

Research on Financial Risks of Baoshan Iron & Steel Co., Ltd

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ABSTRACT

The study is aimed at the financial risk of Baoshan Iron & Steel Co., Ltd (hereinafter referred to as “Baosteel”), through risk analysis and evaluation of Baosteel’s debt scale, financial leverage and solvency, methods for management of effectively preventing generation of risks are put forwards, including improvement of the appropriateness of the debt scale, optimization of the financial risk supervision mechanism, etc. to guarantee the healthy development of Baosteel.

Keywords: *Baosteel; financial risk; risk control; financial leverage*

1. INTRODUCTION

For a long time, the iron and steel industry as the basic industry of the national economy of each country has taken an important position in the national economy. China's listed companies in the iron and steel industry are basically the restructuring result of previous state-owned large and medium-sized enterprises. Since 2003, guided by policies, the investment subject of the iron and steel industry has begun to be diversified and the capital structure has begun to change, but the proportion of state-owned assets is large. In recent years, some domestic scholars have found through research that China's listed companies in the iron and steel industry fail to take into consideration optimization of the capital structure when making decisions, the debt structure is unreasonable, and financial risks are likely to be caused. In the meanwhile, in the new era, due to impacts of the domestic reform of the economic system and supply-side reform of the energy industry, enterprises the iron and steel industry urgently

need to strengthen management control of financial risks. Therefore, how to optimize the capital structure, make use of the financial leverage and avoid financial risks has become the primary prominent problem to be solved by listed companies in the iron and steel industry of China. Taking Baosteel as the research object and through analyzing its financial leverage level, identifying its financial risks and evaluating its financial risks, concrete strategies for improving financial risk management are formulated.

2. ANALYSIS ON THE FINANCIAL RISK OF BAOSTEEL

2.1. Analysis of the scale of debts

By inquiring about the balance sheet of Baosteel during 2014-2018 and through calculation, the balance sheet was prepared (Table 1).

Table 1. 2014-2018 Balance Scale Sheet of Baosteel Unit: RMB, 000,000

Item	2014	2015	2016	2017	2018
Total current liabilities	89254.27	91859.84	119889.62	163206.64	133303.26
Growth rate of current liabilities	12.00%	2.92%	30.51%	36.13%	-18.32%
Total non-current liabilities	15193.42	20116.89	16671.91	12555.59	12592.25
Growth rate of non-current liabilities	23.60%	32.41%	-17.12%	-24.69%	0.29%
Total liabilities	104447.69	111976.72	136561.53	175762.23	145895.52
Growth rate of liabilities	18.20%	7.21%	21.96%	28.71%	-16.99%

Data source: Annual report of Baosteel

During 2014-2017, the asset scale and liability scale of Baosteel was rising, and its liability scale reached the peak one year later and then declined somewhat due to the impact of financial data.

Although the liability amount declined a bit, liabilities of Baosteel were still mainly current liabilities, and the

liability-on-asset ratio was too high. The financing model of this industry is too unitary, and capital inflow is not diversified. Enterprises should meet relevant conditions if they raise money through bank loan to support their business. Without meeting these conditions, they will face a financing difficulty, capital chain rupture. As a result, it

will be more difficult for them to loan money from the bank, and irrevocable losses will be caused. This will not promote their daily operation, but will bring them adverse impacts in all aspects.

2.2. Analysis of the debt maturity

By inquiring the balance sheet of Baosteel during 2014-2018 and through calculation, the detailed proportion sheet of debts (Table 2) and the liability structure sheet (Table 3) were prepared.

Table 2. 014-2018 Detailed Proportion of Debts of Baosteel Unit: Percentage

Item	2014	2015	2016	2017	2018
Total current liabilities	85%	82%	88%	93%	91%
Total non-current liabilities	15%	18%	12%	7%	9%
Total liabilities	100%	100%	100%	100%	100%

Data source: Annual report of Baosteel

According to data in sheets, there are great differences between the company's two types of data. If the former is too large, the enterprise will face greater short-term debt pressure, and the enterprise's financial pressure will increase, which means that enterprises do not have a high capacity of repaying short-term debts and indirectly reflects that there are vulnerabilities in the company's financial system, and effective measures need to be taken timely to eliminate such vulnerabilities. If such problems cannot be solved timely, more losses will be caused.

As shown in Table 2, the proportion of current liabilities was very high and increased year by year, which means that these were short-term loan liabilities. It is found through simple analysis that if the proportion of this type of liabilities is too high, the enterprise needs to repay mature loans. If the enterprise cannot pay mature loans on time, the enterprise will face great capital pressure. As

regards domestic steel enterprises, most enterprises are under such a liability structure, and this is also a weakness in development of the steel market in China, because it significantly curbs the development of this market.

Table 3. 2014-2018 Liability Structure Sheet of Baosteel Unit: Percentage

	2014	2015	2016	2017	2018
Short-term loan	35.27%	29.51%	23.15%	36.94%	28.75%
Notes payable	6.07%	4.83%	6.48%	6.44%	12.19%
Accounts payable	22.31%	23.28%	21.86%	17.86%	22.27%
Accounts receivable in advance	12.91%	13.57%	18.14%	14.55%	14.89%

Table 4. 2014-2018 Liability Structure Sheet of Baosteel (Continued) Unit: RMB 0,000

Year	2014	2015	2016	2017	2018
Payroll payable	1.95%	1.82%	1.50%	1.45%	2.01%
Taxes and dues payable	2.42%	1.85%	3.11%	2.88%	3.32%
Interests payable	0.32%	0.22%	0.29%	0.36%	0.27%
Other payable	1.28%	2.49%	2.34%	1.21%	1.15%
Non-current liabilities due within one year	8.34%	0.23%	0.13%	12.50%	3.87%
Total current liabilities	100.00%	100.00%	100.00%	100.00%	100.00%
Long-term loan	65.40%	45.29%	1.78%	3.29%	44.55%
Bonds payable	19.90%	43.48%	84.43%	68.12%	23.82%
Long-term payable	0.59%	0.41%	0.30%	5.67%	5.29%
Total non-current liabilities	100.00%	100.00%	100.00%	100.00%	100.00%

Data source: Annual report of Baosteel

According to Table 4, data within these several years were rising as a whole, the number in 2017 was two times of that in 2014, and it tended to decline in 2018. It is found through analysis of the sheet that the company carried out settlement during sales in the way of advance payment in a lump sum or down payment + loan, and the company provided only a small part of enterprises with a credit quota of loans. According to the data about advances received during these five years, the company's management for credit in these several years was relaxed. Management in this aspect should be strengthened.

2.3. Analysis of the financial leverage

By inquiring the profit sheet of Baosteel during 2014-2018 and through calculation, Table 5 was prepared.

Table 5. 2014-2018 Degree of Financial Leverage Sheet of Baosteel Unit: RMB 0,000

Item	2014	2015	2016	2017	2018
Operating income	18741364	16378955	18545865	28909290	30477946
Operating cost	16893114	14925836	16185137	24842510	25908500
Operating profit	764075	185045	1159526	2492417	2818331
Total profit	827777	185413	1151983	2403513	2781606
Net profit	609069	71407	920530	2040314	2327814

Table 6. 2014-2018 Degree of Financial Leverage Sheet of Baosteel (Continued) Unit: RMB 0,000

Item	2014	2015	2016	2017	2018
Financial expense	48771	239257	218597	337042	436607
Interest expenditure	25683	26625	19552	17476	16959
Degree of financial leverage DFL	1.03	1.07	1.01	1.01	1.01

Data source: Annual report of Baosteel

It is known through analyzing data of the degree of financial leverage in the first two years in Table 6 that this number saw a small rise from 1.03 to 1.07, a small decline from 1.07 to 1.01 during 2015-2016 and a stable level during 2016-2018.

Losses during the decline period show that the sales revenue of this year decreased by nearly twenty percent, the loss was more than one half of the previous revenue, and the loss was still severe in the second half of the year of 2015 due to improper handling, bringing great pressure to the company's operation. So, in the end of the year, as instructed in the national support policy, new reform was carried out in the domestic steel industry, rectification measures were vigorously implemented, and a series of proposals were formulated according to relevant national support policies, which saved market losses and enabled the domestic market to have time to relieve incurred losses. These policies improved the sales revenue of the whole steel market to some extent, changed the working attitude of the company's employees, stimulated their working enthusiasm and shifted the unfavorable development situation of the domestic market. Although the enterprise's benefit was recovered, the loss incurred made the market demand greater, the material price was improved to some extent, the enterprise's solid foundation could not be laid, and it needed further guidance and efforts, if the enterprise wanted to overcome the difficulty.

The financial leverage of Baosteel during 2017-2018 remained stable for a long time. Unitary financing modes are adopted in the domestic steel industry. A certain amount of capitals needs to be paid if enterprises want to sustain their operation relying on bank loans. If enterprises cannot carry out effective management with a strict system, capital management will be a tough problem.

2.4. Analysis of the short-term solvency

The cash data, the quick liquidity data and liquidity data of the enterprise reflect its operation capacity. Relevant financing means can be used only reasonably handling their relationship. According to the overall data of the enterprise in the above sheet and through calculation of the short-term solvency index formula, we prepared the short-term solvency ratio index sheet of Baosteel (Table 7).

According to Table 7, the liquidity ratio and the quick liquidity ratio indexes of Baosteel during 2014-2018 saw slight increases on the basis of stability, but the lowest revenue in the history occurred in 2015, mainly because the proportion of current capitals was not handled properly. In addition, the sharp decline of the quick liquidity ratio caused the overall decline of the market, which directly affected the reputation of the enterprise, and it was hard for the enterprise to get loans. Since the enterprise could not raise the development fund, more losses were incurred, until new policies were issued. The overall situation can be guaranteed only by increasing these data in order and laying a solid foundation.

Table 7. Short-term Solvency Ratio Index of Baosteel during 2014-2018

Index	2014	2015	2016	2017	2018
Liquidity ratio	0.83	0.76	0.85	0.82	0.93
Quick liquidity ratio	0.53	0.51	0.55	0.57	0.59
Cash ratio (%)	20.69	13.41	12.76	11.28	12.72

Through calculating data of Baosteel, Ansteel and Hangzhou Iron & Steel during these several years, the following sheet (Table 8) was prepared. It can be found from the data of the last year that the loan solvency of the domestic steel industry in these several years had been improved increasingly, and the overall development prospect had been getting better.

Table 8. 2014-2018 Short-term Solvency Index of Enterprises in the Same Industry

Index	Baosteel	Ansteel	Hangzhou Iron & Steel	Average of industry
Liquidity ratio	0.94	0.83	1.77	0.77
Quick liquidity ratio	0.59	0.42	1.47	0.45
Cash ratio	0.13	0.06	0.91	0.9

Data source: Annual report of Baosteel

According to the above sheet, only the quick liquidity ratio of Hangzhou Iron & Steel was greater than 1. In other words, most listed steel companies need to improve the volume of business of their inventories or use other loans to repay their mature liabilities. Through comparing data of three domestic enterprises with a similar scale, it is found that all aspects of data of Baosteel are on the middle level, which also relates to the financial information of the company. Generally speaking, it has relatively high competitiveness.

2.5. Analysis of the long-term solvency

According to the linear trend line, due to the overall production impact of the industry in 2015, the long-term solvency declined within the next several years, but was still under reasonable control, indicating that the enterprise

had certain long-term solvency, but the solvency needed to be improved. The liability-on-asset ratio of Baosteel was declining during 2016-2018, but maintained 40%-60%, indicating that the long-term solvency was improved. It was because the operation effect of Baosteel in recent years was good. However, according to the overall trend, the long-term solvency of Baosteel was still general, and fluctuation was violent.

It can be known through inquiring data of Baosteel during 2014-2018 and through professional calculation and analysis that relevant ratios of the company were always in changes but were still lower than 0, the enterprise had great long-term liability bearing capacity, most operation capitals of the company were not from loan, it had a very small proportion of liabilities and the company had a good development prospect.

Table 9. Analysis of 2014-2018 Ratio of Long-term Debt and Operation Capital of Baosteel

	2014	2015	2016	2017	2018
Ratio of long-term debt and operation capital (%)	-0.67	-0.42	-0.02	-0.01	-0.42

Data source: Annual report of Baosteel

Table 10. 2014-2018 Interest Coverage Ratio Index of Baosteel

	2014	2015	2016	2017	2018
Interest coverage ratio	17.9	1.77	6.26	6.14	6.02

Data source: Annual report of Baosteel

When the whole market was suffering a downturn, the enterprise's interest coverage ratio also declined, which directly caused the decline of the enterprise's revenue. As the market was recovered, relevant data of the enterprise kept rising, indicating that the enterprise's coefficient indexes were relatively reliable.

Through inquiring the financial statements of competitors in the industry in 2018 and through the calculation of long-term solvency with the formula, the sheet of capacity comparison between Baosteel and other enterprises in the same industry was prepared (Table 11).

Table 11. Long-term Solvency Index of Baosteel in 2018

Index	Baosteel	Ansteel	Hangzhou Iron & Steel	Average of industry
Liability-on-asset ratio (%)	43.53	41.72	27.54	57.65
Ratio of long-term debt and operation capital (%)	-0.42	-0.39	0.13	0.21

Table 12. Long-term Solvency Index of Baosteel in 2018 (Continued)

Index	Baosteel	Ansteel	Hangzhou Iron & Steel	Average of industry
Interest coverage ratio	6.02	7.8	5.28	5.65

Data source: Annual report of Baosteel

In this sheet, Baosteel's liabilities were relatively high, there is a small gap between its liabilities and those of Ansteel, while the gap between its liabilities and those of Hangzhou Iron & Steel was large. It can be known that Baosteel paid attention to the stability of the financial

structure. Compared with other companies, it would rather make fewer profits than take a risk, it was relatively conservative and was very rigorous in management and control of the financial business. However, it is also found that the data proportion of the enterprise in recent three

years has been declining under the impact of the international trend, indicating that the enterprise has adjusted its financial structure to achieve better performance.

Baosteel's ratio of long-term liabilities and operation capitals was leading among enterprises in the same industry, and the interest coverage ratio of the enterprise was higher than the average level of the industry. This reveals why this enterprise can take the lead in the domestic steel market. Since the enterprise has high profits, does not have the pressure of long-term liabilities, and associated interest multiple is small, the enterprise is of high long-term liability bearing capacity and solvency.

Data in the above sheet reveal that Baosteel is worthy of its leading position in the domestic steel industry. Data in recent years also reveal that it takes a lead in the steel industry and it still has long-term solvency. However, it will cause an unfavorable situation if it uses short-term loans blindly, that is, if it cannot repay loans on time, it will face great capital pressure. To prevent such a situation, the enterprise needs to improve relevant proportions and optimize its capital management system.

3. PREVENTATIVE MEASURES OF BAOSTEEL FOR ITS FINANCIAL RISK

3.1. Pay attention to changes in the macro-environment and policies

First, the enterprise should carry out scientific analysis of the national trend, lay a solid foundation in all aspects when the economic context is not optimistic and carry out all aspects of work properly, which is the effective guarantee of improving its competitiveness before the favorable situation comes. Second, the enterprise should collaborate with the strict management system based on its powerful strength during the economic recovery period, master market opportunities, seize kinds of opportunities to improve its benefits, make use of national support policies, make efforts in major aspects to meet requirements of the government and enhance its vitality during this period. Only the enterprise abides by national policies and follows the market trend, can the enterprise realize sustainable and healthy development [2].

3.2. More efforts are made in terms of loan capital recovery

Currently, most iron and steel enterprises adopt the delivery on payment mode in handling logistics, but capital risk can be eradicated only when all the capitals can be recovered. Currently, capital recovery of the iron and steel industry is affected by many objective factors, and efforts in terms of loan recovery are still the main concern of iron and steel companies. So, iron and steel companies need to pay attention to characteristics of cash

flow and should particularly research conditions required by normal inflow of cash to enable that more measures regarding management of loan capital recovery can be improved in an innovative manner to realize innovative disposal of loan capital recovery management schemes.

3.3. Improve the enterprise's appropriateness of its liability scale

Through analyzing previous data, the solvency of the whole steel industry in China was on the low and medium level. So, the enterprise should have professional discernment and make use of the solvency to maximize profits and improve the enterprise's overall benefits.

The enterprise should master the use ratio of liabilities according to its solvency, use loans through professional analysis and distribute the repayment time of liabilities evenly to match the repayment time with the cash inflow time as possible, so that the financial leverage profit can be maximized. [3] In addition, the enterprise needs to seek for more capitals to lay a solid foundation for its development and should use all the available resources to raise funds.

3.4. Optimize the financial risk supervision mechanism

After optimizing the liability risk control measures, the enterprise needs to promote execution, and relevant departments should supervise execution of the risk control scheme, so that the problem can be solved ultimately. Hence, participation of the supervision department is indispensable in establishment of the management system. The supervision department should promote smooth implementation of the system, firmly control each node of daily work, formulate solutions from the practical perspective and implement the feasible supervision plan. [4] As regards the financial business, the enterprise should carry out regular screening to make each data under control, should adopt loans according to its solvency and predict its development prospect through analyzing relevant data to maintain its operational capacity and improve its competitiveness.

4. CONCLUSION

The enterprise should strengthen its risk awareness, formulate effective financing proposals, make use of the market background reasonably, enhance the financing flexibility, access more capital sources, make use of resources effectively and establish a risk early warning mechanism and a supervision system.

The enterprise should realize the convenience brought by defense and application of professional technologies and learn such professional technologies, judge deficiencies in development, solve problems ultimately, keep improving

the enterprise's construction of the financial management and control system and promote the benign development of its economic benefits.

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