

## Research on "Deleveraging" Strategy under the Background of Enterprise Transformation in Traditional Industrial Base

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**Abstract:** As the backbone of China's national economy, state-owned enterprises are in a dominant position in key areas of the national economy. They also play an important role in ensuring sustained, rapid and healthy development of the national economy. At present, traditional base enterprises, especially state-owned enterprises, are faced with opportunities and challenges of transformation and upgrading. Meanwhile, state-owned enterprises in traditional industrial bases have accumulated high debts during their development and growth, and the debts have grown rapidly. Now, they have become a hidden danger for the sustainable and healthy development of the national economy, which urgently needs to be properly solved. Based on the economic law and the mechanism of financial leverage, this paper analyzes the current situation of high debt of state-owned enterprises in China's traditional industrial base and the importance of "deleveraging", and puts forward some specific strategies of "deleveraging" of state-owned enterprises.

### 1. Introduction

Since the financial crisis, the state-owned enterprises, especially the traditional industrial base of state-owned enterprises in promoting the development of national economy sustained, rapid and at the same time, its debt burden is heavy, and debt growth has accelerated in recent years, it also led to the Chinese at a higher level in the international debt scale, to lower the height of the state-owned enterprises current debt problem has become an important task in China's economic development, "deleveraging" is imminent. Financial leverage in financial benefits to the enterprise promotes the increasing of earnings per share also bring an additional financial risk at the same time, in the face of domestic and foreign relative severe market and financial environment, how to adjust the capital structure, moderate "deleveraging", has become a traditional industrial base in the state-owned enterprise financial management inevitable problems.

### 2. The Current Situation of High Debt and Financial Leverage of State-owned Enterprises in Traditional Industrial Bases

#### 2.1. The Status Quo of High Debt of State-owned Enterprises in Traditional Industrial Bases

In recent years, against the backdrop of a more complex international economic environment and greater downward pressure on China's economy, the return on capital of China's real economy has continued to decline, the currency has started to circulate and idle in the financial system, and the economy is becoming virtualized and indebted. So far, the average profit margin of China's industrial enterprises is only 5.97%, and the return on industrial enterprises' net assets has dropped from 6.74% in 2007 to 3.53% now. While the economic benefits are not optimistic, according to the statistics of the financial department, the debt ratio of state-owned enterprises in the traditional industrial base has exceeded 50%, and some of them have even reached 70%. The asset-liability ratio of state-owned enterprises in traditional industrial bases is on the high side as a whole.

## 2.2. Financial Leverage Generation Mechanism

Generating mechanism of the effect of financial leverage is a result of the existence of fixed interest in debt financing enterprises (that is within a certain range, no matter how much enterprises ebit is all need to pay the same debt interest), at the same time, with the addition and subtraction of the earnings before interest and tax, and debt interest, making unit of the earnings before interest and tax in reducing debt interest, making the earnings per share of the rate of change is always greater than that of earnings before interest and tax rate.

From the qualitative point of view, it shows that the existence of debt interest is the essential reason for the existence of financial leverage effect. From a quantitative perspective, the existence of financial leverage effect will generate financial leverage returns and financial leverage risks. Generally, financial leverage factor (DFL) is used as a measurement index of financial leverage returns and financial leverage risks. When financing with ordinary liabilities, the calculation process of its financial leverage factor is shown in the following table:

Table: The calculation process of financial leverage coefficient

	(EBIT)	(I)	TAX (T)	(EAIT)	(EPS)
T <sub>0</sub>	EBIT <sub>0</sub>	I <sub>0</sub>	(EBIT <sub>0</sub> -I <sub>0</sub> ) × T <sub>0</sub>	(EBIT <sub>0</sub> -I <sub>0</sub> ) × (1-T <sub>0</sub> )	(EBIT <sub>0</sub> -I <sub>0</sub> ) × (1-T <sub>0</sub> ) ÷ N <sub>0</sub>
T <sub>1</sub>	EBIT <sub>1</sub>	I <sub>0</sub>	(EBIT <sub>1</sub> -I <sub>0</sub> ) × T <sub>0</sub>	(EBIT <sub>1</sub> -I <sub>0</sub> ) × (1-T <sub>0</sub> )	(EBIT <sub>1</sub> -I <sub>0</sub> ) × (1-T <sub>0</sub> ) ÷ N <sub>0</sub>

According to the relevant data in the above table, the calculation formula of financial leverage factor under the financing condition of ordinary liabilities can be deduced.

$$\begin{aligned}
 DFL &= (\Delta EPS \div EPS_0) / (\Delta EBIT \div EBIT_0) \\
 &= \Delta [(EBIT_0 - I_0) \times (1 - T_0) \div N_0] / (\Delta EBIT \div EBIT_0) \\
 &= \Delta [(EBIT_0 - I_0) \times (1 - T_0) \div N_0] / [(EBIT_1 - EBIT_0) \div EBIT_0] \\
 &= EBIT_0 \div (EBIT_0 - I_0)
 \end{aligned}$$

I<sub>0</sub> is the interest of ordinary liabilities; EBIT is profit before interest and tax; T<sub>0</sub> is the income tax rate; N<sub>0</sub> is the number of common shares; EPS is earnings per share.

Usually we use the financial leverage factor to analyze the speed and direction of earnings per share caused by changes in ebit. It can also be seen from the previous derivation formula of financial leverage factor that there is a negative correlation between financial leverage factor and asset profit before interest and tax. There is a positive correlation between financial leverage factor and asset-liability ratio and debt interest rate. Even assuming that the profit margin before interest and tax on assets and the interest rate on liabilities remain the same, the size difference between the two will affect the financial leverage factor. Under certain assumptions, the difference between the interest rate on liabilities and the profit rate on assets before interest and tax is inversely related to the effect of financial leverage, and when the profit rate on interests before interest and the interest rate on liabilities are equal, the financial leverage effect is the largest.

Theoretically, the derivation of financial leverage factor has the following assumptions:

Hypothesis 1: the total amount of assets of the enterprise remains unchanged, the capital structure of the enterprise remains unchanged, and the interest rate on the debt remains unchanged, so that the interest on the total debt paid remains unchanged.

Hypothesis 2: the income tax rate paid by the enterprise is fixed, there is no change in income tax rate, and there is no change in whether the income tax is paid or not.

Assumption 3: the total amount of equity of the enterprise is stable, and all of it is common stock. There is no preferred stock.

From the above hypothesis 1, it can be seen that asset structure, capital structure and debt interest rate affect the value of interest expense I<sub>0</sub>, thus affecting the value of financial leverage. From hypothesis 2, it can be seen that corporate income tax rate is another factor affecting the value of financial leverage. From hypothesis 3, it can be seen that the number of common shares is also a factor affecting the value of financial leverage, and the payment of dividends of preferred shares

also brings fixed cash flow expenses to the enterprise. From a mathematical perspective, the financial characteristics of preferred shares are similar to debt interest.

At present, in many theoretical studies and empirical analysis, asset-liability ratio is often taken as the substitution variable of financial leverage coefficient, which is obviously not reasonable. At the same time, more research perspectives on financial leverage are put on debt interest rate, income tax rate, profit level, managers' attitude and financial market.

### **3. The Importance of Deleveraging**

In a certain period of time, the number of high-quality projects in the market is limited. If all economic entities continuously expand the scale of investment projects, it will inevitably result in diminishing marginal returns for investment purposes. As Minsky has analyzed, from hedge financing (income can completely cover principal and interest) to speculative financing (income can not completely cover principal and interest), it may eventually move to Ponzi financing (income can not completely cover principal and interest). At present, the economy is in transition to adjust the structure of traditional industrial bases in the key period, state-owned enterprises in the business, there are many new situations and new problems in which carry high debt will surely become a huge burden of its development, the part of the state-owned enterprises also is unable to repay the debt situation, increased the probability of bankruptcy, which will reduce the risk to a bank, financial markets, and other fields, it has become a big hidden danger in the national economy. In the context of economic transformation and upgrading, it is an important task for China's economic development in a period of time for state-owned enterprises in traditional industrial bases to slim down, improve quality and efficiency, optimize resources and capital reasonably and effectively promote the security and stability of the financial sector. In May 2018, the second session of the central comprehensively deepen reform committee reviewed and adopted the "about strengthening state-owned enterprise assets and liabilities constraint guidance", put forward to full cover and the combination of classification management, perfect the internal governance combined with strengthening external constraint, by establishing and perfecting the state-owned enterprise assets and liabilities constraint mechanism, encourage high debt asset-liability ratio of state-owned enterprises as soon as possible to return to a reasonable level. This is the second time that the central financial and economic committee of the CPC Central Committee has made plans to deleverage SOEs, following the first meeting chaired by general secretary Xi Jinping.

## **4. Specific Strategies of "Deleveraging" of State-owned Enterprises in Traditional Industrial Bases**

### **4.1. Combine "Deleveraging" with Accelerating the Adjustment and Optimization of Industrial Structure**

At present, in the context of the transformation and upgrading of the traditional industrial base economy, the "deleveraging" of state-owned enterprises can be combined with the adjustment and optimization of the industrial structure. For some enterprises or industries with excess capacity, such as steel, coal, nonferrous metals and transportation, financial institutions can curb their loans, set up their loan gradient, and raise the difficulty and threshold of issuing bonds. "Zombie enterprises" with backward production capacity and technology, lack of competitiveness, or even insolvent should have the courage to go bankrupt, eliminate them, and carry out bankruptcy or restructuring of zombie enterprises in accordance with the law. At the same time, vigorously guide the development and innovation of enterprises, optimize the industrial structure, merger and reorganization, the realization of the combination of strong and strong, in order to achieve the transformation and upgrading of China's industrial structure, improve the competitiveness of enterprises. At the same time, while vigorously guiding the transformation and upgrading of enterprises, the government can also carry out the reform of direct debt reduction for some state-owned enterprises that meet specific conditions, and control the process of debt reduction in

an orderly way, giving full play to the macro-control ability, and gradually completing the task of debt reduction for some state-owned enterprises.

#### **4.2. Optimize Equity and Financing Structure**

On the one hand, traditional industrial base state-owned enterprises should combine with the actual development of enterprises, vigorously study and promote market-oriented debt-for-equity swap. According to the relevant requirements in the guiding opinions on marketization of bank debt into equity, we will strengthen support and help for high-quality enterprises. For some in line with the national industrial structure adjustment policy guidance, have good social reputation and influence, have management foundation, management strength of the enterprise, can be put into the enterprise funds through bank loans into for the country or the financial sector, both to complement the enterprise operating funds, help enterprise transformation and upgrading, through, and can make the bank non-performing loan ratio down, let the bank and enterprise profit at the same time, kill two birds with one stone of it. In addition, asset management companies can be encouraged to raise market funds to purchase corporate convertible bonds, carry out debt and equity replacement, and convert debt into equity at an appropriate time. We will expand equity financing through these debt-for-equity swaps and other means, carry out various forms of hybrid reform and equity diversification reform, introduce all kinds of capital, and increase enterprise capital by market-based means. In this process, state-owned enterprises in traditional industrial bases must strengthen the comprehensive analysis of the ownership structure of the enterprise, make a comprehensive plan for the strategic objectives, and develop debt-for-equity programs in line with the development of the enterprise by comprehensively measuring the financial status of the enterprise and combining with the actual development of the enterprise. At the same time, it is also necessary to choose an appropriate way of equity withdrawal after debt-for-equity conversion in combination with the development strategy of the enterprise. For example, after the target enterprise is listed, it can exit through secondary market transfer. On the other hand, state-owned enterprises should optimize the existing financing structure, realize reasonable control over the scale of interest-bearing liabilities, and make full use of equity financing tools such as renewable bonds of state-owned enterprises by broadening financing channels and strengthening financing efforts.

#### **4.3. Combination of "Deleveraging" and "Deleveraging"**

When implementing the mode of "deleveraging", if a large number of enterprises adopt the mode of "deleveraging", it may cause the stall or turbulence of economic operation. In order to avoid such problems, specific measures should be formulated according to the specific conditions of enterprises during the implementation of "deleveraging" mode, so that state-owned enterprises can better cope with the pressure brought by capital in the implementation process. When necessary, the mode of "deleveraging" and "leveraging up" can also be adopted. According to the analysis of the current economic situation for the government to take into consideration the use of deleveraging mode, in the use of "deleveraging" method, and based on the principle of balance, the traditional industrial base of local government departments can make debt ratio is low, have the demand of transformation and upgrading of state-owned enterprises increasing leverage, capital operation problems appeared in the process of transformation and upgrading of the enterprise, the local government should actively support to conform to the policy guidance of industrial enterprises, and give some support. Qualified state-owned enterprises can issue convertible bonds to raise funds or use the stock market to raise funds by issuing shares at home and abroad to reduce the debt burden faced by enterprises.

#### **4.4. Improve the Utilization Rate of Enterprise Assets**

First of all, state-owned enterprises should strengthen the enterprise's accounts receivable management ability, through the establishment of a sound creditor's rights management system and the corresponding organizational system, clear the relevant responsibility mechanism of accounts receivable, according to the accounts outstanding situation for comprehensive assessment, improve the efficiency of enterprise accounts outstanding; Secondly, enterprises should improve their

inventory management ability, reduce the occupation of inventory capital, through the reasonable planning of inventory quantity, avoid the loss of falling price, and improve the inventory turnover rate. Finally, increase the ability of enterprise assets classification and inventory, improve the modern enterprise system, strengthen self-discipline, revitalize the enterprise assets of land, many measures enterprise stock assets, reasonable implementation of enterprise assets value, improve enterprise value of the assets, and included in the rights and interests of enterprises, in order to reflect the real condition of enterprise assets value.

## **5. Conclusion**

At home and abroad, as well as the traditional industrial base of the current economic situation, "deleveraging" can effectively evade the risk faced by state-owned enterprises, but also there are some challenges, state-owned enterprises should pay more attention to the importance of "deleveraging", in the specific implementation of "deleveraging", to optimize the industrial structure, optimizing the structure of ownership and financing, "deleveraging" and "leverage" double combination and improve enterprise asset utilization, including scientific and reasonable application, effectively solve the problem of high leverage. Of course, in the process of deleveraging state-owned enterprises, we need to prevent debt control and credit crunch from harming the real economy. We need to maintain a certain rate of economic growth, solve problems in the course of development, and ensure sustained, stable and healthy development of the national economy.

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## **References**

- [1]. Proposed Information Collection; Comment Request; National Security and Critical Technology Assessments of the U.S. Industrial Base[J]. The Federal Register / FIND,2019,84(044).
- [2]Connie Lee. Hypersonic Weapons Industrial Base Under Review[J]. National Defense,2019,104(790).
- [3]Scott Jeffrey. FROM GREED TO DE-LEVERAGING: SOME COMPANIES CAN ACTUALLY ACCOMPLISH THE FEAT[J]. Propane Canada,2017,50(2).
- [4]Connie Lee. Littoral Combat Ship Buy Could Affect Industrial Base[J]. National Defense,2018,102(773).
- [5]Donald J Trump. Letter to Congressional Leaders Transmitting Notice of Actions To Remedy a Shortfall in the Defense Industrial Base Relating to Lithium Sea-Water Batteries[J]. Daily Compilation of Presidential Documents,2018.
- [6]Anonymous. Four Nation Industrial Base Initiative Yet to Gather Steam[J]. National Defense,2019,104(791).