

# *Risk Analysis and Countermeasures of Modern Enterprise Financial Investment and Financing*

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**Abstract:** Capital is the lifeline for enterprises to survive and operate. In addition to its own years of accumulation, enterprise capital cannot be separated from financial investment (FI) and financing. The operation and development of enterprises need sufficient working capital as support. And sufficient working capital is inseparable from enterprise FI and financing. This paper takes the FI of CCB as the research object, analyzes the risk of FI and financing from the aspects of the problems in the process of issuing shares and repaying debts, the problem of cost income inversion, and puts forward targeted countermeasures, including diversified fund-raising, the introduction of market-oriented bidding mechanism, active participation in corporate governance and the introduction of private capital to facilitate the exit, so as to better promote the development of enterprises.

## 1. Introduction

In recent years, the phenomenon of over investment in China's listed companies is very common. Whether it is high energy consuming enterprises or high investment enterprises, their extensive growth concept makes companies generally pursue "big and all inclusive", which leads to over investment. Research has shown that, due to the special property rights system in China, the investment decision-making behavior and efficiency of enterprises ultimately reflect the agency problems existing in companies. Taking state-owned enterprises as an example, the state owner has been absent for a long time, the actual controller of the enterprise is essentially the person in charge of the enterprise, and the internal control and internal supervision problems of the enterprise have not been well solved for a long time [1]. Enterprise leaders also have some political appeals, pursuing the expansion of asset scale and business scope, while ignoring investment efficiency and investment output ratio. Therefore, excessive investment is very common. Therefore, how to deal with the financial difficulties caused by the excessive investment of state-owned enterprises has always been a problem that needs to be discussed and studied.

In response to severe financial difficulties, China has taken a series of measures, including management changes, asset disposal and financial restructuring. In addition, the state has also extended assistance to relevant enterprises, including subsidies for ship dismantling and building

new ones, and the strategic merger between COSCO and China Shipping that was subsequently vigorously promoted [2].

This paper aims at the problems existing in the process of CCB's FI from accepting non-performing loans from banks to the specific operation. The original price of non-performing loans is converted into shares, which is the most important reason for CCB's FI to actively seek for profit points. The lack of professional equity investment talents is the most likely cause of its cost income inversion in the operation of non-performing loans. CCB FI should pay more attention to this issue in order to better compensate for the loss of undertaking the conversion of non-performing loans into shares at the original price. In addition to CCB FI, other financial asset investment companies, four asset management companies, local asset management companies and other debt to equity implementing institutions may also have the same problem in the debt to equity operation of non-performing loans. In view of the problems in the process of non-performing loan debt to equity swap, the paper puts forward suggestions such as diversified fund raising, introduction of market-oriented bidding mechanism, active participation in target enterprise governance, and introduction of private capital [3-4].

## **2. ME FI and Financing**

### **2.1 Modern Enterprise (ME) Case Analysis**

This paper takes the FI of CCB as the research object, and increases the capital and shares of the target enterprise, but at the same time, it has signed an equity repurchase agreement with the target enterprise group. As far as the target enterprise is concerned, there is a potential problem that the equity repurchase arrangement is inconsistent with the "rights, responsibilities and interests" of the target enterprise. Fixed interest for target enterprises ", which turns short-term debt of enterprises into long-term debt, increases the financing cost of enterprises and reduces the retained profits of enterprises in a disguised way [5]. Under the "explicit share and real debt" model, when the target enterprise has received fixed income, it cannot continue to enjoy dividends and cannot obtain excess income; When it is the target enterprise, it is still recognized as equity investment in the legal sense, and has lost the priority of repayment of pledged goods.

The fund raising method of CCB's FI, which focuses on bank financing funds, is difficult to sustain, and it needs to seek funds with a longer term to better interface with debt equity swap [6]. However, it is difficult to raise funds for equity investment of long-term, unlisted enterprises, and CCB FI is facing great challenges in raising funds.

### **2.2 Problems in the Process of Issuing Shares and Repaying Debts**

#### **2.2.1 Conversion of non-Performing Loans into Shares**

In terms of the choice of the subject matter of debt to equity swap, CCB and CCB FI usually choose normal and focused loans, and will further pilot non-performing loan debt to equity swap in the future. For the debt to equity swap of normal and special attention loans, that is, the debt to equity swap of potential non-performing loans, it is usually a 1:1 equity swap based on the original loan price rather than the book value after deducting the impairment provision, and CCB FI has undertaken the risk of the original non-performing loan to equity swap [7-8]. Although it is a normal and concerned loan, the bank still makes provision for its impairment.

#### **2.2.2 Investment and Financing Risk Analysis**

For normal and concerned customers' loans and advances, the loss reserves will be assessed

according to the combination method; The provision for loan losses of subordinated, doubtful or lost corporate loans and advances shall be assessed individually; The loan loss reserves of subordinated, doubtful or loss personal loans and advances shall be assessed in combination. See Table 1 for the loss provision made by CCB for normal and special loans in recent three years [9].

Table 1: CCB's provision for loan losses by portfolio in recent three years

project	Year 1	Year 2	Year 3
Total loans not overdue but not impaired	121,895.26	111,435.36	99,533
Provision for loan losses by portfolio	1,935.20	1,446.80	1,496
Accrual proportion	1.59%	1.30%	1.50%

Even for normal and concerned loans, CCB will make provision for loan losses of about 1.59% in 2017. At present, most enterprises adopt the mode of syndicated loans. One bank leads several banks to cooperate to lend to enterprises and expand the scope of settlement. One enterprise undertakes debts to multiple banks at the same time, and a financial asset investment company takes the lead in debt equity swap of enterprise debts [10]. For the debts of different banks, CCB FI calculates the amount of capital increase and share expansion based on the original book value of the creditor's rights. That is, in the process of indirectly undertaking bank debt, CCB FI passively bears the impairment provision.

## 2.3 Cost Benefit Inversion

Cost income inversion refers to the possibility that the rate of return bid by the asset side may not be sufficient to cover the cost of capital source side in the debt to equity swap of CCB FI. The loose liquidity of the market has led to the decline of the interest rate in the money market, which has led to the decline of the asset side yield, while the decline of the liability side yield lags behind the decline of the asset side yield. The market level indicates the possibility of the cost return inversion problem. For Jianxin FI, if the income from capital increase is not enough to cover the cost of on balance sheet funds and raised funds, it is likely that the cost and income will be reversed [11]. The capital increased by CCB FI to the target enterprises includes on balance sheet capital and raised capital. The capital cost of CCB FI is analyzed by distinguishing the funds on the balance sheet from the funds raised.

### 2.3.1 Cost Analysis

The financing fund is an important source of social funds for the debt equity swap project implemented by CCB FI in the early stage, which is realized by investing the expected income based financing products in non-standard assets. From 2015 to 2017, the actual annual rate of return of customers of financial products issued by banks was basically between 3.5% - 5.0% [12]. It can be seen from the analysis that the capital cost of each fund source is not low. If the income of the debt equity swap project cannot be guaranteed, the problem of cost income inversion may also arise. CCB Financial invests in projects that seek higher returns or minimize the cost of capital sources.

### 2.3.2 Benefit Analysis

On December 17, 2018, CCB FI actually invested 800 million yuan in Hualian Zinc Indium. The registered capital of Hualian Zinc Indium before the capital injection was 280 million yuan, and the net asset per share calculated on the basis of the assessed net asset value was 27.25 yuan/share. The registered capital increased by the capital injection of CCB was 29.36 million yuan, the capital reserve was 770.64 million yuan, and the shareholding ratio was 9.49%, as shown in Table 2.

Table 2: Appraisal value of shareholders' equity of Hualian Zinc Indium

project	Book value	Appraisal value	Increase or decrease	Value added rate%
	A	B	C=B-A	D=C/A×100
Total Assets	475,172.12	873,064.41	397,892.29	83.74
Total Liabilities	112,611.08	110,197.17	-2,413.91	-2.14
Net assets	362,561.04	762,867.24	400,306.20	110.41

In the capital increase agreement, Hualian Zinc Indium has a mandatory dividend of more than 20% of its annual net profit. In previous years, the dividend of Hualian Zinc Indium did not have such a high proportion, and the dividend terms were actually agreed to drain funds from the high-quality assets of Yunxi Group. After the capital increase has been delivered for 30 months, CCB can require the tin industry shares to repurchase the Hualian Zinc Indium shares held by CCB in cash or by issuing shares, which makes the capital injection of CCB a "debt" in nature. The repurchase terms are essentially put options. In the whole process of issuing shares and repaying debts, CCB FI is equivalent to the purchase of "equity investment+put option", establishing a risk hedging mechanism.

### 3. Risk Analysis of ME FI and Financing

Based on the experience and ability of the questionnaire experts, this paper compares the relative importance of the six investment risk factors and fourteen sub factors in the decision-making stage of the project obtained based on the Delphi method above, and finally obtains the importance ranking and corresponding weight of each investment risk factor and sub factor.

Application of analytic hierarchy process. First, compare the risk factors and risk sub factors in pairs, and construct the judgment matrix A. Next, calculate its characteristic root and characteristic vector, and obtain the weight coefficient W of each target.

When the matrix completely satisfies  $a_{ij} = \frac{w_i}{w_j}, a_{ij}=1, a_{ij} = \frac{1}{a_{ji}}, a_{ij} = \frac{a_{ik}}{a_{ki}}$ , the judgment matrix is said to have complete consistency. At this time, the maximum eigenvalue of the matrix is only one, that is  $\lambda_{\text{Max}}=1$ , the other characteristic roots are all zero.

This paper uses the sum method to calculate the weight. First, normalize the elements of A by column:

$$\begin{bmatrix} \frac{a_{11}}{\sum_{i=1}^n a_{i1}} & \frac{a_{12}}{\sum_{i=1}^n a_{i2}} & \dots & \frac{a_{1n}}{\sum_{i=1}^n a_{in}} \\ \frac{a_{21}}{\sum_{i=1}^n a_{i1}} & \frac{a_{22}}{\sum_{i=1}^n a_{i2}} & \dots & \frac{a_{2n}}{\sum_{i=1}^n a_{in}} \\ \vdots & \vdots & \ddots & \vdots \\ \frac{a_{n1}}{\sum_{i=1}^n a_{i1}} & \frac{a_{n2}}{\sum_{i=1}^n a_{i2}} & \dots & \frac{a_{nn}}{\sum_{i=1}^n a_{in}} \end{bmatrix} \quad (1)$$

Then add the normalized lines together:

$$\begin{bmatrix} \frac{a_{11}}{\sum_{i=1}^n a_{i1}} + \frac{a_{i2}}{\sum_{i=1}^n a_{i2}} + \dots + \frac{a_{in}}{\sum_{i=1}^n a_{in}} \\ \frac{a_{21}}{\sum_{i=1}^n a_{i1}} + \frac{a_{22}}{\sum_{i=1}^n a_{i2}} + \dots + \frac{a_{2n}}{\sum_{i=1}^n a_{in}} \\ \vdots \\ \frac{a_{n1}}{\sum_{i=1}^n a_{i1}} + \frac{a_{n2}}{\sum_{i=1}^n a_{i2}} + \dots + \frac{a_{nn}}{\sum_{i=1}^n a_{in}} \end{bmatrix} \quad (2)$$

Finally, divide the added results by n to get the weight vector. At the same time, considering that the consistency deviation may also be caused by random reasons, in the subsequent inspection to determine whether the matrix meets the required consistency, it will be compared with the average random consistency index to pass the consistency test.

Based on the assumption that CCB FI does not interfere in the operation and management of Hualian Zinc and Indium, the internal rate of return of the capital increase of CCB FI to Hualian Zinc and Indium is calculated according to the mandatory dividend terms and the buyback exit terms of the due shareholders, and compared with the cost of capital. After the capital increase of Hualian Zinc Indium, the equity structure of Hualian Zinc Indium is shown in Figure 1.

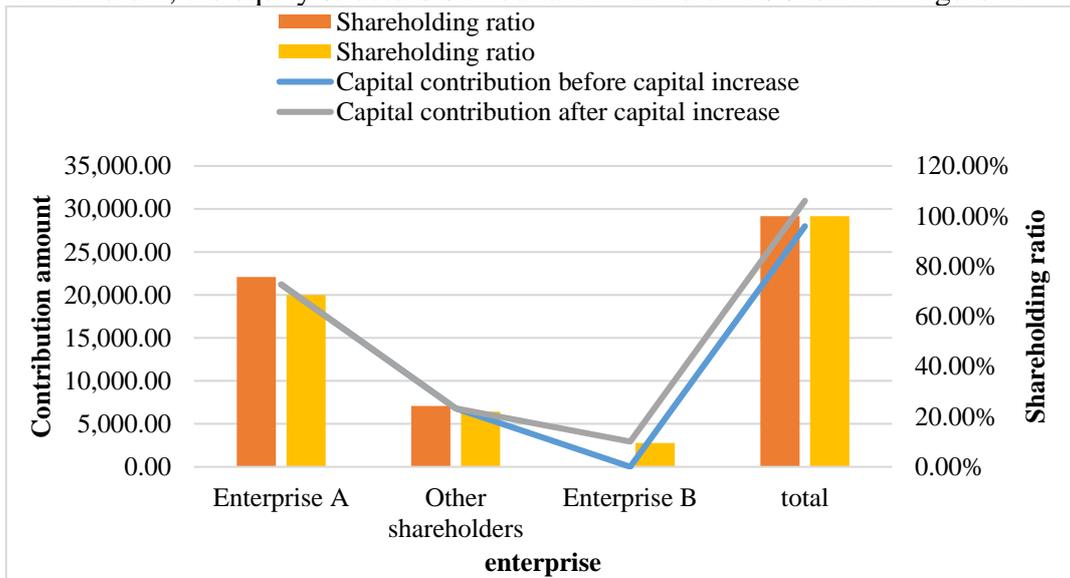


Figure 1: Equity structure of Hualian Zinc Indium after capital increase

According to the dividend requirements in the capital increase agreement and the withdrawal requirements at maturity, the following is a rough calculation of the IRR of CCB's capital injection of Hualian Zinc Indium. According to the current net profit growth rate of Hualian Zinc Indium, the net profit in the next three years is predicted. Assuming that the equity value increases by 4.75% of the 1-3 year loan interest rate of financial institutions announced by the People's Bank of China on October 24, 2015, the investment income rate of the 800 million yuan capital increase of CCB FI is calculated to be 6.91%.

It can be seen that under the condition that CCB FI does not intervene in the enterprise's operation and management, the internal rate of return that can be obtained by the debt to equity project is 6.91%, and the required rate of return of insurance funds and trust funds for the debt to equity project is 6% - 8%. The equity dividend income may not well cover the requirements of the capital cost.

## 4. Countermeasures for FI and Financing Risks of MEs

### 4.1 Diversified Raised Funds

According to the possible risk points of CCB FI in different links of the operation of specific debt equity swap projects, put forward suggestions to deal with risks. The innovation of trust ABN is conducive to risk grading, attracting more investors, accelerating the fund raising, and is a product with more asset securitization significance. This innovative way of issuing debt equity oriented asset-backed notes can broaden the issuer's financing channels, reduce its financing costs, and revitalize the enterprise's stock assets.

In terms of sources of off balance sheet funds, due to the limitation of mismatched term of financing funds used for debt to equity swap, debt to equity swap implementing agencies have to raise funds in a more diversified way. In the debt to equity swap project led by CCB Trust Co., Ltd. and Gansu Road Aviation Tourism Group Co., Ltd., the way of issuing sustainable trust loans was innovatively used to enable long-term trust funds to better participate in market-oriented debt to equity swap. The issuance of permanent trust loans does not require the enterprise to repay the principal for capital increase, and provides enterprises with more "equity" capital. In addition, the interest expense of trust loans can be deducted before tax for enterprises, which is a lower cost financing method; As far as CCB Trust is concerned, the sustainable trust loan has priority over the repayment of ordinary shares, which is more guaranteed. It is a better way for both parties to have the best of both worlds. The weakness of the United States and China lies in that CCB Trust is difficult to effectively participate in the operation and management of the target enterprise. In general, the innovative way of issuing sustainable trust loans provides an effective tool for trust funds to participate in market-oriented debt equity swap. Financial asset investment companies can enable more funds with longer maturities to participate in market-oriented debt equity swap through product design.

In the early stage, the debt to equity swap implementing agencies mainly used their own funds to leverage social funds for market-oriented debt to equity swap. However, the self owned funds of the debt to equity swap implementing agencies are limited, and their funds are limited by the capital occupation and liquidity risk, so the funds available for debt to equity swap projects are limited, and they play a limited role in promoting the scale of market-oriented debt to equity swap. Therefore, in the later stage, the role of the debt to equity swap institution needs to be changed from "the main provider of funds" to the role of financial intermediary, giving full play to the information advantages and customer advantages of the debt to equity swap institution, building a bridge between private capital with investment needs and target enterprises with capital needs, and taking advantage of the advantages of private enterprises in management and capital, Promote the reform of mixed ownership of state-owned enterprises and the change of corporate governance structure, so as to achieve the synergy effect of preventing financial risks and industrial integration.

### 4.2 Introduction of Market-Oriented Bidding Mechanism

In the final analysis, market-oriented debt equity swap is a product of policy. The successful implementation of debt to equity swap by the debt to equity implementing agency is inseparable from the support of policies. Give suggestions from the policy perspective to help the smooth progress of market-oriented debt equity swap. From the operation of debt equity swap of CCB FI, we can see that it is actually the financial asset investment company that bears the loss of loan impairment to indirectly undertake non-performing bank loans at the original price through "issuing shares to repay debts". First, the original price undertaking is based on the consideration of the efficiency of debt equity swap. Second, both creditors and debtors are unwilling to recognize the

impairment of inefficient assets. Although the Measures for the Administration of State owned Assets of Enterprises stipulates that if the transfer transaction may not be completed according to the assessment results, the transfer price can be appropriately reduced, but the assessment price lower than 90% requires the written consent of the approval unit. The financial difficulties of the target enterprises may be caused by overcapacity in the industry and low internal operating efficiency.

For financial asset investment companies, to bear the loss of impairment of these inefficient assets, they need to be compensated in the dividends and premiums of subsequent equity investments. Whether they can be compensated is unknown. Those affected by the degree of operation and management of participating enterprises are not controllable, and the revitalization of assets is more difficult. Not recognizing the impairment of inefficient assets in the early stage is actually moving the asset risk backward, so it is necessary to establish a mechanism to identify the impairment of state-owned assets. It is conducive to finding a fair market for debt to equity assets, improving the pricing rationality of debt to equity assets, and achieving a dynamic balance of interests among banks, implementing agencies and enterprises.

### **4.3 Actively Participate in Corporate Governance**

In the process of implementing market-oriented debt to equity swap, the debt to equity implementing agency needs to change its thinking, and cannot only be the financial investor of the target enterprise. In this round of debt to equity swap, the implementing agency needs to change the way of "FI", change to governance investment, actively participate in the development of the enterprise, help improve the corporate governance structure, help the enterprise strip away redundancy, and improve productivity. At the same time, the implementing agency can obtain the dividend of increased equity value brought by the enterprise transformation and upgrading. The debt to equity swap implementing agency should diligently exercise the rights of shareholders, deeply participate in the governance structure and major business decisions of the target enterprise, help the enterprise solve problems such as low efficiency of internal control, monitor the capital flow of the enterprise, and prevent the enterprise from using debt to equity swap to evade or abandon debt.

The implementation of debt equity swap increases the risk of the bank, but also brings the possibility of high returns, which come from long-term investment and active management. To participate in the market-oriented debt equity swap, in some aspects, the debt equity swap implementing agency plays a similar role to the private equity investment fund, which can promote the merger and integration of industries with overcapacity and accelerate the resource integration of the industry. Debt to equity swap provides financial institutions with opportunities to go deep into the industry. Through in-depth integration of industry and finance, financial institutions can better serve the real economy. The combination of industry and finance under the equity bond makes the relationship between finance and industry closer and the industry more vital. The core of the success of debt equity swap is the promotion of the equity value of the target enterprise. Equity governance should promote the development of enterprises better than debt governance.

### **4.4 Introduction of Private Capital for Easy Exit**

In the case of debt to equity swap between CCB FI and Zhongding International, it introduced private capital to Zhongding International, promoted the mixed ownership reform of Zhongding International, which can effectively affect the operation and management of enterprises, and also provided convenience for CCB FI to withdraw from enterprises in the later period. This way of introducing private capital can better achieve the goal of market-oriented debt equity swap. In the

subsequent market-oriented debt equity swap projects, CCB FI can continue this practice.

In addition to providing funds for enterprises and helping them temporarily alleviate their financial difficulties, debt to equity institutions can play an important role in promoting enterprises to introduce strategic investors, implement employee stock ownership plans, and promote the mixed ownership reform of enterprises. For enterprises with simple asset liability structure and single ownership structure, the debt equity swap implementing agency should make the debt equity swap a channel for the mixed ownership reform of state-owned enterprises.

## 5. Conclusions

Risk is one of the inherent attributes in the process of FI and financing of MEs. This paper makes a preliminary study on the financial risks that have a significant impact on it, and puts forward countermeasures. This paper is based on the analysis of the causes and economic consequences of the entrusted financial management of Zhonglai Shares, and analyzes the risk management problems from the early, middle and late stages of the event. However, due to the incomplete and rich amount of financial management data, many specific situations cannot obtain first-hand information in time, which affects the accuracy of the results. This paper attempts to analyze and explain the causes of the problems by studying the risk management of FI and wealth management of listed companies, hoping to bring some suggestions to enterprises, investors and regulators through the analysis. However, the analysis may not be perfect, and my research level is limited, so I can not do everything. The risk analysis and response measures of FI and wealth management of MEs need to be further studied.

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