

# Causes and Countermeasures for Chinese State-owned Zombie Enterprises

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**Abstract.** Zombie enterprise is one of important factors influencing normal market economy. State-owned zombie enterprises account for a high proportion among the current zombie enterprises in both asset and staff size, and the future disposal emphasis is also laid on state-owned zombie enterprises. Small and medium-sized state-owned enterprise A taken as an example, its main causes and factors influencing selection of disposal methods are analyzed in this paper. Policy suggestions are proposed for the government to dispose state-owned zombie enterprises, namely enhancing enterprise innovation capability by multiple regulatory means, supporting enterprises to implement dynamic adjustment and optimization of personnel structure, advancing asset disposal under governmental leadership and perfecting standard exit ways.

## 1. Introduction

Zombie enterprise, an economic hot word in recent years, is a vivid metaphor of those enterprises which suffer from sustained loss and can exist only by continuously acquiring external financial support. Existence of a large quantity of zombie enterprises not only reduces resource utilization efficiency and aggravates market competition order but also enormously intensifies financial risks. Severe zombie enterprise problem has already attracted extensive attention from the Chinese government. It's urgent to study causes for zombie enterprises and governmental countermeasures, ensure keeping essence and eliminating impurities among zombie enterprises and maintain vitality of market economy in the current economic society in China.

This paper chooses State-owned enterprise A as the analyzed case. Enterprise A was incorporated in a economic and technological development zone in a province in 2003 with main business being production and sale of air insulation radio-frequency cables dedicated for radio and television and physical foaming insulation radio-frequency cables dedicated for mobile communications.

From foundation to final bankruptcy, the enterprise mainly experienced four phases:

The first phase was rapid expansion phase (2003-2009). In the first two years of its foundation, it rapidly adapted to the market and both sales revenue and profit realized rapid growth in the original affiliated factory. In the third year, the upper-level enterprise realized appreciation to solve the insufficient production capacity problem. Based on increasing production capacity, taking full advantages of historical opportunity of major telecom infrastructure development in China and support from the upper-level enterprise, state-owned enterprise A rapidly expanded its production capacity and grabbed the market share and realized rapid scale growth for consecutive 4 years. However, enterprise operation completely relied on bank loads at the end of this phase, capital cost stayed at a high level, equipment upgrading and product R & D failed to keep pace and its competitiveness declined; excess production capacity existed in the industry, and terminal clients (China Mobile, China Unicom and China Telecom) utilized their central purchasing advantage and reverse auction bidding method to depress purchase price by a large margin, so internal and external operating environments were continuously aggravated.

The second phase was a phase featuring huge loss and passive contraction (2010-2011). Up to 2010, tender price for operator central purchasing was far lower than the cost price. Under nonrational competition, the whole industry was suffering from loss and many enterprises existed the market.

State-owned enterprise A also started passive contraction, but due to its inertia of scale development, operating cost could not be lowered within a short time, e.g. personnel cost and equipment depreciation, huge losses appeared.

The third phase was active contraction and adjustment-for-loss reduction phase (2012-2015). After experiencing huge losses for continuous two years, state-owned enterprise A was already under a bankruptcy plight, but in consideration of guaranteeing a large number of bank loans for state-owned enterprise A, the upper-level enterprise required that it should contract its production capacity and staff size, adjust product and market structure, change the past large-scale extensive single-product development pattern to develop towards multi-business diversification and management refinement and strike for realizing its sustainable development in order to avoid loss and guarantee stability. Ineffective equipment was sealed up, staff size was reduced and market layout and product structure were adjusted. Through 4-year active contraction and adjustment, state-owned enterprise A reduces its loss year by year.

The fourth phase was bankruptcy phase (2016-2018). Even though it reduced loss year by year, restricted by the historical burden, it failed to solve its development problem. In 2016, it determined its basic direction of voluntary exit as well as its bankruptcy scheme. After fulfilling bankruptcy procedures required by the upper-level enterprise, it formally submitted bankruptcy application to the Second Intermediate People's Court in this province, and it formally declared bankruptcy in 2018.

## **2. Cause Analysis for Enterprise Bankruptcy**

State-owned enterprise A was finally reduced to bankruptcy for multiple reasons.

### **2.1. Influenced by Business Cycle and Market Change**

Production and management of telecommunication industry in the downstream copper industry bears great impact from macro economy. As a typical enterprise in the telecommunication cable industry, state-owned enterprise A's products are mainly radio-frequency cables with low technology content and serious homogenization, so it will unavoidably be impacted by macro economy and change of international copper price. From 2003 when state-owned enterprise A was founded to 2011 when it suffered from huge losses, copper price rose from RMB 15,938/t at the beginning of 2003 to RMB55,359/t at the end of 2011, so increase amplitude of raw material cost reached 247%. The copper price even reached RMB 84,580/t at the highest, and moreover, due to market change, costs of its main products—7/8 feeder line and 1/2 feeder line—already exceeded product selling price with gloomy marketing status, this became the most direct factor turning the enterprise into a zombie enterprise step by step.

In the meantime, the largest client-China Mobile-of state-owned enterprise A in the communications industry implemented reverse auction of electronic products since 2007. Under the fierce supplied product competition, leading enterprises started vicious auction at the price below cost price in consideration of their market shares, so product price plummeted. Though state-owned enterprise A was an influential supplier and its winning rate was guaranteed to a certain degree, its cost pressure was continuously upgraded, profit space was extremely compressed, and input into R & D and technological innovation was greatly reduced, so it was forced to give up the efforts of lowering total cost through long-term cooperation. Under this background, income scale of state-owned enterprise A started declining rapidly from 2010; however, restricted by its state-owned enterprise nature, staff size could not realize rapid decline at the same rate, thus posing enormous cost pressure and continuous loss to the enterprise.

### **2.2. Abnormal Capital Structure**

Since the early production and operation phase, state-owned enterprise A had been faced with serious shortage of capital and extreme dependence on bank loans. In 2004 with rapid performance growth, although the group company added the investments on it, all investments were used to purchase equipment and expand production capacity, and insufficient working capital could not be solved. This meant that during the 15 years from enterprise foundation until bankruptcy, all working capitals relied

on bank loans, and the enterprise was at high financial risks. Before 2009, benefiting from major development of the communications industry and low raw material prices, state-owned enterprise A obtained considerable profit by expanding production capacity. From 2009, explosive growth period of the industry ended. Operating profit of state-owned enterprise A went through sharp fall and it suffered from huge losses since 2011. In the following years, it made adjustment to reduce losses, but serious financial crisis already occurred and it was reduced to a zombie enterprise.

### **2.3. Sustainable Blood Transfusion from Banks**

Under the influences of business cycle, market change and the enterprise itself after 2010, the abnormal capital structural problem which had been covered was exposed. At the time, it could still maintain existence and ensure that its capital chain would not rupture surely because of sustainable blood transfusion from banks. In the meantime, as a small and medium-sized enterprise without large asset size or staff size, it received considerably limited governmental subsidies and tax refund, so blood transfusion was ineffective.

State-owned enterprise A was already insolvent in 2012, reaching bankruptcy conditions. After finally choosing to reform for saving itself, it could still obtain loans mainly because banks considered two aspects: on the one hand, as state-owned enterprise A borrowed money for a long time, guaranteed a large number of bank loans and provided loans in large amounts, once its capital chain ruptured and it went through bankruptcy, bad debts and doubtful accounts would be certainly formed; on the other hand, as a local first-class state-owned enterprise, the group company always had high credit rating, which enhanced banks' confidence in lending to state-owned enterprise A, so in the 7 years with continuous bad enterprise management, banks continuously transfused blood to state-owned enterprise A to maintain its existing production and operating activities. In the end, a typical zombie enterprise, which would die only if there was no blood transfusion, was formed.

### **2.4. For Cause of the Enterprise Itself**

Firstly, distribution pattern was restricted. From 2003 to 2012, state-owned enterprise A developed always by relying on rapid demand expansion in the operator market, and it only had 4 domestic final customers (China Mobile, China Unicom and local bureaus of radio and television). Meanwhile, its product categories were quite single, only having two categories—radio-frequency cables dedicated for mobile communications and radio-frequency cables dedicated for radio and television, where the former had single specifications, mainly being two fixed specifications of radio-frequency cables. When final customers adopted similar reverse auction purchasing mode to continuously depress the product price, too single product structure had excessively low ability in bearing risks.

Secondly, operation and management level was weak. Total assets turnover was kept relatively stable, but both assets income and operation revenue presented synchronous continuous decline, directly reflecting that enterprise development was stagnated and assets management quality and utilization efficiency were continuously worsened. Except that in 2009 with preferable development, inventory turnover ratio was flat with or lower than average value in the industry in many years. Turnover of accounts receivable was lower than average level in the industry for a long term, except that it exceeded the average level in 2014, and this was because absolute fixation and payment method of final customers were both decided by customers. After state-owned enterprise A gradually withdrew from the operator market since 2012, receivables recycling became extremely difficult, and since the enterprise bankruptcy till now, some funds are still not collected back yet.

Thirdly, R & D input was not enough. Restricted by equipment problems, main products of state-owned enterprise A were still two fixed specifications of products until 2012. When the operator market declined, it had no income supplementation from other products. Due to limitation of funds, it was incapable of inputting capital into product R & D, so its products upgrading and diversification capacity was poor; from its foundation to bankruptcy, equipment upgrading was done only twice namely in 2004 and 2008, far lower than equipment upgrading speed (once per three to five years) of other enterprises in the industry, so its equipment machining precision and speed fell behind average levels in the industry, which seriously impacted its product cost level and market competitiveness. As major development of the communications industry slowed down, R & D input and R/D input ratio of

state-owned enterprise A continuously declined. From 2009 with the highest R & D input to 2014 with the lowest input, overall R & D input declined by 87% and R/D input ratio by 34%, and its gaps with other enterprises in this industry were enlarged.

### **3. Influence Factors of Selection of Disposal Methods**

Whether the state-owned zombie enterprise keeps its capital ownership or control power after adopting one disposal method taken as the criterion, exit path is divided into two types—disposal method by continuous operation of state-owned capital and disposal method by exit of state-owned capital from operation—in this paper.

State-owned enterprise A finally chose the exit of state-owned capital from operation for bankruptcy liquidation but not continuous operation mode mainly inconsideration of its own actual situation and influence degrees of various factors. After the trade-offs, it made the choice of bankruptcy liquidation.

#### **3.1. Serious Financial Distress**

Both liquidity ratio and quick ratio of state-owned enterprise A were lower than average values within the industry, and the gaps became larger and larger as time passed by. Its inventory turnover ratio and turnover of accounts receivable were also under low levels, so it could be known that its short-term debt paying ability was weak with continuous decline of short-term realizable assets. The enterprise was stuck in difficult operating state for a long time and it might fail to meet its liabilities at any time.

In fact, state-owned enterprise A was already insolvent since 2013. Although its losses were reduced year by year, it could not make up the deficits and get surpluses with seriously aggravated financial situation. Both liquidity ratio and quick ratio were below 1/2 of average values in the industry with extremely poor debt paying ability, banks refused to provide long-term loans, so it had to rely on short-term borrowing to main its working capital. Moreover, scope of business of state-owned enterprise A belonged to traditional manufacturing industry, so it's difficult for the enterprise to benefit from local governmental tax reduction or exemption policies or fiscal subsidies in the economic and technological zone where all kinds new high-tech enterprises are converged with a lack of other capital sources. As a matter of fact, it's unavoidable to select the exit mode of bankruptcy liquidation.

#### **3.2. Minimal Reconstruction Hope**

State-owned enterprise A once belonged to a famous brand in the industry of communication cables and expanded its production capacity under the general infrastructure construction trend in the communications industry in the early foundation phase. However, restricted by product upgrading and reverse bidding pattern in the communications industry, state-owned enterprise A not only had no technical advantages of products but also lacked the ability of occupying large market shares through cost price advantages, and most importantly, it was short of profitability, so working capital was continuously insufficient and market competitiveness declined year by year. In terms of enterprise innovation capability, restricted by capital input, state-owned enterprise A had not taken full advantages of the golden period with dual growth of operation revenue and profit in its rapid development phase to enhance R & D innovation, and then its product categories changed little. Furthermore, follow-up enterprise operation was in a poor state, main capitals were used to maintain its daily production, so capitals which could be input into innovative R & D were much less. State-owned enterprise A already lost its innovation foundation and opportunity to keep up, so bankruptcy liquidation was a correct choice.

#### **3.3. Difficulty of Staff Resettlement is not Large**

In the early rapid development phase, its production capacity was continuously expanded and principal business income continuously rose. In order to the demand for production and operation, total staff size reached 366. However, it was faced with sustainable losses in the middle and later phase, so it had to actively reduce production capacity and total staff size to adapt to its strategic

adjustment. During 2012-2016, the enterprise reduced its staff size to 113 through a series of distribution and resettlement. Reduction of staff size reduced stability-maintaining risks which might be brought by enterprise exit and bankruptcy. As all of these 113 staffs were key technical and operating personnel in the enterprise, staff resettlement and distribution after bankruptcy could be easier in the later phase.

### **3.4. Government-Led Active Bankruptcy Plan**

Under the background of national policy support and transformation of working emphasis of central ministries and commissions, local state-owned assets supervision and administration commissions have to turn their passive disposal modes of zombie enterprises into active ones and formulate local policies according to local conditions. Disposal of all zombie enterprises which meet conditions will be accelerated, which provides policy support for state-owned enterprise A to be included into the bankruptcy plan and rapidly advance the bankruptcy flow.

## **4. Governance Suggestions of State-Owned Zombie Enterprises**

Although state-owned enterprise realized exit of state-owned capitals from operation through bankruptcy liquidation, we should still reflect upon methods it adopted in the process of disposing zombie state and conquering its plight and problems showing up in the disposal phase, how local governments avoid formation of zombie enterprises in the supervision process of state-owned enterprises and how to highly efficiency and rapidly dispose existing state-owned zombie enterprises.

### **4.1. Enhance Enterprise Innovation Capability by Multiple Regulatory Means**

Local state-owned assets supervision and administration commission can set up assessment indexes of internal innovation capabilities of enterprises, e.g. R/D input ratio, quantity of patents for inventions and patent conversion rate, and the group company will continuously extend these indexes and correct the development malpractice as soon as possible namely no emphasis is laid on innovation index in state-owned enterprises. For the better implementation of application of innovation achievements, an innovation achievement transformation platform is established in the state-owned assets system, which can promote transverse exchange between local state-owned enterprises and elevate whole product competitiveness. Therefore, state-owned enterprises especially small and medium-sized state-owned enterprises can enhance their abilities resisting risks. When problems like business cycle fluctuation and market change appear, total profit can be elevated by marketing new products so as to ensure that financial risks will not increase, working capitals become stable and normal operation can be maintained. Even if any system or mechanism problem occurs, internal control can be realized through buffering and transition to reduce the possibility to become a zombie enterprise.

### **4.2. Support Enterprises to Implement Dynamic Adjustment and Optimization of Personnel Structure**

Enterprises should conduct dynamic adjustment of their personnel structure in different development periods. However, most state-owned enterprises adopt internal early retirement-type staff resettlement mode in consideration of system, capital pressure and petition letters, which can't virtually relieve their burden. Given this, local government should provide subsidiary policies for state-owned enterprises from social security subsidy, reemployment post and skill training in consideration of exempting enterprises from adjusting their personnel structure and provide convenience for dynamic staff distribution and resettlement through policy guarantee to the greatest extent. Meanwhile, local government should expand use scope of some reward and subsidy funds to allow zombie enterprises and enterprises in special difficulties to use in resettlement of redundant personnel. On the precondition that enterprise burden is not increased, personnel structure should be optimized and human cost should be reduced in order to provide beneficial conditions for enterprises to get rid of zombie nature and their plight.

### **4.3. Government-Led Comprehensive Promotion of Assets Disposal**

Local government should manage to establish an assets disposal platform for local small and medium-sized enterprises, refine integrated disposal policies between enterprises, improve disposal efficiency of zombie enterprises, effectively dispose low-efficiency and ineffective assets and finally realizes digging of market value to the greatest extent and maximization of revenue from assets disposal, and then ensures preservation and appreciation of state-owned capitals. Special attention should be paid to tangible assets of to-be-disposed zombie enterprises like land, factory and equipment with high values, they should be planed as a whole through the assets disposal platform, and be vitalized by multiple means like sale, transfer, lease and investment attraction and cooperation. For intangible assets of a minority of zombie enterprises like brands and qualifications formed over the years, old brands should be vitalized through joint venture, cooperation and compensated transfer.

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