supplier, included 209.24 million RMB granted by Bank A (Cai 2011, Zou 2012, Zhou 2013).

Table 1: Transaction detail chart.

Transactions	Date	Quantity RMB（ten thousands）
Bank A provided B credit line	2012.4	5000
Bank A issued 5 bank notes	2012.6	6000
Bank A provided B indirect credit line	2012.5	20000

2.2.3 Case II: Bank of China

One sub-branch of Bank of China signed an Individual first-hand housing loan agreement with a personal borrower and the real estate development company. The agreement specifies that the sub-branch of the Bank of China issues a total amount of 64 thousand RMB of loan within a time limit of 300 months. The personal borrower agreed and authorized the Bank of China to send the loan directly to the Real Estate Company to buy a house with a monthly interest of 6.0042%. The borrower pledged the house as security for the loan, and the Real Estate Company provided the joint liability guaranty. During the agreement periods after the loans were issued, the borrower already had several overdue payments to the Bank. The Bank of China tried to contact the borrower several times but failed due to a borrower's permanent address change. Therefore, the Bank of China had no other way but to prosecute the borrower and Real Estate Company in court. The case was dismissed because the borrower did not show up and the Bank of China did not submit enough evidence on the borrower's refusal to pay the loan (Shen 2013, Zhao 2012, Wang 2017).

2.3 Risk Management in Post-credit Loan Phase

To analyzing risk management during the mid-credit phase, we employ the methods of document analysis as well as comparable case analysis.

2.3.1 Data and Summary

When obtaining data associated with post-credit loan risk management analysis, we employ methods of documentation analysis to understand the concepts and characteristics of post-credit loan management and perform comparable case analysis on post-credit risk management, making a comparison between foreign and Chinese commercial banks.

Post-loan risk management means the management from the time loan is issued to the time when loan principal and interest are repaid. Thus, it is the last activity in the whole process of loan project management (Yang 2014).

2.3.2 Comparable Case Studies

(1) Case I: Citibank (Zhang 2014)
We first analyze the post-credit loan management by Citibank, N.A. Citibank was founded in 1812 as the City Bank of New York. Citibank was merged with Travelers Group to establish Citigroup, one of the largest financial services giants. Citigroup has divisions including Citibank, Salomon Smith Barney, Banamex, Citifinancial and other 13 financial services enterprises with assets over a trillion dollars. Citigroup has its branches in 150 countries and regions with employees over 27 thousand. The financial products provided by Citigroup ranges from enterprise and investment banking services to credit loans, insurance, brokerage, financial consulting, etc. As a bank that develops global business, its business branches include credit cards, private banking services, corporate banking services, multinationals, and emerging markets business, helping Citibank gain advantages unmatched by other banks.

Regarding the post-credit loan risk management approach, Citibank believes that risk prevention is better than risk governance; voluntary target market setting is better than passive remedial action after risks happen; active commercial advertisement is better than passive risk aversion. Citibank's management system is detailed in figure 1 below.

Figure 1: Citibank's post-loan management mode (Zhang 2005).

Citibank proposes to be proactive when dealing with post-credit loan risk. First, Citibank determines market admittance by analyzing specific industry life cycles. Citibank decides that it is accessible to enter industries in the growth stage and in a mature state. As for sunset industries and industries in recession, the market admittance for financial credit funds is very limited and restricted. Second, Citibank performs portfolio analysis on the loan project, including factors such as geography, transaction type, borrower's background, collateral information to investigate and monitor. Third, they use dynamic risk measures to ensure that credit funds are issued following protocols, make the risk under control, and calculate the expected returns.

(2) Case II: Industrial and Commercial Bank of China Limited
The Industrial and Commercial Bank of China Limited, also known as ICBC, is the biggest state-owned Commercial bank in China and is also one of the Fortune 500 companies. ICBC has been ranked as the largest bank in the world for five consecutive years up until 2012. Since its establishment in 1984, ICBS has always regarded "providing excellent

financial services" as its mission. ICBC has been financing both internationally and domestically and raising social funds broadly to provide financial support for the development and reform of enterprises, which further contribute to China's economic development.

Regarding the personal housing loan, ICBC studies and formulates administrative methods according to Provisions of INDUSTRIAL and Commercial Bank of China on strengthening post-loan management to regulate the post-credit loan management, prevent and control potential risks, ensure the quality and efficiency of personal housing loans, etc. ICBC enacts administrative methods in the post-credit loan phase and divides loans into five class loan classification based on risk level. For the normal loan activities, the Bank will conduct post-loan supervision by means of regular selective examination. For the other four classes of loans, the Bank will conduct a complete and comprehensive inspection. At the same time, ICBC set specific requirements on the intervals between inspections. The inspection frequency is significantly higher for the class of loans with a high risk level (Information on www.pbc.gov.cn).

The general process for post-credit inspection is described below in the chart:

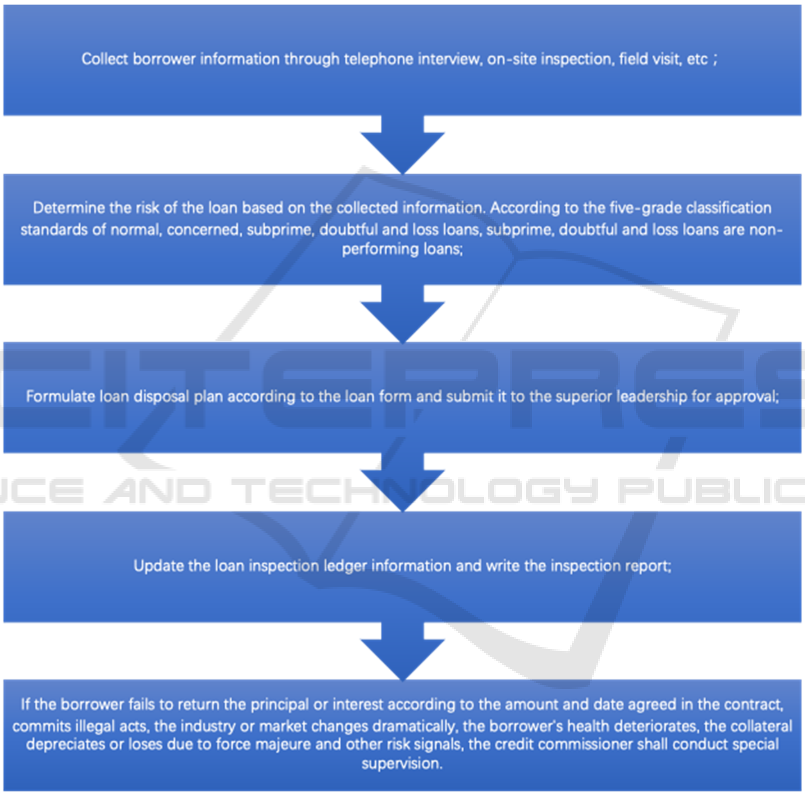

Figure 2: General procedures for post-loan inspection.

When loans are due, the Credit Control officer will send out a reminder notice in advance. For defaulted loans, Banks could charge a penalty fee, stop the outstanding loan, deal with the pledges by regulation, and recourse to the guarantor for joint and several liabilities. In addition, the Bank must conduct a risk assessment on loans 90 days before due. Then, the Banks would formulate emergency measures for potential defaulted loans. When one month before due, the Bank must analyze the overdue default risk again. All the branches of the Bank must take initiatives to prevent and defuse overdue risks (Information on www.cbrc.gov.cn).

3 RESULTS AND DISCUSSIONS

3.1 Pre-credit Loan

Pre-loan risk management is the first hurdle in the credit management process, and it is also a more important process link. It is the basic basis for customer screening and credit plan judgment and the bridgehead for actively avoiding credit risks and ensuring the quality of credit assets (Christian 2015).

3.1.1 Case Analysis of Pre-loan Risks

(1) In the process of group relationship sorting, the group customer relationship was not identified in accordance with the principle of substance over form, and the identification of companies controlled by family members within the range of three generations directly and two generations was insufficient (Information on https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/banking-models-after-covid-19-taking-model-risk-management-to-the-next-level).

(2) Failure to carefully analyse customers' production and operation needs, resulting in excessive credit extension. In 2010, when the new material production company declared a general quota of 54 million yuan and calculated based on the production capacity of 60,000 tons of the two production lines, it was concluded that the trade financing business demand was 9.072 million yuan. In 2011, the company only put into production one production line, and the actual production capacity was 36,000 yuan. Based on the exchange rate of 6.63, the company's actual import volume was 270,291,900 yuan. Various financial institutions have handled import letters of credit services for the company in a cumulative amount of 310,114,000 yuan, exceeding the enterprise's actual production and import demand. In April 2012, the new material production company had a credit line of 7 million yuan, increasing 16 million yuan compared with 2011. At the end of 2012, the balance of the forward letter of credit opened with various banks was 272.25 million yuan. After inquiring about customs data, the new material production company's annual import volume in 2012 was 34.82 million dollars, converted into 216.93 million yuan based on the exchange rate of 6.23 in December 2012. Without considering the term of the letter of credit, the amount of bank credit has far exceeded the actual credit limit of the enterprise. In April 2012, Company A had a credit line of 50 million yuan, an increase of 30 million yuan compared to 2011, with a credit line of 415.0 million yuan in various banks and a stock loan of 31,583,77 million yuan (including low-risk businesses). In 2011, Company A had total assets of 59.674 million yuan and realized sales income of 85.83 million yuan. According to the company's size and sales income, the company's business capital needs did not match the total amount of bank credit (Chen 2019, Information on https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/banking-models-after-covid-19-taking-model-risk-management-to-the-next-level).

(3) Failure to consider the potential impact of changes in the economic environment on the borrower's ability to repay the principal and interest. For all loans, the most important thing is information about the borrower's current financial situation, the expected use of the loan, and the probability of successful operation of the financing project. In practice, account managers often fail to make clear economic expectations for the target borrower. For example, as the growth rate of the market economy slows, company A's profitability declines. The group was affected by the slowdown in domestic economic growth, and the overall plastic products industry was in a downturn. As a result, the profitability of company A and the new material production company both experienced a serious decline. The net profit of company A has declined year by year since 2014. And it fell to 2.4 million yuan in 2016, and the net profit of new materials production companies dropped from 13.325 million yuan in 2014 to 5.27 million yuan in 2016 (Chen 2019, Information on https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/banking-models-after-covid-19-taking-model-risk-management-to-the-next-level).

3.1.2 Results and Discussions

Banks can gradually form a proactive ability to manage credit risk and can control the risk as far as possible in the link before lending. With the support of this ability, establishing a scientific and reasonable risk management system is the only way to build the core competitiveness of modern commercial banks. It is also a final requirement of risk management. In the process of customer selection and judgment, all links need to be strictly controlled. Therefore, no matter the micro or macro factors, the customer itself or the external environment, it is necessary to in-depth analysis and analysis, effectively select the risk pre-lending management target, and arrange the follow-up risk treatment measures are crucial.

3.2 Mid-credit Loan

The mid-loan phase can be seen as the in-process inspection stage in project management. Whether the project will be executed successfully is being reviewed during this stage. Therefore, it is extremely crucial to detect any potential risks in the mid-credit loan phase.

3.2.1 Risk Analysis

Case I:
The risk occurred because of the following:

(1)The risk detection in the pre-loan investigation was insufficient. Moreover, because the steel industry was extremely popular at that time, the bank neglected necessary investigation regarding crucial process implementation in this loan project.

(2)The investigation about Shanghai Huashi Company is superficial.

(3)The check and examination on the credit review process are not rigorous at all. The provision of Bank A states that only companies with credit ratings above AA are qualified to get credit lines for the purpose of trade financing business. In our case, Company B is only a newly founded company (founded in 2011) with a credit rating of BBB. It is an obvious break of rules when a BBB company could obtain a total of 250 million RMB of indirect and direct credit lines. The bank relaxed the credit rating requirement because it believed the steel industry had a bright prospect. It reflects the lack of rigorous mid-credit inspection and the too simplistic credit review process.

Case II:
The reasons why the loan project failed in case II is analyzed as followed:

(1)The internal control organization is immature. The failure to catch up with the loan borrower is because relevant procedures and documents related to loans were not supplemented in time. As a result, the Bank of China did not recognize who was ultimately responsible for the overdue loan, which led to the dismissal of the case due to a lack of evidence.

(2)The tracking and warning mechanism is incomplete. The Bank of China failed to notice the change in borrowers' financial condition and credit condition and therefore failed to alert the significant risk of overdue payments. The Bank only noticed the alert until the Borrower could not repay the loan on time. At this time, it had become impossible to trace the borrower.

(3)Serious problems associated with credit approval mechanism. The credit approval system in China relied heavily on the relevant investigation report that demonstrates potential risks in the pre-credit loan phase. Thus, the quality of credit approval was heavily dependent on the validity of the pre-loan investigation report. If the validity and reliability of the pre-loan investigation are absent, then the borrower's credit rating is influenced and lead to non-performing loans in the end.

3.2.2 Results and Discussions

Based on the analysis above, we believe that it is crucial to address the following issues in the mid-loan phase:

(1) Emphasize the construction of a credit risk control environment

We need to improve the overall professional quality of the banking staff. On the one hand, it is urgent to improve Banking staff's professional skills and quality of loyalty. On the other hand, we need to enhance staff's risk awareness. We also need to establish a rational assessment and accountability mechanism for credit-loan business. The risks are not detected in time because of the lack of supervision and monitoring, as seen from the above two cases. Therefore, building an effective and rational credit appraisal and assessment system improves personnel quality and gives them a greater incentive to identify potential risks. In addition, an effective accountability mechanism is essential to trace responsible personnel when related issues arise. In this way, the banking industry staff would have a more responsible behavior to fulfill their duties and avoid abusing authority, playing favoritism, and committing irregularities.

(2) Always pay attention to affiliated enterprises' credibility condition

Banks are supposed to choose their client company cautiously when carrying out credit loan business. After the routine investigation in the pre-loan phase, banks should scrutinize the enterprise's operating capacity and credit condition because they are in constant change. Therefore, it is recommended for Banks to provide credit loans for client companies with outstanding main business, above-average production indicators and dynamic cash flow.

(3) Perform strict monitor and re-valuation on collaterals periodically

Banks needs to obtain information on whether the values of collaterals have changed dramatically, whether collaterals are double-pledged, or whether the company sells them off.

(4) Apply multiple guarantee methods to diversify credit risks

For enterprises with tight cash flows, Banks could carry out a guaranteed mortgage on the enterprise's intangible assets such as patents, technology, etc. Thus, it promotes the development of some small and medium-sized enterprises with tight cash flows to obtain credit loans. One issue worth noting is that the Banks must ensure the intangible assets carry values and there is no potential dispute when dealing with patents.

3.3 Post-credit Loan Risk Management

Post-loan risk management is an important link in the credit risk management of commercial banks and a key guarantee to ensure the recovery of loan principal and interest. Based on the methods and data described in section 2.3, we focus on providing analysis on the status quo of Chinese Banks, obtaining results and conclusions, and providing improvement measures.

3.3.1 Results

We conclude that the major problems associated with Banks' post-loan management including (Zhang 2014):

(1)Lack of clear post-loan management concepts. The majority of Chinese banks recognize losses after the loan losses took place. Therefore, the major issue in the bank industry is that banks focus on loan expansion but neglect the subsequent necessary management of loans.

(2)The post-loan management system still needs to be improved. The Credit management department performs the post-loan administrative function, which means that the loan sales and post-loan inspection are all performed by the account manager. The lack of post-loan investigation and management from independent supervisory authorities makes it hard to yield the post-loan management well.

(3)The lack of effective performance appraisal and reward and punishment mechanism. Banks in China recognize profits when loans are issued and losses when loan losses take place. Correspondingly, Banks in China have strong rewards for loan origination but rather a small reward for post-loan management.

(4)Lack of talents for post-loan management. As the scale of credit services expands, the expectation for staff's professional competence and working experience is extremely high and demanding. Not only it requires knowledge of the law, finance, and accounting, but also it demands broad experience in identifying, analyzing, and handling risk signals.

3.3.2 Discussion.

From the information above, we could learn from banks in the western world to improve deficiencies existing in our China Banks' systems.

The measure we adopt to improve post-loan management includes (Zhao 2013):

(1)First, reinforce the important position of post-loan management in all aspects. China's commercial banking industry must strengthen the professional skills training of loan officers at the basic level. Third, enhance the bank employees' overall quality and risk awareness.

(2)Promote the establishment of the post-loan management system. For example, the establishment of a risk warning system is vital. Also, Banks should make full use of People' Bank of China's credit information system and the China Banking Regulatory Commission (CBRC) 's customer risk monitoring system and the like.

(3)Establish reward and punishment mechanisms. Establishing an effective reward system provides great incentives for post-loan management staff.

(4)Establish a team of credit officers with great professional skills and qualities. Hiring staff with great qualities is crucial for protecting against credit risk and for the security of the Bank's revenue.

4 CONCLUSION

In conclusion, China's current credit risk management is not perfect, and there is plenty of room for improvement and development. As the globalization process continues, China's commercial banks have also been in line with international standards. However, competing with international banks brings a complex environment and greater uncertainties. Thus, Commercial banks in China has a challenging mission to improve their credit loan business and minimize risk by providing better risk management. This article analyzes varieties of issues associated with the Bank's credit loan business from the perspective of project management. Regarding the credit loan business as one project, we analyze the project in three different stages: pre-loan, mid-loan, and post-loan. These three stages constitute the whole credit-loan project, and we alter, optimize, and control each stage of the project and minimize its risk within one stage to its least possible. This way, we could achieve to manage the risks of the project as a whole. At the same time, a sophisticated risk management system not only help banks achieve sustainable development, but also improves their impact on the industry. Thus, we should emphasize on the effort of risk managing and actively obtain deeper understanding of credit loan risk management. It is crucial to enact a credit risk management system that is in conformity with national conditions.

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