

Research on Financial Strategy Based on Cash Flow ——Take Listed Companies in the Steel Industry in China as an Example

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ABSTRACT

With the continuous development and progress of China's economy aiming at high quality, domestic enterprises are aware of the defects of traditional profit indicators and gradually implement the concept of "cash is king". Realizing the defects of traditional profit indicators, it is necessary to analyse the capital structure and cost from the dynamic of cash flow. so improving the capital structure and reducing the cost of capital ensure that the financial strategy of enterprises adapts to the changes in the internal and external market environment. This paper measures the company's capital level from cash flow, selects 37 listed companies in the steel industry as research objects, and analyses the status of listed companies from the financial strategy. According to the listed company's annual financial data, capital status measured by the Grand Strategy Matrix are close to the reality of the company's objective state. 90% of the company is in a state of shortage of funds, the actual sales growth rate is high. There will be cash gaps if growth continues. Finally, this paper begins with improving the sustainable growth rate to change the operation, investment, financing and dividend distribution strategy. It fully verifies the scientific of the financial strategy matrix to measure the state of funds of the company, and inspires how to identify potential problems in the enterprise through the cash flow situation and control the business growth rationally.

Keywords: *Capital status, Sustainable growth rate, Sales growth rate, Cash flow.*

1. INTRODUCTION

Corporate strategy is a long-term business plan based on the corporate mission as a benchmark to guide the organization's tactics. Accurate positioning of the current situation is conducive to clear future state planning. In 2000, American scholars introduced the concept of intuitive and explicit mathematical coordinate system into the financial management theory, and proposed the hypothesis of "financial strategy matrix" model, which provided strong support for enterprises to analyse, formulate and adjust sustainable development [1].

The steel industry is a cornerstone industry in the construction of national strategy. International cooperation promotes the development of production capacity of countries along the Belt and Road. It is also an opportunity to promote the healthy upgrading of industrial production and the high-quality development of the industry [2]. The recession of the market has caused the problem of overcapacity to become

prominent. Therefore, the new strategy will continue to focus on reducing overcapacity. In addition to relying on the scale of the domestic market to increase production capacity, it also needs the transfer and consumption of foreign markets to the prosperity.

The big changes in domestic and foreign market have profoundly affected the steel industry, making the overall environment fluctuate continuously. China's steel industry needs to change the status in financial aspects to meet the challenges. Based on the financial strategy matrix theory, this paper studies the correlation between cash flow and capital status in the steel industry, and how to adjust the financial strategy at the micro-enterprise level.

2. RESEARCH HYPOTHESIS

The analysis of financial statements seldom involves the discussion of cash flow. Many cash flow ratios are developed on the basis of traditional ratios, and many cash flow ratios are derived by substituting net income

or current assets in traditional ratio analysis for cash flow from operations. [3]

Financial strategy matrix theory based on the financial management objectives, to maximize the enterprise value from the perspective of how to create enterprise value, and value creation dimensions and capital state dimension financial strategy can be divided into four strategic model: capital surplus value appreciation, capital surplus value loss, shortage of funds, value-added and shortage of capital value loss. In other words, the "return on invested capital and the difference between the cost of capital" ordinate to express the creation or impairment of value; The difference between the sales growth rate and the sustainable growth rate is used to represent the change in the sustainable growth rate. Sustainable growth rate is conceptually understood as the maximum development capacity that can be achieved through the optimal allocation of strategic resources, while from another perspective, it refers to the idealized maximum sales growth rate under the implementation of the current financial strategy. The growth rate of sales is based on the statistics of historical data, which can reasonably analyze the trend from the historical perspective and predict the future of the enterprise. The difference between the two indicates whether the current capital of the enterprise can meet the needs of future operation, and it is not certain whether the cash inflow covers the cash outflow.

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Capital surplus in financial strategy matrix theory that sustained growth rate is greater than the sales growth rate shows low operational efficiency. The enterprises' currently available resources meet the development momentum, meaning that cash flow generated can be overridden capital requirements. The enterprise production and business operation from the side use inadequate funding. The enterprise fails to fully realize the value of economic resources [3]. Capital shortage, that is, when the actual sales growth rate is high. It is necessary to increase inventory assets to balance the market demand, and it is also inevitable to increase receivables. The more effective the sales operation is, the larger the capital cycle scale is, and the more insufficient fund supply is. At this time, the problem of capital shortage has become the key point to be solved. Enterprises need to satisfy the future capital gap by means of external creditor's rights and equity capital or internal retention and accumulation in the future, which correspondingly reflects the rapid and effective movement of enterprise's capital chain.

2.1. Operating Cash Flow

The smooth blood circulation indicates a healthy body. If the circulation is blocked, it will bury the unhealthy danger. This is the reason to budget the cash flow at the quantitative level and to control the efficiency of the flow qualitatively. Only the cash flow from operating activities can an enterprise achieve the maximization of profits, shareholders' equity and value [4]. Horizontal state of cash, the more to the right away from the origin, is stronger than the actual enterprise inner development for the future. The production and sales of enterprises fail to reach the saturation limit within the scope of profitability. Operating activities cash inflow can only meet the relevant business activities cost, even can't completely meet the production cost. The net flow value that the enterprise produces sale is smaller. Although the enterprise will not fall into abnormal operation, it reflects from the side that the efficiency of the production capital is not high, the use is not sufficient, and the profitability of the enterprise needs to be improved.

Horizontal state of cash, the more to the left away from the origin, weaker than the actual enterprise inner development future. Sales growth rate and enterprise production sales input-output ratio changes the same. The cash inflow from operating activities meets the cost expenditure related to operating activities. Operating activities cash flow enterprises have strong marketing ability and profitability. The production and operation of the enterprise develop steadily, and there are surplus funds to expand the scale of production and sales.

Hypothesis H1: There is a negative correlation between the capital status of listed companies in the

steel industry and the net cash flow from operating activities.

2.2. Per Share Cash Flow from Operations

Per share net cash flow from operating activities is the result of combining period data and time data. This index reflects the cash distribution of common stock [5]. The higher the value is, the higher the income level of the enterprise is in the same period. The main business of the enterprise occupies a dominant position. If the management direction is correct and the market segment is in place, the enterprise relies on its own capital to maintain the operation. In this case, the capital structure has a large proportion of equity capital, the risk has little impact on the discount rate and cost of capital, and the enterprise does not face financial crisis for the time being. However, if the company keeps operating in the current situation without adjusting its financial strategy and changing its capital structure, the enterprise will inevitably lose a certain market share and affect its profits in the future.

Hypothesis 2: There is a negative correlation between the capital status of listed companies in the steel industry and the per share net cash flow generated from operating activities.

3. RESEARCH DESIGN

3.1. Sample Selection

This paper selects A-share listed companies in 2017 as the sample, and the financial data of the sample companies are collected from iFinD. This paper carries out data screening according to the following steps. Firstly eliminate the listed companies with missing data. Secondly excluding ST and other special company. We directly select 37 A-share listed companies in China's steel industry. This paper calculates the financial data of 37 listed companies in 2017, calculates the financial capability indexes, and then classifies the capital status of companies.

3.2. Variable Definitions

In practice, some companies are less transparent about their financial data. In order to reduce the impact

of errors on the results, this paper makes reasonable assumptions about the appropriate value and measurement of relevant financial indicators: (1) In order to make clear the proportion of capital use, it is assumed that the company will not pay dividends in 2017, so the retention ratio is equal to 1; Sample companies are all listed companies, ensuring consistent accounting basis, and collecting and processing consolidated statements [7].

Self-sustainable Growth Rate

$$= (\text{Net Profit Margin on Sales} \times 1 \times \text{Total Assets Turnover} \times \text{Equity Multiplier}) / (1 - \text{Net Profit Margin on Sales} \times 1 \times \text{Total Assets Turnover} \times \text{Equity Multiplier}) \quad (1)$$

Sales Growth Rate

$$= (\text{Increase in sales revenue}) / (\text{Last year's sales revenue}) \quad (2)$$

4. EMPIRICAL RESULTS

4.1. Descriptive Statistics

According to the above-mentioned requirements on the selection of indicators and the financial strategy matrix theory, the financial strategy data are quantitatively measured. The results of capital status of listed companies in steel industry are obtained.

As shown table 1, there are 34 companies in the state of fund shortage and 3 companies in the state of fund surplus. Among them, there are 22 companies with a small degree of capital shortage, 10 companies with a medium degree and 2 companies with a large degree. By SPSS, the mean value of the capital status of 37 companies is -0.4157. 91.89% of the sample companies are capital shortage. This shows that the steel industry in 2017 inner development capacity can't meet the future to expand production. There is a funding gap for development. At present, enterprises make full use of capital value. However, in order to ensure that the company can adapt to the market environment smoothly and achieve healthy development, enterprises shall realize the debt financing externally, increase the long-term external equity funds, and make full use of retained earnings internally.

Table 1. The descriptive statistics

Stock Code	Self-sustainable Growth Rate	Sales Growth Rate	State Funding	Fund Type
600022.SH	3.56%	-4.48%	0.08	fund surplus
600117.SH	0.31%	0.60	0.00	
000409.SZ	-4.34%	-35.5	0.31	
600808.SH	7.56%	51.69	-0.44	fund shortage
000655.SZ	-10.76%	66.77	-0.78	
600782.SH	10.43%	64.03	-0.54	
000708SZ	6.39%	59.98	-0.54	
000709.SZ	1.13%	46.19	-0.45	
000717.SZ	21.13%	96.35	-0.65	
000898.SZ	7.50%	11.03	-0.04	
000761.SZ	2.62%	37.19	-0.35	
600126.SH	8.00%	41.69	-0.34	
000825.SZ	5.27%	19.34	-0.14	
000932.SZ	7.60%	102.22	-0.95	
000959.SZ	2.37%	69.44	-0.67	
600231.SH	8.90%	22.61	-0.14	
600282.SH	9.89%	33.37	-0.23	
600019.SH	6.18%	73.02	-0.67	
600307.SH	0.87%	6.56	-0.06	
600399.SH	-12.27%	16.79	-0.29	
600010.SH	1.42%	17.44	-0.16	
600295.SH	2.29%	55.54	-0.53	
600569.SH	5.09%	24.37	-0.19	
600581.SH	6.70%	43.97	-0.37	
600532.SH	-2.54%	53.60	-0.56	
600507.SH	42.03%	56.27	-0.14	
002075.SZ	17.20%	63.66	-0.46	
002110.SZ	33.91%	59.09	-0.25	
601003.SH	12.96%	55.93	-0.43	
601005.SH	1.30%	199.82	-1.99	
002318.SZ	2.67%	5.00	-0.02	
000708.SZ	-7.00%	11.29	-0.18	
002478.SZ	2.90%	58.45	-0.56	
002593.SZ	1.79%	4072	-0.39	
601969.SH	0.74%	203.65	-2.03	
0002756.SZ	9.73%	27.44	-0.18	
603878.SH	5.25%	10.14	-0.05	

4.2. Consequences Analyses

On the above assumptions, the capital status of any enterprise can be described as capital surplus and capital shortage. In order to scientifically verify the application

of the fund status index, this paper conducts the Pearson correlation two-side test on the research hypothesis proposed above.

Table 2. The Pearson Correlation

	Fund type
the net cash flow from operating activities	-0.472*
	(0.011)
the per share net cash flow generated from operating activities	-0.382*
	(0.045)

Note: *. Significantly correlated at the level of 0.05 (bilateral).

The data of the 2017 financial annual reports of 37 listed companies in China's steel industry were processed. The software SPSS17.0 was used to analyse the correlation between the capital status and the corresponding cash flow indexes was statistically obtained. The empirical results are as follows.

The Pearson correlation between the capital position and the net cash flow generated by the operating activities of each listed company is calculated, $R = -0.396$. It is significantly correlated on both sides, indicating that the degree of negative correlation between the two is greater than the significant level of 0.05. The worse the state of funds, the greater the index value, the better at making good use of funds. One of the important sources of funds for enterprises is net cash flow from operating activities. It is not only guided by the policy of external macroeconomic environment, but also by the sales tendency of internal marketing strategy. For enterprises with less fluctuation in sales growth rate, their operation is normal. Their purchase and sale balance. Their capital activity ability is strong, their capital turnover efficiency is high, and their net cash flow from operating activities is maintained at a higher level.

The empirical results show that the Pearson correlation between capital status and net cash flow generated from operating activities per share, $R = -0.382$, which is significantly correlated on both sides, indicating that the negative correlation between the two is greater than the significant level of 0.05. The worse the state of funds, the greater the net flow. The net cash flow generated by operating activities per share is an effective result of the implementation of the financial strategy of the enterprise, which indicates that the marketable enterprise has accurate market positioning and has formed a good sales environment.

Based on the above data analysis results, empirical conclusions are summarized as follows. Affected by the increase of domestic market demand, the transfer of foreign industrial capacity and the national industrial structural restructuring policy, the steel industry is basically in a state of capital shortage. Capital shortage

companies account for 92%, which further indicates that the steel industry will make efficient use of invested resources and normal working capital to achieve the basic output target in 2017. What needs to be changed is to adjust the capital structure, change the focus of investment and financing strategies, face challenges and avoid missing opportunities. The Pearson correlation test shows that there is a negative correlation between the cash type and the two financial indicators. It verifies the scientific of the financial strategy matrix model to measure the capital status of the company. It also shows that listed companies in China's steel industry can use financial strategy matrix to reflect the effect of the implementation of corporate financial strategy.

5. CONCLUSION

This paper jumps out of the traditional financial strategy and uses the mathematical matrix idea to solve the financial management problem, and draws a conclusion. The cash flow statement is a powerful proof of liquidity, profitability and financial structure. [7]

When the actual growth rate is fast, the most direct and effective way to solve the shortage of funds is to increase debt. If long-term corporate growth need to be guaranteed, it can be combined with increasing equity capital, increasing financial leverage, reducing dividend payout ratio and divesting non-core businesses to seek balance.

When the actual growth rate is slow, the lack of appropriate investment opportunities will lead to cash retention. When cash is in excess, lower growth rates are a short-term phenomenon, and the company's self-development will improve the temporary situation. When this phenomenon goes round and round, financial management must cure the root, change the organization, formulate the change action, and change to the target model. The most immediate way to tackle the cash glut is increasing dividend payout ratios or share buybacks. When a company exceeds the limits of economies of scale, expansion does not help profit growth. In this case, share buybacks can reduce the company's equity.

Under the changing environment, the steel industry has faced challenges. Generally, listed companies are in a state of capital shortage, and enterprises currently have a cash flow gap. Therefore, enterprises need to pay special attention to financing issues. When adjusting financial strategies, they should use equity capital to solve long-term problems and debt capital to meet short-term problems. Enterprises should adjust their financial strategies from the perspective of increasing sustainable growth rate.

In terms of operation strategy, the enterprise shall speed up asset turnover, accurately target customers, optimize publicity, improve net sales interest rate,

change the credit policy of accounts receivable, continue to improve the utilization rate of funds, and focus on expanding reproduction; In terms of investment strategy, in order to improve the core competitiveness of the enterprise, earnestly analyze cash cow products or business, realize efficient investment internally, and avoid the blindness of direct expansion of production; In terms of financing strategy, enterprises should pay attention to financing cost, avoid bad financing behavior, accelerate financing based on the current situation of the industry, optimize capital structure, and expand financing scale [8]; In terms of dividend strategy, because this theory applied in reasonable assumptions holding yield of 1, in the actual situation of dividend distribution is closely related to capital structure, under the premise of meet the statutory reserve fund, improve the extraction ratio of aleatoric accumulation fund, in the form of stock dividend, even without the dividend distribution, minimize capital financing cost, infinite close to the ideal capital structure. In terms of dividend strategy, due to the premise assumption of this paper, dividend distribution is closely related to the capital structure in the actual situation, and the form of stock dividend is mostly adopted, even without dividend distribution, to minimize the cost of capital financing and approach the ideal capital structure.

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