Research on Credit Risk Control Technology Based on Equity Inspection

Liu Jilu ¹, Wang Chunfang² and Tan Weibing³

¹ Weifang Vocational College (Weifang, Shandong, China: 262737)
² Weifang Vocational College (Weifang, Shandong, China: 262737)
³ Weifang Vocational College (Weifang, Shandong, China: 262737)

Corresponding author's address: Wang Chunfang, No. 06588, Hai'an Road, Science and Education Innovation Park, Binhai Economic and Technological Development Zo1 ne, Weifang City, Shandong Province Post Code: 262737 Email: sdfwfwcf@126.com, Tel 13563682513

Keywords: equity inspection, credit risk control, application

ABSTRACT. Credit risk control technology with equity inspection as the core can effectively identify and prevent financial fraud, strengthen credit risk management and control in a targeted manner, control the non-performing loan rate to a reasonable level, reduce the probability of credit risk, and reduce credit risk to banks. The losses incurred in this way will improve the bank's earnings, enhance the bank's core competitiveness, help banks better adapt to the new competitive environment, and comprehensively promote the healthy development of the financial industry.

1. INTRODUCTION

In the current credit risk management process of commercial banks, there is no shortage of various risk quantification models and analysis methods. What is really lacking is how to handle various asymmetric information. The application of "credit risk control technology with equity inspection as the core" is not to analyze the size of credit risk based on the financial data provided by the enterprise, but to verify the rationality and correctness of the financial data provided by the enterprise through logical inspection, and discern the financial data. The authenticity of the company is restored by cross-checking the real financial data of the enterprise, and the credit risk caused by the fraud of the financial data of the credit-granting enterprise is eliminated from the source.¹

Equity inspection method
Credit risk control technology with equity inspection as the core is a complete risk control chain, which mainly includes three parts: talent construction, the construction of customer manager teams and risk control manager teams; the use of technical tools, mainly analysis and judgment tables; systems Construction, parallel investigations of account managers and risk managers, financial data review meetings, loan review meetings, etc.²

2. CORE TECHNOLOGY OF EQUITY INSPECTION METHOD

2.1. Analysis and Judgment Table

The key point of credit risk control technology with equity inspection as the core is the analysis and judgment table. The analysis and judgment table is a set of due diligence tools, the essence of which is seeing is believing, logical checking and cross checking. Through this set of tools, the company's relevant financial information is tested and analyzed to obtain relatively true financial data, so as to make an accurate judgment on the financial status of the enterprise.

The content of the analysis and judgment table includes the basic information of the enterprise, soft information, financial information, credit information, business conditions, etc. The core is the
logical inspection of financial data, that is, the cross-check of a variety of different methods. It is guided and flexibly applied by subject survey methods. The inspection of cross-correlation relationship establishes a clear survey idea for the client manager, restores the company's relatively real financial data, objectively and truly reflects the current situation of the company, and enables the client manager to make analysis and judgment based on the financial data.

The characteristics of the analysis and judgment table are to pay attention to the authenticity, logic, comprehensiveness, and skill. The truth of access to the table is the foundation of the table. During the analysis, it is not to swallow the dates, but to process and refine the large amount of data brought back from the scene. After valid data is collated, check before and after, check and check the places where conflicts are found, and check again and again, so as to highly restore the true situation of the enterprise. The analysis and judgment table makes the client manager more willing to judge objectively, analyze and summarize, and discover the laws of the industry through a method of quantification or inspection.

The analysis judgment table is a kind of big data thinking, which contains small tests and large tests, each of which has different requirements.

2.2 small test

The small test refers to the cross-check of multiple non-relevant methods for each financial item. Taking operating income as an example, the verification method includes the following.

(1) Confirm the key production processes of the enterprise, count the product processing quantity by on-site timing, and understand the daily working hours and monthly working hours of workers in this process, calculate the monthly output, count the number of equipment in this process, and calculate the overall production capacity;

(2) Check the water, electricity and steam bills of the enterprise, and determine the company's overall production capacity based on the unit's water and electricity consumption;

(3) Determine the number of employees and salary expenses according to the salary table, and verify the total income based on the performance or commission ratio of the enterprise;

(4) Determine the company's overall tax burden and export ratio through communication with corporate financial personnel and comparison with the same industry level, etc., and consult the corporate tax form and customs form to determine the income of the enterprise;

(5) Go to the warehouse clerk to check the outbound and inbound documents of the enterprise, as well as the receipt of materials, and determine the sales income through the outbound order;

(6) Check the transportation documents of the enterprise, if it is transported by the logistics company, check the transport receipt, and determine the sales by the volume;

(7) Consult the transaction contract, sales ledger, and transaction flow to determine sales revenue;

(8) Check the enterprise's weighing slip and determine the sales volume based on the company's monthly weighing slip;

(9) Determine the sales amount according to the bill of lading, delivery note kept in the warehouse;

(10) Based on the understanding of the proportion of cash settlement, verify bank flow and determine sales revenue.

After each financial item is tested individually by various methods, cross-checking between financial items is performed, such as using business income and accounts receivable, accounts payable, inventory and other items to verify each other and verify. After detecting the contradictions, a new investigation is carried out, and constant amendments are made to ultimately restore the true financial status of the enterprise.
2.3. Big Inspection

The big test refers to the equity test, which is also the core link of the equity test method. Through the small test, the company's relatively real financial data is restored. Based on this, a balance sheet is prepared, and the current equity value is calculated. Choose a suitable initial equity point, determine the initial equity value, and then determine the equity accumulation situation from the initial equity point to the present according to the profit of the enterprise. If there is capital injection or withdrawal during the period, adjust it accordingly to obtain the final equity. Value, the two equity values are compared to get the deviation rate. In the case where the access is relatively real, a higher deviation rate can test whether the company has injected or withdrawn off-book funds, such as private financing, foreign investment, etc.

There must be industry rules to follow in the same industry. By analyzing the judgment table to restore the real financial data of the company, and by summarizing the data of a large number of different enterprises in the same industry, a reference standard for the industry was finally obtained to improve the efficiency of the equity inspection method.

3. Application Case Analysis of Equity Inspection Method

A Home Furnishing Co., Ltd., established in 2001, mainly produces integrated cabinets, integrated wardrobes, sliding doors, wooden doors, etc., and all of its products are sold domestically. The main downstream customers are Haier, Europai, and Icon, etc. The company applies for loans in many banks None of them were approved. In September 2017, we applied for a loan of 10 million RMB from our bank.

3.1 Report data

The company provided financial statement data with total assets of 216,492,100 RMB, total liabilities of 62,317,100 RMB, an asset-liability ratio of 28.78%, and sufficient liquid assets, and did not require bank financing. However, through the verification and inspection of the client manager, the true financial data of the company was restored. The assets are 76396000 RMB, the total liabilities are 60655000 RMB, the owner's equity is 1,5741,000 RMB, and the asset-liability ratio is 79.4%.

| Project                                | Enterprise provides report data (RMB) | Analysis judgment table data (RMB) | Project                                | Enterprise provides report data (RMB) | Analysis judgment table data (RMB) |
|----------------------------------------|--------------------------------------|------------------------------------|----------------------------------------|--------------------------------------|------------------------------------|
| 1. Current assets                      | 158251700                            | 52096000                           | 1. Current liabilities                 | 623171000                            | 60655000                           |
| Cash (including bank deposits and bank guarantee deposits) | 24064800                            | 16626000                           | short-term loan                        | 37500000                            | 37500000                           |
| Accounts receivable                    | 47530000                            | 19020000                           | Accounts payable                      | 8062500                            | 11590000                           |
| Prepayments                            | 36066900                            | 2280000                           | Prepaid accounts                      | 6348200                            | 1505000                           |
| stock                                  | 41540000                            | 10670000                           | Notes payable                         | 10000000                            | 10000000                           |
| Other receivables                      | 9050000                            | 3500000                           | Other payables                        | 406400                            | 600000                           |

Tab.1 Balance sheet
### 2. Long-term investment

|                | Amount (RMB) |
|----------------|--------------|
|                | 0            |
| 2. Long-term liabilities | 0  |
| 3. Fixed assets | 7543000     |
|                | 40100000    |
| net value of fixed assets | 5824400  |
|                | 18500000    |
| Projects under construction | 0  |
|                | 0            |
| 3. Owners' equity | 154175000  |
|                | 15741000    |
| 4. Other assets | 0            |
|                | 1800000     |
| Total assets   | 216492100   |
|                | 76396000    |

Tab.2 Equity Inspection Form

| Project                  | Amount (RMB) | project instruction                                                                 |
|--------------------------|--------------|--------------------------------------------------------------------------------------|
| Initial equity           | 8000000      | The company was founded in 2010 and has a relatively small scale in the first two years. In 2014, its sales have increased significantly and it can reach its current production capacity. Taking 2014 as the initial point of interest, the initial equity value calculated according to the company's oral estimate is RMB 8 million. |
| Profit for the period    | 29254500     | The company's profit was the highest in 2014, dictated around 10 million, 2015 was 8 million RMB, 2016 was 7 million RMB, 2017 was 4,254,500 RMB, totaling 29,254,500 RMB |
| Capital injection during the period | 0            | Depreciation / appreciation                                                          |
| Balance sheet equity     |              | Deviation rate                                                                       |
| Final equity             | 35254500     | -                                                                                   |
| Deviation rate           | 15741000     | 1239700%                                                                            |
| Invested in new plants   |              | Invested a total of 21.6 million RMB in new plants                                    |

### 3.2. Statement description

The company is mainly engaged in the manufacture of sheet metal and furniture. According to the investigation of the account manager, it was learned that the company newly invested in the establishment of a furniture manufacturing company with a total investment of 21.6 million RMB. As of the application date, the land and plant have been completed and most of the equipment has been paid. Passing the equity test, the enterprise's current equity value should be about 35 million RMB, but by adjusting the actual actual equity value of the company's current actual value of 15.74 million RMB, it is inferred that the enterprise should have assets that have not been entered into the table, that is, the company invested 21.6 million RMB in the new plant and passed The inspection
revealed that 21.6 million RMB was the company's accumulated profit over the years and was formed by non-bank borrowing or other channels of financing.

3.3 Credit advice

The verified asset-liability ratio of this company is relatively high, which is mainly caused by the investment in the new plant, and the new plant has no bank financing. Considering that its asset-liability ratio is about 62%, and through the verification of the company's production capacity, the company's current The production is already full and unable to accept new orders. At the same time, the company's downstream customers are large, and the company's main business sales are relatively stable. The positioning of new products and profit margins have been improved compared to the original products, which is in line with the development trend of the industry. After verifying the payment receipts of the company's land, plant and equipment, it finally made a decision to grant it credit support of 8 million RMB.

4. Conclusion

The credit risk control and control technology with the equity inspection method as its core can give full play to the role of each approval link and minimize the individual's impact on the same credit business. This technology can make a full range of judgments on the same business from different perspectives through multiple links. In the operation and management of government investment funds, financial institutions can also apply the equity inspection method to screen investment companies and projects, prevent risks in the operation of the fund, allow government investment funds to recover capital, and always improve the efficiency of government investment funds. This inspection technology is very important to promote faster and better economic and social development.

References

[1] Chen Zhao. Research on the Optimization of Credit Risk Control System for Small and Micro Enterprises in Commercial Banks: Taking X Commercial Bank as an Example [J]. China Collective Economy, 2019 (36): 112-113.

[2] Wang Lei, Zhang Xiangli, Chi Guohua. Impact of Internal Control on Bank Credit Risk——Intermediary Effect of Information Asymmetry and Agency Cost [J]. Finance Forum, 2019, 24 (11): 14-23 + 54.

[3] Chen Hairen. Credit Risk Control and Development of Small and Medium-sized Banks [J]. China Business Review, 2019 (19): 36-37.

[4] Zhang Zhengwei. Research on Credit Risk Control of Nanjing Bank [J]. Taxation, 2019, 13 (28): 207.

[5] Li Shuaichen. A Research on Credit Risk Control of Rural Commercial Banks [D]. Nanchang University, 2019.

[6] Guo Shufang. Research on Credit Risk Management of Small and Micro Enterprises in Nanchang Branch of Bank P [D]. Jiangxi University of Finance and Economics, 2019.

[7] Cui Wenzhe. Research on Credit Risk Control of K Bank [D]. Northeast Petroleum University, 2019.125.