

An Analysis of the Solvency of Enterprises—Taking Qingdao Haier as an Example

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Abstract: With the progress of society, the development of the household appliances industry is also getting faster and faster, we can accurately acknowledge the company's financial situation through accounting reports, which helps the company understand the past, evaluate the present, and anticipate the future. This paper mainly analyzes the financial indicators of Qingdao Haier's financial statements from 2018 to 2022, focuses on the short-term and long-term solvency of the enterprise, and uses various indicators to analyze the solvency of the enterprise, identify the problem, and give suggestions.

1. Introduction

Under the premise of continuous economic development, financial data analysis which is closely related to economic changes is also constantly improving. Financial analysis refers to the analysis of a company's past and current financial situation based on financial statements, through the use of a series of ways and methods to analyze and evaluate the profitability, operating capacity, debt-paying capacity, and development capacity of the enterprise in the past and present economic activities, and its role in enterprise management is becoming increasingly prominent (Chen, Liu and Zhu 2022).

In combination with the economic situation, industry situation, and enterprise vision, the current planning and future development trend are analyzed, which provides a powerful data basis for the management to evaluate the present and predict the future. This paper focuses on the analysis of debt-paying ability, and systematically evaluates and analyzes the financial data of Qingdao Haier by using the financial ratio, thus grasping the relevant financial risks of Haier Electrical Group and putting forward reasonable suggestions for improvement^[1].

2. Qingdao Haier

Qingdao Haier established in 1984, it has become a world-class quality life service provider (Wang, Cheng, Jia, Zhang and Yao 2015). Haier is an enterprise mainly focusing on home appliances. Its products cover eight major series such as refrigerators, refrigerators, washing machines, water heaters, air conditioners, TVS, kitchen appliances, smart home appliances, and customer service. In its 37 year history, it has always placed user experience at the center and kept pace with the times. From a small collective enterprise approaching bankruptcy, it has grown to an international group with 120000 employees and a turnover of 154.4 billion yuan by 2020.

3. Analysis of solvency of Qingdao Haier

3.1 Short-term solvency

The short-term solvency is the level of capital security that a company has when it uses its current assets to pay its Current liability, which reflects the company's ability to pay its required capital on a certain day. The short-term solvency of a company reflects the financial risks it bears. The stronger the short-term solvency, the greater the enterprise's ability to bear financial risks. Three indicators affect the short-term solvency of enterprises, namely, the current ratio, quick ratio, and cash ratio. The following is the short-term solvency index of Haier Electrical Appliance Group in the past five years (Table 1):

Table 1: Indicators of Qingdao Haier's short-term solvency

	2018	2019	2020	2021	2022
Current ratio	1.18	1.05	1.04	0.99	1.10
Quick ratio	0.83	0.67	0.74	0.63	0.70
Cash flow ratio	0.49	0.38	0.44	0.39	0.46

Data source: Flush stock network

3.1.1 Current ratio

The Current ratio is the ratio of a company's current assets to Current liability in a certain period of time. It is an important indicator to measure a company's short-term solvency. This index is a measure of a company's ability to repay its short-term debt to a certain extent by ensuring its required cash flow after it matures. It is an important indicator to measure a company's ability to repay its short-term debt after it matures. Usually, in a company's balance sheet, the amount of liquidity in the balance sheet should be greater than 2 to reflect the company's debt situation. The high liquidity ratio determines a company's debt paying ability and also determines its debt paying ability. The circulation index should not be too high, which indicates that the proportion of circulating capital in the company's total capital is too large and will have a negative impact on the company's profitability. The formula is:

$$\text{Current ratio} = \text{Current assets}/\text{current liabilities}$$

According to the table 3.1, in the past five years, the current ratio of Qingdao Haier Company has fluctuated little and remained at a level of about 1, but the overall current ratio is not high, indicating that its short-term debt repayment ability is not strong in the past five years and the debt repayment pressure is great^[2].

3.1.2 Quick ratio

The quick ratio is the ratio of quick assets and current liabilities of an enterprise in a certain period. Compared with the Current ratio, in a sense, the Quick ratio can more rigorously test the liquidity and solvency of short-term assets of enterprises, thus reflecting the ability of quick assets to repay Current liability when the short-term debts of enterprises are due. The formula is:

$$\text{Quick ratio} = \text{quick assets}/\text{current liabilities}$$

Generally speaking, the higher the quick ratio, the better the liquidity of the enterprise's assets, the stronger the liquidity of the enterprise, the stronger the ability to repay short-term debts, and the more protected the rights and interests of creditors. The quick ratio of 1 is more appropriate, indicating that the enterprise has a solid financial capacity and solvency. According to the table 3.1, the average

quick ratio of Qingdao Haier in the past five years is 0.714, the index does not fluctuate much, but there is still a certain gap compared with the appropriate indicator 1, indicating that the company's short-term solvency is not high from the quick ratio index, and the financial risk is large. At the same time, in the current assets of Qingdao Haier in the past five years, the proportion of quick assets is not high, indicating that each 1 yuan of current liabilities can not meet the immediate realization of assets to pay.

3.1.3 Cash ratio

A cash ratio is a large number of accounts receivable due to a large number of credit sales, which reflects the realization ability of the enterprise index. More than 20% is generally considered better. The higher the cash ratio, the stronger the liquidity ability. And vice versa. The formula is:

$$\text{Cash ratio} = (\text{money funds} + \text{marketable securities}) / \text{current liabilities}$$

According to the table 3.1, the cash ratio of Qingdao Haier has not fluctuated much in the past five years, remaining at about 0.4, which is 20% higher than the best indicator value, indicating that the ratio between the balance of Qingdao Haier's quick assets after deducting accounts receivable and current liabilities meets its ability to directly pay current liabilities, and it can be seen that the internal cash flow of the enterprise is sufficient. On the other hand, the assets realized in the short term are likely too high, resulting in idle funds and reducing the efficiency of cash use^[3].

3.2 Long-term solvency

The so-called "long-term solvency" means that the company has enough money to repay the long-term debt. The strength of long-term solvency is an important sign of reflecting the degree of financial security and stability of an enterprise. Compared with Current liability, the long-term solvency is characterized by large amount, long repayment period, and heavy interest burdens. Generally speaking, when an enterprise has a certain long-term debt, the more assets it has, the stronger its solvency, and the more secure its creditors are. Three indicators affect the long-term solvency of enterprises, namely the asset-liability ratio, the property rights ratio, and the interest protection multiple. The following is the long-term solvency index of Haier Electrical Appliance Group in the past five years:

3.2.1 Asset-liability ratio

Table 2: Indicators of Qingdao Haier's long-term solvency

	2018	2019	2020	2021	2022
Asset-liability ratio	66.80%	65.33%	66.52%	62.67%	59.85%
Equity ratio	289%	258%	210%	171%	151%
Equity multiplier	4.54	4.12	3.49	2.92	2.62

Data source: Flush stock network

Asset-liability ratio is the ratio between total liabilities and total assets. It reflects how much of a company's entire assets come from debt financing, and reveals the degree of protection of assets to creditors' debts. When the asset-liability ratio is higher than 50%, it indicates that the main source of enterprise assets is liabilities, and the financial risk is larger. When the asset-liability ratio is less than 50%, it indicates that the main source of enterprise assets is the owner's equity, and the financial structure is relatively stable. Generally speaking, for home appliance enterprises, it is more appropriate to maintain the asset-liability ratio of 40% to 60%, 70% is the warning line, and more than 70% indicates that the more assets financed by borrowing, the greater the risk, the weaker debt

repayment ability. The lower the asset-liability ratio, the higher the guarantee degree of enterprise assets to liabilities, and the stronger the long-term solvency of enterprises. The formula is:

$$\text{Asset-liability ratio} = \text{total liabilities}/\text{total assets}$$

According to the table 2, the asset-liability ratio of Qingdao Haier from 2018 to 2022, the value of the index has exceeded 50%, and it is maintained at about 50% to 60%, which is a reasonable range. Therefore, it shows that Qingdao Haier's overall long-term solvency is still very strong.

3.2.2 Equity ratio

The equity ratio is the ratio of total liabilities to owners' equity. It is an important sign to measure the soundness of an enterprise's financial structure and reveals the proportional relationship between debt funds and equity funds, which can not only explain the degree of protection of shareholders' equity to creditors' interests under normal circumstances and in the liquidation of an enterprise but also explain the basic financial structure or capital structure of an enterprise and its stability. It is generally believed that the equity ratio of 100% is more appropriate, if the index is greater than 100%, it means that the total liabilities are greater than the total owner's equity, and the owner's equity cannot fully guarantee the interests of creditors when the enterprise is liquidated. If the index is less than 100%, it means that the total liabilities are less than the total owner's equity, and the funds invested by the creditors of the enterprise have sufficient security, even if the enterprise falls into liquidation, the creditors generally will not have too much loss. The higher the ratio of property rights, it indicates that the basic financial structure and capital structure of the enterprise have the characteristics of high risk and high return. The formula is:

$$\text{Equity ratio} = \text{Total liabilities}/\text{total owner's equity}$$

The table 3.2 shows that from 2018 to 2020, the equity ratio of Qingdao Haier fluctuates around 2, which is higher than the standard of 1, indicating that Qingdao Haier is a financial structure with high risk and high reward. It also further indicates that Qingdao Haier has a weak ability to repay long-term debts, which also indicates that creditor investors' funds are not protected by shareholders' rights and interests. The degree of utilization of creditors' funds is not high, and the capital structure still needs to be continuously optimized. However, from 2021 to 2022, the equity ratio of Qingdao Haier will continue to decrease, respectively to 1.71 and 1.51, indicating that Qingdao Haier's long-term solvency has been enhanced, and the degree of protection of creditors' rights and interests has also been further improved^[4].

3.2.3 Equity multiplier

When the total capital of a company is multiplied by the stock value of a company, a multiple of equity is generated. Equity multiples are important indicators that reflect a company's debt level and measure its financial risk. As the equity ratio increases, the proportion of the company's shareholders' investment funds in total assets decreases, the company's debt level increases, and the company's protection of creditors' interests decreases. On the contrary, when the indicator is small, it is related to a higher proportion of owner investment in the company, a lower level of company debt, and a better protection of the company's creditors' interests. The formula is:

$$\text{Equity multiplier} = \text{Total assets}/\text{total shareholders' equity}$$

As shown in the table 3.2, the equity multiplier of Qingdao Haier decreased year by year from 2018 to 2022, reaching the lowest value of 2.62 in 2022, indicating that Qingdao Haier's debt decreased year by year from 2018 to 2022, indicating that the financial leverage multiple of the enterprise's external financing is decreasing, and the financial risk faced by the enterprise is also

constantly decreasing.

4. Conclusions and Suggestions

In recent years, the debt level of Qingdao Haier has been rising continuously. The main financing method is to focus on debt, among which the debt is mainly current liabilities. Comparatively speaking, the proportion of financing that comes from investors is small. As a result, the capital composition structure leads to a slightly higher debt ratio of Qingdao Haier. Although this can enable the enterprise to play the role of financial leverage, it will also increase the financial cost of Qingdao Haier and increase its financial risk. From the perspective of the overall capital structure of Qingdao Haier, Qingdao Haier has always adopted a prudent financing strategy, and the structure of current assets and current liabilities has a large proportion. The increase in short-term borrowing has increased the pressure on Qingdao Haier's short-term debt repayment. Up to now, Qingdao Haier has accumulated a lot of economic foundation, the company has a large number of monetary funds, notes payable and other assets with strong liquidity and good payment ability, which provide a strong guarantee for Qingdao Haier's short-term debt repayment ability, but it cannot fully guarantee that the company has enough assets to cope with economic problems when its operating ability declines. On the other hand, Haier's asset-liability ratio is high, which can solve the debt repayment problem in the short term, but if this goes on for a long time, the long-term debt repayment ability is still not guaranteed, and the financial risk is high.

To reduce the risk, it can be achieved by adjusting the structure. Mainly from the enterprise financing way to start. Most of Haier Group's internal financing is in the form of debt, which is conducive to exerting the role of financial leverage. However, excessive debt funds will affect the group's sustainable development ability, so equity capital should be used for "mitigation", such as converting debt funds into equity capital, re-financing equity after debt repayment, etc.

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