

Analysis on WBS-RBS Based Smart Bank Credit Risk

Xiaojing Dong

Xi'an Aeronautical University, Shaanxi, China

Abstract:

After the outbreak of the subprime crisis in the United States, many countries have dealt with the commercial bank credit risk problem. They have taken a series of response measures. It is pivotal to manage prudent risk. It is the theoretical cornerstone of vital parts to ensure that the commercial banks could develop forward steadily, in particular, especially for customers, itself themselves against risk management ability is weak, and more Add to need to be more prudent risk control management of good science, including the main research content of the project mainly involves with code for the postal savings bank of China commercial bank credit risk management from prudent investigation before loan, loan review, post-loan monitoring patrol from three large horizontal level, loans for individuals, small and medium-sized enterprises, special loan for poverty alleviation and other three small longitudinal level for certain Quantitative analysis reveals that China's banking system in the face of dealing with three different types of loans at three different levels of management countermeasures, there are corresponding supporting policies and need to improve the problem of measures.

Keywords: WBS analysis, Subprime crisis, Credit risk, Smart bank.

I. INTRODUCTION

Today people have experienced from the subprime crisis caused all previous after the global financial crisis, for today the development of the global financial system so far still is a great international pattern, the influence of the global financial crisis era, absorb the useful experience in the practice of reform in the global financial system to summarize and inductive analysis to develop the most suitable for their own state of actual Effect system of financial policy regulation mechanism, so as to how to improve the financial policies and regulations of the regulatory system how to most effectively and timely to prevent systemic financial risk, how to further improve the strengthening the construction of the financial administrative supervision legal system of our country further reduce systemic financial risk management has been becoming a caused by the global scope attaches great importance to study before Along the project, national government departments and related academia are respectively according to the facts to study and put forward to make a more suitable for a certain development in the country areas within the applicable management measures, namely global financial safety need further broaden the application scope of regulatory domain, continuous and effective to strengthen national systemic financial risk early warning and control process of system construction, to prevent heavy At the same time, more attention

should be paid to the construction of the most suitable global multilateral financial system and to the establishment of a stable, sustainable and effective framework to maintain the stable operation of the current international finance. Such a huge international financial system in our country under complex background, the People's Bank of China bank as a China's only international financial management, according to the operation process of the regulation of the financial system of our country may have many practical problems that may occur, start tightening the CBRC for internal supervision system of state-owned commercial bank regulation and external appraisal system, so as to realize Objectives for risk control.

II. OVERSEAS AND DOMESTIC RESEARCH STATUS

The essence of bank credit business risk management is bank asset quality and risk control. [1] Western academic circles have relatively mature research on it [2].

Cucinelli (2018) conducted credit risk analysis based on panel data of financial statements from 2008 to 2016 of 177 large banks in the United States and Western Europe and empirical analysis and methods to verify the data accuracy of internal bank risk rating method (IRB) to measure the level of credit risk, which can be better.^[3] To help big banks to control the rapid deterioration of their loan portfolios, effectively control and more accurately manage bank credit risks, so as to better curb the actual situation that the potential foreign exchange credit risks of foreign banks are further aggravated due to the slowdown of China's macro economy. It is also confirmed that the internal credit rating law introduced by Basel Accord plays an effective role in strengthening the risk management of banks by regulators. Recently, the analysis of credit risk factors is increasingly rich.

Sikochi (2020) analyzed the relationship between the legal structure of an enterprise and its borrowing cost and credit risk, especially the difficulty of banks' claim of rights and interests after default [4].

Marcos (2020) evaluated and judged the relationship between investor sentiment and bank credit risk based on the combination of European bank credit risk and global big data, enriching the application of big data in bank credit risk management [5].

Jarrow and Prott (2020) put forward an arbitrage-free valuation model combined with the securities market and applied it to the interest rate pricing of microfinance [6].

From the perspective of employee welfare and loyalty, Suardi (2020) conducted a sample survey of American banks and concluded that employee strength was an effective guarantee for banks to have lower default risks and higher profitability during the crisis, and financial risks were usually alleviated by reducing operating costs. At the same time, judicious selection of better shareholders will help banks hold themselves more accountable in times of crisis [7].

Western commercial bank system research and development work history origin from our early, after it is a long and difficult process of reform, development and construction in practice [6]. It gradually begins to form and eventually establish a system perfect rational comprehensive international banking risk monitor management system, develop the west of a large number of excellent international mature commercial bank risk manager team [8]. In the long-term operation of the actual process of practice, they are not only relatively effective and comprehensive management of various bank risks of western domestic enterprises, but also for the future of China modern commercial banks within the overall banking risk management to provide a lot of experience worth learning.

Credit business is the main economic source of commercial banks. The development level of bank credit business is directly related to the development of China's financial industry, but also affects the development process of credit business between different banks in China [9]. In recent years, the Chinese government attaches great importance to the development of commercial bank credit business, and carries out financial market data collection, and analyzes the current bank credit business risks according to the deposit and loan situation of different commercial bank companies. The credit business of commercial banks in China has a broad prospect, the market economy is active, and the development of urbanization drives the increase of bank business volume. However, in this process, there are still many risk problems that cannot be solved, affecting the normal operation of the loan business of commercial banks in China.

In 2020, the epidemic will have a huge impact on the economy. Guan (2019) analyzed that there is a certain time lag in credit [9]. In the future, commercial banks will face great pressure on credit business risks, so it is necessary to increase provisioning in advance to improve the ability to resist risks [10]. It is pointed out that the third-party payment weakens the financial function of commercial banks and the acquisition of credit license squeezes the development space of commercial banks. Three countermeasures are put forward. First, the traditional data model relies on electronic information system to build a risk warning mechanism supported by quantitative analysis. Second, give full play to its own advantages to achieve win-win cooperation with the third-party payment.

III. ANALYSY ON SMART BANK BY WBS METHOD

WBS is a research method to decompose a complex problem into the simplest one, and then people use the simpler analysis results to finish the research. Its best advantage after decomposed structure is clear and easy to understand, and the task is easy to be finished effectively allocation and arrangement. It increases people's work efficiency. At present, it is mainly used in engineering project management. This paper will combine its advantages into financial analysis of smart bank.

3.1 Smart Bank'S Basic Situation of Credit Risk Management

Bank credit risk management basically consists of five stages: the first stage business application, the second stage business acceptance, the third stage loan review, the fourth stage loan approval and the fifth stage loan issuance and after-sales management.

The author find the five levels the process of bank credit risk management, from Fig 1. Loan transaction process begins client application and ends business acceptance.

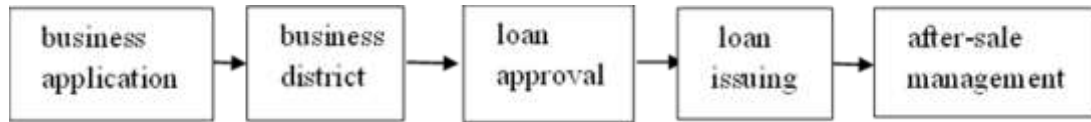


Fig 1: the five levels the process of bank credit risk management

3.2 Bank Credit Risk Management Mechanism

The bank workers call the phone or go to the on-the-spot investigation in order to guarantee loans before audit. If lender's information is safe, creditable and complete, the message is passed and investigated by the branch credit department. At the end, the both sides sign the contract of guarantee mortgage, loans, loans to return.

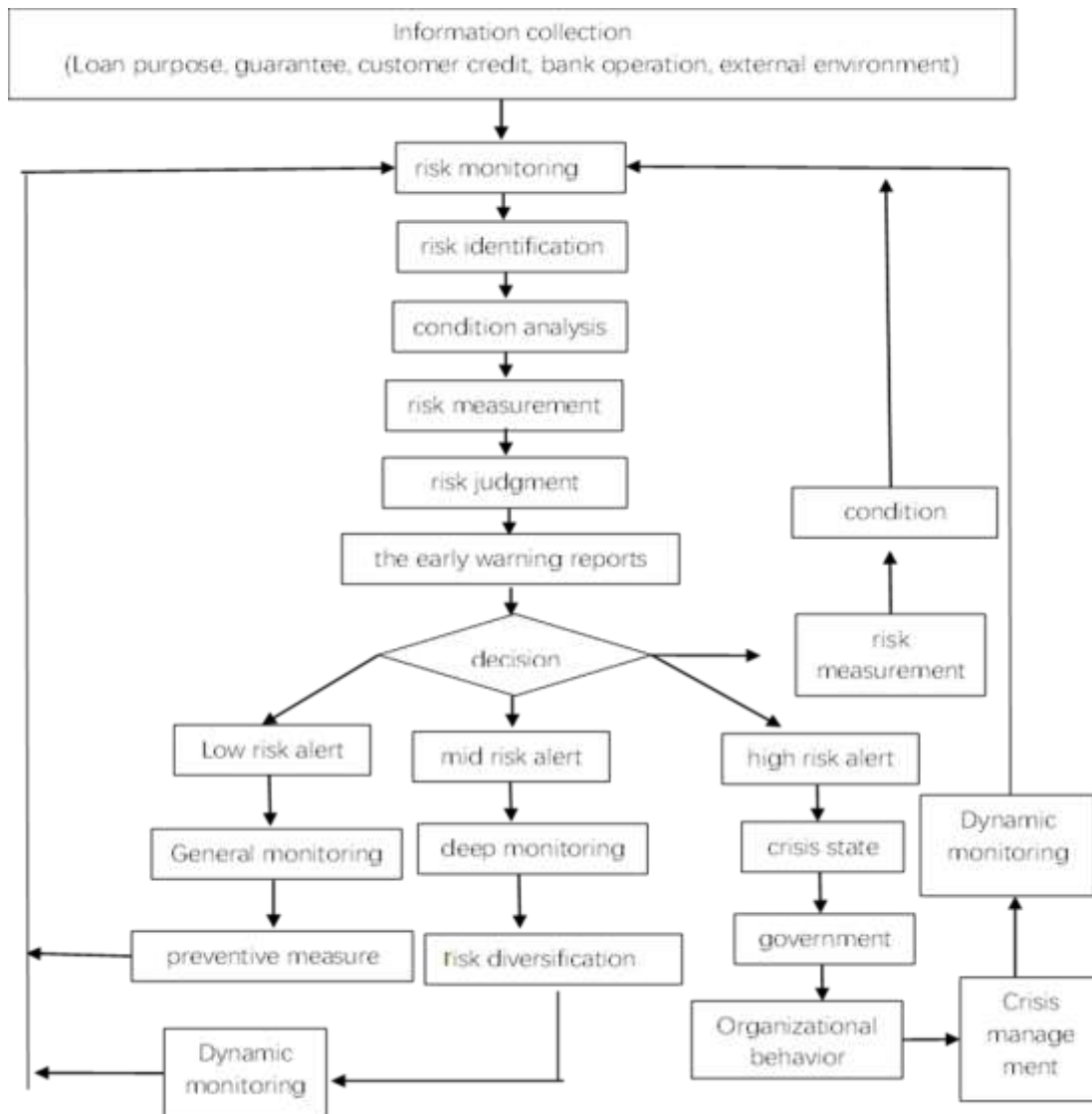


Fig 2: real-time process of bank risk management

From Fig 2, the structure of credit risk determines the difference in the intensity and mode of each key risk point of a loan, which is determined by the attributes of variables, leading to the dynamic change of the whole process affecting credit risk. Therefore, in the process of risk management of smart bank, it can be seen that there are different paths from logical management and different risk levels to achieve the purpose of risk release and transfer. Smart bank has considered risk management process perfectly and avoided a certain number of systemic risks.

IV. ANALYSIS OF BANK CREDIT RISK BASED ON WBS MODEL

A reasonable credit analysis model according to the first of the WBS model programmed decomposition, the decomposition of the first is the loan before the survey. From Fig 3. Banks should consider when loan to the borrower's repayment ability and so on a series of process, then in the release of

the loan to the compliance of legal release loan, after the last is the subprime loans after inspections.

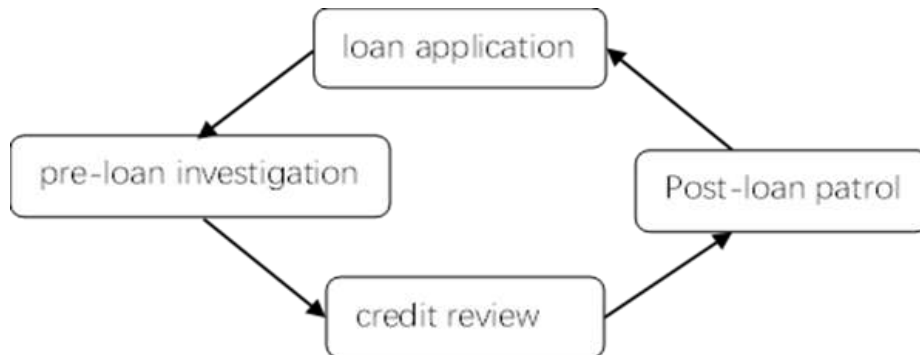


Fig 3: loan flow chart

4.1 Analysis of Pro-Loan Inspection Based on Wbs Model

In-loan examination shall meet the following requirements: the subject of loan contract and guarantee contract is qualified, the content is legal and the procedures are complete. Credit managers should pay attention to the following when conducting loan review:

1. The borrower needs to provide all the information of the mortgage and all the valid security documents, including whether to retain the mortgage within the scope of the legal validity review period; Whether the substantive content and name of the certificate have been changed significantly; Whether it has been revoked, cancelled, declared invalid, etc.
2. The borrower's main business service scope and method, and whether it is consistent with the loan purpose commitment of the Bank.
3. Whether the purpose of the loan guarantee has been completely legal or completely compliant, and whether the amount, term, interest rate range and so on have been completely or completely compliant.
4. Whether the seal of legal person, legal representative or authorized agent is authentic.
5. Whether the borrower's financial status, credit status, economic development prospects of the enterprise and internal democratic management and operation are in good condition.
6. Whether the content of the mortgage (pledge) or the pledged property is complete, objective and true and reliable; the qualification, ability and qualification of the guarantor are valid and reliable.

4.2 Analysis of Post-Loan Inspection Based on Wbs Model

1. It is conducive to guiding these bankers to timely send out effective signals under early detection and warning or early failure to detect early warning events, quickly take measures to avoid risks and remedy and deal with them, so as to prevent risks and quickly resolve relevant business credit risks.

On the one hand, in bank lending, bankers still hope to be able to pass in a timely manner to carry out the examination and approval of loan risk assessment before and after the check. They can effectively do it as soon as possible and timely find potential risks from borrowers or obvious evidence of existing or potential threats to the main bank credit assets such as the principal and safety conditions of suspicious men, whose loan risks embryo. At the same time, bankers should actively adopt a series of more positive, effective and practical measures of management and early implement effective and appropriate solutions.

On the other hand, with various major regional policy, bankers can also do it for all of the same household borrowers, who can apply for housing accumulation fund. Actual loan principal and interest security work, which can be done better in after the success of the policy bank loan guarantee. Problems may also be founded more. In this way, in order to avoid loan risk problems of borrowers or to seize the initiative in advance in the development of loan approval work, various risk events or accidents can be effectively avoided in the maximum sense so as to reduce losses as much as possible.

2. It is beneficial for commercial banks to scientifically, correctly and objectively locate the asset value and risk of their customer resources, determine the target bank and support the banks as the core credit customer of the future bank through rigorous and systematic, comprehensive inspection, audit and management of bank loans. By the comprehensive judgment of bank credit of customer behavior, the development, the sustainable development and value brought by customer behavior to the future banking business can be analyzed, which is really beneficial to the banks.

3. It is conducive to timely promoting the majority of borrowers to actively improve bank operation and management, improve their own economic benefits, and ensure the safety of the majority of bank credit funds. Once accepted by the issuing bank loan business, the fund accounts of the right to use all means appropriate to the project shall transfer the borrower his own hands, and continue to be put into use to other project development work or actual production and management of the work, the project construction process may affect the loans or its normal and efficient production and management process of other factors may be more variable, Bank through the loan after the regular inspection, the project can be found in advance the borrower in construction or other production or business operations work is indeed possible security problems, and can be timely feedback to the borrower according to the facts, urge and help the borrower enterprise improve its operation or management, improve the efficiency of the assets, thereby fully recycling to protect the safety of credit funds interest in a timely manner.

4. It is easier to find the banking industry's own urged Banks seriously in daily management, examination and approval, the existence of serious problems do exist in the management process links with

business weak link, promote the relevant bank seriously take corrective measures, improve the level of bank operation and managed standardization, such as before audit specific surveys, bankers have paid no attention to some problems found by the audit, the audit work and decision making It is easy to ignore the potential risk points discovered, so as to facilitate the bank staff to correct, adjust and timely improve the management practice workflow of personal credit and operation in the next few years, and constantly improve the overall management level in practice.

REFERENCES

- [1] Brissimisn, Delismd. (2010) Bank heterogeneity and monetary policy transmission Working Paper Series No.1233, 2010.
- [2] Jimenezg, Onegnas, Hazardous time for monetary policy: what do twenty-three million bank loans say about effects of monetary policy on credit risk-taking. Documents De Trabajo No.0833, 2008.
- [3] Alunbasy,Gambacortal,Marquestibanezd. (2009) an empirical assessment of the risk-taking channel 2009.
- [4] Robert Jarrow, Philip Protter (2020). Credit Risk, Liquidity and Bubbles, Journal of International Review of Finance, Accessed September 2020
- [5] Tu Nguyen,Sandy Suardi,Jing Zhao (2020). Employee Treatment and Bank Default Risk during the Credit Crisis. Journal of Financial Services Research, Accessed October 2020
- [6] Cucinelli, D.et al. (2018) Credit risk in European banks: The bright side of the internal rate based approach. Journal of Banking and Finance, Accessed July 2018.
- [7] Sikochi (2020). Corporate legal structure and bank loan spread, Journal of Corporate Finance, Accessed January 2020
- [8] Marcos González-Fernández, Carmen González-Velasco. An alternative approach to predicting bank credit risk in Europe with Google data, Finance.
- [9] Wang Y (2021). Analysis on credit business and risk management innovation of commercial banks under the background of big data. Journal of National Circulation Economy, Accessed September2021, (25): 166-168.
- [10] Guan Yanfeng, Xu Qili. (2019) Capital Constraints, monetary policy and credit risk. Journal of Research on Economics and Management, Accessed August 2019.